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1. A summary of changes in the notes on the inside flap
2. Enter notes of related files on page 2 of this index

SUBJECT

UNIDENTIFIED FLYING OBJECTS
 - POLICY

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MOD Form 328B
(Revised 2/87)

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D Sec (AS) 12/1

Part no. A

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DIVISION/EST/SECTION/BRANCH

99

Sec (AS)

SUBJECT

UNIDENTIFIED FLYING
OBJECTS - POLICY

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Section 40



File Ref: SEC(AS)12/1

Part: A

1154-445-8-7

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Unidentified Flying Objects
 UFO
 Policy

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NOTES

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UFOs - Policy

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(Prefix and Number):
D/Sec(AS) 1211
Part: **A**

PROTECTIVE MARKING (including caveats & descriptors): **UNCLASSIFIED**

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Section 40
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FINANCE/AUDIT MAJOR EQUIPMENT PROJECT _____
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(ii) Key enclosures which support the recommendation are:

(iii) At the end of the specified retention period the file is to be:

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Considered by CS(RM) for permanent preservation

c. Of no further administrative value but worthy of consideration by CS(RM) for permanent preservation.

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Section 40

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Section 40

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Grade/Rank: _____

Date: _____

*(FOR CS(RM) USE ONLY)

FILE NOTE



25 Aug 95

Section 40

PUBLIC ACCESS TO "UFO" FILES

Background

- In April we were asked by Hd CS(RM)1 to reconsider the requirement to delete the internal distribution lists from documents contained in our "UFO" files, when they are released into the public domain at the 30 year point. This note represents the combined thoughts of Section 40 and myself.
- My minute at Enc 138 set out the position to DI55c, and Enc 145/1 is DI55c's response. Essentially, the DI55 view is that as the existence of DI55 and the link to this subject has been in the public domain for a number of years (although never formally acknowledged), there would seem little point in denying their role any longer.
- In a subsequent conversation I had with Hd CS(RM)1 earlier this week, he told me that he has recently discovered that a number of "UFO" files which have been released to the Public Records Office have not been sanitized of the internal distribution (presumably by mistake). It would therefore appear that this information is in the public domain already. For us to insist on the continuation of the policy that the internal distribution list be withheld now would appear to the public to be a MOD "U" turn.
- Therefore we need to devise an appropriate line to describe the role of DI55 in connection with "UFO" reporting, once the "UFO fraternity" pick this up.

DI55c's Role and Views

- In his minute at Enc 83 Wg Cdr Section 40 stated that for some years DI55 have been under general remit to advise on "UAPs" but that due to lack of resources they have not been able to study the reports we send over to them, and the reports were merely glanced at and placed on file.
- Wg Cdr Section 40 concluded that it was not possible to advise on the possible threat implications of "UAPs" unless some short study into the subject were conducted to determine whether there is any firm evidence that "UAPs" actually exist and if so whether they indeed pose any threat. He thought that the topic might be worthy of limited study - initially in the form of a review of the data held by DI55 - which would establish whether it was worthwhile devoting resources to conducting a more wide ranging study. In his note he said that it would not be possible to divert any of his officers to the study, but that one way of overcoming this would be to enlist the services of a contractor.

- He sought Sec(AS)'s support for the limited study and at E85 we confirmed that we were content with his proposals. We have heard nothing more about this proposed review of data and as far as I am aware nothing further has been done about it.

Sec(AS)2a Perspective

- From the tone of Wg Cdr **Section 40** note at E83 I do not get the impression that there is any urgency in the requirement, or any conviction that there is a real need for this assessment to be conducted.

- It is important that we use this opportunity to disabuse the "UFO fraternity" of the notion that DI55 receive copies of reports of unusual aerial activity to look exclusively for evidence of extraterrestrial activity which is of defence concern.

Proposal

- Suggest that we should not seek to hold the line on keeping DI55's 'involvement'/'role' out of the public domain; the revelations from CS Records on those files with unexpurgated references already in the public domain precludes this.

- If, however, we are to be open about the role of DI55, we need carefully to construct the description of that role. The "UFO lobby" will doubtless see in all this much to get excited about: cover ups; DI research and sinister implications thereof; a change in the Department's line, and speculation about what might have bought this about etc.

- As to the line; we don't think our current line needs much if any amendment. Reports are looked at by experts within the Department to establish whether what was seen represents anything of defence significance. DI55 [which generally do what?? check with **Section 40**] is one such branch.

- On research we need to know what is already in the public domain on this. However, the truth is to our knowledge that no 'research' into the phenomena has been undertaken by MOD - by DI55 or anyone else. What DI55 are planning is to review existing data to determine whether any research is justified. But as this is yet to be established, and represents possible future plans, we are under no obligation to reveal the fact.

- Essentially, we don't do research into the phenomena; we haven't done any; we only would if there were some good reason for doing so - ie. evidence of a threat. It remains that case that no threat has been discerned which has been attributed to an unidentified flying object.

Section 40





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LOOSE MINUTE

[REDACTED] 1
25 Aug 95

FS(Pers)GM(A)3c - Section 40

Copy to:
AHB(RAF)PCB(Air)

LETTER FROM Section 40

1. Thank you for your fax of 7 Aug 95, in which you seek our views and advice about Section 40 plans to correspond with Mr Timothy Good, the author of "Above Top Secret - The Worldwide UFO Cover-Up". I am sorry it has taken a little while to reply.
2. Although outside our remit one thought which has occurred to us is whether Section 40 is writing an *unofficial* or *official* history of RAF Colerne and Rudloe Manor. If the latter, then he should I believe, be pursuing the matter under the auspices, and with the advice, of the Air Historical Branch. However, if this research is being conducted entirely in an unofficial capacity, then Section 40 should have no greater right of access to information from the Department than any other member of public. It would be improper for Section 40 to use his employment status as a means of accessing information he might not otherwise get as a member of the public (eg. by requesting information on official headed notepaper). However, this aspect of Section 40 enquiry falls outside our official capacity and I am therefore copying this to the Air Historical Branch who may wish to comment.
3. There is a widely held view amongst the "UFO fraternity" that RAF Rudloe Manor has an official role in "UFO" research. This view stems from the misapprehension of a previous role of Rudloe Manor, which was to act as the coordination point for all reports of "UFOs" made to the RAF. However, once Rudloe Manor received such reports they simply forwarded them to this office for appropriate action: to my knowledge, no research was undertaken on the phenomena. Nowadays Rudloe Manor, along with other RAF stations, forward such reports directly to this office. Rudloe Manor does not, nor has it done in the past, carried out any research into "UFOs" or any related matter. It

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would be improper for us to attempt to dissuade **Section 40** from corresponding with Mr Good and seeking any views he has in this respect: as of course it would be for us to seek to limit the activities of any member of the public. However, **Section 40** should be careful not to offer any ill-informed personal opinions about the role of Rudloe Manor which could risk being taken as official fact by Mr Good who is himself, after all, an author.

4. I hope this is helpful.

Section 40



Sec(AS)2a

MB8245 **Section 40**

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F I L E N O T E



[REDACTED]

21 Aug 95

BBC "NEWSNIGHT" - ?WED 16 AUG 95

1. I understand, although I did not see the programme myself, that BBC "Newsnight" ran a piece on the "UFO" Conference which was held last Saturday in Sheffield. I understand that it mentioned Mr Pope by name, and that he is the former Head of Air Staff 2a the MOD branch that investigates "UFOs", and the view that Mr Pope is now a 'Believer'.

2. Newsnight telephoned me on Mon 14 Aug, but I put the researcher straight onto the DPO and did not enter into any discussion. Subsequently Section 40 [REDACTED] (DPO) told me that they did not contact him, and as I understand it no direct mention of the MOD or our position was put forward by the programme.

Section 40
[REDACTED]

Section 40
[REDACTED]

News of the World
 Supplement - SUNDAY
 20 AUG 95

THE REAL X FILES



In cult series *The X Files*, agents Mulder and Scully investigate paranormal cases the FBI prefer to keep locked away. Our two heroes deal with anything from aliens to mutants in their search for the answers. But is it just fiction? Jean Ritchie opens the real-life X Files



As *The X Files* series discovered secrets of UFOs, with reports of Sky TV's UFOs, the real life UFO sightings that surprised the man from the Ministry they really do exist.

While the *Colony* was a story of only objects, what about what happened in Norfolk? Forest, Suffolk, was reported in December 1980. Nick Pope, the man who set heading the search for the alien, was a spokesman. When he took over the Ministry of Defence's UFO section in 1992, he was a sceptic. Now, after 15 years, he's 200% in favour of a real UFO. He says that 10 years ago, he was one of the most sceptical, even extraterrestrial.

Something came down in that forest, and it's now the best-attended site in the world. In the United States, there are many great witnesses, and the in-depth, ongoing American investigation by the Air Force and Navy is one of the most serious, they must



When Nick Pope took over the MoD's UFO unit, he didn't believe in them. Now he does. He says that there can be the most terrifying mysterious equipment.

Pope's first UFO sighting was in the US air base at Wootton Bassett, Wiltshire. On December 27, 1980, the men, on a Sunday day in the early hours of the morning, saw a dazzling pulsating white light in the forest, which continued to be visible.

are the objects, the taken for UFOs.

The Rendlesham Forest UFO incident has so many independent witnesses, with a tape recording made by Lieutenant Colonel Charles Hall, the deputy commander of the base, as he and his night patrol searched the strip, that they were seen on the night of the sighting.

Pope's first UFO sighting was in the US air base at Wootton Bassett, Wiltshire. On December 27, 1980, the men, on a Sunday day in the early hours of the morning, saw a dazzling pulsating white light in the forest, which continued to be visible.

There were no witnesses, were broadcast. I know that it was not an aircraft, and I suspect it was not a plane. There was a very bright pulsating light illuminating the bottom of the craft, and an extremely bright light.



Sgt Jim Peniston was one of the first men to see the UFO

on the top, with other material in the light.

The men described the object as the size of a tank, triangular-shaped, and made out of what looked like dark glass, it had three wings.

After several minutes, it rose slowly, upwards, above the trees, and away from the ground. It hovered briefly about 200ft in the air, then shot off at incredible speed.

Next day, Lt Col Hall, recorded the incident in the Lt Col Charles Hall's notebook. He also wrote the MoD a memo. From the night of the sighting, he was, and above right, on the UFO incident, then down by a report that the UFO was back. He took two more, a photograph, and carried a colour camera and a tape recorder.

They found the original landing site, where they recorded many accounts of abduction. There is a strange, red light appeared through the trees, pulsating, but through it were no eye-witnesses, if you according to Hall, he and his men needed to search it, but the object moved away towards a field, and then it disappeared into the forest.

Lt Col Hall's report, which was written

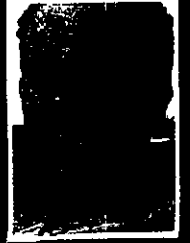


by his own testimony, and by Whidnell, UFO experts, based on the sightings, and sightings, have been going on for years. But it was not until three years later, when UFO investigator, Jenny Randles, got a copy of Hall's memo to Whidnell from America. Hall, the British government, explained that light, had been reported from Rendlesham Forest.

But, according to Michael, recorded the incident in the Lt Col Charles Hall's notebook. He also wrote the MoD a memo. From the night of the sighting, he was, and above right, on the UFO incident, then down by a report that the UFO was back. He took two more, a photograph, and carried a colour camera and a tape recorder.

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John Burroughs was the US sentry who saw the UFO's lights.

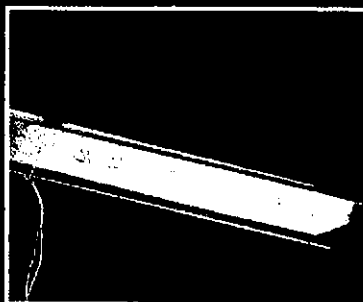


HAVE ALIENS LANDED?

What really happened in 1947 when a strange craft crashed near Roswell, New Mexico? For half a century, official cover-ups kept it a mystery but now an astounding video claims to show an autopsy on an alien



The surgeon removes the black membrane from the creature's eye, above left. Critics say the removal appears to take seconds, as if doctors knew what to expect. Producer Ray Santilli agrees, but says this may not have been the first autopsy. The surgeon continues to investigate the creature's face, above. The being's six-fingered hand is clearly visible, above right



Alien debris, including a beam with weird symbols, above centre, and an alien "control panel", above right, fitting the being's six fingers. Jesse Marcel, left, and Mack Brazel, right



Do our exclusive pictures prove that extraterrestrial aliens have been here? Or are they just an elaborate hoax? The film they are taken from, claiming to show an actual autopsy on an alien from a crashed UFO near Roswell, New Mexico, in 1947, has split UFO watchers.

We aren't coming down on either side. Just look at the astounding stills and make up your own mind.

The shaky black and white film shows a surgeon dissecting a being 5ft tall with six fingers and six toes. It resembles a human but its internal organs are different.

British video producer Ray Santilli found a while in the US to buy old footage of Elvis pop stars. An elderly cameraman

sold him film of high school rock shows featuring Elvis - then offered him footage from the famous Roswell incident.

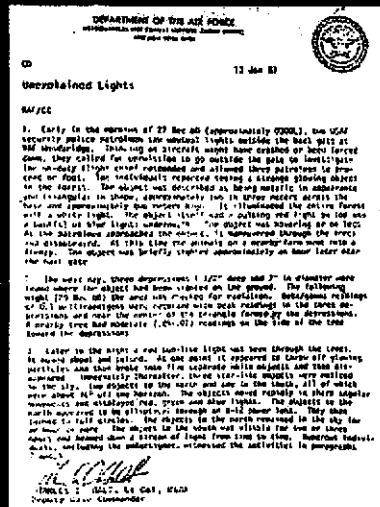
After a thunderstorm in July 1947, ranch manager William "Mack" Brazel found a massive groove ploughed through the desert scrub and a long trail of weird wreckage. The US Air Force, who had a base near Roswell, investigated and intelligence officer Major Jesse Marcel collected debris, including "wood" that wouldn't burn, some with strange symbols, and a thin metal that couldn't be cut or dented. The USAF put out a statement saying they had recovered a "flying disc", then retracted it, claiming a weather balloon had come down. It was rumored

that bodies of extraterrestrials were recovered from other sites nearby and the film seems to bear that out.

UFO watchers are split about its authenticity. Philip Mantle of the British UFO Research Association says: "It is not an obvious hoax. I've studied the film in detail and I cannot find fault with it."

Jerry Randles, author of books on UFOs, resigned from BUFORA because it supports the film. She says: "Although I cannot say that this film is a fraud, it does not match the evidence, as we know it."

Ray Santilli has the last word. "I believe it's genuine but I can't guarantee it," says *Secret History: The Roswell Incident as We Covered It at 5pm on Monday, August 25,*



that they had taken photographs and records of it. In either event, it must be of interest to the defence of the United Kingdom," he said.

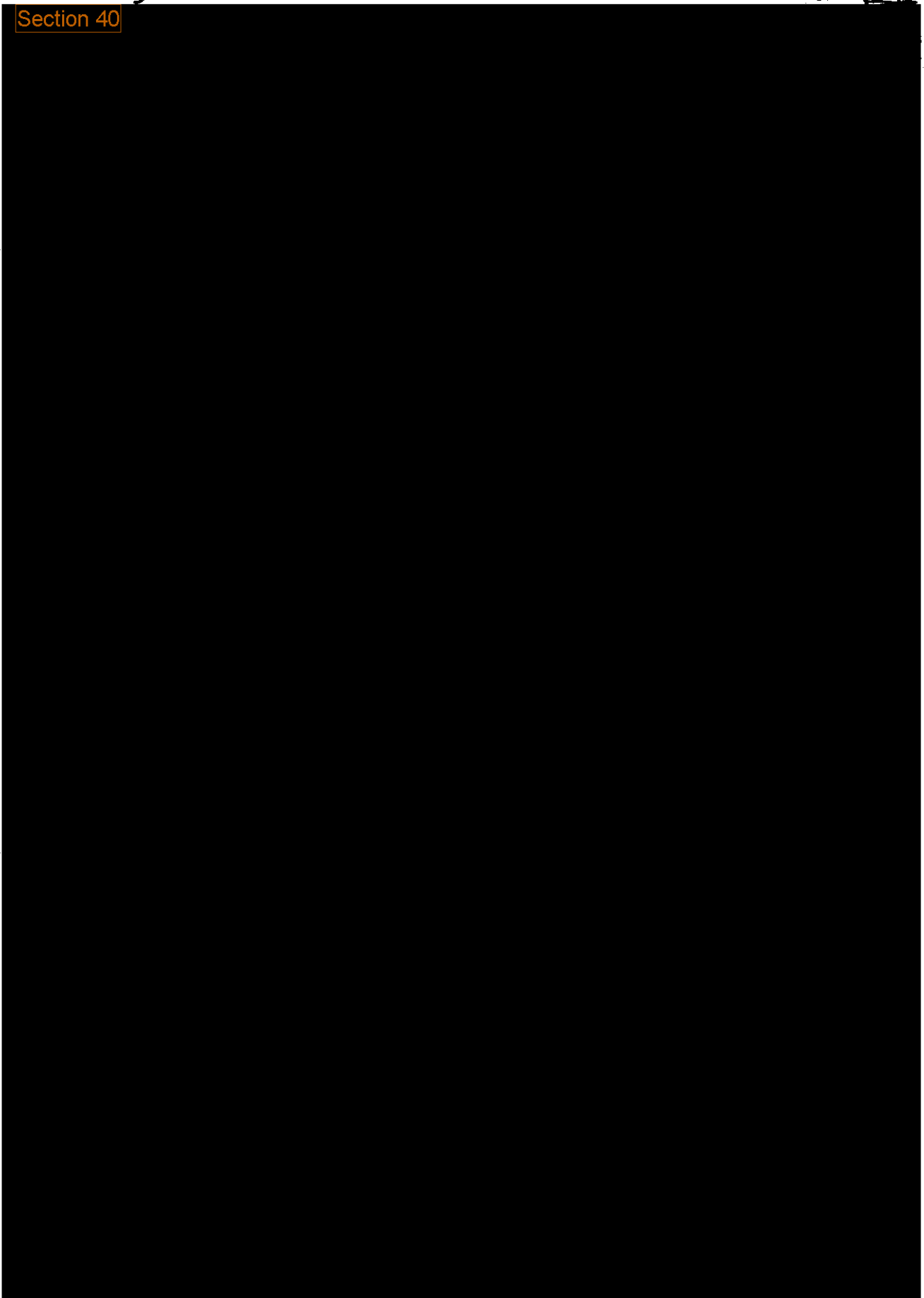
And Nick Pope, who has now been transferred to another MoD section, says: "There is so much detail in this case that I'm convinced what the airman encountered in the forest was extraterrestrial."

Defence chief Lord Hill-Norton took the UFO seriously. "I joined the UFO section with a completely open mind - if anything, I was inclined to disbelieve. And I found that in 95 per cent of the cases, there was a logical explanation - a plane, meteorite. But there was a core of cases that could not be explained away. The only way I saw, the more I knew that there is something going on that ought to be investigated fully."

Nick Pope has written a book, drawing on the information he came across as head of the UFO desk, officially known as the Secretariat (Air Staff) Office. He is consulting with the Ministry of Defence permission to publish it.

Jul 95
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146/1

Head of Sec(AS)

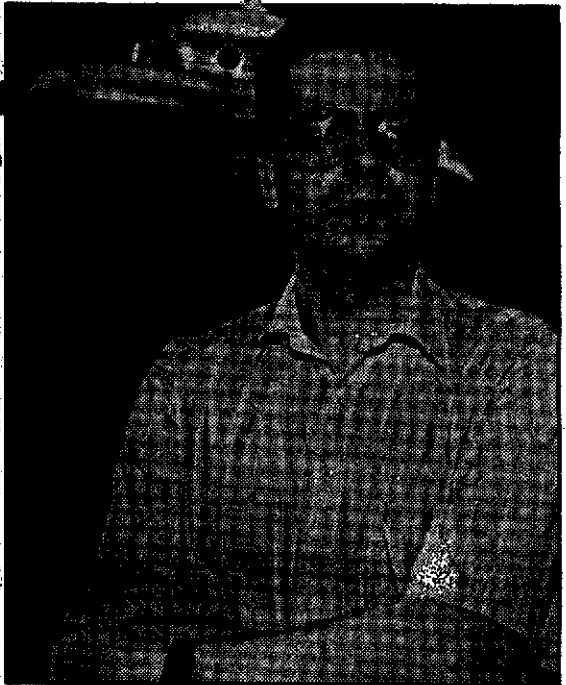


Section 40

→ 12/1

WHITEHALL SHOCK AS ITS CHIEF ALIEN WATCHER ADMITS: I BELIEVE IN UFOs

ET lives, says man from the Ministry



CLOSE ENCOUNTERS: UFO convert Nick Pope

IT WAS the week when John Redwood's earthly origins were called into doubt and Mr Spock pointy ears were given away by the thousand. So it will come as no surprise that one of Whitehall's finest has succumbed to the power of aliens.

Nick Pope headed the Secretariat (Air Staff) 2a office, with a brief to deal with inquiries about flying saucers and other unexplained phenomena. It was his calm voice which reassured the many members of the public who called to report strange lights in the sky or little green men on the lawn. But in possibly the most embarrassing turnaround in Ministry of Defence history, Mr Pope has gone over to the other side.

By Nick Fielding

employers, the 39-year-old civil servant, who now works in another part of the Ministry, has become a convert. 'I think it is fair to say that in my three years as the Government expert on UFOs, I was regarded as a bit of a maverick,' said Mr Pope.

Menace

'I came into that job as an open-minded sceptic and I came out a believer. As if that were not enough, the errant ufologist is to publish a book based on his experiences as Britain's first line of defence in the undeclared war against the alien menace. Provisionally titled *Open Skies, Closed Minds: Official Reactions To The UFO Phenomenon*, the book is unlikely to win him

many friends at the Ministry.

In fact, his bosses have already expressed their displeasure at his manuscript, for which he must get permission before publication. The book examines all the available records in the Whitehall archives, and talks about a number of new cases.

But Mr Pope offers little comfort for UFO buffs seeking proof of a Government cover-up.

'We don't throw open our files en bloc, but eventually most of them filter down to the Public Record Office.'

Mr Pope cannot pinpoint the moment of his conversion, but he rules out an alien plot.

He says he was convinced by the details of a small number of British sightings which have so far defied conventional explanation.

'Probably the best example is the Rendlesham Forest case in December 1980, where

some kind of object came down in Suffolk near the RAF bases at Woodbridge and Bentwaters.

'This is now regarded as the best-attested case of a UFO crash outside the US.'

Mr Pope's conversion is likely to cause a sensation among committed ufologists.

Graham Birdsall,

editor of UFO Magazine, said: 'I welcome the bravery of a man who must have experienced tremendous pressure from his superiors, but who stuck to his views.'

The MoD refused to comment on Mr Pope.

But surely the men from the Ministry are wishing that someone, somewhere, would beam him up.

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Scanners of the alien nation

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DONT call me a fruitcake, but listen: on a warm summer's day at the age of eight, I lay on my back on the grassy playing fields, looked up and saw an unidentified flying object. A tiny triangular glint in the sky. My chums saw it, too. The local paper got wind and there was a little column, dripping sarcasm. The little green men were coming to take us kids away. Jeer on, but I had seen something. What it was, who knows?

This event hovered back into my mind last week in a Whitehall wine bar while talking to the British Government's foremost expert on UFOs. Nick Pope is a civil servant who has spent four years analysing reports of sightings of Unidentified Flying Objects for the Ministry of Defence. He is a sane, cautious, bespectacled 29-year-old, 10 years at the MoD. He speaks in the carefully draughted idiom of the Whitehall memo, emphasising that his beliefs are personal, not those of the Secretary of State for Defence, Michael Portillo — himself rumoured not to be as other earthen.

'From 1991 to 1994 I worked in the Secretariat (Air Staff) 2A. I was the MoD's UFO desk officer. I came into that job with an open mind. After having seen all the evidence and the expert testimony, I came out of that job believing that a very small percentage of what are commonly termed UFOs may well be extraterrestrial in origin.'

Had he ever seen a UFO, I asked him? 'No.'

I came clean about my experience. He looked at me, the unbespectacled, with something approaching awe in his eyes.

The Observer
13 August 1995



Spooky-wooly millennium: Be it UFOs, tremors, tumours or the visions of the electrically disturbed, our search for aliens has a religious fervour about it.

PS. You will wish to see the latest press coverage Section 40 s/c (AS) 2 14/8/95

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THE OBSERVER ESSAY

John Sweeney

The UFO Research Association hosts its eighth Congress on Saturday. It is sold out, and reports from the final frontier say business is better than ever.

Still at the MOD, but no longer on the UFO desk, Pope has suffered for his views. His nickname in the MoD is 'Spooky', that of Fox Mulder, a character in the cult TV series *X-Files*. When he walks along the corridor, fellow civil servants whilst the theme from Steven Spielberg's film, *Close Encounters of the Third Kind*. His chances of becoming a permanent under-secretary have dimmed. And yet: 'We received between 2,000 and 3,000 UFO reports each year. We knew this was the tip of the iceberg because most people didn't know how to report a UFO, that is who to contact, or they were afraid of the ridicule.'

Among those 2,000 to 3,000 reports we always figured that 95 per cent could be explained away in terms of known objects or phenomena. I know all the explanations: flocks of geese, aircraft lights, satellites, meteors, fireballs, ball lightning, lasers and searchlights reflecting off low cloud, hoaxes. There is still this 5 per cent that you can't explain, that defy explanation. His book on UFOs, provisionally entitled *Open Skies, Closed Minds*, will be published by Simon and Schuster in June 1996.

The absurdist comedy of the MoD's own UFO-watcher turning from sceptic to (qualified) believer speaks to the spooky-woo-woo spirit of the millennium. Now that God, who once wound our sundials, is thought to be dead, human awe has turned to UFO sightings and even alien abductions — in the jargon, *Close Encounters of the Fourth Kind*. Next weekend the British UFO Research Association will host its eighth International UFO Congress to discuss these and other UFO events. It is sold out. Later this month, Channel 4 will screen a controversial film of an alien autopsy, allegedly shot after the UFO crash at Roswell, New Mexico, in 1947.

Pope has seen the footage: 'I found it gruesome and unpleasant, but then I'd never seen an autopsy before. There were 100 people in the auditorium at the Museum of London. The atmosphere was jokey for a minute, but as the autopsy started and the humans cut up the aliens there was a lot of uneasy shuffling and muffled cries of "Oh, my God!"'

The best documented British UFO sighting, the Rendlesham Forest incident, rests on a sober memo headed 'Unexplained Lights', dated 13 January 1981. It is signed by Lt Col Charles I. Halt and his officers saw a pulsing, metallic, triangular object which sent nearby farm animals into a frenzy and left above-background radiation levels in three holes in the ground.

The best documented American UFO sighting is the Roswell incident in 1947. The best abduction features a four-way alien pick-up, involving Manhattan Ufologist Linda Napolitano, two anonymous security guards and the 'Third Man' — a cover name purportedly to protect the identity of the then UN Secretary-General, Javier Pérez de Cuéllar.

His Excellency denies the abduction. The old saw, Occam's razor — 'No more things should be presumed to exist than are absolutely necessary' — slices up the little green men better than Channel 4's autopsy.

This is not to say that the people who report UFOs are bonkers. Ordinary people do witness such things as bright lights in the sky and should not be lightly mocked; so do military officers, who supply the best-authenticated cases. But there is a battery of good reasons explaining why UFO sightings and reported abductions — even Pope's 5 per cent — have more to do with the vagaries of the human mind than with aliens.

None of this is a match for the first law of storytelling: the exciting explanation will always drive out the boring.

First, bright lights in the sky. Psychologist Michael Persinger, of Canada's Laurentian University, has noted a big statistical correlation between flying saucer

reports and earth tremors. He has speculated that electromagnetic pulses, released by the shuffling of the earth's tectonic plates, could stimulate images in the mind's eye — the brain's temporal lobe. This would also account for the cutting off of a car's electricity.

Professor Ashley Grossman of Bart's agrees: 'There is an increasing amount of evidence that electro-magnetic pulses can affect brain function. *In vitro* research suggests that there is some sort of sensory perception — you could call it a sixth sense — which some animals have. The brain works on electricity. It's rather like taking your credit card near a large magnet. If someone had a low threshold for temporal lobe epilepsy and seizure, an electro-magnetic pulse could fix off hallucinations.'

But temporal lobe epilepsy can be the first manifestation of a brain tumour. Prof Grossman warns: 'Anyone who sees a UFO or has a semi-mystical experience should have a brain scan. Of course, some experiences could be put down to hysteria. But there could be an underlying biological abnormality triggering the hallucinations.'

Looking back, visions of the Virgin could have been prompted by bio-abnormality. Joan of Arc famously took a long time to burn — maybe as a result of calcified lungs caused by tuberculosis. Had TB reached her brain, it could have triggered the visions. And never underestimate auto-suggestion, the phenomenon which drove the Salem Witches and may be responsible for Pérez de Cuéllar's 'trip'.

Second, Rendlesham. Let's presume Halt and the other Americans saw something in the sky, something which left a radioactive spoor in the forest. Why need it come from outer space? The Pentagon's ultra-secret Black Budget has been responsible for all sorts of weird lights in the sky, clocked by military men such as Halt who would not have been security-cleared for the programme. The post-Streith bomber, Project Aurora, is currently whizzing around the world being mistaken for a UFO.

Third, Roswell. The UFO air crash is a 'bunch of horse pucky' according to one sceptic, Irving 'Newt' Newton. What actually crashed in 1947 was another secret Pentagon wheeze, Project Mogul, a high altitude balloon checking for radiation from Soviet atomic bombs. Fourth, the Channel 4 hoax. The curiously humanoid shape

of the aliens under the knife chimes with a line from Thomas Aquinas: 'Angels need an assumed body, not for themselves, but on our account.'

Anatomist Paul O'Higgins of University College, London, who has seen the film, says the aliens 'have our anatomy, plus a collection of relatively common anatomical anomalies: the six digits, the enlarged brain case which you get with hydrocephalia, distended abdomen, lack of umbilicus, membranes over the eyes — easy to do with plasterine. The chance that aliens would look like us by accident are remote.'

The writer Phillip Knightley famously objected, prior to its publication, to the Hitler Diaries hoax played on the *Sunday Times*. Knightley's memo is a classic of journalistic rigour. He asked: 'How thoroughly has the vendor explained where the diaries have been all these years and why they have surfaced now... The crux of the matter is that secrecy and speed work for the con man.'

Thus far, Channel 4 has not released any verifiable detail on the origins of the film — bad scepticism but great showbiz. *The Observer* bets Channel 4 showman-in-chief Michael Grade a case of antipodean, H-bomb-free champagne the Roswell film will be proved to be a hoax before the year is out.

Classification

UNCLASSIFIED
RESTRICTED - STAFF

→ 12/11

ENCL 145/4

Caveat

Covering

FACSIMILE TRANSMISSION COVER SHEET

Transmission Details		Document Details
Serial Number:	Date & Time of Transmission	Reference:
From: FS(PERS)GM(A)3C NSC COPENACRE	Fax Number: Section 40	Subject: MR. T. GOOD. - AUTH
To: SEC(AS)2A ROOM 8245 MAIN BUILDING	Fax Number: Section 40	Total number of pages including this cover sheet: 2
Authorizing Officer		Transmit Operator
Rank, Name and Appointment EO Section 40 FS(PERS)GM(A)3C		Rank/Grade and Name:
Signature: Section 40		Signature:
Message/Remarks FAC Section 40 REF OUR RECENT TELECON - HEREWITH IS A OF THE LETTER WE DISCUSSED CONCERNING MR. T. GOOD - WITH WHOM ONE OF OUR EMPLOYEES INTENDS TO CORRESPOND YOUR ADVICE WOULD BE WELCOME		

Covering

Caveat

Classification UNCLASSIFIED

attention in case there are any security aspects to prevent my meeting

Section 40
[Redacted]

Section 40
[Redacted]

TATC
WARTHAM.

Industrial Grade Band 6.

I think I should bring this to your



Director General of Supplies and Transport (Naval)
SUPERINTENDENT
ROYAL NAVAL STORE DEPOT COPENACRE
HAWTHORN WILTSHIRE SN13 OPW

Telex: Section 40

Telephone: Section 40
Ext.

Facsimile: Section 40

CORRESPONDENCE WITH A PERSON KNOWN TO HAVE BEEN QUESTIONED BY M.O.D. POLICE.
Your reference: [Redacted]
Our reference: SDR TATC
Date: 6 July 95

I am researching the histories of RAF Colerne and Rudloe Manor.

Whilst doing this research I have contact with various organisations and countries all over the world.

With this in mind I would like to bring to your attention that I intend to respond with a [Redacted] the other of the book Above Top Secret, The [Redacted] UFO Cover-up

M. [Redacted] interviewed by M.O.D. Police in 1960 in the area of the Provost & Security at Rudloe. He also alleges [Redacted] brought to Copenacre to be interviewed (I have asked MOD Police if they can confirm this)

95 15:48 FROM RNSD COPENACRE - R -

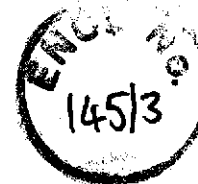
PAGE 002

02/1

MINISTRY OF DEFENCE
RAF COMMUNITY RELATIONS OFFICER (WALES)

Room Section 40 Section 40
Section 40 Welshpool Powys Section 40

Tel : Section 40
GPTN & Fax: Worcester MOD Section 40



FACSIMILE TRANSMISSION COVER SHEET

Section 40 Section 40 Section 40

To: SEC (AS) 2a

From: Section 40

Date: 30 Aug 95

Number of Pages Sent (Including Cover Sheet): 2

Message/Subject:

I wondered if the attached
story had been brought to your
notice or if you would wish
me to contact

Spoke to Section 40 Section 40
Agreed no need to follow up - Don't want
perpetuate myth that we investigate all
even when there's no evidence of a
matter of defence concern
Section 40
Section 40

PLEASE PROMPTLY RETURN TRANSMISSION IS ILLEGIBLE OR INCOMPLETE

"WESTERN MAIL" 25 AUG 95

Landlord becomes a convert after mysterious circle on photographs



RIDDLE: A photo of the mystery UFO.

LANDLORD Kevin Shales believes his late night photo shoot of the moon could have unwittingly captured a UFO.

And now the father of two, who runs the Royal George Hotel at Solfa, Dyfed, wants the experts to shed light on his exposure.

It was only after Mr Shale had his pictures developed that he noticed a mysterious perfectly round object.

The sequence of pictures show the object over the bay near Mr Shale's pub.

They then follow it moving upwards towards the moon.

"I was concentrating on the moon when I was taking the pictures.

"But this object must have been in the sky for several seconds," said Mr Shale.

And Mr Shale, 38, who said he was open minded about the possibility of flying saucers, now wants the mystery cleared up.

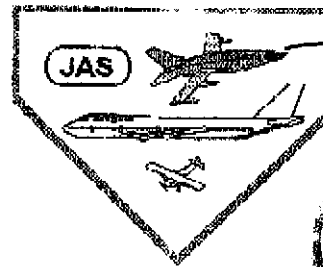
"If UFO experts or the Ministry of Defence want to study the pictures it's fine with me," said Mr Shale.

Mr Shale said he has shown the pictures to UFO enthusiast Randall Pugh, author of the *Dyfed Enigma*, who claimed the pictures were of a genuine flying saucer.

The landlord said that a number of other sightings of UFOs has been made in the Dyfed area in recent weeks.

JOINT AIRMISS SECTION

FACSIMILE TRANSMISSION



12/1

Fax Nos:	BT (DDI)	01895	Section 40
	RAFTN	Section 40	Section 40
	CAA ATN	()101	=>



For the Attention of:	Section 40	SEC (AS) 2A
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No of Pages:	4
(Incl. this one)	

From: FAC	Section 40	Extn. Section 40
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WITH THE COMPLIMENTS OF

Section 40

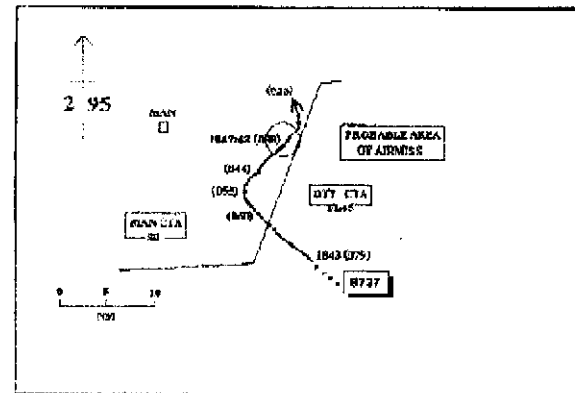
Advised Sqn Ldr (DPO)
 Section 40 about the
 release of this in
 case there are
 any questions from
 the Press.

Section 40

3/8

AIRMISS REPORT No. 2/95

Date/Time: 061848 Jan **NIGHT**
Position: N5318 W0200 (8NM SE Manchester Apt)
Airspace: MTMA **Class:** A
Reporting Aircraft: **Reported Aircraft:**
Type: B737 **Untraced**
Operator: CAI
Alt/FL: 4000 ft ↓
 (QNH 1027 mb)
Weather: VMC CLAC
Visibility: 10 km+



PART A: SUMMARY OF INFORMATION REPORTED TO JAS

The B737 PILOT reports that he was over the Pennines, about 8 or 9 NM SE of Manchester Airport, as while being radar vectored by Manchester radar on 119.4. He was flying at 180-210 kt on a N heading and yawking 3734 with Mode C selected. Although it was dark, visibility was over 10 km with a fairly strong NW wind (340/30). He was flying just above the tops of some ragged Cu both he and the first officer saw a lighted (see IAS Note (1)) fly down the RH side of the ac at high speed from the opposite direction. He was able to see through the RH windscreen and side window, having it in sight for a total of about 7 seconds. No apparent sound or wake. The first officer instinctively 'ducked' as it went

The first officer reports that his attention, initially focused on the glare shield in front of him, was drawn to his peripheral vision. He looked up in time to see a dark object pass down the right side of the ac at high speed; it was wedge-shaped with what could have been a black stripe down the side. He estimated the object's size as somewhere between that of a light ac and a Jetstream, though he cannot say for certain. It made no attempt to deviate from its course and no sound was heard or seen. He is not certain that what he saw was a solid object - not a bird, balloon or kite.

MANCHESTER ATC reports that the B737 was being radar vectored from Dayne to the Manchester TMA and that the pilot reported a lighted object passing close by above and in the opposite direction. No other traffic in the vicinity at the time and no radar contacts were seen.

IAS Note (1): Telephone conversations subsequently took place with both the captain and the first officer. The captain remained convinced that the object was itself lit. Although he could not determine a definite pattern, he described it as having a number of small white lights, rather like a Christmas tree. He confirmed the high speed of the object, and though unable to estimate its distance, said he felt it was very close. Following the incident, the captain and first officer independently drew what they had seen, both agreeing about the shape but differing in their opinions about the lighting aspects. The first officer felt that the object was illuminated by their landing lights, which at that stage were switched on. He was unable to estimate its distance, other than to say that he involuntarily 'ducked', so it must have appeared to him to be very close. He was entirely convinced, as was the captain, that what they had seen was a solid object, not a light phenomenon, balloon, or any other craft with which they were familiar, or a Stealth ac, which he had not seen and which he feels he would have recognised.

IAS Note (2): Despite exhaustive investigations the reported object remains untraced. A scrutiny of the Cleeve radar shows a number of secondary contacts, including the subject B737, being radar monitored in the Manchester TMA and zone. The B737 tracks over two almost stationary primary contacts just N of Leek on a NW heading while descending through FL 70-60. On entering the Manchester TMA, passing FL 50, it is

vectored right onto about 040°, and continues to descend on a NE track along the E boundary of the Manchester TMA to within 0.75NM of the Davenport VOR, where the base of CAS is FL 45. At this point, passing 3600 Mode C, the ac is turned onto a L base leg of 24 as part of a busy sequence of inbound ac. At no time during this downwind leg is any other radar contact seen in the vicinity. An extract from the RT recording on 119.4, which shows that the B737 was given descent clearance to 4000 ft at 1845:30, follows:

From:

B737 (1848)- "c/s we just had something go down the RHS just above us very fast."
 Manchester - "Well, there's nothing seen on radar. Was it er an ac?"
 B737 - "Well, it had lights, it went down the starboard side very quick."
 Manchester - "And above you?"
 B737 - "er, just slightly above us, yeah."
 Manchester - "Keep an eye out for something, er, I can't see anything at all at the moment so, er, must have, er, been very fast or gone down very quickly after it passed you I think."
 B737 - "OK. Well, there you go!"

The possibility that the object might have been a hang glider, paraglider or microlight was investigated, but all the operating authorities, without exception, agreed that this was an extremely unlikely explanation, for various reasons, but mainly because none of these activities takes place at night. In addition, there are the obvious hazards of flying in the dark, from high ground (the peaks in this area along the Pennine ridge range from 1600 to over 2000 ft), strong winds, and because these aircraft are unlit. JAS also explored the possibility of military activity, but could find no evidence in support of this from any official source. In any case, it seems most unlikely that such a flight would have been conducted in CAS and so close to a busy international airport. Because of the B737's proximity to uncontrolled airspace to the E of Manchester during the downwind leg, which covers the airmiss period, the possibility of unknown military or civil activity in the adjacent airspace is completely discounted. However, the likelihood of such activity escaping detection is remote, as the area is well served by several radars and any movements at the levels in question would almost certainly have generated a radar response.

PART II. SUMMARY OF THE WORKING GROUP'S DISCUSSIONS

Information available to the Working Group included reports from the pilot of the B737, transcripts of the relevant RT frequencies, a video recording, and reports from the air traffic controllers involved.

The Group were anxious to emphasise that this report, submitted by two responsible airline pilots, was considered seriously and they wished to commend the pilots for their courage in submitting it, and their company, whose enlightened attitude made it possible. Reports such as these are often the object of derision, but the Group hopes that this example will encourage pilots who experience unusual sightings to report them without fear of ridicule. It was quickly realised by all members that, because of its unusual nature, they could only theorise on the possibilities once normal avenues of investigation had been explored. There is no doubt that the pilots both saw an object and that it was of sufficient significance to prompt an airmiss report. Unfortunately, the nature and identity of this object remains unknown. To speculate about extra-terrestrial activity, fascinating though it may be, is not within the Group's remit and must be left to those whose interest lies in that field. It is probably true to say, however, that almost all unusual sightings can be attributed to a wide range of well known natural phenomena. There are, of course, a few which defy explanation and thus fuel the imagination of those who are convinced that there is "something going on" out there. Usually activity of this kind is accompanied by a rash of ground sightings in the same geographic area; in this case, as far as is known, there were no other reports and therefore the incident has to be reviewed in isolation, with no other witnesses. The resources normally available when investigating airmisses are pilots' reports, corroborated by radar and RT recordings. Often these will provide all the clues necessary, but in this case there is no "reported pilot", and radar recordings do not show any unknown contacts. The lack of a radar contact is not necessarily

unusual if weather suppressors are in use on the radar, particularly if the object generates a poor radar response. In these conditions the radar can interpret a non-responding (p. 1000) contact as weather, and therefore disregards it. Enquiries into military activity did not reveal any ac in the area at the time, and it was considered inconceivable that such activity would take place so close to a busy airport without some sort of prior notification. Members put forward other suggestions, such as a large model aircraft or a commercially operated remotely controlled craft, such as those which are used for survey or photographic work. Considering the prevailing conditions - darkness, high ground, strong NW wind, the proximity of a major international airport - the Group felt that this kind of activity, together with the micro-light/microlight theory, could not be regarded as a realistic possibility. As was pointed out by one member, however, the extreme actions of a single individual cannot be entirely ruled out and there remains, therefore, the possibility that someone, operating a microlight ac (which most accurately fits the shape described), had defied the conditions and got away. Further talks with the microlight experts on this idea highlighted its extreme improbability; the terrain, terrain and darkness would have rendered such a flight almost suicidal.

Having debated the various hypotheses at length the Group concluded that, in the absence of any firm evidence which could identify or explain this object, it was not possible to assess either the cause or the risk by any of the normal criteria applicable to airmiss reports. The incident therefore remains unresolved.

TABLE ASSESSMENT OF RISK AND CAUSE

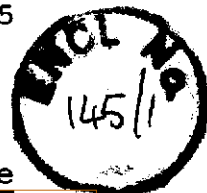
Degree of Risk	Unassessable
Cause	Unassessable

Section 40

D/Sec(AS)/12/1

Section 40

13 Jul 95



PUBLIC CORRESPONDENCE WITH MR POPE

1. I should be grateful for a word with you regarding the attached letter which was recently sent to Mr Pope by a **Section 40** **Section 40** an organiser of the "East Anglian UFO Conference" which is due to take place in October.

2. Clearly **Section 40** believes that Mr Pope is still the MOD official responsible for policy on "UFOs", and he is asking Mr Pope to attend the conference to give the official view on "UFOs". There are two ways which I could handle this:

a. Send a note back to Mr Pope telling him to regard this as a personal letter, but inviting him disabuse **Section 40** **Section 40** misapprehension regarding his official position. I would also remind him that should he wish to take up **Section 40** **Section 40** offer on a personal basis, that he would of course be required to seek the appropriate internal approval to do so.

b. Alternatively I could reply to **Section 40** advising him that his letter to Mr Pope has been passed to me for reply as Mr Pope's successor, offer him our official line, and politely decline to attend the conference. I see no purpose whatsoever in attempting to change the minds of confirmed believers.

Section 40

Section 40



with the compliments of
Ministry of Defence

GF(Pd)1b

Sec (AS)2a -

I think **Section 40** thanks I'm still in Sec(AS), and seems to be asking for someone to put the official line. I'm happy to deal with this personally, but was sure that you'd want to make the decision as to which side of the official/personal line this fell!

All the best,
Nick

LONDON UFO STUDIES/QUEST INTERNATIONAL.

Section 40

CHELMSFORD,
ESSEX,

Section 40

JULY 3RD 1995

T/PHONE: Section 40

- 7 JUL 1995

RE: "EAST ANGLIAN UFO CONFERENCE '95"
CHELMSFORD OCTOBER 21ST 10AM-4PM

DEAR MR POPE,

YOU MAY BE WONDERING WHY I AM WRITING TO YOU RE THE ABOVE CONFERENCE, OF WHICH I AM CO-ORGANISER, BUT I HOPE THIS LETTER WILL MAKE THINGS CLEAR.

THE VERY WELCOMED OPEN POLICY CURRENTLY IN USE BY THE MINISTRY OF DEFENCE COUPLED TO YOUR ATTENDANCE OF THE MAY 5TH SHOWING IN LONDON OF THE ALLEGED ROSWELL AUTOPSY FILM, MADE ME THINK OF CONTACTING YOU FOR YOUR ASSISTANCE.

WITHOUT COMPROMISING YOUR POSITION WITHIN THE MINISTRY I HOPE TO TAKE THIS OPPORTUNITY IN ASKING YOU IF YOU WOULD BE PREPARED TO GIVE A TALK AT THE ABOVE DETAILED CONFERENCE, TO GIVE THE OFFICIAL VIEW ON THE SUBJECT OF UFO'S.

THIS WOULD BALANCE OUT ANY OBVIOUS BIAS BY RESEARCHERS, AND THE GENERAL PUBLIC WOULD HAVE THE DIRECT OPPORTUNITY OF HEARING THE OFFICIAL VIEW AND STANDPOINT RATHER THAN SECOND HAND RUMOURS AS TO WHAT OFFICIALS SAY AND DO ABOUT UFO'S IN THIS COUNTRY.

AS I SAID I WOULD NOT WISH TO COMPROMISE YOUR POSITION BUT SURELY AN OFFICIAL SIDE OF THINGS COULD BE STATED IN A TALK, TO SET THE RECORD STRAIGHT.

OF COURSE ANY FEES AND/OR EXPENSES WILL BE MET IN FULL JUST AS ANY OTHER SPEAKER, PERHAPS YOU COULD LET ME KNOW THESE COSTS.

GO ON MR POPE, BE ADVENTUROUS.

I LOOK FORWARD TO BE HEARING FROM YOU, MANY THANKS IN ADVANCE.

YOURS SINCERELY,

Section 40



MR NICK POPE C/O,
MINISTRY OF DEFENCE,
MAIN BUILDING,
WHITEHALL,
LONDON,
SW1A 2HB.

0264

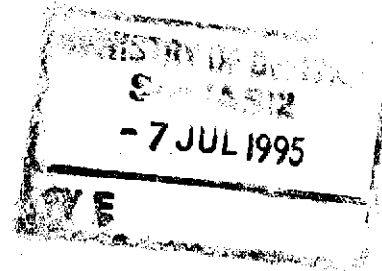
D/DI55/108/15

5 July 1995



Copy to:
Hd CS(RM)1

PUBLIC ACCESS TO UFO FILES



Reference:

A. D/CS(RM)4/6/37 dated 4 Apr 95.

1. For many years various UFO groups have associated DI 55 with reports of Unidentified Flying Objects. Indeed, I have several books at home that describe our supposed role of "defender of the Earth against the alien menace" - it is light years from the truth!

2. I see no reason for continuing to deny that the DIS has an interest in UFOs. However, if the association is formally made public, then the MOD will no doubt be pressured to state what the intelligence role/interest is. This could lead to disbelief and embarrassment since few people are likely to believe the truth that lack of funds and higher priorities have prevented any study of the thousands of reports received.

ouch!

3. However, on balance, since the link has been made many times, and because I believe that copies of the distribution lists have been published, I see no reason to deny the association any longer. It should, perhaps, be seen as a step towards a more open disclosure of the MOD's interest.

Section 40

Section 40
Wing Commander
DI55c
OWOB 336

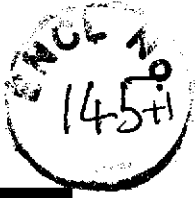
Pursue the recommendations.

Section 40

To be aware file with previous.

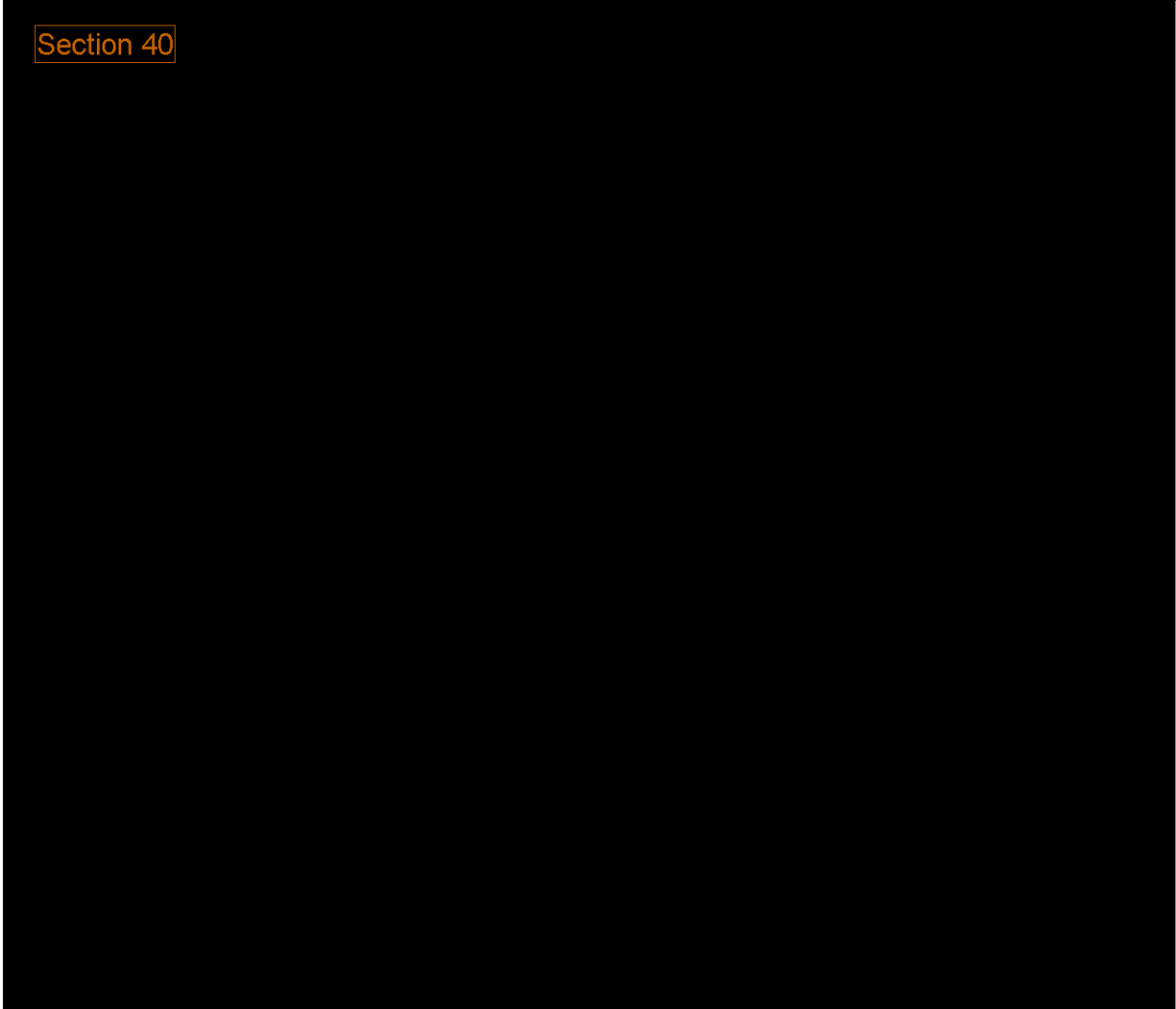
Section 40

12/1
+ 20/4



Head of Sec(AS)

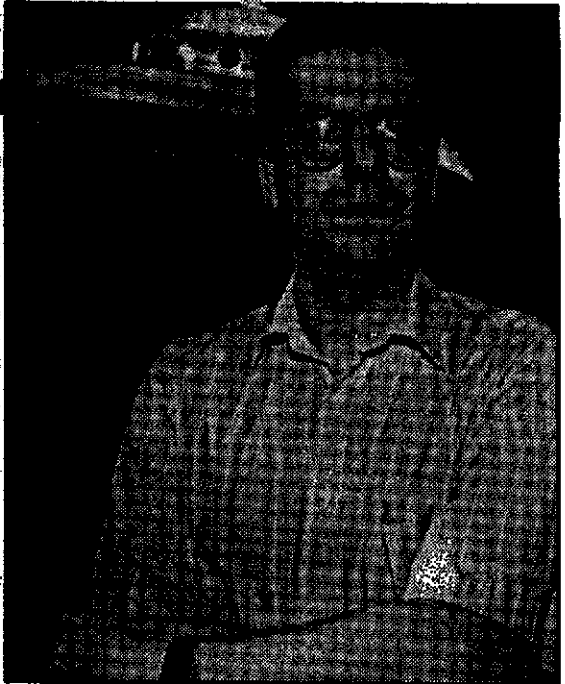
Section 40



→ 12/1

WHITEHALL SHOCK AS ITS CHIEF ALIEN-WATCHER ADMITS: I BELIEVE IN UFOs

ET lives, says man from the Ministry



CLOSE ENCOUNTERS: UFO convert Nick Pope

IT WAS the week when John Redwood's earthly origins were called into doubt and Mr Spock pointy ears were given away by the thousand.

So it will come as no surprise that one of Whitehall's finest has succumbed to the power of aliens.

Nick Pope headed the Secretariat (Air Staff) 2a office, with a brief to deal with inquiries about flying saucers and other unexplained phenomena.

It was his calm voice which reassured the many members of the public who called to report strange lights in the sky or little green men on the lawn.

But, in possibly the most embarrassing turnaround in Ministry of Defence history, Mr Pope has gone over to the other side.

By Nick Fielding

employers, the 29-year-old civil servant, who now works in another part of the Ministry, has become a convert.

I think it is fair to say that in my three years as the Government expert on UFOs, I was regarded as a bit of a maverick, said Mr Pope.

Menace

I came into that job as an open-minded sceptic and I came out a believer.

As if that were not enough, the errant ufologist is to publish a book based on his experiences as Britain's first line of defence in the undeclared war against the alien menace.

Provisionally titled *Open Skies, Closed Minds: Official Reactions To The UFO Phenomenon*, the book is unlikely to win him

many friends at the Ministry.

In fact, his bosses have already expressed their displeasure at his manuscript, for which he must get permission before publication.

The book examines all the available records in the Whitehall archives, and talks about a number of new cases.

But Mr Pope offers little comfort for UFO buffs seeking proof of a Government cover-up.

'We don't throw open our files en bloc, but eventually most of them filter down to the Public Record Office.'

Mr Pope cannot pinpoint the moment of his conversion, but he rules out an alien plot.

He says he was convinced by the details of a small number of British sightings which have so far defied conventional explanation.

'Probably the best example is the Rendlesham Forest case in December 1980, where

some kind of object came down in Suffolk near the RAF bases at Woodbridge and Bentwaters.

'This is now regarded as the best attested case of a UFO crash outside the US.'

Mr Pope's conversion is likely to cause a sensation among committed ufologists.

Graham Birdsall,

editor of UFO Magazine, said: 'I welcome the bravery of a man who must have experienced tremendous pressure from his superiors, but who stuck to his views.'

The MoD refused to comment on Mr Pope.

But surely the men from the Ministry are wishing that someone, somewhere, would beam him up.

Midland Bank plc is regulated by the Personal Investment Authority and only advises on its own life assurance, pensions and unit trusts. AD/83



M.O.S 27

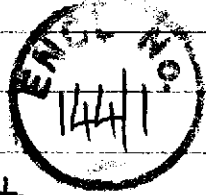
Telephone

Section 40

As discussed

→ 12/11

I'll talk you thru this.



Following the issuing of this ~~book~~
statement Section 40 [redacted] rang
back and said out of interest
that Fielding said

Section 40

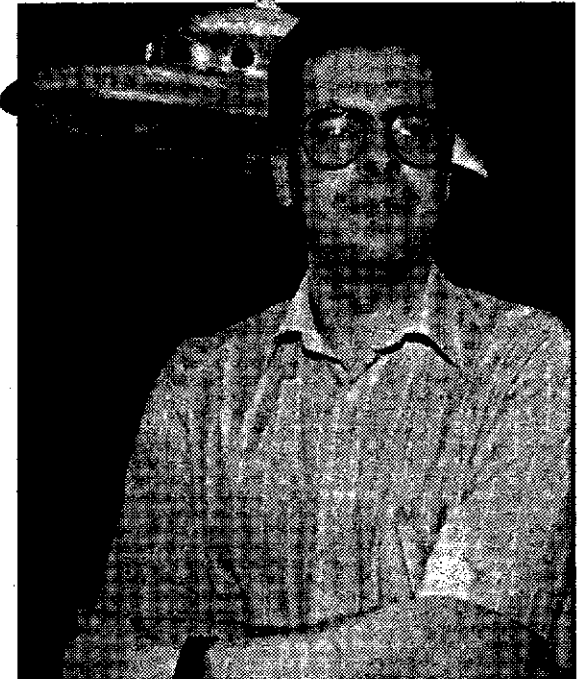
We await the Mail on Sunday
with interest.

→ 30 JUN 95

→ 12/1

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M.O.S 27
Telephone



→ 12/1

144+2

MAIL ON SUNDAY - NICK POPE 

- Late on Wednesday (27 Jun), I received a telephone call from Nick FIELDING of the Mail on Sunday asking to speak to Nick Pope. I explained that Nick had left last July and asked if it was a personal or work matter as I was his successor.

- He explained that he had had contact with Nick in the past and it was really a personal matter he supposed because he wanted to talk to Nick about his book.

- As it was after 1700 hrs, and I knew Nick would have gone home, as well as the fact that I did not want to give Nick's telephone number to FIELDING, I said I would pass a message on and Nick would get in touch if he wanted to.

- FIELDING then started asking some questions and I told him as a member of the Press he should address any queries via the Press Office.

- I sent Nick an E-Mail telling him of the call and that I had not given FIELDING his telephone number. I told Section 40 the contact and he suggested that I tip Section 40 off, and Section 40 which I did.

- Thu afternoon Section 40 called. FIELDING had contacted the Press Office and they had had a little chat. He knew that Nick had found a publisher and had submitted his transcript in accordance with the MOD guidelines. His specific questions were:

"How does the Ministry of Defence feel about one of its officials publishing a book on flying saucers?" and

"Are the likely to be any problems with the clearance of the book?"

Section 40 put together a form of general form of words regarding the rules governing all MOD employees who wish to publish such a book, and that we would not comment on any specific cases and they were a private matter between the individual concerned and the Department. This was cleared by PCB(Air) and CM(IR). Section 40 also copied this to Section 40

- I told Section 40 not to be drawn and not to say anything other than the line we had given him. Section 40. Section 40. I went to great lengths to stress that a decision about the book had not been taken, and that it was under active consideration.

- Await Sunday with interest.....

→ 30 JUN 95

29/6/95

To [redacted] is a copy of the statement. That the Home Office require.

After speaking with one of your agents on

ENC-1
143/10

Tuesday 27th. June 95 seeking help regarding the situation I've been put in. I have drafted out a basic outline as requested.

I seeked help over 2 years ago regarding a tagging device that was implanted on me.

The people that did this to me have caused a great deal of problems for me and others. When this first happened the use of an Alien contick was used and at first was convincing. However because of there mind pedding technique and blackmailing psychological abuse and there attempts of using hypnosis because of repeated transmissions plus physical following has caused a great deal of pain in my life.

The tagging device is a receiver and they have transmitters.

All this has caused homelessness made penniless and searching for my wife as well because of certain happenings at my home on oct 31 94.

Apart from other serious discrepancies I seek your help.

Yours Sincerely

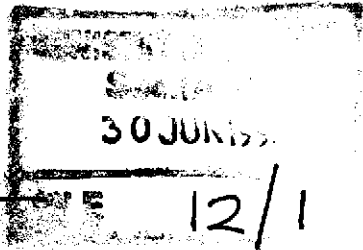
To: Section 40

SEC(AS)2A RM9245



*With the Compliments of the
Assistant Private Secretary
Parliamentary Under Secretary
of State for Defence*

*To be
filed
Only*



Section 40

*visited foyer 29 Jun,
he made a statement and was
escorted from the building.*

NFA

Section 40

MINISTRY OF DEFENCE, WHITEHALL SW1A 2HB

OHMS

Alan Keen Esq MP
HOUSE OF COMMONS
LONDON
SW1A 0AA



MINISTRY OF DEFENCE
MAIN BUILDING
WHITEHALL
LONDON SW1A 2HB

071 218 7879

15/02/95

The Private Secretary to the Under Secretary
of State for Defence acknowledges receipt of
your letter of
regarding

10 February 1995

Section 40

UFO

which is receiving attention.

A reply will be sent to you as soon as possible.

Home Office

Section 40

Section 40

MILK BANK

Section 40

Section 40

Section 40

Case 301

Slip

Section 40

ISSN 0966-1107

Editorial



The alleged Roswell archive film footage rages on, and despite huge question marks in respect of its authenticity, its owners continue to promote the material as being genuine. Offers of between \$1.7 million and \$7 million have been openly mooted.

As you will see in our exclusive account of this sorry affair, television companies place little importance on analysis, more how the material will impact upon the viewing public.

In a remarkable swipe at those who have sought to view, examine and authenticate the footage, such as Stanton T. Friedman, the original investigator of the 1947 Roswell crash, they pronounce:

"Whilst we respect Mr. Friedman's history, profile and standing within the UFO community, we believe the material will be best served by neutral researchers who have no personal vested interest in its future."

In effect, those who have a vested interest in the commercial marketing and promotion of this footage have excluded those within the international UFO community who would dare to challenge the authenticity of this film.

If anyone has a personal vested interest in this archive, it is surely Friedman, who has laboured long and hard over 17 years to unearth the truth behind what occurred at Roswell.

Whilst much attention has been naturally focussed on this affair, another intriguing development has taken place, with the announcement by Nick Pope, former head of AS2 (Air Staff 2), the official UK government body that looks at UFO reports within the Ministry of Defence, that he intends to publish a book about his 3-year involvement: *Open Skies - Closed Minds: Official Reaction to the UFO Phenomenon*.

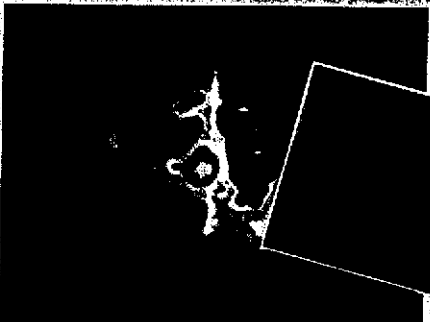
Nick is now firmly of the opinion that UFOs and the ETH (extraterrestrial hypothesis) are one of the same. He is still employed by the MoD, who are naturally feeling somewhat uneasy at his decision to speak out so publicly. I can tell you that his decision to "come out" was not taken lightly, but he is willing to accept the consequences. It took an extraordinary amount of courage to do what he has done. His life is about to change forever, and we should all offer him our total support.

G.W. Birchall

20th CENTURY ALIENS: Contrary to opinion, there is photographic data which allegedly indicates an alien intelligence. Mark ... takes a ...

12 • THE ALLEGED ROSWELL UFO ARCHIVE FILM

The screening of an alleged alien autopsy at the Museum of London on 5th May this year, has led to an international media frenzy. What are we to believe? Who are we to believe? UFO Magazine delivers its verdict on the film being labelled 'Roswell's Smoking Gun'



On 7th November 1983, police sergeant Anthony Dodd, encountered a UFO on a lonely country lane near the West Yorkshire village of Addingham. He managed to take several sensational pictures which have defied all scientific attempts to rationally explain the phenomena.

A fitting epitaph to the closure, derived from the 'Groom Lake' 'Rat'



40 • AIRSHIPS - TERRESTRIAL FLYING SAUCERS

World airship expert John Christopher, turns his attention to the remarkable saucer-shaped dirigibles of the past and present, and looks ahead to the future.



ENCLOSURE
142

LOOSE MINUTE

D/Sec(AS)/12/1

21 Jun 95

DPO - Section 40

"UFOs" - LINES IN RESPONSE TO QUESTIONS RECEIVED FROM
MS JANE GOLDMAN

1. Further to the fax you received from Ms Goldman, regarding MOD policy lines on "UFO issues" (attached), herewith a couple of paragraphs covering the points which she raises.
2. Grateful if you would now pass these to Ms Goldman.

Section 40

Sec(AS)2a
MB8245 82140MB

=====

UNEXPLAINED AERIAL SIGHTINGS

The Ministry of Defence and HM Forces have responsibility for the defence of the United Kingdom. In order to discharge that responsibility we remain vigilant for any potential threat, from whatever source. It is in this context alone that the MOD looks at reports of unexplained aerial sightings, consulting our air defence experts as appropriate, in order to establish whether what was seen might be of defence significance.

It is for this reason that Secretariat (Air Staff)2a, which works closely with the RAF on a variety of issues, is the nominated focal point for such reports. If no threat is discerned, and in connection with unexplained aerial sightings this has been the case in all instances to date, we make no attempt to investigate and establish precisely what may have been seen.

The MOD does not have any direct interest, expertise or role in respect of UFO/"flying saucer" matters, or those relating to the existence or otherwise of extraterrestrial lifeforms, about which we remain totally open-minded. The MOD does not investigate a sighting beyond the point of satisfaction that there is no evidence of something which might be of defence concern. Once we are content that there is no such evidence no further action is appropriate, the report is filed and our interest in the sighting ceases. As it is outside the Department's defence remit to devote resources to determining the precise identity of every seemingly inexplicable sight in the sky it is quite normal for a sighting to remain 'unexplained' but not require further official action.

The MOD does not study or research the phenomena of "UFOs" alone or in consultation with other countries, and to date the MOD is not aware of any evidence which substantiates the existence of extraterrestrial craft or lifeforms.

=====



Jane Goldman

Section 40

London

Section 40

Tel: Section 40

Fax: Section 40

E-mail: Section 40

ATTN: Section 40

PRESS OFFICE, R.A.F.

June 14th 1995

Dear Section 40

I am writing a book to be published this October by Simon and Schuster on the subject of the paranormal, part of which will concentrate on ufology.

The book is officially tied in with the popular American drama series *The X-Files*, with which you may be familiar, and is provisionally entitled *The X-Files: Book of the Unexplained*. Our aim is to provide extensive factual information on the subjects touched upon within the fictional confines of the series.

I would be most grateful if you were able to provide us with answers (for possible publication) to the following questions:

- 1) How does the MoD approach UFO issues ? In what situations will it investigate sightings ? Which department is responsible ? Are records maintained ? Are statistics compiled ?
- 2) Are MoD efforts in this area networked to any other international organisations (i.e. FBI, Interpol, NASA) ?
- 3) Do the investigative techniques demonstrated on *The X-Files* accurately reflect the reality of official investigations into paranormal activity ?
- 4) Any good stories we might have missed ? Any people you could recommend that we speak with ?

I realise that this all might sound a little kooky - and goodness knows, this certainly is a potentially dodgy area, but I assure you that we aim to maintain the highest degree of integrity and a rational, non-sensationalist mind-set.

Many thanks for your time.

Yours sincerely,

Section 40

Jane Goldman

To: Section 40

Sec [AS] JA

From: Section 40

DPO [RAF]

12/1
ENCL
141

Fri Jun 16, 1995 17:03 mailbox standard Page 1

DATE	FROM	SUBJECT	CODES
16/06/95	HQSyl	Letter from Section 40	[]

Sent : 16/06/95 15:47 Delivered: 16/06/95 16:28
 To : SEC(AS)2A (2)
 Cc :
 Ref : 483
 From : HQSyl
 Subject : Letter from Section 40
 Text : PSA

Section 40

Priority: Normal View Acknowledge [] Attachments [1]
 Reply Request [] Codes [.....]

RESTRICTED

LOOSE MINUTE
D/HQ Sy 1/107/8/3

16 June 1995

Sec(AS)2a - Section 40

LETTER FROM Section 40 : SECURITY CLASSIFICATION QUERY

Ref: D/Sec(AS)/12/1 dated 7 June 1995

1. In his letter Section 40 make references to the following 'security categorizations':

MAJESTIC, MAJIC, P14, P1-40 AND COSMIC TOP SECRET

COSMIC TOP SECRET is recognised as a marking currently in use in the NATO forum. My enquiries have identified knowledge of MAJESTIC and MAJIC, but nothing in respect of P14 or P1-40.

2. It would appear that the MAJESTIC and MAJIC markings (and a number of others all beginning with 'M') are 'codewords' used by the 'BLUE BOOK' group who were established (allegedly) in the late 1940's to investigate the, again alleged, UFO crashes/incidents in the USA (eg Roswell, Woodbridge). It is claimed by 'UFologists' that such terms have been gleaned from information available under the US Freedom of Information Act.

3. In summary I can confirm, to the best of my knowledge (and at the risk of substantiating conspiracy theory) that, with the exception of COSMIC TOP SECRET, the UK has never used the term Section 40. Section 40 quotes. COSMIC TOP SECRET is in use and although unable to confirm categorically that it has never been used in the UFO context, it is a NATO marking and thus not in our gift to confirm its existence or otherwise to members of the public.

4. Section 40 penultimate sentence asks two questions that cumulatively are somewhat akin to 'Have you stopped beating your wife?', and so yes or no answers are out. Although this LM is marked RESTRICTED, the following words are UNCLASSIFIED and can be used in any response to Section 40

"The UK uses four main markings to classify its material; namely Restricted, Confidential, Secret and Top Secret and the meanings attached thereto are already in the public forum. These markings cover a wide range of material and so it is necessary to use additional markings to control handling and distribution (ie. no person cleared to Secret level has the right to see all Secret material). Thus additional markings are available to label material of particular sensitivity, but I am sure that you can appreciate that it is not our policy to disclose the nature of the material that they may cover."

(signed)

Section 40

HQ Sy 1

RESTRICTED

UNCLASSIFIED
RESTRICTED

MB4113 Section 40

UNCLASSIFIED
RESTRICTED

LOOSE MINUTE

D/Sec(AS)/12/1

7 Jun 95

MOD Sy 1a



LETTER FROM Section 40 SECURITY CLASSIFICATION QUERY

1. As you may be aware, Sec(AS)2a acts as the MOD focal point for reports of unidentified flying objects. As such we receive a number of letters from members of the public regarding MOD policy in this connection, which often include questions relating to MOD security classifications. The attached is one such example.

2. I should be grateful if you would take a look at the question posed by Section 40 (highlighted) and offer a form of words for me to draw upon in my response. I am unsure whether these are even proper MOD security classifications, and if any of them are I feel sure we would not wish to go into any details. However, an appropriate public line which I could deploy would be greatly appreciated.

Section 40
[Redacted]

Section 40
Sec(AS)2a
MB8245 Section 40
CHOTS: SEC(AS)2A (2)

Enc.



LOOSE MINUTE

D/Sec(AS)/12/1

2 Jun 95

CS(RM)2E - D/Files 2

REQUISITION OF UFO FILES

1. I am writing to thank you for your assistance earlier this week in returning the following closed "UFO" files to this section:

General Briefs + Reports
UFO Correspondence D/DS8/10/209 **Parts F and G**

2. We are currently researching a query from a member of the public, but unfortunately we were not been able to find what we were looking for in these files. However, there are indications from these files that the correspondence we are trying to find is contained in an earlier part of the file. I should therefore be grateful if you could send me the following files:

General Briefs + Reports
UFO Correspondence D/DS8/10/209 **Parts A, B, C, D and E**

and

General Briefs + Reports
UFO Correspondence D/DS8/10/209/1 **Parts A, B and C**

3. We will of course return all the closed "UFO" files to you just as soon as we have finished our research. Thank you for your assistance in this matter and if you require any further information I can be contacted on **Section 40**.

Section 40

Section 40

SEC(AS) 2A
8245MB



LOOSE MINUTE

D/Sec(AS)/12/1

25 May 95

DI55c - Wg Cdr Section 40

Copy to:

Hd CS(RM)1

PUBLIC ACCESS TO "UFO" FILES

Reference:

- A. D/CS(RM)/4/6/37 dated 4 Apr 95.
- B. D/Sec(AS)/12/1 dated 28 Apr 93.

1. You will have seen Hd CS(RM)1's minute at Reference A, concerning the justification for continuing to withhold the internal distribution from public domain when "UFO" files are released to the Public Records Office at the 30 year point. If you were not copied the attachment to this letter please let me know and I shall forward it to you. I also attach a copy of my predecessor's minute (Reference B) referred to in Reference A. As DI55c is generally the only Section to which we copy reported sightings, I would welcome your views.

2. Under the terms of the relevant rules, it would appear that our case for continuing to withhold this information is rather weak. Any justification we produced to argue for the continued deletion of the internal copy addressees would have to be formulated in the context of the clearly stated policy guidelines; as set out in the Parliamentary Question, answer and background note attached to Reference A.

3. My understanding of the guidelines is that there are two reasons for justifying withholding information from the public domain; one is that its release would be a risk to national security, which I cannot see applies here, and the other is stated as "administrative purposes". I do not know what "administrative purposes" means but it sounds very vague (probably deliberately) and would doubtless allow much to fall within its bounds. We should resist the temptation to hide behind this as Government policy reflects an emphasis on release rather than retention.

4. Moreover, as the reference to "administrative purposes" is only contained in the background note to the PQ, not the answer itself, the point is not of course in the public domain; the "UFO" lobby would likely infer therefore that the reason we choose to censor the distribution lists is on the grounds of

national security. This would be unfortunate and would be taken as confirmation of their belief that the Department is aware of more than is being revealed and have a greater interest than is being admitted to.

5. As you know, the "UFO" lobby have long since been aware of "DI55" involvement in this subject following an unfortunate slip some years ago. However, this of course has never been officially acknowledged. Such an acknowledgement now would probably generate a raft of correspondence, but if we were to prepare a suitable line to explain clearly and non-contentiously why such reports are copied to DI55 and what you do with them, this in itself should not prove too much of a problem to the Department. This line would then be deployed by Ministers should this matter generate PQs and PEs. In time, this might even make our life easier in dealing with the endless stream of conspiracy theorists who berate us.

6. It would therefore be useful if you could define the role that DI55c sees itself as presently having, and where things currently stand vis-a-vis the briefing you provided in your minute to Sec(AS)2 of 18 Oct 93 (ref: D/DI55/108/15).

7. To summarise, we believe the case to continue to withhold the internal distribution from public domain is now difficult to sustain. However, I should be grateful for your formal views to the proposal; should you wish to preserve the status quo you will need to present a detailed, formal case to support your arguments. We should then be able to reach a joint position following further discussion as necessary and respond to Hd CS(RM)1 as requested.

8. I look forward to hearing from you in due course.

Section 40

Section 40

Sec(AS)2a

MB8245 Section 40

UNCLASSIFIED

RESTRICTED

LOOSE MINUTE

D/Sec(AS)12/1

28 April 1993

Head CS(RM)1

PUBLIC ACCESS TO UFO FILES

Reference: D/CS(RM)1/4/3/2 dated 25 Mar 93

- 1. You asked at Reference that we review the rules that apply to the release of UFO material into the public domain.
- 2. I have now had an opportunity to discuss this with DI55c, and we have agreed the following:
 - a. Witness privacy

We agree that there is no need to protect the names and addresses of witnesses for any longer than the standard 30 years.

- b. Internal distribution

I can confirm that any internal distributions should be deleted, along with any mention of departments - eg AI(Tech) - other than the co-ordinating branch.

- 3. I have returned the two files, AIR 2/16918 and AIR 2/17318. I suspect that, following their release next year, we will see an upsurge of interest in our old UFO files!

Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB

UNCLASSIFIED

RESTRICTED



We spoke in broad terms about this. A different one.

It does seem to me that on case, under the terms of the relevant rules, for withholding the distribution list is weak - very weak. "breach to national security"? I don't think so -

... "for administrative purposes". No. But really has that this means - sounds rather like a deliberately vague ~~and~~ definition

which would allow you to push within its bounds (but we should resist the temptation - Gov policy is for expansion release, not retention).

Turning it round, what would our rationale be for retention?

Because DSS would rather not be associated (to preserve their 'sweet squirrel like image!'); because it could be embarrassing to TROB (including, of course, Ministers)?

On the second point, we are presumably likely to be embarrassed about this in any case. Once files/records are released under the 30 yr rule will (if we take the correct position) the internal distribution lists obviously deleted, those who believe there to be a conspiracy/cover up will take this as documentary evidence in support of their theory. Hence embarrassment - and, no doubt, much more correspondence. And I fear if we allowed the DSS involvement to enter the public domain officially, the lobby would about it already - so nothing materially will have changed in their respect.

Transportation Data**Additional Data**

Passenger/cargo aircraft	
Type of aircraft	
Departure airport	
Destination airport	
Consignor	
Consignee	
Takeoff/Landing Overflight	
Date/time	

Declaration of consignor (Federal Armed Forces or armed forces of a parent state):

The dangerous goods intended for transport in aircraft have been approved in accordance with the IATA Dangerous Goods Regulations (latest edition). Their condition, their nature and, if applicable, their packaging (including IBC and Container) as well as their labeling meet the requirement of the above-mentioned regulations.

Town and date Function (capitals) Name (capitals) Signature

Safety certification of consignor (armed forces of a non-parent state):

1. The dangerous goods intended to be transported in aircraft have not been approved for such transportation in accordance with the IATA Dangerous Goods Regulations (latest edition). However, their condition, their nature and, if applicable, their packaging (including IBC and container) as well as their labeling fulfill the above-mentioned regulations.
2. It is certified that
 - a) the contents of the package(s) of this shipment is in a condition appropriate and safe for air transport, and
 - b) the transportation of these dangerous goods is absolutely necessary for defence reasons.

Town and date Function (capitals) Name (capitals) Signature

Would we be leaving ourselves open to criticism, or accusations of lying? Disregarding, certainly; deliberately misleading or hiding the truth, not really. There would likely be a huge in correspondence, but our corporate word-smithing should be able to handle that.

We would need to have a line clearly and concisely explaining why these papers were copied, and that DIST was taken; a line of course that Thatcher may be required to deliver.

I suspect that we might wish to let GfS know of our intentions if we were proposing to make this step - not least because we may receive PR or PRs as a consequence.

Firstly, we need to speak to DIST. I suppose. It would be useful to know what they are already doing (as well as what they have seen doing on the 'stray' since last we spoke) - it has gone rather quiet. We need to ask them their views on the 'release' issue. I think I know what they will say! However, we should formally request their views, requiring them to make a full supporting case (with reference to the rules, regulations and guidelines, as attached to **Section 40** minute) - in writing.

In light of the DIST position, we would then need to

Application for a Permission to Transport Dangerous Goods in Military Aircraft

Transportation permissible¹ in accordance with IATA Dangerous Goods Regulations ² Transportation not permissible¹ in accordance with IATA Dangerous Goods Regulations ²

a)	b)	c)	d)	e)	f)	g)	h)	i)	k)
Quantity (EA	Stock number or NATO stock number	UN or ID No.	Proper shipping name/description (in German or in English)			Packing group (I/II/III)	Packaging regulation No.	Net mass per package	Net explosives quantity

¹ Separate applications for approved and not approved dangerous goods

² Mark with a cross where applicable

take a view. This would need to include
and possibly - particularly if DISS agree for the information
to continue to be withheld - also log (if he's
side here).

Section 40

Section 40

I should be grateful if you would draft a minute
to DISS, formally requesting their views. When you
have this, we might discuss.

Section 40

18/4.

(2) The permission is granted if

1. it is ensured that the goods are designed and packed in such a way that the safety of air traffic is not endangered and
2. no facts leading to doubts regarding the reliability of the aircraft operator or his employees or of the persons carrying dangerous goods are known.

(3) Other laws and regulations regarding the transportation of dangerous goods remain unaffected.

(4) Section 63, paragraph 2 shall be applied analogously to revocation and repeal.

D/DI55/108/15

25 April 1995

Sec(AS)2a

PARLIAMENTARY ENQUIRY

Reference:

A. D/Sec(AS)/12/1 dated 20 Apr 95.

1. Thank you for the Reference.

2. Operation AENEID. We have no data on this "Operation". I very much doubt that such an operation could take place without DI 55 being aware of it! Since there was no operation then there can be no records!

3. Sharing of Spies. A unique concept but I have never sent a "spy" to any international UFO conference.

Section 40

As expected

Section 40

DIS

ENCL 12/1
135

MINISTRY OF DEFENCE
Sec.(AS)2
26 APR 1995
E 12/1

Section 40

Section 40

Wing Commander
DI55c
OWOB 336

Section 40

** TX CONFIRMATION REPORT **

AS OF 21 APR '95 11:30 PAGE.01

SEC (AS)


DATE	TIME	TO/FROM	MODE	MIN-SEC	PGS	STATUS
01	4/21	11:31 DG.ST.I	UF--S	01'36	04	OK



LOOSE MINUTE


D/Sec(AS)/12/1 

20 Apr 95

DI55c - Wg Cdr 


PARLIAMENTARY ENQUIRY: UNEXPLAINED AERIAL PHENOMENA

1. We have been asked to supply a draft reply for USofS to send to the attached letter from Gerry Sutcliffe MP.

 Gerry Sutcliffe's constituent, is a regular correspondent with this office.

2. I am writing in specific connection with Questions 1, 2 and 5 of his letter. Regarding Questions 1 and 2, I should be grateful if you could let me know if you recognise the reference to 'Operation Aeneid'; we have not come across it in this office. I should also be grateful for any comments you may have in connection with Question 5.

3. If possible I would welcome your views by COP Friday 28 Apr please.





Sec(AS)2a
MB8245 82140MB



13 APR 1995

USOES

Head of Sec (AS) - PE

13 April 1995

REF: GS/RR/0936

Rt Hon Malcolm Rifkind QC MP
Ministry of Defence
Main Building
Whitehall
LONDON
SW1A 2HB

Dear Malcolm

In response to an enquiry from my constituent, **Section 40** of **Section 40** Bradford, I write requesting answers to the following:

1. Concerning 'Operation Aeneid', why were more than thirty secret bases for observing UFO activity set up in Britain under this super-secret project, particularly as the MOD has always said it has neither the resources nor the interest in performing such an operation.
2. Why have the recorded UFO sightings which resulted from this project been classified as secret rather than released into the public domain?
3. Why did the MOD deny that the Rendlesham Forest / RAF Woodbridge incident took place to begin with before a copy of Lt Colonel Hoalt's written report was leaked to the press?
4. Why does the MOD continue to refuse to release the films of the object from the Rendlesham Forest / RAF Woodbridge incident and the MOD's evaluations and conclusions on the episode?
5. Why does the MOD share spies with other governments that are sent to various international UFO conferences around the world?

GERRY SUTCLIFFE MP

Section 40 Bradford, **Section 40**: **Section 40**





2

13/4/95

Section 40

would also like you to request of the US Embassy the following questions:

1. Why does the US Government continue to deny that a UFO crashed in Roswell, New Mexico, in 1947 when there is overwhelming evidence that this is so, including written testimonies of credible witnesses and a military film of the wreckage and dead crew?
2. Why has NASA refused to release into the public domain films and photographs of the artifacts that it has found on the Moon and Mars?

He also requests that you ask the South African Embassy:

1. Why has the South African Government attempted to cover up the crash of a UFO in the Kalahri Desert in Botswana, which was shot down by the South African Air Force and retrieved by the South African Authorities in 1987?

Perhaps you may wish to contact Section 40 directly. I look forward to your reply.

Best wishes

Yours sincerely

Section 40

Gerry Sutcliffe MP

GERRY SUTCLIFFE MP

Section 40

Bradford,

Section 40

Section 40



Classification U/C

Caveat

Covering

Facsimile Transmission Cover Sheet

Transmission Details		Document Details	
Serial Number:	Date and Time of Transmission: <u>21 APR 95</u>	Reference: <u>D/Sec(AS)/12/1</u>	
From: <u>SEC(AS) 2</u>	Fax Number: <u>Section 40</u>	Subject: <u>PARLIAMENTARY ENQUIRY: "UFOs"</u>	
To: <u>Rm 336</u> <u>DISSc</u> <u>Wg Cdr</u> <u>Section 40</u>	Fax Number: <u>0171-218</u> <u>Section 40</u>		
Total number of pages including this cover sheet			<u>4</u>

Authorizing Officer		Transmit Operators	
Rank, Name and Appointment: <u>EO</u> <u>Section 40</u> <u>Sec(AS)2A</u>		Rank/Grade, Name and Telephone No.:	
Signature: <u>Section 40</u>		Signature:	

Message/Remarks:

Covering

Caveat

Classification U/C



MINISTRY OF DEFENCE

Main Building, Whitehall, London SW1A 2HB Room 8245

Telephone (Direct Dialling) 0171 218 2140
(Switchboard) 0171 218 9000
(Fax) Section 40

See Distribution

Your reference

Our reference

D/Sec(AS)12/1

Date

10 April 1995



UNEXPLAINED AERIAL SIGHTINGS

1. Secretariat (Air Staff) 2a is the focal point within the MOD for reports of unexplained aerial sightings or "UFO reports" as they are more commonly characterized. As the MOD, RAF bases and civil air traffic control centres annually receive somewhere in the region of 250 such reports from around the country, I thought it would be helpful if I provide a note informing staff of the existence of this focal point, our precise role in this respect, as well as providing some broad policy guidelines to assist those who receive questions from the public.
2. The MOD has a very limited role with respect to reports of unexplained aerial sights. In the context of MOD and HM Forces' responsibilities for ensuring that the integrity of the United Kingdom's air defence region is maintained, we look at such reports solely to establish if a sighting represents something of defence significance. If no threat is discerned, and this has been the case in all instances of "UFO" sightings to date, our interest in the report concludes and we make no further attempt to investigate or establish the precise nature of the sighting.
3. The MOD has no role, expertise nor direct interest in the wider debate over the existence or otherwise of "UFO/flying saucers" or extraterrestrial lifeforms. We do not research or investigate sightings beyond the point of establishing that a sighting does not represent anything of defence significance. As such, sightings often remain unexplained but do not result in any further official action. However it is a commonly held misconception by some members of the public that there is a MOD Department which is dedicated to studying and investigating "UFOs". This is simply not the case and the task in general represents less than 20% of one officer's normal duties (and this would likely be further reduced in the absence of the misconception of our role). This section is neither under remit nor resourced to assist the public with finding explanations for every unusual sight in the sky. We do not involve ourselves in other related "UFO" matters, such as alleged abductions etc, and it is important in dealings with the public not to indicate an interest in

the subject of "UFOs" which falls outside the Department's specific remit.

4. In the light of the above, you will appreciate that we have even less of a role where members of the public feel moved to report sightings of some vintage. As such, it serves little or no purpose in encouraging such reports to be passed to us. However, if the individual is insistent, or unless you believe it is something of which should be made aware, then we would of course accept and log them.

5. It would be most helpful if the above line could be borne in mind in any dealings with the public with respect to "UFO sightings". I should be most grateful if you would arrange for this note to be promulgated to all RAF stations, especially Community Relations Officers.

Section 40

Section 40

Secretariat (Air Staff) 2a

Distribution:

HQ 1 Gp, Benson
HQ 11 Gp, Bentley Priory
HQ 18 Gp, Northwood
HQ 38 Gp, High Wycombe
Regional CRO (Borders)
Regional CRO (Cumbria and Tynedale)
Regional CRO (Wales)
Defence Press Office
Air Force Ops

Info:

HQ 2 Gp, Rheindahlen

12/1



Thu Apr 06, 1995 16:06 mailbox log Page 1

DATE	TO	SUBJECT	
06/04/95	Hd of ManS(Org)1	"UFOs": OPEN GOVERNMENT	Ref: 93

Sent : 06/04/95 16:02
 To : Hd of ManS(Org)1
 Cc :

Ref : 93
 Subject: "UFOs": OPEN GOVERNMENT INITIATIVE

Text :

Priority: Normal
 Reply Request []

View Acknowledge []
 Delivery Acknowledge [*]

Attachments [1]
 page 1

Bcc :

Auth by :

Defer Date :

Defer Time :

No Redirection []

LOOSE MINUTE

D/Sec(AS)/12/1

6 Apr 95

Head of Man S(Org)1

OPEN GOVERNMENT INITIATIVE MONITORING REQUIREMENTS - "UFOs"

Reference: D/Man S(Org)/57/6/1/2 dated 28 Mar 95.

In response to your minute at Reference I can confirm that from 1 Jul to 31 Dec 94 Sec(AS)2 received 60 letters from members of the public requesting information on "UFOs". None of these letters cited the Open Government Initiative.

Section 40

Sec(AS)2a

MB8245 Section 40

13/12

MINISTRY OF DEFENCE
Sec(AS)2a
- 6 APR 1995
CYE 12/1

ufo2

LOOSE MINUTE

D/CS(RM)/4/6/37

4 April 1995

Sec(AS)2a

Copy to:
DI55c

PUBLIC ACCESS TO UFO FILES

Reference: D/Sec(AS)12/1 dated 28 April 1993

1. At Reference it was agreed that the criteria that has previously applied to the release of UFO matters could be eased thereby permitting public access to part of the files at the Public Record Office. These revised rules have been incorporated in our guidance to review staff (Annex A) but recent developments prompt me to once again raise the subject.

2. The internal distribution list was originally intended to be retained in department as Defence Security Sensitive under Section 3(4) of the Public Records Acts 1958 and 1967. In the past this would have presented no problems as the submissions to the Lord Chancellor, whose authority is required before the records can be considered legally closed, only received a cursory examination by PRO inspecting staff. But with the advent of Open Government the Lord Chancellor's Advisory Council on Public Records has been brought into the act. In preparing our submission last year the PRO advised that they could not support the withholding of this information, in the absence of their support it would be certain the Council would reject our case for closure. We therefore removed the extracts from our submission and as a temporary measure we have treated the information as intelligence sensitive and it is therefore closed under the provision of the "security and intelligence blanket"! But as you will see from Annex B the information we are withholding from the public does not fit at all comfortably with the criteria agreed by the Lord Chancellor in 1992.

4. In the circumstances can I ask you to reconsider the requirement to withhold the ~~Section 40~~ distribution from the public domain ~~Section 40~~ ~~Section 40~~ ~~Section 40~~

~~Section 40~~
~~Section 40~~
Hd ~~Section 40~~ ~~Section 40~~
ST7127 ~~Section 40~~

ANNEX R TO D/CS(RM)1/4/6/37
Dated 4 APRIL 1995

UNCLASSIFIED

ANNEX S

UNIDENTIFIED FLYING OBJECTS

1. Unidentified Flying Objects have long been the subject of intense public and media interest and this interest is often reflected in demands to examine official records relating to these phenomena.
2. Prior to 1967 records relating to UFO reports were destroyed after 5 years, as stated by Viscount Long for the Government in the House of Lords in April 1982, but reports since then have been preserved. This has been restated as MOD policy by Ministers, as recently as 20 February 1990 by the Earl of Arran, US of S (AF).
3. The MOD policy branch which deals with this subject, Sec (AS), therefore marks ~~report files~~ report files for permanent retention and in view of the ministerial commitment to keep such material and the high public interest in this topic, all files relating to UFOs are to be selected for 2nd review.
4. At 2nd review all "UFO files" are to be selected for the Public Record Office for normal opening at the usual 30 year point, but with the following action the internal distribution on UFO reports are not releasable as it is not the Departments' practice to specify the areas, other than the co-ordinating branch, currently Sec(AS), within the MOD which receive these reports. The official line is that UFOs reports are passed to these departments within the MOD responsible for the Air Defence of the UK. As it is Government policy that where files selected for permanent preservation contain sensitive information consideration must first be given to whether it is possible to delete such information thereby enabling the release of a substantial part of the file. In the case of files containing UFO reports all papers must be released but the internal distribution should first be deleted, these deletions to be retained in department as Defence Security Sensitive, under S.3(4) and re-reviewed every 10 years.

Assoc File Ref:

D/CS(RM)1/4/3/2

Change No 9

S-1

UNCLASSIFIED

INDEX B TO NCS (R) 14/6/3
DAM) 40 APRIL 1995



PS LENOBS NO.
PS UDFG
PS X 28 (R)

AWS (JRS)

CPO

Hd of CS DIV

Hd CS (S) Section 40

CABINET OFFICE

70 Whitehall London SW1A 2AS

Telephone Section 40 Fax Section 40

From the Secretary of the Cabinet and Head of the Home Civil Service
Sir Robin Butler KCB CVO

Section 40

Ref. A092/422

13 February 1992

Dear Terry,

Records Relating to Security and Intelligence

^{ATTACHED}
In my letter of 23 December last I said that the Lord Chancellor would announce the renewal of the 'blanket' approval to retain records relating to security and intelligence by means of an arranged PQ.

--- The PQ has been tabled for answer by the Lord Chancellor in the House of Lords on 14 February 1992. I attach for your information a copy of the Question and draft reply, also a copy of briefing which has been circulated to Departmental Record Officers for them to make available to Ministers and Press Offices as appropriate.

An announcement will also be made on 14 February 1992 of the release of the Farm Hall transcripts in which there has been considerable academic interest and which until now have been withheld under the 'blanket'. The simultaneous release will, I hope, be seen as an indication of the Government's intention to release security and intelligence related material as soon as it is deemed no longer sensitive.

--- I am copying this letter and the attachment to those on the attached list.

Yours ever,

Sir Terence Burns
HM Treasury

Section 40

Sir Derek Andrews KCB CBE
Ministry of Agriculture,
Fisheries and Food

Sir Michael Quinlan GCB
Ministry of Defence

Sir John Caines KCB
Department of Education and Science

Sir Geoffrey Holland KCB
Department of the Employment

J R Bretherton Esq
Secretary, AEA Technology
Corporate Headquarters
11 Charles II Street
London SW1Y 4QP

Sir Terence Heiser GCB
Department of the Environment

Sir David Gillmore KCMG
Foreign and Commonwealth Office

T P Lankester Esq CB
Overseas Development Administration

Sir Christopher France KCB
Department of Health

Sir Clive Whitmore GCB CVO
Home Office

Sir Peter Imbert QPM
Commissioner of Police of the Metropolis
New Scotland Yard

Sir John Bourn KCB
Comptroller and Auditor General

J A Chilcot Esq CB
Northern Ireland Office

Sir Peter Gregson KCB
Department of Trade and Industry

A P Brown Esq
Department of Transport

Sir Richard Lloyd Jones KCB
Welsh Office

J R S Guinness Esq CB
Department of Energy

Sir Michael Partridge KCB
Department of Social Security

The Rt Hon Christopher Chataway
Chairman,
Civil Aviation Authority

68

PARLIAMENTARY QUESTION FOR WRITTEN ANSWER ON FRIDAY 14 FEBRUARY
1992

QUESTION: To ask Her Majesty's Government, what action is being taken to review the approval given in 1967 for the retention of security and intelligence records.

ANSWER: The emphasis of the Government's policy, in accordance with the provisions of the Public Records Act, is on release rather than retention of records. However, it has long been accepted that certain security and intelligence related records cannot be released automatically after 30 years because this would pose a continuing risk to national security. In 1967 my predecessor gave approval to the retention of such records under section 3(4) of the Public Records Act 1958.

I have now reviewed this approval in the light of the Government's acceptance of the Wilson Committee's recommendations (in Modern Public Records: Cmnd 8531) relating to greater Ministerial involvement and more frequent consideration of such material. As a result of the review and following consultation with Ministers concerned I am satisfied that the records concerned are properly retained in their departments and that the "blanket" exemption remains the most efficient way of providing the necessary protection. I have accordingly approved their retention for a further period of 20 years.

The "blanket" approval is permissive, not mandatory. Departments have therefore been asked to keep their records under review and to release them at the first opportunity. All records retained by Departments under the "blanket" approval will be re-reviewed at least every ten years.

ENCLOSURE
67

BRIEFING FOR MINISTERS AND PRESS OFFICES ON THE RENEWAL OF THE
"BLANKET" APPROVAL TO RETAIN SECURITY AND INTELLIGENCE RECORDS
AND RELATED MATERIAL UNDER SECTION 3(4) OF THE PUBLIC RECORDS ACT
1958

Background

In November 1967, the then Lord Chancellor, Lord Gardiner, approved the blanket retention of security and intelligence records. This "blanket" approval permitted the retention of records over 30 years old under section 3(4) of the Public Records Act 1958 without the need to seek the Lord Chancellor's specific approval to retain particular records. The original "blanket" approval was established for 25 years and therefore expires in 1992.

In 1982, in the White Paper, Modern Public Records (Cmnd 8531, March 1982) the Government accepted, inter alia, the recommendations of the Wilson Committee that "the powers conferred under section 3(4) should in future be exercised in such a way as to require more specific and more frequent Ministerial approval". The Government decided that new records for retention should be approved in 10-year tranches and that each blanket approval should be reconsidered after 20 years.

The Public Records Act prescribes that persons responsible for public records of any description which are not in the Public Record Office shall, under the guidance of the Keeper of Public Records, make arrangements for the selection of those records which ought to be permanently preserved and for their safe keeping. Generally records have to be transferred to the PRO before they are 30 years old. However, if the Lord Chancellor gives his approval, records more than 30 years old can be retained in departments under section 3(4) of the Public Records Act, either because the records contain highly sensitive information relating to national security or because they are required for administrative purposes. One form that retention can take is that of a "blanket" nature, covering clearly defined subject matter but without referring specifically to classes of records or individual pieces. The blanket approval has the advantage of being a relatively efficient and economic way to deal with a sizeable category of records when it is clear that the bulk of them need to be retained; without such a framework, the need to gain approval for records individually would increase enormously the demands on resources for all concerned in Departments, Agencies and the PRO. Before giving his approval to the retention of records under section 3(4) of the Act, the Lord Chancellor must be informed of the facts

constituting the reason for such retention and receive the opinion of the person or persons responsible for the records that they need to be retained.

Review

Following a review of the operation of the "blanket" by officials, the Lord Chancellor has sought and has received the opinion of Ministers responsible for departments holding records needing to be protected by the "blanket" approval that the records held continue to need such protection. He has also been informed of and approved the facts which make this protection necessary. In the light of this, the Lord Chancellor has agreed that a new "blanket" approval shall be granted and that, in accordance with the Wilson Committee recommendation, it shall be for 20 rather than 25 years.

Announcement

The Lord Chancellor will announce, by means of an Arranged PQ, that he has given a further approval for a blanket retention of these records for 20 years. The PQ has been tabled for Answer on 14 February.

Follow-up

The renewal of the "blanket" does not mean that all the documents covered by it will automatically be held back from publication. As the Lord Chancellor's announcement will say, departments will continue to keep records under review. The emphasis of the Government's policy, in accordance with the provisions of the Public Records Act, is on the release rather than the retention of records. Those Departments holding records which are retained under the "blanket" will re-review them at least every ten years. If they are no longer sensitive they will be released at that time. The Government will encourage a flexible approach to the reviewing of such records. Within the constraints of available resources, material will be released within the ten year period should its sensitivity disappear earlier. Responsible Ministers will be consulted before the current "blanket" approval expires at the end of 2011.

QUESTION AND ANSWER BRIEF FOR MINISTERS AND/OR PRESS OFFICES
(INCLUDING THE PRIME MINISTER AND NO 10 PRESS OFFICE)

Q1 Why do we need a "blanket"?

A1 When a category of records such as those relating to security and intelligence needs to be withheld, the procedures for the handling of such records can be efficiently and economically administered if the category is dealt with as an entity rather than on an item by item basis.

Q2 What other records are dealt with in this way?

A2 Other examples include records relating to atomic energy, civil defence and personal records of civil servants.

Q3 How does the blanket arrangement differ from extended closure for, say, 50 years or longer?

A3 Extended closure under section 5(1) of the Public Records Act enables records passed to the PRO by departments to remain closed to the public for longer than 30 years. That procedure is used to deal with records of a sensitive nature where it is possible to identify with some degree of confidence a point in the future when that sensitivity will have disappeared. Records retained by departments under the blanket are of such an exceptionally sensitive nature that no judgment about when they will be releasable can be made now.

Q4 What sort of material is held under the "blanket" approval which has now been announced?

A4 Records relating to security and intelligence matters.

Q5 What are the criteria for including material in the "blanket" authority?

A5 [see the list of "facts" attached]

Q6 Which departments hold records under the "blanket" and how much of this material is there?

A6 Material of this sort is held in varying amounts by most major Government departments and it is not possible to quantify it with any degree of precision.

Q7 What procedures are to be adopted to keep the material under review?

A7 As the Lord Chancellor's Statement says, all material held by departments under the "blanket" will be reviewed at least every ten years. If resources permit, more frequent reviews will be carried to ensure that material is released as soon as its sensitivity disappears.

Q8 How is this 10-year review carried out?

A8 The Departmental Record Officer in each department is responsible for looking at the records and, after such consultation as is necessary with other government departments and the security and intelligence agencies, for recommending continued retention or release.

Q9 Do Ministers take part in this review?

A9 No. By convention, Ministers do not see papers of previous Administrations. However, the Lord Chancellor has emphasised that as part of the mechanism for creating the blanket authority itself, Ministers must be satisfied that the records for which they are responsible fall into categories which merit the protection of retention and non-release.

Q10 Who monitors that officials' recommendations for release or otherwise are correct? Does the Lord Chancellor see the records?

A10 This is the responsibility of Public Record Office staff, on whom the Lord Chancellor relies for assurances that records should properly be withheld.

Q11 What is the position regarding Agency records?

A11 The Prime Minister has agreed that records of the Security and Intelligence Agencies should continue to be withheld under the blanket. A further opportunity to consider those records will occur when the current blanket approval expires. All records created by the Agencies and passed to Government departments will be considered for release against the agreed criteria, which are kept under review.

Q12 How will changes in the international intelligence climate affect the blanket approval?

A12 Records will continue to be reviewed under the blanket arrangements, taking due account, as appropriate, of any such changes.

Q13 Does the Lord Chancellor's Advisory Council on Public Records see any of the records covered by the "blanket"?

A13 The Advisory Council is not involved in endorsing any of the various applications made by departments to retain records under section 3(4), because of the particularly sensitive nature of the records involved.

Q14 Who makes the final decision to retain or release records?

A14 Under the terms of the Public Records Act, the Lord Chancellor, as Minister responsible for public records, must give his approval to Departments' applications for the retention of records.

Q15 Why do we need to keep so much information withheld these days?

A15 The Government's policy continues to be to make as much information available as possible while preserving the confidentiality essential to the effective working of government and, of course, the security of the State. The framework that has now been put in place for the future (including more frequent and specific Ministerial endorsement of the need to retain records, records being dealt with in smaller tranches, and better and more regular review procedures) will make departments look hard at this sort of material and provide more encouragement and more "trigger points" for reconsideration and release.

ENCL NO.
65

EMBARGOED UNTIL 3.30 FRIDAY 14 FEBRUARY

Q: What about the Farm Hall Tapes?

A: At the end of the Second World War, a group of German nuclear scientists were interned in a farm house - Farm Hall, near Cambridge. During their internment the opportunity was taken to record their conversation. Whilst the tapes no longer exist, the transcripts have survived. Over the years there has been much academic interest in these transcripts which have hitherto been closed to the public; but following one of the regular re-reviews of such material, arrangements have now been made for their release. They have been assigned to class WO 208 piece no. 5019 and are now available for examination at the Public Record Office at Kew.

[Text of a press statement to be made by the PRO on Friday 14 February. Further enquiries to the PRO Press Office.]

64

REASONS FOR WITHHOLDING RECORDS RELATING TO SECURITY AND INTELLIGENCE

1. Private and personal information is collected by the security and intelligence Agencies by, through and about individuals on a confidential basis. Its release would infringe both that confidentiality and the privacy of individuals concerned and their descendants.
2. The release of documents would be against the interests of the Agencies' employees and contacts. It would destroy the basis of confidentiality upon which the Agencies rely to function and thus prejudice their current operational ability.
3. Contacts with Agencies of other countries are undertaken on a confidential basis; to release papers would destroy that and might also affect relations with those countries.
4. Methods of intelligence collection and operational procedures do not change in a major way, even over a number of years. The release of past papers may give away or draw attention to techniques still in use.

Film of 'aliens' offered to MoD

By MICHAEL HORSNELL

FILM that is claimed to show the bodies of alien beings who died when a "UFO" crashed in the New Mexico desert in 1947 is to be offered to the Ministry of Defence for analysis.

The 91-minute film, which purports to show a number of dead aliens with neither hair nor facial features and the wreckage of their craft, was allegedly shot by US government officials and kept under wraps for 47 years until an unauthorised copy emerged recently.

Philip Mantle, director of investigations of the British UFO Research Association, said yesterday: "I am sceptical by nature but potentially this is mind-boggling."

The claim is the latest twist in the story of the world's most celebrated UFO mystery which has sparked decades of speculation and conspiracy theories. According to a report in *The Times*, the US Army announced on July 8, 1947, that an object resembling a "flying disk" had been found near Roswell and sent

The cameraman who leaked the black and white footage passed it to the British TV documentary filmmaker Ray Santilli. It will form the basis of a BBC TV documentary due to be screened in August and also shown to an international audience of UFO spotters during a two-day conference at Sheffield Hallam University on August 19-20.

U.S. ARMY TO EXAMINE A "FLYING DISK"

WASHINGTON, July 8. — An Army investigator from Roswell, New Mexico, that an object resembling a "flying disk" had been found there, the commander of the British Air Force said here today that the object was being sent to the research centre at Wright Field, Ohio, for examination.

The Times report of the
"flying disk" in 1947.

to the military research centre at Wright Field, Ohio. But last September the Roswell incident was officially identified in a US Air Force report as part of a secret American atomic spying programme.

Flying-saucer enthusiasts, reluctant to abandon their theories, denounced the Air Force report as a cover-up and produced the film.

SENIOR SERVICE APPOINTMENTS

ROYAL NAVY AND ROYAL MARINES

Captain R J Bradshaw — MoD Taunton 29.09.95; R A Cotton — MoD London 29.09.95; C V Ellison — Rosyth 08.09.95; R J N Hibbert — Staff of 2SL/CNH 22.09.95.
Commander R A Doxsey — Staff of 2SL/CNH 02.05.95; R F Edmonds — Sea Cadet Corps London 03.11.95; S M Gillespie — MoD London 29.09.95; P C Ingham — SACLANT USA 22.09.95; D J Richardson — HQAFNORTHWEST 26.05.95; J E Ward — Seahawk 29.08.95; N S Westwood — Northwood 26.05.95; T N E Williams — Rosyth 12.09.95.

APPOINTMENTS IN THE FORCES

ARMY

Colonel C R Langton — To HQ Londist, 01.04.95; M E Romilly — To CBDE, 29.03.95; A E Thompson — To 1 Mech Bde HQ & Sig Sqn, 01-04.95.

Lieutenant Colonel T H Eveleigh REME — To HQ UKLF, 27.03.95; R N Kendall RTR — To be CO 4/5 Rangers, 29/03/95; J W Lanham AGC(PRO) — To RMP UKLF, 27.03.95; P Morgan REME — To BLO Germany, 27.03.95; S F Sibley RAVC — To MoD 01.04.95.

SENIOR APPOINTMENTS

Major General S Cowan CBE to be Inspector General of Doctrine and Training in the rank of Lieutenant General from 20 Mar 1995 in succession to Lieutenant General Sir Peter Duffell KCB CBE MC.

Major General R J Hayman-Joyce CBE to be Master General of the Ordnance in the rank of Lieutenant General from 28 Apr 1995 in succession to General Sir Jeremy Blacker KCB CBE.

Major General M I E Scott CBE DSO to be Military Secretary from 15 Apr 1995, in succession to Major General R J Hayman-Joyce CBE.

Major General J M F C Hall OBE to be General Officer Commanding Scotland, from 12 Apr 1995, in succession to Major General M I E Scott CBE DSO.

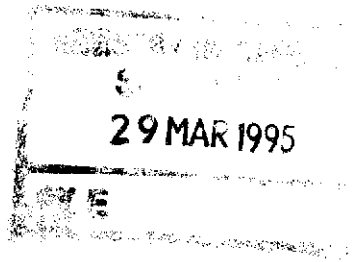
Major General A I G Kennedy CBE to be Senior Army Member Royal College of Defence Studies, from 21 Apr 1995, in succession to Major General D P Thompson CB CBE MC.



D/Man S(Org)/57/6/1/2

28 March 1995

Sec(AS)2



12/1

Section 40

Section 40

Advice

Man ..

Section 40

Section 40

Section 40

please

ENCLOSURE
13/1
+1
to you!

Section 40

OPEN GOVERNMENT INITIATIVE MONITORING REQUIREMENTS - UFO

As you will know from DCI Gen 15/95, we are required to monitor all requests for information under the Open Government Initiative.

2. I was told at a recent Cabinet Office Inter-Departmental Monitoring Group meeting that by far the largest number of Freedom of Information requests to the Australian Department of Defence seek information about UFOs and some surprise was expressed that, according to our monitoring return, this seems not to be the case here.

3. We appear to have had a nil return from Sec(AS) in response to DCI Gen 15/95. I should be grateful if you could let me know whether you receive letters from the public requesting information about UFOs and, if so, confirm that none has so far mentioned the Open Government Initiative. I can then reassure the Cabinet Office that our monitoring arrangements are, at least in that respect, working satisfactorily.

Section 40

Section 40

Head of Man S(Org)1

NH619

Section 40

Section 40



LOOSE MINUTE

D/Sec(AS)/12/1

28 Mar 95

DPO(RAF) - Section 40

THE TIMES, TUESDAY 28 MARCH - "ALIENS" FILM STORY

1. You will no doubt have spotted the article in the Times today (page five) entitled "Film of 'Aliens' offered to MOD". Oh good.

2. The article goes on to make clear that the film is to be offered - we have not as yet been approached. You are of course familiar with our position on this matter: that our only interest in any apparently unusual sightings or phenomena is with respect to any defence significance or threat they may represent to the UK. We are not interested in "UFOs" per se, and we certainly do not undertake "UFO" research.

3. The film purports to relate to an alleged alien aircraft crash in New Mexico in 1947; I am satisfied that it can have no relevance to our responsibilities in the MOD for the security of the UK.

4. If we are approached by Section 40 or BUFORA and offered the film, we will explain exactly what our role is and that, as such, an alleged incident nearly 50 years ago in North America would not be relevant to us. Furthermore we do not do "UFO research", and there would be no MOD analysis of the film. Whilst we should not refuse to accept the film, I would prefer that it were not sent to us. If the film is sent, someone in Sec(AS)2 will view it to confirm our belief that it has no relevance to our legitimate interests, and then it will be returned.

5. I should be grateful if you would draw on the above in dealing with any approaches you may receive following this article.

Section 40

Sec(AS)2a

MB8245 Section 40

12/1

D/DI55/108/15

2 February 1995

Sec(AS)2a

MINISTRY OF DEFENCE
SECRET
- 6 FEB 1995

DIS

ENCL No.
129

LETTER TO THE SECRETARY OF STATE - UNEXPLAINED AERIAL PHENOMENA

Reference:

A. D/Sec(AS)/12/1 dated 13 Jan 95.

1. Thank you for the Reference. The document referenced by **Section 40** **Section 40** was not received by DI 55 although it would be of interest. The routing indicator used would have directed the signal to the MOD Comcen. We have checked and they only retain signals for 6 months. It is possible that it was received by another section of the DIS but the possibility of success in tracing an unclassified report that may not exist without a very significant effort is very low. In slower time I will contact DIA in the US but you should be aware that to my knowledge we have never received any US UFO reports before and the message could be a hoax.

2. I have attached a form of words for the Minister to consider.

Section 40

Section 40

Wing Commander
DI55c
OWOB 336

Section 40

MINISTRY OF DEFENCE
SEC (AS)1
- 6 FEB 1995
FILE

ENCLOSURE 1

PROPOSED DRAFT FOR MINISTER

Thank for your recent letter on the subject of UFOs and specifically a report apparently sent to the MOD on a Chinese/Taiwanese UFO Conference.

MOD receives UFO reports, mainly from concerned citizens; very occasionally a report is received from another nation. All reports are accorded a library status, that is they are filed for possible future study.

I am advised that a cursory glance at our files indicates that most UFO reports appear to be explainable by misinterpretation of normal aerial events.

Business takes to the skies

12/11

The inexorable rise of air travel and its importance in keeping Europe's businesses on the move is underlined in a new survey into business travel trends within the Community, *Harvey Elliott writes*.

More than 90 per cent of European travellers on international business used air travel to get to their destination in 1994, 5 per cent went by train and 16 per cent by car, according to MarketLine, an international market research organisation.

British business travellers relied even more heavily on air with 95 per cent using air services to fly between one country and another, 9 per cent relying on their car and only 2 per cent on rail.

While the use of airports rose steadily the number of rail journeys dropped by 4.2 per cent in 1994. There were 713 million rail journeys made in Europe last year compared with 744.8 million in 1992-1993.

Airline tickets also represented the biggest proportion of business travel

Air travel booms as executives favour planes over trains

expenditure, swallowing up 39.5 per cent of all the money spent by European companies in chasing business. This compared with 18 per cent spent on motor fuel or mileage, 16 per cent on hotels and 9 per cent on entertainment. Rail travel accounted for just 3 per cent of the total business travel costs.

According to MarketLine almost \$140 billion was spent by executives and salesmen from the main European countries, including Switzerland, on business travel last year. Germany spent the largest amount at \$38.3 billion with Britain not far behind at \$30.3 billion (about £19 billion). Belgium spent \$3.6 billion.

Sweden spent 60 per cent of all its business travel costs abroad, Switzerland

50 per cent, Holland 40 per cent, Belgium 44 per cent and Britain 38 per cent, according to the report.

London hotels are doing better than others in Europe in attracting business clients, filling 74 per cent of their rooms on average last year compared with a 62.8 per cent rate in the rest of Europe.

The survey confirms that a small number of businessmen and women who are constantly on the move provide the bulk of the income for hotels, airlines, car-hire companies and restaurants. Hotel chains, for example, rely on 20 per cent of business customers for 60 per cent of their bookings. Travellers say their top priority in choosing where to stay is the service available followed by the hotel's location.

Car rental is also becoming more important as a regular business tool and last year was worth £597 million, an increase of 8.7 per cent on the previous year. In 1994 car hire companies said that business customers accounted for 57 per cent of their turnover, with 43 per cent taken up by leisure customers.

Radars fails to pick up the UFO which had a near miss with a Boeing 737 jet

A CLOSE encounter between a British Airways jet with 60 passengers on board and an illuminated, triangular-shaped unidentified flying object at 13,000 feet above the Pennines is under formal investigation by the Civil Aviation Authority, *Harvey Elliott writes*.

Captain Roger Wills and his co-pilot Mark Stuart were beginning their descent towards Manchester airport after a flight from Milan last month when both pilots spotted something coming towards them. Very fast.

It flashed down the right hand side of their Boeing 737 twin jet "very close" according to the formal report that the shaken crew decided to file after being told by air-traffic controllers that the only thing which had shown up on radars was their own aircraft.

The mystery of what was seen by the crew of flight 5061

Richness of the saucer story

is one of four reports of unidentified flying objects which have been investigated by the CAA's Joint Airmisss Working Group since 1987, but which are still unexplained. Three of the craft have been described as either triangular or lozenge-shaped.

and the coincidence is enough to excite those who believe in "flying saucers".

Arnold West, the director of the British UFO Research Association, says the description was all too familiar to him. Mr West, who used to work for the CAA, says: "We

know of several sightings of triangular flying objects over the past few years. "There were several seen over The Netherlands two or three years ago and they have also been seen over America.

"The 'design' of UFOs varies but the wedge-shaped description which the pilots saw seems to be common over recent years."

The JAWG, which is made up of representatives of pilots organisations, airlines, trade unions, military experts and cynics has not yet tried to piece together the evidence of what could have caused the near miss. But they are likely to give Mr West's explanation less credence than a whole series of other possible explanations ranging from a high-flying radio-controlled model aircraft to a USAF F117 Stealth fighter heading south, the crew of which somehow failed to file a flight plan.

TRAVEL IN WEEKEND ON SATURDAY

- Walking, cooking, Windjamming, biking — Jill Crawshaw selects the best specialist holidays
- The charm of Catalonia
- Katie Hickman cruises down the Danube
- Felice Eyston on ski courses for women
- Paul Duncan on Naples ■ Alan Road in Portmeirion

FACT
Bundle
128

THE FIRST two British officers on foreign need...
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alongside each other...
three times a day to

Schiphol

AS BRITAIN dithe further developed growth of Schiphol guilders (£146 million further 440 million station and car p...
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An exclusive w...
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Address _____

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C O

In The Times on Thursday 2nd February 95



D/Sec(AS)/12/1

26 Jan 94

F I L E N O T E

1. At 1720 hrs on Tuesday 24 January **Section 40** telephoned to speak to **Section 40**. I introduced myself to him as **Section 40** successor and he started ranting that "he knew what was going on and he wanted to get to the bottom of it". At this point **Section 40** took the phone as he had spent a good half an hour on the telephone the week before with **Section 40** explaining what our role and responsibilities are.
2. **Section 40** spoke for 10 minutes with **Section 40** during which he did not get much of a word in anyway, but as **Section 40** was in the foyer he wanted someone to go down and talk to him.
3. **Section 40** went down to see **Section 40** for 20 minutes but concluded that he had psychological problems.

Section 40
[Redacted]



LOOSE MINUTE

D/Sec(AS)/12/1

13 Jan 95

DI55c - Wg Cdr **Section 40**

LETTER TO THE SECRETARY OF STATE - UNEXPLAINED AERIAL PHENOMENA

1. We have been asked to respond to the attached letter to the Secretary of State which is self-explanatory.

2. **Section 40** designates himself as an "Area Investigator" for Quest International, the organisation which produces the bi-monthly "UFO Magazine". In the latest edition is an article, which I also attach, and this, I believe, is the catalyst to **Section 40** **Section 40** question.

3. I should be grateful for your advice and a proposed line which we could consider in our response to this letter.

Section 40

Section 40

Sec(AS)2a

MB8245 **Section 40**

Enc.

Section 40

Newcastle-upon-Tyne

Section 40

1st January, 1995

Rt.Hon.Malcolm Rifkind M.P.
Ministry of Defence
House of Commons
Westminster
London

Dear Sir

In the United Kingdom, the public is repeatedly told by representatives from your ministry that they have no particular interest in UFO's until they actually threaten the defence of our country.

However referring to the D.I.A.'s documents concerning a joint Chinese/Taiwanese UFO conference held in Beijing in December, 1991 a comprehensive report was received by the Ministry of Defence in London i.e. RBDWC/MODUK LONDON//DIS//.

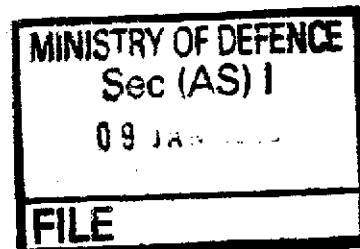
Can you therefore confirm that the Ministry of Defence's interests in the subject of UFO's goes well beyond the confounds of national boundaries?. This would be much appreciated.

Yours Sincerely

Section 40

Area Investigator (Quest International)

Section 40



UFO incident can usually be determined by:

- The length of the distribution list.
- The agencies listed.
- The place-names where copies are eventually routed.

literally tens of thousands of hitherto classified documents pertaining to the UFO subject have been released under the Freedom of Information Act in the United States. Not all the documents have escaped censorship, and in many instances, a paragraph here, a name there, remains hidden from public scrutiny. [see Fig 1]

Proponents of the so-called 'cover-up' cite such examples as evidence that governments are hiding the truth about UFOs from the masses. The likelihood is however, that most of the censored text has been hidden for sound security reasons. Nonetheless, every document tells a story of some kind, and when one is revealed to have a distribution list attached to it, a great deal can be learned.

The importance that military and security agencies afford a particular

Typical of the documents now released by the US government, is one which reports on a Belgium television 'chat-show' whose subject matter was the huge number of UFO sightings reported throughout the nation during 1990-91 [see Fig 2]

Just look at the numerous agencies who were made aware of the programme, and take stock of some of the locations. Sceptics insist that all of the 2,000 UFO sightings over Belgium, aircraft intercepts, radar confirmation, amount to nothing extraordinary. Senior staff at the highest echelons of NATO obviously thought differently.

But a big question remains. Does this document in itself confirm the existence

of alien craft? The answer has to be no, although some comfort can be drawn by UFO enthusiasts that documents such as this proves beyond any reasonable doubt, that the Western Alliance retains a deep-seated interest in the subject.

Fig 2

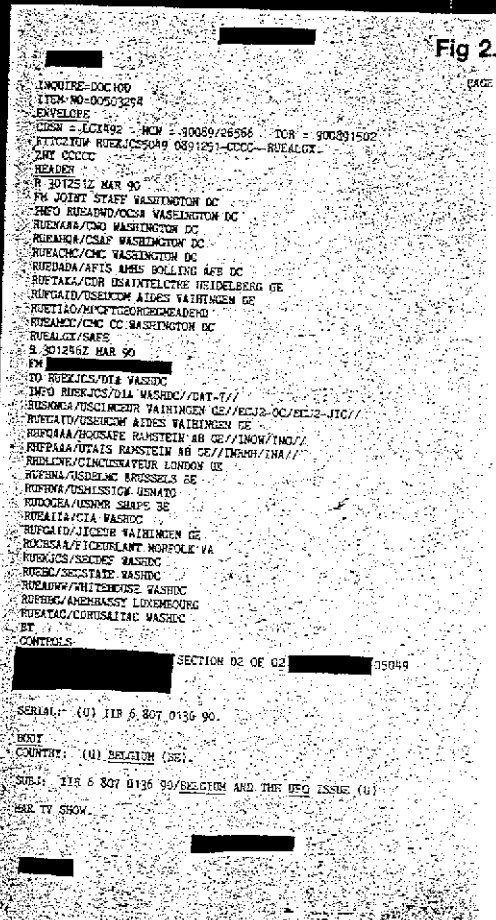
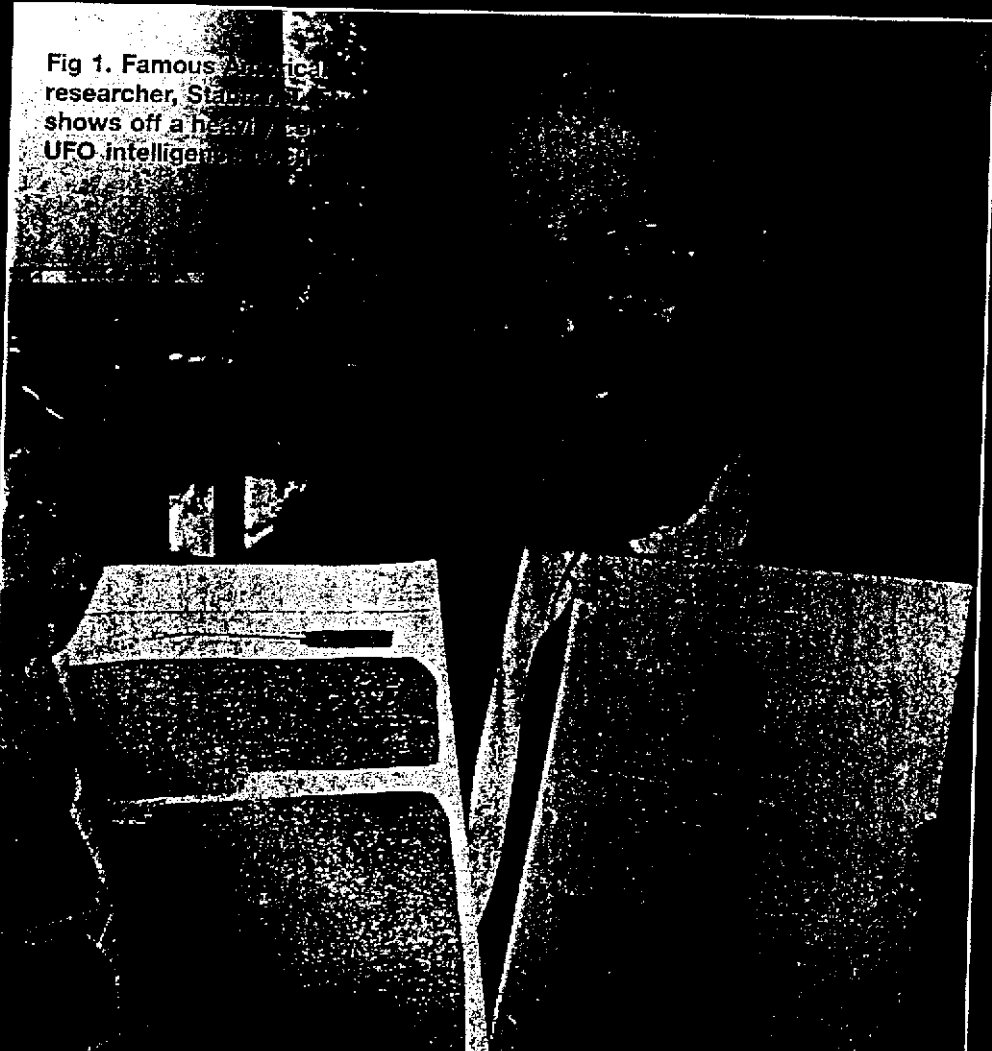


Fig 1. Famous American researcher, Stanton T. Friedman, shows off a heavy load of UFO intelligence documents.



Here in the United Kingdom, the public is repeatedly told by representatives of the Ministry of Defence that they have no particular interest in UFOs unless and until they "constitute a threat to the defence of the realm". This age-long stance was seriously undermined by the release of D.I.A. [Defence Intelligence Agency] documents concerning a joint Chinese/Taiwanese UFO conference held in Beijing in December 1991.

Amongst those who received a comprehensive report on the conference by the D.I.A., were our own Ministry of Defence. [see Fig 3 over] This proves beyond any reasonable doubt, that the Ministry of Defence's interest in UFOs extends beyond its national boundaries.

Memorandum

MOD Form 4A
(Revised 4/89)

To:	Section 40	From:	Section 40 Section 40 SAN LOR RAF 8084 APO
Date	21 DEC 94	P. Number	Section 40
Your Reference	UFOA ETC	Our Reference	
Subject	AS ABOVE		

1. Enclosed returned for your records.
2. Many thanks for all your patient help during my stay here in Dept's office, ending today.
3. Merry Xmas!

Section 40

Name
(in Block Letters Please) :

Signature :

Rank :



MINISTRY OF DEFENCE

From: **Section 40** Secretariat (Air Staff) 2a, Room 8245
Main Building, Whitehall, London SW1A 2HB

Telephone (Direct Dialling) 071 2182140
(Switchboard) 071 218 9000
(Fax)

Councillor W F Buchanan
Falkirk District Council
Municipal Buildings
Falkirk
FK1 5RS

Your reference

Our reference

D/Sec(AS)/12/3

Date

27 October 1994

ENCL No. *WJL*

ENCL No. 126

Dear Mr Buchanan,

attached

1. Thank you for your letter to the Prime Minister of 28 September. Your letter has been passed to this office for reply as we are the focal point within the Ministry of Defence for reports of unexplained aerial phenomena, which are often characterised as "UFO reports".
2. It would perhaps be helpful if I first explain the Ministry of Defence's role and responsibilities with respect to unexplained aerial observations. The MOD and HM Forces are concerned with the security of this country, and in this context our sole interest relates to the identification of any potential threat to that security. If we are satisfied that no threat exists we make no further attempt to investigate and establish what may have been seen.
3. Reports from members of the public are usually made to the Police, RAF stations and air traffic control centres and are then forwarded to this office. This telephone number is, however, a public one and members of the public can and do phone reports direct to me. The reports, which are usually very brief and vague, are considered in consultation with air defence advisers within the MOD, and a decision is taken as to whether what was seen represents a threat to the security of the UK.
4. From the reports which we receive it is quite clear that there are many sights in the sky which are not immediately identifiable. However, we believe explanations could be found for most of them. Possibilities include aircraft lights or aircraft seen from unusual angles (I note that Falkirk is close to both Glasgow and Edinburgh airports), helium balloons, searchlights or lasers reflecting off clouds, or even natural phenomena like fireballs and meteorites. However, we accept that there will always be some sightings that appear to defy explanation, and we are open-minded on these as essentially it is outside our remit to investigate further.
5. However, our armed forces remain vigilant for evidence of any threat to the UK, from whatever source, which is why we have this focal point. If we believed evidence we had received indicated the existence of a threat, suitable action would be set in hand to

investigate, analyse and counter that threat. I should say, however, that to date it remains the case that we have no evidence to suggest that any threat has been posed to the security of this country by "UFOs".

6. You mentioned that over the past 2 years there have been a large number of UFO sightings in your District. I am unable to comment on this, as having looked back through my records I can only find two or three reported sightings which were notified to this office from your region. None of the reports we received were deemed to be a security risk and our interest in them consequently concluded, for the reasons I have explained above.

7. I hope this explanation of our role here is helpful. Should we receive any further reports from your area we would of course look at them in the normal way; but I hope you will appreciate that we are currently unaware of any phenomena in your area which would warrant further investigation.

Yours sincerely,

Section 40





Falkirk District Council

Members Office

Our ref. WB/MM.
28th September, 1994

R307
A

2 MOD
MISC
UFO sightings

Mr. John Major,
10, Downing Street,
LONDON.

Dear Sir,

For over two years now, the village that I have the great honour to represent, both at District and Regional level, and the surrounding area, has had a tremendous number of U.F.O. sightings.

Over 600 people have come forward and the area has been visited by media and ufologists from all over the world. The local people and the village itself has suffered cruelly, from ridicule and yet the sightings are continuing and people have got the courage to come forward.

Throughout all this ongoing situation, we have had no rational explanation as to these sightings and, more importantly, there has been no visit or enquiry by any Government Department.

In light of the high interest of sightings, I ask you, as Prime Minister, to order a top level enquiry into these sightings to alleviate the fears and concerns of my constituents.

I do my duty for them, you do yours.

Yours sincerely,

Section 40



COUNCILLOR WILLIAM F. BUCHANAN.

M... NCE
24 OCT 1994

ufo1

Loose Minute

D/CS(RM)4/6/37

8 December 1994

Sec(AS)2a

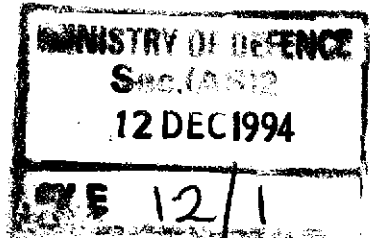
"UFO" FILES

Reference: D/SEC(AS)12/1 dated 6 December 1994

1. It looks as though 1995 will not be a bumper year so far as the "UFO" fraternity are concerned as there appears to be only one file scheduled for release in January - AIR2/17526 "UFO Reports".

2. On a separate but not unrelated subject I mentioned to you during our telephone conversation, 7 December, that **Section 40** has been in touch with this branch on a couple of occasions this year. The attached copies of our correspondence may be of interest.

Section 40





MINISTRY OF DEFENCE, Room 7127
 St Christopher House Southwark Street London SE1 0TD
 Telephone (Direct Dialling) **Section 40**

29

Section 40

Pelsall
 West Midlands

Section 40**Section 40**

Your reference

Our reference

D/CS(RM)1/6/1/3

Date 5 July 1994

I am sorry it has taken so long to provide a response to your letter of the 19 May 1994 in which you asked about surviving Air Intelligence, Technical Branch 5b files for the period 1947 - 1963.

We are in an identical position to the Public Record Office in that we also do not carry out research on behalf of the public on material that is freely available at Kew ie the examination of lists of records selected for permanent preservation. Notwithstanding this, and in an attempt to be helpful, I have asked my staff to make a cursory examination of our own copy of the PRO listings. These lists not only include open records but also those selected that are currently closed to the public. I regret to advise that whilst there are a few AI files preserved at the PRO none appear to have originated from AI5b. It would therefore seem to be the case that papers from this particular branch appear not to have survived the selection process. You will recall from my letter of the 3 May that records not selected for preservation are destroyed we must therefore assume this is what happened to the records of AI5b.

I am sorry to have to send what must be a disappointing reply.

and Sincerely

Section 40

2/2

Tel. Section 40

Section 40

Pelsall
Walsall
West Midlands

Section 40

19 May 1994

Dear Sir/Madam,

I am writing to you hoping that you may be able to help me. I have been in touch with the Public Record Office regarding the possibility of examining Air Ministry files which concern the activities of Air Intelligence, Technical Branch 5b, (A.I.Tech 5b) from 1947 up until 1963.

The PRO have advised me that I should contact your department with regard to determining if these files are available or are likely to become available since the PRO have informed me that they do not have the resources to search for the files of A.I. Tech. 5b.

I appreciate that the Air Intelligence branch of the Air Ministry had a number of departments in the post-war period but if you could possibly advise me if the files of Air Intelligence Tech. 5b from 1947 to 1963 are available for inspection it would be greatly appreciated. Or, if the files are not available for inspection, could you advise me of their status?

Should you be able to help me it would be greatly appreciated. Thankyou for taking the time to read my letter. I enclose a SAE.

Yours Faithfully,

Section 40

13
JE
1994

JW

21/3
18



MINISTRY OF DEFENCE

St Christopher House Southwark Street London SE1 0TD

Room 7127

Telephone (Direct Dialling) **Section 40**

Fax: 071-921-

Section 40

Pelsall
Walsall
West Midlands

Section 40

Your reference

Our reference
D/CS(RM)1/6/1/3

Date
3 May 1994

1

Section 40

Thank you for your letter of 28 April 1994.

The role of the Ministry of Defence's records management branch - Central Services (Records Management) - which is headed by the Departmental Record Officer, is to fulfil three main functions:

- i. to advise MOD branches, service and civilian establishments on good registry practices;
- ii. to provide archival accommodation for records that have administrative and potential historical value;
- iii. to review records with the view to selecting those worthy of historical preservation in compliance with the terms of the Public Records Acts 1958 and 1967.

The Public Record Office interest relates to the third activity, namely to ensure that departments comply with the Act. For this purpose Inspection and Documentation Officers are assigned to departments to oversee activities and to offer advice and guidance.

To identify records for possible preservation the MOD has adopted, in common with most government departments, a two-stage review process, called first and second review. Records are initially reviewed some 6 years after closure ie the date of the last recorded action on the file. At this stage three things can happen:

- i. files that have no administrative or perceived historical value are destroyed;
- ii. where there is some administrative but again no perceived historical value files are marked-up for future destruction ie usually between 7-20 years;
- iii. but where there is perceived historical value files survive for a second review.



At around the 25 year point second review is conducted. Files are either selected for preservation in the PRO or are destroyed. Files that are selected for preservation are carefully assessed for any remaining sensitivity that might preclude release at the normal point ie at the start of the 31st year. Should release not be possible for such reasons as Personal, International or Defence Security grounds the Lord Chancellor's approval is sought to keep the records closed. These requests for continued closure are scrutinised by both Public Record Office officials and the Lord Chancellor's Advisory Council before submission to the Lord Chancellor. Because of this decisions to keep records closed are never taken lightly.

Finally, you may be interested to learn that as a result of the Governments policy on greater openness we have been progressively working through the records that have been closed for more than 30 years. To date more than 3,700 records have been released. If you wish to learn more about public record initiatives in respect of Open Government you should obtain a copy of the White Paper (CM 2290) published July 1993. Chapter 9 deals specifically with public records.

I hope you find the above information of some value.

Yours Sincerely

Section 40



TEL [Section 40]

29 1994

[Section 40]

PELSALL
WALSALL
WEST MIDLANDS

[Section 40]

28 APRIL 1994

Dear Sir/Madam,

i am writing to you hoping that you may be able to help me. I wrote to you a couple of years ago regarding the release and non-release of records held at the Public Record Office.

For my own interest, I am wondering if you could advise me of the role of the Records Management Division of the MOD, the role of the Departmental Record Officer and the working relationship that exists between Records Management and the Public Record Office. Also, could you possibly advise me of the process that is undertaken by the MOD and the PRO to determine if documentation may be made available to the general public or not?

Should you be able to assist it would be greatly appreciated. Thankyou for taking the time to read my letter.

Yours Faithfully,

[Section 40]



LOOSE MINUTE

D/Sec(AS)/12/1



6 Dec 94

Hd CS(RM)1

"UFO" FILES

1. As you may be aware, part of this office's responsibilities covers MOD policy for, and correspondence with the public on, the subject of unexplained aerial phenomena or "UFOs".

2. Various 'ufologists' and UFO organisations are obviously interested in ascertaining when files are to become available for public viewing. I understand that before 1967 UFO files were generally destroyed after five years, as they were not considered to be of sufficient public interest to merit retention, but that since that date, in the context of an increase in public interest, all files have been preserved.

3. I understand that a few files survived the above policy and are currently available for public viewing. These are the following:

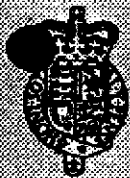
- AIR 16/1199 AIR 2/16918
- AIR 20/7390 AIR 2/17318
- AIR 20/9320
- AIR 20/9321
- AIR 20/9322
- AIR 20/9994
- PREM 11/855

4. I have received an enquiry from a member of the public who wishes to establish if at the turn of the year any more files on this subject (from 1964) will be made available for viewing at the Public Records Office. I should be grateful for your advice.

Section 40
[Redacted]

Section 40
[Redacted]

Sec(AS)2a
MB8245 Section 40



with the compliments of
Ministry of Defence

Sec (AS) 2a ,

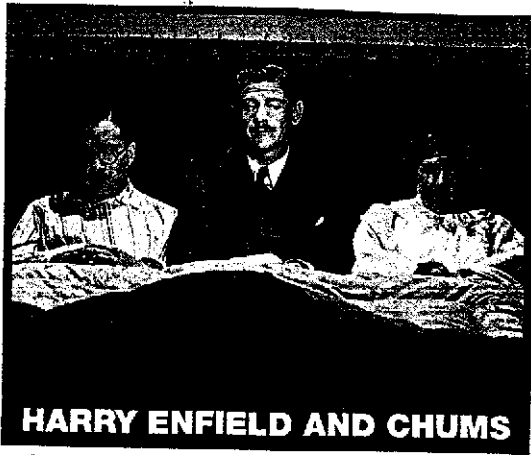
This is what happens when we don't get a chance to put our side of the story! Still, only 11 million viewers + TV Times readers will think we might have covered anything up, so it's not really bad PR, is it?! Friday 9th Dec: set your videos, prepare your defensive PR lines, watch, and learn!

Section 40

MOD Form 195 (Revised 6/89)



Friday

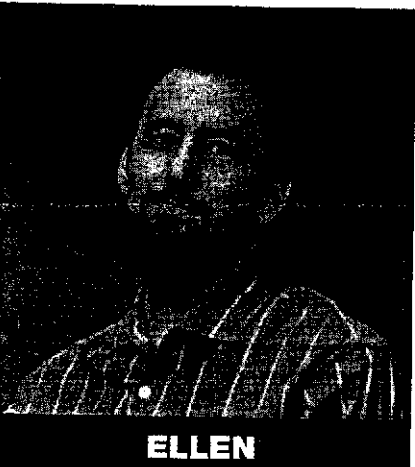


HARRY ENFIELD AND CHUMS

● **BBC1, times vary** Harry Enfield can be seen taking the mickey out of the *Lovers' Guide* tonight with the very proper Mr Greyson and his wife as its unlikely stars. The hilarious sketch will begin with the stuffy Mr Greyson (Harry) sitting in his living room with Mrs Greyson (Jan Ravens). He's desperate to get her upstairs, but their bedroom antics are a real non-starter. Happily, Mr Cholmondley-Warner (Jon Glover, above centre, with Harry and Jan) is on hand with his own unique guide to love-making. But does it actually bring the couple closer together?

SHORT STORIES: PET PATIENTS

● **C4, 8.00pm** With her pierced eyebrows and shaved hair, Jane Macabee doesn't look like a traditional vet. But she's worth her weight in gold to the Blue Cross Animal Hospital, which provides free treatment for pets whose owners can't afford to pay. Captured in action tonight, Jane performs a number of operations and introduces viewers to some of her patients, including Wednesday (right), a piglet that needs a course of immunisation jabs. 'I used to be in a private practice but I find this much more fulfilling,' says Jane.



ELLEN

● **C4, 9.00pm** Ellen asks her flatmate, Adam, to go on a blind date tonight. The 'date' is Ellen's boss, Susan, who's depressed because she hasn't got a partner for a wedding she's invited to. Adam (Arye Gross, above) agrees but, a little later, the blind date becomes a real eye-opener for Ellen, when she finds Susan in her kitchen - wearing Adam's dressing-gown. Is Ellen going to regret her matchmaking?

BEST OF THE REST

TOMORROW'S WORLD (BBC1, 7.30pm) Howard Stableford reports tonight on the plight of the isolated Pehuenche Indians in the Southern Andes, who live off nuts from an endangered tree.
THE TRIAL (BBC2, 9.00pm) This week's real-life trial involves Portuguese waiter Jorge Leandro, who's accused of attempted armed robbery.



WIN £100

● **What nationality is Good Fortune!** presenter Gloria Hunniford?

Write your answer in the space for competition 9 on our multi-entry coupon on page 93. The first correct entry picked after the closing date wins.

STRANGE BUT TRUE?

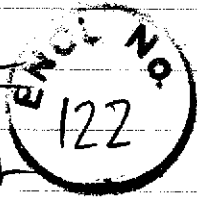
● **ITV, 8.30pm** Will presenter Michael Aspel be spirited away by aliens in the last episode of this series? It's highly unlikely but, in this programme about the paranormal, anything can happen! What viewers will see tonight is ex-American Air Force officers talking about a UFO sighting in Suffolk, which they claim was covered up by the Ministry of Defence. Lt Col Charles Halt says he saw a strange triangular object and a mass of lights in woods, and his recording of the sighting is played during the programme. All these spooky goings-on have attracted 11 million viewers over the past weeks and another series is likely to be made. Producer David Alpin is hoping it will give him the opportunity to see a ghost. 'I'm very envious of all the people we've spoken to who say they've seen one,' he says.

AWCHAMPION HOME

● **Eurosport, 12.00noon** Freestyle Skiing - Live From Tignes, France ● **Sky Movies, 6.00pm** *Rebel Without a Cause* Cult classic starring James Dean ● **Sky One, 11.45pm** *Chances* A new Australian drama series about a family who win the lottery

Strange But True

Rendlesham Forest



lines given to
RAF Press Office

Section 40

1. MOD has a limited role with respect to UAPs. Our only interest relates to establishing whether what was seen represents a threat to the security of the UK.
 2. If it is deemed that no threat exists we do not investigate further or attempt to establish the precise nature of the sighting / phenomena.
- We are satisfied that the events at Rendlesham Forest were of no

Defence significance.

- We are not aware of any evidence which would suggest our ^{original} assessment was incorrect.

Section 40

2/12

File - 12/4

Section 40

D/US of S RMC _____

Sec (As) 2



A copy for your information.

for PS/US of S
MB 6210

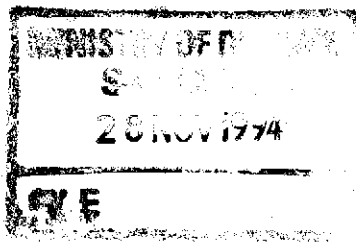
Section 40

Date:

Copied to:

*The small element
of ~~strong~~ foreignness at
X, but still there.*

Section 40



MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 071-21.....(Direct Dialling)
071-21 89000 (Switchboard)

PARLIAMENTARY UNDER-SECRETARY OF STATE
FOR DEFENCE

D/US of S/OH 0902/94

24 November 1994

See Nicholas

Thank you for your letter of 4 November enclosing one from **Section 40** of **Section 40** Macclesfield, Cheshire concerning unidentified flying objects.

I should perhaps first explain that the Ministry of Defence's interest and role with respect to unexplained phenomena relates solely to the identification of any potential threat to the security of the United Kingdom. Once we are content that a reported sighting does not represent a threat, or suggest that our security has been compromised, we do not pursue the matter further or seek to establish the precise nature of the sighting/phenomena.

In his letter, **Section 40** makes specific reference to the Parliamentary Question posed in March 1984 by Sir Patrick Wall MP. I'm afraid that **Section 40** has misquoted the answer given to Sir Patrick by the then Under Secretary of State for Defence Procurement, Mr John Lee (Hansard 13 Mar 84 Cols 132 & 133). As the answer states, the figures relate to reports of aerial sightings for which the observer had no explanation, received by the MOD in the years in question. They do not relate to reports of alleged landings, and they should in no way be taken to represent sightings of spacecraft of extra-terrestrial origin.

Section 40 goes on to misconstrue the comments of the MOD division responsible for these matters, Secretariat (Air Staff)2a, regarding reports which remain unexplained. Whilst we believe that for the majority of reported sightings a simple and mundane explanation could be found, we do accept that a few cases, perhaps 10%, defy immediate explanation. However, once we are satisfied that nothing of defence significance has occurred, our interest in the sightings ends. As it is outside my Department's remit to investigate further, we remain open-minded on these.

Nicholas Winterton Esq MP



Recycled Paper



As such, and contrary to **Section 40** assertions, the Ministry of Defence does not conduct formal research into 'UFO sightings'. I can confirm that to date it remains the case that we have no evidence to substantiate the existence of craft or lifeforms of extra-terrestrial origin. That said, the Ministry of Defence and Armed Forces remain properly vigilant for any physical threat to the security of the United Kingdom.

With respect to our records, which relate to reported sightings and not 'UFO' research, unfortunately most of our old files from before 1967 were destroyed as at the time they were not considered to be of sufficient public interest to merit retention. Since that date, in the context of an increase in public interest, files have been preserved. These, however, in line with all government files, fall under the terms of the Public Records Act which states that government files should generally stay closed for thirty years after the date of the most recent paper. A few files from the Fifties have survived and can be viewed at the Public Record Office, Ruskin Avenue, Kew, Richmond, Surrey, TW9 4DU. The references of these files are as follows:

AIR 16/1199	AIR 2/16918
AIR 20/7390	AIR 2/17318
AIR 20/9320	AIR 20/9994
AIR 20/9321	PREM 11/855
AIR 20/9322	

I hope this is helpful in explaining the role of this Department with respect to 'UFO' sightings and I can assure you that there is certainly no attempt to cover up any information on this subject.

THE LORD HENLEY





D/Sec(AS)/12/1

17 Nov 94

F I L E N O T E

1. A Section 40 [redacted] from Central TV Birmingham Section 40 [redacted] called this office on Tuesday morning. She had been contacted by an affiliated TV Magazine, who wanted to do an article about the forthcoming programme and wanted to interview Nick Pope, who appears in the Central TV programme.
2. Section 40 [redacted] advised her that he does not work here anymore. She was in a dither as to whether she should pursue Nick or ask Nick's successor to do the interview. Section 40 [redacted] undertook to get someone to call her back.
3. The above was discussed with Section 40 [redacted] who knows the full background to the Central TV interview saga and agreed to speak to Central. Our position was that we have already contributed what we have to say to the programme and there is nothing more we can add. It was agreed that Nick should be told about the approach, out of courtesy, and advised that:
 - a MOD would not be contributing to the interview (participating in the programme itself more than adequate), and
 - b. that it certainly would not in any case be for the ex-desk officer to be involved.

Section 40 [redacted]



LOOSE MINUTE

D/Sec(AS)/12/1

4 Nov 94

DPO - Section 40

"STRANGE BUT TRUE" - FRIDAY 4 NOV - 2030 HRS

1. At 2030 hrs tonight, ITV are due to show the second episode of the current series of "Strange But True" which I understand features the Scottish Town of Bonnybridge where allegedly there have been 800 "ufo" sightings "reported" over the past few years.

2. Attached you will find a background brief and some lines to take should this programme become the subject of media attention. I shall watch the programme and will let you know on Monday morning if any points emerge for which we'll need further lines up our sleeve.

Section 40

Section 40

Sec(AS)2a

MB8245

Section 40

Enc.

"STRANGE BUT TRUE" - ITV FRIDAY, 4 NOV, 2030 HRS

BACKGROUND BRIEFING AND LINES TO TAKE

Lines to Take

General

- MOD has a limited role with respect to unexplained aerial sightings. Our only interest is to establish whether what was seen represents a threat to the security of the United Kingdom.
- If it is deemed that no threat exists we do not investigate further or attempt to establish what may have been seen.


Specific

- Only a handful of unexplained aerial sightings reported to the MOD from this area during the last 2 years.
- None of these sightings were deemed to represent a threat to the security of the UK and therefore our interest in them concluded for the reasons above.
- Should any further evidence emerge, the MOD and our air defence advisers would look at the evidence in the normal way.

Background

1. The first we became aware of this matter was when a Councillor from Falkirk (W F Buchanan) wrote to the Prime Minister on 28th September claiming that over 600 people had come forward in the last 2 years reporting "ufo" sightings. Councillor Buchanan was concerned that the area had been descended upon by the media and ufologists from all over the world and had suffered cruelly from ridicule. He went on to complain that there had been no enquiry by any Government department, and requested the Prime Minister order a top level enquiry into these sightings to alleviate the fears and concerns of his constituents.

2. We received the letter on 24 October and on 27 October we wrote back to Councillor Buchanan. I explained the exact role we have with respect to unexplained aerial phenomena, and advised him that having checked our records we discovered that we had received only two or three reports in the Falkirk area over the last 2 years, none of which were deemed to represent a defence concern. Our letter concluded that the MOD is currently not aware of any phenomena in his area which would warrant further investigation from our perspective but that if any further evidence emerged we would look at that evidence in the normal way.

D/Sec(AS)/12/1 

19 Aug 94

F I L E N O T E

A LWT Researcher **Section 40** called to clarify a couple of points for a TV show that is going out ~~on Monday~~ *in the Autumn*. I believe this is the "Strange But True" Series. The impression I got was that the points had been raised before but they just wanted final clarification.

The two specific points of clarification which I took down verbatim were as follows:

Q1: Is it true that one out of ten UFO sightings remain unsolved?


Q2: Does the MOD still deny that anything of significance happened at Rendlesham Forest in 1980?"

I put together a couple of responses and then ran them past **Section 40** of the Press Office (who was entirely happy with my line).

Q1: "Can't comment the statistic is meaningless. Once the MOD is satisfied that a sighting has no defence significance we do not try to establish what may or may not have been seen."

Q2: "We are satisfied that the events at Rendlesham Forest were of no defence significance."

Section 40**Section 40**

FILE NOTED/Sec(AS)/12/1 

18 Oct 94

LETTERS FROM Section 40 AND Section 40

1. We have had an increasing number of letters from the public, addressed to the PM and Ministers, which make reference to "evidence" that the British Government has been involved in collaboration with foreign governments on ufo research.
2. I spoke to Wing Commander Section 40 DI55c, and explained the above and he said he was not aware of any formal discussions, or joint research/collaboration which was currently taking place or has ever taken place with foreign governments, (back to 1967 when the first ufo files were archived, the one's previous to that date having been destroyed). [He was at pains to stress that that was the truth and that if anyone should know about it it ought to be him.] He indicated that on a personal level during his travels he has asked the odd question on the subject of ufos, but generally has received light hearted responses.
3. Section 40 believes that there are two Russian officials who are currently undertaking ufo research, but he doesn't believe that in itself to be particularly significant. To his knowledge the same is not true in the USA.
4. Therefore for the responses to the two above mentioned letters, I feel able to deploy a more robust line.

Section 40


File copy.



LOOSE MINUTE

[REDACTED]

14 Oct 94

[REDACTED]

Copy to:
APS/Secretary of State

Section 40 [REDACTED]

1. As agreed during our telecon this afternoon, attached please find a letter from Section 40 [REDACTED] to Secretary of State.

2. Although Section 40 [REDACTED] makes reference to ufos in his letter, his main reason for writing, as was his earlier letter to Secretary of State of 5 August (to which you responded), is that he wishes to become a member of the British Security Services.

3. In light of the above I feel again it more appropriate for CM to lead in replying.

Section 40 [REDACTED]

Section 40 [REDACTED]
Sec(AS)2a
MB8245 Section 40 [REDACTED]

Section 40

Withnell,
Nr. CHORLEY,
Lancashire.

Section 40

Communication Section 40

(24HRS)

Malcolm Rifkind.,
House of Commons.

Dear Right honourable Malcolm Rifkind, M.P.

I apologise for this unexpected communication; it has come to my attention that the RAF has data on flying saucers and other ariel anomalies etc. The point is the National Security Council at this time is being over loaded with data and I believe it is time to make an investment.

ALPHA: The investment is simple, to create a position in the Security Services where a single operative will co-ordinate all the data from England and Europe and present it precisely and accurately with the technology we have available to the National Security Council, the Pentagon, the NSA, CIA, MI5, MI6, FBI and NATO.

BETA: The person shall have an UMBRA/ULTRA security clearance to all air bases in; America, England, Scotland and Europe to check reports.

I am open to becoming the chosen person in four years after my course ends at: Section 40 telephone

Section 40 I have extensive knowledge of the UFO data and read books on the subject all the time, Also I have experience on finding materials which are difficult to obtain. In this capacity I would be able to control the panic situation which is evolving world wide about abductions and so on; many turn the finger at the Government and claim that if there are no UFOs then the Governments are abducting people and experimenting on them! This is not the case but all the evidence that is available is not convincing for some.

I approached the Security Services, Section 40, Section 40, LONDON Section 40 Ref: POLF316-1-25/B1A/20. They oppose my entrance into the service, they claim; "There are no suitable vacancies". I shall if necessary write to the National Security Council and the FBI and transfer to the United States of America if I am unable to function in the field in England, after Section 40 I feel that my life is going no where at this time, after having studied for my entire life so far.

The time has come to make progress, whether you acknowledge my skills or not, there are other countries not too far across the waters which are desperate for people with my knowledge and capability.

I am your obedient servant.

Section 40

Postscript: Data on anti-gravity has been sent to: Section 40

FILE NOTE



D/Sec(AS)/12/1

CALL BY **Section 40**

1. This morning received a phone call from a **Section 40** who claims to have been at Rendlesham Forest during the famous incident at RAF Woodbridge in 1980.
2. She claimed that she had been interviewed for the forthcoming LWT programme "Strange But True". She seemed just to want to make it absolutely clear that she did not believe there had been an UFO there that day and apparently said so in her TV interview. She was not sure whether her interview would be included in the programme. She said her ex-father in law was also there that day and was adamant that it was probably a helicopter or something mundane like that.
3. I told her that as far as the MOD were concerned, we were satisfied that nothing of a defence significance occurred at Rendlesham Forest that day and as such that was the end of the matter.
4. Her call was a bit strange, but she seemed to be concerned that the TV programme was going to be making out that it was a spacecraft with aliens and that she was there and it simply wasn't true.
5. **Section 40** gave the following address, but declined to leave a phone number:

Section 40
Ipswich
Norfolk
Section 40

Section 40

Section 40

"STRANGE BUT TRUE"

Scheduled for FRI 28 OCT 2030hrs.

Sent by fax



MINISTRY OF DEFENCE

From: **Section 40** Secretariat (Air Staff) 2a, Room 824
Main Building, Whitehall, London SW1A 2HB

Telephone (Direct Dialling) 071 2182140
(Switchboard) 071 218 9000
(Fax)

ENCL NO. 115

Section 40

Community Relations Officer
Royal Air Force Valley
Holyhead
Gwynedd
LL65 3NY

Your reference

Our reference

D/Sec(AS)/12/1

Date

7 October 1994

Section 40

Dear

INVITATION TO APPEAR ON LOCAL RADIO TO DISCUSS UFOs

Reference: RAF Valley fax of 6 Oct 94.

1. We have considered the invitation you have received to appear on the Adrian Jones Show on Marcher Coast FM and believe the invitation should be declined. I would like to explain clearly why we have reached this judgement, and how best you might respond to the radio station.
2. The scope of your role during this programme would be to represent the MOD's official policy and line towards the subject of unexplained aerial sightings. We have found that there is widespread misunderstanding amongst members of the public, and indeed amongst some MOD/RAF officials, as to precisely what that role is.
3. MOD interest is concerned solely with whether an unexplained aerial incident represents a threat to the UK's air defences. If we find no evidence of such a threat we make no effort to investigate what may have been seen, and our interest thus terminates. To date we have received no evidence whatsoever to substantiate the existence of any "UFOs" in the commonly accepted meaning of the acronym; ie. flying saucers with aliens aboard. We remain open-minded about those sightings which are not easily explained, as it is beyond our remit to investigate further.
4. During the course of this programme, as a serving officer representing the RAF/MOD, you would not be able to speculate or offer any personal opinions. It would be very difficult to sustain the MOD line, (which would take about one minute at most to deliver), faced with the pressure to say something interesting. It is highly likely you would be asked about your own personal views and about what course of action we would take if we received reliable evidence of extra-terrestrial aggression. This would be impossible to answer, for the appropriate response would, of course, be determined in the light of the particular circumstances. But any speculation on your part risks being run back at us as a statement of UK MOD policy.

5. The result would almost certainly make for an uninspiring programme and may fuel the view that we are actually hiding something. Contrary to your assertion about possible PR value to Valley and the RAF, we believe the opposite to be more likely.

6. Therefore we would suggest that you respond to the invitation in the following way:

- MOD has a specific and limited interest in unexplained aerial sightings: we look at sightings to identify whether they represent any threat and if they do not then that is the end of our interest.
- MOD's role is to maintain the security of the UK and to protect against any aggressor and unless a potential threat is thought to exist we do not try to determine what may have been seen. We do not analyse or undertake any research into unusual aerial sights which represent no threat.
- Role of Valley CRO is to put forward the RAF/MOD position, which it would take one minute to express. As a representative of MOD, unable to speculate beyond the formal position or offer any personal opinions, even if it were stressed these were only personal opinions.
- Do not therefore believe there is any useful contribution that I/RAF Valley could make to this programme.

7. I have discussed the above with the RAF Press Office who agree our line. I am sorry if the above is a disappointing response. Should you wish to discuss this matter further please give me a call.

Yours sincerely,

Section 40



Copy to:

DPO

Classification
Caveat
Covering

Facsimile Transmission Cover Sheet

Transmission Details		Document Details	
Serial Number:	Date and Time of Transmission: 070955LOCT94	Reference: SEC(AS)/12/1	
From: SEC(AS) 2A	Fax Number: Section 40	Subject: UFOs	
To: CRO RAF Valley	Fax Number: Section 40		
Total number of pages including this cover sheet			3

Authorizing Officer	Transmit Operators
Rank, Name and Appointment: EO Section 40 SEC(AS)RA	Rank/Grade and Name:
Signature: Section 40	Signature:

Message/Remarks: Section 40

Covering
Caveat
Classification

** TX CONFIRMATION REPORT **

95 OF 7 00 1 9:53 PAGE 01

SEC (AS)

DATE	TIME	TO	FROM	MODE	MIN/SEC	PAGES	STATUS
01	10/7	09:52	CENTRAL	REGISTRY	UP--S	01/19 03	OK

Classification UNCLAS
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 Covering

F Sigs 927 (Rev 8/93)

→ 12/11

Facsimile Transmission Cover Sheet

Transmission Details		Document Details	
Number:	Date and Time of Transmission: <u>6/10/94 8:30</u>	Reference:	
From: <u>RAF VAULT</u>	Fax Number: <u>Section 40</u>	Subject: <u>Radio Programme - UFO's</u>	
To: <u>Section 40</u>	Fax Number: <u>Section 40</u>		
<u>MOD</u>	<u>Section 40</u>	Total number of pages including this cover sheet	<u>TWO</u>
<u>Main Building</u>	<u>Section 40</u>		
Authorizing Officer		Transmit Operators	
Rank Name and Appointment: <u>Section 40</u>	<u>C/O</u>	Rank/Grade, Name and Telephone No: <u>AA</u> <u>Section 40</u>	
Sign: <u>Section 40</u>		Signature: <u>Section 40</u>	
Message Remarks:			

MINISTRY OF DEFENCE
SEC (AS)1
06 OCT 1994
FILE

Covering
 Caveat
 Classification UNCLAS

Community Relations Officer



Royal Air Force Valley
Holyhead, Gwynedd
LL65 3NY

Tel : Holyhead Section 40

From: Section 40

To: Section 40

Section 40

Re Approach by Marcher Coast FM Colwyn Bay
for broadcast during mid-morning Mon-Fri
music/feature : format should be in line with
programme preferences. Subject
UFOs : time slot to be discussed next month

Contact: Section 40 of Marche

Section 40

Your attention is drawn

Section 40 has a long history of UFO
reports and has worked with RAF, some
experience of reports handling at HQ NATO in
late 70's, and an overall interest in the subject.

Good PR in the broadcast area covered is
important to RAF Valley task.

Tamazawa, Perry To Debate TMD

By NAOAKI USUI
Defense News Correspondent

TOKYO — Japan's introduction of theater missile defense (TMD) weaponry and host-nation support to U.S. forces here are two of the major issues expected to be discussed this week in Washington by Defense Minister Tokuchiro Tamazawa and U.S. Defense Secretary William Perry, according to sources here.

This will be Tamazawa's first official visit since he took office on June 30. Tamazawa is a conservative in the shaky coalition under Socialist Prime Minister Tomiichi Murayama.

Defense sources here indicated Tamazawa's meetings with Perry will be substantive. He will brief Perry on recommendations by the prime minister's advisory panel for downsizing the troop strength, upgrading weaponry, increasing Japan's long-distance support capability, im-

proving ties with the United States and maintaining the defense industrial base.

The advisory panel's Aug. 12 report advocated that Japan acquire ballistic missile defense capability, which it calls indispensable "in collaboration with the United States" both on developmental and operational levels.

The defense agency is requesting 20 million yen (\$200,000) for initial research funding for TMD in its 1995 budget request two weeks before Tamazawa's trip.

Pentagon officials proposed four TMD options to Tokyo in May, which are still under study by the Japan Defense Agency.

The U.S. Defense Department's options, tailored for Japan to counter North Korea's No-dong-1 missile and China's CSS-2 missile, cost between \$4.5 billion and \$16.3 billion, and are designed to be deployed by 2004 to 2005, JDA sources said.

CMN Nix Swan Fa

By CHARLES MILLER
Defense News Correspondent

LONDON — British shipowner Swan Hunter is expected to close soon after a decision to Paris-based Soffia-CMN to out of takeover talks.

Officials based here from Pricewaterhouse said prospects of selling Swan Hunter remote and the New York-based accounting firm was preparing start considering offers for piecemeal sale of assets.

Gordon Horsfield, one of joint receivers, said that although several possible buyers were looking at the company as a whole, there was no serious contenders and little hope of one.

CMN withdrew over an gap between the price the receivers are seeking and the amount it was prepared to pay. Pricewaterhouse officials said CMN's offer was less than the yard's scrap value.

However, the French company made a new offer to take over at least one of Swan Hunter's docks and has proposed commissioning the Wallsend-based yard's design team to carry out short-term contract. Wallsend member of Parliament Stephen Byers was encouraged by th

Lawmaker: UFO Report Falls Short

By PAT COOPER
Defense News Staff Writer

WASHINGTON — A U.S. Air Force report designed to put to rest four decades of suspicion associated with the crash in Roswell, N.M., of an unidentified flying object has not satisfied at least one member of Congress.

Rep. Steve Schiff, R-N.M., a colonel in the Air Force Reserve, says the Air Force is still not forthcoming with details about

what really happened with the alleged alien spacecraft that crashed in his home state in 1947.

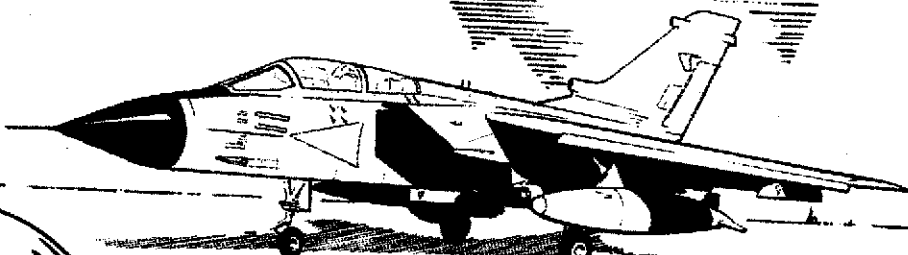
Referring to a 25-page press release issued by Air Force Secretary Sheila Widnall Sept. 8, Schiff's spokesman Louis Vega said Schiff's concerns were glossed over by the Air Force report. According to Vega, the Air Force focused entirely on the non-existence of UFOs, and not

on the alleged cover-up.

Schiff, a vocal advocate for declassification of DoD files, continues to press for public disclosure over the Roswell incident.

Pentagon spokesman Doug Kenet, a U.S. Air Force colonel, discounted Sept. 8 allegations of a cover-up. "The Air Force did not locate any information that there was a UFO, or any information there was a cover-up," Kenet said.

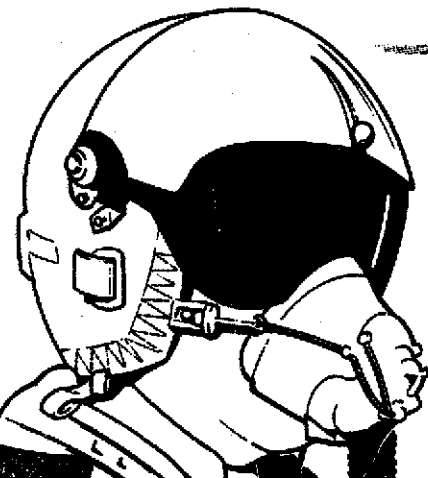
WEAPON SOLUTIONS FOR THE FRO



SWAARM 2000: Advanced



Photograph Courtesy of British Aerospace Plc

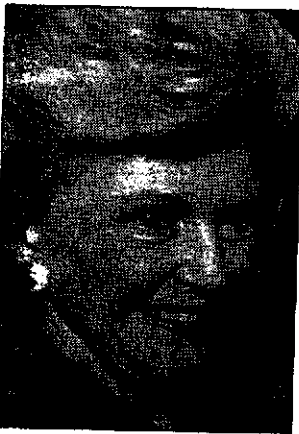


Harriman to be sued over trust

BY JAMES BONE

PAMELA Harriman, the British-born US Ambassador to France and mother of Winston Churchill, the Conservative MP, is being sued by her two stepdaughters for squandering their inheritance by investing in a former Playboy hotel.

The \$30 million lawsuit claims that Mrs Harriman mismanaged the trusts set up by her late husband, Averell Harriman, a former Ambassador to Britain, for his daughters. The suit also names two Democratic Party power-brokers who acted as trustees — Clark Clifford, the former US Defence Secretary, and Paul Warnke, a former Assistant Defence Secretary. Court papers filed in New York say the trustees' "betrayal of trust" meant that Mr Harriman's two daughters, Mary Fisk and Kathleen Mor-



Harriman: living in Paris

timer, now both in their seventies, had lost \$200,000 (£130,000) a year, depriving them of income on which they have depended. The suit calls for damages from what it describes as the "faithless fiduciaries who betrayed a trust and squandered a family's inheritance".

Pamela Harriman, née Digby, married Averell Harriman in 1971. He was her third husband after Randolph Churchill and Leland Hayward, the film producer. Mr Harriman died in 1986.

The lawsuit says the trust grew to \$25 million by 1989. But, the suit claims, the trustees started investing in a former Playboy hotel complex known to have cash troubles.

French prepare for purge against corrupt officials

FROM CHARLES BREMNER IN PARIS

MORE than a year after corruption scandals helped to bring down France's Socialist government, cases involving conservative politicians and top businessmen are embarrassing the administration of Edouard Balladur and prompting predictions of an Italian-style upheaval in French public life.

An extraordinary roll-call of chief executives from some of the most illustrious corporations, big city mayors and two ministers are being investigated by judges intent on unravelling what they see as a web of corrupt practice too long tolerated by France's cosy establishment.

Over the past week the scandals seem to have reached a critical mass, causing M Balladur to open a corruption inquiry by a commission of three "wise men". In the most telling symptom, a survey for *Le Monde* found that 64 per cent of company chiefs believe that corruption is endemic in business life. On Friday, *Le Monde* said that the disclosures have only just started and predicted that France will

be unable to escape the pain of a purge on the Italian model.

On Saturday, Philippe de Villiers, the right-wing politician who recruited Sir James Goldsmith to his European Parliament team, left the centre-right Republican Party (PR) calling on citizens to "stand up against this tumour which is eating at us". M de Villiers's personal feud with PR leaders was an element in his outburst, but the party itself, a member of M Balladur's coalition, is the focus of one of several of the present affairs. A judge is investigating its finances as well as the personal accounts of Gérard Longuet, the Industry Minister. Maurice Arreckx, a PR senator and former Mayor of Toulon, is in jail awaiting trial on serious corruption charges.

Gaullist figures have also been tainted, notably Alain Carignon, Mayor of Grenoble, who resigned as Industry Minister after being charged in the summer with accepting illicit payments from public works companies. On Friday, a close associate of M Car-

ignon, the head of Sofirad, a state broadcasting body, was detained in connection with the case.

The Grenoble affair fits the common pattern, in which companies make payments to local officials and their parties in exchange for contracts. The technique was a prime source of French party finances across the spectrum until reforms in the late 1980s. A mixture of personal and political payoffs are at the centre of the case in Lyons, where on Friday a judge committed Michel Noir, the Mayor and a former Gaullist, for trial with 11 prominent figures, including Michel Mouillon, Mayor of Cannes, and Patrick Poivre d'Arvor, France's star newscaster. The television man is alleged to have accepted about £100,000 in travel and entertainment from Pierre Botton, a businessman who is M Noir's son-in-law.

□ **Poll candidate:** Jean-Marie Le Pen, leader of France's National Front party, yesterday became the first declared candidate for the 1995 presidential elections. (Reuter)

'Crashed UFO' was spying device, says US Air Force

FROM JAMES BONE IN NEW YORK

THE world's most celebrated UFO, which plunged into the New Mexico desert in 1947 sparking decades of speculation and conspiracy theories, has been officially identified as part of a secret American atomic spying programme.

A US Air Force report into the Roswell Incident, the subject of at least four books and a film, said the government was lying when it said the wreckage was the remains of a weather balloon.

The report said the debris came from a secret device placed in the upper atmosphere to pick up sound waves from nuclear test blasts around the world. The revelation should put to rest the half-century-long mystery surrounding what has been

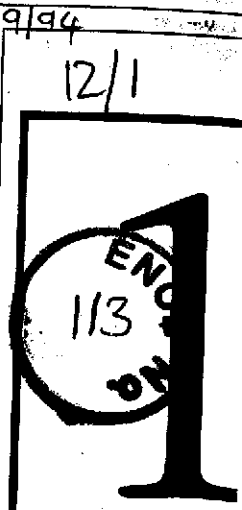
described as the best-documented UFO sighting ever.

But flying-saucer enthusiasts are reluctant to abandon their theories about the crash, and quickly denounced the Air Force report as part of a cover-up. The popular mythology that has grown up around the Roswell Incident is rooted in the fact that the mangled wreckage was seen and photographed by local people before being spirited away by the US Air Force.

Over the years, accounts of the sighting have been embellished to include the supposed recovery of extra-terrestrial beings and speculation about a secret government project to recon-

struct the spacecraft and to use its components to develop Stealth bombers and other hi-tech weapons. Pressure for disclosure eventually became so strong that Steven Schiff, a congressman from New Mexico, called for the government to declassify all documents about the crash.

The resulting Air Force report revealed that the UFO was part of a secret government programme known as Project Mogul to monitor the Soviet Union's effort to develop nuclear weapons. High-altitude balloons were equipped with special sensors and radar reflectors but the project was inefficient and cancelled in 1950, with the balloons being allowed to fall back to earth.



It fig in

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D/Sec(AS)/12/1

19 Aug 94



F I L E N O T E

A LWT Researcher **Section 40** called to clarify a couple of points for a TV show that is going out on Monday. I believe this is the "Strange But True" Series. The impression I got was that the points had been raised before but they just wanted final clarification.

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Q2: "We are satisfied that the events at Rendlesham Forest were of no defence significance."

Section 40

Section 40

Rec'd 18 AUG

file 1211

Section 40

Section 40

BIRMINGHAM

Section 40

11th Aug 1994



Dear Sir/Madam,

As you are no doubt aware, there is a growing Community within the British population who are convinced of the "Cover up" scenario, as regards ~~the~~ the UFO phenomenon.

Why this is so, is unfathomable, how the Government expects the public to dismiss the unsurmountable facts is beyond reason.

Those who believe (and those who know) are wrongly considered as being cranks, due mainly to government denial and debunking.

The public must not be told, the public must be kept in the dark. They are not ready.

Who is to say the public at large are not ready and cannot handle the truth, the military, who see Reds under the bed, enemies everywhere, paranoid power greedy Generals.

I think not, the facts should be made available to any interested parties, get the scientists involved without military pressure, and mankind's knowledge could be greatly increased without fear and prejudice.

Most of the population believe in "Other life" be it intra-Dimensional or Extra-Terrestrial, many have had encounters first hand, only the fear of ridicule holds their tongues, actively encouraged by Governments throughout the world.

People are ready to accept what is rapidly becoming not only possible but probable (even to the sceptics) that mankind is not ~~omnipotent~~ omnipotent and that visitations are and have been taking place for many years.

National security does not seem to be an issue, indeed if 'Abductions' are readily taking place and infiltration into the general public is occurring (and has been for many years) on a routine basis, then any sensitive information or security issues would already have been compromised (Has a 'Deal' taken Place)?

If the "Invasion" or "Take over" hypotheses were true, they surely could have and would have "conquered" us by now.

The whole issue of UFO's is not a military one, but a scientific one, and any files and information should be made public.

It is obvious to all but the most naive that there are more than one species involved in the various activities that are at present taking place. i.e. abductions: Associated with

those little greys (How tall is John Major?)

Infiltration: Associated with many human looking forms, the 'Nordics', 'cat eyes', 'mind readers', and '3 fingered' varieties (Hybrids?) and most common, the 'Doctor' type with large black eyes.

On the whole, 'They' seem more interested in observing (scientific study, after all), other than slight psychological 'stress', no harm results in most encounters/abductions, much of which is brought about by hypnotic regression.

It seems they put much effort in keeping the details of the 'subjects' experience from them, why? (Perhaps so as not to 'damage' the fragile psychological make-up of the human.)

If indeed they had hostile intentions, why then, when jets are sent to intercept, and sometimes fire upon their craft, do they not retaliate. They are obviously more technically advanced, so I am sure, if they so wished, they could easily destroy any jets ships or weapons that we put against them, instead of turning tail and running. Much as we do when we investigate the animal kingdom.

Why have we no freedom of Information Act?

All the reports sent to the M.O.D, all the evidence gathered by researchers, photographs etc. Is it all stored and filed in the much talked about room 301?

Much of the information contained in these "files" could be and should be de-classified, if names and places were omitted. They would no longer constitute a threat to National Security.

If there is no threat to National Security, then there is obviously an ulterior motive, such as military advancement.

Now that the cold war is over and much of the world is at peace, the Russian states are fast approaching the Western ideal, the concept of us and them no longer applies (at least in a terrestrial context) so military superiority should no longer be an issue.

As for the populous losing faith in the ability of any government, that went out the window long ago. The only way forward is an open and truthful approach not only to the issue of UFO's but to all issues that touch upon and affect the lives of everyday people.

Please send me copies of any de-classified UFO files or information of UFO cases or a contact where I can obtain such information.

The truth is out there and I have a right to know!!

Yours expectantly

Section 40

Section 40



MINISTER OF STATE FOR
THE ARMED FORCES

Section 40

Good.

12/1



LOOSE MINUTE

D/MIN(AF)/JH/94/94

13 June 1994

Section 40

Sec(AS)2

Copy to:
APS/Sofs
APS/USofs
PS/CAS
DA Brussels

BELGIAN UFOS

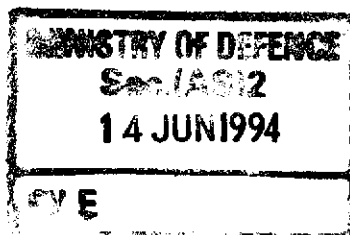
Minister(AF) was grateful for your D/Sec(AS)12/1 of 8 June,
the contents of which he has noted.

Section 40

Section 40

APS/Minister(AF)
MB6113

Section 40



Recycled Paper

Head of Sec(AS)

1. Please see the attached note from Mr Pope. I am somewhat uneasy about this request, particularly in the light of the third paragraph of the letter from LWT. I get the impression that the programme makers are seeking our involvement primarily to be in a position to say "even the experts cannot give an explanation of these sightings". As such the programme would seem to be taking a much narrower view than the Central TV production, where I believe there was a genuine wish to establish the Government position in general terms.
2. Mr Pope tells me that he has got a different impression from his telephone conversations with the programme makers, and that they are interested in a statement of our general policy. However, I still have my doubts given that the emphasis of the whole series would seem to be on specific incidents rather than broader questions.
3. Clearly if we refuse an interview we could be criticised, and the very fact of refusal could be used to bolster the argument that something unusual is going on. Comparisons could also be made with our more favourable treatment of Central TV.
4. Mr Pope has now received a request from the director of the series to call on him for five minutes tomorrow (Tuesday 14th) to explain in greater detail what they are trying to do. Mr Pope has promised to give him a response on this latter request by COP today. I would therefore appreciate your comments as soon as possible, and stand ready to discuss.

Section 40

Section 40

Section 40

Section 40

- 2 -

3/6.

No! Press office asked us to deal direct with LWT (!!!)

Thank you. I have spoken to the Press office to say that we shall not be pursuing the request and asked them to speak to LWT.

*?!?!?!?
A point for LWT, McInnes!!!!*

Section 40

13/6

Section 40

Head of Sec(AS) - through

Section 40

REQUEST FOR TELEVISION INTERVIEW RE UFOS

1. I have received a request (attached) to give a short interview to LWT for their forthcoming "Strange but True?" series. They would be looking for some general comments about our policy, and will also be asking about some recent Scottish sightings where we have been sent photographs and videos.
2. I was telephoned by the researcher last week, and advised that they contact the Press Office. The Press Office told them to fax me the details of the programme direct, and are happy to proceed on the basis of our advice.
3. There has already been one series of this programme shown; it is a serious, mainstream programme, hosted by Michael Aspel, which takes a look at various paranormal phenomena, and invites viewers to draw their own conclusions on the basis of the evidence. The programme sounds similar to the Central Television documentary, and I am aware that Lord Hill-Norton has agreed to be interviewed.
4. Given that we agreed to take part in Central Television's documentary (a fact that LWT are aware of), I recommend that we agree the request. In view of the advice that I have already had from the Press Office on how to handle interviews, and given that we have already cleared comprehensive Q & A material, there should be little further work involved.
5. It is unusual to have a number of UFO programmes grouped together, and as they tend to focus on the same major sightings, and interview the same people, there is little likelihood of further such programmes being produced in the foreseeable future.

Section 40

13 Jun 94

N G Pope
Sec(AS)2a

STRANGE BUT TRUE?

A new series with Michael Aspel,
coming soon to ITV

To NICK POPE

Fax number Section 40

From Section 40

Direct line Section 40

Total number of pages 2



LWT PRODUCTIONS

The London Television Centre, Upper Ground, London, SE1 9LT
Office telephone: 071-261 8121 Office fax: 071-261 3797



Direct line: Section 40

Direct fax:

FAX MEMO TO MR NICK POPE, MINISTRY OF DEFENCE
FROM Section 40 LONDON WEEKEND TV

10 JUNE 1994

Dear Nick,

Thanks very much for agreeing to spare us some time to comment on our show. As I have discussed with you London Weekend is preparing a new series for transmission later in the year. Introduced by Michael Aspel, it covers unsolved mysteries/phenomena; two of the programmes we are making are about UFOs.

Next week we are "recceing" one of them up in Scotland. There is a measure of public interest about a recent "wave" of sightings of "unidentified" objects. Our series consultants, Section 40 and Section 40, have carried out the traditional checks to confirm an absence of aircraft, weather balloons etc at the relevant locations.

Some of our interviewees have photographic and video material which has been examined by the MOD. All we require from the MOD is a spokesperson who can confirm an absence of aircraft and comment in whichever way he wishes along the lines of "we have examined the film and have not as yet identified the objects".

We will not of course be touching any areas which might compromise security. The programme is an uncontroversial (except for the wider 'is there life out there' debate) opportunity for people who have witnessed unusual happenings to present their stories as they believe they happened, along with the traditional comments from the experts, such as yourself.

As we have discussed, the week for filming is the last one in June. I'm afraid we cannot as yet suggest an exact time but naturally as soon as we have an idea of one I'll let you know.

Regards

Section 40



MINISTRY OF DEFENCE

From: Mr N G Pope, Secretariat(Air Staff)2a, Room 8245,
Main Building, Whitehall, London SW1A 2HB

Telephone (Direct Dialling) 071 2182140
(Switchboard) 071 218 9000
(Fax)

Section 40

Your reference

Ripon
N. Yorks.

Our reference
D/Sec(AS)12/3

Section 40

Date
23 May 1994

Dear

Section 40

Thank you for the letter and document that you delivered earlier today.

You will be familiar with our policy and views on the UFO phenomenon from our previous correspondence; with regard to documentation, our files - which consist mainly of UFO reports from, and correspondence with, the public - are covered by the Public Record Act, and generally remain closed for 30 years. These rules apply, of course, to most government papers, irrespective of subject or classification. As I mentioned when we met, a number of our old UFO files may be viewed at the Public Record Office, Ruskin Avenue, Kew, Richmond, Surrey, TW9 4DU. The references of these files are as follows:

AIR 16/1199	AIR 2/16918
AIR 20/7390	AIR 2/17318
AIR 20/9320	
AIR 20/9321	
AIR 20/9322	
AIR 20/9994	
PREM 11/855	

Although we do not release material "en bloc", we are able to answer specific queries about particular sightings that people are investigating, and can release a report on such a sighting if we have one. We will also do our best to answer any more general questions that people may have.

I hope this has helped explain our position.

Yours sincerely

Section 40



ALIEN ACKNOWLEDGMENT CAMPAIGN

ORTK BRITAIN

THE AAC, Section 40

Ripon, N.Yorks. Section 40 Tel. Section 40

Section 40

Secretariat (Air Staff) 2a
Room 8245
Ministry of Defence
Main Building
Whitehall
London SW1A 2HB

May 23rd 1994

Dear Section 40

Supporters of AAC-ORTK Britain are today (May 23rd 1994) lobbying the MOD and Parliament on the issue of military secrecy on the existence of UFOs. We define UFOs in this context as intelligently operated devices of a nature and/or technology clearly non-human. There exists an abundance of documented evidence to fully justify a conclusion that intelligences outside that of physical mankind are attempting purposeful interaction with mankind.

I have no way of knowing what level of awareness you personally have to this exciting situation. I use the word exciting deliberately. It is clear that there are many who do not view this situation as exciting. AAC-ORTK share a view that this issue must be openly debated, and all the evidence must be included in these public debates. This issue is for the people and they have a natural right to know and a natural right to make their own minds up about its implications. Please note we are not telling people what to believe.

We have no wish to bring more fear into a world already dominated by fear. Overcoming this basic instinct appears to be one of the first steps along the path of integration. And public education on this subject will, we believe, prove net beneficial to world society.

Every MP has been given a copy of the document 'Are You Aware' and I ask that the MOD submit to Parliament all their documentation on the UFO issue. Both parliamentary and public debate must begin on this subject.

Yours sincerely,

Section 40

(AAC-ORTK Britain convener)

END UFO SECRECY NOW !



ALIEN ACKNOWLEDGMENT CAMPAIGN

ORTK BRITAIN

THE AAC, Section 40

Ripon, N.Yorks. Section 40

Tel. Section 40

Operation Right to Know - joint UK/USA
May 23rd 1994 End UFO Secrecy Protest

Noon UK - The Ministry of Defence, Whitehall, London
Noon USA - The Pentagon, Washington DC
2:00pm UK - The House of Commons, London

'We call on the military in the United States and Britain to tell the truth about UFOs. And we call on the US Congress and the British Parliament to go after the truth.'

Circulation - hand delivery to MOD Buildings and House of Commons (every UK member of Parliament) on May 23rd. To all UK National Press, Radio and TV representatives.

ARE YOU AWARE

That in excess of 3500 documented reports from military and civilian pilots world wide, have confirmed the operation in the Earths atmosphere of intelligently guided UFOs, of a nature and technology clearly non-human.

That UFOs have now left over 4000 documented landing traces world wide, and in addition have generated hundreds of reports of electromagnetic interference of car engines, radios and other electrical devices.

That on the night 30th/31st March 1990, the Belgian Air Force scrambled two F16 interceptors in response to radar images of a UFO and visual observations of the UFO reported by civilians and confirmed by the Police, This documented interception of a purposely operated structured UFO was one of several such encounters which occurred over Belgium between December 1989 and April 1990, On July 11th 1990, Colonel W DeBrouwer, Chief of the Belgian Air Staff made this statement:

“On the night 30th and 31st March, we had an observation on the radar and in addition a visual observation on the ground by the Police - What the pilots detected was well outside the normal flying envelope of an aeroplane. Sometimes they had what we call lock-ons, which gave a parameters varying from speeds between 150 knots to 990 knots, an acceleration which occurred in a few seconds. The speeds would be impossible to tolerate for a human being, that's the first point. The second point is, the visual observations always describe a system, a machine, which hangs and hovers above the surface at quite a low altitude without making any noise. Now with the current technology that would be impossible”

And in the European Parliament document 'Report of the Committee on Energy, Research and Technology - On the proposal to set up a European centre for sightings of unidentified flying objects' (DOC EN/RR/241/241196) Rapporteur Mr Tullio Regge had this to say in his paragraph titled 'Military Secrets' (Page 5)

“However, the Belgium Air Force says that the Stealth Bomber was not involved in the spate of sightings which have taken place in Belgium”

On page 7 he also had this to say;

“It is not the job of Parliament to pass judgement on UFOs, on the other hand, Parliament must take prompt steps to ensure that the information imparted to the public is correct”

That in Mexico City on July 11th 1991, during the total eclipse of the sun, tens of thousands of witnesses observed a UFO, and 17 independently operated camcorders, at varying locations, recorded the event for a total of 25 minutes, Upon enhancement each camcorder had recorded the same silver disc-shaped object. At a time when all eyes would be focused on the sky, this was undoubtedly an attempt to raise human awareness to the reality of the UFO.

That there are over 200 primary and secondary witnesses to the retrieval of a craft evidently of non-human origin, from the New Mexico desert, near Roswell, in 1947. Many of these witnesses gave testimony to having seen alien bodies recovered from the crash site. Because many new witnesses are coming forward, the General Accounting Office has recently launched a full investigation, GAO spokeswoman, Laura Kopleson said Congress Investigator Rep. Steven Schiff has asked the GAO

“to see if there is any evidence that information regarding UFOs had been suppressed,” following the Roswell incident.

That documentation exists on a world wide phenomenon commonly known as ‘animal mutilations’ involving the surgical removal of genetically relevant tissues. Veterinary surgeons have confirmed that the procedures, carried out in the fields, are un-reproducible by any known technology. Farmers and ranchers have testified to the existence of UFOs over fields where such incidents have occurred. In the USA it is known that investigations into these on-going UFO/ animal interactions have been conducted by the FBI and the Governor of Colorado has spoken publicly and officially on the matter.

These six points constitute only a small fraction of the currently available evidence, which wholly suggests the presence of alien beings.

The public have a right to know the truth about the UFO/Alien reality.
The public now have a right to be made aware of this truth through their representatives.

It is now time to act.

AAC AFFILIATED ORGANISATIONS

Contact International (UK). Andover Unexplained Phenomena Investigation Network. South Wales UFO Group. Mansfield UFO Group. The Organisation for Scientific Research into Peripheral Information. Centre for the Study of Extraterrestrial Intelligence - Nottingham & Yorkshire.

AAC/ORTK - UK Contact **Section 40**

hjh

LOOSE MINUTE

D/CS(RM) 1/6/1/3

24 May 1994

DI55Copy to:
SEC(AS) - N Pope**TIME-EXPIRED PUBLIC RECORDS I.E. THOSE PREDATING 1964**

1. You may be aware that the Hd of CS(RM), as Departmental Record Officer, is responsible for ensuring that the Ministry of Defence, and any organisation under its control, complies with the terms of the Public Records Acts. This requires us to ensure that records are reviewed in accordance with the terms of the Acts and that those selected for preservation are transferred into the custody of the Public Record Office at the 30-year point unless sensitivity prohibits.

2. As a consequence of Open Government we are receiving many enquiries about records not yet available to the public. We are tasked to resolve the matter. This means re-reviewing those closed for reasons of sensitivity or discovering what has happened to records that appear not to have survived the selection process. A recent enquirer has approached us and asked about Air Intelligence Directorate files, specifically AI Tech 5b, for the period 1947-63. We can find no trace of any files from this directorate in the PRO. Before advising the enquirer it seems prudent to seek your assurance that you are not holding any time-expired records either within your branch or DI archives.

Section 40


Tel. Section 40

Section 40

Walsall
West Midlands

Section 40

19 May 1994

Dear Sir/Madam,

I am writing to you hoping that you may be able to help me. I have been in touch with the Public Record Office regarding the possibility of examining Air Ministry files which concern the activities of Air Intelligence, Technical Branch 5b, (A.I.Tech 5b) from 1947 up until 1963.

The PRO have advised me that I should contact your department with regard to determining if these files are available or are likely to become available since the PRO have informed me that they do not have the resources to search for the files of A.I. Tech. 5b.

I appreciate that the Air Intelligence branch of the Air Ministry had a number of departments in the post-war period but if you could possibly advise me if the files of Air Intelligence Tech. 5b from 1947 to 1963 are available for inspection it would be greatly appreciated. Or, if the files are not available for inspection, could you advise me of their status? *changed?*

Should you be able to help me it would be greatly appreciated. Thankyou for taking the time to read my letter. I enclose a SAE.

Yours Faithfully,

Section 40

RECEIVED
MAY 20 1994
AIR MINISTRY

Booking Form: Residential Courses

UFO/CROPCIRCLE RESIDENTIAL WEEKENDS AND SUMMER SCHOOLS

COURSE NO: COURSE DATES.....

COURSE TITLE.....

SURNAME..... OTHER NAMES.....
 ((Mr/Mrs/Miss/Ms))

ADDRESS.....

..... POST CODE.....

TEL. No: (home) (work) AGE (for allocation of bedrooms).....

COUNTY IN WHICH RESIDENT.....

I enclose remittance for full fee/non-residential fee/£20 deposit (non-refundable) per person per course which includes insurance premium of £3

There is a reduction of £12.50 per night for non-residents

I enclose a stamped addressed envelope.

I undertake to pay the balance not later than four weeks prior to commencement of course.

CHEQUES SHOULD BE MADE PAYABLE TO 'WILTSHIRE COUNTY COUNCIL'

Signature.....

PERSONAL REQUIREMENTS:

- | | |
|--|--------|
| Shared Accommodation (twin-bedded) | YES/NO |
| Shared Accommodation (en-suite)* (5 available) | YES/NO |
| Double Bedded Room | YES/NO |
| Single Room | YES/NO |
| Single Room (en-suite)* (1 available) | YES/NO |
| Non-Resident | YES |

*Available at a surcharge of £8.00 per night per room for two nights, £6.00 per night per room for three or more nights, payable with the deposit.

To guarantee a single room the supplement of £2.50 per night is payable with the deposit.

If no single room is available are you willing to share accommodation? YES/NO

Special requirements (Diets etc.)

How did you find out about this course?

Please return to: Urchfont Manor College, Urchfont, Nr. Devizes, Wilts, SN10 4RG

(Tel: 0380-840495)

FOR OFFICE USE

Accommodation		
Receipt No:	Amount	Date

- Deposit:
- Insurance:
- Balance:
- Total:
- S/R Supplement
- ES Supplement
- Programme Sent

Cropcircle and UFO Residential Weekends and Summer Schools. Material presented by Ed Sherwood, a leader in the field of Cropcircle phenomenon and UFO visitation (he is currently suffering from burns received by another close UFO contact only recently), and Graham Allen who has experienced 'missing time' visitation and close UFO contact. Both have appeared on TV and have had more than their fair share written case studies in books. ALIEN UPDATE Timothy Good is one example. Graham and Ed will also be bringing along the most up-to-date info on what's going on and it should be a fabulous weekend. I do hope you can attend. More details of other events as soon as they are arranged.

SEE INSIDE COVER FOR ABOVE EVENT
 AT URCHFONTS MANOR WILTSHIRE

February 1995 UFO/Cropcircle Weekend at Burton Manor College, Burton, South Wirral, Cheshire L64 5SJ. Tel 051-336-5172. Burton Manor is another beautiful old Manor House ideally suited to these events and remarkably excellent value for the full Residential service it provides including its own private bar. Access for wheelchairs is also a feature. Contact above for full brochure.



The Manor was originally an Elizabethan house which was extensively rebuilt between 1678 and 1700 by William Pynsent in Restoration style and then later, William and Mary style. In the 18th century the Manor was owned by William Pitt the Elder and subsequently the Dukes of Queensberry. Since 1947 the Manor has been a residential College for Adult Education run by Wiltshire County Council.

The College is set in 10 acres of parkland, with lawns and walled gardens, an orchard and a fine collection of mature trees. It can accommodate 52 people in twin and single bedded rooms, and has a range of teaching rooms, an extensive library, and a craft shop. Its catering is highly regarded and in the summer homegrown fruit and vegetables are provided.

Urchfont runs courses for the general public throughout the year, and also acts as a venue for conferences, seminars and training events for professional groups. Its welcoming tranquil atmosphere provides an ideal setting for many types of meeting.

Urchfont in its setting

The Manor lies on the northern edge of Salisbury Plain in the beautiful Vale of Pewsey, an area rich in prehistoric sites, including Stonehenge and Avebury. The New Forest, Cotswold Hills and Dorset coast are easily accessible, as are the historic cities of Bath, Salisbury and Winchester. Grand country houses abound - Stourhead, Longleat, Bowood and Wilton, to name but a few.

WFO WEEKEND

258 Friday 12 to Sunday 14 August
Tutors: Ray Moore, Graham Allen and Ed Sherwood

Do they exist? If so, how long have they been here? What is the religious connection, if any? Is there a Crop Circle connection? Do E.Ts already walk the planet? Can we contact them? The tutors of this course certainly think so. Come along and prepare to be surprised.

Fees: a £93.00 b £99.00

Urchfont Manor College,
Urchfont, Devizes, Wiltshire, SN10 4RG
Telephone: Devizes 0380 - 840495
Facsimile: Devizes 0380 - 840005
Enquiries: Monday to Friday 9 am-5 pm
(plus 24 hour answer phone)
Students' Telephones:
Main building: 0380 - 840651
Coach-house: 0380 - 840699
Seymour House: Section 40
Emergency only Telephone: Section 40

DATES FOR YOUR DIARY

URCHFON OPEN DAYS

16 & 17 JULY 1994

Fees

There are two categories of fees:

- (a) Wiltshire residents
- (b) People from other areas

The fee includes accommodation in a twin-bedded room, tuition, meals, insurance, plus whatever extras are required by the course, unless these are detailed separately in the course programmes.

Deposit

A deposit of £20 per course is required. This is non-refundable and includes the insurance premium of £3.

Single Rooms

A number of single rooms are available at a surcharge of £2.50 per night, payable with the deposit.

Rooms with En-suite Bathrooms

Five twins and one single room with full en-suite facilities are available in the Manor at a surcharge of £16 per room per weekend (or £6 per room per night for three or more nights).

Residential Accommodation

Bedrooms are located in the Manor, the Coach House and in three smaller properties in the College grounds.

Special Diets

Please note any special requirements on the booking form.

Pets

Please note that we are unable to accommodate pets at the College.

Please do not leave it until the last minute before booking. We usually decide whether a course is viable or not a month before it is scheduled

Weekend Schedule

Weekend courses commence with dinner at 7.00pm on Friday, and usually disperse after lunch on Sunday, but some continue until tea-time. A detailed programme with times of the course will be sent to each student several weeks before the course begins.

Booking Form

Please complete and return a booking form from the centre of this brochure, together with the non-refundable deposit of £20.

Balance of Fees

All course fees are payable not later than four weeks prior to the commencement of the course. Normally no reminders are sent.

Queries?

Please contact the Booking Secretary, Diane Lucas, between 9am and 5pm Monday to Friday. Urchfont Manor College, Urchfont, Devizes, Wiltshire, SN10 4RG. Tel: 0380-840495

INSURANCE COVER

Arrangements have been made with certain Underwriters at Lloyds to cover the loss of deposit and course fees (limit £250) in the event of cancellation directly due to death, injury or sickness of the student, their close family or person booked to accompany the student on the course, subject to certain warranties and exceptions. Full particulars of this insurance are available. The course deposit includes a premium of £3.00 which may be waived and the course fee reduced by request. The aforementioned arrangement does not apply to overseas courses for which we can arrange cover if required. When making a claim it will be necessary to produce a medical certificate.





ALIEN ACKNOWLEDGMENT CAMPAIGN

ORTK BRITAIN

THE AAC, Section 40 Ripon, N. Yorks. Section 40 Tel. Section 40

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WITHOUT CONSENT
Missing Time and Abduction Phenomena:
The British Cases

By Philip Mantle and Carl Nagaitis
Foreword by Clinical Psychologist Dr John Shaw

WITHOUT CONSENT is the first ever British investigation into a mystery which has baffled scientists and laymen for four decades: the Abduction Phenomenon.

Traditionally linked with Ufology, the twilight science of Unidentified Flying Objects, abductions have been reported world-wide. Ever since the phrase Flying Saucer was coined back in 1947 to describe a sighting of a UFO in the United States, investigators have tried to establish a link with a growing number of reports of individuals who believe they have been carried off without consent.

Thousands of these cases have been reported world-wide, the majority in the USA. In Britain a mere forty cases have been reported. These cases range from individuals who have had a missing time experience to groups of people who allege abduction by alien beings and even visits to spacecraft.

WITHOUT CONSENT is a compelling catalogue of mystery experiences that have happened to ordinary people: housewives, policemen, teachers, businessmen. Middle-class, middle of the road, respectable citizens, all of them believe they were abducted. None know why or by whom, although in many of the case histories in this book they put forward their own theories to rationalise their experience.

In its investigation of Missing Time and Abduction Phenomena, WITHOUT CONSENT focuses on attributable experiences in the United Kingdom. All the cases have been thoroughly researched and gathered together in this comprehensive book which leaves the reader to decide for themselves the truth behind these extraordinary occurrences.

Philip Mantle is Press Officer for the British UFO Research Association (BUFORA) and Secretary to the UFO National Investigations Committee.

Carl Nagaitis is an ex-Fleet Street journalist and a self-confessed UFO cynic.



£16.99
Hardback
340pp, 16 illustrations
234 x 153m
ISBN 1 898051 08 9
June 94

Copies of *Without Consent* (Publ 21 June 1994) are available from bookshops. They are also available by mail order from: Ringpull Press, Queensway House, Poynton, Cheshire SK121NJ (Tel:0625 850037 Fax: 0625 850038) Price £16.99 (post and packaging free)

Copies ordered before 30th May 1994 are available at the special price of £14.99 (post and packaging free)

Please Send copies of **WITHOUT CONSENT** to:

NAME:

ADDRESS:

.....POSTCODE.....

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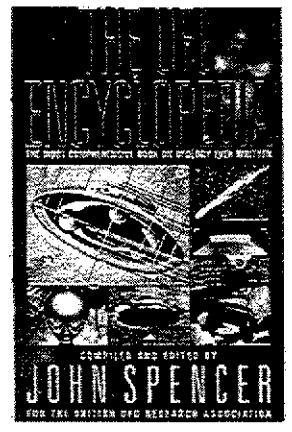
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File Note,

Spike to Section 40 PA Brussels, re the Belgian sightings. Colonel Pe Brommer did make the statement attributed to him in the AAC document, although he was not CAS, but Chief of Operations in the Air Staff. (He's now a Major-General, PCS Plans, Personnel = Ops).

The statement was made at a press conference, but media pressure became so intense all data was passed to a civilian group, SOBEPS, and no further official action was taken.

Section 40 has spoken to Section 40 + Section 40 (who work to me on the subject) together with some of the pilots who were involved. Nobody thinks the radar returns were spurious. The consensus is that there was a solid object there, it could go from 0-Mach 7 in a couple of seconds, and the only real conclusion is that they don't know what it was!

Section 40

7/6/94

Hd 1

Yesterday's Operation Right to Know demonstration passed off without incident, and I have attached their "Are you Aware?" document, together with the covering letter to me, and my reply. There were only about a dozen demonstrators, although more may have arrived later outside Parliament. There's been some radio coverage, but I think they lost out by picking the same day as the disabled protest outside The House of Commons. Two of the group handed over the document to me at Reception (no journalists present) and I had a brief chat. By seeing them we have denied them any opportunity to claim that we snubbed them or weren't prepared to give them their say. As a matter of interest, a lot of the key figures in the UFO lobby actually tipped us off about the demo in advance, and distanced themselves from those involved. Neither of the 2 largest national groups have got involved.

- 2 -

Section 40

Section 40

Thank you - I am glad that no untoward problem occurred. I am replying 24/5 that seems appropriate that interested parties have had been supported by other organisations.

Section 40

LOOSE MINUTE

D/Sec(AS)12/1

11 May 1994

DCPR - Section 40

REQUEST FOR MOD PARTICIPATION - THE JAMES WHALE SHOW

1. With reference to the letter dated 9 May from Section 40 of Mike Mansfield Television, which was passed to you by APS/Sofs, I do not believe the MOD should participate in the forthcoming James Whale Show programme on UFOs.

2. The show tends to be irreverent and confrontational, and I see no advantage in our taking part.

3. DPO(RAF) has a number of press lines that can be used to represent our position, and I suggest these might be passed to Section 40. Essentially, our position is as follows:

- Our only reason for looking at UFO reports at all is to ascertain whether there is evidence of any threat to the defence of the UK.
- No evidence of any such threat has been found to date.
- We believe that explanations can be found for most sightings.
- We accept that there are always a few sightings which appear to defy explanation, and we remain open-minded about these.
- We are aware of no evidence that would support the existence of extraterrestrial life.

4. Please let me know if you require anything further.

Section 40

N G POPE
Sec(AS)2a
MB8245 82140MB

Mire Mansfield Television
LTD.

AS2 - Section 40

cc u/s Sec (AS)
DCPR
4/18

Letter by Fax

Rt. Hon Malcolm Rifkind QC MP
Secretary of State for Defence
Ministry of Defence
Whitehall
London SW1A 2HB

*Careful if you could
reply on SOS's behalf.*

Section 40

APS/SJS
9/5

9th May 1994

Dear Sir,

We are currently in the process of producing a programme on U.F.O.'s for the James Whale show; "Whale On", which shall be recorded on 16th May 1994.

Our guests will include Section 40 and Section 40, Director of Investigations at the British U.F.O. Research Association. We would very much like a Government representative to also take part to explain the official policy towards U.F.O.'s - a subject which, as you know, the American Government takes seriously.

If this is not possible, we would be most grateful if you will provide a statement of policy in order that we may learn how the British Government handles the subject.

We look forward to hearing from you.

Yours Faithfully,

Section 40

Section 40
Associate Producer



LOOSE MINUTE

D/Inf(D)/29(163/94)

10 May 1994

PS/SofS

Copy to:
Sec(AS)

Section 40

Section 40

Section 40

Spoke 6

Section 40

and explained the background to this. Hold release this note.

Section 40

11/5

CENTRAL TELEVISION PROGRAMME ON UNIDENTIFIED FLYING OBJECTS

CTV are preparing a 60 minute documentary on UFOs. They claim that it is a serious in-depth presentation.

2. They seek an interview with Secretary of State. If he turns the interview down they will invite a different Minister or senior MOD personnel.

3. They have interviewed a number of former Russian and American service personnel and an American Congressman. They are also interviewing Admiral of the Fleet, Lord Hill-Norton.

4. It is difficult to take the subject too seriously and I strongly suspect that the programme will have an element of facetiousness in it. They have intimated to me that they do not expect SofS or anyone else in MoD to give an interview and that it has been made for the sake of 'form'. Accordingly I recommend that the request is rejected.

5. I recommend that instead I offer the programme a very short and simple statement on MoD responsibility for, and attitude to, UFOs. I am discussing this with Sec(AS).

Too late mate!

Section 40

Section 40

Head of News, DINFOD
MB0389

Section 40

MINISTRY OF DEFENCE
SEC (AS)
11 MAY 1994
FILE

LOOSE MINUTE

D/Sec(AS)12/3

10 May 1994

APS/SofS
PS/Min(AF)
PS/Min(DP)
APS/USofS

Section 40

Cherry X police station

Section 40

direct dialling

MOD security control alerted

Copy to:

AUS(C)
PSO/ACAS
Head of Sec(AS)
DPR(RAF)
DPO(RAF)

OPERATION RIGHT TO KNOW

1. Ministers will wish to be aware that a pressure group called Operation Right To Know intends to organise a demonstration outside the House of Commons on Monday 23 May, protesting at what they see as a cover-up on the subject of UFOs. They intend to hand over letters for each MP, containing a document entitled "Are You Aware ...?", alleging the existence of a cover-up of information that would prove the existence of an extraterrestrial presence on Earth. I have not seen the document, but understand that most of the allegations involve the US government. The UK government may be mentioned, and MPs may be encouraged to press the MOD on this issue.

2. Before going to the House of Commons, two representatives from Operation Right to Know will be arriving at the South Door of Main Building to hand a copy of the document to me.

3. This group is an offshoot of a US group which has previously organised demonstrations outside the White House. The US demonstrations have never involved more than 50 people, and it is considered unlikely that this new UK group would be able to muster even that number. The organisers have liaised closely with the police in planning their demonstration.

4. Ministers may well be approached by MPs as a result of having received the letters, and may wish to point out that the MOD's only reason for looking at UFO reports at all is to ascertain whether there is evidence of any threat to the defence of the UK. No such evidence has been discovered to date, and we are aware of no evidence to support the existence of extraterrestrial life.

Section 40

N G POPE
Sec(AS)2a
MB8245 82140MB

Section 40
Section 40(AS)
Section 40

CENTRAL TELEVISION UFO DOCUMENTARY

1. The Press Office have been approached by Central TV who are producing a documentary on the UFO phenomenon. Central TV have asked for an interview with me, giving us a chance to set out our policy and views. I have attached their letter.
2. The MOD have not come out well of previous programmes on the subject; ufologists have explained their views, and this has inevitably included speculation about a government cover-up. Such programmes inevitably end with a statement that the MOD was asked to take part, but refused. I believe that refusal to take part would be counter-productive - especially if even the Russians were prepared to take part. We now enjoy a good working relationship with most ufologists, and this programme is a good opportunity to undo some of the negative PR that has built-up.
3. I have discussed this approach with Section 40 in the Press Office; although desk officers do not usually give interviews, they do in the case of specialist subjects such as heritage or environmental issues. Given this, and in view of the points set out above, Section 40 is content for me to be interviewed. There is precedent for such participation: one of my predecessors appeared on BBC 2's "Man Alive" documentary, being filmed taking part in a public meeting on the subject. As is usual with such interviews, DPO(RAF) would co-ordinate the details with Central TV.
4. I would be grateful for your agreement to this proposal.

31 Mar 94

Section 40
Sec(AS)2a

Section 40

*I have cleared this with
ACTS when content. A meeting
arrangement and discuss with
the press as per attached.*

Section 40
2/3

Q - A's in UFO guidance folder
Interview done on 25 April

Central Independent Television plc
46 Charlotte Street
London W1P 1LX

Telephone Section 40
Telex Section 40



CENTRAL

To: [Section 40]
[Section 40] (AS)
[Section 40] THS

Fax p.2

[Section 40]

Press Officer AIR
The Defence Press Office (RAF)
Room 0393
Main Building,
The Ministry of Defence
Whitehall SW1

March 30 1994
REF: Project UFO

Dear [Section 40]

We are currently producing a documentary on the subject of UFO phenomena. This is a serious and in-depth presentation of various aspects focussing chiefly on the objective reality of reports and witness accounts.

Much emphasis is given to reliable accounts from military and scientific personnel. We have recently returned from the United States and Russia where our interviews have included statements from [Section 40] (one of the architects of the NORAD defence system) and Congressman Steven Schiff. In Russia we also filmed interviews with [Section 40] (Deputy Chief of Staff of the Soviet Air Force) and [Section 40] who headed a ten year military and scientific project into the topic in the 1980's.

Another aspect of the programme includes brief sequences from the public at large who have captured unusual aerial phenomena with their camcorders.

We are aware that there is a significant gap in terms of statements from official British sources, and although we are also talking to Lord Peter Hill-Norton, former Chief of the Defence Staff, we would like to include an interview with Nicholas Pope, your spokesman on these matters.

We believe it is important that the British public are made aware that this department provides a focus for those who have witnessed or indeed filmed unusual aerial phenomena. As a public service we have found this is relatively unique and worth emphasising.



THE QUEEN'S AWARD FOR EXPORT ACHIEVEMENT 1987 1988

Fax page 3

Broadly speaking we would like to cover a number of points:

- What is the department's remit in handling reports and does it deal with civilian as well as other official enquiries?
- What percentage of reports can be classed as unidentified, and would he tell us about some typical reports received - ie confusion between aircraft landing lights/airships etc.?
- When reports come in - what happens to them?
- What is the lifetime of a report? We understand that before 1967 reports were routinely destroyed. Has this changed?
- Are there typical report 'waves' and do these correlate with specific events? I.E. we understand that when the film 'Close Encounters of the Third Kind' was released, reports peaked for the year in question.
- Have there been any significant cases that may have constituted a security threat to the United Kingdom?
- Could the official statements by Col. de Brouwer of the Belgian Airforce in March 1990, and the then Minister of Defence Guy Coeme, that an object tracked by radar installations and pilots was intelligently controlled encourage more open debate within the British military services?
- Given the often hundreds of sightings reported to the department every year, what main conclusions have been made as to the nature of the objects reported?

The filming, including setting up and dismantling should take in the region of 2 hours, preferably at Nick Pope's office. We would like to film on the morning of next Wednesday 6th April if that is convenient both for you and for him.

We would be most grateful if this is possible. Because of the intervening holiday break, I am initially faxing this request and will post a top copy to you.

Section 40



(Producer/Director)

Evening Standard, Thursday 3rd March 1994

Don't panic, there's a satellite falling

by SARAH GRADY

A SEVEN-TON Russian satellite is on a collision course with Earth today.

But while other countries call out the national guard and go on emergency alert, the Home Office says Britain should not worry.

The 22ft-long Progress M-17 is expected to crash back into the Earth's atmosphere sometime this afternoon.

One of 3,600 placed in orbit since the then Soviet Union launched Sputnik, it serviced Russia's Mir space station.

While most of it is likely to burn up and disintegrate before it hits the ground, there are fears that some

pieces could get through. Throughout Italy, police, fire and ambulances services are on full alert.

"We do not want to take any chances," said a spokesman for Italy's civil protection ministry.

Here in England, the Home Office attitude was a little more laid back.

"We are monitoring the situation, but we do not anticipate anything untoward happening," it said.

"The chances of anything dropping on us are very, very small."

Tell that to the Italians.

LOOSE MINUTE

D/Sec(AS)12/1

28 Feb 1994

DI55c - Section 40

UFO SIGHTING OVER CRAIGLUSCAR RESERVOIR

1. I was approached last week by a reporter from the Scottish Daily Record, who asked my advice with regard to some UFO photographs that had been sent in by a member of the public. I subsequently managed to acquire these photographs, together with a statement from the witness, and some sketches that he had made. I have attached this material for your consideration.

2. I have spoken to the witness, a Section 40 (Tel no. Section 40). The following details, which were not in his original statement, may be of use:

- He appeared genuine, and rather disappointed at the way in which the paper eventually ran the story, which he saw as frivolous (I do not have a copy of this, but believe it was printed today). He did not appear to know anything about UFOs, and aside from his own experience, expressed no interest in the subject. I do not believe that he sought or received any payment from the newspaper.
- The camera used was an old SLR model, a Chinon CS. The film used was a 200 ASA.
- The alleged incident took place at approximately 3.15pm.
- He estimated that the object was approximately the size of a jumbo jet, and came down to a height of around 300 feet AGL.

3. It seems to me that this case is either a hoax, or something very interesting indeed.

4. The Daily Record have already asked me for my views, and I have deployed the standard line that our initial consideration of the photos has produced no obvious explanation, but that we are now having a more detailed look. As word of this case spreads (Some of the UFO lobby are already aware of the story) we may come under increasing pressure.

5. I would be grateful for your views on this case, with particular reference to the photograph of the object at close range.

Section 40

Section 40

Spoke to GE3, and he asked RAF Buchan whether there had been any unusual radar traces. None found.

N G Pope
Sec(AS)2a
MB8245 8214OMB

12/3

218 2680

PAGE 2

On the afternoon of Saturday, 19th. February, 1994, I drove to Craigluscar Reservoir, just outside Dunfermline, in order to take some photographs of that area. I am an amateur artist, and wanted the photographs to assist me in producing a painting of the reservoir. I am a member of the local angling club who stock and have the fishing rights of this water. Already having taken photographs there in the summer, I wanted to have several of the landscape in winter.

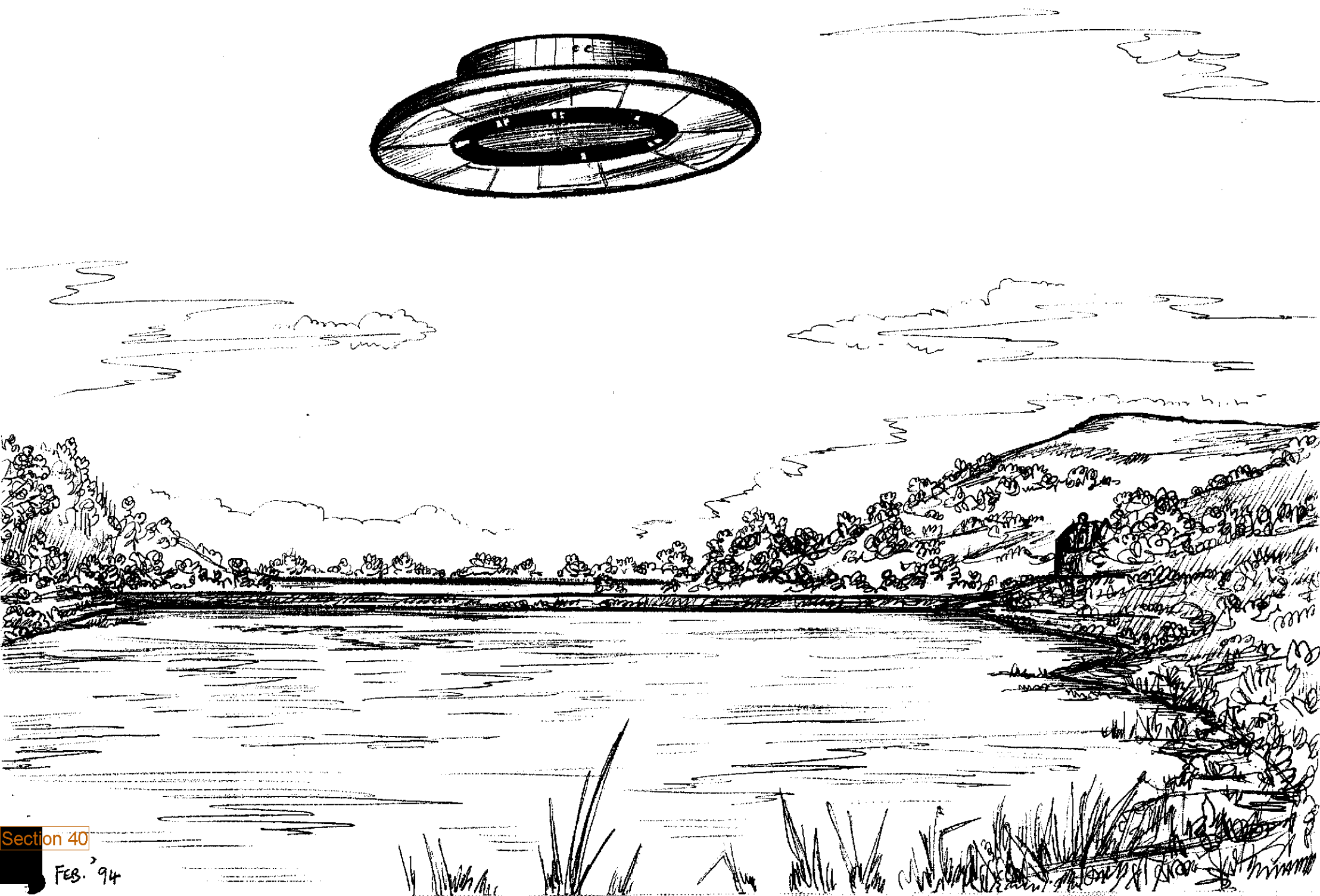
I took a number of photographs as I walked along the bank of the reservoir, and was looking eastwards at the furthest point of the reservoir, and pondering whether I should take some photographs looking east, away from the water. I became aware of what I can only describe as a kind of humming noise, such as that from high voltage power lines. I also felt very uneasy, and turned slowly towards the reservoir.

Fairly high in the air, and coming slowly in my direction, was a disc-like object, which was definitely an aircraft. I was holding my camera in my hand, but felt unable to use it. I have never experienced such a feeling before; I did not THINK of taking a shot. In retrospect, it seems there must have been some kind of compulsion. I was concentrating on the craft, yet not really absorbing what was happening. At that point, I was very afraid. But I now realise that the fear passed, and was replaced by a sense of "relaxed resignation". (I don't have better words to describe it.)

I later realised that I must have been looking at whatever it was, for more than fifteen minutes. The craft came close enough for me to see that it was definitely metallic, and had several points of diffused light on its underside, inside a darker coloured "rim".

As the craft began to move away, all sense of the feelings which had stayed my hand, disappeared. I raised my camera, and took two photographs. The craft's acceleration was phenomenal - By the time I'd wound the film on between the two shots, it was a mere dot in the sky to the west. There was no noise at all, apart from the "buzzing" when it was near to me.

I know nothing at all about "U.F.O.'s", and the subject does not interest me. But nothing of what I saw or experienced, was "in my imagination". Of that, I am certain. Later that day, I telephoned R.A.F. Piteavie, to enquire as to whether there had been any unusual air activity that day. I was told there had not been. I am an aircraft enthusiast myself, and pride myself in their recognition. I know that what I saw was no conventional aircraft.



Section 40

FEB. '94



Section 40

23 February 1994

Nick Pope
Secretariat (Air Staff)
2A Room 8245
MOD
Main Building
Whitehall
LONDON
SW1A 2HB

**Scottish
Daily Record
& Sunday Mail Ltd.**

Anderston Quay Glasgow G3 8DA
Telephone 041-248 7000
Direct Line 041-242
Fax 041

Dear Nick

Please find enclosed prints and artist's drawings of the UFO which we talked about today. I would be grateful for your comments and assessment of these at your earliest convenience.

Thanks for your help with this.

Yours sincerely

Section 40

Picture Editor

PS. I will fax more information tomorrow.

Section 40



TO: Nick Pope
FAX: Section 40
DATE: 24 February 1994
PAGES: This one plus one

Daily Record

Anderston Quay Glasgow G3 8DA
Telephone 041-248 7000
Direct Line 041-242 3
Fax 041-

FROM: Section 40 Picture Editor
FAX No.: Section 40
TEL. No.: Section 40

Attached text as discussed this morning.

Regards

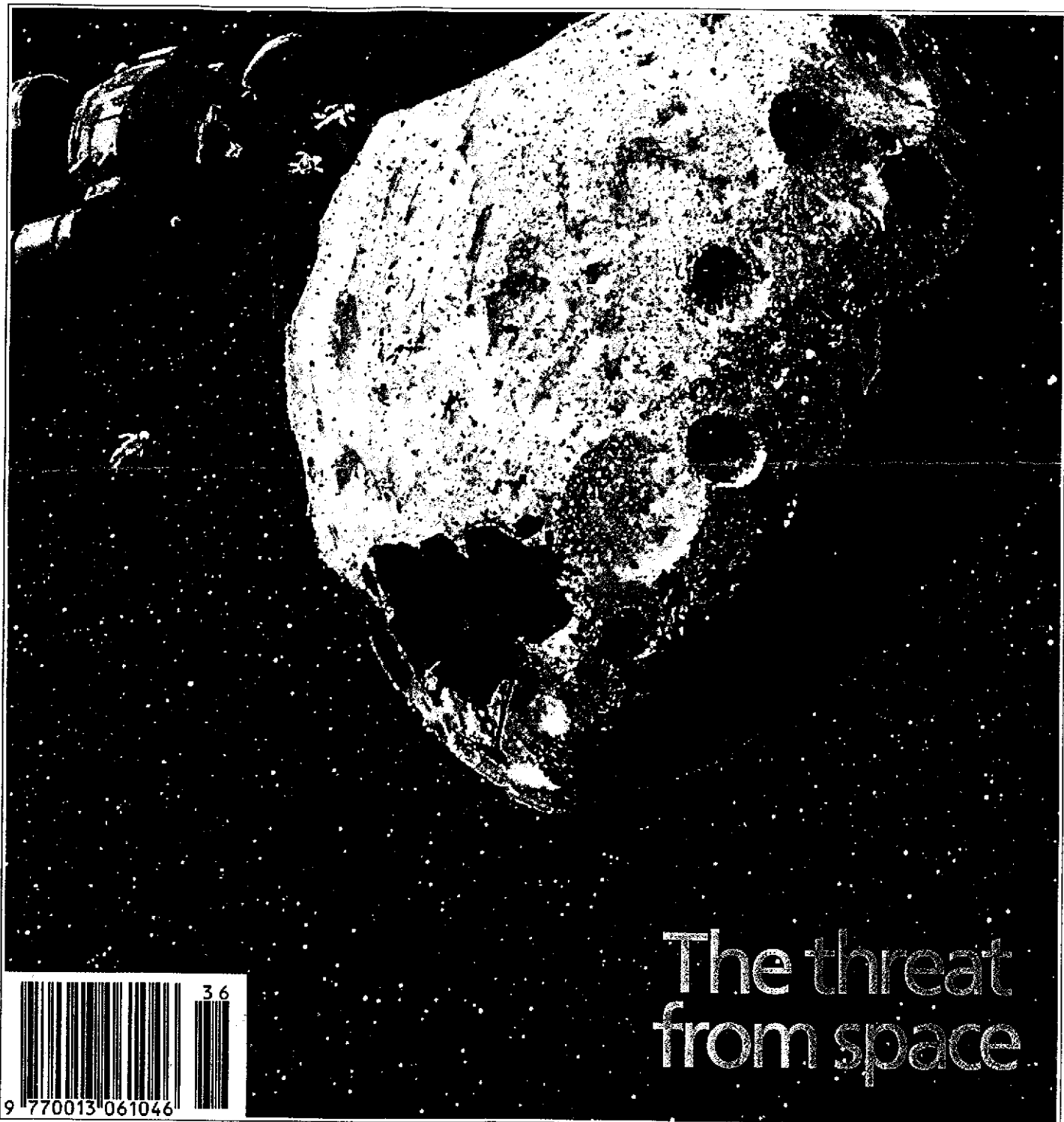
Section 40

P.P.
Section 40
Picture Editor

The Economist

SEPTEMBER 11TH-17TH 1993

THE NEXT 150 YEARS The future surveyed	after page 68
JOHN SMITH'S SURRENDER	page 24
ANOTHER CAR GIANT	page 77
GERMANY UNDER REPAIR	pages 36 and 102



The threat from space

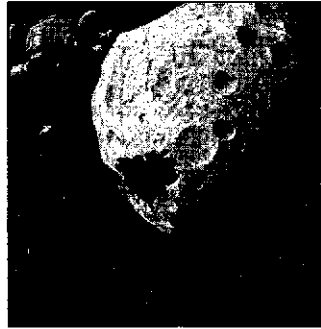
36

9 770013 061046

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The threat from space

“WHEN I sat down to have my breakfast beside my plough, I heard sudden bangs, as if from gunfire. My horse fell to its knees. From the north side above the forest a flame shot up. Then I saw that the fir forest had been bent over by the wind, and I thought of a hurricane. I seized hold of my plough with both hands so that it would not be carried away. The wind was so strong it carried soil from the surface of the ground, and then the hurricane drove a wall of water up the Angora.” Almost 20 years later, the early morning of June 30th 1908 was still clear in the memory of this Siberian farmer. From a distance of 125 miles, he and his horse had witnessed one of the greatest of natural disasters: the impact of an asteroid.



People who have not had such a salutary experience—which is to say, probably everyone now alive—find it hard to take such impacts seriously. They may worry about earthquakes and floods, but they will laugh at the idea of the sky falling on their heads. Part of the reason is simply that they have never lived through anything like that Siberian morning. They have not seen the damage that a rock as heavy as four or five supertankers can do when it hits the earth 40 times faster than a bullet, exploding with the force of a huge nuclear weapon. If they had, they would not be surprised to be told that the next impact might wipe out civilisation—or even the human race. And they would embrace the comparatively trivial expenditures needed to make sure that it does not (see pages 105-110).

Stop laughing. Without the benefit of experience, doubters must be convinced by evidence. Look at the face of the moon: it is covered with impact craters, pock-marked by billions of years of bombardment. The earth's surface is regularly scrubbed clean by erosion and refreshed by plate tectonics, but it, too, bears similar scars tens of kilometres across and millions of years old. If they were to be found only in the depths of geological time, the impacts would be no more relevant to today's concerns than the dinosaurs are: big, scary and gone, potential subject-matter for a great film. But the impacts have not stopped. Telescopes have revealed hundreds of asteroids and comets crossing the earth's orbit. Astronomers expect to find thousands more. In time, one will hit.

The crucial question is: how much time? Nobody knows. No known rock is on a collision course at the moment—but most of the rocks are unknown. The small sample of asteroids studied so far has yielded some information. An impact as big as the Siberian one might be expected roughly once a century. Much larger bodies, a mile or so across, may hit the earth every few hundred thousand years. What they lack in frequency, though, they make up for handsomely in ferocity. These larger impacts would throw vast quantities of muck into the upper

atmosphere, reflecting back sunlight and cooling the ground. In the cold and the dark below, crops would fail and billions might starve.

A report to America's Congress in 1992 by a panel of experts said that if there were such an impact, a quarter of the world's population would die. If the annual risk of the impact is one in half a million, that gives an annual risk of dying of one in 2m, and a lifetime risk of 1 in 30,000. That is the sort of risk inhabitants of America and other rich countries start worrying about. For Americans it is higher than the

risk of dying in any other sort of natural disaster.

That is not a completely satisfactory comparison. Natural disasters in America have been tamed, at great cost. Besides, the longer you wait, the worse a natural disaster you can expect to see, as the inhabitants of the Mississippi flood plain have recently been reminded. To compare the worst asteroid impact in half a million years with the worst earthquakes and hurricanes of the past few decades is lopsided. It would be nicer, for those who calculate the benefit defences might bring, to have a figure for the number of deaths. The 1 in 2m risk can be turned into an equivalent annual death-rate of 2,700 worldwide, 390 in the rich countries. The British government reckons that it is worth £820,000 (\$1.2m) to save a life through increased road safety: from that, you might expect the developed world to pay \$470m a year to deal with the asteroids.

The actual death rate from asteroids is zero. So it was, officially, for nuclear power accidents, before 1986. It is possible that the rate will remain zero for a millennium. But it is worth comparing what is spent on dealing with this risk (nothing) with what is spent on dealing with other risks that are (or merely seem) bigger. Doing so might help put those other risks into proportion, even if it fails to convince anyone to spend money on avoiding asteroids. But some spending to that end is worth thinking about. If a system to spot asteroids were in place, then any that posed a serious threat could be knocked off course by a nuclear bang. Such a system could cover the sky in 30 years for perhaps \$10m a year.

The future is a foreign country

The solution, a little sky-watching, may seem affordably small beside the scale of this nightmare: not even old-testament prophets would have counted on such a conflagration. But no such sky-watch yet exists, though it would cost only a fraction of what governments already devote to astronomy, let alone space travel. Progress has created the tools to analyse the threat; it has also, along the way, made the idea of a catastrophe that falls from the skies seem silly.

Comets have been objects of concern throughout history and, judging by the odd cave painting, before it. They have

been seen as omens; they have been seen as threats. This may have been groundless superstition, or it may have been a memory of a time or times when a comet, or an asteroid that shares its orbit, did indeed cause a disaster. Either way, comets were frightening until Enlightenment astronomers and their mathematical certainty gained some sort of control over the public imagination and swept superstition from the sky.

Mankind now lives, smugly, in a century of such unsuperstitious confidence. It embraces the dangerous illusion that the well explained way of the recent world is the way things always are. It treats the past with, in the fruity phrase of E. P. Thompson, a British historian, "the enormous condescension of pos-

terity": imagine them all, huddling in hovels afraid of comets! However, the world, uncaring as it is, does change—in part because complacent man thinks it will not. Epidemics long vanished return. The climate shifts. Holes appear in the ozone layer. And, occasionally, something more substantial than ultraviolet light crashes down from a blue sky.

There is nothing wrong with being blasé, and there is no reason to live in daily terror of death from the sky. But there is a great danger in having minds so narrow they can see no further than half a lifetime in each direction. The asteroidal message that matters most is that the past, and the future, may be hugely different from the present.

Losing a villain

Without Israel to hate, the Middle East would be a more rational place, though not necessarily a more stable one

IS THE Middle East, a pesky nuisance for longer than most people's memories, about to become just another corner of the world? The journey is thick with bear-traps. Yet, against expectation, the way to a broad peace has been gingerly opened by the crumbling of what seemed an impregnable wall between Israel and the Palestine Liberation Organisation.

For most of the past half-century Arabs have talked of Israel as the source of all their troubles. They exaggerated, using Israel as an excuse for their own deficiencies. But no Arab country was unaffected by the backwash from the displacement of the Palestinians and the loss of Jerusalem. War, hot and cold, obsessed the region; Palestinian suffering became a rallying cry, often for causes that had little to do with it; Palestinian attempts to win back their land disrupted the countries where refugees were perched. Arab double-talk was endemic, but the cruel grievance at the heart of the dispute was real.

Now that a start has been made to remove this grievance, a Middle East minus Israel-as-villain could be near. What difference would it make? Some Israelis, rejoicing in what they see as their own liberation and sensing a rosy-fingered economic dawn ahead, have begun to portray themselves and their neighbours as the answer to a free-trader's and investor's prayer (as if in confirmation, their protectionist-minded farmers are howling in protest). The central region including Israel is, after all, a fertile sweep not far from Europe, rich in tourist attractions and entrepreneurial skill; Israel's high-tech could be married to the Arabs' low labour costs (see page 83). And stability, or so it is said, will no longer be the missing element.

Will it not? In the short-to-medium term, the region is likely to become more unstable, not less. Widespread Palestinian dismay at the terms of the PLO's compromise putting Gaza and Jericho first will keep the pot stirred: it is not only radicals who feel betrayed. Arab dissidents in search of an inflammatory cause will not have far to look.

Outsiders, who as a rule can do little more than deplore what is going in the Middle East, have the chance to play a big part in damping down this fire. Under the deal, the PLO has been landed with the job of running a militant, no-hope Gaza, usually described as ungovernable. Its only way of overcoming distrust is to do the job shiningly well. For this it needs quantities of money. Indeed a fund has already been started, in the

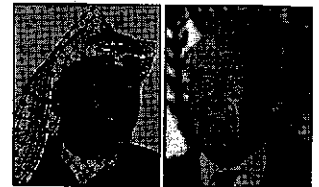
hope that the rich Gulf states will swallow their fury at Yasser Arafat's chumminess with Saddam Hussein. Also needed is basic technical help and know-how that Europe is in a position to provide. The PLO may still fail. But it would be a damning indictment of a mean world if it did so from lack of resources.

Calling a bad ruler a bad ruler

In the longer term, the region's stability depends on its state of governance. If all goes astoundingly well, Arab regimes and their domestic opponents will eventually confront one another stripped of their anti-Zionist camouflage. Islamic fundamentalists push a hard line on Israel, denying the Jewish state's right to exist. That brooks no accommodation. But if the poison were drawn from the Arab-Israeli dispute, and peace became part of the lifeblood of society, militant Islamists would be robbed of one of their weapons. This would weaken them, but only marginally. The fundamentalists' abiding strength, which opens hearts and minds to their siren song, is the failure of Arab regimes to answer to the frustrations of their people. Without Israel to confuse things, the two sides should see each other clearly: a salutary, if dangerous, alternative.

With the dawning of official peace, Arab governments would do well to turn some of their swords into ploughshares, the missiles that target Tel Aviv into education and welfare. But they may not: if countries, such as Saudi Arabia, check their extravagance it is more likely to be because they feel poorish than because the Israeli threat, or pretext, has vanished. Disputes between states will continue, perhaps even encouraged by the absence of anti-Israeli unity—though this has been notoriously unreliable. On the other hand, Israel will no longer be automatically excluded from military alliances against a rogue state, such as Iraq or Iran. As in Europe after the cold war, old quarrels will no longer dictate who is on which side.

An ending to the interminable Arab-Israeli hate-affair no more points to a stable Middle East than the collapse of communism pointed to a stable Europe. But it would part-resolve an injustice, remove a big irritant—and be a prelude to a future in which trouble is no longer disguised by an anti-Israeli code. If this were to come about, it would be thanks to the PLO and the Israeli government, and those who now stand by them.



The hard rain

If the impacts of comets and asteroids have caused mass extinctions in the past, should mankind not worry about what they may do in the future?

IT IS falling through space, one side harshly lit, the other in the deepest shadow. It is elongate and pitted—a tooth from the jaw of a long-dead god. For 4½ billion years it has been falling round and round the sun, in an ever-changing orbit. Now, by chance, it is falling quite close to the sun. Its orbit sometimes crosses that of a far larger, friendlier rock tucked into the sun's skirts: the earth. One day, the tooth and the earth will simultaneously reach the point at which their orbits intersect.

On that day, you want to be elsewhere. The tooth will arrive at some 20km (12 miles) a second; when it is stopped short by the earth's bulk, all the energy inherent in that velocity will be given up. If the tooth were 350 metres across, the energy released would equal that stored in all the world's nuclear arsenals.

Millions of falling asteroids and comets roughly that size criss-cross the solar system. Most of the asteroids are to be found far from earth, orbiting in a belt between Mars and Jupiter; the comets travel the colder reaches beyond. But at any time, tens of thousands may be in orbits which cross the earth's—and thus might hit it.

A couple of aged telescopes in America are dedicated to searching for these near-earth asteroids, and telescopes elsewhere are used for searches off and on. As yet, the searchers have failed to find any that will hit in the foreseeable future. But their slow searches have covered only a fraction of the sky, and revealed only the largest of the asteroids. Around 100 bodies more than a kilometre across have been discovered in orbits that cross the earth's—but they represent only about 5% of the total.

Left to itself, the earth can no more avoid these falling bodies than a pasture can stay unmoistened by rain. The showers may hold off for days; the hard rain may not fall for centuries. But it will fall, unless mankind acts. Human spacecraft and weapons are puny compared with flying mountains, but if they are used intelligently and at the right time they can nudge them safely aside. And when channelled, the rain becomes useful. If mankind travels beyond the earth,

near-earth asteroids may provide a valuable resource. For a civilisation with space-going bowls, it is raining soup.

Annual Hiroshimas, and worse

On a clear night, watchful lovers can expect to wish on half a dozen shooting stars an hour as specks of dust and gravel burn up in the upper atmosphere. Some are not entirely consumed by the fire, and fall to the earth as meteorites—made of solid iron, of stony rubble, of a sooty mess that will dissolve in the next morning's dew.

Above the lovers, electronic eyes looking down from space see rarer, more spectacular flashes: detonations as bright and powerful as nuclear explosions. According to Ed Tagliaferri, who works on America's early-warning system, satellite operators saw 136 incoming fragments explode in the upper atmosphere between 1975 and 1992. If they had been looking for this sort of event, rather than for missile launches, they might have seen many more.

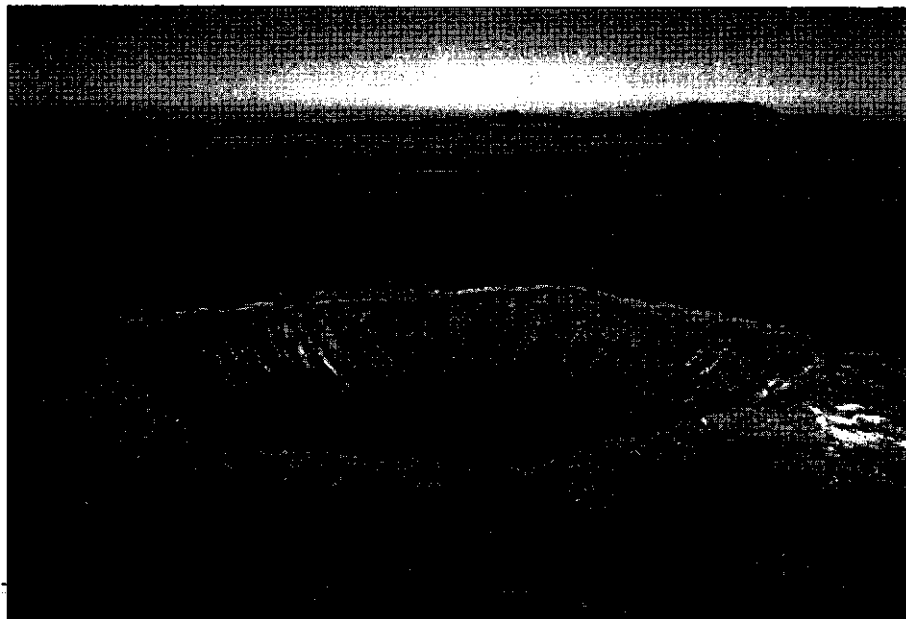
The asteroids explode because, at orbital speeds, hitting the upper atmosphere is al-

most as bad as hitting a brick wall. An asteroid fragment 3½ metres across will explode with as much energy as the bomb that flattened Hiroshima. If that explosion is in the upper atmosphere, as most of them are, it is pretty harmless; such a fireball blossomed over the Australian town of Dubbo last April, and though it shook things up a bit it did no damage.

Not all airbursts are harmless, though. In June 1908 an explosion equivalent to roughly 15m tonnes of high explosive (1,000 times larger than the Hiroshima bomb) took place 10km above a deserted area of Siberia. From the altitude and the energy, scientists think it was probably a piece of stony asteroid perhaps 80 metres across.

The blast levelled 2,000 square kilometres of forest; its radiance caused widespread fires; its shockwave was picked up by seismometers in America. It also had a dramatic effect on the upper atmosphere. A few nights later in London it was possible to read a newspaper well after sunset thanks to the sunlight reflected over the horizon by shiny "noctilucent" clouds 50km high.

A lightweight asteroid like the one that flattened the forests of Tunguska can be expected perhaps once every century or so—though estimates of the rate of impact may be out by a factor of two or more. Bigger ones are rarer, and scarier. Once or twice every million years an asteroid a kilometre or more in diameter will hit the world. The atmosphere offers no protection against things this big; they leave craters about 10km across. The effects of such a strike



Meteor crater: a clear reminder

might be comparable to those of a global nuclear war. The blast could level a fair-sized country. If it hit the ocean, huge waves would circle the world.

Worse still would be the non-nuclear "winter" caused by dust thrown into the stratosphere—a pall far thicker than the noctilucent clouds that followed little Tunguska, and reflecting sunlight outwards, not down on to sleeping London. The precise amount of cooling would depend on the size of the dust particles and the height to which they rose. But there would be a pronounced effect. Such an asteroid might put nearly 1,000 times more muck into the atmosphere than the eruption of Mount Pinatubo did in 1991—and that eruption appears to have cooled the world for a year or so. It is a fair bet that most of the world's crops would fail totally for at least one growing season. The subsequent global famine could cost billions of lives.

Such catastrophes have not been recorded in the history of civilisation; but the record in the rocks shows that asteroids have often hit the earth with enormous force. Impact craters 10km or 20km across are scattered all around the world. And there are bigger ones, too. On Mexico's Yucatan peninsula there is evidence of a 65m-year-old crater 180km across. It was probably made when a comet 10km in diameter punched right through the earth's crust, releasing molten magma from the mantle beneath.

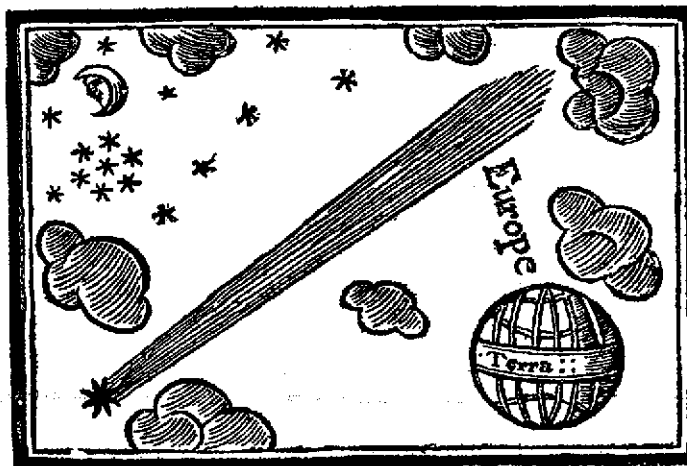
Extraordinary earthquakes tore at every seismic fault in the world as the crust buckled. Waves kilometres high crashed across the American continents. The blast threw billions of tonnes of dust and molten rock out into space. As the stuff fell back to earth the heat of its re-entry made the sky glow like a furnace, hot enough to light forest fires all around the world. When these burnt out, all was blackness; the dust hung in the sky like a wall of sooty brick. Eventually the sun returned, its warmth intensified. The comet had hit a seabed covered in limestone, and vaporised it by the cubic kilometre. That let trillions of tonnes of carbon dioxide into the atmosphere—enough to increase the temperature by perhaps 10°C.

The plankton in the sea died. So did most other marine creatures, except those safe in the depths. The terrestrial plants, able to stay dormant as seeds, did better. But no land animal that weighed more than 30kg (70lb) survived. The last dinosaurs were gone, along with 60% of all the species on the planet. A new geological era had arrived: the Cretaceous had given way to the

Tertiary.

The Cretaceous-Tertiary (κ/τ) boundary has been at the centre of more than a decade of palaeontological controversy. The idea of an impact there was first suggested by Walter Alvarez, a geologist at Berkeley, his father Luiz Alvarez, a physicist, and their colleagues when they found that clays deposited at the κ/τ boundary all around the world were very rich in iridium—a metal rare in the earth's crust, but common in asteroids and, it is thought, comets. They suggested that dust from a vast impact cooled the earth and killed the creatures. Later, others found further evidence: lots of soot, quartz particles containing flaws that can be created only by the most intense shocks, and microtektites, little splatters of rock that have been thrown molten through the air and frozen in the shape of droplets. Last

The Form of the COMET with its Blaze or Stream as it was seen December the 24th Anno 1680. In the Evening.



Another near miss

year the Yucatan crater was shown to be exactly the same age as the boundary. The case for the κ/τ impact is now more or less closed.

Fairy tales and long results

Many palaeontologists nevertheless reject the idea that the impact caused the extinction. Many still prefer explanations that talk of more gradual changes in oceans and climates. It is a debate between, in Tennyson's words, "the fairy tales of science, and the long result of Time", and it echoes an earlier controversy Tennyson was well aware of: that between the catastrophists, who interpreted geology as a record of exceptional happenings such as Noah's flood, and uniformitarians, who saw it as the working out of everyday processes such as erosion, stretched out through great eons of time. The uniformitarians won, and have held on to their hegemony. So the new catastrophism strikes against the heart of geology, by invoking spectacular events unlike any seen today.

The catastrophists may yet win. Eugene Shoemaker of the US Geological Survey (dean of the impact researchers) and others are marshalling evidence for other impacts coinciding with other mass extinctions. And then there is the provocative challenge of David Raup of the University of Chicago. He begins his elegant and highly readable book, "Extinction: Bad Genes or Bad Luck?" (Norton), with the argument that nobody knows what, other than man, can drive a species to extinction. He points out that the extreme climate changes of the ice ages caused no obvious extinctions. He also notes that extinctions come in all sizes, as do impacts, and argues that smallish impacts could cause small, possibly local, extinctions. Thus he suggests that all extinctions could be caused by impacts.

Dr Raup is not foolhardy. He does not claim to believe the idea—he just argues that it might be believable. If it is borne out, though, the history of life on earth would have to be seen in terms of bad luck, not bad genes, which has profound implications for evolution. And the debate between uniformitarians and catastrophists might be put to rest. By claiming a role for all impacts, great and small, Dr Raup turns them into a continuous process. He makes extinction the long result of an erosion of the biosphere as remorseless as the weathering of rock by rain.

Reckoning the risks

The process is ceaseless. The impacts, of course, happen only rarely. The raindrops fall

far apart; hundreds or thousands of generations may stand between them, impervious. It is easy to feel that they do not matter today. However, a report to America's Congress on the subject convincingly argues that mankind should sit up and pay attention to the rocks falling from the sky.

The Spaceguard report concentrates on asteroids and comets more than 1km across. Smaller bodies, it argues, kill only those caught in the blast—as the Tunguska blast would have, had anyone been nearby. Larger impacts, because of their climatic effects, kill many more. The report estimates that an impact which might kill one in four of the population can be expected once in 500,000 years. Everyone alive, therefore, faces a 1 in 2m chance of dying in such an event each year. The risk over a whole lifetime works out at about 1 in 30,000: roughly as likely as dying in an air crash.

The Spaceguard report proposed a survey to find out whether anything that might do such damage is on its way. It would use six 2½-metre-diameter ground-based tele-

scopes spread around the world, all fitted with modern electronic cameras. Computer programs that looked for spots of light moving anomalously in front of the background stars would use the digital data from these sensors to find possible asteroids, and human observers would check out the suspect rocks.



From these studies, rough orbits could be calculated. If the orbit appeared to cross the earth's, detailed calculations would follow. If the rock looked likely to pass close by within the next hundred orbits or so, more calculations. If these made it look as if the asteroid might hit some time in the next century, the computers would start to work overtime on highly refined models.

The Spaceguard telescopes, which would be similar to the semi-automatic Spacewatch system that Tom Gehrels, a veteran asteroid watcher, has developed at the University of Arizona, could cover enough space over 25 years to spot more than 90% of the bodies over 1km in diameter that are in orbits that cross the earth's. So the chances are that the survey would find any global threat and provide decades of grace during which something could be done.

The Spaceguard survey has its drawbacks. It would pick up comets that spend most of their time in the inner solar system, but it could not give advance warning of comets on their first journey in from the icy reaches beyond the planets. It would not necessarily pick up all the asteroids that spend most of their time closer to the sun than the earth is. But it would be a start.

Gored by the Bull

The Spaceguard report shows how to assess the threat for relatively little money: \$300m would cover it generously. In the Middle Ages, when people lived in terror of omens in the sky, it would have been easy to sell. Now that science has convinced the world that the heavens, if not the earth, run like clockwork, it is hard to fear them. Instead, people laugh.

However, the Spaceguard report is not alarmist. Other scientists have criticised it—but always for being too optimistic. Some feel it dismisses smaller impacts too glibly. Asteroids a few hundred metres across could also have climatic effects, between those of the Tunguska clouds and the cosmic winter. And if they hit the oceans (as most would) the damage done would be increased by giant waves, like the tsunamis that follow earthquakes. A 200-metre asteroid in the middle of the Atlantic could cause waves hundreds of metres high at the shore.

There are other doubts. Calculations of impact probabilities rely on the idea that the asteroids and comets are distributed at random in space and time, and that their size distribution follows a specific mathematical law, which has been empirically

derived from observations of the bigger ones. Dr Gehrel's Spacewatch has reported finding more small asteroids than that law suggests. And then there are some scientists who think that the hard rain is not steady; they think it comes in squalls.

Meteors, the smallest of the objects that hit the earth, often come in annual showers. This is because comets have a druff. A comet near the sun constantly loses dust from its surface, and this dust soon gets spread all around its orbit. So whenever the earth crosses the orbit of a comet, it is treated to a shower of meteors as dust from the comet's orbit streams into the atmosphere. The Perseids that lit up the skies in early August this year come from comet Swift-Tuttle.

Those who argue that impacting bodies come in squalls—the "coherent catastrophists", most of whom are to be found in Britain and Australia—have a particular interest in the Taurid shower of late June. The Taurids lie along the orbit of a comet called Encke, which spends all its time in the inner solar system, rather than visiting it occasionally like Swift-Tuttle. Their arrival is easy to ignore, since it happens by daylight and is thus invisible except to radar. But the meteors are not Encke's only companions.

According to Duncan Steel of the Anglo-Australian Observatory and his colleagues, ten earth-crossing asteroids are in orbits closely related to Encke's. Dr Steel and the other coherent catastrophists think the members of this swarm are all derived from a single large comet, and that many of the objects commonly called asteroids are really dormant comets and comet fragments, unwilling at present to produce great displays of dust and gas. From the closeness of the orbits, the progenitor must have fallen into the inner system only 20,000 years ago.

If that is the case, then the amount of debris in the inner system is unusually high at the moment, and much of the debris is in swarms. The accepted statistical estimates of the number of earth-crossing bodies would be too low. Dr Steel, who was on the Spaceguard committee, thinks the Spaceguard report underestimates the risks by a factor of five or so; he expects Tunguskas every 50 years and planet-chillers every 100,000 years.

In their book "The Cosmic Winter" (Blackwell), Victor Clube and Bill Napier produce some evidence for fearing the Taurids. The Tunguska impact occurred while the Taurids were bombarding the earth. In late June 1975

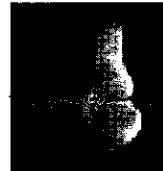
the seismographs left on the moon by the Apollo programme recorded the impacts of a swarm of one-tonne boulders—as many in five days as they registered in the rest of five years. In 1178 the monk Gervase of Canterbury recorded an extraordinary explosion on the moon in late June. It may have been the impact which excavated the 10km crater called Giordano Bruno, one of the freshest craters on the moon's surface.

Dr Clube believes that, at some periods in the past when the Taurid swarm was fresher and the earth passed through its heart, destruction has literally rained from the skies. He has developed intricate astro-historical theories of eschatology, assigning meteoric blame for the dark ages, the myths of Mesopotamia and even the great schism of the West. His idea that people have filled the skies with gods of great power because that is what they have often, visibly, contained has a certain charm—but it does not always please his fellow travellers. Dr Clube is not as graceful a heretic as Dr Raup; he can make their theory sound less coherent than they would wish.

The historical record, though, is not their only support. They also have geology. The K/T boundary contains debris from more than one impact, though the one on the Yucatan was apparently the largest. Evidence for impacts at other times of mass extinction, such as the end of the Eocene, where there are several different layers of iridium, and the middle of the Devonian, also point to multiple impacts. At one time, this would have been explained by positing a shower of comets nudged towards the inner system by a faint star called Nemesis. However, the Nemesis theory—which was invented to explain an apparent regularity in the way mass extinctions are spread through time—is no longer popular. The idea of giant fragmenting comets is.

The outer solar system contains comet-like bodies 200km or so across—large enough to break up into thousands of objects as big as the one that hit the Yucatan 65m years ago. Such break-ups were, until recently, a matter of supposition. Now they have been seen. Jupiter plays a crucial role in the theory of impacts—its gravity can throw comets and asteroids down into the inner solar system where they can bombard the earth. Last year, a comet was found that

had just undergone such gravitational man-handling, and had been broken to pieces by it. Comet P/Shoemaker-Levy 9 is now a string of separate bodies spread along 2m kilometres of its orbit. Over the years those fragments would spread all around



the orbit, and a little swarm would be formed. Alas, it is not to be. Shoemaker-Levy's next approach to Jupiter will be its last. It will hit the planet head-on next July.

The miner's daughter

The astronomical excitement that will surround Shoemaker-Levy's demise may awaken public and political interest in impacts. In the military establishment the interest is already there. The nuclear-weapons laboratories at Los Alamos and Law-



rence Livermore are keen on the subject. Los Alamos hosted a workshop that prepared a counterpart to the Spaceguard report, concentrating on technologies for interception. There is an obvious explanation for this. The military needs new threats, and will take them where it can find them. As one civilian scientist remarked about a Livermore proposal called "Operation Chicken Little", it was a case of "My funding is falling, my funding is falling".

As well as doubting the sincerity of the defence establishment, some of the civilian scientists have come close to doubting its sanity. As David Morrison, chairman of the committee that produced the Spaceguard report, put it in a letter to John Rather, his counterpart on the interception workshop, who had suggested some bizarre technologies to augment Spaceguard:

I have the eerie feeling that you are in contact with some sort of 'parallel universe' in which the conventional ideas of physical science and fiscal reality are suspended. But since this wonderful new world has not been subject to scrutiny by this Workshop or anyone else, it is difficult to respond constructively.

A look through the submissions to the Los Alamos meeting gives a similar impression: nuclear explosives vaster than any ever built; celestial billiard shots, bouncing asteroids off asteroids; antimatter drives.

However the military does have things to offer. The fireball records from early-warning satellites are being released, and there is the possibility of using defence radars to track small bodies passing within the orbit of the moon. The Ballistic Missile Defense Organisation (BMDO, the new name for star wars) has helped develop electronic sensors of the sort that Spaceguard needs. Telescopes originally designed to

snoop on foreign satellites are being recruited for Spaceguard-type surveys. And until there are spacecraft big enough to tug mountains, the only realistic defence against asteroids lies in nuclear weaponry.

Thomas Ahrens of Caltech is an expert on craters, both those inflicted on the earth and those mankind could inflict. He concludes that a nuclear weapon let off a little way above the surface of an asteroid could heat up its surface enough to blast some of its mass off into space, with a concurrent change in its velocity. To change the asteroid's velocity by a centimetre a second might take a kilotonne bomb for a 100-metre body, a megatonne bomb for a planet-chiller a kilometre across. Dr Ahrens calls them weapons of mass protection.

A centimetre a second is not much, but if earthlings have enough warning, they could make the velocity change many years before the impact. Once the rock's velocity was changed, it would stay changed. The rock would slowly stray from its deadly course, eventually finding itself in an orbit that no longer hits the earth.

Defence against asteroids need not, with enough warning, be too difficult. It certainly looks easier than defending yourself against enemy missiles, since the asteroids are unlikely to put up much of a struggle. Anyone who hopes that the asteroids can be talked up into a threat as rich in spending and employment opportunities as the Russians were is going to be disappointed. There might be one or two missions a century, at most. The defences need never even be built; they can be designed, and then assembled only if necessary.

Defence requires intelligence; that is what the Spaceguard survey will provide. It also requires reconnaissance. Anyone deflecting asteroids and comets would need a better idea of what they are made of than scientists yet have. No spacecraft has yet been sent to an asteroid—though America's *Galileo* has passed two, *Gaspra* (seen tumbling over these pages) and *Ida*. A small flotilla visited Halley's comet, but the physical characteristics of its nucleus are still largely unknown.

Next year, a small spacecraft called *Clementine* will set off for the asteroid



Geographos. To BMDO, which is paying for it, *Clementine* is primarily a way to show that star-wars technology—advanced sensors, computer memories and processors—can work on a real spaceship. The pictures it will take of *Geographos* should show that it is capable of recognising a target and turning its attention to it—which is what satellites designed to shoot down ballistic missiles will have to do. To scientists, *Clementine* provides an opportunity to see a near-earth asteroid for the first time.

If it works it could be the first of many missions to look at the huge variety of asteroids, from lumps of pure metal to non-descript boulders to the cindery slag of burnt-out comets. The small bodies are the leftovers of the solar system's creation; by studying them, scientists can work out how and from what the planets were formed. At the same time, others can worry about how nukable they are.

There is a third purpose. "*Clementine*", in the song, is a miner's daughter. To many of those who want to see mankind range into the solar system—including Colonel Pete Worden, the head of technology at BMDO, and his colleague Stu Nozette, who has been selling *Clementine* to civilian scientists—the near-earth asteroids are a magnificent natural resource. Those descended from comets might be rich in carbon, hydrogen and oxygen, which people need and empty space does not provide. It is more economical, in terms of fuel, to bring things to a space station around the earth from some of the closer near-earth asteroids than it is to lift them from the earth or the moon. With asteroids as a plentiful source of fuel and raw materials for food and plastics, civilisation in space might be feasible. And the metals from asteroids would be useful, too—perhaps as exports to the groundhogs below.

At present, such a civilisation seems unthinkable. The romantic appeal of space travel is that it allows mankind to penetrate the perfect, alien realm of Newton's clockwork; it is hard to see it as a practical matter of mining and trade. The study of near-earth asteroids, though, brings the space age down to earth—at times with an almighty thump. The asteroids, in their influence on the history of life, in their potential as natural disasters and natural resources, are part of the earth's environment, and thus part of humanity's sphere. They are not especially spectacular or other-worldly—just mountains in orbit, a fact of life, a hard rain. A civilisation that sees them as such will realise that the earth, however splendidly isolated it may look, is part of a greater world. Such a civilisation might spread into that wider domain, and use the rain for its own ends.




ETAT-MAJOR GENERAL
Etat-Major de la Force Aérienne
Section Relations Publiques

Quartier Reine Elisabeth
Rue d'Evere - 1140 BRUXELLES

Tél.: Section 40
Fax.: Section 40

Reference: Your D/Sec (AS) 12/3 dated 12 November 1993

Dear Sir, 

Your letter in reference concerning unusual sightings over Belgium was received, through the office of Section 40 on 25 January 1994.

Relating to your questions I can confirm that 2 F-16 have been scrambled on 30 March 1990, as a reaction to both visual and radar observations. The scramble was co-ordinated with and authorised by the Sector Commander of the NATO Air Defence System.

Reports to other agencies or adjacent countries have not been made since the events took place in the central part of Belgium and no presumed activities of any hostile or aggressive nature were registred.

A press conference on the findings of the radar observations has been given in July 1990. At a later stage, since no more additional military interventions took place and with the intend to contain the growing aggressiveness of the media, the Minister of Defence and the Chief of the General Staff decided on an information stop on the subject.

I hope that the above information will be helpful to answer the question on the non-involvement of the UK Air Defence System.

Yours sincerely,

Section 40


Lieutenant-Colonel
Chief Public Affairs

Section 40


Secretariat (Air Staff) 2 a, Room 8245
Ministry of Defence
Main Building Whitehall
London SW1A 2HB
UNITED KINGDOM



MINISTRY OF DEFENCE

Main Building Whitehall London SW1A 2HB

Telephone	(Direct Dialling)	071-21-8 2140
	(Switchboard)	071-21-89000
	(Fax)	071-21-8

Section 40

Defence Attaché
 British Embassy
 Rue d'Arlon 85
 1040 Brussels
 Belgium

Your reference

Our reference

D/Sec(AS)12/3

Date

12 November 1993

Dear

Section 40

I understand that during 1989 and 1990 there was a wave of sightings of unusual objects in the sky over Belgium. I have also been told that as a result of a wave of sightings on 30/31 March 1990, F-16 aircraft were scrambled and vectored towards the area concerned. Apparently there were a number of strange radar returns, involving ground-based radar and radar systems on the F-16s.

We have received a number of letters about this, and although our basic position is that this is a matter for the Belgian authorities, we have been drawn into a debate about whether there was a potential threat to the UK, and whether or not the Belgians would have notified UK Air Defenders about what was happening in their airspace.

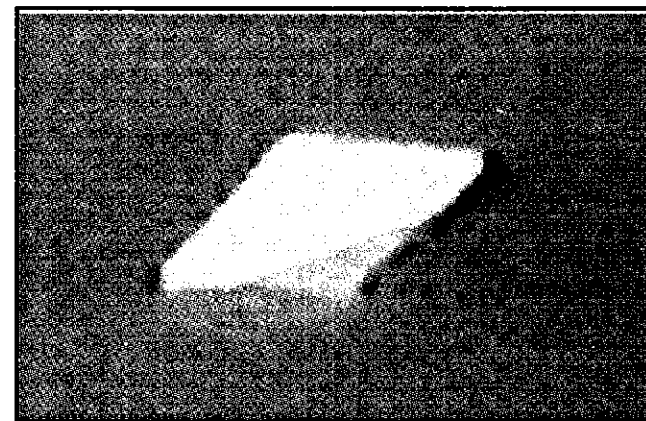
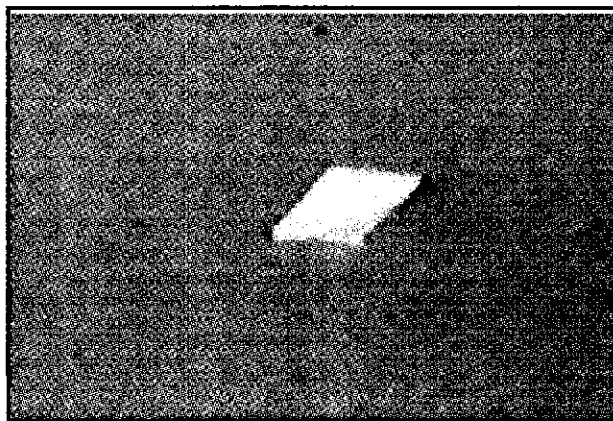
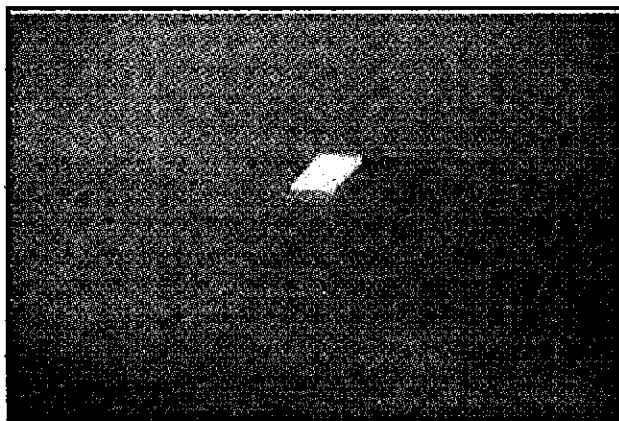
I would be grateful if you could give me some indication of the official Belgian position on this matter, together with any other background information that you may have.

Yours sincerely,

Section 40

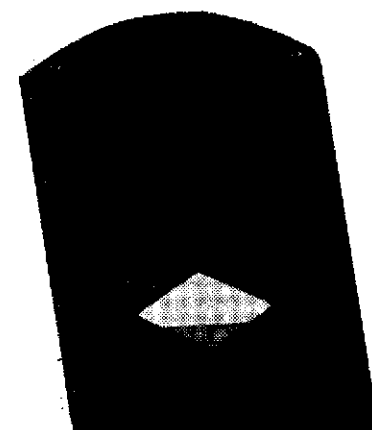


VIDEO MYSTERY OF THE UFO THAT'S BAFFLING THE MEN FROM THE MINISTRY



CATCH OF THE DAY: The fisherman's video of the dazzling, silent object — but is it a UFO or an image of the camcorder's iris? The MoD is still investigating

It came from outer space . . . or did it?



GUILTY? The iris of the MC6 Panasonic camcorder

By NICK FIELDING and
RICHARD HELLER

HELLO, get me the Defence Secretary! I've just seen a flying saucer full of Martians firing gamma-ray guns over the Norfolk Broads.'

'Thank you, sir. Could you please put the details on this official form?'

It sounds like a script for *The Men From The Ministry*. But no. It happened to three responsible citizens who genuinely believed they had sighted an Unidentified Flying Object.

On October 23 last year, Mark Wilkins, Bill Deuters and Stephen Farrow, from Dagenham, Essex, went fishing on Rollesby Broad in Norfolk. And, as usual, they took Mark's Panasonic MC6 camcorder to film their catches.

That day, though, the wind made them abandon the trip at 3 pm. But as they unloaded their gear, Steve suddenly shouted and pointed at 'this bright light a long way away', he recalls.

Bill pointed the camcorder at it — and could not believe what he saw. 'Through the lens it looked like an intensely glowing object. At first it was near the horizon. It was coming straight at us over our heads. As I zoomed in it turned into an intense diamond.' Bill stopped filming after about six seconds — and then all three saw a very bright light move over them, south to north. They thought it might be a military aircraft, but it made no noise. The trio thought no more about it until they played the tape back. It had captured a bright



EYES IN THE SKY: From the left, Bill Deuters, Stephen Farrow and Mark Wilkins Picture: HUGH PINNEY

object which turned into a distinct diamond shape. The images looked so authentic that they decided to send them to the MoD.

'Was it friend or foe? Should the nation's guns be pointed skywards?'

Their film went to the official at the nerve centre of our defence against extra-terrestrials — Mr N. G. Pope, of the Secretariat (Air Staff) 2a.

Horizon

Mr Pope responded to 258 reports of UFO sightings last year. Most were quickly explained as satellites, aircraft, weather balloons, lightning, meteorites — or hoaxes. But not this one. His brief is very precise. 'The Ministry of Defence's only concern with UFOs is to establish whether or not there is

any threat to the security of the United Kingdom. To date, we are not aware of any evidence that would indicate the existence of such a threat,' he told the three men soberly.

Yet, later in the same letter of January 7, Mr Pope could not restrain his enthusiasm: 'Your video is intriguing and certainly one of the most interesting I have seen. I have to say that no explanation springs to mind.' But before he could scramble our fighter defences, Mr Pope had to follow Ministry procedures. 'It would help,' he continued, 'to have further details, so I have attached a copy of the form we use to record details of sightings.' Allowing another month or two to set up a Ministerial committee to study it, the little green chaps would now be in Downing Street. Fortunately, the three men also sent their video to *The Mail* on

Sunday. And we rushed it to experts for analysis. At the sophisticated laboratories of Network Security Management in Mayfair, Jon Walklin, of the company's forensic video section, was mystified. 'As far as I can determine, it depicts a genuine object,' he said.

Briefing

The Meteorological Office and London Weather Centre said it was not a weather balloon. The RAF and civil aviation authorities eliminated military aircraft and North Sea helicopters. Then Great Yarmouth coastguard told us that the night after the sighting they had a call ten miles from Rollesby Broad reporting a bright flare. Should we fight or flee? Why stay calm when it costs so little to panic? We consulted more experts.

Nerves were steadied by Bernie Forward, a senior inspector at the Aircraft Accident Investigation Branch at Farnborough, which examined the Pan Am jet after the Lockerbie disaster. He pronounced the image to be an aircraft. Colleagues speculated that it could be a prism effect caused by the camcorder lens. And that was echoed by Dr Peter Andrews, of the Royal Observatory, Cambridge. Even Philip Mantle, director of investigations for the British UFO Research Association, thought the image was either an aircraft or an optical effect. Finally, we sent the video to Martin Hanson, of Panasonic. 'Looks like a camera iris image to me,' he said. A colleague found an iris of the type fitted to model MC6. When open, the iris — which regulates the light going into the camcorder — created a diamond shape.

The *Mail on Sunday* believes this explains the startling image. Somehow, the iris was reflected on to the back of the lens and filmed. But that still leaves a mystery of the dazzling light the men saw. And Mr Pope is still pursuing the matter. As far as the Ministry is concerned, there still might be Something Out There. A colleague said last week: 'We cannot explain it. If there is a possibility we can identify it and what aircraft are involved, we will.' He has promised us 'a full briefing' this week. Until that happens, observers of mysterious objects are requested not to phone the authorities — or *The Mail on Sunday*. Official advice is to go to bed — and on no account watch any video by Steven Spielberg.

●**BEAUTIFUL, SENSUOUS** woman, 33, seeks mortgage that knows how to treat a lady.

●**COCKNEY SPARROW** seeks mortgage for nest-building activities.

ROMANTIC MAN

34, wishes to build castle in Skye. Are you the mortgage of my dreams?

●**WOMAN**, 32, just approaching her prime, wishes to discuss mortgage over wine, candlelight and very small print relating to APR, etc.

●**VERY SLIM LADY**, 29, seeks first-time mortgage to rescue her from narrow bedsit existence.

●**AGEING HIPPIE**, finally getting his act together, wishes to find mortgage, buy a home and have children with names like Moonbeam, or Rainbow, or even Zardoz cos that was the name of this amazing mystic guy that I met in India around the time that Jefferson Airplane split up.

●**MAN WITH NO TIES** seeks mortgage with no strings.

●**COULD 1994 BE THE YEAR...** I remortgage my house in Surbiton?

●**SHORT, 40-YEAR OLD** computer programmer would like to be tall, 20-year old stunt man but you can't have everything, will settle for affordable mortgage.

●**TRAFFIC WARDEN**, 40, wishes to arrange mortgage before time runs out.

●**COLOSSAL HE-MAN** with tiny flat in Littlehampton seeks mortgage for place with elbow room.

●**PETITE, BLONDE** lady, 27, likes Bollinger, Chanel, Alaia, and early-period Picasso (my dealer won't allow me to touch anything after 1935), seeks sympathetic mortgage.

●**I'M READY FOR COMMITMENT**. 25-year old Londoner, his mis-spent youth behind him, now prepared to put £250 a month aside for that elusive first home.

●**SAGITTARIUS MALE**, 46, born on the cusp of Capricorn with Mars in the ascendant (not that I believe in all that mumbo-jumbo), seeks mortgage for starry-eyed relationship.

●**ME**: Family man, 46, two lovely kids, third on the way. **YOU**: Attractive mortgage willing to make allowances.

●**CROUPIER** seeks incredible deal.

●**HALF-HEARTED ANARCHIST**, having decided to throw in his lot with the discredited capitalist system, seeks mortgage for right-on pad in Tooting.

●**ALL DRESSED UP** and nowhere to go. Attractive 22-year old fashion victim seeks mortgage to keep her in the style to which she'd like to be accustomed.

●**HELENA BONHAM-CARTER LOOKALIKE**, 28, 5' 10", blue eyes, seeks mortgage for room with a view.

●**THERE'S A FIRST TIME FOR EVERYTHING**. Edinburgh man, 24, seeks love, happiness and a discount off the variable mortgage base rate.

●**STOPI IN THE NAME OF LOVE**. Bamboleo and Motorhead No Sleep till Hammersmith are just three of the 5,106 records in my collection. I now need a bigger place to store them. Any chance of a mortgage?

●**COUCH POTATO**, 45, convinced the slump is over, seeks mortgage with relaxed attitude.

●**MAN. UTD. FAN**, thinks Eric Cantona walks on water, seeks mortgage for house in Manchester, preferably Stretford End.

●**MANCHESTER LADY**, 34, recently separated from soccer-mad husband, seeks mortgage for flat minimum 100 mile radius from Old Trafford.

●**ACTIVE PENSIONER**, no heirs (as yet), seeks 20-something, OK, 30-something, very well then, 50-something mortgage.

●**DIY FANATIC** seeks first step on the ladder.

●**WOULD-BE** homeowner, 28,

●**BRUNETTE**, 30, still waiting, I've told Frank a hundred times to sort out the mortgage, he's always got some excuse like he's got to strip the motorbike I just wish he wouldn't do it in the living room, seeks mortgage for house with garage.

●**WILL YOU TAKE ME ON?** Dad, 4 kids, 5 gerbils, 7 cats, seeks understanding mortgage prepared to sign on the dotted line.

●**RETIRED GENERAL**, responsible for retreat from Mons, now seeks advance.

●**THERE'S NOW SO QUEER AS FOLK, 'APPEN**. Surrey gent with identity problem seeks mortgage to help him acquire roots.

●**DOORS FAN**, 36, seeks mortgage for multi-entranced home.

●**SOPHISTICATED LADY**, 28, seeks mortgage to make whoopee with. No blues merchants, please.

●**STRATFORD MAN**, wishing to counter the slings and arrows of outrageous interest rates, seeks fixed-rate mortgage.

●**PRETTY WOMAN**, The Blob and Kenny Dalglish: His Story, are just three of the 1,847 videos I own. I now need a bigger place to store them. Any chance of a mortgage?

●**MY WIFE DOESN'T UNDERSTAND ME**. I say that the terms of all fixed-rate mortgages are portable subject to a transfer fee amount to be advised at the time of new applications.

●**VERY FAT MAN**, 44, seeks mortgage that doesn't necessitate tightening of the belt.

●**CARE YOU ON THE LEVEL?** Much-buffed male, 27, seeks fixed-rate mortgage to counter the topsy-turvy, hurly-burly, willy-nilly, up-and-down, easy-come-easy-go, dog-eat-dog fluctuations in interest rates.

●**UNPRETENTIOUS BLOKE**, 38, into pubs, the late quartets of Beethoven, and Dadaesque 'Je m'en foutisme', seeks down-to-earth mortgage.

●**LOVE IS...** half a percent off the variable base rate.

●**IT'S IN THE STARS**. According to my horoscope, something's about to happen that will move me. Could it be my mortgage offer?

HOT LATIN MALE

22, smouldering looks, seeks mortgage with cover against fire damage.

●**I WANT TO POP THE QUESTION**. Well, questions. (1) Whatever happened to Spangles? (2) Is it true that if you have a shower south of the Equator that water flows down the plug-hole the opposite way? (3) Where can I get a £35,000 mortgage? Trivia enthusiast seeks answers.

●**PLASTIC SURGEON**, 46, seeks re-mortgage for face lift.

●**LOLITA**, The Lord of the Rings and Brewer's Dictionary of Phrase and Fable are just three of the 8,450 books I have in my library. I now need a bigger place to store them. Any chance of a mortgage?

●**INTELLIGENT, CARING** woman, 25, and daft, insensitive man, seek compatible mortgage.

●**OVER-THE-HILL** Welshman, 55, seeks mortgage for house in the valleys.

●**DESPONDENT MALE**, 46, seeks enlightenment. You know the feeling. You wake up in the small hours with a gnawing pain in the pit of your stomach. Why oh why haven't I sorted out my re-mortgage, you cry. You don't? Suit yourself.

●**I'M YOUNG AT HEART**. 8-year old boy seeks mortgage on behalf of lazy parents.

●**YOU** can tell by the way I walk I'm a ladies' man, no time to talk, but I can spare half an hour to chat about a mortgage on a place next to a disco.

●**BACHELOR**, 24, wonders if anybody uses words like 'bachelor' any more, except of course, in the sense of 'Bachelor of Arts', or 'Bachelor of Music' would like to

●**ARGUMENTATIVE MAN** seeks mortgage. Have you got a problem with that??

●**MICHELLE, NICE LEGS**, Shame about the Face and If I had a Hammer are just three of the 45s in my collection of over 12,000 golden oldies. I now need a bigger place to store them. Any chance of a mortgage?

●**SHORTHAND SECRETARY** sks. mg.

●**IT'S A JUNGLE OUT THERE!** Expatriate male, currently living in hut in Congo, seeks mortgage for place in Peckham.

●**K. KHAN**, seeks mortgage for stately pleasure dome. Xanadu area.

●**IDENTICAL TWIN** seeks mortgage with other half.

●**DAVID SOAP FAN**, 28, has sent off her mortgage application and is now dying to know what happens next. Regular instalments, please.

●**GLADIATORS FAN**, 22, aka 'THOR', wishes to take on savage, muscular, lantern-jawed interest rates in unarmed combat, and with the aid of a fixed-rate mortgage, crush them to pulp.

●**IN SPRING, A YOUNG MAN'S FANCY TURNS TO...** pension mortgages. Yorkshire lad feels the need to spread some wild, oat-like direct debits.

●**PILTDOWN MAN**, 10,000 years old, seeks mortgage for house on downs. Not!

●**COMPLETE BITCH** (pedigree Airedale), and master with children seek mortgage for large house with kennel.

●**ENGLISH ROSE**, 27, Mills and Boon fan, wishes to clasp Prince Charming to her heaving bosom and gasp: 'It works out at only £50.44 a week, Trev!'

●**MAN WITH BEDROOM EYES** seeks re-mortgage for fitted wardrobes.

●**YOGA STUDENT**, 38, seeks mortgage that won't get her into a difficult position.

●**KEEN RAMBLER**, likes to go on and on. I was saying to this bloke only the other day, down the Rose and Crown, or was it the Dog and Duck, you could put that 50p in the fruit machine, I said, or you could put it towards a repayment mortgage, you'd be amazed at some of the deals you can get nowadays, I said, just before everything went black.

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●**FATHER OF SEVEN** seeks the mother of all mortgages.

●**CROWDED HOUSE FAN** does not seek mortgage.

●**ANCIENT MARINER** seeks mortgage that won't be an albatross round his neck.

●**LIBRARIAN** seeks long-term loan.

●**INVISIBLE MAN** seeks quick mortgage to prove there's nothing to it.

●**MALE**, 29, into the paranormal, believes he can transmit messages telepathically, seeks po??g?g?

●**MAN WITH ONLY ONE VIDEO** ('Wall Street'), wishes to green-light the Mortgage Project so he can hit the ground running on completion. P.S. Renting is for wimps!

●**RUGBY PLAYER** seeks mortgage for conversion.

YOUNG SLIP OF A THING

fed up with being called patronising names, seeks first-time buyer mortgage for place of her own.

●**STABLE MAN** seeks mortgage for house in Newmarket.

●**GREEN RIBBON MANUFACTURER** seeks mortgage without red tape.

●**CROSSWORD LOVER** seeks germtoga.

●**INDECISIVE MAN**, 41, seeks endowment mortgage. Then again, the repayment mortgage isn't bad, either.

●**SOME LIKE IT HOT**. I, on the other hand, prefer a mean temperature of 55 degrees Fahrenheit. Lukewarm male seeks

●**RECENTLY EXORCISED MAN** seeks mortgage for re-possession.

●**I'M A REAL SWEET LADY**. Confectionery shop owner, young forty, been told by friends she ought to get herself a mortgage, now determined to suck it and see.

●**CYCLOPS-TYPE**, 52, has eye on mortgage.

●**PROCRASTINATOR** seeks mortgage sometime in the next 6-9 months or so.

●**WRESTLER** seeks mortgage due to sudden posting.

●**GONE WITH THE WIND FAN** seeks mortgage. I'd like to stay in the South but frankly, I don't give a damn.

●**I WASN'T BORN YESTERDAY**. 2-day old baby, two lovely parents, wishes they would hurry up and get a mortgage. Kidsgrove area.

●**LOVE FOR SALE**. I'm a 45-year old Cole Porter aficionado, I love Paris, I happen to like New York (but I get no kick from champagne). I'm looking for a delicious, delightful, de-lovely range of mortgages that don't fence me in. Why shouldn't I? As far as I'm concerned, anything goes. Let's do it!

●**ROAD WORKER**, seeks A1 mortgage.

●**CHELSEA GIRL** seeks mortgage with Winslow Boy.

●**MAGIC WOMAN** seeks mortgage for 25-year spell.

●**RIP VAN WINKLE-TYPE** seeks mortgage. I've had one offer, but I'd like to sleep on it.

●**I'VE NEVER DONE THIS BEFORE**. First time buyer seeks mortgage to hold her hand. A discount wouldn't go amiss either.

●**HALIFAX MAN**, 29, into amazing coincidences, thinks it incredible that YOU of all people should be reading this ad RIGHT NOW, seeks mortgage with building society that JUST HAPPENS to have its head office in the same town.

●**SMASHING BLOKE**, seeks cracking mortgage.

●**CHAMELEON-LIKE MAN** seeks variable mortgage.

●**MALE**, 45, tall, slim, successful, one arm considerably longer than the other, seeks mortgage that doesn't involve continual dipping into pocket.

●**SMASHING BLOKE**, seeks cracking mortgage.

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●**MALE**, 45, tall, slim, successful, one arm considerably longer than the other, seeks mortgage that doesn't involve continual dipping into pocket.

●**KEEN GOLFER** seeks mortgage that suits him to a tee.

●**DEMI-GOD**, proboscis and hullabaloo are just three of the words in my 28-volume dictionary. I now need a bigger place to store it. Any chance of a mortgage?

●**VIRTUAL REALITY FAN**, seeks mortgage that he can get to grips with.

●**I KNOW HOW TO ATTRACT THE CHICKS**. Poultry farmer seeks mortgage. Henley area.

GLUE SALESMAN

came badly unstuck the first time, seeks mortgage with solvent lady. Fixed rates an asset.

●**FINANCIAL WHIZZ-KID** wishes to discuss the pros and cons of a pension mortgage taking into account fluctuations in the currency markets and how much I've got stashed away in my Duckula money box.

●**MAN WITH HEAT-SENSITIVE COLLAR BONE** seeks mortgage that doesn't give him the cold shoulder.

●**THREE MEN AND A LITTLE LADY**, well, she's 5' 2" in heels, seek mortgage for house-share.

●**POLTERGEIST** seeks mortgage with kindred spirit.

●**THRILL-SEEKER**, into sudden shocks and adrenalin-fuelled, nerve-jangling tension, wishes to announce he will not be applying for a fixed-rate mortgage.

●**MAN WITH VERY WORN-OUT TROUSERS** seeks mortgage that's easy on the pocket.

●**TOTALITARIAN DICTATOR**, recently arrived from the East, seeks mortgage he can control.

●**BABES! BABES! BABES!** Yes, I've got three lovely infants and it's high time we moved out of this flat and into a decent-sized place.

●**I'VE FINALLY FOUND** my drill attachment. I can now put up those storage cupboards my wife's been on at me about. Mind you, I'd rather have a larger place, like the bloke in the ad above.

●**I TOTALLY AGREE** with the two guys above. There's nothing worse than being cramped. I'm a sardine so I should know.

●**BETTING MAN** wishes to put down £5,000 on 'Rose Cottage'.

●**I'M TIRED OF WAITING**, man in Kew seeks mortgage.

●**I'M HEARTBROKEN**. Somebody's nicked my Suede tape and to top it all, the landlord's put the rent up. Stressed-out Halifax girl seeks mortgage.

●**TWO FAT LADIES**, Bingo lovers seek mortgage for...House!!

●**CARE YOU INTELLIGENT?** I'm not. I wouldn't know a good mortgage offer if it jumped up and bit me on the nose. Intellectually challenged male seeks fool-proof advice.

●**URBAN MYTH-LOVER** seeks mortgage for house with anaconda in cistern.

●**SHEEPISH MAN** seeks mortgage that won't fleece him.

●**ATTRACTIVE, SINCERE** woman, very partial to Battenberg, would like to find a mortgage that's a piece of cake.

●**DON'T YOU** get fed up with people who say 'see you later' when they don't REALLY mean later the same day, but some time in the future, in fact, they may be complete strangers who have no intention of seeing you ever again. Easily-irritated woman seeks mortgage that doesn't get on her nerves.

●**MAN WITH PATHOLOGICAL FEAR OF BATHS** seeks mortgage that won't get him into hot water.

●**MAN WITH PATHOLOGICAL FEAR OF FRUIT PRESERVES** seeks mortgage that won't put him in a jam.

●**MAN WITH PATHOLOGICAL FEAR OF CUL-DE-SACS** seeks mortgage that won't put him in a tight corner.

●**HOLLYWOOD MOGUL** seeks mortgage for studio flat.

●**MAN WITH PONY TAIL**, member of rapidly dwindling species, seeks mortgage to let his hair down.

●**MAN WITH PET KIPPER** seeks mortgage for place in the Big Smoke.

●**HYPER-PUNCTUAL WOMAN** seeks mortgage. No timewasters.

●**REPETITIVE MAN** seeks mortgage.

●**REPETITIVE MAN** seeks mortgage.

●**DIVORCEE** seeks mortgage for house (detached).

●**EX-BEDOUIIN PHILOSOPHER** would like to find an oasis of advice in a desert of confusion.

●**PROOF-READER**, 4@, to busy looking for a mortgage to concentrate on his job, seeks fixed rat nggg%£.

ARE YOU LOOKING FOR THE PERFECT MORTGAGE?

Whatever type of mortgage you've set your heart on, you'll find the answer at the Halifax.

We've got everything from discounted first-time buyer mortgages to loans with rates fixed until 2004.

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ALIENS

SPECIAL INVESTIGATION

Maria Ward will never forget the night of November 21, 1990. She was abducted as she slept in her own home, subjected to terrifying abuse and raped. Doctors who treated her injuries were appalled and implored her to contact the police. But Maria didn't dare... for she believes her terrifying ordeal was carried out by ALIENS. Maria is just one of

thousands of men and women in Britain who claim to have been snatched by visitors from outer space for bizarre experiments. Most remain silent for fear of ridicule and live in a dark world of terror and shame – unable to reach out for help. But now Maria has broken her silence in a bid to help fellow victims and, she says,

force the Government to admit they are hiding the truth about aliens.

And UFO experts estimate that up to 1 in 50 people in Britain have endured amazing "abduction experiences".



This is Maria's story...

READ IT AND JUDGE FOR YOURSELF - CENTRE PAGES

Because we understand how bad a migraine can feel



It drains you. You're alone, trapped by the pain. It's sickening. You miss out on life's pleasures.

Migraleve was developed by a research pharmacist who understood migraine because he suffered it himself. He made sure Migraleve provided a complete answer for all migraine symptoms. He made Migraleve so that when taken early, it could swiftly stop a migraine in its tracks. If you suffer from migraine, Migraleve was made for you.



Made to stop migraine before it stops you

From chemists now. Always read the label

ALL

Showbiz stars who've seen the light...

SHOWBIZ celebrities are among the thousands of people who have reported seeing UFOs.

In America, 150,000 sightings of space craft have been logged since 1955.

MICHAEL JACKSON once planned to build a landing strip for alien craft in the Nevada desert. He aimed to capture the cosmic visitors on video cameras and catch an E.T. in action.

Star Trek actor **WILLIAM SHATNER**, who played Captain Kirk in the sci-fi series, had a real-life close encounter in the late 1960s.

Shatner was separated from biker friends as he rode through the Mojave desert.

Suddenly a UFO appeared and guided him back to his friends.

He said: "It was an odd experience. I didn't even ask Scotty to locate me and beam me up!"

The late **ELVIS PRESLEY** was said to have been obsessed by UFOs and aliens.

According to friends, he claimed to have seen a flying saucer land and take off in the back garden of his home in Los Angeles.

Chat show king **JONATHAN ROSS** was spaced out by an amazing sighting as a schoolboy. The normally down-to-earth star revealed the experience to millions of TV viewers last year.

"I saw strange lights and objects in the sky," he said. "It was an experience I'll never forget."

In 1986, disc jockey **MIKE SMITH** jammed the BBC switchboard after telling listeners: "I've just seen a flying saucer."

Dozens rang in to say they had also seen a huge white light hovering over West London.

PRINCE CHARLES is reported to have held a secret garden party for UFO experts and enthusiasts. The party was attended by ex-Goon Michael Bentine and psychic spoon-bender Uri Geller.

Both Charles and his father Prince Philip are interested in the paranormal.

In 1982, Kinks pop star **RAY DAVIES** was relaxing with wife Nancy in an American hotel room when he suddenly felt like he was being grasped round the neck.

Ray said: "I could visualise the beings sitting around an imaginary table taking turns to speak to me. They showed me the world in a new light."



THRILLER ON THE RUNWAY: Michael Jackson



ENCOUNTER: Star Trek captain William Shatner



KING OF UFOs: Elvis Presley saw a flying saucer land



TALKING POINT: TV host Jonathan Ross was all lit up

Naked spacemen - then I became th

09.11.90	Injury to tip of little finger - left hand
	Circular area of bruising - top of right thigh
	Hair missing in circular patch from base of skull - rear
	Rectal soft tissue injury and bleeding
	NOTE: The hair seems to have been taken from the root. No bruising or other damage noted.
	Left nostril inflamed - evidence of bleeding.
	I can find no logical cause for these injuries, given the time in which they resulted. This lady seems very agitated and upset.
	I have never seen these type of injuries, prior to this time.

RIDDLE: The doctor could find no "logical cause" for Maria's injuries in his report

I WAS A GUINEA PIG IN SEX EXPERIMENTS

RACHEL Jones says aliens removed eggs from her womb during a painful operation on a spacecraft.

The pretty housewife has been unable to conceive and believes the infertility may be a result of the experiments.

Rachel, 30, says she has been whisked away by aliens **THREE** times. She was first taken on board a craft at the age of four and endured intimate medical examinations at the age of 14 and 24.

On one trip she was shown an image of a futuristic space city.

The Norfolk housewife, whose name we have changed to protect her identity, has suffered three miscarriages and has been unable to have a child.

It was through hypnosis last weekend that she discovered that her first encounter with aliens was when she was four.

Previously, her only recollection of UFOs was being followed by one at the age of 14.

Then, at the age of 24, she saw a white light outside her bedroom window. When she woke the next morning she found a painful hole in her navel which oozed clear liquid.

Rachel says that a large grey alien, wearing a skull cap and blue suit, operated on her in a darkly-lit



MEMORIES: Rachel with her drawing of the space city

RACHEL'S STORY

room. He had no facial features other than eyes and a nose like a bulldog.

"It was only after regression that I discovered what had happened," she said.

"They inserted a needle into my stomach like doctors do with pregnant women. I think they were taking eggs from my womb."

"It was frightening at first and I remember feeling I couldn't move. They were trying to keep me calm and let me know that they didn't want to hurt me. I don't think it is their

intention to harm but I felt I was being used as part of a biological experiment.

"Although I am very fertile, I have never been able to fully conceive a child."

Rachel, who has been married twice, was told she would be visited again in her 30s.

"I suppose it could be when I'm 34 - they've come every ten years. I'm not frightened at the prospect."

"What does annoy me is that the Government is trying to cover up the whole thing."

MARIA Ward was kidnapped from her bed by a gang of alien beings - then her body was violated in a sickening ordeal which left her bleeding and battered from harrowing injuries.

"I can remember having something done to me in my womb - I could feel something moving around inside me like a wriggling worm," said Maria, 33, fighting back tears.

"I felt so disgusted, guilty and ashamed - all the normal emotions of a rape victim."

Maria dared not tell her own doctor of her ordeal but went to her local hospital for treatment. Medical staff there were convinced that she had been raped and urged her to tell the police.

An official hospital report reveals that she suffered a catalogue of injuries. And later examination also showed that Maria had suffered bruising to her cervix.

"I knew I'd been violated. I was sore around my private parts and had a wound around my navel," said Maria.

"The doctors thought I had been raped because of the trauma and they said I had suffered damage to the walls of my cervix. They asked me if I wanted to see the rape crisis counsellor and said I should call the police."

"I just looked at them and said, 'You'll never catch who did this to me'."

Maria, who lives with her husband and teenage son near Dartford, Kent, is convinced her injuries were caused by aliens.

"My husband was away on business and I remember being woken by this intense light outside the bedroom window," she said.

"I got out of bed and looked at my alarm clock which was flashing at 3.17am. I panicked and ran on to the landing and the lights went out."

"Then suddenly this ray of light appeared on the wall and a voice started saying 'Follow the light'."

"I was overwhelmed and then remember this sensation of being lifted up. I can remember looking down at my feet and seeing the tree in the garden and the rooftops."

"I was paralysed, I couldn't move - it was awful. My next recollection was of standing in a corridor and the sound of shuffling feet."

"Three little beings appeared in front of me. They looked like under-developed children and stood about three or four feet tall."

"They moved in unison and had big heads, no nose and a thin opening where a mouth would be. Their tan-coloured bodies were hairless and naked."

"They then grabbed me by the elbows and led me along

a corridor was placed table. My memory v smell, like

Maria - all night w than sleep husband is beings car ments on joined by a

"They w poking m Then anoit

"It was t and of a n Its eyes w and I coi

I SAW THE END OF THE WORLD AS A FLYING SAUCER SNATCH

ENIS

kidnapped me their rape victim



AC NIGHTMARE: Maria says she was kidnapped from her bed

Picture: MARTIN SPAVEN

MARIA'S STORY

to boom and I on metal-like overwhelming as a musty rotting leaves." who stays up watching TV rather than when her away - says she tried to experience her fore being a taller alien. re padding and, quickly, her beg appeared. ller, about 5ft tall, ky, nite colour. e bang into me d feel it in my

brain, reading my thoughts. It was like a mental rape and it continued forcing me to relive memories. It was like it was reading everything stored in my mind, including emotions." The aliens then held her down and inserted probes into her nose and her head. "Two of the smaller creatures held my head and a third put a triangular-shaped probe with a light on the end into my head behind the ear. "The pain was excruciating. I thought I was going to die. Then I remember having something done to my womb.

her private parts. A doctor's note commented: "I have never seen these type of injuries and can find no logical cause for them." Maria, who dismisses suggestions that it was all a bad dream, said: "The doctors said I had been raped but how could I possibly tell them the truth?" "I know it really happened to me. I know that I was raped by these beings and experienced all the normal reactions of a rape victim. "People say it must be a fantasy but how do you explain all the thousands of other abductions?" She added: "I felt alone but I was determined to confront it, otherwise I would have lost control. "That's why I'm speaking out - to show other victims they are not alone and that it doesn't mean an end to their lives."



ANIMAL MAGIC: Wilfred Power saw a faint image in the sky when he took this photo of a giraffe at Plymouth Zoo in 1972...



...but when Mr Power developed the picture, he noticed this strange object, like a saucer, above the giraffe's head



MYSTERY: The photographer only noticed this object in the sky near Plymouth after his picture was developed in October 1992



LIGHT FANTASTIC: Jeremy Johnson captured a UFO surrounded by an aura in June 1992 at Bridgwater, Somerset

They're getting closer to us all the time

UFO activity over Britain has gone "hay-wire" in the past month, say experts. Ufologists recorded more than 70 sightings in January alone - the highest on official record. And last year the Ministry of Defence received 258 reported sightings at its London UFO unit. "I would say we're probably in line for the busiest year ever," said a spokesman for the British UFO Research Association. "There are five hotspots in particular where things have been going crazy." They are Lincolnshire, Yorkshire, Cheshire, Central Scotland and the north east of England. In Bonnybridge, near Falkirk, there have been more than 200 reports of UFOs since November 1992. The most recent sighting, last month, was captured on video by a businessman. It is now being examined by Ministry of Defence experts. Malcolm Robinson, of UFO group Strange Phenomena Investigations, said: "The film is very exciting and we're hoping the MoD can shed some light on it. "A high proportion of sightings can be explained rationally but that still leaves a hell of a lot of genuine UFOs." Investigator Tony Dodd, a former policeman, claims at least 60 personal sightings of UFOs in Britain and cites cases of Britons being abducted by aliens aboard spacecraft. "Hundreds of men and women have told us of kidnap ordeals where they are experimented on by aliens. "I'm talking about intelligent people like doctors, policemen, lawyers and nurses. This isn't pie in the sky." ●THE PEOPLE presented its dossier of alien abductions to the Ministry of Defence. A spokesman said: "We get hundreds of letters from people who claim to have seen UFOs. "There's a public relations function to give them a polite reply and we usually provide these individuals with the names and addresses of clubs they can join. "During the Cold War we were called many times to intercept men from Mars but they turned out to be men from Moscow."

HED ME! - TURN TO NEXT PAGE

ALIENS

They showed me the end of the world - in the year 3600

PETER Gregory says he was whisked away on a flying saucer and shown "the end of the world" by beings from the 37th Century.

He claims pollution and natural disasters had left the earth covered in lifeless swamps, forcing mankind to live underground.

At his home on the Lincolnshire coast, where the 54-year-old writer says there have been more than 30 UFO sightings, Peter recalled the journey in April last year.

"I opened my eyes and appeared to be in the control room of an enormous flying machine.

"There was a loud humming, the place was bathed in light and it pulsed with a strange rhythm, beating in time with my own heart."

He believes he was transported from his home to the craft "in a huge whirlpool of colours".

"They flickered and danced in front of my eyes in a never-ending display of hues and patterns."

Once on board, his "hosts" appeared to be human - except for abnormally long fingers,

PETER'S STORY

which had no nails. "I walked slowly towards them and tried to touch one of them - but my hand went straight through him," said Peter.

"The leader was a little taller than his companions - about 6ft and slender, with a bronzed complexion. His hair was shoulder-length and reddish-brown.

"He wore a small silver band around his forehead with two small lights on each side. His lips were tinged blue."

The three-man crew wore grey uniforms with high collars and three-quarter length sleeves.

An insignia, resembling the letter M or W was emblazoned on each man's breast pocket.

But Peter's astonishment soon turned to horror when he was shown the future of the world on a giant viewer screen.

"It showed a planet which is no longer inhabitable - air had

become unbreathable and pollution so great that man had been forced to live in an artificial underground world.

"The sun still shone but only through a thick blanket of pollution - the ozone layer had been destroyed and there was no protection from ultra-violet radiation.

"By the year 3600, where the UFO travellers came from, the only trace of man's occupation was rubble scattered across the surface."

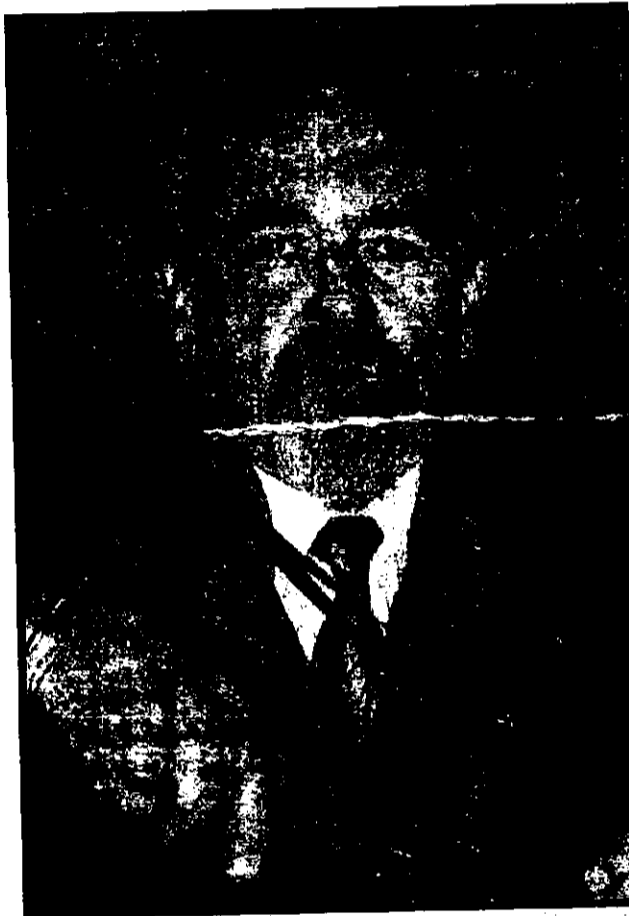
This final vision seized Peter with panic but he now believes nothing can be done to avert the end of the world.

When he was returned home by the craft his heart was beating wildly and he had broken out in a cold sweat.

Peter accepts that many will scoff but insists it really happened.

"I've been called a crank and a liar but what I experienced was no dream or delusion.

"You can see the beginnings of it already - the spread of diseases like AIDS, global warming and a breakdown of law and order."



SAUCER JOURNEY: Peter saw the end of the world

We were engulfed in light...then I found myself on board a UFO

ROS Reynolds says she was abducted by aliens who performed sexual medical experiments on her.

She and her boyfriend were driving to see friends in Corby, Northants, in September 1982.

Their Ford Cortina "was suddenly engulfed in light and buzzed by a UFO".

Ros, 32, now married and running a business with her husband in Essex, said the craft began to follow the car.

"It was travelling alongside us. Suddenly the engine went dead, the car came to a halt and then I went blank. I can remember getting back in

ROS'S STORY

the car and by the time we arrived at our friends we had lost nearly three hours." Within days Ros began remembering her terrifying ordeal.

"I could recall being in this space craft and seeing two aliens. They were about 3ft 6in tall with large black, almond-shaped eyes and a slit for a mouth.

"They had two little holes for a nose, no ears and were a grey-blue colour. They had no hair

or eyebrows and had four fingers.

"I then remember being taken into a room with a table.

"A larger alien, about 7ft tall, prodded me all over my body and my private parts. It also took skin samples and fluid from a needle inserted in my stomach.

"They then extracted half my reproductive system.

"I've since been to the doctor's and been told I can't have children.

"Because my ovaries are missing. I've had no periods since the abduction.

"I don't want money from this I just want to help other victims."



SNATCHED: Ros with her drawing of one abductor

PHONE THESE NUMBERS FOR THE E.T. HOTLINES

HAVE YOU had a close encounter or been abducted? Contact Tony Dodd on the UFO hotline 0756-752216. Or write to the British UFO Research Association, BmBofora, Suite 1, The

Leys, Leyton Road, Harpenden, Herts. You can also contact Malcolm Robinson, of Strange Phenomena Investigations, by writing to 41 The Braes, Tullibody, Alloa FK10 2TT.

Special reports by DAVID JACK, BEN McCONVILLE and MIKE SMITH

ICY MOMENT OF TERROR FOR JULIE

JULIE GREAVES says she was picking flowers with her two young children when she "looked up to see a huge orange-pink ball of light".

Her daughter suddenly screamed: "Mum, the Moon's coming towards us."

When she returned to her Merseyside home she discovered she had lost an hour of her life.

Months later her hypnotic regression recalled being subject to humiliating examinations by six alien clones.

"I have feelings of guilt, shame and disgust," says Julie, now 50.

"There were six tall figures all looking identical in dark cover-alls up to their necks.

"Their hair was dark and their eyes were black and almond-shaped. I experienced a floating sensation.

"Next, I was on a table being examined and had a feeling of ice being put on my legs."

TERROR OF RIPPERS IN THE WOODS

FORESTRY worker Bob Taylor says he fought off two aliens as he worked in woodland near Livingston, Scotland.

The small, silver-suited creatures apparently appeared from a giant spacecraft and clawed at 60-year-old Bob's trousers - but he beat them back.

"They were ripping my trousers and cutting my legs," he said.

Bob moved out of the area in 1986 but the local council erected a plaque at the sight to commemorate his terrifying experience.

I WAS TAKEN UP FROM A PARK BENCH

PUBLISHER Ray McMahon says he was kidnapped from a park bench in Egham, south London.

"I was whisked aboard a space ship and examined by a surgeon. I thought it was a helicopter at first," said the 38-year-old.

"I nearly passed out. When I came to I was in a five-cornered room with a man who looked like a surgeon wearing a plastic suit."

Ray regained consciousness on his back in the park.

LOOSE MINUTE

D/Sec(AS)12/1

8 Feb 94

Sat 23rd Oct

Sat 16th Oct

DPO(RAF) - Section 40

Copy to:
DI55c - Section 40

UFO VIDEO - MAIL ON SUNDAY REQUEST FOR COMMENT

1. You will wish to be aware that the Mail on Sunday has obtained a video recording of a UFO, which was allegedly taken over the Norfolk Broads last year.

2. We had already been given a copy of this video by a member of the public, and been asked for any comments.

3. It is my understanding that the Mail on Sunday intend to print a number of stills from the video, and feature the story in the near future - probably this weekend. They may well get in touch and formally ask us to comment. In this case, the following lines should be used:

- We are aware of this video.
- We have had an initial look, and no obvious explanation springs to mind.
- We are having a more detailed look, but are not yet in a position to comment.

We should avoid getting into the details of whether we are doing a full analysis, who is doing this, and with what equipment. If pressed on this point we can say:

- All sighting reports (including on occasion photographs and videos) are referred to those staff responsible for air defence of the UK, who examine them as part of their normal duties.

Additional material from your existing standard lines on UFOs can also be deployed as necessary.

Section 40

N G Pope
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MB8245 82140MB

Section 40

AAIB

Network Security Management

Section 40

Section 40

Hemby Met Centre

All eyes on Jupiter

How much will you be able to see of Jupiter's big event in July? **Alan Pickup** reports on the movements of the planets during the year

THE year begins quietly for planet watchers, with only Saturn visible in the evening sky where it lies low in the SW but is sinking fast into the twilight. Jupiter, however, is already prominent during the morning hours and it will be the year's prime telescopic target as the pieces of the shattered comet Shoemaker-Levy 9 thunder into its atmosphere in July.

As David Whitehouse wrote in the Guardian on January 6, the collisions will produce the largest explosions ever witnessed on a planet, though what we might see is a hot topic of debate. Recent calculations suggest that comet chunks will rain down on Jupiter from July 17 to 22, impacting at about 48 deg S latitude and only 5 to 10 deg beyond the planet's limb, closer to the limb than was thought but still out of sight of Earth. Although we may not see the resulting fireballs directly, they might light up the Jovian moons and the impact points should rotate into view within 30 minutes.

Jupiter rises in the ESE at 02.20 this morning and is conspicuous at magnitude -1.9 in the S before dawn. On Apr 30, it is a half-magnitude brighter still and stands at opposition in Libra so that it rises as the Sun sets, crosses the meridian at 01.00 BST and sets in the WSW at dawn. The planet lies in the S as our short June nights begin and, as the comet hits in July, it stands 15 deg above the SW horizon one hour after sunset, setting soon after midnight. Jupiter sinks into the evening twilight in September, reaches conjunction with the Sun on Nov 17 and becomes a morning object in December.

Following conjunction on Feb 21, Saturn struggles into our ESE morning sky in May, improves to stand at opposition at mag 0.5 in Aquarius on September 1 and graces our evening sky once more by year's end. The

rings continue to narrow as seen from the Earth and will all-but-disappear when they lie edge on next year.

The shy innermost planet Mercury outshines Saturn in the twilight late this month as it begins a two-week apparition in our evening sky. There is a further chance to catch it in the evening from mid-May to early-June and another as a morning star during the first half of November.

Venus is at superior conjunction on the Sun's far side today and begins to reappear as an evening star in mid-February, slipping only 1.5 arcminutes S of Saturn on February 14 in the closest planetary conjunction since 1990, although by then Saturn is too dim to be glimpsed in the twilight.

Venus is brilliant and more than 10 deg high at sunset from mid-March to early-August, standing furthest from the Sun (46 deg) on August 24, though by then it sets only an hour after sunset. Departing from our evenings in September, Venus reaches inferior conjunction between the Earth and the Sun on November 2 and soars quickly into the pre-dawn sky to become a spectacular shadow-casting morning star of mag -4.7 as the year wanes.

Mars hides in our morning twilight until June and is best as a morning object for the remainder of the year as it quadruples in brightness from mag 1.2 to -0.3 and moves eastwards against the stars from Aries to Leo. By the year's end, it rises in mid-evening and has closed to within 127 million km of the Earth. The planet's next opposition occurs in Leo on 1995 February 12 at a distance of 101 million km.

Of the four eclipses in 1994, three are visible from Britain, at least in part. An annular solar eclipse on May 10 is visible as a partial eclipse from Britain, with half the Sun's diameter hidden by the Moon at about 19.30 BST. Moonset and dawn end our views of a partial eclipse of the Moon on May 25 and of a penumbral eclipse on November 18 when only a minor dimming of the full Moon might be noticed. The track of a total solar eclipse of November 3 crosses S America and the S Atlantic but no eclipse is seen from Europe.

Section 40

FAX LEADER

EUROPEAN COMMUNITY DEPARTMENT (INTERNAL)

Foreign & Commonwealth Office
King Charles Street
London SW1A 2AH

Transmission Enquiries: 071-270
Unclassified Fax: 071-270
Classifies Fax: 071-270

Section 40

CLASSIFICATION: UNCLASSIFIED

PRECEDENCE: IMMEDIATE

DATE: 12/1/94 NO OF PAGES: 2 +LEADER

FROM: Section 40, ECD(I), FCO

TELEPHONE: 270 Section 40

TO: NICK POPE

DEPARTMENT: MOD

(GTN)
FAX: 218 Section 40

MESSAGE: Nick, I have been unable to get through to Section 40 (R&D at UKREP). I suggest you take this up with him (GTN 3406 Section 40) directly. He should be able to give you a sitrep on the status of Prof Regge's report. If you need any further help from me please ring,

Section 40

Section 40

HOUSE OF COMMONS PARLIAMENTARY QUESTION

_____ :

NAMED DAY (N) WRITTEN : ✓

_____ :

MP'S PARTY..... CON

date PQ was tabled: 9/12/93
 for answer on : 14/12/93
 Return to PB by : 13/12/93

MINISTER ANSWERING
 The President
 Mr Sainsbury
 Mr Eggar
 Mr Needham
 Mr McLoughlin ✓
 Mr Hamilton

ACTION OFFICER Section 40
 DIVISION..... ANSC
 CC.....

65 Sir Teddy Taylor (Southend East): To ask the President of the Board of Trade, if he will seek to obtain a report of the EC parliament Technology Committee's conclusion that the theory that aliens are present in the asteroid belt cannot be ruled out; and what are the implications of this conclusion for public policy.

My officials have seen a report of the European Parliament's Committee on Energy, Research and Technology, containing a statement that the theory that aliens have established a base in the asteroid belt cannot be ruled out. The statement in itself has no implications for public policy.

ACTION OFFICER (in case of queries)	OFFICIAL APPROVAL (must be Grade 5 or above)	MINISTERIAL APPROVAL	ANSWER GIVEN IN OFFICIAL REPORT
Section 40 ANSC Section 40	Section 40		DATE : COL(s) :

PTO FOR BACKGROUND

1. Teddy Taylor's interest in UFOs and aliens in the asteroid belt was probably stimulated by a recent newspaper article reporting the remarks of Tullio Regge, an Italian MEP and physicist, and a full member of the EP Energy, Research and Technology Committee.

The Committee appointed Prof Regge a rapporteur on this subject following an EP resolution in 1990 by a Belgian MEP which called for the setting up of a European UFO Observation Centre to be run by the Commission and member states.

2. Prof. Regge's report was adopted by the Committee on 1 December. It is an 8-page historical review of UFO sightings and theories. He says that the role of the EP is not to pass judgment on UFOs, but to ensure that the public receives correct information. He does not favour the setting up of a new UFO observation centre, given that SEPRA, a French research institute in Toulouse, is already active in the field, but suggests that SEPRA could be assigned a Community-wide role and Community status allowing it to conduct investigations and disseminate information throughout the EC. The Committee have drafted an EP Resolution which proposes this.

3. We understand a number of MEPs on the Committee have opposed further work on the subject on the grounds that it will bring the EP into disrepute. We hope therefore that the EP will not take this further. But for Community funded research to go ahead or for a Euro-UFO Observatory to be set up there would need to be a Commission proposal and agreement by the Council.

4. Given the lack of Community competence over space, we do not expect a Commission proposal. UFO research could not be funded under the specific research programmes (Biotechnology, IT etc). The only remotely possible area under which UFO research could be promoted by the Community is the catch-all "human capital and mobility programme" which is intended to establish "networks of excellence" in any area of research.

5. Mr Taylor is concerned that EP resources were wasted in the commissioning of the report. As the rapporteur is an MEP, additional resources used will have been minimal.

vboW/RESEARCH/pq28

Section 40

- 2 DEC 1993

- 2 DEC 1993

Guardian - London
- 2 DEC 1993

Will EU 2374 hunt ET? Watch this space



Light years apart: ET (left) and Jacques Delors

A NEW idea for spending astronomical amounts of money has been launched from Euro MPs' mission control.

They want the European Union to set up a centre for monitoring Unidentified Flying Objects. The scheme is the brainchild — or possibly brainstorm — of Italian physicist and MEP Tullio Regge.

He says the existence of extra-terrestrial life cannot be ruled out. 'If a little green spaceship full of little green men were to land in Piccadilly tomorrow, I would have to believe it,' he insists.

Yesterday, Signor Regge's proposal won the backing of the European Parliament's energy committee.

But last night, some wags were suggesting he need look no further than the corridors of Brussels in his search for ET, the extra terrestrial. Residing there is a diminutive being who is often misunderstood, sometimes unintelligible, but certainly intelligent.

However, while EU commission president Jacques Delors shares the same quizzical visage as ET, he is also renowned for having his feet firmly on terra firma.

Signor Regge does not put any exact figures on the cost of setting up the centre, although he suggests siting the proposed observatory at an existing French facility in Toulouse to reduce the bill.

An official said that, in

**From JACKI DAVIS
in Brussels**

view of the high Euro-salaries, the bill for running a UFO centre could be 'astronomical'.

The plan is unlikely to get the go-ahead from the full parliament — MEPs would be wary of spending more of the EU's over-stretched funds on such a scheme.

And if by any chance it were approved, neither the commission nor member governments would be under any obligation to act. Fresh accusations of wasting taxpayers' money on such an outlandish — not to mention out-of-this world — scheme would deter them.

As for Britain's MEPs, they think it is all pie-in-the-sky. Glyn Ford, deputy leader of the Labour group, said: 'Europe has far more down-to-earth problems to deal with than this.'

Comment — Page EIGHT

EU goes into orbit in search of UFOs

ANDREW MARSHALL
2374 in Brussels

FROM EU to ET is a small step in the alphabet, but a giant leap for the European Parliament. Extending its reach from the minutiae of gas pipelines to the vast reaches of space, the brave men and women of its energy committee yesterday proposed to set up a European centre for sightings of unidentified flying objects. The UFO has finally taken its place in the home of the acronym.

The Parliament proposes to give the job of alien-watching to a research institution in France, as part of its five-year mission to seek out new ways to spend other people's money. Its new building in Brussels might serve as an appropriate home: the locals have dubbed it the Folly of the Gods and it bears more than a passing resemblance to Starfleet Command.

Various theories are kicked around by the report. While aliens on neighbouring planets are not regarded as a possibility, 'the theory that aliens have established a base in the asteroid belt cannot be ruled out'.

The report's rapporteur, Tullio Regge, an Italian Socialist, hints darkly at a kind of conspiracy that wants to use the UFO phenomenon. 'There are organisations determined to manipulate the credulity of the masses for political ends,' he adds.

Mr Regge wrote to all the air forces of the EU member states, though apparently only the Italians replied. He also spoke to more than 100 people working in civil aviation, and found only one with a story to tell, an Alitalia steward. But the report is especially concerned with a spate of sightings in Belgium, which apparently is a mecca for the little green men.

The Parliament finds this dubious, since it maintains a lofty disdain for national institutions, and seems to think aliens should too.

MEPs get to grips with close encounters of the third kind

2374

John Carvel in Brussels

AN official report was put before MEPs yesterday saying that people should not rule out the theory 'that aliens have established a base in the asteroid belt'.

Europeans were advised by the report, however, to treat with circumspection the sightings of triangular shaped UFOs which appear to have showed up around Liège, moving at high speed on the radar screens of the Belgian air force.

The European Parliament, more often associated with building white elephants than seeing pink ones, is treating seriously the report on unidentified flying objects prepared by Tullio Regge, an Italian socialist MEP and eminent physicist.

He wants the Commission to set up a European UFO Observation Centre to collect information about sightings by the public, the military and scientific institutions throughout the EU.

Mr Regge is scathing about fraudsters who alarm people by perpetrating hoaxes, using airships with sophisticated electronics 'capable of reflecting radar waves with a displacement of frequency that simulates the Doppler effect'.

He does not believe the claims of a Professor Silanov that the Russians used telepathy to communicate with 10ft aliens who emerged from a banana-shaped flying saucer in a park in Voronezh, eastern Russia, in 1989.

But Mr Regge is impressed by the findings of the state-funded Service for Assessment of Atmospheric Re-entry Phenomena in Toulouse, France. It cannot establish a scientific explanation for 40 per cent of the cases it investigates.

'The lack, perhaps temporary or accidental, of an explanation in no way allows us to regard a sighting as certain proof or even an indication that aliens exist, with technological capabilities vastly superior to our own.'

'However, scientists still have a duty to continue researching into these events,' he says in the report commissioned by the parliament's energy, research and technology committee.

Magic roundabout

²³⁷⁴ THE European Parliament is being asked by an Italian MP to establish a centre for tracking Unidentified Flying Objects.

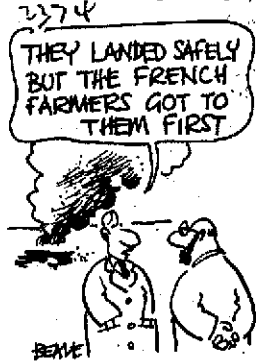
All we can say is that it takes one to recognise one.

For this magic gravy train of a parliament — which vanishes and materialises throughout the year with multilingual hubbub and enormous expense at Strasbourg and Brussels — must surely rank as Europe's very own UFO *extraordinaire*.

Daily Mail - London

2 DEC 1993

Brussels may keep an eye out for UFOs



A European parliamentary committee wants to set up an observatory at France's space study unit in Toulouse to watch for unidentified flying objects. The energy, research and technology committee insists that Europe should raise its gaze to new potential neighbours. "The possibility that aliens have established a base in the asteroid belt cannot be ruled out," it says. Page 24

Brussels may keep eye out for UFOs

By David Gardner in Brussels

The European Union, which at its last five summits has acknowledged its failure to bring Euro-dolings "closer to the citizen", is being offered the chance to plug another communications gap — by setting up an EU observatory to watch for unidentified flying objects.

The proposal comes from the energy, research and technology committee of the European Parliament, which wants to turn France's Sepra space study unit in Toulouse into a fully fledged Euro-institution.

The Italian nuclear physicist

Mr Tullio Regge, who is responsible for producing the committee report, is understood not to believe in the "metaphysics" of UFOs. The committee, however, notes that Sepra has reported 2,300 cases of UFO sightings in the past 15 years. Some were hoaxes, some could be explained rationally, but more than two-fifths could not easily be explained.

A Belgian institution called Sobeps has logged 1,500 sightings based on reports to the gendarmerie, while the Italian air force reported 32 sightings last year.

Some EU officials wonder

whether Europe's putative ability to communicate with extraterrestrials would compensate for its inability to reach its own citizens.

Were the plan really to take wing, it might further complicate Europe's integration process. The eventual prospect of intergalactic integration, for instance, might severely tangle controversial Euro-issues such as subsidiarity — whether measures are most effectively taken at local, regional, national, pan-European, international, and now, interstellar level.

On enlargement, more parochial officials among the

existing 12 member states are already chary about taking into the Union four new Nordic and alpine countries from the European Free Trade Association, referring to them as "Eftans".

It may be argued that it is premature to expect such member states to adjust to the idea of linking up with Martians so soon after Eftans.

But the European Parliament committee insists that Europe should stop looking inwards and raise its gaze to new potential neighbours. "The possibility that aliens have established a base in the asteroid belt cannot be ruled out," it says.

Somerset Guardian - Bath

Evidence of 'closer encounters'

²³⁷⁴ THE WEIGHT of evidence in favour of a worldwide UFO cover-up by governments is now reckoned by insiders to be so great that someone, probably America, must be on the brink of blowing the gaff believes television presenter Dave Barrett.

But as with any subject, if you don't want to believe the huge and mounting piles of evidence, then there is probably nothing that will ever persuade you — maybe not even the evidence of your own eyes.

Dave, who will be speaking in Bath this Sunday alleges there are strange gaps in Government information that is released at the end of 30 years. When investigators make inquiries about UFO incidents within that time they are told that, unfortunately, fire destroyed that particular bit of information.

Since UFO's hit the headlines after the war in places like Warminster, a small but

by Chris Hansford

dedicated army of enthusiasts have been busy compiling information. Alongside them, unfortunately, have been cranks who have succeeded in confusing the issue and seeing off those influential people who might otherwise have taken the UFO cause more seriously.

But while it's true there are huge numbers of ordinary people who laugh openly at the mere mention of UFOs, others like Dave Barrett are firmly convinced that aliens have not only looked down at us but have actually landed craft here some of which have been recovered by the authorities and which are now kept in secret. The evidence for such a view, says Dave, is overwhelming.

Dave, who hosts HTV's Live Friday night discussion,

says that of all the topics he introduces on radio and TV the subject of UFO's always incites the most interest.

The meeting, to which anyone can go along, is being held on Sunday, November 28 in the Pavilion, Bath at 7.30 pm.

On the platform with Dave will be two world experts on UFO's — Timothy Good, author of books like *Above Top Secret* and *Alien Liaison* and George Wingfield an expert on Crop Circles and UFO's.

There is, Dave says, an increasing amount of UFO activity again in the West Country.

This weekend's meeting will present the evidence. Whether or not you believe it will be entirely up to you.

Tickets for the meeting cost £6 and can be obtained either from the Theatre Royal box office in Bath or from the Bath Investment Building Society in Southgate Street, Bath.

WESTMORELAND GAZETTE
-Kendal-

Diamonds in Dales sky

A STRANGE diamond-shaped unidentified flying object has been seen in the skies above Sedbergh.

On Friday at about 7.15am, a woman, who does not wish to be named, says: "I noticed this strange very bright light coming up over Holme Fell in three stages. It was stopping, hovering, and then rising again. Then it just shot straight up into the air and slightly to the right and then it was gone."

Tony Dodds, of UFO spotters Quest International, said that particular shape has been reported in a number of areas around the country. His hotline is 0756 752216.

LOOSE MINUTE

D/CS(RM)1/4/3/2

11 January 1994

Sec (AS)2a - N Pope

Copy to:

DI55c - Wing Cdr Section 40

UFO FILMS AND PHOTOGRAPHS AT THE PUBLIC RECORD OFFICE

Reference: D/Sec(AS)12/1 of 7 December 1993.

1. Until very recently the policy on the disposal of films and photographs created by the Ministry of Defence (which of course also includes any Service Units) was contained in JSP 355 - first addition was published in the early '70s. This required the selection of suitable material for eventual preservation in one of the two principal places of deposit - films the Imperial War Museum or the National Film and Television Archives (formerly National Film Archives); photographs the Public Record Office or the IWM. It was expected that material not selected would be destroyed.
2. Material selected for preservation was supposed to be passed to this branch for transfer to the appropriate institution. It became apparent only a few years ago that the system had completely broken down and that film and photographic units were 'doing their own thing'. With material being routinely passed to Service Museums who had no authority to hold the material. Because of this new instructions have now been issued (DCI 322/93). Whilst for films CS(RM) still retains an element of control over the selection and presentation of material to the IWM, for photographs units will deal direct with the museum. Any material not selected for preservation should be destroyed.
3. What do these instructions mean for films and photographs purporting to show unexplained phenomenon? Quite simply they should be treated in an identical manner to all other films and photographs.
4. It will come as no surprise to you to learn that the Public Record Office does not have any photographs of unexplained phenomenon. I have also consulted the IWM and the RAF Museum at Hendon - the latter holds RAF originated material - both confirm they have no such material. The Air Historical Branch also has no knowledge of any of this material in MOD! I can shed no light on what might have happened to the gun-camera footage of UFO's allegedly seen by a former Head of DS8. But I am assured that gun-camera footage is of such poor quality that only a skilled interpreter can make sense of it!
5. The incident from 1956 referred to in your minute may have involved an RAF aircraft but the stations concerned were under the control of the United States Air Force. As RAF presence at these stations is minimal no Operation Record Book is produced. It is in these books that pilots might be expected to record unusual occurrences!

6. In a subsequent telephone conversation you mentioned a 'landing' at Woodbridge during the early hours of the 27 December 1980. As Woodbridge is another USAF station it is nothing to do with MOD. Anyone interested in investigating these and other alleged incidents on or in the vicinity of USAF bases should write to the 3rd Air Force Historian, RAF Mildenhall, Suffolk IP28 8NF.

7. As to what to say to enquiries from members of the public interested in tracing such material, I would suggest the following:

"The MOD has no knowledge of any films or photographs purporting to show unexplained phenomenon"

Section 40



Worth checking in unit Operational Record Book (ORB)
to see if anything recorded.

LCOSE MINUTE

D/Sec(AS)12/1

7 Dec 93

Hd CS(RM)1 - Section 40

Stations involved: RAF Bentwaters
RAF Lakenheath
RAF Neatishead

13/14th Aug '56

Copy to:
DI55c - Section 40

UFO FILMS AND PHOTOGRAPHS AT THE PUBLIC RECORD OFFICE

1. I have been approached by a UFO researcher who has asked about gun-camera footage of a UFO, allegedly taken by an RAF Venom aircraft in 1956. The interesting thing is that this claim is supported by a previous Head of this Division (now active in the world of ufology!) who claims to have been shown the footage while Head of DS8.
2. As you know, most UFO files were routinely destroyed until a decision was taken in 1967 to keep them. I wonder, however, whether gun-camera footage would have been destroyed in the same way as files, and I would be grateful if you could look into whether this footage still exists.
3. More generally, it is claimed that there are other pieces of UFO film footage and photographs that the MOD has accumulated over the years. I would be grateful for any assistance you could offer with regard to tracking such material down, together with advice on whether this could be viewed by members of the public.

Section 40

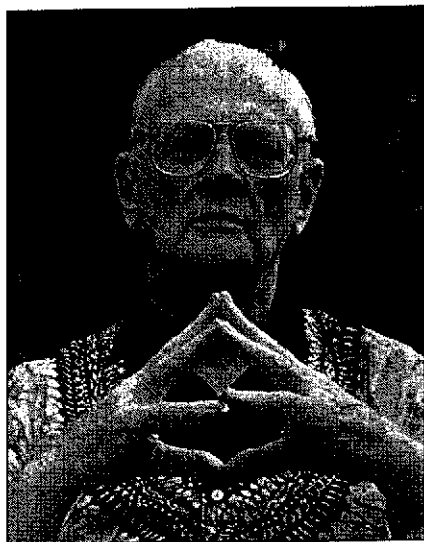
N G Pope
Sec(AS)2a
MB8245 82140MB

Section 40 phoned; he'll check ORBs
for above bases/dates, plus RAF Woodbridge
for 26/27 Dec 80 (ie Rendlesham Forest/Hall report!)

Section 40

10/12

THE Jane's INTERVIEW



**World famous author
Arthur C Clarke has
recently found himself
in demand by the
military to talk on how
science fiction is
becoming science fact.
Nick Cook reports from
Sri Lanka**

These days, Arthur C Clarke, the author of *2001: A Space Odyssey*, rarely ventures beyond his home in Colombo, Sri Lanka. He admits he is "fed up" with talking to the media. "However," he adds, "I'm always ready to comment on any major development in my areas of interest — for example, an ET landing on the White House lawn, or the first genuine message from space."

One recent exception to this self-imposed rule was a talk that he gave to the Pacific Area Senior Officer Logistics Seminar (PASOLS) in Colombo, a gathering of high ranking military officers from countries across the Pacific Rim, including the USA.

Diplomatic observers on the ground were surprised by Clarke's appearance at PASOLS. At the time, it seemed to gel neither with his own leanings — he confesses to being something of a pacifist — nor with the overall theme, a forum for improving the provision of logistics among allies in the region.

The substance of Clarke's address was a short dissertation on the process known as 'cold fusion'. Almost five years after two US scientists, Pons and Fleischmann, claimed they had hit upon the reaction that fuels the sun under laboratory, or room temperature conditions — hence the misleading description, 'cold fusion' — it is a subject that consumes him greatly.

It is also a highly controversial one. Soon after the two reported their discovery, that more energy was coming out of their experiments than was being put in — the all-important breakthrough — many other laboratories tried to repeat their tests and failed. Pons and Fleischmann were "laughed out of court" in Clarke's words, for a number of years. Lately, however, there has been a resurgence of interest in their work, "an underground movement of scientists," according to Clarke, "who believed there might be something in all this business." Fresh experiments, many of them backed by the Japanese, others by the US military, confirmed positive results.

"It is now beyond serious dispute that anomalous amounts of energy are being produced from hydrogen by some unknown reaction," Clarke says. However, the theoretical basis of cold fusion is still a mystery, he adds. Though it could be a laboratory curiosity, "frankly, I doubt this. Anything so novel indicates a breakthrough of some kind."

For a man who told JDW that he "won't get contaminated by security", adding, "I've never been involved in anything I'm not supposed to talk about," Clarke has been doing a fair amount of talking to the military lately. He recently addressed the US

Air Force's Air War College at Maxwell Air Force Base, Alabama, via video-phone link on the future of technology in general.

The USAF, unlike most other air forces, is not afraid to solicit the views of science-fiction writers once in a while in an effort to predict the future direction of air warfare. A few years ago, the USAF instituted Project Forecast II, an initiative aimed to produce a handful of 'quantum leap' technologies for the 21st century. In 1990, the air force's then Astronautics Laboratory (now Phillips Propulsion Labs) published a report under the Electric Propulsion Study that examined theories and experimental approaches for an 'anti-gravity' propulsion system. The chances are, therefore, that when he talks to the US military, Clarke's views, including those on cold fusion, have not fallen on deaf ears.

In *2010: Odyssey II*, published in 1982, Clarke pretended that the Russians had invented a spaceship engine based on cold fusion principles worked on by Andrei Sakharov during his exile in Gorky. "He

‘I'm always ready to comment on any major development in my areas of interest — for example, an ET landing on the White House lawn’

didn't, of course, so that's a piece of fictitious history. However, three Russian scientists who have indeed been working on nuclear propulsion for rockets have now got into the cold fusion act, and they have just published some startling results.

"They are obtaining about five times their energy input in gas mixtures, not solids, and at temperatures of up to 1800 deg C. Now this is not exactly 'cold' fusion — but it's certainly ice-cold compared with the tens of millions of degrees the hot fusioners are talking about." If a plasma fusion rocket could be developed, it would open up the solar system, "just as the aeroplane opened up this planet," he says.

Back on earth, cold fusion would essentially mean the end of the Fossil Fuel Age, Clarke says; an era of cheap, clean power. "The environmental benefits would be overwhelming." Eschewing the ways of the military as he does, perhaps this is the real message Arthur C Clarke wants the military men to take away with them. **JDW**

Spaced out

SPIELBERG TO EXPOSE UFO COVER-UPS

ACE director Steven Spielberg is deserting science fiction - for science fact.

The genius behind movie blockbusters *ET*, *Close Encounters Of The Third Kind* and *Jurassic Park* is secretly working on a £50 million movie that he claims will unmask a government cover-up of an alien spaceship crash in New Mexico in 1947.

Project X is based on the Roswell Air Force base incident which gave the world the term "flying saucer". Spiel-

berg believes the US military took away alien bodies from the crashed UFO.

Hollywood insiders say the director has got hold of previously unseen film footage of the flying saucer crash scene taken by a mili-

tary officer. "Everybody is talking about *Project X*," says a Tinseltown source.

"Spielberg has already got a team at Hamlin Productions working on the script.

"This is going to be a totally different film

from the likes of *ET* which was just a fairy story.

"It's about the UFO crash and the political intrigue that followed."

The movie is due for release in 1997 - the 50th anniversary of the alleged alien landing.

42

LOOSE MINUTE

D/Sec(AS)12/1

21 Dec 93

AFOPS
AIS Mil

UFO REPORTS/AIRSHIP

1. Those of you who receive telephoned reports of UFO sightings might find the attached fact sheet on the Virgin Lightships Ltd airship useful.

Section 40

N G Pope
Sec(AS)2a
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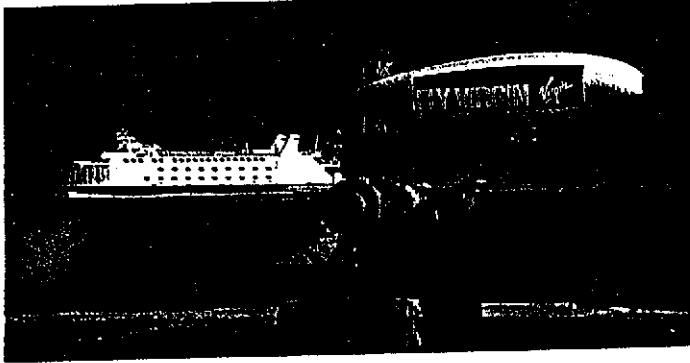
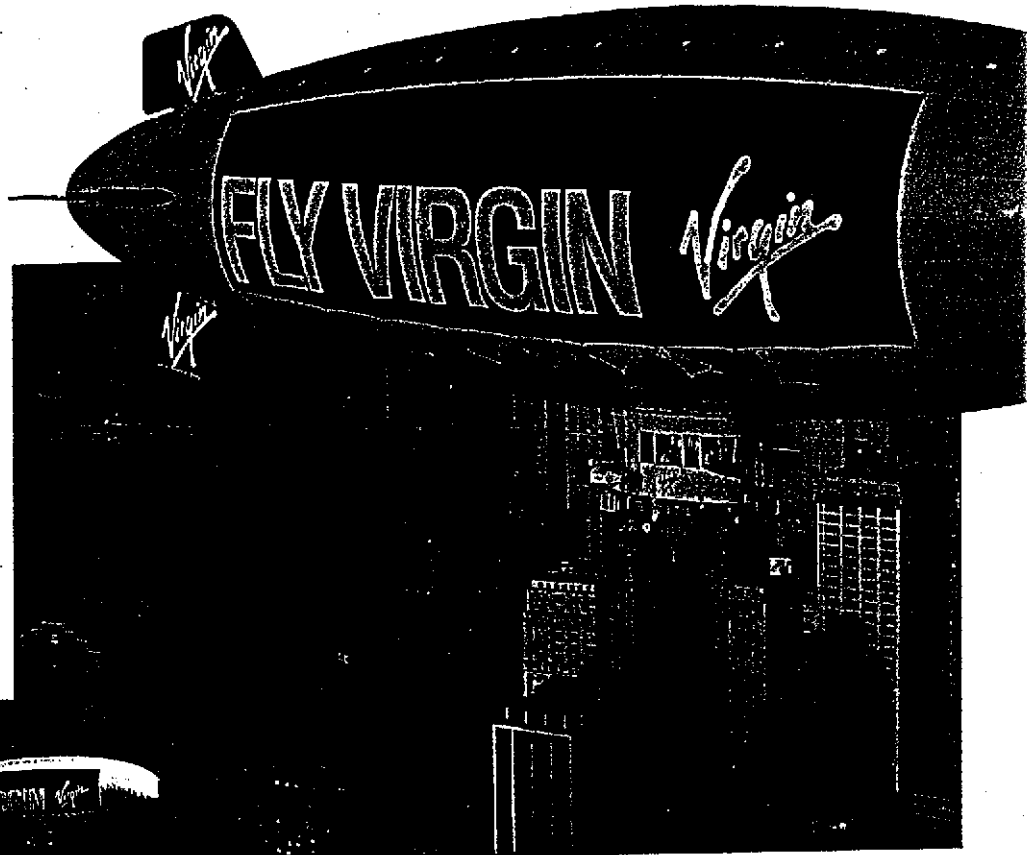
LIGHTSHIP SPECIFICATION

VIRGIN LIGHTSHIP A-60

The Virgin Lightship is a revolutionary airship designed specifically for marketing and aerial observation purposes. Utilisation of the latest materials and manufacturing techniques have enabled the airship to offer a performance and durability that is not available anywhere else in the world.

The unique construction method of the lightship allows for custom hulls to be made which can incorporate up to 32 different colours.

The most striking feature of the Virgin Lightship is that the entire hull (including banner sites) can be internally illuminated, providing a most dramatic advertising platform for night-time use.



ADVERTISING SITE DIMENSIONS

Banner (x2) 70 feet x 22 feet
And/or Custom Hull constructed from up to 32 different shades of translucent materials.

LIGHTSHIP SPECIFICATION

Hull: Volume	60,000 cubic feet (Inert Helium gas)
Length	130 feet
Height	42 feet
Width	38 feet
Gondola: Length	13 feet
Width	5 feet
Seating	5 maximum
Engines: Type	Limbach L-2000 x 2
Power	68hp x 2
Fuel Capacity	60 Gallons (270 litres)
Performance: Speed	70mph (50 knots) max
Airborne Duration	17 hours (on station)
Turning Circle	750 feet diameter

LIGHTSHIPS

Secret US jet touches down in toy shops

THE PENTAGON denies it even exists, but America's newest secret spy plane — codenamed Aurora — has already landed in toy shops across the nation.

The top gift on most little boy's Christmas lists is the model kit version which the Testor toy company claims is an 80 per cent-accurate depiction of the plane nobody is supposed to have seen.

The toy company has a startling record in marketing models of other "top-secret" craft. It produced a near-perfect copy of the Stealth fighter two years before the US Air Force acknowledged it existed and claims the Aurora model is the result of intense research in defence circles.

The mystery plane is said to have been spotted over remote areas of Nevada and the North Sea, allegedly travelling at seven times the speed of sound.

The US air force denials of a new spy plane were weakened in 1985 when the word Aurora appeared by mistake in a defence department budget report along with allocations for the SR71 Blackbird.

Testor claims the Aurora is a two-stage system with a main plane which launches an unmanned craft known as the Thunder Dart. The

from GERARD EVANS
In Los Angeles

mother ship is 160ft-long with a 97ft wingspan and a crew of three.

The pilotless drone is 80ft-long and can fly at 4,300mph with the aim of launching small satellites and photographing terrain from 100,000ft.

Those who believe they have seen the arrow-shaped Thunder Dart flying over the North Sea say it is like the Stealth aircraft.

Kit designer John Andrews said: "There is definitely an Aurora. The idea of a two-stage spy plane was around in the Sixties."

He added that witnesses of unusual vapour trails left by the Aurora on tests reported a noise like "the sky being ripped apart".

UNCLASSIFIED

LOOSE MINUTE

D/Sec(AS)12/1

16 Nov 93

DI55c - Wg Cdr

Section 40

DAS 285
102No.
- 9 FEB 2005

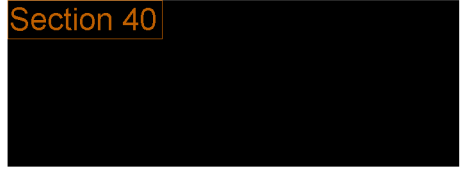
85

UNIDENTIFIED AERIAL PHENOMENA STUDY

Reference: D/DI55/108/15 dated 18 Oct 93

1. Thank you for your minute at Reference, in which you set out proposals for the carrying out of a limited study into Unidentified Aerial Phenomena (UAP).
2. I can confirm that we are content with what has been proposed.
3. It has become clear that not all those organisations charged with submitting UFO reports when contacted by the public are actually doing so, and we may need to tighten up the existing system. Whether we do this immediately, so as to gather more data for the study, or whether we wait to see what recommendations arise from the study, is a point for consideration.
4. Finally, I would be grateful if you would keep Sec(AS)2a involved in this process.

Section 40

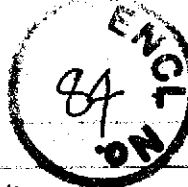


Sec(AS)2

MB8247

Section 40

12/1



Section 40

The attached note from PJ55c seems fine. AD PJ55c came over to discuss this some time ago, and I advised him that I saw no difficulties, although I asked him to write to us setting out their proposals. Paven and I discussed this at the time, and viewed it as, essentially, their money, their business.

As our policy already commits us to looking at all reports to ensure there is no threat to the defence of the UK, we are not in any way going outside our remit, as this study is no more than a review of data.

As you can see, the term "UFO" is being dropped, as it is rather a loaded term. Coincidentally, this week we have received another report of a large triangular object flying over the UK mainland.

I have attached a short draft reply to PJ55c.

Section 40

21/10

x 85

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UNCLASSIFIED
SECRET UK EYES A

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- 9 FEB 2005		
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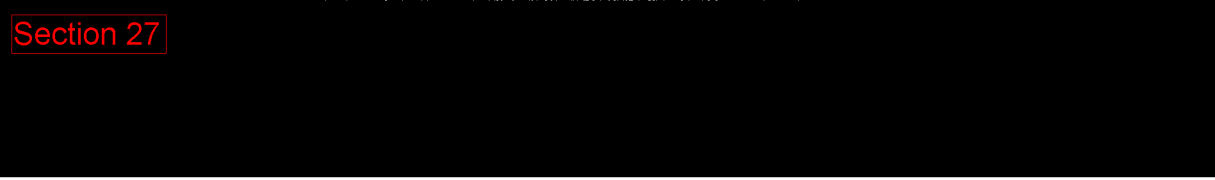
D/DI55/108/15

18 October 1993

Sec(AS)2 

UNIDENTIFIED AERIAL PHENOMENA STUDY

1. For some years we have had a general remit to advise on Unidentified Aerial Phenomena (UAP) but have never been able to devote any effort except filing of reports. A cursory glance at the files indicates that over the years a large amount of data has been accumulated. We have never therefore established if UAP's exist and, if they do, whether or not they pose a defence threat to the UK. Some recent events, and a cursory examination of the files indicate that the topic may be worthy of a short study.



3. It is probable that the vast majority of the reports on file have reasonable explanations, such as military aircraft, balloons, clouds, satellites and possibly stealth aircraft. However, there appear to be a residual number of reports that can not be so easily explained, and if true, may merit further study.

4. It is difficult to meet our remit of advising on possible threat implications since we have never studied the topic of UAP's. You will recall at a recent meeting with AD DI 55 that he was proposing an initial study of our files to determine the whether or we should apply any significant effort to the matter. Since we are unable to divert any of our desk officers or existing contractors to the study we propose to modify an existing long term contract and take on board another contractor. DI 55 have been using contractors, cleared to far higher levels than most intelligence staff, with complete success for many years. I believe that opening a new contract especially for this study and using competitive tendering would potentially expose the study to too wide an audience and thus we propose modifying an existing BAe contract. The manager is a former DIS officer and well known to DI 55. When the contract was last renewed we received a very competitive price and will obviously keep costs to a minimum. I am anticipating a man year of effort maximum at this time. Since a potential exists for political embarrassment the study and output will be graded SECRET UK EYES B.

5. I have attached a draft copy of the proposed amendment to

1
SECRET UK EYES A
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SECRET UK EYES A

the contract. Although this study will be undertaken by the DIS, with due account of the sensitivities, I believe that I should seek your support for this limited study.

Section 40

Wing Commander
DI55c

Section 40

Attachment:

1. Proposed Contract Amendment.

UNCLASSIFIED

SECRET UK EYES A

AMENDMENT DETAILS

1. Item Numbers. Add:

"4. Provision of a degree level engineer, with a wide aerospace background, to prepare a Unidentified Aerial Phenomena (UAP) database and produce reports in accordance with the detailed technical requirements at Annex "B". The contractor will be located at the Old War Office and will require appropriate security screening. DI 55 will interview proposed candidates and provide required hardware and software.

2. New Annex B.

"1. This work package has 3 main elements, the production of a data base, the production of a report, and possible follow on activities as directed by DI 55. At present it is envisaged that the study will last for up to one year.

3. Data Base. The data base should contain the minimum following features:

- a. A discrete event number for each incident.
- b. Details of location(s), including any military or economic potential targets.
- c. Times and dates.
- d. Details of witnesses.
- e. Details of the event to include size, shape, colour, speed(s), noise, other effects such as effects on electronic equipment or ignition systems
- f. Any possible explanation, such as military exercises etc.
- g. A categorisation of the event as follows:
 - 1 - Probable NATO/civilian aircraft.
 2. - Probable space-based event such as meteor, re-entry vehicle or planet.
 3. - Probable hoax or publicity stunt.
 4. - Unidentified.

2. Report. The contractor is to read all available DI 55

UNCLASSIFIED

SECRET UK EYES B

reports, be aware of major UAP publications, and produce a report that will summarize the data. The contractor will specifically:

- a. Classify, types of UAP.
 - b. By examination of reported sightings/locations comment on possible explanations/missions.
 - c. By examination of reported sightings/locations comment on possible vehicle performance parameters.
 - d. Comment on any evidence for advanced technology and especially propulsion systems.
 - e. Comment on the possibility that any events are caused by devices other than vehicles operated by members of NATO.
 - f. Propose an improved UAP reporting format, if required.
 - g. Propose possible data collection methods, if required.
4. The work will be undertaken at the Old War Office Whitehall. All reports will initially be graded Secret unless otherwise instructed by DI 55.

There may be a long term requirement for additional studies post the production of the report and the data base.

MARS EXPLORATION

RED LIGHT?

The Mars Observer investigation board held its first meeting on 8 September, and began to study all aspects of the fated spacecraft's systems. Contact was lost with the Observer on 21 August, before it was due to enter orbit around the "Red Planet" (*Flight International*, 1-7 September).

When a helium-tank explosion or failed transistors caused the loss of NASA's \$1 billion Mars Observer mission, it sounded the death knell to those heady dreams of manned flights to the tantalising planet for at least a generation.

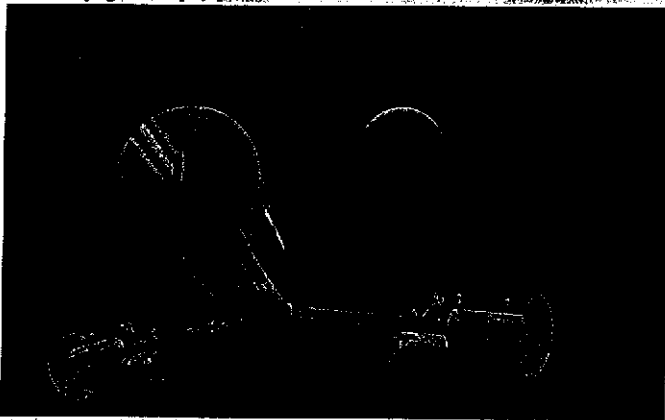
Such missions were highly unlikely to have taken place for at least another 20 years, in any event, but the saga of the Mars Observer emphasises why reaching Mars was always a high hope. Manned flights will require a new dimension in technology, including propulsion, life-support and multiple-redundancy systems. The Mars Observer was a Wright brothers' craft compared to the manned Mars-mission machines of the future.

The Mars Observer had already been a victim of budget cuts which made it a shadow of its drawing board image in 1983, delayed its launch two years to 1992 and even almost caused its cancellation in 1991. NASA is highly unlikely to receive any budgets to start planning manned Mars missions until it is allowed by the US Congress — and public opinion — to get on and build a space station. The space station was begun in 1984, but, with an inadequate budget, has floundered ever since.

Redesigned, reconfigured and a victim of annual budget rituals, the *Freedom* Space Station has had its first launch postponed from 1992 (with full operations in 1994) to 1997, and now to 2004.

Even then, NASA may need to make so many compromises that the international station, now named Alpha, will be Russian-based. Unless Russia attains financial stability, NASA will foot most of the bill, together with international partners in Europe, Japan and Canada, any of which could pull out if there are more delays.

Manned flights will require a new technical dimension.



The loss of the Mars Observer may have ended any realistic hopes of manned flights to the Red Planet for a generation.
reports Tim Furniss.

The world's economic climate and changes in international politics, have also added problems. There is no longer a "space race" with the Russians; competition had been an important factor in NASA's psyche and funding.

Worldwide budget cutbacks and squeezes have been reflected in NASA's budgetary problems, so much so that it seems that failures cannot now be tolerated. Criticism of the Mars Observer loss failed to note that this was the first failure of a US planetary spacecraft *en route* to its actual target.

NASA lost Mariners 1, 3 and 8 in launch failures, but its Mariner 2 made the first-ever planetary exploration when it flew past Venus in December 1962. This was followed by many historic missions including the Mariner 4's first fly-by of Mars in 1965; the Mars-orbiting Mariner 9 in 1971; and the two Viking Mars landers in 1976. Pioneers and Voyagers have subsequently been used to explore every other planet in the

solar system, except Pluto.

One further factor which makes manned Mars flights seem unnecessary and unlikely is the new perspective on the Earth. By travelling to the Moon and to Mars, mankind now has a new view of its own world — that of a unique planet in the vastness of the Universe.

This view has started an environmental movement which has culminated in the planned launching of a fleet of international spacecraft to monitor the planet for pollution and climatic problems.

Priorities have changed. Space technology keeps the communications-transformed "Global Village" aware instantly, and graphically, of problems and needs in the world, rendering plans for flights to Mars incongruous.

PLANS TO RETURN

NASA will go back to Mars, but, with limited objectives and smaller budgets, low-cost spacecraft and no astronauts. The space agency has already appointed a 17-member task force, including the space futurist Carl Sagan, to look at the possibility of launching a Mars craft in October 1994, to conduct some of the experiments which were to have been performed with the Mars Observer. Another launch window also exists in November 1996.

For NASA to build and launch a planetary spacecraft within 18 months will be

MARS EXPLORATION

quite a feat when compared with the ten or so years it has taken for other spacecraft to get from the drawing board to the target. To do so, the agency concedes, may require international co-operation, perhaps including a Russian launch and the procurement and outfitting of an existing small-spacecraft bus.

The craft could be designed around the one being outfitted for an enigmatic mission called Clementine, a Ballistic Missile Defense Organization vehicle which will be used to test sensors and instruments flying around the Moon, due to be launched in January 1994.

It is more likely that NASA will retain an effective budget to conduct its already planned Mars Environmental Survey Mesur Pathfinder, scheduled for a November 1996 launch. The mission, which will cost approximately \$150 million, compared with the Mars Observer's \$1 billion, has already been allocated \$60 million for 1994.

The Mesur Pathfinder is a precursor to a three-launch mission planned for 1999-2003, which will result in the placing of 12 small, automated, stations scattered about the Martian surface (*Flight International*, 17-23 March). The Mesur Pathfinder will be the first of NASA's proposed Discovery-class missions, which will be small, cost less and be launched quickly. The craft will weigh just 100kg, compared with the Mars Observer's 2,500kg. It will be launched by a Delta 2 booster and will land on the Martian surface in 1997, carrying a small roving vehicle.

NASA has named Martin Marietta Astro Space as prime instrument contractor, and the University of Arizona has been selected as the principal investigator for the imaging camera. The Max Planck Institute for Aeronomy in Germany will provide the image detector and supporting electronics.

The imaging system will take 360° panoramas of the ruddy, rocky Martian surface, selecting specific targets for more detailed imaging. The \$5 million camera is a side-by-side, charged-coupled-device stereo imager, to be mounted on top of a "jack-in-the box" mast, which will pop up 1m above the lander.

The camera will have a colour-filter wheel and will be fully controllable in both elevation and azimuth. The wheel will contain eight filters, optimised for Mars geology; three for atmospheric water and dust measurements; and one broad-band filter for stereo imaging.

The optics will not require active focusing. The field of view for each filtered "picture" will be 14.4° square. Resolution, near the lander, will be six-tenths of a millimetre. The spectral channels are particularly sensitive to iron and pyroxene minerals — dark, silicon-based, crystal-like rocks. Spectra mapping will also be used to study weathering processes and

products in the dust, soil and rocks on the surface of Mars.

Images will be taken in order to study long-term phenomena, such as frost, dune formation and seasonal changes: continuing the work performed by the Viking landers until they were switched off — partly because of budget cuts — in 1980.

The Mesur Pathfinder will also carry a magnetic-properties instrument, to be built by the University of Copenhagen, of Denmark, which will comprise five magnets of varying strengths, to capture wind-blown magnetic-dust particles. A small robotic rover will be able to venture about 50m from the lander.

OTHER MARS MISSIONS

Russia's planned Mars 1994 and 1996 missions, are, more than NASA's projects, in danger of being affected by the country's acute financial squeeze. This could lead, therefore, to a co-operative programme, in the same way that the *Freedom* project is developing.

Russia plans to launch one Phobos-class Mars orbiter in November 1994, to arrive in orbit in September 1995, depositing two surface penetrators and two surface packages on the planet's Tharsis volcanic region. The Mars Observer was to have acted as a real-time data-relay station for this mission, which had been downgraded before the US craft's demise.

The Mars 1994 mission was to have carried a lander, plus a possible mini-rover and a US instrument, from a previous co-operative project involving the development and testing of a Russian Mars-roving vehicle, due to be launched in November 1996, and reaching Mars in September 1997 (*Flight International*, 15-21 September).

This rover will be mounted on a lander, inside a descent capsule, which will be despatched to Mars' Arcadia or Planitia regions from a main orbiting craft.

Japan is also planning to launch a Mars plasma-science orbiter, the Planet B, aboard the new M5 solid-propellant booster, in August 1996, reaching Mars in September 1997.

All present proposed missions are unmanned. If they go wrong, a spacecraft is lost. A manned mission would be something else altogether and virtually impossible to stage with today's technology — and budgets. It would need a massive infusion of funds, which are not available, and which the financial masters are simply not willing to release without either positive public opinion, or the sort of political requirement which spawned the Project Apollo.

For all the merits of a Mars mission — pushing the technical envelope, technology spin-off, scientific advancement — man's place in space, at present, will remain around the Earth. □

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MILITARY AFFAIRS

Anxious industry hunts for new UAV markets

WASHINGTON: POTENTIALLY STRONG MILITARY UAV SALES REMAIN ELUSIVE AS MANUFACTURERS SET SIGHTS ON CIVIL/COMMERCIAL APPLICATIONS

by Robert Ropelewski

The unmanned air vehicle (UAV) industry is turning to commercial markets to give it hope for the future as it continues to await the crystallisation of a potentially large but frustratingly elusive military market.

Despite the successful application of UAV technologies as long ago as the Vietnam war and earlier, and effective utilisation of surveillance and target designating UAVs in more recent times, military services in the USA and elsewhere have had limited success in justifying and obtaining funding for large-scale UAV pro-

tion is focused on the Unmanned Aerial Vehicle Joint Project Office (UAV JPO), established by the US Defense Department under Congressional mandate in 1988. The Joint Project Office is pursuing an ambitious programme to develop and field a family of UAVs for US and allied forces. Though frequently thwarted by budget difficulties, shifting requirements, technical obstacles and other impediments, the Office has made

some measurable progress in achieving the objectives laid down in the UAV Master Plan it adopted five years ago. That plan envisions a family of systems and capabilities that include:

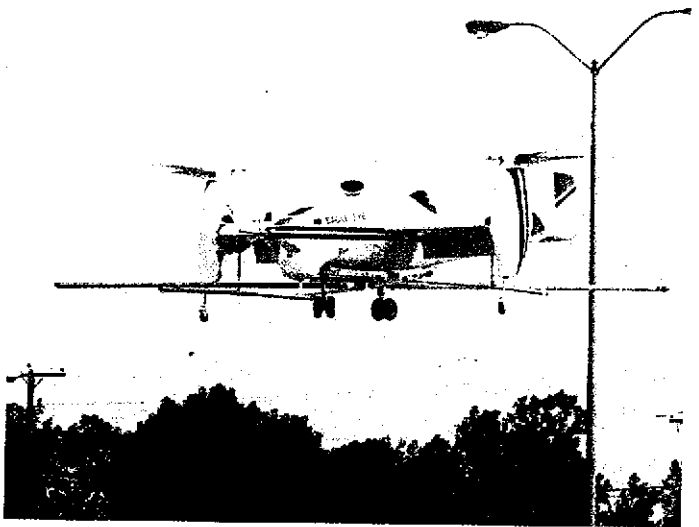
- A close range UAV system for the US Army, Navy and Marine Corps to meet the needs of lower-level tactical units for reconnaissance, surveillance and target acquisition within their local area of interest. Such a vehicle would have a radius of action of approximately 50km, a sensor payload capacity of about 50lb, and an endurance of about three hours at speeds below 100kts and altitudes up to 10,000ft.

- A short-range UAV system also for the Army, Navy and Marines, that would serve the requirements of Army division and Navy battle group size units for reconnaissance, surveillance and target acquisition out to a range of 150-300km. Such a system would have a takeoff gross weight of around 1,700lb, a payload capacity of approximately 200lb, and would also be capable of performing electronic counter-

measure (ECM), signal intelligence, meteorological and communications functions.

- A medium-range capability to meet the requirements of theatre land and air forces and naval carrier battle groups for pre- and post-strike reconnaissance of heavily-defended targets at ranges of up to 650km. Systems in this category would have a speed of up to 500kts/0.9 Mach, an operating capability up to 40,000ft and a takeoff gross weight of around 2,200lb. With a payload capacity of approximately 350lb, they would be able to carry such sensor packages as the advanced tactical aerial reconnaissance system (ATARS) or, alternatively, a variety of electronic warfare, communications relay, jamming, signal intelligence, meteorological and target designation packages.

- An endurance capability, so called because systems in this category would have an endurance measured in days at extended ranges and extremely high altitudes carrying a variety of payloads to



The Bell Eagle Eye tilt-rotor unmanned aerial vehicle made its first flight July 10 in Fort Worth, Texas, but was damaged a few days later in a hard landing on its sixth flight.

UAVS MAY BE JUDGED 'TECHNICALLY FEASIBLE BUT OPERATIONALLY UNSUITABLE'

measurements. Even the successful use of surveillance drones by coalition forces in Desert Storm operations in 1991 has been largely forgotten in the din of budget deficits and defence spending cutbacks.

This is not to say that all hope has been abandoned for substantial military sales. There is no debating the significant contributions that unmanned aerial vehicles can make in reconnaissance, surveillance and target acquisition, electronic warfare, electronic support measures (ESM), mine detection, command and control and special operations, to name but a few. The vast potential market for UAVs has spawned a considerable amount of speculative developmental activity among a large number of companies.

In the USA, much of the industry's atten-

meet the signal intelligence, meteorological, communications relay, nuclear/biological/chemical sensing, conventional and infrared imaging and electronic warfare requirements of the Army, Navy and Marine Corps.

Short-range core

The core strategy of the UAV Joint Project Office is to establish a family of UAV systems that are interoperable and common, using the short-range system as the baseline for the short-range, close-range and endurance categories as well as for a possible vertical takeoff and landing (VTOL) system. Because its development

RAPTOR WILL HAVE AN ENDURANCE OF ABOUT TWO DAYS

began before the formation of the Joint Program Office and it has higher imagery resolution requirements than the other systems, the medium-range system is considered to be outside of this family concept. The endurance category will not be incorporated into the family strategy until a firm operational requirement has been developed.

In a major step toward the achievement of this master plan, the Defense Department earlier this year awarded a \$171 million contract to the industrial team of TRW and Israel Aircraft Industries (IAI) for low-rate production of the team's Hunter short-range UAV.

Deliveries of the first systems will begin in Fiscal Year 1994, and initial operational testing and evaluation are scheduled to be completed in 1995 in time for a full-rate production decision that same year. A total of 52 systems will be procured, including 25 for the Army, 22 for the Navy and five for the Marine Corps.

Studies in early 1990 led to the conclusion that a different short-range air vehicle might be required for the maritime mission to facilitate operations on small ship decks. Funding was made available by Congress in FY92 and FY93 to conduct a vertical takeoff and landing (VTOL) UAV technology demonstration programme. The objective is to demonstrate the interoperability and commonality between VTOL and conventional short range UAV systems.

The Canadair CL-227 Sentinel system

and the Bell Helicopter Textron Eagle Eye tilt-rotor UAV will be used in these demonstrations. The first Eagle Eye test vehicle made its first flight July 10, but was damaged extensively a few days later when it made a hard landing on its sixth flight. The incident was not attributed to any inherent flaws in the basic design of the vehicle, however, and testing is expected to resume late in September with the second prototype.

One or more other advanced technology prototype air vehicles will be competitively selected for demonstration and evaluation of basic flying qualities and performance in hovering and forward flight regimes. These could include Kaman's Spyglass intermeshing rotor concept, McDonnell Douglas' canard/rotor wing design, a ducted-fan concept such as the Sikorsky Cypher and tail-sitter air vehicles. Demonstrations are planned for the third and fourth quarters of FY94.

Interim choice

Selection of the Hunter for the short-range UAV requirement was preceded by the earlier fielding of IAI's Pioneer UAV by the US Army, Navy and Marine Corps in the mid-1980s as an interim short-range UAV. There are currently 23 Pioneer air vehicles available in the field, 21 in various stages of maintenance and repair, and 12 more being procured to replace Desert Storm losses. All of the Pioneers will be phased out of the US inventory by the end of FY99 under current plans.

The UAV JPO intends to release both a draft request for proposals and a formal RFP this year for the close-range UAV system, with contract award planned for FY94. This year's actions follow the completion in 1992 of technical demonstrations of several candidate air vehicles as well as forward-looking infrared (FLIR) payloads. The evaluations were conducted to demonstrate the maturity of technology for the 200lb-class air vehicle and FLIR systems weighing less than 50lb.

Six contractors took part in the vehicle demonstrations: Westinghouse, AAI Corporation, IAT, General Atomics, Daedalus Research and McDonnell

Douglas. Three other contractors - Kollmorgen, Rafael and Rockwell - participated in the FLIR demonstrations.

A notable aspect of UAV procurements is that the air vehicle itself represents one of the smallest portions - about 15% - of the total system cost. Integrated logistic support accounts for about 34%, mission payloads and data links about 20%, mission planning and ground control stations about 16%, and launch and recovery systems around 15%.

Current planning calls for the procurement of about 100 close-range systems, with the Army getting 80 and the Marine Corps 20. An initial production decision is not scheduled to be made until 1997.

The medium-range UAV programme has gone through several iterations since it began with the signing of a memorandum of agreement between the Air Force and Navy in 1985, and the future of the programme is still uncertain. Teledyne Ryan Aeronautical was awarded a fixed-price incentive fee contract in June, 1989, to develop the medium-range system around its BQM-145A vehicle. However, technical and funding problems have plagued the programme ever since.

Indefinite postponement

Navy and Marine Corps procurement of the medium-range system was postponed

The US Navy has awarded a \$10 million contract to Canadair to evaluate Canadair's CL-227 Sea Sentinel automatic landing capabilities on a Navy frigate.



indefinitely a few weeks ago because of funding uncertainties, and the Air Force and Martin Marietta, the prime contractor for the advanced tactical aerial reconnaissance system (ATARS) payload, recently agreed to terminate the ATARS development programme because of technical

problems and schedule delays with that system. This has cast doubts over the viability of the medium-range programme.

Unique concepts abound among the proposed solutions to the family of UAV requirements defined by the UAV JPO. This is no less true in the "endurance" category than it is in any of the other UAV classifications. The project office is involved in cooperative efforts with a number of endurance programme initiatives, including

THE CORE STRATEGY IS TO ESTABLISH A FAMILY OF COMMON, INTEROPERABLE UAV SYSTEMS

the Ballistic Missile Defense Organization's (formerly Strategic Defense Initiative Organization, or SDIO) Responsive Aircraft Program for Theater Operations (Raptor) demonstrator UAV.

The Raptor is a high-altitude, long-endurance UAV being developed by Burt Rutan's Scaled Composites, Inc., under contract to the Lawrence Livermore National Laboratory. Its mission is to carry sensors to autonomously detect and track launches of theatre ballistic missiles (TMBs) and then fire Talon (Theater Applications - Launch on Notice) air-to-air missiles to kinetically destroy the TMBs. The Raptor demonstrator is a composite construction monoplane powered by a turbocharged engine, with a wing span of 66ft and a gross weight of 1,800lb. It has an endurance of about two days at high altitude with a 300-400lb payload.

Flight tests are scheduled to begin this summer, leading to a kill demonstration of a Scud-like high altitude tactical ballistic missile in 1995. The demonstration programme will cost around \$120-150 million over a three to three-and-a-half year period.

International participation appears to be an inherent element in many aspects of the Defense Department's UAV master plan. The UAV Joint Project Office, through its Joint International Programs Directorate, has pursued a series of data exchange agreements (DEAs) with other friendly nations including Canada, Germany, Israel, the Netherlands and the United Kingdom. Primary goals of these agreements are "to create closer alli-

ances, enhance mutual security, reduce costs and duplication, improve interoperability standardization, identify other cooperative opportunities and serve as a catalyst to marshal DoD and friendly foreign nations' technological capabilities."

Admittedly, one of the primary goals of the UAV JPO is to brief the advantages of US-developed UAVs to other interested countries. In the process, however, other countries are finding the opportunity to market their own capabilities in the USA. In addition to the major IAI role in the short-range UAV programme - the only such programme to be funded for production so far - and Canadair's participation in the VTOL UAV sea trials, Grumman Corporation has teamed with International Aerospace Technologies of Bonn, Germany, to pursue the close-range unmanned aerial vehicle contract. Grumman will act as the prime contractor to offer IAT's Mk106C UAV for the close-range mission.

Expanded partnership

Concurrently, TRW and IAI have signed a strategic teaming agreement that broadens the original mandate of the partnership to pursue a wider spectrum of UAV programmes in the USA as well as in several international markets.

But despite the relatively high level of activity on the industrial front, the continuing slow pace of UAV acquisitions by military customers is steering the industry toward a more serious pursuit of commercial UAV markets. Deputy Secretary of Defense William Perry told attendees at the annual technical symposium of the Association for Unmanned Vehicle Systems in Washington at the end of June that "UAVs still have a high priority in DoD; but one thing we must do is find

commercial applications for this technology, and help industry to do this."

As long ago as 1981, the US General Accounting Office noted in a report to the Congress that widespread civil applications of UAVs are not likely in the near future because "unless they are developed by the military, which could bring costs down, they will not be affordable."

Most observers agree this assessment holds true today, despite the numerous potential applications for UAV technology in such areas as agricultural spraying, high altitude atmospheric sampling, disaster area surveys and assessment, forest fire surveillance, weather observation, law enforcement, border patrols, counter-narcotics surveillance, traffic and highway surveys and monitoring, mapping, communications relay and numerous other tasks.

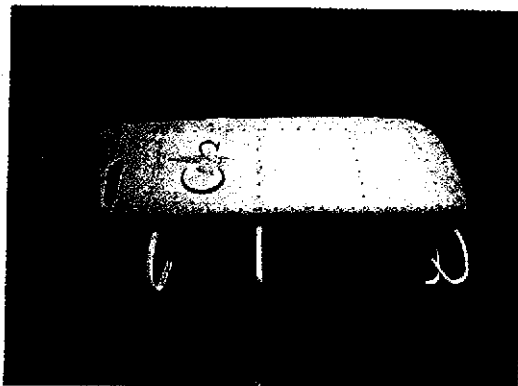
Estimates vary as to how large this market could become and how fast it will develop. Some believe that civil/commercial sales will exceed 50% of total UAV sales within 10-20 years, while others predict optimistically that this could arrive much sooner, possibly within the next two years. Kaman Aerospace founder Charles Kaman, for example, while not volunteering a specific time span, notes that the easy availability of the Global Positioning Satellite System now makes civil operation of UAVs much more practical because of the more accurate navigation and tracking GPSS permits.

New rules

In preparation for growth in this field, the Federal Aviation Administration is establishing new rules governing the operation of unmanned aerial vehicles in civilian airspace over the USA. The agency began drafting a new set of UAV rules last year, and has been soliciting comments from the industry and user community.

But while this effort is now under way, there are still numerous safety, airspace management, frequency allocation, operator certification, and legal and environmental issues that must be resolved before widespread civil UAV operations are a reality. In the meantime, as one speaker at this year's AUVS symposium warned: "The risk in not learning from experience is that the judgement will be rendered that UAVs 'are technically feasible, but operationally unsuitable.'"

Sikorsky's Cypher unmanned aerial vehicle uses helicopter Fantail technology to demonstrate vertical takeoff and landing (VTOL) capabilities.



LOOSE MINUTE

LA96c(AS)12/1

ENCLOSURE
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23 Aug 93

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UNUSUAL AERIAL ACTIVITY - SATURDAY 28 AUGUST

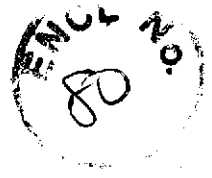
1. Addressees may wish to be aware that one of the most spectacular displays of lasers, searchlights and fireworks ever put on in this country is due to take place on Saturday 28 August.
2. This activity is associated with a concert by Jean Michel Jarre, at Wembley Stadium.
3. Addressees may wish to bear this information in mind when dealing with any UFO reports that may be received at this time.

Section 40

N G Pope
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Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB



From: **Section 40**
Ministry of Defence
 Hd Central Services (Records Management) 1, Room 7127
 St Christopher House Southwark Street London SE1 0TD

Telephone: (Direct Dialling) 071-921 1552
 (Switchboard) 071-928 3666

Mr N Pope
 Sec (AS)
 Room 8245
 Main Building

Your reference

Our reference
 D/CS(RM)1/4/2/2

Date 2 Aug 1993

Dear Mr Pope

**DOCUMENTS ON LOAN TO THE MINISTRY OF DEFENCE FROM THE
 PUBLIC RECORD OFFICE**

Concern has been expressed not only of the number of documents out on loan to MOD but also the length of time they are out.

We are therefore required for accounting purposes, to return all these documents to the PRO which have been out for more than 12 weeks.

Attached to this letter is a list of pieces on loan to your Branch together with the date dispatched. Please return all these documents by return post.

Should you have valid reasons which require the return of any of these documents, we will be happy to re-requisition them for you.

Please note that in future all documents sent on loan must be returned within 28 days.

File note,

ref to **Section 40**
 false alarm. Files arrived
 back ages ago!

Section 40

3/8

Section 40

OUTSTANDING PRO PIECES
(Held by Sec(AS) N. Pope)

TYPE	CLASS NO	PIECE NO	DATE DESPATCHED
AIR	2	16918	25.3.93
AIR	2	17318	25.3.93

Drone Firms Set Sights on Commercial Sale

By GEORGE LEOPOLD
Defense News Staff Writer

WASHINGTON — Developers of unmanned vehicles increasingly are looking at commercial applications ranging from drug enforcement to waste cleanup as the U.S. Department of Defense cuts weapon procurement and struggles to protect its research and development budget.

The search for commercial applications was the focus of an annual conference here June 28 sponsored by the Association of Unmanned Vehicle Systems.

"I will put high priority... on a family of unmanned reconnaissance vehicles systems," William Perry, deputy secretary of defense, told the unmanned vehicle conference.

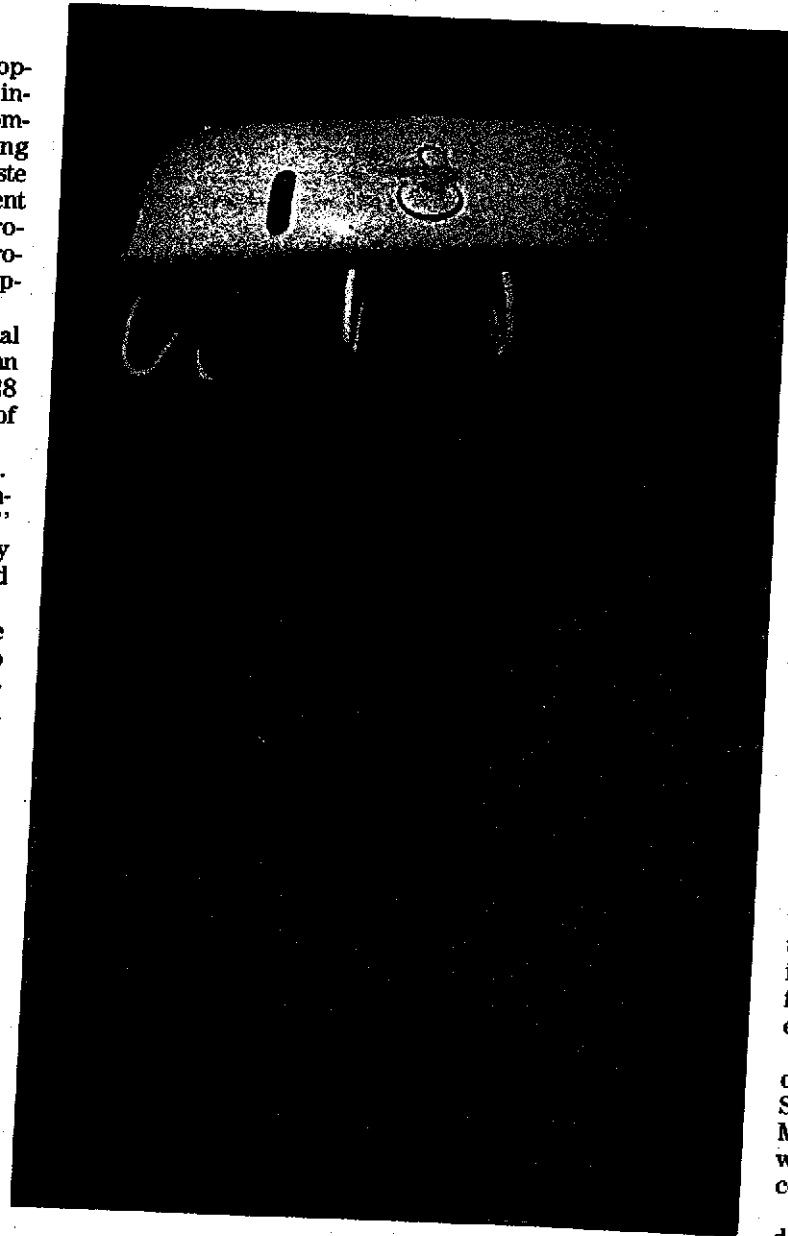
Perry, however, stressed the need for diversification into commercial applications because of deep cuts in Pentagon procurement and research and development. "You are looking at a market contraction of almost two-thirds," he warned.

Despite recent reductions in the number of unmanned vehicles the Pentagon plans to buy, including smaller numbers of the close-range and medium-range unmanned aerial vehicles, joint program offices overseeing development are trying to cooperate more closely to speed deployment.

Still, officials heading the offices said they also are working with civilian agencies to widen the application of robotics and UAV technology.

Rear Adm. George Wagner, director of the UAV Joint Program Office, said potential civilian applications for drones include border patrol and drug interdiction or monitoring the condition of public works such as dams by the U.S. Army Corps of Engineers.

Unmanned vehicle proponents also cite weather monitor-



SIKORSKY AIRCRAFT PHOTO

As procurement budgets shrink, the Cypher UAV made

by Sikorsky Aircraft, Stratford, Conn., may be forced to perform commercial duties such as drug enforcement.

ing and assessing the extent of natural disasters as potential applications. "There is a spectrum of potential applications wider than surveillance, reconnaissance and bomb damage as-

essment," Wagner said.

The UAV Joint Program Office reported in its 1993 master plan that federal, state and local governments are expected to increase their use of UAVs over

the next decade.

Several types of robots designed for military applications including ordnance disposal, runway repair and battlefield reconnaissance may find applications in such areas as cleanup of military bases, according to Andrus Viilu, a Pentagon official overseeing tactical programs.

"We're seeing some of the interest in dual-use technologies" through contacts with the departments of Energy and Transportation, Viilu told the conference.

While the Energy Department already is using teleoperated robots linked to an operator by fiber-optic cable to perform hazardous tasks at nuclear facilities, cleanup of its weapon-production facilities will require greater use of robots, said Clyde Ward, an engineer in the Savannah River Technology Center, Aiken, S.C.

"The trend is to go to remote operations to reduce exposure to radiation," Ward told the unmanned vehicle conference.

Among the requirements for robots are excavating and retrieving buried wastes, decontamination and decommissioning of Energy Department facilities and automating the operation of waste facilities.

The Energy Department has developed a robot called the Stored Waste Autonomous Monitor Inspector to inspect waste drums at storage sites for corrosion on a weekly basis.

Elsewhere, the department is demonstrating a robotic excavator developed by the Army for bomb disposal at its facility in Idaho Falls, Idaho.

Despite the shrinking military market for unmanned systems, proponents remain optimistic that civilian applications can take up the slack. "We have the same requirements for commercial and military applications," said Dick Wagaman, president of the unmanned vehicle group.

British Industry Braces for Equipment Decisions

By CHARLES MILLER
And MICHAEL WITT
Defense News Correspondents

LONDON — Britain's Ministry of Defence is likely to propose fitting a single warhead to a number of submarine-launched Trident D5 missiles in lieu of developing a Tactical Air to Surface Missile (TASM) when the ministry reveals its annual white paper.

The white paper, an annual document setting out the Defense Ministry's spending and strategic plans, is likely to be released this week, defense sources said. It is expected to reveal many equipment decisions as the ministry

plans to purchase 200 Challenger 2 tanks and more Sandown-class single-role minehunters and Type 23 frigates.

The document also is expected to offer a firm commitment to the Anglo-French frigate project to develop a new anti-air frigate as a replacement for the NATO frigate for the 1990s program. Called NFR-90, the NATO program was canceled in 1989. But a Britain needs to replace 12 type-42 air defense frigates at about the turn of the century.

Brian Lowe, director general of Britain's Defence Manufacturer's Association, said

One analyst who requested anonymity said the white paper might announce a cut in the number of Eurofighter 2000 aircraft to be purchased for the Royal Air Force and he discounted any commitment to the Future Large Aircraft program because of the estimated \$4 billion it would absorb in research and development funding.

Eurofighter 2000 is a simpler, less-expensive derivative of the European Fighter Aircraft being developed by Britain, Germany, Spain and Italy. Britain has said it would buy 250 of the new fighters.

Potential UFO sightings

LOOSE MINUTE

D/SEC(AS)37/4

6 July 1993

MA/Minister(AF)

- Copy to:
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- AUS(C)
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- Sec(AS)2
- SRAFLO
- RAF Commander Lakenheath

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..

WEEKEND TRANSIT OF USAF F-117A AIRCRAFT THROUGH RAF LAKENHEATH

The following seeks Minister(AF)'s approval in principle for eight F-117A Stealth Fighters to recover to RAF Lakenheath following operations in South West Asia.

2. USAF have requested that these aircraft should recover to RAF Lakenheath at 1214Z on 9 July before returning to CONUS at 1300Z on Sunday 11 July. This schedule is required in order to enable the aircraft to return from their South West Asian operations, undergo routine maintenance and refuelling prior to departure in time to meet USAF refuelling tankers over the Atlantic.
3. USAF have requested the use of Lakenheath in order to accommodate such high-value aircraft within the facility's secure environment and hardened shelters.
4. I should be grateful for Minister(AF)'s confirmation that this temporary deployment may proceed as planned this weekend.
5. If Minister(AF) is content, he may wish to write to the local constituency MP, Mr Richard Spring. A draft letter is attached.

PP



Sec(AS)1
MB7247 Section 40

DRAFT LETTER TO RICHARD SPRING MP

I am writing to let you know of some forthcoming aircraft activity at RAF Lakenheath. ::

On 9 July eight F-117A Stealth Fighters are planned to temporarily deploy to RAF Lakenheath. These aircraft will remain at Lakenheath until 11 July whilst undergoing refuelling and routine maintenance prior to returning to the United States. All aircraft activity will be kept to the minimum necessary to ensure the success of the deployment.

I hope your constituents will not be unduly inconvenienced by this activity.

After six years of waiting, the UK Royal Air Force will this year have an unprecedented capability to oversee its vast Air Defence Region.

The £200 million (\$300 million) Integrated Command and Control System (ICCS) for the Improved UK Air Defence Ground Environment (IUKADGE) should come fully online this year after achieving initial operating capability on 1 June.

ICCS is 70 per cent funded by NATO and has been developed by UKADGE Systems Ltd (UKSL), a joint company owned by Hughes Aircraft Company, GEC-Marconi and Siemens Plessey Electronics Systems. Hughes is responsible for the data handling, Siemens Plessey for the Digital Data Network and GEC-Marconi for the console and display equipment.

UKSL handed over the original system in 1991 and is now enhancing the system above the original specification.

At the head of the command for the IUKADGE system is the Air Defence Operations Centre (ADOC) at High Wycombe in central England, with a standby ADOC at Bentley Priory.

Two Sector Operations Centre/Command and Reporting Centres, one at Buchan in Scotland and one at Neatishead in Norfolk, control the North and South Air Defence Sectors respectively.

Other sites include Ash in Kent and Boulmer in Northumberland, Benbecula in the Western Isles, Portreath in Cornwall, Saxa Vord in the Shetland Isles and Staxton Wold in Yorkshire. A post on the Faeroe Isles operated by the Royal Danish Air Force also reports into the system.

Each post has local responsibilities but can control information from anywhere in the system since all have standard equipment.

The Sector Operations Centre at RAF Neatishead is an historic air defence site,

IUKADGE ICCS comes online

*As the Integrated
Command and Control
System for the
Improved UK Air
Defence Ground
Environment becomes
operational, Charles
Bickers visited RAF
Neatishead to see the
system at work*

since it was the first functioning radar station operated by the RAF. It is located in a rebuilt Second World War bunker; now NBC and electro-magnetic pulse protected with provision for close blast protection.

"Watching the pictures of precision weapons in the Gulf made those of us who sit in bunkers sit up and think," said one

officer. "But hardened shelters still have their uses."

Survivability is a key feature of the ICCS set-up, with the displacement and capability of each site providing redundancy for the system. Highly survivable communications have been introduced in a programme called UNITER, which brings together all RAF sites on a digital network.

ICCS builds on two large databases to provide information for the operators make decisions. These databases contain respectively the Recognised Air and Sea Picture — real-time information from incoming radar sources and reporting posts, and the Resource Data Catalogue — air defence resource information such as weapon states and airfield availability.

In operation the standard ICCS interface is a four-colour console central display with two further displays for text data. Apart from some consoles still to be upgraded to colour, no further spending is required on ICCS equipment, said Gp Capt Cullington, Commanding Officer at RAF Neatishead and Commander Sector Operations Centre South.

Air defence operators demonstrated to JDW the system's ability to display selected data from sources throughout the UK and into the North Atlantic. Incoming sources being displayed included data from an E-3 AWACS aircraft off the north-east coast of the UK and a Type 42 destroyer in

System hitches left behind

The problems that delayed the new system were not the only ones that caused the system to be delayed. The system's development and testing were not without their own set of problems. The system's development and testing were not without their own set of problems. The system's development and testing were not without their own set of problems.

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A Fighter Allocator at RAF Neatishead controls a Tornado F3 sortie over the North Sea



the English Channel.

Data has been successfully used in the Neatishead bunker from Type 42s in the North Atlantic and ground-based radar in Norway via a ground link.

The system is reconfigurable to suit the needs of the operator, whether directing aircraft, identifying and classifying threats or performing overall command and control. "Any console in this bunker can do any job we want it to do," said one officer.

Less direct control over the defending aircraft is required than previously because modern aircraft have longer-range radars and more capability to identify targets.

The RAF's primary air defence asset is the Panavia Tornado F3 fighter, which uses the GEC-Marconi Avionics Foxhunter radar/BAe Dynamics Sky Flash missile combination. Officers say the aircraft works well as an air defence system, particularly after improvements made during the build-up to the Gulf war.

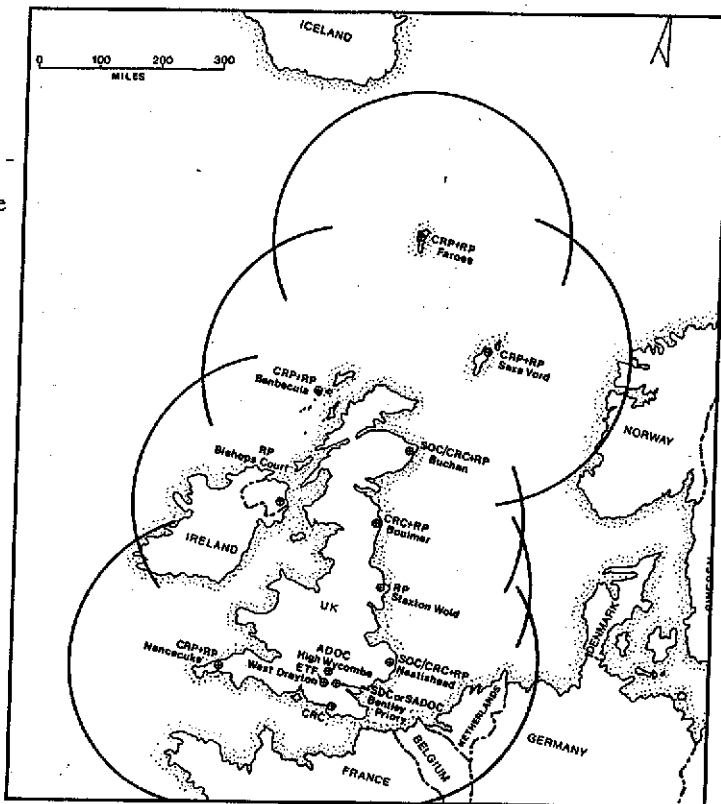
Personnel training on ICCS is underway, and Gp Capt Cullington says the system will allow a significant reduction of about 20 per cent in manpower with consequent cost cuts in operation.

Further cost cuts could be made by reducing operation from permanent shifts to a standby basis, but this would necessitate a lack of readiness.

The real breakthrough for low level coverage has been achieved with the introduction of the E-3D AWACS.

"AEW aircraft give us the low level coverage, but E-3s are an expensive way of doing it," said Gp Capt Cullington. The core of the system will therefore remain the ground-based radars, which are now all up and running. E-3s will maintain readiness and be used sparingly in peacetime, although their readiness is currently being achieved quite easily through continued service in the Mediterranean on 'Deny Flight' missions for the United Nations.

Complete integration of the E-3s with IUKADGE will occur when the new Link 16 data transfer system has been interfaced into the ICCS. Otherwise known as JTIDS (Joint Tactical Information Distribution System), Link 16 will provide highly secure packages of information to be transferred between fighters, AWACS and



IUKADGE site locations and their coverage

ground stations.

The Technique for Reading an Integrated Air Defence System (TRIADS) concept, which been used to investigate the means for matching IUKADGE and JTIDS, has now been completed, although further studies are likely before implementation can take place. In the meantime the RAF has an adequate interim system for integrating AWACS into the ICCS using the standard Link 11, say programme officers.

Extensive efforts have been directed at securing the links between the different nodes of operation and reducing the need for dependence on any one station. "The system is wholly survivable," said

Gp Capt Cullington.

The system is fed from a core radar system of 12 land-based radars: four Type 91 Martello mobile 3D radars from Marconi Radar and Control Systems; two Type 92 General Electric transportable D-band long-range air surveillance radars (AN/TPS-59 derivatives); and six Type 93 NATO Class 1 Siemens Plessey Radar/ITT Gilfillan AR-320 3D transportable air defence radars working in E/F band. Although these radars are necessarily large for the required operation, they are as mobile as possible to reduce vulnerability.

With input through separate buffers, ICCS receives information from other radar sources including NATO ground-based sensors, NATO, French, US and UK E-3 AWACS aircraft and UK Royal Navy Type 42 destroyers. As part of the enhancements being added to

the system by UKSL, civil radar systems in the UK National Air Traffic Service will also be linked into the network.

"In the old days we had individual stations with their own radars. These days are over," said one officer. Now the control system can be completely remote from radars, removing them from the targetting threat of a nearby emitter.

Although any one station does not have enough consoles to control the entire IUKADGE system, the various centres are unlikely to be required to do so.

With no part of the ICCS system readily transportable at the moment, Gp Capt Cullington has identified a direction in which to head: "In the future we would like to be mobile," he said, "and get on the back of a Hercules."

Air defence picture enhanced by RN

Bringing RN surface ships into the RAF air defence network gives a new and highly mobile dimension of sensor information to the air defence controllers.

Radar information is routed back to the ICCS via HF radio transmission to a ship-to-shore buffer station in Cornwall in south-west England.

Previously a notoriously difficult way of communicating information, RAF

officers say new techniques now allow reliable transmission of data.

Once picked up by the relay station the information is transmitted to the relevant reporting centre for integration with existing sources. All separate radar sources must be filtered to subtract duplicated radar contacts (owing to slight time and resolution differences) before being introduced onto the ICCS network.

When it's hard to tell friend from foe

A Siemens Plessey development offers to make IFF easier.

Charles Bickers reports

Identifying whether the return on the radar screen is friend, foe or neutral is difficult when the target will not co-operate.

Normally, a friendly aircraft's transponder would reply to radar interrogation. But the lack of reply does not automatically mean the aircraft is an enemy.

Siemens Plessey Systems has developed a technique for non-co-operative target identification (NCTI) using existing radar technology on its Commander series of ground-based 3D air defence radars.

Sales and Marketing Executive Nick Jones argues that while existing IFF systems provide good information, these, such as Mark 10 and future systems like Mark 15 and NATO IFF, all rely on the co-operation of the target.

By examining the signal return of a target it is possible to determine features of the aircraft but in normal terms the information on screen is insufficient. "A good operator might be able to say 'that's a Jumbo'," said Jones. To extract further information requires more power on the target than normal. So the radar must be put into a high range resolution mode. "The key is beam management," said Jones.

Siemens Plessey has funded its own research and development work into developing NCTI on its radars without modifying or developing new hardware.

By applying software changes to its radars, Siemens Plessey has been able to force some of the transmitting cells of its

radar to hold their beam (or "squirt their energy", as Jones says) on a target as the radar sweeps. This increases the amount of power on the target while still allowing some of the power to continue the sweep in the sector.

This is possible because the radars are of the planar array type. In planar array radars the beam direction is sensitive to frequency change. By stepping up the frequency over a period of time the beam can be held in the same place.

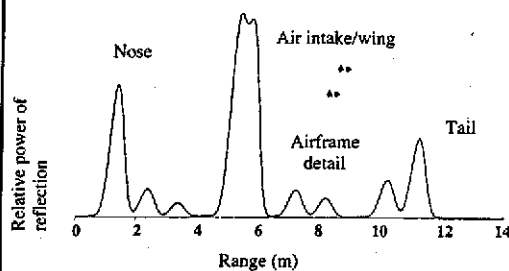
When demonstrated on the radar screen a bright interrogating line of power can be seen to hold the target as the main beam continues to move round. The reflected power from the target, many times larger than an ordinary return, can then be analyzed for identifying features.

In conjunction with the UK Defence Research Agency, Siemens Plessey Systems and partner company Roke Manor Research have developed the Sigma radar cross section (RCS) measuring system so as to develop a catalogue of reflection patterns.

Sigma uses a tracking radar, a measuring radar and an electro-optic system to provide real-time RCS information of flying aircraft (or steaming ships). The companies believe the system has promise for export to countries that require an RCS measuring device for dynamic targets.

Library facilities have also been augmented with information from an RCS

Representative compressed echo from aircraft



A typical aircraft radar return: each type has its own distinctive features

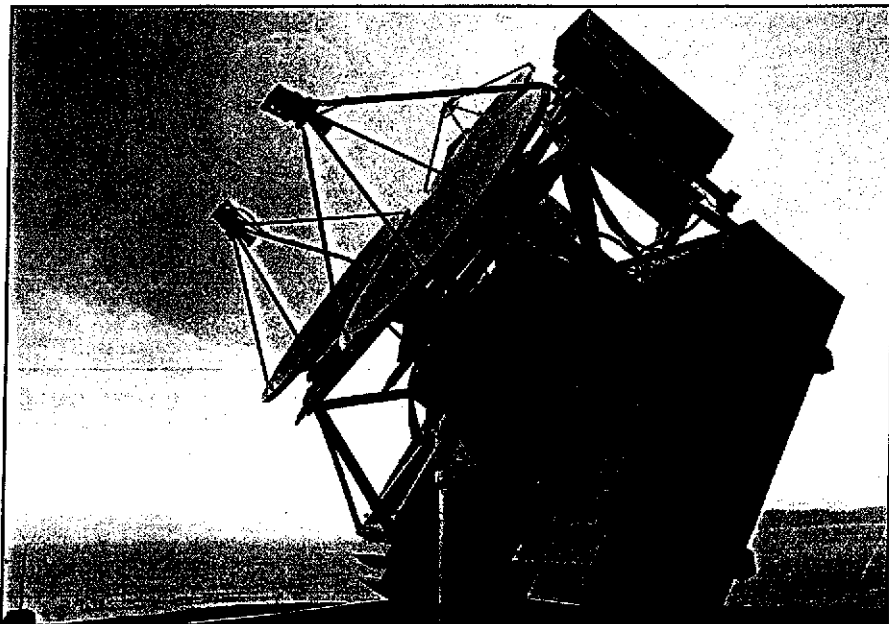
prediction programme called Epsilon developed by Roke Manor Research.

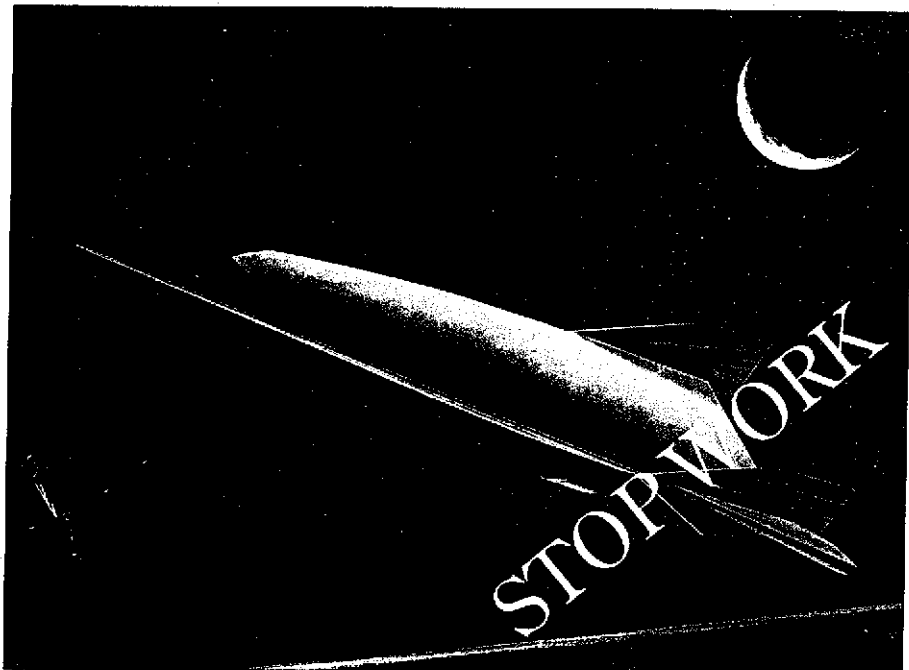
By comparing the received energy from the target and matching it with the threat library the operator can decide whether the target is friend or foe.

Siemens Plessey demonstrated the system's capability against a 1 m diameter spherical target south of Ireland at a range of about 250 km from the company's facilities on the Isle of Wight in southern England. The radar could be seen to interrogate the target. Then a print out was produced of the radar return of the sphere with a predictable circular pattern.

Although the NCTI system is not in service yet Siemens Plessey said it could be offered in addition to its Commander series. "At a time when all 3D radars look identical we get an edge," said a Siemens Plessey official. He added that existing customers could retrofit NCTI capability.

The Sigma RCS prediction radar was developed from a DRA project to build up a threat library





Brought down to Earth: work on the X-30 has stopped for the time being, its goal "unobtainable"

HYPERSONIC REALITY

The US Department of Defense and space agency NASA have had to revise their ideas about the ambitions National Aero-Space Plane programme, turning to the technique of testing hypersonic-flight behaviour with missiles. Graham Warwick looks at the project.

The ambitious goal of the US National Aero-Space Plane (NASP) programme — to build a manned, hydrogen-powered, single-stage-to-orbit (SSTO) vehicle capable of taking off and landing horizontally, of flying directly into orbit, or of cruising for sustained periods at hypersonic speeds in the atmosphere — has proved unobtainable, for the moment.

Design work on the X-30 NASP flight demonstrator was halted in May and

NASA and the Department of Defense (DoD) are seeking support for a scaled-back programme of hypersonic flight experiment, using missiles — a technique already used by the Russians.

Instead of \$2 billion a year over six years to build and flight-test two Space Shuttle-sized demonstrators, they are seeking \$2 billion over six years — roughly the current rate of funding — for a series of missile experiments.

Despite a dramatic scaling back in its ambitions, "...the overall objective of the NASP programme is the same as when we started: to develop and demonstrate enabling technology for future air-breathing single-stage-to-orbit aerospaceplanes", says Col Philip Bruce, acting NASP programme director.

"In the past, the plan was to do that by building and flying two X-30 flight vehicles," he says. The NASP Joint Programme Office (JPO) had planned to make a decision in 1993 on whether to proceed with building the X-30s. "Two things happened over the last 18 months which made that decision difficult," Bruce con-

tinues. "Firstly, we costed out the X-30 programme and found that it was very expensive. In today's budget climate, the programme was deemed unaffordable."

The second event, was a mid-1992 Defense Science Board (DSB) review of the technical aspects of the NASP programme to determine if the JPO was ready to proceed with the X-30. The Board had two major concerns, Bruce says.

GUARANTEEING PERFORMANCE

The first centered on guaranteeing the actual performance of the X-30's supersonic-combustion ramjet (scramjet) engines "...above Mach 12 and especially at Mach 14-15". Ground-testing is limited to Mach 7 and "...the DSB concluded there was no ability to document with absolute certainty the performance of a scramjet [at higher Mach numbers]," Bruce says.

The second concern was the inability to predict accurately boundary-layer transition in hypersonic flight. This is important, Bruce explains, because "...once the boundary layer trips from laminar to turbulent, heat transfer into the structure increases dramatically. A laminar boundary layer insulates the vehicle." Any uncertainty in the ability to predict the amount of thermal protection needed could result in a heavy vehicle unable to be used to demonstrate SSTO.

"The DSB recommended that, rather than proceeding with the X-30, we needed to find a way to address the technical uncertainties in a less costly manner," Bruce says.

By the end of March, the NASP JPO had a programme which it considered "affordable and executable". Bruce stresses that the plan is contingent on final approval by the US Administration, which does not yet have people confirmed and in place to hold a NASP steering-group meeting.

"The programme has four elements," Bruce explains. "The first is to complete the current Phase IID technology-development phase." The NASP national contractor team — Lockheed, McDonnell Douglas and Rockwell International, plus engine developers Pratt & Whitney and Rocketdyne — are in the final stages of a programme to demonstrate technology to support the planned 1993 decision on the flight phase. This will be completed in mid-1994, Bruce says, and includes ground tests of a 30%-scale scramjet engine at Mach 7.

The next phase of the revised plan, called the hypersonic flight-test experiment (HYFLTE) programme, will use surplus ballistic missiles as booster vehicles for hypersonic experiments involving scramjet operation (the higher priority, Bruce says) and boundary-layer transition.

The HYFLTE programme has three elements — two of which will use the Minuteman II missile. A shroud will be

built around the missile's second stage to house the boundary-layer and scramjet experiments. The third phase will use a Titan II to launch a free-flying, scramjet-powered scale model of the X-30.

For HYFLTE I, the Minuteman will carry a wedge-shaped experimental body simulating the X-30's forward fuselage. The lower surface will be a compression ramp simulating the scramjet inlet, but without the engine. Leading edges will be water cooled and surfaces thermally protected. This body will be used to conduct boundary-layer transition experiments to verify computational fluid-dynamics codes developed by the NASP team.

"We do not have experimental data on this regime," Bruce says. Although work has been done on conical re-entry vehicles, no data are available on how wedge-shaped bodies perform. The Space Shuttle flies hypersonically, but in a different regime. "While the Shuttle flies at up to 40° AoA [angle of attack], the X-30 will fly at 1-2° AoA and, while the Shuttle flies at high altitude and low dynamic pressure, the X-30 will fly at 100,000-125,000ft [30,000-38,000m] with high dynamic pressure," he says.

MINUTEMAN BOOST

For HYFLTE II, a Minuteman will boost a 30%-scale scramjet engine "...to a minimum of Mach 12...to demonstrate that the scramjet will develop thrust", says Bruce. The X-30 has three scramjet engine modules, each with two flowpaths separated by a splitter plate. HYFLTE II will be used to test a single flowpath gaseous-hydrogen-fuelled scramjet, which will stay attached to the missile's second stage. "The aim is to document positive thrust, not to accelerate the experiment," he says.

"We are looking at the weight, size, drag and performance of the scramjet to be flown because we want to get above Mach 12. A 25-30%-scale engine is as small as can be built and still...develop thrust," Bruce says.

This is the same size of engine which can be tested to Mach 7 on the ground in the 8ft (2.5m) tunnel at NASA Langley, he points out.

"We can scale height and width [and therefore airflow], but not length, which will be close to full-scale, because it is not possible to scale down the length of the combustion chamber, which is determined by the reactive chemistry of the combustion process," Bruce says. Combustor length is determined by the time it takes for fuel and air to mix, react and release energy, he says.

The NASP JPO plans two HYFLTE I and three HYFLTE II launches, beginning with a HYFLTE II in 1996 or 1997. The missiles will be launched from Vandenberg AFB, California, to 100,000ft and Mach 12-15, each giving 15s of data-

Scramjet tests in Russia

Russia has conducted four hypersonic propulsion flight tests, flying a supersonic combustion ramjet (scramjet) on a conical surface-to-air missile. The first two flights in 1989 and 1990 were unpowered and were

followed by the first powered flight in November 1991. France's ONERA research centre participated in the fourth flight test in November 1992.

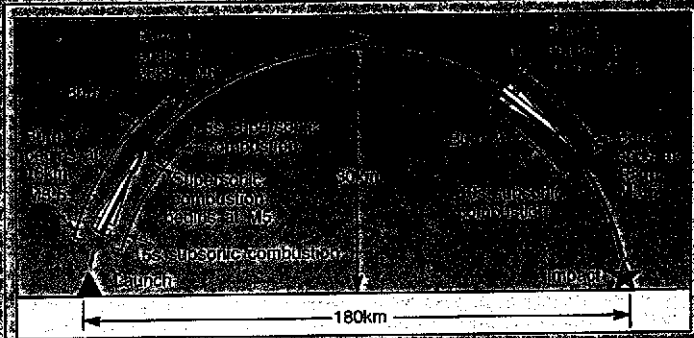
The programme is conducted by the Moscow-based Central Institute of Aviation Motors (GIAM). The axisymmetric hydrogen-fuelled scramjet used in the test was built by the Turatovo-based Soyuz design bureau and is 1.2m long with an inlet diameter of 0.23m.

The scramjet was launched atop a surplus SA-5 Ganel surface-to-air missile, modified by the Moscow-based Fakel design bureau from a military base near to the Balkonur Cosmodrome in Kazakhstan.

In the November 1991 test, the scram-

jet was started twice. The initial burn started at 18km and Mach 3.5 and 15s of subsonic combustion was followed by 3s of supersonic combustion. Supersonic operation began at Mach 3, with an altitude in the combustion chamber of about Mach 3. The missile reached 30km altitude and the scramjet was restarted at 22km and Mach 4.5, followed by 10s of subsonic combustion.

The aim of the second powered flight was to increase the duration of supersonic combustion by improving engine and missile control. The missile reached 25km altitude and the scramjet made a transition from subsonic to supersonic combustion at Mach 3.5. Supersonic operation lasted 15s, GIAM says.



Russian scramjet test 28 November 1991

gathering time before its experiment falls into the Pacific.

The third programme phase, the HYFLTE III flights, will address other DSB concerns, including the stability and control of an air-breathing scramjet-powered vehicle. "Look at the X-30," Bruce says. "All the underside of the vehicle ahead of the engines is an inlet-compression surface. The last one-third of the vehicle is a nozzle — of rather half a nozzle, the top half only." The X-30 has a tendency to pitch up because of asymmetric thrust generated by this asymmetric nozzle.

"Hypersonic vehicles do have significant pitch moments," Bruce says. "Stability and control in regimes not flown before is an issue, although the risk is lower than with other concerns." NASA will also use the HYFLTE III effort to answer DSB concerns about the total integration of a hypersonic vehicle.

The programme will address this using a free-flying test vehicle, a 25% scale model of the X-30, approximately F-16-sized and powered by three complete 25-30%-scale liquid-fuelled scramjet engines. These would be dual-flowpath modules using engines similar that tested in HYFLTE II. HYFLTE III would be launched by a Titan II, which has the

performance to boost the test vehicle to above Mach 14, Bruce says. The vehicle would be separated from the Titan to demonstrate that a scramjet generates more thrust than drag. The aim is to have the engine accelerate the vehicle by Mach 1.5 over 30s of free flight.

The first of three HYFLTE IIIs is planned for launch from Vandenberg after 1998. The missile would fly a ballistic trajectory, releasing the test vehicle at 110,000ft and Mach 12-15. The Minuteman experiments are expendable, but the goal of the Titan flights is for the vehicle to be recoverable.

The fourth phase of the restructured NASP programme is the underlying SSTD enabling-technology programme, which would continue work on issues not addressed by flight tests. The JPO's aim is to be in a position to decide on entering a flight-research vehicle phase "by 1998 at the earliest", says Bruce.

A minimum 15-20% of funding would go into this phase of the baseline programme, which runs from 1994 to 1999 "but may need another year or two," Bruce says. Funding would start out at around \$200 million a year, but would need to grow "well beyond that" to finance the Titan flights. □

E 13
 "We do give money to b...
 he explained. "Last year...
 £250,000 towards a debt-

For someone who was abducted by aliens, Travis Walton doesn't have much to say. Jim Shelley reports

The man who fell back to Earth

I HAD just one worry — that the chairman would call upon me to prove I was One Of Them.

This was an important meeting for the British UFO Research Association (Bufora). Would they ask me to justify my presence by relating a personal UFO sighting or, even worse, an alien abduction? Would I have to produce evidence of a rectal probe, an examination said to be a favoured by aliens?

The members, after all, had packed into a lecture room at the London Business School, near Regent's Park, to hear one of the movement's most important apostles, Travis Walton, the Arizona woodsman whose alleged abduction by aliens in 1975 is one of the organisation's most convincing cases, not least because six men supposedly witnessed it.

Mr Walton and Mike Rogers, one of the witnesses, were in Britain to explain their version of events and promote the Paramount Pictures film of their story,

At the venue, however, Travis Walton's seat was empty. This was ominous. I wondered if he had been abducted again

Fire In The Sky, which opens nationwide today.

At the venue, however, Mr Walton's seat was empty. This was ominous. I wondered if he had been abducted again. Aside from a few oddballs with unusual hairstyles and eccentric outfits, the members appeared a rather ordinary bunch — students, accountants, physics teachers. Some were trying to look weird (dark glasses, intense expressions, black clothes), while others were trying to look normal (and failing).

A couple of Bufora members, train-spotter types with anoraks, glasses and sandwich boxes, were talking behind me. "...so anyway, I've only just got back..."

I looked for signs of abduction. "It was lovely — Skegness, two weeks."

One large man had brought his suitcase, as if he were ready for his disappearance. Only one man's disturbed looks suggested he had really been ab-

ducted, and recently, too. I sat next to him.

A man dressed as a member of the Eighties pop group the Buggles stepped up to the microphone and asked us to give "a big Bufora welcome" to Travis Walton and Mike Rogers.

You knew immediately which was Mr Walton. It was his eyes. To no applause at all, the two men were led into the room and welcomed with the kind of hushed, sombre looks usually afforded prisoners being taken to the gallows. Members of the audience took photographs, as if Mr Walton were a freak on display — he had become the alien now.

He made a strange sight: someone on the public relations trail who received no obvious enjoyment from the attention. With his hard, weathered face and neat moustache, he looked subdued.

He and Mr Rogers ran through their version of events: the enormous glowing object, the bolt of energy hitting him, the spaceship zapping away, the panic.

After "five days, six hours and some minutes", he regained consciousness and found himself naked, terrified and "in terrible pain" at a highway service station. Memories included the atmosphere ("very hot, dry, stale") and the aliens ("hairless beings, large heads, chalky white grey skin, enormous eyes. Really terrifying").

To the dismay of the membership, Mr Walton confirmed that his descriptions of the aliens and their craft had been altered by Paramount Pictures to make its film more original and frightening.

"We're all disappointed to hear you say that," one senior member said, as if he had been betrayed.

Other questioners seemed to imply that "hey, buddy, I've been there, too"; but Mr Walton had no experiences of time-lapses to relate, no idea how he got back to Earth, and none of the memories of unusual physical examinations, implants, incisions or sperm-testing common among people who claim to have been abducted.

What the audience wanted, however, was something they could use, some new proof to help the cause. "So you have no idea what happened the rest of the time?" one member asked querulously. Mr Walton said he did not — he was too busy

screaming at the time, before passing out altogether.

"And you didn't ask them about their planet?"

"No."

"Or what they wanted?"

"No."

"Well," asked one boffin brightly, "did you get any unusual allergies after you'd returned? Or find magnetic fields affected you in some way? No. Oh, I see. Fine."

As far as the Bufora members were concerned, Mr Walton's trip was beginning to look like a wasted opportunity; an opportunity he had wasted. They, after all, had probably spent hours working out crucial questions that they would ask the aliens when they were abducted.

One member, who said he knew a man aged 70 who had been abducted and returned unharmed because he was aged and infirm, asked Mr Walton: "Why you?"

He ran through his version of events: the glowing object, the bolt of energy, the spaceship zapping away, the panic

He had no answer to this either.

The odd thing was that the more Mr Walton said "no" or that he "didn't know", the more impressive he seemed. There were no psychobabble theories to sell us about aliens coming to Earth to stop nuclear war or cure cancer. In fact, like the aliens, Travis Walton didn't have any message.

He said that the six men who witnessed his abduction had spent years as pariahs, accused first of being murderers, then of being frauds, hoaxers or nutters. None had changed their story, and all recently passed lie-detector tests.

He said he had no doubts about what happened to him, but was coping now "by trying to leave it behind me, shut it off".

As a final sleight, perhaps, he said he did not feel privileged. "Not at all. A lot of people might. The event could have happened to anybody."

The way he said it, you could only feel glad that it didn't happen to you.



Tomorrow in WEEKEND

JUST OVER a week ago a British tourist was shot dead in Washington DC. This week another British tourist was attacked and shot in Orlando, Florida. This follows the murder of tourists earlier in the year in New Orleans and Miami. But such violence is not a problem confined to America. The whole world has become a more dangerous place for travellers. The modern breed of robber is armed and ruthless: show signs of resisting the demands of muggers and you may well pay for it with your life. All of which is not to say that you shouldn't travel; rather that you should go forewarned and forearmed of the dangers that may await you, and how best to avoid them. In tomorrow's travel section, the *Independent's* foreign correspondents around the world, from New York to Bangkok, Moscow to Mexico City, provide up-to-date information and insiders' guides on how to visit these places safely.

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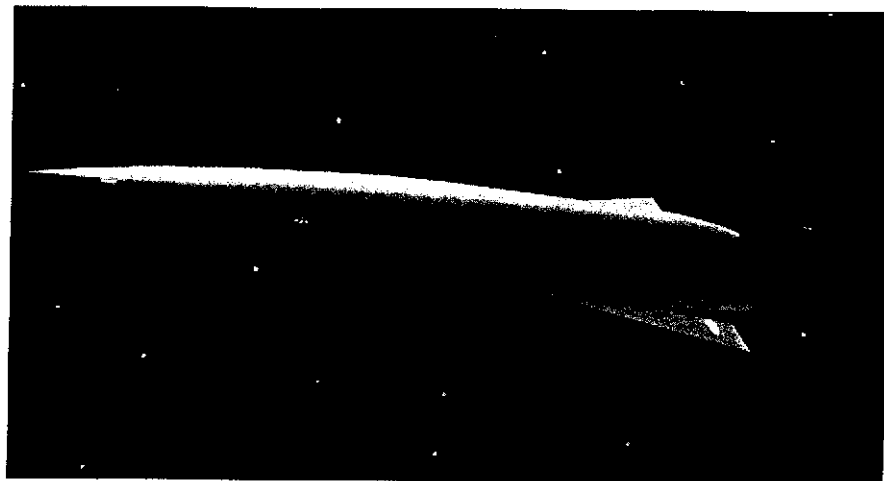
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On the trail of the quantum leap

Nick Cook reports from the laboratories at the cutting edge of the Pentagon's quest for the ultimate aircraft and weapon systems

AFMC: guardian of USAF's wealth in science and technology



The X-30 – outgrowing of a secret USAF reconnaissance aircraft or pioneering hypervelocity demonstrator?

The overall US lead in technology relative to the rest of the world has eroded over the last 20 years, and the outlook is for greater technological competition in the future.”

When the US Air Force put its name to those words, in an October 1990 document called the Air Force Science and Technology (S&T) Program, the Soviet Union still existed as a nominal threat and war with Iraq was three months into the future.

The document continued: “In the years ahead, the US will confront new challenges ... almost certainly from a unified and competitive Europe, a dynamic Japanese economy, rapidly developing countries like South Korea and Singapore, and an unstable Third World armed with increasingly sophisticated weapons.”

Almost three years on, the US military S&T community finds itself fighting to maintain its technological lead in the face of a new enemy, a markedly reduced and ever diminishing defence budget. Meanwhile, the “challenges” in a world beyond the Soviet threat have increased rather than diminished.

To counter the danger to the US economy of lost defence industry jobs, Defense Secretary Les Aspin has proposed \$1 billion to assist in commercializing defence R&D and a further \$700 million for economic support programmes for workers and local communities directly affected by the slump in defence orders.

The Pentagon is especially interested in dual-use technologies, Aspin recently told Congress. Much of the \$1 billion will go towards this. Areas of focus include high definition TV systems, advanced materials, micro-electronics, x-ray lithography and flat panel displays.

The USA, however, is not alone in seeking to perfect these technologies — Europe and Japan are also in the race. The rewards are extremely high, as innovation in these areas will play a formative role in the future economies of all three blocs. Technology breakthrough by any one bloc could spell economic catastrophe for the others.

As much for this reason as any other, the US intelligence community, in addition to its traditional role as threat assessor, is now placing increased emphasis on in-depth analysis of US allies' scientific and technical capabilities, their economic welfare, trade relationships and industrial strategy (see box 1).

As the leading industrialized nations cut back on weapons procurement, and defence technology diffuses into the civilian sector — and from the developed, into the developing world — this kind of scrutiny, by all three blocs, is likely to increase, rather than diminish.

In 1990, the US Air Force assessed Japan as being “significantly ahead” of US industry in five out of 20 critical technology areas: semiconductors and microelectronics; robotics; photonics; superconductivity; and biotechnology. Significantly, the Soviet Union was acknowledged to be ahead of the USA in only one area: pulsed power and its offshoot, microwave weaponry.

The USA, Europe or South-East Asia... who will hold the technological high ground into the 21st Century? Or is the USA's lead across a wide spectrum of technologies simply unassailable, however much ground has eroded under its feet?

To find out, *JDW* was given unprecedented access to the US military science and technology community, visiting government and industry ►



► laboratories at the cutting edge of aerospace and weapons S&T research. Each facility was asked to list technologies that showed particular promise in the propulsion and weaponry fields and, where possible, identify likely breakthroughs — the “quantum leaps” that, historically, have produced the jet engine, directed energy weapons and a host of other revolutionary, as opposed to evolutionary, developments.

USAF, in line with its visionary approach to air power, has a formal mechanism for identifying quantum leaps. Project Forecast II, implemented in 1985, succeeded two other long-look studies: *Toward New Horizons* (1944) and *Project Forecast I* (1964). Each sought to provide USAF commanders with a list of the “art of the possible” in any future air battle. Of the 2000 ideas generated by Forecast II, 70 initiatives had sufficient promise to transition into the air force S&T programme.

The following is a snapshot of USAF’s cutting edge in aeropropulsion and advanced weaponry: the real, the future and — thanks to the veil of secrecy drawn over special access aircraft and weapon systems — a white world appreciation of what the black world may hold.

AEROPROPULSION

Wright Laboratory at Wright-Patterson AFB, near Dayton, Ohio, is the focus of USAF research into air vehicle technologies. The lab’s ‘flagship’ programme, according to its Chief Scientist, Dr Keith Richey, is IHPTET — Integrated High Performance Turbine Engine Technology.

IHPTET’s goal is to demonstrate

Myth or reality? Aurora has come to embody secret ‘black’ aircraft projects (Julian Cook)

technology that will double ‘propulsion capability’ for a wide range of aircraft and missiles. For fighters, that means increasing production engine thrust-to-weight ratios from 10:1 to 20:1 by 2012, with concomitant gains in affordability and supportability. Built into a 21st century interceptor, a full-up, IHPTET-derived engine would allow Mach 3-plus cruise speeds — without afterburning — against an advertised ‘supercruise’ speed of Mach 1.6 for the F-22, USAF’s next fighter.

Other IHPTET spinoffs have huge implications for the US civil aerospace industry. Work on swept blades in the fan and compressor stages, for example, some of which is already filtering into industry, could yield up to five per cent improvements in specific fuel consumption (SFC) over current large fan engines. For Boeing, McDonnell Douglas and Europe’s Airbus consortium, even fractions of percentages in this field can mean the difference between project success and abject failure.

IHPTET is designed to revolutionize turbopropulsion by markedly improving engine materials, structures and aerodynamics. Wright Laboratory is also conducting extensive research into new fuels in order to capitalise on these gains. Here, the goal is to develop a single, logistically preferred and affordable JP fuel with efficient ‘heat-sink’ properties — designers use fuel for cooling avionics and aircraft surfaces — that will not degrade, even at 900 deg F. Current fuels degrade significantly above 325 deg F, although a

shorter term programme at Wright Laboratory is set on raising this threshold by 100 deg.

For a more “radical” glimpse into the future, Dr Richey pointed to the ‘More-Electric’ Aircraft Programme. This is a drive to minimise on-board hydraulics, pneumatics and certain mechanical systems, including the bulky accessory gearbox, through the application of a miniaturised, high-power, solid state switch, the Metal oxide semiconductor Controlled Thyristor (MCT), that allows electric actuators to be driven at variable speeds.

In the UK, the USA’s closest competition in terms of gas-turbine technology (France, slightly behind the UK in this area, is a world leader in ramjet design), has an equivalent programme to IHPTET, called ACME (Advanced Core Military Engine) II. This also aims to demonstrate a fighter engine with a 20:1 thrust-to-weight ratio, although unlike IHPTET, which should demonstrate full power in 2003, no equivalent targets yet exist. However, UK investment in engine technology suggests that the USA’s lead in fighter propulsion is not as significant as it is in areas such as electronics, stealth, structural materials and hypersonics.

Gen Richard Paul, USAF Technology Executive Officer within Air Force Materiel Command (AFMC), controller of the air force labs, has observed that “sustained flight beyond Mach 5 for both military and commercial applications will be realised using existing support infrastructures.” Ongoing Wright Laboratory research has confirmed the theoretical use of hydrocarbon fuels — the costliest component of the ►

►support infrastructure — out to Mach 8. Thereafter, cryogenic propellants like methane or hydrogen become essential.

That hydrocarbons offer such clear potential may have an important bearing on the make-up of USAF special mission aircraft. Much has been written about the possible existence of a hypersonic USAF reconnaissance aircraft, popularly referred to as Aurora, that is theoretically capable of Mach 8. Though 'Aurora' is officially denied by the air force, several 'sightings' have prompted some analysts to concur that the USAF does have just such an aircraft in or near operational status.

'Aurora' is usually assumed to be powered by a type of cryogenically fuelled combined cycle engine that marries the features of a jet, a ramjet and a rocket. Unlike traditional ramjet/scramjet engines, which cannot function below Mach 2.5, this combined cycle design would have to operate efficiently across the entire speed range.

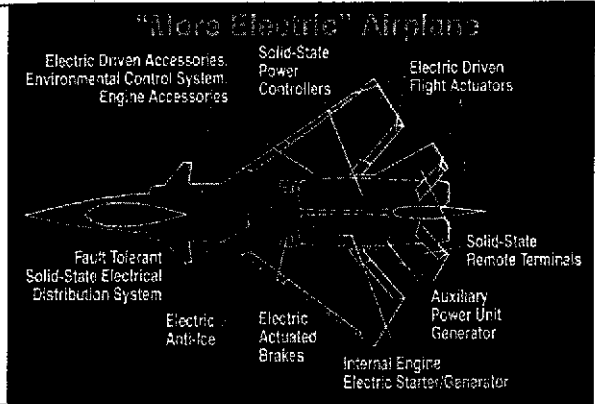
Developing an effective combined cycle engine is one of the principal challenges of the DoD/NASA National Aero-Space Plane (NASP) programme, begun in 1986, whose aim is to build a vehicle, the X-30, for demonstrating single-stage-to-orbit (SSTO) operation from a runway, landing again like a conventional aircraft.

Some analysts believe 'Aurora' to be embedded within the NASP programme or, conversely, for NASP, with its additional SSTO design driver, to be an outgrowth of a secret hypersonic reconnaissance aircraft. For 'Aurora's' initial operating capability to have started in 1990, the year the USAF retired its SR-71 strategic reconnaissance aircraft, early development work would have had to have commenced in the late 1970s.

There are still colossal challenges ahead in understanding both the combustion efficiencies and the material complexities of the NASP engine, according to Lt Col John Thomas, head of the Technology Applications Branch in the NASP Joint Programme Office (JPO) at Wright-Patterson. Dr Richard Weiss, head of the Propulsion Directorate at the USAF's Phillips Laboratory Operating Location, Edwards Air Force Base, California, told *JDW* that the JPO is three to four years from having a 'breadboard' NASP engine. "We're revisiting a lot of technologies," he said.

NASP is facing growing Congressional criticism over delays to the programme. Politicians have urged the JPO to be more aggressive in achieving its goals — the X-30 should have been ready to fly by 1995, but this has proven woefully optimistic —

The 'More Electric' Aircraft Programme will minimize on-board hydraulics



or face losing the programme altogether. Senior air force officials have vowed to fight for the programme, citing NASP's vital contribution to the US aerospace industry's S&T base.

To let it die, they say, would be to allow a breakthrough technology to pass the nation by — the more so, since Europe is years, perhaps decades, behind the USA in its efforts to go SSTO. Most European designs focus on a two-stage approach to orbit, precisely because the propulsion challenges of single-stage are so demanding. Time will tell whether USAF has already tested the endo-atmospheric portion of the NASP programme under special access — black — auspices and made it work.

Through its mammoth Cold War investment in nuclear weapons and ballistic missiles, the USA is able to call upon another resource — the national laboratory — that has no real counterpart in either Europe or Japan. With nuclear related programmes in full retreat, these institutions, traditionally secretive, are having to adopt sharp commercial practices in what, for some, has become a straight fight for survival.

Despite moves by the Clinton Administration to channel billions of defence dollars into dual-use technologies, the laboratories are concerned that, with few, if any, new nuclear weapons programmes, there will be insufficient funds to retain the kind of highly skilled personnel that have long characterised the make-up of the national labs.

Carl Peterson, Manager Defense and Space Programs Department for Sandia National Laboratories, based at Albuquerque, New Mexico, pointed to the pioneering work in ballistics and hypersonics that Sandia has been conducting for decades on the back of the US nuclear programme. Much of this work

is now threatened with extinction.

Sandia's unique expertise in the development of high-performance parachutes — chutes that have the ability to slow a free-fall nuclear bomb with the mass of a family car from 1500 km/h to 70 km/h within a drop-height of 50 m — is vested in the hands of just three people. "They're wizards," Peterson said. But without investment or further commitment, that kind of talent, forged over decades, will cease to exist, he added. Once gone, it is difficult, if not impossible, to recapture.

The massive buying power of the US defence and energy budgets has enabled privately owned research and development companies to flourish. Science Applications International Corp (SAIC), one of the leading US civil and military R&D companies (it also has a significant manufacturing base, producing portable computers and avionic display systems), sees national security continuing to be a major focus for the company, despite the downsizing of the defence budget.

SAIC is offering several revolutionary propulsion concepts to the US military. The Pulsed Detonation Engine (PDE), a very high specific impulse device, has applications across a wide spectrum of aircraft and weapons, according to SAIC officials.

Based on a detonation cycle involving no moving parts, the PDE would not only be a highly versatile powerplant — potential applications range from 500 lb up to 50 000 lb thrust engines — it would also be cheap to manufacture, SAIC officials said. Two years ago, the Defense Advanced Research Projects Agency (DARPA, now just ARPA, reflecting its new dual-use status) asked SAIC to evaluate the cost of PDEs against turbojets for certain missile applications. The result, based on an 80 000 unit

► production run: \$5000 for a small PDE; \$25 000 for a turbojet.

For the past seven years, SAIC has been trying to persuade the DoD to fund PDE studies for a range of different applications. Officially, PDE trials have never transitioned beyond 'table top' experiments, although company officials noted reports of high flying, high speed air vehicles over the US South-West that have exhibited 'puff ball' exhaust emissions consistent with PDE propulsion. Some analysts have not ruled out the existence of a black world PDE demonstrator aircraft.

Through ongoing research efforts, USAF laboratories, in conjunction with their counterparts from the USAF and NASA, work constantly to improve existing and follow-on generations of aircraft through incremental advances in science and technology. In September of next year, a joint NASA-managed programme, in conjunction with the USAF, McDonnell Douglas and Pratt and Whitney, called ACTIVE — Advanced Control Technology for Integrated Vehicles — will see the first flight of an F-15 fitted with axisymmetric vectoring engine nozzles from Edwards AFB. The programme will use the same F-15 Short Take-Off and Landing/Manoeuvre Technology Demonstrator that validated 2-D thrust vectoring for fighters between 1985 and 1991.

ACTIVE will establish whether axisymmetric vectoring nozzles can provide substantial benefits in pitch and yaw control, up to and including their use as a means of adjusting aircraft trim. A parallel USAF-run programme called

MATV — Multi-Axis Thrust Vectoring, using an Edwards-based F-16, will also investigate the potential of axisymmetric pitch/yaw nozzles during high angle of attack manoeuvring. Technologies developed from the ACTIVE and MATV programmes will be channelled into the USAF's Propulsion, Aerodynamics, Control Integration Research and Development (PACIR) programme. Both ACTIVE and MATV are typical of the resources that the US Government dedicates to flying technology demonstrators — a philosophy which, much to the chagrin of European industry, sets the US apart from its international rivals.

If evolutionary advances in aviation — however innovative — represent the tip of the iceberg, it is intriguing to speculate what revolutionary technologies — stealth, for example — currently lurk beneath the classified waterline, their existence undeclared for years. Applying the same equation to US weapon systems, the visible element of the iceberg is, for most people, staggering enough.

WEAPON SYSTEMS

Deep in the heart of the New Mexico desert, Albuquerque, the state capital, stands as a high-tech focus for advanced weaponry. It is here, within Kirtland Air Force Base, that USAF's Phillips Laboratory, epicentre of all USAF space and missile R&D, is located; here also are the headquarters of Sandia National Laboratories, the leading US nuclear weapons integrator. Just 120 km to the north lies one of the nation's two nuclear

weapons developers, Los Alamos National Laboratories (LANL).

To meet the challenge of declining military R&D resources, the three labs have forged a strategic alliance for determining areas of mutual interest, identifying unique and complementary facilities and responding jointly to emerging requirements — the creation, in effect, of a New Mexico 'superlab'.

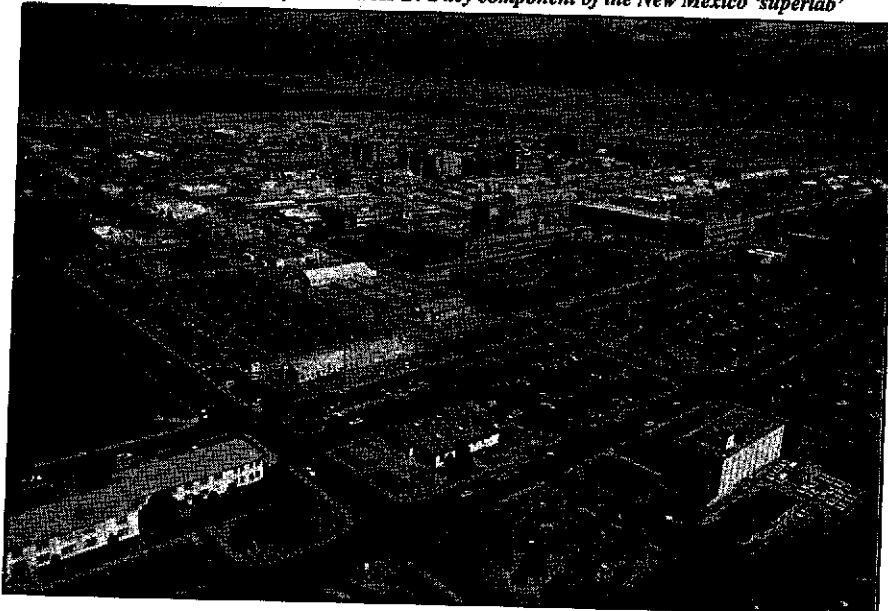
Between them, Phillips, Sandia and LANL have attracted a constellation of companies, large and small, whose bread and butter business is military science and technology. Even after the decline of SDI, in which all three have a considerable interest — SDI's space-based kill portion is now focused on research as opposed to deployment — New Mexico is still responsible for some of the most advanced weapons research in the USA.

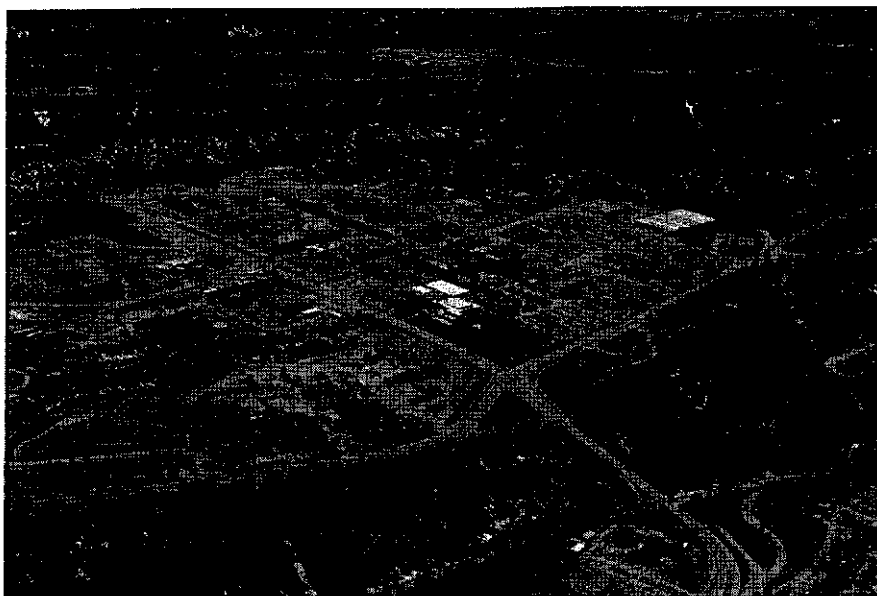
At Phillips Lab, one of the principal objectives of the Advanced Weapons Directorate is to exploit high energy plasma physics for military applications. The enabling technology is a facility called Shiva Star, a 250 ton, 864-capacitor power bank capable of generating up to 10 megajoules of electrical energy and a potential 10 trillion watts (the USA, by comparison, generates three trillion watts per year) for a variety of research initiatives, including nuclear weapon explosion effects and space-based weaponry.

Foremost amongst the weapon experiments is a bid to develop a 'plasma bullet' capable of 10 000 km/sec flight times — three per cent of the speed of light. Fired against a ballistic missile re-entry vehicle (RV), the bullet — a compact toroid, or doughnut-shaped ring, composed of a heavy gas wrapped in an intense magnetic field — would penetrate the 'porous' surface of the RV (to a plasma, surfaces appear as a sieve of individual atoms) and deposit its energy within the vehicle, destroying its 'soft' on-board electronics.

The chief scientific and technical challenge is keeping the toroid together as it leaves the plasma gun. By 1995, Phillips and LLNL hope to fire a compact plasma toroid at 3000 km/sec propelled by 5 megajoules of energy within the lab's High Energy Research and Technology Facility (HERTF), a remote laboratory in the nearby Manzano Mountains. "The physics is in hand, we just need time and money," Maj Billy Mullins, a USAF scientist within the directorate, told *JDW*. Other roles for Shiva Star over the next 20 years include laser weapon power generation, rail and electrothermal ►

Sandia National Laboratories, Kirtland AFB: a key component of the New Mexico 'superlab'





Cuts in US nuclear weapons spending is threatening the competitiveness of laboratories like Los Alamos

►gun applications and work with high power microwave, or electro magnetic pulse (EMP) weapons.

In line with an emerging DoD initiative to develop new weapons that cripple enemy defences, while preserving human life — so called 'non-lethal' weapons — Phillips and Los Alamos have been conducting highly secret research into EMP and its effects. Both in isolation and with the recent help of Russian scientists — for a while, the steady influx of Russians into New Mexico almost constituted an invasion — a variety of EMP weapons have been tested.

US efforts have focused on EMP generator weapons, Russian research on explosively-generated pulsed power. The latter is attained through the use of explosives to collapse a solid metallic disc at 20 km/sec, creating a 100 megajoule, 100 mega-amp electrical discharge, Maj Mullins explained. These pulses would destroy the electrical circuits of any 'unhardened' equipment within a prescribed range.

Although EMP weapon initiatives are underway in other countries — the UK's Defence Research Agency, for example, acknowledges it is studying a "spectrum" of RF weapons (of which EMP, or microwave devices form a part) — there is little doubt that the USA, abetted by recently-bought Russian technology, has taken a considerable world lead in this field. It is conceivable, some analysts believe, that USAF may have 'deployable prototypes' of EMP weapons, integrated within a cruise missile airframe.

At Los Alamos, much of the laboratory's directed energy weapon research has been plied into its free electron laser (FEL) project. In collaboration with Boeing Aerospace, Los Alamos scientists have come up with a design, currently under laboratory test, that can be packaged into a Boeing 747 dedicated to theatre missile defence.

To kill a Scud tipped with a nuclear, chemical or biological warhead, it is preferable to catch it in the boost phase — typically, within the first 70 sec. Since the Scud launch site may lie deep behind enemy lines — as proved the case in the Gulf war with Iraq — the only sure way of acquiring and killing it in time is with a speed of light weapon, according to the FEL facility's Project Leader, Dr Patrick O'Shea.

The big challenges are keeping overall system weight down — current technology levels permit a device of around 60 tonnes — and preventing undue propagation through the atmosphere. The latter has been largely solved through a technique called 'atmospheric phase compensation', markedly improving the beam's columnation, and has been demonstrated at low power against high flying aircraft, the space shuttle and even satellites, according to Dr Dean Judd, a senior Chief Scientist at Los Alamos, and former Chief Scientist for the SDI Organization.

Major advantages over the neutral particle beam (NPB) accelerator, the FEL's main directed energy rival, are its tunable wavelength, allowing the operator to dial up the power required, its 40 per

cent projected efficiencies and its relatively low cost. Unlike an NPB weapon, however, an FEL cannot discriminate between real RV warheads and decoys. An FEL's energy beam can only interact with a target's surface, whereas a particle beam can penetrate the wall of the RV and reach the warhead and guidance systems inside. Depending on the intensity of the neutrons and gamma rays scattered, a satellite determines whether the RVs are real warheads or decoys.

Within the scientific community, said Judd, there is a recognition that directed energy is the surest way of conducting ballistic missile defence — "but we can't field a system like that before the end of the century."

The DoD's chosen means for achieving near-term strategic defence is a missile of extremely high velocity. Judd doesn't see Los Alamos working exclusively on a hypersonic interceptor, although he does see the laboratory providing industry with its MESA 3-D computer code — MESA is a hydrodynamics code used to study the behaviour of solid materials that under very high pressures act as if they were liquids — that industry would require for the USA's ultra-demanding national missile defence system. Los Alamos recently acquired the first production model of the CM-5 Connection Machine, the largest and latest massively parallel computer from Thinking Machines Corp, of Cambridge, Massachusetts.

Work underway at Sandia and SAIC in Albuquerque on an electromagnetic rail gun for launching small payloads into space has spun off from extensive research into hypervelocity guns for SDI. One readily achievable mission requirement, according to officials, is the implementation of a hypervelocity gun terminal defence system capable of rapid firing 5 kg low endo-atmospheric interceptors with 4 km/sec flight times. In separate experiments to date, hypervelocity guns have already demonstrated 30 shot bursts and fired projectiles with functioning electronics. Speeds of 7.5 km/sec have also been attained.

Officials from GE Aerospace Re-Entry Systems, the US ballistic missile RV manufacturer — beside Sandia, its knowledge of hypersonics, hitherto shrouded in secrecy because of the nuclear connection, is unparalleled — told JDW last year that its D2 smart manoeuvring projectile would be capable of hitting airborne targets by the middle of the decade. D2 is designed to be launched ►

Keeping an eye on old friends

The United States Navy's submarine force is a prime example of the joint effort between the two nations. It is a force that has been built up over the years and is now one of the most powerful in the world. The Navy's submarine force is a force that has been built up over the years and is now one of the most powerful in the world. The Navy's submarine force is a force that has been built up over the years and is now one of the most powerful in the world. The Navy's submarine force is a force that has been built up over the years and is now one of the most powerful in the world.

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► by rocket or rail gun.

COLLABORATE OR PROTECT?

In an atmosphere of increasing tension over its trade links with Europe and Japan, the USA is having to define how much of this impressive science and technology base it protects (see box 2) and how much it shares with its traditional allies in future joint collaborative efforts.

Since the evaporation of the Soviet threat, defence R&D between the USA and its NATO allies has drifted through lack of focus and funding. The Pentagon has promised Congress renewed emphasis on the programme, including more speedy negotiations and implementation of bilateral agreements, but its commitment to many of these initiatives is unclear.

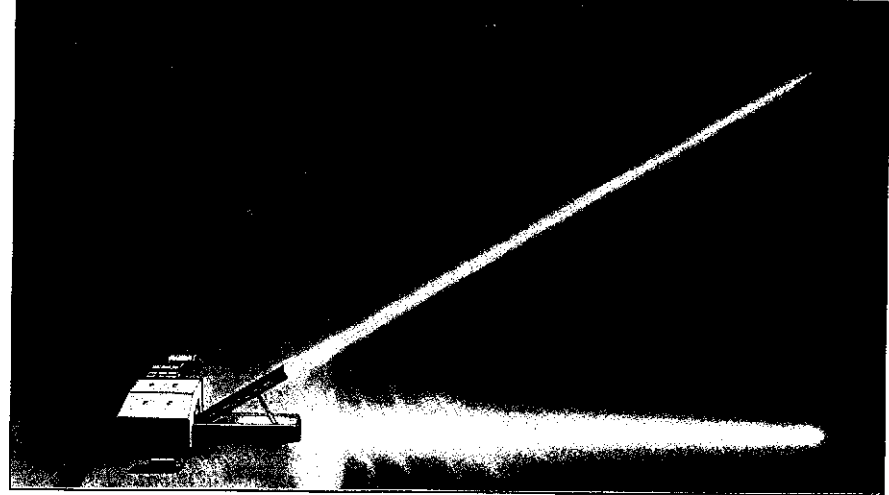
Twenty-six areas of potential co-operative research between USAF's Electronic Systems Center (ESC) and Japan were identified by some 70 programme managers and engineers in an ESC/Japan initiative conference in

February. The Japan initiative was designed to target Japan's defence industry and technology market for possible international co-operative R&D efforts with ESC.

- Potential areas of co-operation include:

the miniaturisation of radar technology, fibre optics, tactical communications, sensors, lasers, smart skin radars, computer language translation, robotics, advanced wafer technology, theatre missile defence, improved over-the-

SAIC proposal for a rail gun satellite launch system reflects US lead in hypervelocity weapons



Dual-use: a risk to superiority?

With the dissolution of the Warsaw Pact, President Bush has ordered the removal of several dual-use items from the US Working List (USWML), the most restrictive of government export controls which is controlled by the State Department.

However, a recent report from the General Accounting Office warns that moving some of these technologies to the more liberal export jurisdiction of the Commerce Department is risking US technological superiority in several key areas.

GAO has concluded that the Defense and State Departments examine the implications of transferring the following technologies to Commerce to maintain military superiority: global navigation system receiver data, computerized battlefield maps and search procedures, and active mine neutralization systems. The assertion that less stringent controls would risk the US technological edge, that the technologies should be retained under more stringent controls, GAO says.

Some dual-use arms and missile technologies have been transferred to Commerce as part of an inter-agency compromise, but Congressional and industry observers feel that the technologies should be more tightly controlled.

It would also recommend that the Department identify specific technology sectors, such as science and in space, the USA will control. These technologies should be controlled by Defense and State and not Commerce, the report says.

GAO cited a 1989 inter-agency group that examined dual-use technologies to determine what military technologies could be transferred to the more liberal Commerce jurisdiction. Although some dual-use technologies are dual-use, they will remain under strict controls because of their similarity to ballistic missiles.

Several non-military technologies were transferred from Defense to Commerce jurisdiction, including: deck support ships, except submarine rescue ships; and logs, ashers, awkers, floating dry docks, icebreakers and icebreakers auxiliary cable.

► horizon radar, modelling and simulation, use of sonar and acoustics technology to test materials and Japanese AWACS technology. Various USAF offices will now pursue co-operative efforts in these areas.

Within Europe, the UK is the chief beneficiary of shared S&T research with the United States. Through the Master Information Exchange Agreement (MIEA) — the technology transfer provision of the US/UK 'special relationship' — the UK's government research establishments enjoy a two-way exchange of technical data that is the envy of other US allies.

The depth of the relationship is illustrated by the fact that, according to reliable UK sources, the UK's Royal Aeronautical Establishment (now the Defence Research Agency) was passed technical data on the Lockheed F-117 Stealth Fighter in the mid-1980s, long before it ceased to be a heavily compartmentalized programme in the USA.

According to UK officials, the USA only conducts extensive (and often highly sensitive) co-operative research with an ally when that nation comes along with a technological advantage in a given area, or areas. It is significant, for example, that USAF's ESC initiative with Japan focusses on many of the five technologies (mentioned at the beginning of this article) in which Japan was deemed to be "significantly ahead" of the USA by USAF.

Of course, when the USA, or any other

country, feels it has an overwhelming advantage in a particular field of military science, it classifies it.

The idea of 'facetting' an aircraft to make it stealthy (the approach adopted for the F-117), only transitioned from the white, to the black world — in the form of the DARPA Have Blue technology demonstrator programme — when DoD officials believed what US scientists had been saying openly for some years: that near absolute radar invisibility was achievable.

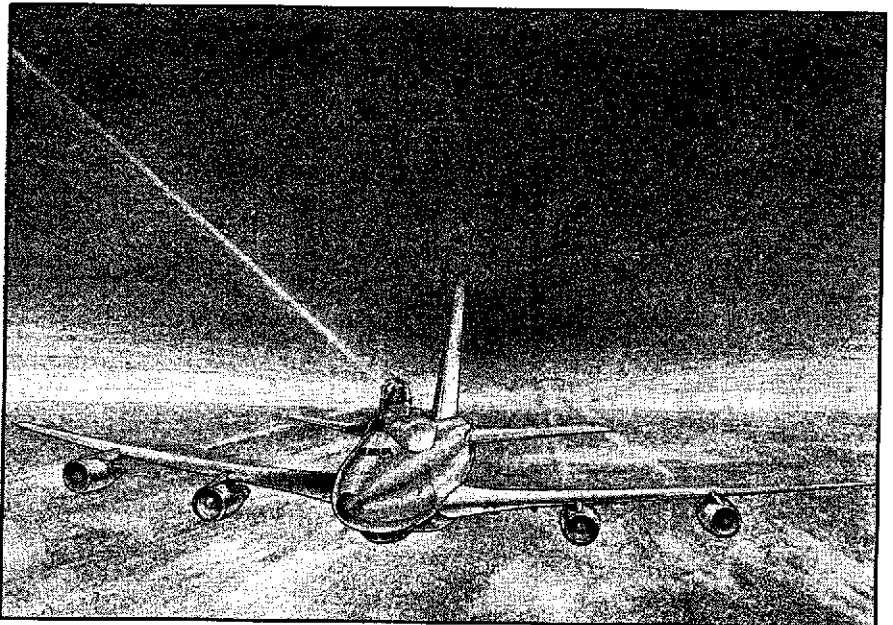
In the same way, if any Project Forecast II-type technologies were to result in breakthrough — a quantum leap such as the key to the secret of gravity, say — the USAF would undoubtedly move to bury it beneath so many layers of classification that it would not see the light of day for years.

As a post-script, anyone who believes the 'science' of anti-gravity to be too arcane, too esoteric, even for the US Air Force should consider the Electric Propulsion Study undertaken by SAIC for the Astronautics Laboratory, now part of Phillips Lab, in the late 1980s.

The study's primary objective was to "outline physical methods to test theories of inductive coupling between electromagnetic and gravitational forces to determine the feasibility of such methods as they apply to space propulsion" — in simplified terms, an antigravity propulsion system.

It remains, for some, the ultimate quantum leap. **JDW**

Los Alamos free electron laser, packaged in a 747, would knock out ballistic missiles soon after launch (Julian Cook)



UNCLASSIFIED

RESTRICTED



D/Sec(AS)12/1

3 Jun 93

DI55c - Wg Cdr **Section 40**

UFOs

Reference: D/DI55/108/15 dated 1 Jun 93

1. Thank you for your minute at Reference.
2. I was pleased to hear about the funds you have secured, and stand ready to assist with any of the projects you are planning.
3. The conference at Sheffield Polytechnic is only one of a number of conferences being held this summer; I have attached the details of those I am aware of.

Section 40

N G Pope
Sec(AS)2a
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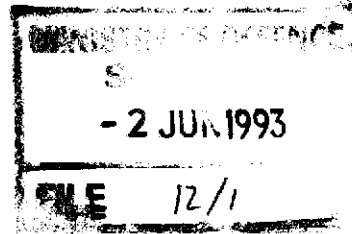
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D/DI55/108/15

1 June 1993

Sec(AS)2a



UFOs

1. You may be interested to hear that at long last I have had some funds allocated for serious UFO research. The study will include a review of our data, the construction of a data base, a detailed review of specified incidents and recommendations for the future. Needless to say we do not want this broadcast and it is for your information only.

2. I have heard that there is a conference at Sheffield Poly in August, I would be grateful if you have any further information.



Section 40

Wing Commander
DI55c
OWOB 336

Section 40

RESTRICTED
UNCLASSIFIED

LOOSE MINUTE

D/Sec(AS)12/1

28 April 1993

Head CS(RM)1

PUBLIC ACCESS TO UFO FILES

Reference: D/CS(RM)1/4/3/2 dated 25 Mar 93

- 1. You asked at Reference that we review the rules that apply to the release of UFO material into the public domain.
- 2. I have now had an opportunity to discuss this with DI55c, and we have agreed the following:
 - a. Witness privacy

We agree that there is no need to protect the names and addresses of witnesses for any longer than the standard 30 years.

- b. Internal distribution

I can confirm that any internal distributions should be deleted, along with any mention of departments - eg AI(Tech) - other than the co-ordinating branch.

- 3. I have returned the two files, AIR 2/16918 and AIR 2/17318. I suspect that, following their release next year, we will see an upsurge of interest in our old UFO files!

Section 40
[Redacted]

N G Pope
Sec(AS)2a
MB8245 8214OMB

UNCLASSIFIED
RESTRICTED

D/DI55/108/15

28 April 1993

Sec(AS)2a

PUBLIC ACCESS TO UFO FILES

Reference:

A. D/Sec(AS)12/1 dated 29 Mar 93.

1. At reference you asked for my views on witness privacy and internal distribution lists for files about to be released under the 30 year rule.

2. Witness Protection. I see no reason why this information should be protected for longer than the normal 30 years.

3. Internal Distribution. This is a finely balance decision to make. Public acknowledgement of investigation of UFOs by an intelligence branch would lead many people to erroneous conclusions. Although DI 55 do not operate covertly we do not court publicity, and publicity could affect our main task. Some books have mentioned an association of DI 55 with UFO investigation but they have no real evidence of this and in any event I see no reason to confirm any link. On balance I believe that mention of AI(Tech) should be deleted.

Section 40
[Redacted]

Wing Commander
DI55c
OWOB 336

Section 40
[Redacted]

LOOSE MINUTE

D/Sec(AS)12/1

27 Apr 93

AFOPS

AIRSHIP OPERATIONS OVER THE UK

1. You asked for a contact number for the operators of the airship that has been seen over the UK recently, prompting a wave of UFO sightings.

2. The operators are Virgin Lightships Ltd. The telephone number is **Section 40** and the point of contact is **Section 40**

3. If London sightings are reported, it may be easier to contact Heathrow ATC. The points of contact are **Section 40** or **Section 40** on **Section 40**. The above numbers are not necessarily operated on a 24 hour basis, and for out of hours sightings in the London area, Thames radar on **Section 40** may be able to help.

4. The airship is no longer advertising the Ford Mondeo; I understand that the current campaign involves promoting the forthcoming Test Match series, sponsored by Castlemaine XXXX lager!

Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB

LOOSE MINUTE

D/Sec(AS)12/1

29 Mar 93

DPO(RAF)
AFOPS

Copy to:
DI55c
GE3(RAF)
AIS(Mil)

UFO SIGHTINGS OVER LONDON

1. Addressees are probably aware that there has been a spate of recent UFO sightings in and around London, most notably in the Ilford and Romford areas.
2. Witnesses have reported a bright cigar-shaped object, moving very slowly, and making little or no sound.
3. The object almost certainly responsible for these sightings is a brightly illuminated airship; this craft is operated by Virgin Lightships, and is advertising the new Ford Mondeo. The CAA have confirmed that this airship has been operating over London and the surrounding area for the last week or so. Addressees may wish to offer this information as a potential explanation should they receive any more such reports.

Section 40
[Redacted]

N G Pope
Sec(AS)2a
MB8245 82140MB

OOSE MINUTE

D/Sec(AS)12/1

29 Mar 93

DI55c - Wg Cdr **Section 40**

PUBLIC ACCESS TO UFO FILES

1. Before 1967 the UFO files kept by this department were destroyed after five years, as happens with most files judged to be of no historical importance or public interest. In 1967 there was an upsurge in UFO reports, and heightened public awareness of the subject, and a decision was taken to mark all our UFO files for permanent retention. Under the 30 year rule, the first batch of material to have been kept is due for release in Jan 94, and I have attached a minute from CS(Records Management) which sets out the current situation.

2. The two main issues that we have to address are witness privacy and internal distribution.

a. Witness Privacy

Although it has previously been suggested that names and addresses of witnesses might be withheld for 50 years, I agree with the points that CS(RM) make in their para 4, and can see no reason why this information should be protected for any longer than the usual 30 years. I have studied the two files due for release next year, and can confirm that the reports are exclusively "lights in the sky" rather than "close encounters", and therefore of relatively little interest to most ufologists.

b. Internal Distribution

It is immediately clear from the files that there is another branch - AI(Tech) - involved in looking at UFO reports; as you will see from the attached example, AI(Tech)'s advice was sought on almost every UFO sighting - this will appear more pro-active than our current approach, and we may get some questions about this. The easiest solution would be to leave these papers as they are, and respond to any enquiries by saying that AI(Tech) looked at UFO reports as part of their normal duties, in order to ensure that there was no threat to the defence of the UK. No further discussion would be entered into about the role or function of this department. I would prefer this course of action; it is no secret that other specialist departments are involved in evaluating reports, and I am not sure that the mere mention of AI(Tech) as the department concerned is unacceptable, and the blank spaces resulting from such selective deletion would probably lead to unhelpful accusations about cover-ups and secret research. Even the existence of DI55 is well known to researchers, as shown by the attached report that I was sent recently! If, however, you believe it is not acceptable to leave the papers as they are, then we could delete mention of AI(Tech) from all papers, as CS(RM) suggest in their para 5.

3. I would be grateful for your views on the two points above.

Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB

LOOSE MINUTE

D/CS(RM)1/4/3/2

25

March 1993

Sec (AS) - Mr N Pope

'UFO' FILES - AIR 2/16918 AND 17318

1. We have spoken on a number of occasions recently about the future release, into the public domain, of files dealing with the subject of unidentified phenomena.

2. I have taken the opportunity of recalling from the Public Record office the two files due for release in 1994 (AIR2/16918 and 17318). From a cursory examination of the papers it is quite clear that the existing guidance concerning the release of these papers has not been followed. You will recall that current rules require:

a) the removal from the papers of names and addresses of witnesses and persons to whom these witnesses make their requests. This information is deemed 'personally sensitive' and is closed for 50 years under Section 5(1) of the Public Record Acts 1958 and 1967.

b) in addition, the internal distribution, other than the co-ordinating branch, is also to be extracted. These extractions are 'retained by department' as Defence Security sensitive, under S.3(4).

3. Fortunately, no harm has been done by our failure to impliment the various deletions/extractions referred to above. But before belatedly taking action I think it opportune to reconsider the sensitivity guidance.

4. The question arises whether the continued protection of privacy, beyond 30 years, of those who report what are initially unexplained phenomena is justified. In many cases reports were submitted by ordinary members of the public who were presumably satisfied with the reply they received! Since making the initial report many would have changed addresses, in the case of single women possibly married and changed their names thus making it difficult, albeit not impossible, for a dedicated researcher to trace them. In other cases reports/enquiries originated from 'professional' ufologists, many of whom, you are better placed to testify, court publicity. Notwithstanding the very small risk of someone being able to track an individual down in the absence of any previous understanding ^{of the} the Air Ministry/Ministry of Defence and the individual about the confidentiality of reports I see no grounds for protecting the privacy of reportees beyond the normal 30 years.

5. So far as the extraction of the internal distribution is concerned I believe that we should continue to remove this information from all papers, other than the co-ordinating branch, of course. This would mean blanking out the sensitive inform-

ation from a 1st generation copy, enabling a 2nd generation copy to be produced and placed on the file instead of the original. The original is 'retained by department' and subjected to regular re-review, every 10 years, until release is possible.

6. May I please have your views to the revised procedures above (para 4/5). Subject to your acceptance, and those you wish to consult, I propose to take belated action on the attached 2 Air pieces, currently due for release in January 1994.

Section 40



S.6U.F.O. Reports - April, 1963

1. Please see under, various replies for reports received in A.I.(Tech)5d from the general public mainly via A.M.O.C.
2. Please see Signal SDO/1 3 April. The object Mr. Glassey saw was Echo.
3. The object reported by Mr. Steven Walters, Lloyd Park Avenue, Croydon Surrey on 24th March, 1963 was Echo on its second visible orbit, during the evening.
4. The object reported at approximately 2140Z by Mr. David Keen, 1A, Batchwood Drive, St. Albans, Herts was Echo. Mr. Keen states that a second object was seen after the first had crossed the face of the moon, this was again Echo the red colour being due to the "PARASELENIC" effect, as the satellite passed through a 45° conjunction with the moon. (4th April, 1963).
5. The object reported by Mr. Lever, 27 Norfolk Street, Mill Hill, Blackburn, was again Echo. (5th April 1963)
6. Finally the object reported on 8th April, 1963 by Mr. Finlay, 13 Farndale Avenue, Ashington, Northumberland, which was reported as a somewhat complex object, in fact matches the classical description of a "Parhelian" sun-dog phenomena. The meteorological conditions in the area at the time were in fact correct for the appearance of such phenomena. (14 00 Z).

A. Bardsley
(A. BARDSLEY)
Flight Lieutenant
A.I.(Tech)5b

D.D.I.(Tech)
10th April, 1963

E93/2

Section 40

Section 40

7 AUG 1987

REC/25

REPORT OF AN UNIDENTIFIED FLYING OBJECT

A. DATE, TIME, DURATION OF SIGHTING 4.8.87 22.30-1

B. DESCRIPTION OF OBJECT

Number 2
Size ?
Shape TRIANGULAR
Colours MULTI
Brightness VERY BRIGHT
Sound NIL
Smell NIL

SEC (AS) 2 distribution:

- 1. DI 55
2. AE/AEW

C. EXACT POSITION OF OBSERVER St. David Post Office Exeter
Geographical location
Indoors/Outdoors OUTDOORS
Stationary/Moving STATIONARY

D. HOW OBSERVED

Naked eye NAKED EYE INITIALLY THEN BINOCULARS
Binoculars
Other optical device
Still or cine camera NONE

E. DIRECTION IN WHICH OBJECT WAS FIRST SEEN LOOKING FROM EXETER TOWARDS THE PLOUGH (CONSTELLATION NOT 103)

F. ANGLE OF SIGHT (Estimated heights are unreliable) ?

G. DISTANCE (By reference to a known landmark if possible) ?

H. MOVEMENT. STEADY MOVEMENT TOWARDS PLOUGH (CONSTELLATION)
Steady
Changing THEN RETURNED to OVERHEAD INVERTION.
Erratic

J. MET CONDITIONS DURING OBSERVATION

Moving clouds
Haze CLEAR SKY.
Mist

K. NEARBY OBJECTS/BUILDINGS ETC ?

L. TO WHOM REPORTED
Police ROYAL OBSERVER CORPS,
Military Organisation EXETER.
The Press

M. NAME AND ADDRESS OR INFORMANT

N. ANY BACKGROUND OF THE INFORMANT THAT MAY BE VOLUNTEERED

O. OTHER WITNESSES SEVERAL

P. DATE AND TIME OF RECEIPT OF REPORT

LOOSE MINUTE

D/CS(RM)1/4/3/2

25 March 1993

Sec (AS) - Mr N Pope

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Section 40



FLIGHTS OF FANCY

Whether it exists or not, the rumoured new spy plane Aurora has grown wings of its own and is fuelled by constant claims of sightings.

Nigel Hawkes looks at the evidence for its existence

SCOTTISH CROFTERS have seen it, oil rigs have noted as it thundered overhead, seismographs in southern California have noticed, mysteriously. Yet the Pentagon and the CIA deny strenuously, and with growing impatience, that it even exists.

The mystery over whether the United States has developed a secret spy plane to replace the legendary SR-71 has acquired wings and its own form of supernatural propulsion. Every denial convinces believers more strongly of the aircraft's existence, every reported sighting, burnishes the legend a little brighter. For a plane that may never have burned a gallon of fuel, the Aurora has already consumed an inordinate amount of newspaper.

If it does exist, it is certainly a fantastic plane, a worthy successor to the SR-71, retired in curious circumstances in the late Eighties. The SR-71, or Blackbird, was the fastest and highest-flying plane ever to go into service. Between 1964 and 1989, the Blackbird used to fly high over the Soviet Union at speeds of more than 2,200mph, and heights of up to 85,000ft. When it was withdrawn from service, there was nothing to replace it — or was there?

Some specialists in aviation believe that an even more sensational plane has been flying since the mid-Eighties, its existence kept secret even from senior administration officials and influential senators. The evidence for Aurora, as the mystery plane is called, is circumstantial but, to the eye of believers, irrefutable.

What, exactly, is the evidence that has convinced people such as Bill Sweetman, an experienced aviation journalist on *Jeze's Dispatch Weekly*, that Aurora is a reality? He argues that surveillance by high-flying aircraft is vital to America, because satellites cannot



do it all. Sweetman finds it curious that the SR-71 was withdrawn from service in 1989, with no successor apparently in view. There is no reasonable explanation for

this, Sweetman says, a view backed by such experts as Senator John Glenn, who told the Washington Post that "the only way dealing away with the 71 made sense was if you had a spy plane follow-on". Obviously, the plane was withdrawn to save money, but

this makes little sense, as operating it cost only five to seven per cent of what the US Air Force spent on reconnaissance. Sweetman says,

The other evidence is provided by mysterious sightings and sounds reported by various observers over the past few years. These have something of the quality of UFO sightings, but the best of them do require explanation.

In 1989, oil-drilling engineer Chris Gibson sighted a mystery plane from the rig Galveston Key, in the North Sea. Gibson is no amateur plane-spotter; he spent 12 years with the Royal Observer Corps and was a member of the ROC International Aircraft Recognition team. What he saw was an aircraft made in the image of a paper dart, silhouetted overhead

against the clouds. It was being retailed by a KC-135 tanker, and accompanied by two F-111s. He kept the sighting to himself until he read one of Sweetman's stories. The similarity between what the journalist was describing and what he had seen was so close that he then broke his silence.

Since Gibson's claims were publicized, just December, similar observations have proliferated. The Scotman has quoted an unnamed RAF pilot who reported seeing a plane resembling a large paper dart. Condensation trails over Moray, a fast-moving nuclear ship close to RAF Machanair, and a series of sightings by the Shetland Police, the coastguard and the Lerwick Observatory have added to the mystery.

The Scottish sightings — nobody has anything as solid as a photograph — were backed by other circumstantial evidence. Unexplained sonic booms have

been heard over Los Angeles, and seismicographic evidence gathered by the US Geological Survey suggests that unidentified supersonic aircraft have been crossing southern California.

One of the most interesting pieces of evidence comes from the Royal Netherlands Meteorological Institute, which investigated a series of mysterious sonic booms over the North Sea last August. They looked into all possible explanations, including extraterrestrial aircraft, or meteorites breaking up in the atmosphere. The boom was not like that of a jet

fighter, and the conclusion was that it had been made by an unidentified supersonic aircraft.

Sweetman has produced sketches of what he thinks Aurora may look like. It is, he believes, about 50ft long, with a wingspan of about 45ft. In shape, it forms an arrowhead, with its engines grouped beneath the fuselage. The wings are vertical, because at the speeds reached by the aircraft (5,300mph), large wings are unnecessary. Power is provided by engines that burn liquid methane, and the fuel is pumped through the wings and fuselage to keep the aircraft cool.

THE NAME Aurora appeared in a 1985 Pentagon budget document, alongside the SR-71, before disappearing in subsequent years. Believers even think they know where Aurora was built — the so-called stunk works in Burbank, California, run by the Lockheed Advanced Development Company. The nickname came from a neighborly aircraft factory which produced an all-pervading stunk when

the plant was first opened in the Forties. Since then, the stunk works has produced the SR-71 and the F-117 stealth fighter, itself a programme that was kept secret for many years.

Financial analysts who have scrutinized the Lockheed accounts, and even counted the cars in the plant on an unreported programme, and that more than 4,000 people work there. All this suggests one thing: that the Pentagon is once again pulling the wool over the eyes of the public and Congress by financing Aurora as the Nineties successor to the U-2

and SR-71.

Plausible as it is, the story keeps running into official denials, each more unequivocal than the last. John Pike, a respected analyst at the Federation of American Scientists who specializes in space and aviation, and not a man easily lobbied off with official obstruction, says that he is beginning to believe the denials must be true.

"The denial by Donald Rice [former secretary of the Air Force] was so categorical and so emphatic that either it's one of the most mendacious statements ever made by a US government official," he says. "When the Pentagon was denying the existence of the F-117, they always allowed themselves a little 'whiffle-toot'. But these denials are very specific and very clear, and they come from virtually every agency that might

have an interest in such a programme."

Despairing of their denials ever being believed, US Air Force sources spoke off the record in January to the publication *Aerospace Daily*. According to this account, an attempt had been made in the Eighties to produce a successor to the SR-71, but it had been abandoned in about 1986, when it became clear it would not work.

The use of the word Aurora in the Pentagon budget document was designed to conceal another, then-secret project, the B-2 bomber.

The USAF further asserted that some sightings of the mystery plane "will probably remain unchallenged simply because there is not enough information available to even hazard a guess". Included in these are the North Sea sightings, which the USAF said it did not have any such aircraft and wanted to be sure that nobody else did either.

MORE CONVINCING, perhaps, than these denials is the fact that at the time of the Gulf war there was a serious shortage of good surveillance data, yet no apparent attempt to use Aurora.

But Sweetman remains sure that something is going on. "We now have so many sources, so many indications that high-speed aircraft we don't know about are being used," he says. "There is a cover-up going on. It wouldn't be the first time. When the SR-71 was unveiled, all sorts of massive measurements were made."

Pike does not deny this. "They lied before and they'll lie again," he says. "But what we have here are people of some integrity denying the story, against reports of strange lights in the sky. It's so extraordinary of them to comment at all that, for the moment, I'm inclined to believe what they say."

LESS IS MORE In a pet's life

American psychologists have found that dietary restriction can retard aging. Research carried out on laboratory rats at the University of Texas has shown that a reduction in energy intake extends lifespan by up to 50 per cent. In the study, mortality rates were compared in rats that were allowed to feed at will, and in those whose diets were limited. The team found that the dieters survived longer, and deduced that energy use was modulated in three ways, resulting in a reduction of the oxidative effects associated with energy use, and hence a retarding of the aging process.

Sources: University of California, Science, March 5; News in Physiological Sciences, Volume 7



THE CHANGING FACE OF US MILITARY AIRCRAFT

When the Aurora (center) was reportedly sighted in the North Sea, it was being retailed by a KC-135 tanker (right) and flanked by F-111s (left)

The Aurora is believed to have superseded models that include the U-2 (far left) and the SR-71 (left)

FINDINGS

1,133 volcanoes under the sea

The Pacific Ocean off the coast of South America is alive with volcanoes, an American research ship has discovered. Over the water, scientists aboard the *Matchless*, using sonar, discovered 1,133 volcanoes. They were in a 70,000-square-mile area under the ocean, about 2,000 miles west of the border between Peru and Chile. According to team leader Ken Macdonald, professor of marine geophysics at the University of California, this is the greatest concentration of volcanoes anywhere on Earth.

Macdonald estimates that possibly 200 volcanoes are still active.

Homing for guided missiles

The guidance system which allows sperm and egg to fuse at the moment of conception has been identified. A team based at the State University of New York and the University of California, has isolated a protein product on the surface of the egg of the sea urchin which allows sperm to join to its surface. Once attached, the portion of the sperm carrying genetic material can penetrate and fuse with the egg to begin developing offspring. The researchers now hope to discover a similar protein on human eggs.

Less is more

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Barred: a brown bear filmed head-on

BIGGEST DESTRUCTION 50 YEARS ON TRACK.

announced the new route
London and the Channel
will increase prosperity

fold, and in the South West where it has risen 15-fold, although the highest numbers of claims are still in Scotland and the North East. Many young people, however, are not aware of how to get the hardship payments and the process of claiming is complex.

formation, uses estimates to make further estimates and is grossly out of date".
Four Years' Severe Hardship: Young People and The Benefits Gap by Ianthe MacLagan (Barnardo's, Tanners Lane, Barkingside, Essex IG6 1QG; £5)

Alzheimer drug nears approval

BY NIGEL HAWKES
SCIENCE EDITOR

THE first drug for use against Alzheimer's disease is on the verge of approval in the United States.

An advisory committee of the US Food and Drug Administration has endorsed the use of tacrine, which the drug company Warner-Lambert intends to market under the name Cognex. The committee's 10-0 vote now goes to the full FDA, where approval is expected in a few weeks.

Tacrine slows the destruction of a neurotransmitter, acetylcholine, in the brain of sufferers, thus delaying development of symptoms. The FDA committee was told that in long-term tests the drug produced statistically significant effects, measured by formal assessment and direct observation of patients. The most serious side effect is a liver disorder that strikes a quarter of patients.

Little blue men nab radio hams

POLICE trying to trap a group of radio eavesdroppers came up with a plan that was out of this world.

Officers in Warrington, Cheshire, fed up with people listening in to their messages, broadcast that a flying saucer had crash-landed in a field — and gave details of where to find it.

Radio messages about a huge glowing spacecraft were broadcast with the warning: "Do not approach. It may be radioactive." The warning was followed by directions to the field in Appleton. The eavesdroppers arrived at the field within minutes, expecting to see little green men. They were arrested instead.

Police said five people had been reported to the Crown Prosecution Service for telecommunication offences. Scanning devices which can pick up police radio messages are widely available but using them to listen to police transmissions is an offence.



The Channel 4
TV Public Forum

in association with

THE **ARTS** TIMES

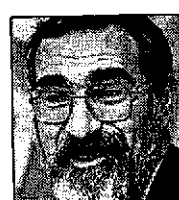
AN
EVENING
WITH ...



Alan Clark



Sheila McKechnie



Dr Jonathan Sacks



Christopher Hitchens



Michael Winner

B BRITAIN — WHAT'S WRONG? WHAT'S RIGHT? WHAT'S NEXT? This is the subject of the current Channel 4 series *Opinions*. The series ends with a

WATER CHARGES: ASSISTANCE WITH PAYMENT

Lord Molloy asked Her Majesty's Government:

What means will be considered for helping poorer families who have difficulty in meeting rising water bills.

Lord Henley: In April, income-related benefits will be uprated fully in line with inflation. In addition, people on income support will no longer be required to meet local taxes. Effectively, this means that income support rates will be increased by £750 million above inflation, worth up to £145 in a full year for a couple.

Families on income support who have water charge debts bills will continue to have access to direct payments from benefit.

BANKS: COMPLAINTS FROM SMALL BUSINESSES

Lord Inchyra asked Her Majesty's Government:

How many complaints they have received from small businesses about their banks and how many of those complaints were about interest rates or interest margins.

The Minister of State, Department of Transport (The Earl of Caithness): Between 1st November 1992 and 1st February 1993 we have received some 750 complaints from small businesses about their banks, of which around 320 were about interest rates.

WATER METERS: ACCURACY

Lord Molloy asked Her Majesty's Government:

What is the level of accuracy of water meters and whether they consider this satisfactory.

The Parliamentary Under-Secretary of State, Department of Trade and Industry (Baroness Denton of Wakefield): The permissible error limits for a meter used for measuring the consumption of cold potable water are detailed in the British Standard 5728, Part 1, Section 5.

This standard allows a maximum error limit of 5 per cent. in excess or in deficiency of the quantity delivered when there is a minimum flow of water and a maximum error limit of 2 per cent. in excess or deficiency of the quantity delivered when the flow rate range is between the transitional minimum and the maximum that the meter is designed to operate at.

The National Weights and Measures Laboratory is content that the level of accuracy of cold water meters is satisfactory.

GAS (EXEMPT SUPPLIES) ACT 1993

Lord Cochrane of Cults asked Her Majesty's Government:

What are their plans for the coming into force of the Gas (Exempt Supplies) Act 1993.

Baroness Denton of Wakefield: We have made it clear that the Gas (Exempt Supplies) Act 1993 will not

come into force until the Health and Safety Executive has had sufficient time to put appropriate safety arrangements in place. We therefore plan to bring the Act into force once the revised Gas Safety (Installation and Use) Regulations 1984 are in place, probably early in 1994.

ALDERMASTON: SAFETY

Lord Jenkins of Putney asked Her Majesty's Government:

Whether, in view of the large number of accidents at Aldermaston, they will halt work there until, as suggested by Greenpeace, an independent safety investigation has taken place.

The Parliamentary Under-Secretary of State, Ministry of Defence (The Viscount Cranborne): The Government do not intend to halt work at Aldermaston and have no plans to order an independent safety investigation. Safety is, and will remain, of paramount importance at the establishment, which is subject to independent inspection under the provisions of the Health and Safety at Work Act 1974.

US EXPERIMENTAL AIRCRAFT

Lord Kennet asked Her Majesty's Government:

Whether the United States Air Force (or other US body) has been authorised to fly an experimental aircraft over these islands, and to land it; what conditions govern its use of British airspace; what assurances have been received concerning its possible environmental impacts, locally or to the atmosphere; and whether this development is an activity agreed in NATO, or bilaterally with the United States.

The Viscount Cranborne: No authorisation has been given by Her Majesty's Government to the United States Air Force (or any other US body) to fly an experimental aircraft over these islands and to land here.

ANIMAL KIDNEYS: DISEASE

Lord Finsberg asked Her Majesty's Government:

In each year from 1985, how many incidents there were of diseased kidneys being discovered from (a) pigs, (b) sheep and (c) beef kidneys, and how many incidents there were of illness resulting therefrom in humans.

The Parliamentary Secretary, Ministry of Agriculture, Fisheries and Food (Earl Howe): This information is not available.

GRANT-MAINTAINED SCHOOLS: ELECTION OF GOVERNORS

Lord Finsberg asked Her Majesty's Government:

What provisions are made in respect of opted-out schools for electing governors when any vacancy occurs and for periodic retirements.

Space based systems cannot win wars by themselves but they provide a key element in securing victory in conflict. Thus the continuing development of space systems seems certain. There will be a demand for smaller and lighter satellites to support both strategic and tactical situations including the provision of a much greater number of communications satellites and ones with multi-mission sensors. The ability to provide timely warning of, for example, the launch of tactical missiles will be vitally important as more nations acquire such delivery systems.

In this article, Squadron Leader D Clark, who is the Astronautics Specialist in the Department of Air Warfare at the RAF College Cranwell, describes the current and some projected military applications of space.

D Def 5

Military Applications of Space

The military mind must learn the lessons of the past, understand the capabilities of the present and be aware of any future developments in weapon systems. The subject "Military Applications of Space" may not have a very long past but it has a very powerful present and a future that is only limited by the imagination. The United States Air Force's "Space Policy", written before the Gulf Conflict in 1988 states "space power will be as decisive in future combat as air power is today." Immediately after the conflict the policy was confirmed by General McPeak who said: "space assets will play a central role in any future military action".

This article will identify the roles of such space assets and explain why they are so important in modern warfare.

ORBITS

It is essential to consider a satellite's orbit before looking at its role since, unless it passes over the place of interest, any sensor on board would be unable to provide the information required by the user.

The limit of man's exploitation of space for military purposes, is within the region bounded by our own natural satellite, the moon, a radius of approximately 360,000 kilometres or some 60 Earth radii. In fact

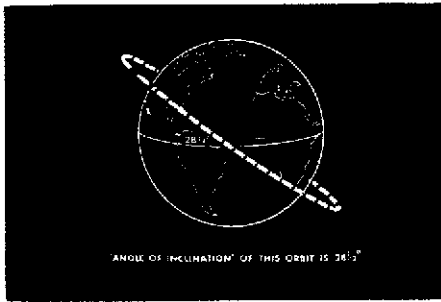
nearly all the militarily useful satellites fly within 6 Earth radii (36,000 km) in a region known as the Space Theatre of Operations.

The most important parameter of a satellite's orbit is its angle of inclination, defined as the angle between the plane of the orbit and the plane of the Earth's equator (see Figure 1). An angle of inclination of 30 degrees produces a ground track — and hence an area of coverage for the satellite sensors — which is limited by the latitudes 30 degrees north and 30 degrees south. To increase this area of coverage the angle of inclination must be increased and to achieve coverage of the whole Earth's surface a polar orbit (in which

the satellite passes over the poles as the earth rotates beneath) must be employed.

The number of orbits per day is determined by the altitude of the satellite. The shortest period which can be sustained is 88.5 to 89 minutes which occurs with the satellite on the upper verge of the Earth's atmosphere at around 200 km. It is not possible to reduce this period significantly unless the orbital altitude is reduced; in such circumstances the satellite would suffer intense kinetic heating and would very shortly thereafter be destroyed.

An orbit at an altitude of 20,000 km produces a periodic time of 12 hours and is used by the navigation satellites. An altitude of 36,000 km, provides a periodic time of 24 hours; a satellite at this altitude is called a geosynchronous satellite. If such a satellite is launched with zero degrees of inclination it appears to sit over a point on the Earth's equator in which case it is referred to as a geostationary satellite.



COMMUNICATIONS

Communications between a commander and his troops in the field has always been a problem. The exploitation of space by the military offers the possibility of overcoming many of these problems by providing direct communication around the world.

The communication satellite carries a large number of high capacity communication/data channels that can link many types of user as long as both ends of the communication link can "see" the satellite. The present day satellite could be characterised as a "bent tube": the satellite receives the transmission from the ground and amplifies it; at the same time it changes the carrier frequency to the down link frequency; it then retransmits the signal.

One of the main frequencies used by military satellites is UHF which suffers little attenuation in the atmosphere and allows for simple and inexpensive terminals. Both

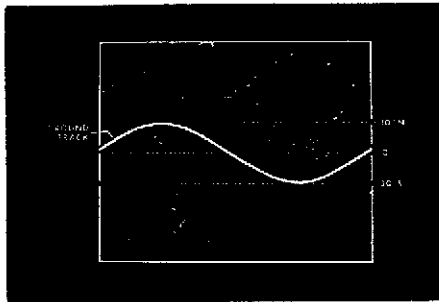
these features make the UHF band attractive for use by covert forces.

SHF provides a much wider frequency range and is the one currently used by most military satellites. The antenna can be made with a higher gain than at UHF which increases the effective radiated power of the satellite; the wider bandwidth also means that sophisticated anti-jam measures can be used.

The EHF range of frequencies is currently at the limit of technology but offers great potential to the military, making the communication link less vulnerable to interception by reducing side lobes.

Geostationary

Ideally, a communication satellite should be geostationary which allows the signals to be picked up without the need for expensive tracking systems. Three such satellites, in theory, could provide whole world coverage but at latitudes above 70 degrees the long



signal path through the atmosphere corrupts the signal with ground noise.

To provide communication coverage to their high latitude land mass, Russia introduced a highly elliptical MOLNIYA orbit with altitudes varying between 400 and 40,000 km. With this orbit the satellite is visible to Moscow for 10 of its 12 hour orbit.

Skynet 4

Britain's military satellite is SKYNET 4 controlled from RAF Oakington. Phase One of the programme called for three satellites to provide cover to the European Region: one at 33 degrees west, one at 54 degrees East and one over the Greenwich meridian. Replacements for two of these satellites are due to be launched in 1995.

Laser Communications

Looking further ahead lasers may be used for satellite communications as these have two main advantages. First, they have a very

narrow beam width; a laser fired from geostationary height would illuminate an area no greater than 500 metres in diameter on the Earth's surface which would make the signals very difficult to intercept or disrupt. Secondly, lasers operate at very high frequencies which enables very fast data transfer. British Telecom have stated that the entire contents of the Encyclopedia Britannica could be transmitted down a laser link in less than one second.

NAVIGATION

Navigation has, for centuries, been an important ingredient of successful warfare. This is true whether we consider combat on land, at sea or in the air but, in the high speed, low level environment, flexible and precise navigation is essential if aircrew are to locate and attack their targets successfully. In the past satellite navigation has been practised by using the Earth's natural satellite, the moon. So it was perhaps predictable that once man started launching artificial satellites these too would be considered a possible navigation aid.

Transit

The US Navy developed a system, for submarine and general naval use known as TRANSIT, which used the doppler shift in the received satellite signal to calculate position. It was not a self contained system since the satellites had to be observed for at least 3 periods of 2 minutes to obtain a fix. During the time delay, compensation for vehicle movement had to be made using the ship's log. This was acceptable for slow moving surface ships but would have had severe limitations if it had been used for aircraft navigation.

Global Positioning System

To overcome the problem and provide very accurate, real time navigation the United States launched a series of satellites known as the Global Positioning System or GPS.

The principle upon which GPS works is ranging by time difference. Each satellite is equipped with an atomic clock accurate to one second in 30,000 years and it transmits a continuous digitally coded time signal together with its precise orbital details. The user equipment compares the received satellite time with its own internally generated time signal and range is thus calculated from the time difference. Of course, this would only produce a range in one dimension but, if 3 satellites were

observed, then latitude, longitude and altitude could be calculated.

To reduce the cost of equipment a cheap quartz clock could replace the atomic version if 4 satellites were observable and the solution of the equations would then be latitude, longitude, altitude and time. At present 17 satellites are in orbit in 6 planes at 20,000 km altitude and they provide the required GPS coverage for most of the world. By 1993, a constellation of 21 satellites is planned to provide world-wide coverage; an extra 3 will be launched in 1995 to allow for redundancy.

GPS Accuracy

There are 2 distinct levels of positional accuracy, a Common Acquisition (or CA) code, which has an accuracy of 100 metres and is available to all users. The Precision (or P) code, encrypted for military use only, uses a faster transmission rate and is accurate to within 16 metres. These errors can be reduced still further by the use of differential GPS where an accurately surveyed site is used to provide correction factors for other GPS users.

Relative GPS is very useful in the battlefield enabling units to converge at a given point with great accuracy by following the GPS outputs from their own lightweight and inexpensive equipment. GPS can also be fitted to aircraft to improve the accuracy of their navigation system — day or night and anywhere in the world — by updating the inertial navigation systems.

SURVEILLANCE

Surveillance is probably the most significant role of the military satellite, with some 30 to 40% having some form of surveillance capability. Surveillance is usually interpreted to mean optical surveillance but we should also consider intelligence gathering using all parts of the electromagnetic spectrum.

Commercial Imagery

Valuable military use can be made of commercial surveillance programmes such as LANDSAT and SPOT. LANDSAT 4 incorporates a Multi-Spectral Scanner System (MSS), operating in four different wavebands: two in the visible spectrum and two in the near infrared. These provide images with a resolution of 80 metres and are suitable for mapping and route planning applications.

The French SPOT satellite sensors provide images with resolutions of 10 metres panchromatic and 20 metres multi-spectral which are useful for more precise planning exercises. The SPOT satellite has the ability to point its sensors up to 27 degrees off track, feature which allows 3 dimensional images and digital terrain mapping to be produced. A recent development is to provide pilot eye views, computed from a given height and angle of approach, to aid initial target identification.

Excellent commercially available imagery comes from the former Soviet Union's satellites. The SOYUZKARTA agency produces images with a resolution of 5 metres, by processing film collected from a deorbited capsule.

Military Observation Satellites

The whole subject of military satellites is shrouded with secrecy. Imaging reconnaissance satellites of the United States have been continuously developed from the original DISCOVERER series, first launched in 1959, to the current satellites which are reported to provide 2 and 3 dimensional images with resolutions quoted in inches.

Over the past 30 years the Soviet Union has conducted more than 1000 space missions using variants of the VOSTOK capsule which carried Yuri Gagarin into space in 1961. A modified VOSTOCK spacecraft was used for military photo-reconnaissance returning the film in the recoverable capsule. Later the COSMOS series of missions flew with high and low resolution cameras, performed strategic surveys or manoeuvrable 12 day surveillance missions, often at short notice.

Meteorological Satellites

The history books are full of examples of how weather systems have affected battles. The North Vietnamese used the persistent overcast conditions associated with the North-East Monsoon to move men and supplies and to conduct major offensive operations with the minimum of exposure to US air power. As the British force moved South in 1982, Argentina stopped providing weather forecasts for the Falkland Island area. More recently, the Gulf Conflict was fought in the worst weather conditions in the area for 14 years. Meteorological information from space has thus become

essential for the efficient planning of military operations.

Cloud formations around the world can be observed from a geostationary satellite but from this picture an accurate analysis of the European region is difficult, so images from a polar orbiting satellite are often used. These satellites can also take readings in the infra-red band for sea and land temperature analysis to an accuracy of 0.2 degrees Centigrade. Sea temperature analysis enables sea fronts to be identified — knowledge of which is vital when one needs to search for submarines.

Radar Reconnaissance

Optical systems have two major problems: they cannot penetrate cloud and they can only work on the light side of the earth. Radar reconnaissance satellites overcome both of these problems but at present cannot match the resolution obtained by the optical systems. However, the radar returns can be processed to provide a wide range of extra information. Ships can be identified from a superstructure analysis allowing the implementation of over-the-horizon targeting systems. And information on seabed variations can be obtained which may provide possible submarine detection methods in the future.

Ballistic Missile Launch Warning

Another important role given to the satellite is that of providing the early warning of a ballistic missile launch. The United States' system is known as the Defence Support Programme (DSP). It consists of a number of infra-red telescopes at geostationary positions looking for the plume of a missile when it leaves the surface of the Earth or breaks cloud cover. The satellite is able to identify the launch vehicle and indicate the launch point to within a few kilometres, reporting back to NORAD in the Cheyenne Mountain complex within seconds of a missile launch.

Early warning is one area where the Soviets use a different orbit to perform a similar task. Their launch detection satellites have been placed in the highly elliptical MOLNIYA orbits similar to those used for their communication satellites. The sensors look back across the United States, against the cold, black background of space, for the launch of ballistic missiles.

Electronic Surveillance

The satellite is an excellent means of gathering electronic intelligence. It can pass over its area of interest without risking a political incident and it can record any signals of interest before down linking the data to a base station. The current trend in space surveillance is to move towards real or near-real time recovery of the data from the complete range of onboard sensors by the use of data relay satellites. These are satellites positioned at geostationary height to provide a datalink for any low flying satellite out of direct line of sight of its ground station.

Anti-Satellite Weapons

Satellites are very predictable, are thin skinned, and are packed with delicate equipment. They draw their power from large, sensitive solar arrays and use optical devices to maintain their orientation. They would thus be very easy targets for anti-satellite weapons. At present though there are no satellites in space with an anti-satellite role and satellites are too small a target to be attacked by current ground based weapons. Lasers or particle beam weapons may be able to destroy satellites in the future and this would therefore reduce the

effectiveness of an enemy's military capability quite significantly.

Modern military planning must take account of the Space dimension since satellites can now provide the data required to plan and carry out a military operation more efficiently. But, of course, such systems are very expensive and are unaffordable by most nations. The West is likely to depend heavily on the United States, therefore, for satellite-derived information which is likely to play an increasingly important part in future warfare.

SPACE WARFARE

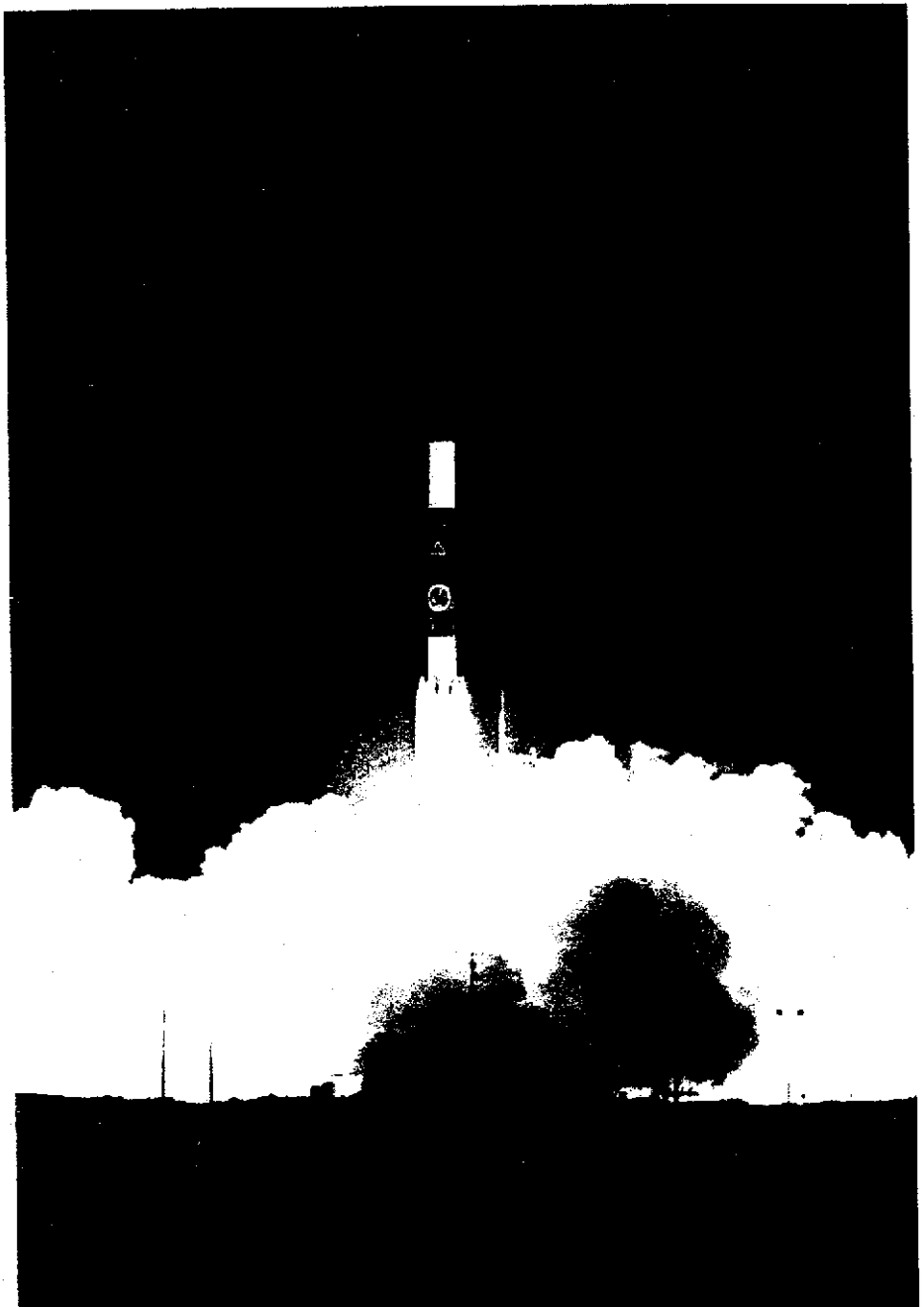
The future development of space warfare is only limited by the imagination of the designer, by financial constraints and by treaty. A satellite could be used to fire projectiles or energy beams down onto the Earth's surface. It could be used to detect and destroy enemy missiles very early in their flight trajectory and it could be used to jam or destroy enemy satellites. In order to generate and fire energy beams in space, there is a need for larger energy sources than are at present available. These would need to be nuclear based given present technology but who knows what power new systems may be capable of generating in the future.

SDI

The initial aim of the SDI project "Brilliant Pebbles" was to detect and destroy incoming missiles by launching 4000 small satellites into orbit. Each "pebble" would be capable of detecting incoming missiles, of deciding which "pebble" was in the best position to attack before one homed in for a kinetic energy kill. The problems of implementing such a project would be immense. The computer power needed has been quoted as being equivalent to that of a Cray super computer condensed to the size of a cigarette packet and the difficulty of locating and hitting an incoming missile likened to hitting a thread of cotton at 100 metres with a single bullet.

GPALS

A new SDI programme known as GPALS (Global Protection Against Limited Strike) replaces "Brilliant Pebbles" and combines ground and space based systems into a layered defence. The concept was described in detail last month in this section.



A launch vehicle lifts off the launch pad at Vandenberg Air Force Base, carrying a Satellite to orbit.

If they ruled the world

Vicky Hutchings learns about UFOs, who really shot JFK, Hitler's South Pole bunker, and a bid to take over the world

One person noticeably absent from *The First International Conference That Exposes a Global Deception* was Paul Sieveking, editor of *Fortean Times*: "I just couldn't afford it." The cheapest seats for the Wembley conference last week-end cost £10.75 for one day. Two days in the most expensive would have cost £41. The two organisers—who had mortgaged their house in Walsall to book the conference hall—had hoped for an audience of more than 10,000 and were strangely surprised when only about 300 people turned up.

But you certainly got a show for your money. We heard about the secret plan to take over the world by the Illuminati, the world's hidden power elite; Hitler's secret base under the South Pole; the Freemasons' link to the cult of Baal; who's behind the New World Order; the suppression for decades of knowledge about free energy and time travel; the secret purpose behind the founding of America; and who really shot John Kennedy and why it had to be in Dealey Plaza. I haven't enjoyed myself so much since reading *Foucault's Pendulum*.

We were warned that members of the intelligence services were in the audience. In fact, some attenders were so incensed at press photographers taking pictures that they complained to the conference organiser, Mary Seal. They demanded a vote on whether this should be allowed, since the photos were obviously going to find their way into MI5 files. Seal refused. It would look rather bad, she implied, at a conference to expose global deception.

The speakers who came to reveal what they don't want us to know were: William Cooper, a "former US Naval Intelligence Briefing Team member"; Dr Robert Strecker, an American who believes Aids is a man-made disease deliberately unleashed upon a world that has too many people to be controlled easily; David Summers, an Australian journalist with "film-footage of top-secret information"; Vladimir Terziski, an "authority on anti-gravity" working in Bulgaria; and Eustace Mullins, the "last living protégé of Ezra Pound", now that "Yeats, James Joyce, and Hemingway are dead". His speciality is the Federal Reserve Bank, and, he told us, Hoover once tried to have him committed.

There were two films of flying saucers. The first was made by Cooper himself, at night. Spellbound, we watched a tiny white dot that dashed about a black screen for about ten minutes, disappearing at times and, almost simultaneously, reappearing elsewhere, rather like old black-and-white movies of the Keystone Cops. Cooper assured us the film

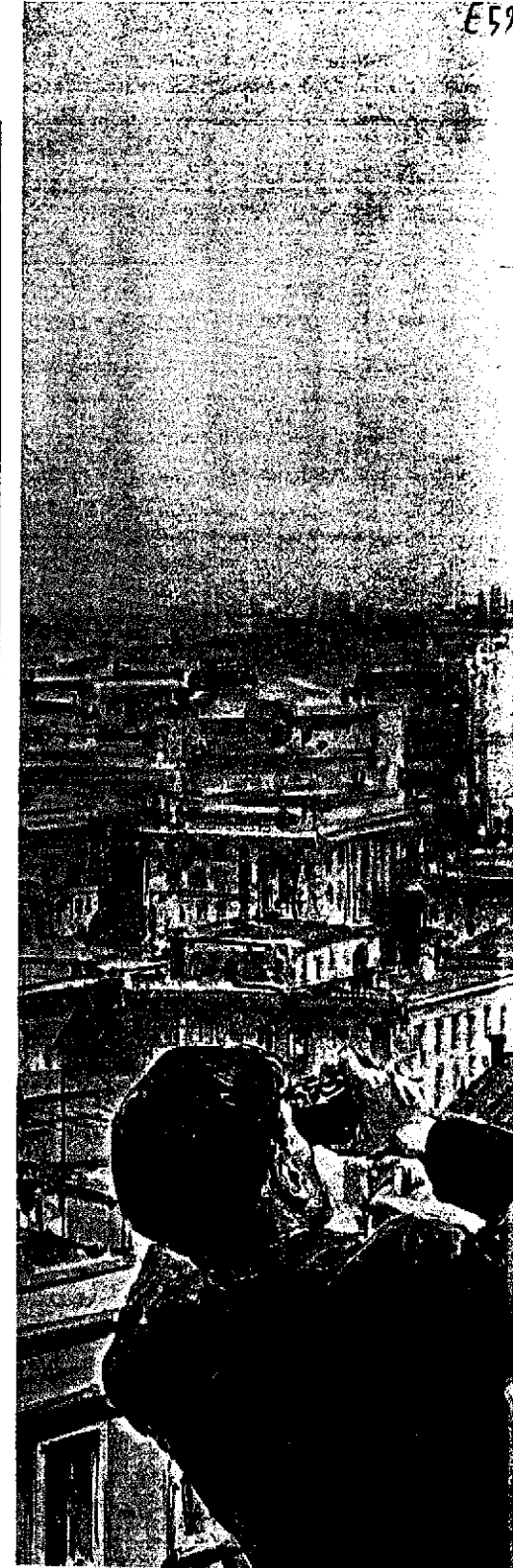
hadn't been cut. No, there was a simpler explanation of what we were seeing: "These craft are, literally, time machines."

We were also shown a clip by Terziski of what he claimed was an unmanned flying saucer, developed by the US Air Force, wobbling along about a foot off the ground. This was part of a disinformation campaign by the US government, he said, to prove to the general public that human beings can't build saucers that fly properly. But the anti-gravity technology of the flying saucer, funded by the Illuminati and developed by Hitler in secret underground cities, spread around the globe after the war. The Nazis developed hovering anti-gravity mines, built saucers that flew by "liquid vortex propulsion", put men into space and had built a moon base before 1945. The Nazis had also got to Mars. Indeed, added Terziski, the Swastika is a symbol of a vortex. The Illuminati have prevented us for decades from knowing the truth: "They will never allow us to run our own saucers on free energy."

The Illuminati are made up of Freemasons or other related secret societies, and are found in positions of power throughout the world. All American presidents have been Freemasons, for example, except Eisenhower, who was a Jehovah's Witness.

David Summers is an expert on the Bilderberg Group, the Trilateral Commission, the Council for Foreign Relations, the Royal Institute for International Affairs—these are some of the secretive organisations controlled by Freemasons. "The same names crop up over and over again." Indeed, William Cooper does most of his research on the power elite "through genealogy". He claims that: "The Communist Party, Mormonism, Jehovah's Witnesses, the Knights of Malta, the Knights Templar [branches of Freemasonry]—they're all the same." Eustace Mullins says the dynastic families can be traced "back to the cult of Baal".

The Illuminati work, Mullins believes, on Hegelian principles, funding whichever side takes their fancy, sometimes both at once. "The end justifies the means." Many speakers quoted Stephen Knight, author of *The Brotherhood*, who claimed that Freemasons "provoked" the 1917 revolution in Russia (Kerensky was a Mason). Mullins has filled in the gaps since: it was "a *tour de force* to remove the USSR as an industrial competitor for the next 70 years. The World Order was quite content. In fact, since 1917, the Bolshevik economy has been almost entirely supported by the US taxpayer." After all, both "Democrats and Republicans have been taken over by communism". What



an exciting life the Illuminati must lead.

The Federal Reserve Bank and central banks like the Bank of England are "occult organisations" under their control. What else is the licence to create money, but the occult creation of money out of nothing? John D Rockefeller started his empire with money from the House of Rothschild (the Rothschilds have been Masons for generations), Exxon has the double cross, the sign of the evil empire, David Rockefeller is the chairman of the Trilateral Commission, and a member of the Council for Foreign Relations. George Bush is a Mason. What more proof do you need? At question time, Mullins explained what he really felt about the Jews: "It's not just the Jews. There are also rich, powerful Presbyterians, Catholics, blacks and whites. To go and kill the Jewish couple in the corner shop is wrong."



Saucers will hover over the cities, bringing an end to the world we know

eject. The men from the audience subsided, and Terziski tried to heal the breach: "I was only born in 1951."

During an interval, I chatted to a gentle Rasta woman, who appeared to think it was a simple case of misunderstanding: "I think that man thought Terziski was insulting Hitler." I forbore to point out that, to a Nazi, he *was* insulting him. "But I'm glad he was allowed to stay." A red-haired Irishman told me that there were, indeed, aliens: "They've interbred with humans. The hybrids are called 'The Greys'." Surely, he couldn't mean . . . ? No, it couldn't be. Around me, white-haired old ladies surreally munched their sandwiches, lunchboxes open on their laps.

Terziski was even more riveting at his second showing. "The tabloids are my best source of information," he said, showing newspaper headlines like: WORLD WAR II BOMBER ON MOON, and FILM OF ASTRONAUTS WATERSKIING ON THE MOON. "It is obviously a very scenic place," said Terziski. We watched a supposed Nasa clip of one of the Moon landings. The American flag flutters in the wind: "They don't want us to know the Moon has an atmosphere."

It was only when he showed a pretend documentary made by Anglia TV of a landing on Mars that the audience began to show signs of restiveness. "It was a joke," shouted someone. Terziski paused. "Yes, it *is* a joke documentary," he agreed. "But if the landing had been filmed, this is how it would have happened." He turned back to the film: "Note the absence of any dust as the craft descends. This is clearly being powered by anti-gravity." Behind me, I could hear Mary Seal whispering urgently. Then David Summers rushed up on to the platform, and to my dismay Terziski was abruptly terminated.

Having intended to go only on Saturday, then changing my mind and deciding to go for an extra few hours on Sunday morning, I found myself still there at 8.30 pm on Sunday night as Cooper revealed the truth behind the royal family's troubles and interpreted the Masonic symbols on the dollar bill: "This is the secret destiny of the US. It was founded to bring the Antichrist into the world." Later, we watched the Zapruder tape of the assassination of JFK. Dealey Plaza was chosen because it is named after a Mason and a Masonic symbol has been erected there: an obelisk ("the penis of Osiris"); the Plaza is on the 33rd parallel; Oswald was at a window on the sixth floor. The number of the beast is 666. (Somehow, I missed the third six.)

The film flickered in slow motion above us, showing what Cooper said was one of the secret service agents in the car turning round and shooting Kennedy. He had also "seen in the files a report that the agent had done it".

I was near the back, walking down into one of the exit tunnels, as he said this. Around me were what I thought were empty seats, entirely shrouded in darkness. Somewhere something moved in the gloom. I heard a deep, American voice say quietly to his neighbour: "He's lying. There's no such paper in the file." So, "they" *were* there.

This elite has no purpose other than to bring about the New World Order ("totalitarian and socialist"), the death of nations and the One-World Government. One of the weapons in their arsenal, insisted Cooper, are the "hoaxes" over ozone (it is a myth that the ozone layer protects us against ultraviolet light) and global warming (the polar ice-sheets are expanding). These foster the desire for strong worldwide government.

But the best weapon of all will be the flying saucer. These aren't powered by aliens, although this is the "illuminated" explanation for the various sightings to date. The SETI project (the search for extraterrestrial intelligence) has been organised by Nasa to prepare us mentally for the moment when these craft suddenly appear and hover over the cities of the world. In the face of this seeming invasion by aliens, national governments will

join together and the Illuminati will have achieved what they have been striving for since the days when the Caananites worshipped Baal (whose other names are Lucifer, Ra, Osiris, or even the Sun).

The most exciting moment of the conference was when Terziski suggested there were "black arts behind Hitler". When he claimed Hitler was interested in astrology, one white-haired man near the front shouted: "You are a liar." He was told to sit down. "You are trying to poison the public mind. You are part of the International Conspiracy of Jewry." "Hitler was a medium," yelled a man behind me, as the heavies in suits moved in. The chant went up: "Leave him alone. Let him stay." A few even heavier-looking members of the audience stood up. It seemed as if there was going to be a fight. Then the suits sat down beside the man they were about to



copy to MRB (FOS) Science ES

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Telephone 071-21 (Direct Dialling)
071-21 89000 (Switchboard)

PARLIAMENTARY UNDER-SECRETARY OF STATE
FOR DEFENCE

D/US of S RMC 2053

7 January 1993

Dear Michael,

Thank you for the opportunity to view the report by **Section 40**
Section 40 Grange-over-Sands, on
his psychic research.

We have read the report with interest and taken note of the
points raised by **Section 40**. However, the MOD does not carry out
any research in the field of psychic activity and indeed, would
have difficulty convincing the Treasury that such research was
necessary; therefore, we have no further comment to make on his
findings.

I am sorry I cannot be more forthcoming.

Yours ever
Section 40

The Viscount Cranborne

The Rt Hon Michael Jopling DL MP



Recycled Paper

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From: Air Commodore S A Baldwin MBE RAF



COMMANDER
ROYAL AIR FORCE STAFF AND AIR ATTACHÉ

British Embassy 3100 Massachusetts Avenue NW
WASHINGTON, D.C. 20008, U.S.A.

Telephone: Section 40

BDS/RAF/3003

Air Vice-Marshal A J C Bagnall OBE RAF
Assistant Chief of the Air Staff
Ministry of Defense
Room 6241
Main Building
Whitehall
London SW1A 2HB

22 December 1992

Dear Air Marshal Bagnall,

AURORA

You may have seen an article in the 12 December 1992 edition of Janes Defence Weekly which speculates on a hypersonic replacement for SR71, and what has been called Project AURORA. The Janes article was picked up by the National press, and on the weekend of 12/13 December, the Washington Post carried two articles on AURORA. Secretary of the Air Force, The Honorable Donald B Rice, was to say the least incensed by the renewed speculation, and the implied suggestion that he had lied to Congress by stating that AURORA did not exist. He appeared on CNN television to categorically deny that there is no secret, or secretly funded, black programme to replace the SR71.

Janes quoted sightings by an engineer on the oil rig Galverston Key in the North sea in August 1989. The oil rig engineer claimed that from below, the aircraft was roughly triangular. I have been contacted by HQ USAF and asked what RAF aircraft it might have been. I said that I thought it could have been Concorde, possibly a Tornado with wings swept, or possibly the single remaining Vulcan display aeroplane. The oil rig engineer claims that the aircraft was refueling from a KC-135, and there were F-111 aircraft in the formation. I have pointed out to the Pentagon that it would certainly not have been one of our aeroplanes because we use probe and drogue refueling, but they wish to cover all the options, and seem to think that as we have only one Vulcan which does not fly often, it could have been the Vulcan. Secretary Rice has asked if we could say whether the Vulcan was flying in August 1989 in the area of the Galverston Key oil rig. I have said this is difficult without precise dates, but I would contact you to see if perhaps the display

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pilot could be asked, in the most general terms, whether he might have been flying in the Galverston Key oil rig area in August 1989.

When I receive your reply, I will reiterate to HQ USAF that the most they can say is the RAF has triangular aircraft, and there is a possibility that an RAF aircraft was seen.

The Janes Defence and newspaper articles appeared after Lt Gen Jaquish had asked me about the supposed sighting of a stealthy vehicle off Macrihanish; this sighting is not mentioned in the media articles. However, if the photograph of the vehicle near Macrihanish is a spoof, it could be part of the AURORA saga. As you will have gathered, the whole affair is causing considerable irritation within HQ USAF, and any helpful comments we can make to defuse the situation would be appreciated.

Yours sincerely,

Section 40

A large black rectangular redaction box covers the signature area below the text 'Section 40'.

E56

BDS/RAF/3003

To: Nick Pope
Sec (A) 2A
MS 8245

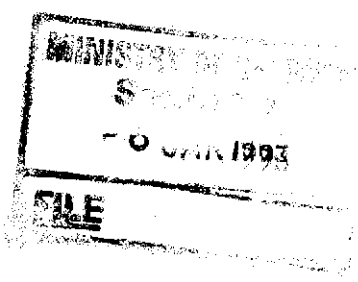
DATE 5/1/92

From: [Redacted]
DPO (KOP)
[Redacted]

TO DPRS

FAX NO [Redacted]

FROM OIC



M.O.D.
T&EE WEST FREUGH
STRANRAER
100 9DN

FAX NO [Redacted]

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SUBJECT _____

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SIGNED [Redacted]

PLEASE CONTACT [Redacted]

IF YOU DO NOT RECEIVE ALL PAGES

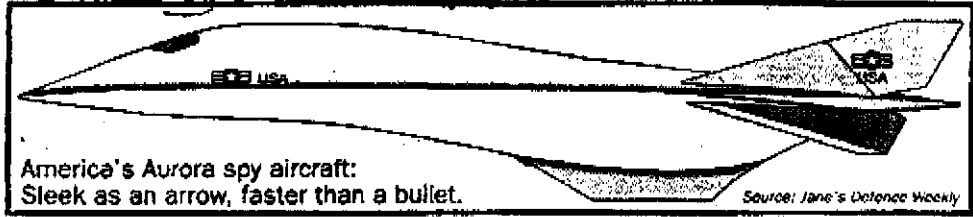
comic that you can laugh at. It must have moments of sadness as well as moments of joy. But it must have you leaving the theatre in a happier state of mind

the schoolroom scene. Some of the jokes were very obvious while others were less so and it maybe took a moment or two for some of the audience to realise just what

Squire to the quieter moments of introspection and asides to the audience, he was always totally in control of things. Bob has now played Dame twice

gins ports sweethearts leading to home in the to make s

The Ballon Day 1992 25/12/92



Revealed: secret spy plane

FAX DPRS
Copy DSyO (info)
Section 40
5/1/93



• Willie Lochrie, club president, presents Alan Cairnie with his silverware for winning the junior title.



• Kenny Cairnie receives his gents' national title trophy from club president Willie Lochrie.

THE world's first exclusive pictures of the United States' secret spy plane, the Aurora, were released by a leading defence publication this week.

The plane, which the American authorities deny even exists, has been linked closely with Galloway's RAF base at Machrihanish in Argyll.

Two months ago the Gazette revealed that the jet, which has a top speed of 5,000 miles per hour, had probably been using air space above Galloway for test flights and had been aided by guidance equipment based at RAE West Freugh.

The reports were corroborated by evidence from leading military aviation experts and gave credence to alleged sightings of UFOs and strange rumbling noises heard in the night over various parts of Wigtownshire.

The plane was also reported to be operating over a wide area of western Scotland and some experts believed it was using the RAF base at Machrihanish near Campbeltown as one of its flight bases.

This week it has been revealed that the first drawings of what is thought to be the Aurora were made by trained plane observer Chris Gibson when he spotted an unknown aircraft over the North Sea three years ago, while working on an oil rig.

His drawings were passed to the authoritative *Jane's Defence Weekly* only this month.

Jane's Aurora expert Bill Sweetman thinks the drawings cast an accurate impression of the plane and believes the £500 million spy in the sky will run on liquid methane, giving a range of 5,000 miles at 130,000 feet.

The ultimate in sleek aerodynamics, the 80-foot aircraft can reach anywhere in the world within three hours.

And its speed would make it "virtually invulnerable" to any air defence system, claims Mr Sweetman.

• Dav

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Una t Stewart launch business is delight from n group C

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D... FROM MF HEADQUARTERS

LOOSE MINUTE

D/MRB/4/8/3

23 December 1992

APS/US of S

Copy:
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BOMBER COMMAND PSYCHIC RESEARCH

Ref: D/US of S/RMC 2053

I have read **Section 40** [REDACTED] synopsis of psychic research with interest, however, I am afraid I have to report that the MOD carries out no research in the field of psychic activity: indeed, it would be an interesting exercise to try and justify such a programme of research to the Treasury! We, therefore, have no comment to make on the report.

2. I attach a draft reply which you may wish to send.

Section 40
[REDACTED]

MRB(F&S)Science
MB1169 **Section 40**

Draft cleared by:

Section 40
[REDACTED]

Gd 7 MRB(F&S)Science

DRAFT

D/US of S/RMC 2053

Thank you for the opportunity to view the report by **Section 40**
Section 40 Frange-over-Sands,
on his psychic research.

We have read the report with interest and taken note of the points raised by Mr Buchan. However, the MOD does not carry out any research in the field of psychic activity and, therefore, we have no further comment to make on his findings.

The Viscount Cranborne

The RT. Hon. Michael Jopling, D.L., MP
House of Commons
London SW1A 0AA

MRB(F+S) Lecky

Section 40, Room 1167

RT. HON. MICHAEL JOPLING, D.L., M.P.
(Westmorland and Lonsdale)

DEC 1992



REC. 17/12

HOUSE OF COMMONS
LONDON SW1A 0AA

15th December, 1992

John Armitage

*Number for the
- 1 for the frame as well?*

Section 40

Following a visit to my surgery, my constituent,

Section 40

Grange over Sands, has sent me the enclosed synopsis of his psychic research. I should be grateful to have your comments.

[Signature]
Section 40

The Rt.Hon. Archibald Hamilton, MP.,
Ministry of Defence,
Main Building,
Whitehall,
London SW1A 2HB

Transfer to USQs

Section 40

Telephone.

Section 40

Section 40

Grange-Over-Sands,
Cumbria.

Section 40

14th December, 1992.

TO.

The RT. HON. Michael Jopling, D.L., M.P.
House of Commons.
London.
SW1A 0AA.

Dear Sir,

I thank you for granting me an Interview with you, on Saturday the 12th of December inst.

This Interview, regarding my Psychic Research, over the past thirty nine years.

Please find enclosed for your attention, as promised, a brief Report on this Research, my request being that this Report be passed on to the Air Ministry, for their consideration.

I would take this opportunity of thanking you in anticipation, for all your help with this matter.

With kindest regards and very best wishes.

Yours sincerely.

Section 40

(Enclosure.)

Page One.)

During the last ten years, I have concentrated the activities of my Psychic Research, on the Old Airfields of Lincolnshire, relating to the Former Bomber Command.

It is interesting to Note that immense Magnetic Fields do exist in these particular areas.

During the course of my Research, I have made no less than Three Hundred and Sixteen Ghost Sightings, most of whom were Former World War 11 Bomber Aircrew.

I have noticed also, that in the County of Lincolnshire, that the Elements which do exist in this World, do exist also, in the Dimension of the Future Time Zone.

I have Noted also, that Events from World War 11 concerned with the Former Bomber Command, do, on the Anniversary thereof, Repeat themselves, at the exact and actual time, as per 1939/45 period.

This applies not only to the Former Airfields, but to the Buildings which were related to Operations, at that time.

I have no hesitation in stating, that it is very easy to Communicate with these Former Aircrew, and that as a Military Historian, this is of course of immense value, in Historical Research.

It is worth noting, that Communication and Sighting in Lincolnshire, is very strong, in relation to No 617 Squadron, and with it's Aircrew.

I do mean of course with the Late Wing Commander Guy P. Gibson, and others.

During the period of 1976, I became most aware, that the existence of a Triangle, operates in the Lincolnshire Area, extending over the Wash, and covering the area of the North Sea, outwards.

In this particular Triangle, Psychic Activity os very active, applying not only to Former RAF Aircrew, but also to Former GAF Aircrew.

RAF Scampton, on the 16th of May of each year, is very Active, from a Psychic point of view.

On the evening of the 16th of May, 1989, whilst undertaking a Live Radio Broadcast for Radio Lincolnshire, I witnessed the Ghbst of Nigger, Gibson's Black Labrador, running around the Main Gate area of Scampton, for a period of some four minutes.

It was of interest to note that at that time, the Frontage of Scampton, did in fact take on the appearance of Scampton, as Scampton was in 1943.

The actual Ghost of Gibson, I have seen on no less than five occasions, twice at The Petwood Hotel, the Former 617 Officers Mess, and three Times at Scampton, my Sighting of Gibson being his Former Office.

On all occasions, the 16th of May, being the actual date.

Of my Sighting of Gibson at Scampton, I would like to point out that my Camera, brand new at the time, literally melted in my hands, in front of Nigger's Grave.

On the occasions of my Sighting at The Petwood Hotel, it was interesting to note that the Electrical Systems at The Petwood Hotel, the Fire Alarm System as well as the Boiler House Electrical System, all became US at the exact time.

The same thing happened at The Petwood Hotel, when I was asked to identify the Area, in which the Sighting took place.

In the majority of cases, regarding the Sighting of Ghost Airmen of World War 11, these Sightings nearly always come from the EAST.

(Page Two.)

The Elements of Fire, Water, Wind, Gas and Electricity, are most Strong, in the Psychic Sense, in the Areas of Psychic Activity, in Lincolnshire.

Not only do these Ghost Aircrew Exist, but the Equipment which they used, such as Flasks, Bomb Trolleys, Navigation Cases etc. are very often Present, with these Men, when their Manifestation, is made. The Sounds and Sights, as well as the appropriate Aromas, are also Present.

It is also worth stating, that the existence of Phantom or Psychic Aircraft, is very much a reality.

It is interesting to Note, the effect which Phantom or Psychic Aircraft, have on people, as well as on animals, when they are Present. On a Build Up, leading to the Sighting of a Phantom Bomber, I noticed with interest that Animals in the area, brought from their mouths, a Black Plastic Type of substance, in large amounts, bringing these Animals a fair amount of Discomfort.

In my Communication with Wing Commander Gibson, I never fail to be very impressed, with his mind for detail. He very often makes Reference to Double British Summer Time, or BBC Time Plus 2 hrs. as he puts it.

It is difficult for me to cover my Research over a very long period of time, in this short Report.

However, I have tried to just touch the tip of the proverbial Iceberg, in this Report.

Fair to say, that Psychic Activity in Lincolnshire, does affect such Items as follows.

Radar. Radio and related Equipment.

May Day Calls relating to the 1939/45 period, can still very easily be picked up in Lincolnshire, on certain Radio Equipment.

This applies too, with regard to Telephones, especially when these Telephones, are disconnected from the Normal supply.

Not only is Psychic Activity related to Ghost Bomber Crews most prevalent in Lincolnshire, as this Activity as far as No 617 Squadron is concerned, covers many parts of this Country, Derwent being a very real part of 617 Squadron's Psuchic Activity.

I spent a good deal of time last winter, Researching the Derwent Area, and I would only describe my Findings, as startling, to say the very least.

The reason that I trouble you with this Report, is that I feel most strongly, that the Psychic Aspects of the Past, relating to RAF Personel, do in fact have very useful implications of advantage, as far as the Present Defence System is concerned.

This does of course cover such areas, as Security.

I do trust that you will give this brief, but sincere Report, your most worthy and serious consideration.

Due to the brevity of my Report, I would request, with respect, that I be given the opportunity, of being allowed to Present to you further, a more full and detailed Presentation, of my Findings.

Please accept my information to you, as most sincere.

I remain,

Yours faithfully.

Section 40

RAF pilot says he saw secret spy plane refuel

SCOTSMAN 21/12/92

A new report hints at the plane truth about the mysterious Aurora spy-in-the-sky, writes Alan Dron.

MORE evidence of the existence of a secret United States reconnaissance aircraft has come from an RAF pilot, who says he has seen it refuelling in mid-air.

His report follows news of an apparent sighting over the North Sea of the hypersonic aircraft, known as Aurora.

Officially, the US government denies Aurora exists. Some defence analysts, however, claim its funding has been hidden as part of a "black programme".

Jane's Defence Weekly published a story based on a letter from a drilling engineer, Chris Gibson, who related an

'The aircraft resembled a large paper dart.'
RAF captain

incident when working on a rig off East Anglia.

In a similar letter to *The Scotsman*, Mr Gibson tells how he watched a US tanker aircraft, together with two F-111 swing-wing strike aircraft and another, unidentified, machine he describes as resembling "a matt black perfect triangle".

Immediately in the wake of the story's publication, the captain of an RAF transport aircraft contacted *The Scotsman*. He said he had encountered a mysterious aircraft while on a mission, asked to see a copy of the report, and arranged to meet to study it.

Before the report was handed over, the captain was asked to draw what he had seen; his drawing largely tallied with one which had appeared in Mr Gibson's dossier. He described the unknown aircraft as "resembling a large paper dart".

The captain said that, as in the incident reported by Mr Gibson, the mystery aircraft had been accompanied by an F-111. He had reported the sighting by radio, only to be

told: "Forget it. Get on with the exercise."

Obviously nervous, the captain refused to say either where or when the sighting had occurred. Significantly, however, he added that Aurora's existence was "well-known" within the RAF.

Other evidence for Aurora includes an extremely fast-moving radar blip near RAF Machrihanish, on the Mull of Kintyre, as reported in *The Scotsman* early this year, and a distinctive condensation trail over Moray, thought to be a product of the aircraft's highly-sophisticated methane propulsion system.

The *Jane's Defence Weekly* report said Mr Gibson's expertise in aircraft recognition as a former member of the now-disbanded Royal Observer Corps gave his story considerable weight.

Mr Gibson's sighting took place in 1989. This ties in with the sudden retirement the following year of the US's existing high-speed reconnaissance aircraft, the SR-71, "for which there's never been a reasonable explanation", says the author of the *JDW* article, Bill Sweetman.

He told *The Scotsman* the description of the aircraft as "a perfect triangle" was "exactly the right shape and size for an SR-71 replacement".

Asked if it was possible that the aircraft had actually been another F-111 with its wings in the fully-swept position, he said that to maintain station with a relatively slow-moving tanker with the wings in that position would have required use of the aircraft's afterburners, which increase thrust but vastly increase fuel consumption. "They'd have been using it up as fast as the tanker pumped it in," he said.

Although it was possible Aurora could travel at eight times the speed of sound (around 5,300mph), Mach 5 was perhaps more likely.



Turning point: one youngster attending the carol concerts at the Rottion wandering from the performance. The concerts were part of a fe

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Oil rig engineer sketches secret US spy aircraft

By Christopher Bellamy, Defence Correspondent

A BRITISH engineer working on an oil rig in the North Sea has made the first sketch of what may be a new US top-secret 5,000 mph reconnaissance plane, according to *Jane's Defence Weekly*. It has published an impression of the plane, tentatively named Aurora.

Chris Gibson, an oil drill engineer, told *Jane's* he saw the aircraft from the rig Galveston Key in August 1989. A trained member of the Royal Observer Corps, he said that it was apparently refuelling from a KC-135 tanker and was escorted by two F-111 bombers. Although high, it was clearly visible against high cloud.

He did not take his sketch to the media at the time, as he was still a member of the ROC, a home-defence organisation funded by the Home Office. The ROC was abol-

ished on 30 September last year. Santa Fé Drilling, which owns the Galveston Key, an offshore drilling unit, says it was hired to Amoco at the time and would have been south of the 54th parallel, in the UK sector of the southern North Sea. This is further south than previous reports linked with the Aurora.

Mr Gibson took his sketch to Bill Sweetman, author of the article in *Jane's*, who said Aurora would travel at eight times the speed of sound — 5,280 mph. This would enable it to reach any point on the earth's surface in three hours.

The name Aurora derives from an unexplained line in the 1984 US defence budget

next to the SR-71 Blackbird. The Pentagon retired the SR-71 early in 1990, saying it would rely on satellites, but satellite orbits are predictable.

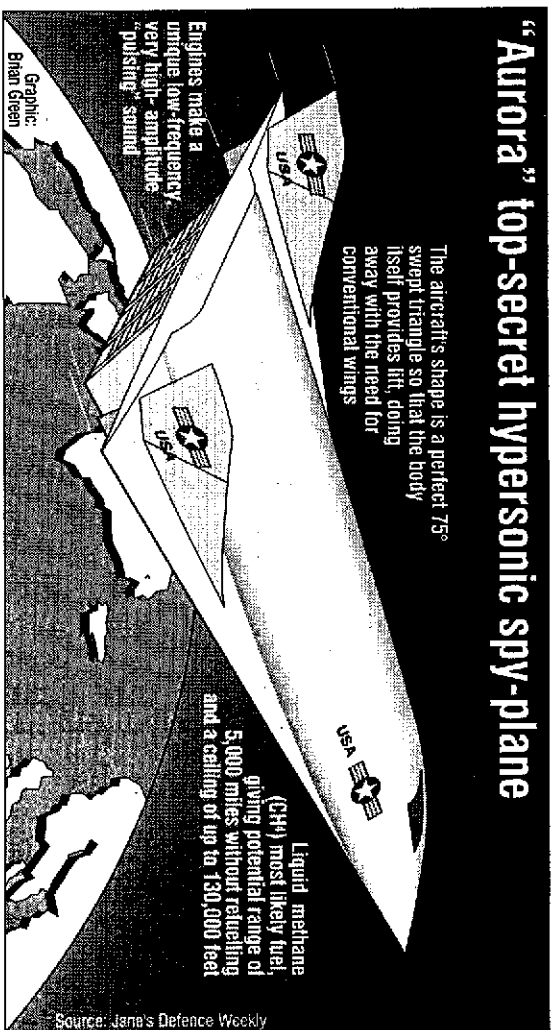
Experts believe the US has developed a successor to the SR-71, shrouded in the secrecy of its "black budget", and that the aircraft may be flying across the Atlantic. A Scottish air traffic controller has picked up something travelling at three times the speed of sound and people living near Machrihanish, Argyll, a Nato reserve airfield have complained of a "pulsating, ear-splitting shriek". That is the sound associated with a hybrid rocket-ranjet engine suitable for a "hypersonic" plane — one

that goes at more than five times the speed of sound.

In California, the US Geological Survey picked up several sonic booms over southern Nevada in late 1991 and earlier this year. They were made by something travelling at several times the speed of sound — and not the Space Shuttle.

Mr Gibson's sketch indicates an aircraft in the form of a 75 degree swept triangle and the right shape for a "lifting body aircraft" — in which the body itself provides lift. A hypersonic plane goes so fast it does not need conventional wings. Up to a certain speed it is rocket-powered, but then a ramjet, using the air ingested at great speed, takes over.

The article says the aircraft appears to be up to 27 m (81 ft) long.



Loyalists fire rocket at prison canteen

By David McKittrick
Ireland Correspondent

A LOYALIST group last night fired a rocket at a prison in Belfast in an attempt to kill republican remand prisoners. The missile missed its target and no one was injured.

The incident followed two weekend deaths from terrorism, with loyalists killing a member of Sinn Fein and the victim of a republican "punishment squad" dying of his injuries.

The rocket attack was launched at Belfast's Crumlin Road prison, which houses both republican and loyalist remand prisoners. The target was the A-wing canteen, where Republicans were dining at the time, but the missile missed and struck the roof.

Prisoners were immediately returned to their cells while a major security operation was launched outside the jail, which is close to the hardline loyalist Shankill Road area.

A taxi hijacked in the district a short time earlier may have been used in the incident.

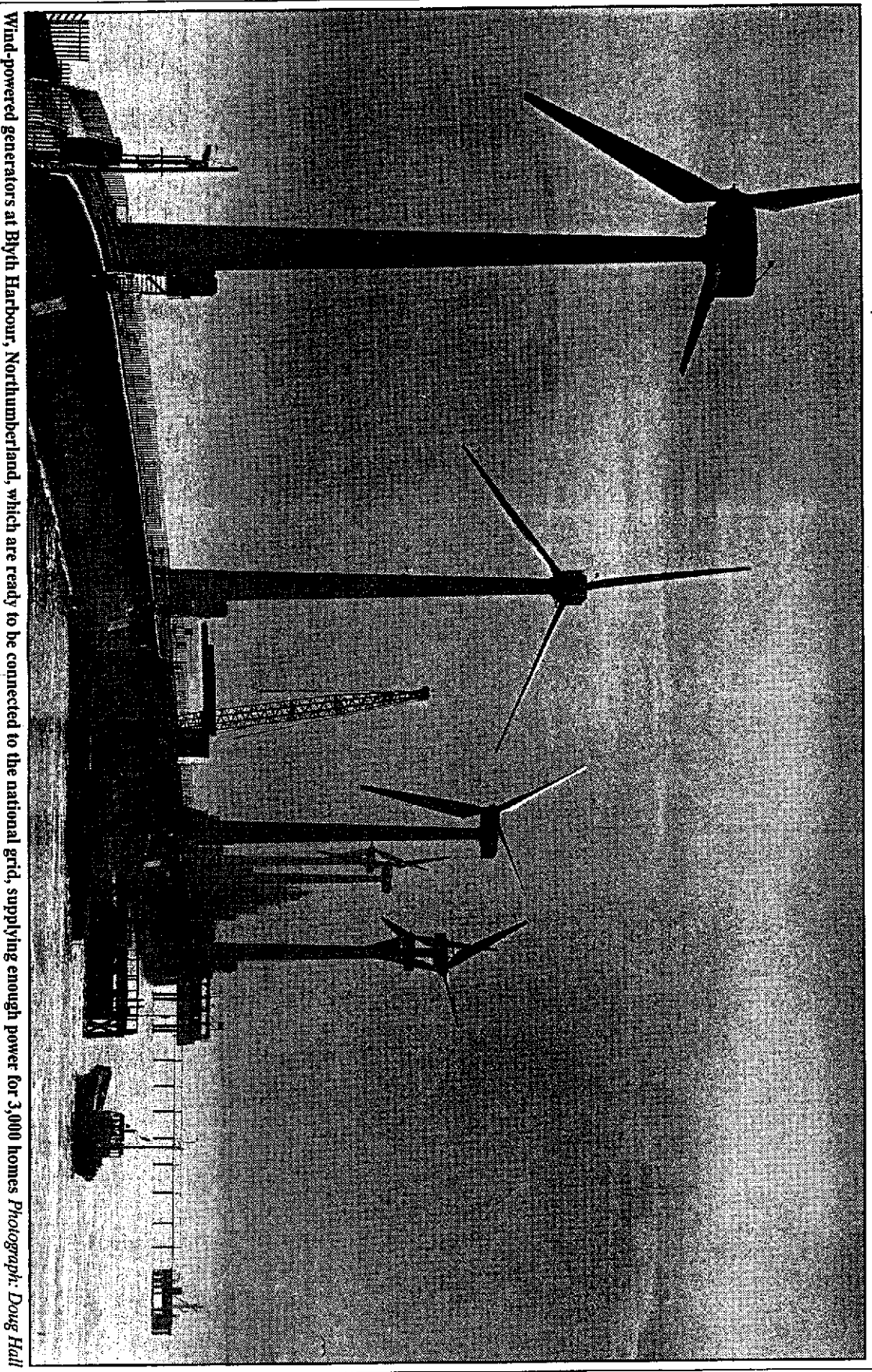
A telephone caller who used a

died at the weekend was the fifth member of the party to be killed by the illegal Ulster Defence Association in the last 18 months. Malachy Carey, 36, was shot twice as he waited for his girlfriend in the Co Antrim town of Ballymoney on Saturday night.

His injuries were at first thought to be not life-threatening, but his condition deteriorated sharply overnight. Police said a man was being questioned about the killing.

Mr Carey, who had served a lengthy prison sentence for IRA offences, was a Sinn Fein candidate in a council election three years ago. Police said he had been warned three years ago that his name was on a loyalist death list.

The second man to die was a 36-year-old Londonderry man whose legs were amputated following an IRA punishment shooting in the city last Tuesday night. He was



Wind-powered generators at Blyth Harbour, Northumberland, which are ready to be connected to the national grid, supplying enough power for 3,000 homes. Photograph: Doug Hall

Charities getting small share of Christmas card profits

Lines may close after BR sell-off

Thatcher tells the Queen to go 'on and on and on'

By Colin Brown
Political Correspondent

BARONESS THATCHER yesterday advised the Queen to "go on and on and on" to help overcome the crisis of confidence in the monarchy.

The former Prime Minister said she wanted to see the Queen remain on the throne until at least 2012 to celebrate her 60th anniversary.

"The best thing that can happen to this country is that she should celebrate her diamond jubilee in 2012."

"It is my great ambition that her record in number of years will exceed that of Queen Victoria. It will add to our stability and our prestige in the world."

Lady Thatcher, who once promised to "go on and on and on", before being deposed, added: "I want to be there to see it, cheering her on the Mall with my grandchildren."

Lady Thatcher's remarks, in the *Sunday Telegraph*, echo the feelings of government ministers who hope the Queen's longevity will settle the controversy over whether Prince Charles or his son William should succeed, after the breakdown of his marriage to the Princess of Wales.

"The Windsors are long-lived. Just look at the Queen Mother. There's every chance the Queen will go on until a ripe old age," one minister said.

While speculation continued that the Prince of Wales would di-

Thought you may be interested

SO/DPR(LAM)

THE AURORA FILE

Hypersonic Aurora: a secret dawning?

Further evidence that the US Air Force has secretly produced a high-speed reconnaissance aircraft to replace the SR-71 has emerged. An eyewitness has sketched an aircraft seen over the North Sea in August 1989.

A tentative analysis suggests that the aircraft is a manned vehicle, roughly the size of an SR-71. The cruising speed could be as high as Mach 8 (5300 mph/8530 km/h). It is probably powered by a combined-cycle engine burning liquid methane.

Oil drilling engineer Chris Gibson told *JDW* that he saw the aircraft from the rig Galveston Key. The unidentified aircraft was apparently refuelling from a KC-135 and was accompanied by two F-111s. While too high to make out any details, it was directly overhead and silhouetted against high cloud.

Gibson spent 12 years with the Royal Observer Corps and was a member of the ROC international aircraft recognition team. Deciding not to take the sketch to the media in 1989, as he was still a member of the ROC, he sent the sketch to *JDW* consulting editor Bill Sweetman only after seeing a similar design in *JDW*.

The aircraft's planform — a perfect 75 deg swept triangle — corresponds almost exactly to hypersonic aircraft designed at McDonnell Douglas between the late 1960s and early 1980s, according to Paul Czysz, Professor of aerospace engineering at St Louis University.

Czysz worked on hypersonics at McDonnell Douglas, including the company's National Aerospace Plane (NASP) proposal, and has studied hypersonic technology inside and outside the USA. The

TECHNOLOGY

BY BILL SWEETMAN
MINNEAPOLIS

sketch, he says, "shows the correct sweep angle for a hypersonic lifting body aircraft."

The configuration suggested by Gibson's sketch and the McDonnell Douglas studies resembles another drawing obtained by Bill Sweetman in late 1989. According to the source, it depicts the rear view of an aircraft seen at a USAF flight test base in 1987.

The witness who produced the rear-view drawing says the aircraft's engine was making a unique low-frequency, very high-amplitude "pulsing" sound.

Such reports have emanated since 1989 from Edwards AFB, Beale AFB and USAF's secret flight-test centre at Groom Lake

in Nevada. The only engines known to make such noises in normal operation belong to a specific class of composite propulsion systems developed since the 1960s for hypersonic aircraft, according to Czysz.

The North Sea aircraft appears to be up to 27 m long, with a 14-15 m span. This tallies with the US Geological Survey's analyses of unexplained sonic booms over Los Angeles, which have pointed to an aircraft significantly shorter than the 37 m Space Shuttle orbiter.

Dimensions, however, are deceptive. Efficient hypersonic aircraft "are basically air-breathing propulsion systems," says Czysz, "and they virtually design themselves." The wings, unnecessary at hypersonic speed, diminish into movable control surfaces.

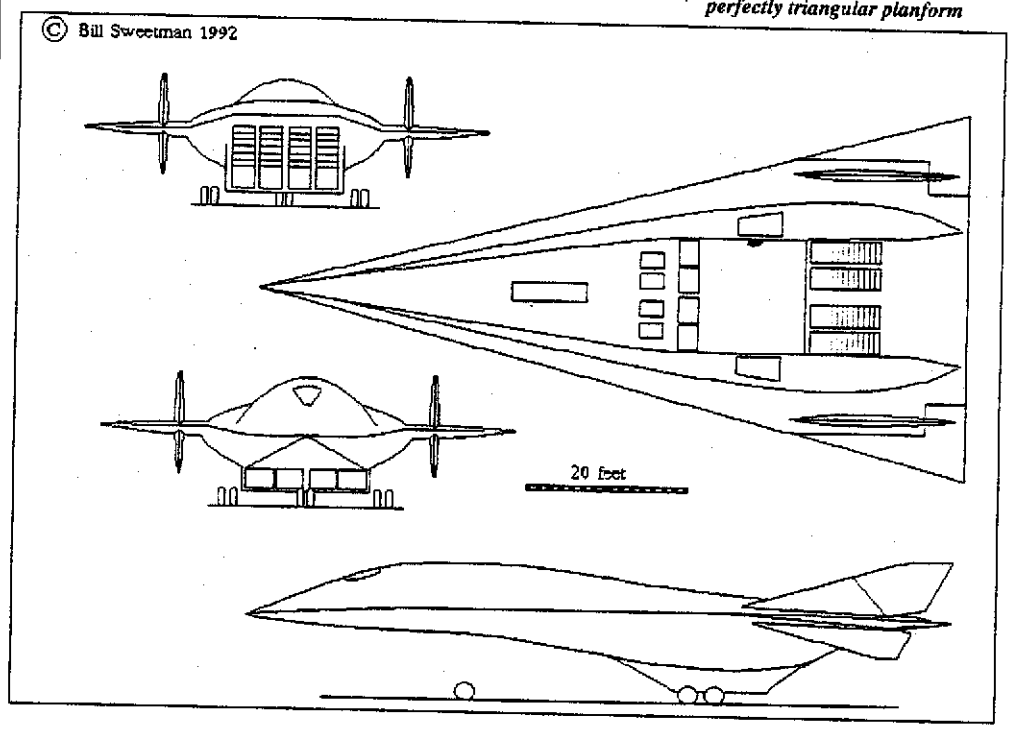
The result is that the vehicle takes on an all-body, wedge-like shape, more efficient in terms of volume and weight than a conventional aircraft. The North Sea aircraft would have an operating empty weight similar to or greater than the 25 t SR-71, and a maximum all-up weight between 70 t and 80 t.

A hypersonic aircraft needs cooling to withstand the heat generated by air friction at high speeds. This involves using the fuel as a heat sink and circulating either the fuel or a cooling medium (such as helium) through the hottest parts of the structure, ie. the nose, leading edges and inlet lips.

The most likely fuel for the North Sea aircraft, according to Czysz, is liquid methane (CH₄).

Eyewitness report of the North Sea aircraft indicates a 75 deg perfectly triangular planform

© Bill Sweetman 1992





USAF's SR-71 force was retired with a surprising lack of controversy

Compared with liquid hydrogen, it is three times more dense and easier to handle — inflight refuelling has been studied and poses no problems. "If it was a hydrogen aircraft it would be larger," Czys says. With cooling, most of the

structure can be made from titanium alloys with higher temperature limits than standard titaniums, such as the Timet Beta-21S, baselined for NASP.

Design studies have shown that a methane-powered vehicle of the size seen over the North Sea could have an unrefuelled range of more than 9000 km, with a crew of two, and a

maximum cruising speed of Mach 8. At that speed, the aircraft would operate at altitudes between 100 000 ft and 130 000 ft (30 500-40 000 m).

Unlike the F-117, the hypersonic aircraft could not be confined to night operations within the USA. Because of its speed and altitude, it will cover a considerable distance during acceleration and deceleration. A realistic operational test would be impossible within the continental USA. Rather, the aircraft could fly to an open-water area close to a suitable tanker base, such as the North Sea, refuel and return.

The highly swept leading edges are inherently favourable to stealth — in fact, the shape strongly resembles the original 'Hopeless Diamond' planform which was the starting point for the F-117. Stealth may be of little relevance as it would be virtually invulnerable to any air

defence system.

The most likely mission is reconnaissance, complementing USAF's constellation of satellites.

Satellites are economical for long-term, repeated coverage and can mount superb optical sensors.

An aircraft is more responsive. The satellite system is believed to be capable of producing imagery within 24 h of a request. At Mach 8 the flight time to any point on Earth is under three hours.

Unlike a satellite, the aircraft can pass over a target at any desired time of day. The aircraft also gives the defences less warning time than a satellite. Although slower, it flies lower.

The aircraft's engines can also generate power for an active radar, used for reconnaissance at night or in adverse weather. USAF has a radar reconnaissance satellite, called Lac-▶

Denial and disinformation

From political moves to acknowledge more programmes, USAF and Congressional leaders continue to fend off questions on the hypersonic aircraft while avoiding direct, unambiguous denials that USAF is operating a secret high performance aircraft.

USAF Secretary Donald Rice dismissed the reports of unidentified high speed aircraft in a press conference in Los Angeles on 16 October. The system that has been described in those articles does not exist. We have no aircraft programs that fly at six times the speed of sound or six times closer to space than other planes.

Rice continues on "the kind of descriptions and estimates of those articles, which would take the amount of such programs and capabilities that have been acknowledged in the past... and where of course, we have been very open about our programs."

The basic specific denial is that there is no aircraft with

according to Rice, Mach 6 is exactly where you don't want to be because it's a transition point between different modes of any likely propulsion systems.

USAF has been casting doubt on the seismographic evidence collected by the US Geological Survey, which indicates that unidentified hypersonic aircraft have been flying southwards. Critics, under contract to USAF, Massachusetts Institute of Technology and RAND, last century analysed one of these readings and concluded that it was caused by a US Navy fighter on a flight test mission.

These days, however, the repeated readings from sensors more than 130 km inland, unless errors have been contacted violating the law of hypersonic flight over a populated area. The US Air Force is investigating the possibility of an aircraft with a 30 km range, and a 30 km on either side



what's real and what's not. ADW asked Senator Sam Nunn (D-Ga), Chairman of the Senate Armed Services Committee, about the California boom at a press conference in Dayton earlier this year. Also present was Ohio Senator John Glenn, a senior member of the Senate Intelligence Committee.

As SASC Chairman, Nunn is briefed on Special Access Programs (SAPs). Normally, the full SASC and intelligence committees get the same briefings.

Attergott has reported the existence of a subset of SAPs called "waived programs" in which the Secretary of Defense waives the requirement to notify the full committee, and briefs only the chairman and senior minority members of each committee. If the hypersonic aircraft is a waived program, Nunn would be briefed and Glenn would not.

Nunn's response to the question was to refer to Glenn's report. "I expect to decline to comment. Glenn's response was a direct and knowledgeable statement."

► rosse, but the need to power the system for nocturnal reconnaissance (in the shadow of the earth) are design challenges.

Each reconnaissance aircraft could cost as much as \$1 billion. This is equivalent in price to a satellite, but the aircraft is more durable — SR-71s operated for more than 20 years, while no satellite has lasted longer than five years.

It is likely that Lockheed Advanced Development Co (LADC) — the Skunk Works — is prime contractor for the new aircraft. Quite apart from the Skunk Works' reputation for advanced technology, Lockheed's financial figures have indicated a continuing, large flow of income for "classified" and "special mission" aircraft.

The propulsion contractor will have been a major partner in the programme. The Rocketdyne division of Rockwell International may well be involved. The combined-cycle engine, which appears to match the reported characteristics of the unidentified aircraft, is closer to a rocket than to a turbojet.

The North Sea sighting and the SR-71 retirement in early 1990 suggest the new aircraft became operational in 1989. If so, the first flight probably took place in 1985 or 1986, placing the start of full-scale development in the early years of the Reagan Administration, in late 1981 or early 1982.

The new spyplane programme would have been launched at about the same time as the B-2. Surprisingly, that contract went to Northrop, Boeing and Vought. The losing team, interestingly, was Lockheed and Rockwell.

The existence of a hypersonic follow-on to the SR-71 would explain a number of anomalies. The most glaring is the retirement of the SR-71.

The ostensible reason was to save money, but the annual cost of between \$200 million and \$300 million was only 5-7 per cent of what USAF appears to spend each year on reconnaissance satellites. It was also the only occasion in USAF's history

that the service voluntarily relinquished a manned mission in favour of unmanned vehicles. Lockheed's lobbyists — uncharacteristically — did not fight the decision.

The hypersonic aircraft also explains some aspects of the NASP programme. NASP research focused from the outset on the Mach 8-plus regime, even though there was an almost equal lack of validated data on air-breathing propulsion from Mach 4 to Mach 8. Also, while the NASP programme has been run in the open, the low-speed portion of the propulsion system has been secret.

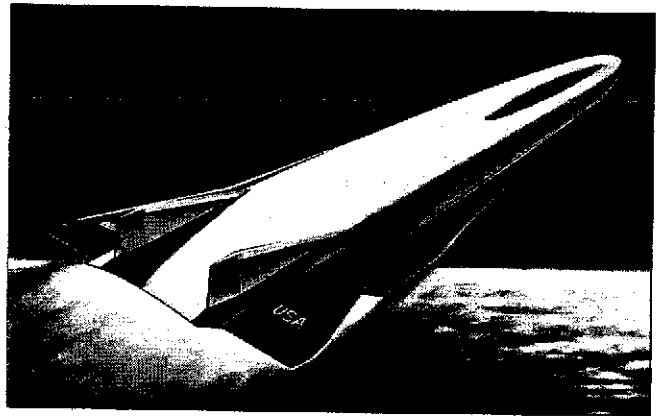
Both these observations are consistent with the hypothesis that NASP was conceived as an outgrowth of the hypersonic reconnaissance programme, using a higher-energy fuel (slush hydrogen), more advanced materials, and a modified propulsion system with scramjet and rocket modes.

Disguised by NASP

Has the National Aero-Space Plane — NASP — provided a disguise for Aurora? At a conference in Orlando last month Heinz Pfeffer, head of the European Space Agency's directorate for space transportation systems, told *JDW*: "NASP is a cover for Aurora.

There's no other reason that the industry would put \$900 million into NASP.

"Aurora has achieved its goals and NASP can be allowed to fizzle out." NASP's future is in doubt because Congress has not approved funds for developing a prototype.



Radical engine technology

The hypersonic aircraft may be powered by a type of combined-cycle engine, studied in the 1960s by Dr Fred Billig at the Applied Physics Laboratory of John Hopkins University.

The Billig-cycle engine uses cryogenic fuel and combines features of a ramjet, a rocket and a turbine engine. It is lighter than a classic turbo-ramjet and, unlike a rocket/ramjet combination, it can operate efficiently across the entire speed range.

The engine is based on a ramjet duct, which incorporates both a fuel injector and a group of small rocket-type nozzles, and a turbine-driven compressor.

The methane fuel drives the turbine as it expands from a liquid to a gas, and both the high-pressure air from the compressor and the methane from the turbine are delivered to the rocket-type nozzles in the ramjet duct. Liquid oxygen (LOX) can be added to the rocket nozzles.

To start the engine, methane is pumped through the aircraft's skin, where it is heated to ambient temperature. The methane expands through the turbine, spinning the compressor and pumping air into the rocket nozzles, where the compressed air/methane mixture is ignited. The high-velocity rocket exhaust acts as an ejector, drawing air through the ramjet.

At idle and low speeds, however, the ramjet duct is too large for the airflow. The flow becomes discontinuous, with a cyclic build-up and release of pressure in the duct, producing the distinctive noises associated with these unidentified aircraft.

The Billig engine needs more thrust for take-off, climb and transonic acceleration, so LOX is added to the rocket nozzles. This increases exhaust velocity, draws additional air through the ramjet and increases the pressure ratio to the point where more

methane can be added (through the fuel injector) and burned in the duct. The engine becomes an air-augmented rocket, ducted rocket or ram-rocket.

The engine needs less oxygen as the vehicle accelerates, firstly because more air is flowing into the ramjet duct; and secondly, increased skin friction means that the methane driving the turbine has more energy, so the compressor is delivering more air pressure to the rocket nozzles. The LOX flow is gradually reduced, reaching zero at about Mach 2.5.

At higher speeds, the methane supply to the rocket nozzles may be shut down and fuel delivered through the fuel injector. The compressor exhaust can supercharge the ramjet until Mach 6, when the compressor inlet closes and the strut with the rocket nozzles retracts to reduce drag. The engine can then run as a pure ramjet to Mach 8.



From: N G Pope, Secretariat(Air Staff)2a, Room 8245

MINISTRY OF DEFENCE

Main Building Whitehall London SW1A 2HB

Telephone (Direct Dialling) 071-21-8 2140
(Switchboard) 071-21-89000
(Fax) 071-21-8

Your reference

Wg Cdr Section 40
RAF Staff Washington
BFPO 2

Our reference

D/Sec(AS)12/1

Date

21 October 1992

Dear

Section 40



UNIDENTIFIED FLYING OBJECTS

One of the more obscure functions of Sec(AS) is to act as the focal point for all UFO sightings in the UK. As well as receiving details of sightings, we also deal with general queries about the Government's policy and views on the UFO phenomenon.

We get a number of enquiries that relate to alleged incidents involving US personnel (the most frequent allegations concern a UFO report made in 1980 by the Deputy Base Commander at RAF Woodbridge), and whilst we have a number of general standard lines on such matters, we wish to update and expand the information that we hold. We also wish to find out some information about NASA's current Search for Extraterrestrial Intelligence (SETI) project.

I would be grateful if you could put me in touch with the appropriate department in the US that deals with this subject, as I hope to liaise with them on UFO sightings, policy and other related matters.

Yours sincerely,

Section 40

File note,

Section 40

from RAFS(W)

Section 40

Planned to say that there was no longer any central POC for this subject.

No further action possible.

Section 40

1/12



Embassy of the United States of America
Defence Attache Office

8 Oct 1992

Section 40

do you get the feeling
that they do not take this
sort of thing seriously! Is
a request such as this
a bit outside our remit?

Mr. N. G. Pope
Secretariat (Air Staff)2a, Room 8245
Ministry of Defence
Main Building
Whitehall
London SW1A 2HB

Section 40

Yes, and no!

Dear Mr. Pope

I apologize for the delay in reply to your letter of 17 August 92 asking for a United States government point of contact/office dealing with Unidentified Flying Objects. Regrettably I am unaware of such an office, nor can I locate one with the reference resources available to me here.

I would suggest you redirect your request to the British Defence Staff in Washington, D.C.. Being physically in the Washington area they can better make inquiries of the Pentagon and other agencies than I can from this distance. Best wishes to you in your endeavor.

Yours sincerely,

Section 40



MINISTRY OF DEFENCE
Main Building Whitehall London SW1A 2HB

Telephone (Direct Dialling) 071-21-8
(Switchboard) **Section 40**
(Fax) 071-21-8

Lt Col **Section 40**
Assistant Air Attache
United States Embassy
24 Grosvenor Square
London
W1A 1AE

Your reference

Our reference

D/Sec(AS)12/3

Date

17 August 1992

Dear

Section 40

UNIDENTIFIED FLYING OBJECTS

Our section receives details of Unidentified Flying Object (UFO) sightings within the UK, and also handles questions about the Government's policy on this subject.

I would be grateful if you would put me in touch with the appropriate Department in the US that deals with this matter, as I hope to liaise with them and exchange information on UFO sightings, policy and other related matters.

Yours sincerely,

Section 40



18 OCT 1992

20 OCT 1992



TREVOR ROYLE

B

This week the first Trident submarine arrives in Faslane. But the Americans are giving Russia the technology that makes it redundant. Who's kidding who? There are fears that its awesome destructive power has already been compromised

GPALS info

The nuclear submarine HMS Vanguard will cleave her way upstream on Thursday through the Firth of Clyde and slip into her home port of Faslane on the Gare Loch.

The matt black hull will be empty, containing only its fragile human cargo, and the cavernous space which will eventually house 16 D-5 Trident missiles, each one armed with up to eight 475-kiloton nuclear warheads, each capable of killing enough people to win most wars.

She was conceived in the summer of 1980 as the ultimate weapons system, a bastard child of the Cold War. Then Soviet troops were in Afghanistan and arms control negotiations were faltering as Ronald Reagan headed inexorably towards the White House.

Now, 12 years later, Vanguard and her three sister craft are being born into a scarcely-believable world in which the Berlin Wall has fallen, the Soviet Union has disintegrated and the Cold War has ended. Now international leaders speak of detente, a new world order and the need to suppress relatively small-scale regional conflicts on the constantly shape-shifting map of Europe.

In this brave but unfamiliar, new world where America and Russia are back-slapping buddies anxious to share all their secrets, a growing number of experts are asking whether the rationale for Trident as the ultimate deterrent is wholly redundant.

These are not just voices from the pacifist and environmentalist lobbies, who will be outside the gates at Faslane this week with their banners and chants. They are also the coldly logical voices of senior naval officers and defence analysts who believe that Trident is now outmoded as a credible weapons system.

The new military strategists present an argument that has moved on from the hoary concept of "total war" with Russia, the justification which brought Trident into being as the pumped-up successor to Polaris. Instead, they have been taking a hard look at the long-term term effects of the recent US decision to share its Star Wars technology with Russia in the wake of last year's historic reductions in the superpowers' nuclear arsenals.

Known as Global Protection Against Limited Strikes — GPALS — the scheme will jointly make use of land in America and Russian and their hardware in space. Discussions are already in hand to employ Russian SS-18 missiles to launch US satellites and US-developed kinetic killer vehicles known as "brilliant pebbles".

Senior submariners fear that its warheads will be unable to penetrate the defensive shield should Russia ever become a potential enemy again.

There are also doubts about Trident's true cost. Vanguard went £250m over budget — Vickers say that this was an unavoidable "first of class" overrun — but insiders at the company's Cumbrian works at Barrow-in-Furness admit that fine-tuning of the integrated sonar suite and the central command and control system could bump up the £400m production costs for each of the three boats remaining on order.

At present the cost of the Trident programme is estimated at £10.5bn, spread over a 20-year period. At the end of 1991 £5.1bn had already been spent and the rest more or less committed.

Prof Keith Hartley, director of the Centre for Defence Economics at York University, estimates that cancelling Trident now would only save £100m a year by removing its future operating costs. "The cancellation of Trident will no longer offer the major savings which were available at the time of the 1987 general election."

Cancellation would also bring misery to Rosyth and Faslane, the Scottish bases which earn their crust from Trident. A recent commodore of the Clyde submarine base estimates that it pumps £20m a year into the local community. In its preparatory phase Faslane was the second-largest construction site in Europe.

Also, failure to name Rosyth dockyard as the navy's primary nuclear submarine facility would cost 4,000 jobs in Fife and damage further the region's defence-related economy.

Costs are one problem — but of greater concern to defence analysts is the fear that the money has not been well spent and that the Royal Navy has been suckered into developing an expensive and complicated weapons system whose capabilities have no role to play in conflicts against tin-pot dictators like Argentina's General Galtieri and Saddam Hussein, Britain's most recent adversaries. Or indeed in Bosnia where British troops are being deployed under the United Nations flag.

The real angst is reserved for GPALS, or GPALSKI as it is now known in naval circles. Developed from Reagan's Star Wars programme, the concept envisages the creation of theatre and strategic missile defences on a global scale. At a revised cost of \$4.3bn for the current fiscal year, GPALS will be a flexible shield capable of attacking a variety of missile attacks — from a 200 multiple-warhead strike to the

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Late launch: The Trident programme may have been made obsolete from the very outset by the end of the Cold War

accidental launch of a rogue missile.

The Pentagon hopes to have GPALS defences operating at Grand Forks, Wyoming, by 1997 and a Russian system could follow soon thereafter.

In its primary mode, GPALS will be composed of mobile defences against shorter-range tactical missiles which can be deployed in areas of high risk during periods of international tension. These would be upgraded from the Patriot missiles which were used to such good effect as Scud-busters during the Gulf war. But it is against ballistic missiles like Trident, with its multiple warheads that GPALS and its space-based interceptors will come into their own. Acting on the premise that it is easier to shoot down the archer than his arrows, GPALS will seek to intercept the enemy missile in its boost phase when the launch vehicle is easily tracked. Failing that it will hit the warheads either in space before they re-enter or in the upper reaches of the stratos-

phere before they hit their targets.

To do this an array of missiles will be used — the “brilliant pebbles” in space and ground-based, high-altitude area defence missiles — all under the control of sophisticated early warning satellites.

According to a senior naval source, defences of that kind will seriously compromise Trident: “The ability to get the warheads through to their targets in Russia has always been the yardstick by which our deterrent has been measured. If the Russians have a sophisticated missile shield we’ll either have to increase the number of warheads or double our patrols.”

A change of policy of that order would be expensive; at present the Royal Navy is committed to keeping one Trident submarine at sea, armed with up to 128 warheads. To punch through GPALSKI a further submarine on patrol would be required, thereby stretching the four-boat squadron to its limits. Any attempt to increase the number of warheads to 12

will meet with spirited resistance from President Boris Yeltsin who has been unwilling to include British or French nuclear weapons in strategic arms reduction talks. Another option would be the development of a new, quick-burn booster for the D-5 Trident or the production of decoys like the US-built Evader. But these compromises would add to the costs and make Britain's defence further dependent on US technology.

It has also been revealed that Trident's reliability will be threatened by a forthcoming American ban on underground weapons testing. Despite President Bush's words of reassurance to the contrary, Congress will almost certainly stop further testing of nuclear weapons at the US underground site in Nevada. Of the five devices still on the programme one is understood to be a warhead for Britain's Trident programme. Although sources close the Navy Board are putting a brave face on the decision, there are grounds for concern because during the development phase between 1980 and 1983 there were only 15 British tests at the Nevada site. As one senior submariner admits: “It would be nice to know if the thing will work should we, Heaven forbid, ever have to fire it in anger.”

Perversely, British defence officials have shown little interest in joining the US in producing a nuclear shield because they believe that the present threat does not justify the expense. In public at least, senior officials hold fast to the government line that a nuclear sword is needed because the world is an uncertain place. The Kremlin might easily be taken over by less benign forces in the early 21st century.

Privately, though, they will admit that Trident also fulfils the necessary function of giving Britain a place at the world's top tables and guarantees its permanent membership of the UN Security Coun-

cil. In other words, the possession of Trident provides a massive sense of security should Britain ever find itself standing alone.

The only full-time enthusiasts for Trident are the men of the Royal Navy's 10th submarine squadron at Faslane, who will no doubt breathe a collective sigh of relief when Vanguard, Victorious, Vengeance and the as yet unnamed fourth boat at last take over patrolling duties from their troubled and obsolescent R-class Polaris boats.

For Vanguard's crew, a further working-up period lies ahead before she trails across the Atlantic to King's Bay, Georgia, to pick up 16 D-5 Trident missiles. Then it will be back to Faslane to the covered floating pier where the lethal warheads will lie waiting, having been brought north by anonymous convoys from the nuclear weapons factory at Aldermaston in the south of England. What happens next is a matter for political debate. The numbers of warheads, and their combination will be determined by financial and political necessity, as will the deployment of the submarine.

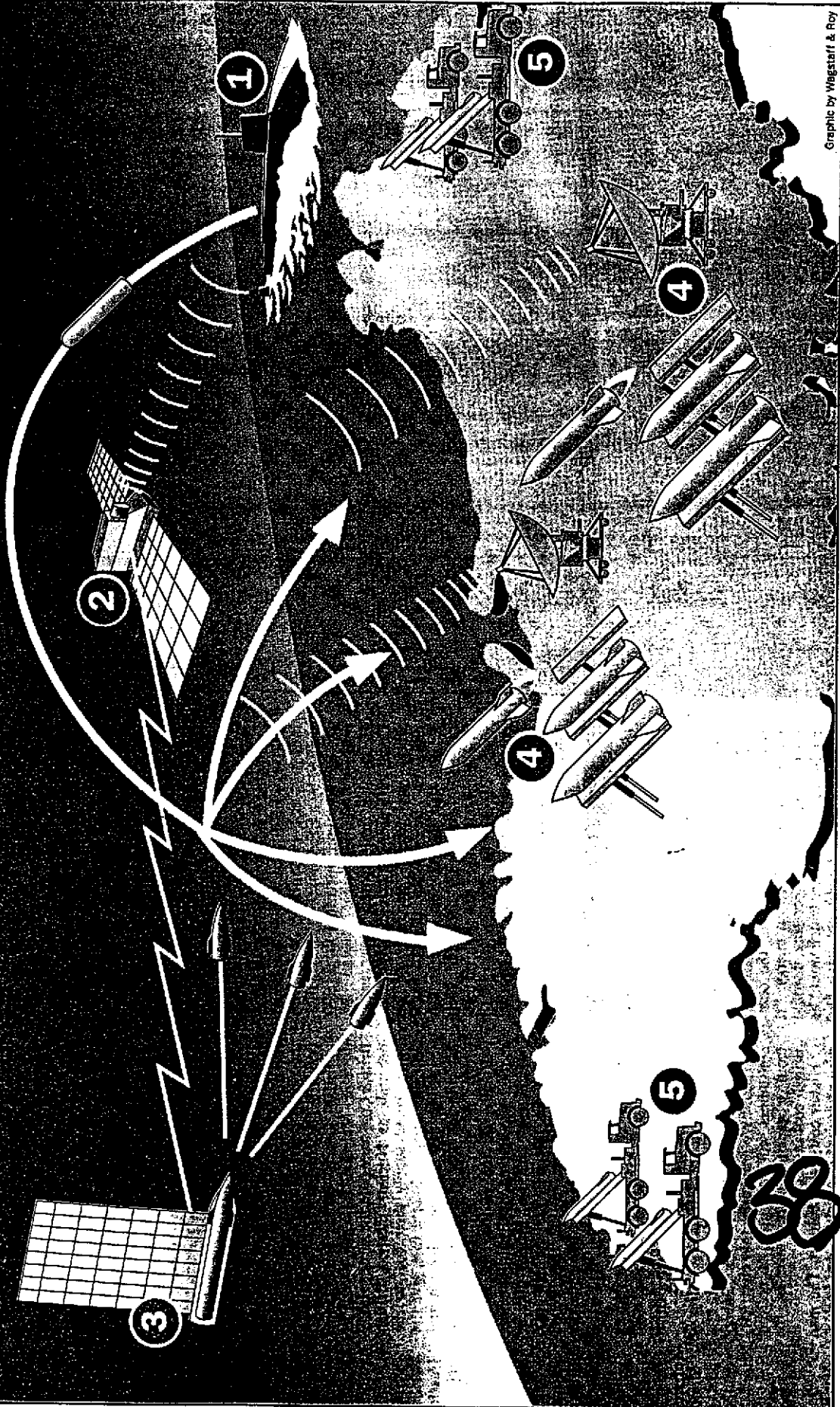
All that is known is that Vanguard will make herself at home in the ocean's deep places where she is virtually undetectable. Captain Mike Gregory of the 10th Submarine Squadron told a recent presentation the training is so realistic that during 210 Polaris patrols no British nuclear submarine has ever been detected mainly because “the conduct of operations is not strikingly different under peacetime or wartime scenarios.”

With the government seemingly content to rest its case on the premise that a well-trained nuclear force is the best deterrent, perhaps no other justification is needed — at least until the strategists come up with other options for deploying this Moby Dick of a defence policy.

20 OCT 1992

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① ICBM fired from submarine. ② Tracked by Brilliant Eyes Satellite. ③ Information passed to Brilliant Pebbles Kinetic Kill Vehicle. Warheads destroyed in space. ④ Remaining warheads hit by GPALS Missiles with a range of 500 miles by 100 miles high. ⑤ Outer ring of Super Patriot Mobile Defence against short range tactical missiles.



Graphic by Wagstaff & Roy

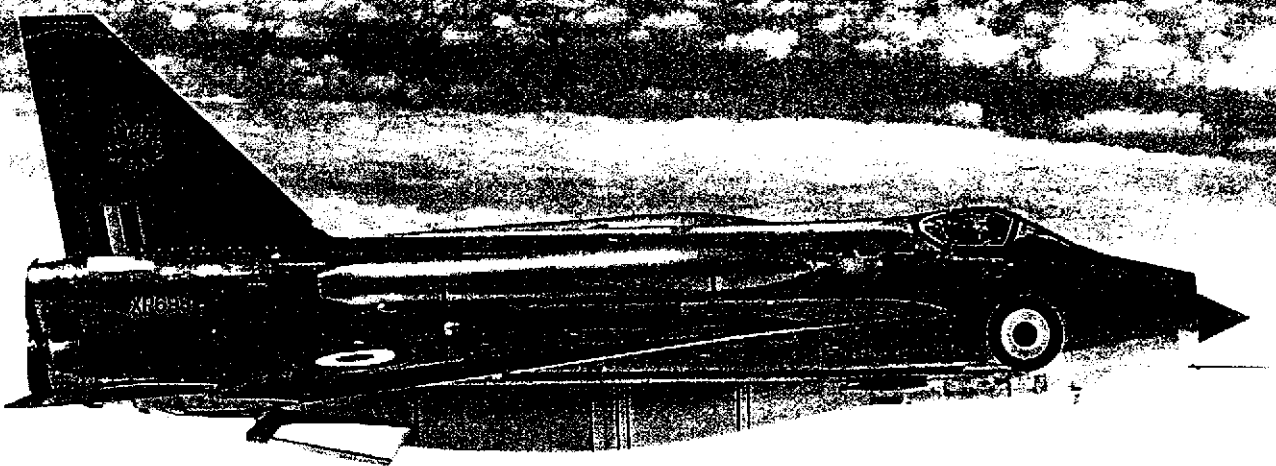
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see page 504

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VOLUME 21 NUMBER 11
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PROJECT AURORA THE EVIDENCE

BY MICHAEL
G.
CRUTCH

IN February 1985, the US Department of Defense issued a budgetary document (actually a declassified 'PI' Weapons Procurement publication) for the 1986 fiscal year. The contents appeared reasonably 'ordinary', except for one item which was listed under the 'Strategic Reconnaissance' section. This item was called Aurora.

The PI details showed that the project would receive funding in the region of \$80 million in FY86, with a further amount of over \$2.2 billion in FY87. USAF officials declined to comment as to what Aurora actually was, their embarrassment leading the aviation press to speculate that the project should have been removed at the document's declassification stage. American press, reportedly in receipt of information from "sources in the Pentagon", went ahead and told the people that the project involved low-observables technology (the DoDism for stealth), most likely connected with the B-2 bomber at the time undergoing design with Northrop.

It was soon after that rumours of a more interesting nature began to surface, telling of a much-improved replacement for the SR-71. Indeed, in early 1988 the New York Times carried an article which disclosed that the USAF was working on such an aircraft, with a longer range than the SR-71 and the ability to fly in the region of Mach 5.

Almost coupled with this news was an analysis by Sanford C. Bernstein & Co (an established American financial organisation) reporting that Lockheed's sales that year by the then Advanced Developments Projects ('Skunk Works') arm of the company would earn some \$1.1 billion in 1988, and then drop and level out at over \$750 million in 1989 and into the early part of the nineties. Armed Forces Journal International, who first told of the findings by Bernstein & Co, stated that these figures were 'consistent with a major programme such as a replacement for the SR-71'. Indeed, in 1992, financial analysts Kemper Securities stated that the 'Skunk Works' were carrying out work on classified programmes worth at least \$400 million, with the figure expected to rise to \$475 million in 1993.

Interestingly, the 'Skunk Works' employed 4,600 staff in mid-1992, despite only a small amount of work on the U-2R programme, F-117A improvements and F-22 development

remaining.

In October 1989, further intrigue arose from the funding of an "advanced reconnaissance system", approved by the Armed Services Committees of the US Senate and US Congress. It is known that the system is classified to this day, however it may have been in respect of another 'black' project known to be the Northrop TR-3A, nicknamed Black Manta, which is a tactical recon (as opposed to Aurora's strategic role) aircraft which has been seen operating with F-117A's. For another six months, little information was available which pointed to Aurora's existence. Then a significant turn of events took place; reports of mysterious aerial vehicles became frequently seen and heard overflying the high deserts of California and Nevada. The communities of these areas have been exposed to military aviation for many years, due to the proximity of a number of military establishments such as Edwards Air Force Base.

It therefore must have been something unusual which caught their attention, with instances ranging from bright points of light high in the sky, travelling at great speed and emitting a distinctive rumbling sound (some observers report the noise as having a pulsing quality, leading to it being nicknamed 'The Pulser' by the inhabitants of the Mojave Desert). As if to underline the pulsing characteristic, the aircraft leaves a distinctive contrail in its wake, somewhat comically likened to linked sausages. A further witness living in California wrote to Aviation Week & Space Technology (AW&ST) after having watched

an unidentified aircraft cover some 350 miles of sky in six minutes - equating to a speed of 3,800 mph. Sightings have occurred during the small hours of the morning, with the craft flying a rough southwesterly or northeasterly track over the area.

By looking at a map, one can clearly see that such a flightpath indicates that the aircraft were operating out of Nevada. Since Lockheed employees Dorsey Kammerer and Tony Le Vier selected the remote location some 100 miles north of Las Vegas as the site for the first flight of the U-2 (which Le Vier performed in August 1955), Groom Dry Lake, also known as 'Area 51', 'Watertown Strip' and 'The Ranch', has remained very much the home of 'black' projects conducted by the US DoD. The base is adjacent to the Nevada Underground Nuclear Testing Area and is at the heart of the massive Nellis Weapons Ranges. Over the years the base has seen the first flights of Lockheed's A-12 and YF-12 (forerunners of the SR-71) as well as the now famous F-117A stealth fighter-bomber. Of course, it is not only Lockheed who have had use of this classified facility, with other aircraft manufacturers (Northrop for certain) and USAF units, in particular the 4477th Test & Evaluation Squadron (the 'Red Hats') flying captured Soviet aircraft, to name but a few. Indeed, within the last year, established figures of US government agencies have indicated that captured UFOs are also here, but that is another story!

A small Nevadan community nearest to Groom Lake and just outside the Nellis restricted area was overflowed in mid-1989 by

AURORA SO FAR

an aircraft generating enormous engine noise, "...like the sky ripping apart," to quote the observer interviewed by AW&ST. A similar instance occurred in a town near Edwards AFB that year when an aircraft departed the North Base (also a home to secret USAF projects) under the cover of darkness, the noise from it being so great that houses trembled 16 miles away, bringing residents out into the street. As Saturn V boosters are no longer around, one wonders what else the noise could have been.

AW&ST has carried several artists drawings based on all of the sightings, the result being a squashed oval, almost diamond-shaped vehicle, dubbed a 'wave-rider' shape by aerodynamicists. Perhaps a reason for the noise and 'bright lights' is that Aurora's powerplant employs external burning for part of its flight profile, much the same as a rocket. It is likely however that this would be used operationally at extreme cruising altitudes, with a more conventional propulsion system being used at lower levels. Interestingly, the SR-71's which are to be operated by NASA in support of the X-30 National Aerospace Plane project are expected to carry dorsally a powerplant which has external burning capability. Had the guys working in the 'white' world of NASA better talk to the guys in the 'black' world?

The majority of the sightings are now in the most part two years old. Rumours had circulated that the Aurora project was cancelled by the US government in FY90. Then, a spate of strange sonic booms heard in the vicinity of Los Angeles occurred during

November 1991, firing rumours that Aurora was still alive and well. Scientific equipment used for monitoring earthquakes detected the sonic booms, as it had done so before when Space Shuttles have commenced their supersonic descent profiles towards Edwards' Rogers Dry Lake. Seismologists could tell using the 'footprint' of the sound that the cause was indeed an aircraft flying at high altitude and with an estimated speed of at least Mach 3. NASA confirmed that its SR-71's, the only examples currently flying, were not airborne at the times these events took place.

AW&ST carried recent reports of a strange series of nocturnal sightings near Beale AFB, former home of the SR-71. In the opening months of this year, reports of an aircraft flying from the base with a triangular-shaped lighting pattern, fitting in with the eyewitness descriptions mentioned earlier, began to emerge. The aircraft has been sighted departing with flights of KC-135Q Stratotankers of the 9th SRW, as well as being in the company of the wing's T-38A Talons and even with two F-117A's of the then 37th Fighter Wing. The observer of this reported that, based on the lighting pattern, the mysterious craft was 50 per cent longer than the escorting stealth fighters, presenting an aircraft in the region of 100 feet long - much the same as the SR-71 which had a length of 103 feet. Also significant are the reports of the noise produced by the aircraft, tying up with all of the other observations, of a low pitched, hollow sound with an oscillating quality.

The latest possible Aurora

sightings occurred in late March and early April this year, including one near Amarillo, Texas by an established military airband radio enthusiast who obtained pictures of the distinctive contrail, which were later published by AW&ST. The witness heard an unusual pulsating roar, which as in previous instances mentioned above caused vibrations to his house, around 0830 hours on 23rd March. Alas, by the time he grabbed his camera and was outside the aircraft had gone, but the contrail showed that the aircraft was travelling in a southeasterly direction (as a point of interest, unusual sonic booms have been heard in Pensacola, Florida recently, just as they were during the testing days of Project 'Oxcart' - the Lockheed A-12). The witness returned inside to monitor his UHF equipment. The NORAD frequency for the area was being used by an AWACS E-3, which was carrying out air-to-air communications with two other aircraft. They were using the somewhat unusual (for standard US military practice) callsigns DARK-STAR MIKE and NOVEMBER, the transmissions from these aircraft consisting purely of phonetically spoken alphanumerices. Further encrypted speech was heard on a USAF satellite UHF down-link frequency, last used during Operation 'Desert Storm', possibly indicating 'special use only' operation for the channel. Is this evidence just coincidence?

Further interesting military radio traffic was heard by radio enthusiasts near Edwards AFB around 6am on 5 April (a Sunday) this year involving an aircraft using the callsign GASPIPE. The Edwards RAPCON, callsign JOSHUA CONTROL, was giving the aircraft radar vectors in a similar fashion to those passed to the Space Shuttle on its return to Earth. One of the transmissions from JOSHUA informed GASPIPE that it was "...at 67,000, 81 miles out...; the altitude of 67,000 feet indicating a special performance aircraft such as a U-2 or SR-71. The intrepid reporters of AW&ST queried ATC at Edwards and HQ USAF as to what type of aircraft GASPIPE was. The JOSHUA CONTROL log contained no reference to the facility having worked such an aircraft. Confirmation was also given that no U-2's or NASA SR-71's were active at that time.

Flight International have also carried an article on the mysterious 'Aurora' craft, detailing a typical mission profile in which the aircraft circumnavigates the globe, departing from the West Coast of the US, crossing the Pacific to air-to-air refuel near Tahiti, then proceeding westbound to land at RAF Macrihanish on the west coast of Scot-

land. The aircraft then returns to the US under the cover of darkness, and according to the report lands back at Palmdale (the new home of the 'Skunk Works'). An F-111 fighter-bomber is scrambled to fly several seconds ahead of the Aurora so that any chance sightings can be attached to the F-111! The magazine is also quoted as saying that the programme has the codename of 'Senior Citizen', which although it may sound comical, other Lockheed aircraft projects for the USAF have included names such as 'Senior Bowl', 'Senior Crown' and more recently 'Senior Trend' for the F-117A.

Finally, in July of this year, a motorist was travelling close to the Lockheed Radar Cross Section test range in the Mojave Desert near Barstow around 11.00 pm, when he noticed an aircraft descending extremely fast towards him. He watched it perform a 'S' type descent pattern towards Helendale Airport, which although shown as closed to civil air traffic on aeronautical charts, is frequently used by Lockheed company shuttles to/from the RCS testing area. The sky was clear, with strong moonlight. This gave the eye witness a sight for which he was not prepared for. He described a shape similar to the XB-70 Valkyrie supersonic bomber of the 1960's, the aircraft being lightly coloured on both top and bottom surfaces, with black 'tile-like' leading and trailing edges and chines. Two rectangular engine housings were located under the clipped delta wing (with the ends of the wing being up-turned to form stabilisers), and a characteristic 'hump' formed the rear part of the fuselage. The estimated length is around 200 feet. It is known that severe thunderstorm activity was present across southern and central Nevada that night, perhaps precluding the craft to return to its normal base. The aircraft has been reported by several other people, in different parts of the US, and all reports have had a remarkable similarity. One such report from early January this year detailed an 'aerodynamic shape' being loaded aboard a C-5 Galaxy at Burbank, approximately 70 feet in length, the cross section being similar to that of the SR-71 except that the chines were rounded as opposed to sharp-edged. Is this aircraft the 'Pulser' or some other classified project?

No doubt, many more unusual sightings will occur in the coming months. One wonders as to when the identity of the craft or crafts attributable to the reports above will become public. At the same time though, one can remember when the existence of the F-117A was revealed in 1988. A few days before a US Presidential election.

forgive," Isak says. "We agree with the nationalist movement, but we just can't forgive. It's terrible to have the killer's family under our noses. We want to walk in the village without people teasing us, saying that we don't have courage to take revenge."

Isak has long agreed to forgive the blood if only his neighbours would move away, but this has proved impossible and so his moral dilemma goes on.

KATE SEKULES

Forgiving the Blood, a film by Melissa Llewelyn-Davies, was broadcast by BBC2 on 18 September in *Under the Sun*

SPACE

Nasa asks ET to phone home

ON THE 500TH ANNIVERSARY of Columbus's arrival in the New World this month, the US space agency NASA will begin the biggest-ever search for intelligent life elsewhere in the universe. For ten years, at a total cost of \$100 million, NASA will scan the sky for alien signals originating from planets within 100 light years (or 588 trillion miles) of Earth. If ET is trying to call us, NASA wants to be sure to pick up the phone.

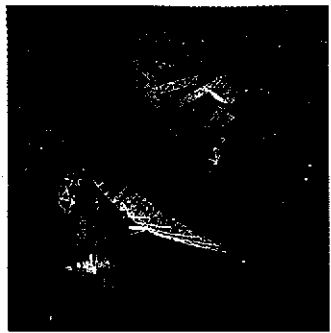
The search for extraterrestrial intelligence, or SETI (it rhymes with jetty), is man's latest bid to convince himself he is not alone. Within the area to be intensively searched by NASA - a tiny fraction of the entire universe - there are 1,000 Sun-like stars. Many are believed to have planets. Among those many planets, might there not be one at least where conditions are as

favourable for life as they are on Earth? If so, we might hear radio signals, either deliberately broadcast as beacons to attract attention, or simply leaking away into space.

"I strongly believe that some day we will make contact with other civilisations," says Michel Klein of NASA's Jet Propulsion Laboratory in Pasadena, California. "Circumstantial evidence suggests countless Earth-like planets exist in our galaxy."

Other scientists disagree, believing that life has evolved on Earth through such an infinitely unlikely series of accidents that the chance of the same thing happening elsewhere is remote.

At least 50 previous searches have been made, including one partly financed by Stephen Spielberg, the maker of the film *ET*. All have drawn a blank. Many interest-



Composite image of SETI's radio dish antenna at Goldstone

ing radio signals have been detected, some from the very outer reaches of the universe, but none have given any evidence of an intelligent origin.

All this means is that we should try harder, NASA believes. Starting on 12 October - Columbus Day - the radio telescopes at NASA's Deep Space Network tracking station at Goldstone, California, the Arecibo Observatory in Puerto Rico and the National Radio Astronomy

Observatory in West Virginia will begin the search.

If they find anything, it will be a sensation. But the distances are likely to be so large that it could take an entire lifetime to send a message and get the answer back.

NIGEL HAWKES

This story will be featured in *Tomorrow's World* on 7 October on BBC1

Slow march of time...

It takes 200 years for the British population to turn its clocks back in autumn, and another 200 years to turn them forward again in spring. Every household has, on average, ten time-pieces, when watches, clocks, videos and central heating timers are included. With 21 million households each spending five minutes to alter all their clocks, that makes 105 million minutes, or 199.7 years. Fascinating Fact from a *Tomorrow's World* programme to be shown on BBC1 in October

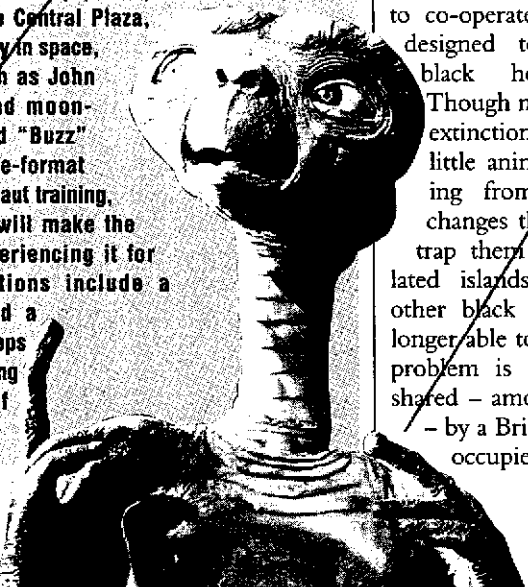
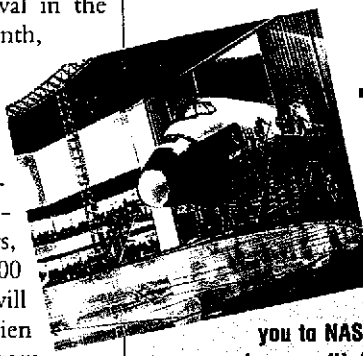
CONSERVATION

A howling success for monkeys

IN THE JUNGLES OF BELIZE, farmers have been persuaded to co-operate with a project designed to conserve the black howler monkey. Though never in danger of extinction, these endearing little animals were suffering from environmental changes that threatened to trap them into a few isolated islands, cut off from other black howlers and no longer able to interbreed. The problem is a common one, shared - among other species - by a British butterfly that occupies areas of

SPACE ON EARTH

The Space Centre Houston near NASA in Texas, which opens on 16 October, should enthral spacewatchers from all over the world with its behind-the-scenes glimpse of NASA and its programme. At the Mission Status Centre live cameras show what is happening at the Kennedy Space Centre launch pad. A tram actually takes you to NASA's Mission Control, the nerve centre of US-manned space flight, to watch astronauts train in full-scale shuttle mock-ups. Visitors will themselves be able to stand on the flight deck of a space shuttle mock-up (above) back at the Space Centre, the focal point of the Central Plaza, and imagine what it's like to fly in space, like pioneer astronauts such as John Glenn, Scott Carpenter and moon-landers Neil Armstrong and "Buzz" Aldrin. In the theatre a large-format film telling the story of astronaut training, on a huge 80-foot screen, will make the audience feel they are experiencing it for themselves. Other attractions include a simulated morning aboard a space station, retracing the steps of early space pioneers, looking to the future and previews of planned missions.



SCIENCE PHOTO LIBRARY

Anti-UFO talk that's strictly for the Birds

Erlend Clouston

CALLING Penguin, Falcon and the Owl: stand by to be assigned to other duties. Despite your efforts to have flying saucers written off as rogue weather balloons and crop circles attributed to rural pranksters, public interest in paranormal exotica remains resistant to dirty tricks.

Even worse, you are to be unmasked in front of 400 ufologists. The highlight of a UFO-meet at Leed Civic Theatre today promises to be exposure of the double agents who have "helped brand us a load of idiots," according to Tony Dodd, director of investigations for the conference organisers, Quest International.

The audience will hear taped conversations of the gang of international debunkers — group code name: the Birds — revealing the role they have played in giving ufology, etc, a bad name.

The Birds are said to be linked to the military intelli-

gence agencies of several nations. One of them, according to Graham Birdsall, editor of UFO magazine since 1981, is "a very well known Briton".

The tapes were gathered by Armen Victorian, a Nottingham-based former diplomat, whom the Birds allegedly tried in vain to recruit.

According to Mr Dodd, a retired police sergeant, who says he was buzzed in 1978 by a 100ft wide disc with a glowing globe on top, the Birds "publish false documents and penetrate major groups, giving out stories that are totally different from anything else we get. We are fed up of being ridiculed and want to get even."

So far this year the Ministry of Defence has logged 117 claims of UFO sightings. Mr Birdsall and his readers believe the Birds' activities represent a desperate rearguard action.

"We've had quiet talks with some of them and they are always saying 'The world is not ready for this yet'," complained Mr Dodd.

The Guardian, 26/9/92

QUEST INTERNATIONAL UFO AND CROP CIRCLE CONFERENCE 1992

PROGRAMME OF EVENTS & AUTOBIOGRAPHY OF SPEAKERS

Welcome to what promises to be an extraordinary day!

Quest International's 11th Annual Conference is regarded as Europe's premier UFO and Crop Circle event, bringing together a plethora of international speakers. An added bonus for delegates is the appearance of leading USA researcher and former USAF intelligence officer, Bob Dean.

Recent statements to the effect that no tangible evidence exists to support the hypothesis that UFOs are extraterrestrial, and that crop circles are nothing more than the product of imaginative hoaxers will be severely challenged today.

We have also arranged a special video projector, to augment the lectures. Several major and highly important pieces of film footage will be presented, including some remarkable clips of UFOs.

Alongside the main auditorium, delegates will find a large UFO and crop circle display. Our staff working for the *UFO DIRECTORY* will be present with hundreds of packages, video's, audio tapes and much much more. Also available is a voluminous selection of documents set for release in future issues of *UFO Magazine*. A major selection of UFO books will afford further entertainment, and a number of related items from groups and research organisations will undoubtedly fascinate!

Due to the welcome appearance of **Section 40** our time schedule has been slightly re-arranged.

On behalf of the directors of Quest International and UFO Magazine, may I take this opportunity in thanking all those persons attending Conference 92, in particular our many subscribers who have travelled hundreds of miles to participate in today's event. Enjoy the day, and have a safe journey home.

Section 40

Editor (UFO Magazine)

REVISED CONFERENCE AGENDA

- 11.15am: OPENING ADDRESS**
- 11.25am: A JOURNEY THROUGH UFO HISTORY**
- 11.55am: ANTHONY DODD**
- 01.00pm: LUNCHEON INTERVAL**
- 14.00pm: GRAHAM W. BIRDSALL**
- 15.00pm: COLIN ANDREWS**
- 16.00pm: TEA INTERVAL**
- 16.30pm: ARMEN VICTORIAN**
- 17.30pm: BOB DEAN**
- 18.30pm: QUESTION TIME**
- 19.30pm: CONFERENCE CLOSE**

IMPORTANT NOTICE

QUEST INTERNATIONAL ASK THAT DELEGATES REFRAIN FROM TAKING PHOTOGRAPHS OR PERSONAL AUDIO RECORDINGS AT CONFERENCE. UFO MAGAZINE WILL BE PRODUCING PROFESSIONAL VIDEO AND AUDIO CASSETTES OF EACH LECTURE.

FOR ADVANCE NOTIFICATION OF THE ABOVE ITEMS, PLEASE SEE FORM AT REAR OF PROGRAMME!

TODAY'S SPEAKERS

COLIN ANDREWS IS ARGUABLY THE WORLD'S LEADING AUTHORITY ON CROP CIRCLES. OVER A DECADE RESEARCHING THIS STRANGE PHENOMENA, ANDREWS HAS CONSISTENTLY TRIED TO ADOPT A PROFESSIONAL AND SENSIBLE APPROACH IN RELATION TO INVESTIGATION.

COLIN HAS PARTICIPATED IN AND PRODUCED SEVERAL FINE CROP CIRCLE DOCUMENTARY FILMS, MANY RECORDING A POSSIBLE RELATIONSHIP WITH NATURE AND A YET-TO-BE DISCOVERED INTELLIGENCE. HIS OPINION IS ALWAYS RESPECTED BY COLLEAGUES AND MEDIA ALIKE.

IN 1983 HE FOUNDED *CIRCLES PHENOMENON RESEARCH (CPR)*, THE FIRST ORGANISATION SPECIFICALLY FORMED TO ANALYSE AND INVESTIGATE THESE MYSTERIOUS MARKINGS. ANDREWS HAS RECENTLY MOVED TO EXPAND THE CPR WITH VARIOUS OVERSEAS GROUPS. IN JUNE 1992, THE CPR PUBLISHED ITS FIRST INTERNATIONAL NEWSLETTER. CONFERENCE DELEGATES WILL SEE AND BE PERPLEXED BY THE AWESOME PHENOMENON KNOWN AS CROP CIRCLES.

GRAHAM BIRDSALL IS EDITOR OF QUEST INTERNATIONAL'S *UFO MAGAZINE*, AND HAS INVESTIGATED THE PHENOMENON OF UFOs FOR OVER TWENTY YEARS. A PROLIFIC WRITER, BIRDSALL CONTINUES TO PUBLICISE A VARIETY OF MILITARY ASPECTS, ALL RELEVANT TO THE SUBJECT.

IN 1981, GRAHAM ESTABLISHED *THE YORKSHIRE UFO SOCIETY* AND WORKED EXTREMELY HARD TO PROFESSIONALISE UFO INVESTIGATION. THE PUBLICATION 'QUEST' WAS BORN IN 1982. SUBSEQUENTLY, THE SOCIETY AND ITS JOURNAL, WAS ABSORBED BY QUEST INTERNATIONAL, AND A NEW NAME '*UFO MAGAZINE*' WAS ADOPTED FOR ITS PUBLICATION.

UFO MAGAZINE IS NOW REGARDED AS A TOP FLIGHT INTERNATIONAL PUBLICATION READ IN OVER 28 COUNTRIES. BIRDSALL HAS DONE MUCH TO PROMOTE BRITISH UFOLOGY OVERSEAS AND IS COMMITTED TO ESTABLISHING U.K. UFOLOGY AS A WORLD LEADER. HIS COMMENTS WILL UNDOUBTEDLY SHOCK MANY.

BOB DEAN HAS RESEARCHED UFOs SINCE 1950. DURING HIS EIGHTEEN YEARS IN THE MILITARY HE SPENT TIME IN THE UNITED STATES INTELLIGENCE DEPARTMENT. HE HAS SEEN MANY MILITARY DOCUMENTS ABOUT UFO ACTIVITY - INCLUDING AN INCIDENT WHERE SOME FIFTY UFOs FLEW OVER EUROPE.

DEAN IS EMERGENCY PLANS AND OPERATIONS OFFICER FOR PIMA COUNTY, AZ SHERIFF'S DEPARTMENT, YET CONTINUES TO DIG MUCH SENSITIVE INFORMATION PERTAINING TO UFOs FROM CONTACTS. HE SAYS THE AMERICAN UFO POLICY WAS FORMULATED BY HARRY TRUMAN, WHILE GENERAL HOYT VANDENBURG KEPT INFORMATION FROM THE PRESIDENT... *AS IT WAS TOO SHOCKING FOR THE PUBLIC.*

BOB DEAN'S LECTURE IS CERTAIN TO BE CONTROVERSIAL!

TONY DODD IS QUEST INTERNATIONAL'S DIRECTOR OF INVESTIGATIONS AND HAS LECTURED THROUGHOUT THE WORLD ON UFO ISSUES. A FORMER POLICE SERGEANT WITH TWENTY FIVE YEARS IN THE FORCE, DODD IS PARTICULARLY SUITED TO THE CHALLENGE OF UFO INVESTIGATION - AND THE ENORMOUS COMPLEXITIES THIS INVOLVES.

TONY'S SPECIALIST SUBJECT IS ALLEGED *ALIEN ABDUCTIONS* AND *ENCOUNTER CASES*, ALTHOUGH AS HEAD OF QUEST INTERNATIONAL RESEARCH, HE HANDLES REPORTS FROM ALL OVER THE WORLD.

IN AUSTRIA, HE RECENTLY COMPLETED SEVERAL MAJOR UFO FILMS AND WROTE MUCH OF THE SCRIPT. DODD HEADS ONE HUNDRED INVESTIGATORS IN QUEST INTERNATIONAL'S RESEARCH NETWORK. DODD WILL PRESENT CASES THAT WILL OBVIOUSLY CONCERN MANY... THE PHOTO EVIDENCE IS ASTOUNDING.

ARMEN VICTORIAN IS PROBABLY ONE OF THE WORLD'S MOST PROLIFIC INTELLIGENCE AUTHORS. VICTORIAN HAS CAREFULLY ESTABLISHED AN INTRICATE NETWORK OF CONTACTS AND SOURCES AND HAS PROVIDED FOR SOME BREATHTAKING RESULTS.

AN INVESTIGATION OF NOTE CONCERNS A SEMI-OFFICIAL AND COVERT ORGANISATION KNOWN AS THE *AVIARY*, FOUNDED BY LEADING AMERICAN RESEARCHER BILL MOORE. THE AVIARY EXISTS TO CONFUSE AND PUBLISH DISINFORMATION ON A SCALE PREVIOUSLY UNHEARD OF.

ANOTHER INVESTIGATION CURRENTLY IN ACTION CONCERNS CROP CIRCLES, AND AN ACTIVE INTELLIGENCE ATTEMPT TO DISCREDIT THE PHENOMENA BY MEANS ONLY AVAILABLE TO THE SECURITY SERVICES. AT CONFERENCE, DELEGATES WILL BE SHOCKED BY WHAT THEY HEAR AND READ.

ADVANCE VIDEO AND AUDIO TAPE NOTIFICATION

TODAY'S CONFERENCE IS BEING FILMED AND VHS VIDEO'S OF EACH LECTURE AND AUDIO CASSETTES WILL BE AVAILABLE IN THE NEAR FUTURE. IF YOU REQUIRE ADVANCE NOTICE OF PRICES ECT, PLEASE COMPLETE THE FORM BELOW, AND HAND TO VIVIENNE OLBISON AT THE UFO DIRECTORY DESK IN THE DISPLAY HALL.

NAME: _____

ADDRESS: _____

POST CODE: _____

LOOSE MINUTE

D/CS(RM)1/4/3/2

26 August 92

Sec(AS)2a

UFO RECORDS AT THE PUBLIC RECORD OFFICE

Reference:

D/Sec(AS)12/1 dated 7 August 1992.

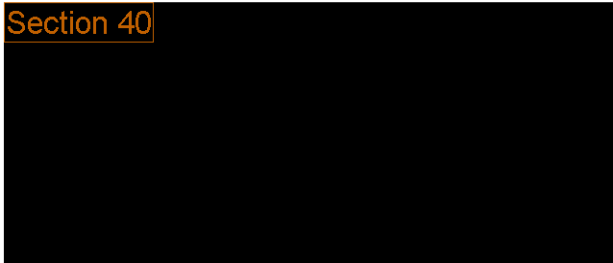
1. As you say before 1967 it was the practice to destroy old UFO records after 5 years i.e. at the first review stage. Presumably on the grounds that this sort of material was only of limited administrative value and not worthy of further consideration for historical preservation. A few files nevertheless survived destruction at first review and have been preserved and passed to Public Record Office where they may be examined by members of the public.

2. I am aware you receive many requests, from members of the public, for access to old UFO files and agree it makes sense to direct those enquiries to Kew where the few surviving files from the fifties reside. May I suggest a couple of minor amendments to your draft response.

"It was generally the case that before 1967 all UFO files were destroyed after 5 years. However, about half a dozen files [*] from the Fifties have survived and are available for examination by members of the public. They may be viewed at the Public Record Office, Ruskin Avenue, Kew, Richmond, Surrey TW9 4DV".

* Should you wish to identify the Class and piece numbers this might be an appropriate place to insert these references.

3. Action is in hand to call for AIR 16/1199 and PREM 11/855 from the PRO. Any problems and I will be in touch.



Spoke to **Section 40**
Will obtain files, and
clear my line.

LOOSE MINUTE
D/Sec(AS)12/1
7 August 1992
Hd CS(RM)1

UFO RECORDS AT THE PUBLIC RECORD OFFICE

Reference: D/CS(R)1/6/1/3 dated 22 February 1990 (Attached)

1. I understand from the Reference that the Public Record Office at Kew holds a small number of files on the subject of UFOs.
2. We receive many requests for access to old UFO files, and I had understood that prior to 1967 all such files had been destroyed after five years. I presume from the Reference that members of the public can be advised that a few of the pre-1967 files still exist, and can be viewed. If this is the case, I propose to respond to future enquiries on the subject as follows:

"It was generally the case that before 1967 all UFO files were destroyed after five years. However, about half a dozen files from the Fifties are still in existence, and can now be viewed by the public. If you wish to view these files, I suggest that you write to the Public Record Office to arrange this. The address is as follows: The Public Record Office, Ruskin Avenue, Kew, Richmond, Surrey, TW9 4DU."

I would be grateful for your confirmation that this is correct, and would cause you no difficulties.

3. I would also be very interested in taking up the offer of viewing some of these files myself, and would be grateful if you would call up files AIR 16/1199 and PREM 11/855 from the Public Record Office.

Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB

LOOSE MINUTE

D/CS(R)1/6/1/3 **Section 40**

22 Feb 1990

Sec (AS)2a **Section 40**"UFO" RECORDS AT THE PUBLIC RECORD OFFICE, KEW

Reference A. D/Sec (AS) 12/3 dated 13 Feb 90

1. Thank you for the useful collection of letters to and from **Section 40** forwarded with the reference.
2. Enclosed is a copy of our reply to **Section 40** letter (also enclosed) which itself was in response to our letter to **Section 40** ref D/CS(R)1/6/1/3 dated 19 December which we sent you a copy of late last year.
3. Neither this office, nor the PRO, keep a subject index but enquiries at AHB(RAF) where they have a UFO "buff", **Section 40** who previously worked for the PRO, have revealed that the following files containing references to UFOs are available to the general public at Kew:

AIR 16/1199	1952 Flying Saucers Occurrences Reports by Service personnel at Topcliffe Station, Thirsk and local public sector.
AIR 20/7390	1950-54 Unidentified aircraft (Flying Objects) Reports.
AIR 20/9320	1957 PQs on UFOs
AIR 20/9321	1957 PQs on UFOs
AIR 20/9322	1957 PQs on UFOs
AIR 20/9994	1950-54 Reports on aerial phenomena
PREM 11/855	File from the Prime Minister's Office

Should you wish to examine any of these files, please let me know and I will call them up from the PRO.

4. If either **Section 40** or **Section 40** writes on again I will forward the letters to your office.

Section 40

Hd CS(R)1

ST 7127

Section 40

Woman claims she took photographs of secret spy plane

By IAN BRUCE

A DUMFRIES businesswoman claimed yesterday that she saw and photographed what could have been the prototype of the top secret US Aurora spy plane more than three years ago.

Mrs Patricia Anderson, 47, of Lavender Bank, Tinwald, an aircraft enthusiast and amateur photographer, also says she was told her film had come out "completely blank" when she went to collect the prints the day after she reported the sighting to the Civil Aviation Authority.

Mrs Anderson, a computer expert with her own knitwear design company, had been walking her labrador dog Ben on the secondary runway at the abandoned Heathhall wartime airfield north-east of Dumfries on March 16, 1989.

It was a clear, bright afternoon, and as she looked up at the sky she saw two airliners heading in opposite directions at what she estimated to be about 30,000ft.

Suddenly, she saw a third shape below the airliners. She said yesterday: "At first I thought something had fallen away from one of the passenger aircraft. But then it swooped down, obviously under control, and swept over Heathhall heading south-west at high speed.

"I always carry a camera when out walking. The area in which we live is one of the UK's major low-flying sectors for military training, and my husband and I have taken hundreds of shots of fast jets over the last few years.

"I shot off most of a roll of

Ektar 1000 film as the aircraft passed. It was oval-shaped and grey-coloured, and much bigger than an RAF Tornado. It looked like nothing I had seen before. It was very big, with what I presume were engine intakes looking like a pair of giant eyes as it approached.

"It was also very, very quiet. There was practically no noise at all, unlike the racket made by the military aircraft we're used to seeing and hearing. It actually crossed my mind for a moment that it might be a UFO."

Concerned that an unidentified craft seemed to be flying near air traffic lanes, she contacted the CAA to report the sighting.

Mrs Anderson added: "Within a couple of hours, the police arrived at our house, and we were questioned in detail. We were also asked to sketch the object. The police took the drawing with them.

"They were also told that my husband had taken the roll of film to Magic Moments, a 24-hour photo-development shop in Buccleuch Street in Dumfries which has since closed down.

"But when we went to collect the prints the next day, we were shown a blank strip of celluloid and informed that nothing had come out. I just don't believe that. We are experienced photographers. All we have now is a second sketch made after the police left the house."

Mrs Anderson says she received a telephone call a week later asking about the photographs, and whether there was another film. She refused yesterday to disclose the identity of the caller, but claims she was told she had seen a top secret

aircraft, and that it would be better if she forgot that it had happened.

Her interest was revived earlier this year by stories of the secret Aurora programme, and reports of mysterious sightings near the US-controlled airbase at Machrihanish, culminating last week in a Herald story in which a Dutch scientist claimed that a shock wave which jolted the Friesian coast of the Netherlands three weeks ago had been caused by an aircraft moving at more than three times the speed of sound.

His conclusions, drawn from seismic equipment readings in the affected area, are supported by fleeting radar contacts picked up by various civilian agencies, including Oceanic air traffic control at Prestwick.

Kemper Securities, a Chicago-based firm of financial analysts, revealed several weeks ago that up to \$800m has been siphoned out of the Pentagon's "black budget" and paid to the Lockheed Corporation for development of the Aurora, a new generation spy plane said to be capable of flying at 4000mph.

Other US high-altitude reconnaissance aircraft such as the SR71 Blackbird are known to have used Machrihanish as a refuelling stop en route for missions over former Warsaw Pact territory during the Cold War.

The remote base on the Kintyre peninsula, although nominally under RAF control, is home to a substantial USAF presence. It also plays host to units of US Navy Seals (Sea, Air, and Land commandos), the American equivalent of the Royal Marines' Special Boat Squadron.

The Herald, Tuesday 8th September

(4)

SCIENCE AND TECHNOLOGY

O what can you see by the dawn's early light?

CLASSICISTS like their dawns rosy-fingered. The Pentagon, it appears, likes them black. Over the past few years speculation has grown that one of the American air force's secret "black" programmes is a supersonic spy-plane called Aurora. However, the secret seems to be slipping out—partly because some Los Angelinos like their dawns quiet, and are being disappointed.

At seven o'clock on June 18th, and at around that time on half a dozen other Thursday mornings in the past year or so, a tremor unlike that caused by any earthquake ran through the ground north of Los Angeles. In response to calls from worried residents, Jim Mori, who works for the United States Geological Survey in Pasadena, has looked at the records of these shocks gathered by the survey's seismic monitoring posts. He finds that the Thursday morning booms resemble the shocks produced when the space shuttle passes over at supersonic speeds on its way to land at nearby Edwards Air Force Base. They seem to be caused by something moving north of the city on a north-easterly heading, perhaps towards a large isolated air force base in Nevada frequented by aircraft with something to hide.

To those on the look-out for clues to the air force's secret shenanigans, these shock waves are particularly welcome. Most of the evidence for secret military aeroplanes is either circumstantial or irreproducible; eyewitness accounts of strange goings-on in the sky are many, varied and extremely hard to check. So it is reassuring to have some physical evidence for an unidentified supersonic aircraft crossing the American coast. What sort of craft might it be?

The name Aurora has been bandied about since it appeared on a 1985 Pentagon budget document alongside two reconnaissance aircraft, the U-2 and the SR-71. The SR-71, also known as the Blackbird, was a high-altitude spy-plane that used to swoop and snoop at 2,200 miles an hour (3,500kph) until it was retired in the late 1980s; industry watchers wondered if Aurora might be its still-faster successor. However, since being named in that one document—apparently an accidental breach of security—Aurora has not been mentioned again. The code-word might have been no more than a bud-

getary fiction, masking an extra route for money that would end up in the then-black B-2 bomber programme. Even if it was indeed an SR-71 follow-on, it may have since been cancelled.

If it was not cancelled and is now rattling houses in Los Angeles, then it must have been built somewhere. The most obvious place would be the Lockheed Advanced Development Company, in Burbank, California, better known as "the skunk works". Ever since the men designing the P-80 Shooting Star during the second world war had their nostrils assaulted by the neighbouring plastics factory that gave the works their soubriquet, the skunk works have produced marvels kept secret in their day. Among them were the Blackbird and, in the early 1980s, the F-117A stealth fighter. Now the skunk works seem to have little to occupy them—yet they still employ a fair-sized workforce, and according to Laurence Harris, an analyst for Kemper Securities in Chicago, they are taking in an unexplained \$400m a year. Even in the defence business, it is hard to get such money for nothing.

Mr Harris thinks that the money is paying for the development of Aurora, but that the programme has not yet come to fruition.

Comparisons with the F-117A and the A-12, a predecessor of the SR-71, suggest full development might cost \$4 billion-8 billion, and that the construction of a fleet of 24 might bring Lockheed another \$12 billion. There is no evidence that anything like that has been spent yet, but a prototype or two may have been built.

Bill Sweetman, who works for *Jane's Defence Weekly*, has developed a quite detailed picture of what Aurora might be like: 35 metres (116 feet) long with a 20-metre wingspan, and capable of cruising at five or six times the speed of sound for perhaps 16,000 kilometres thanks to sophisticated turbo-ramjet engines. He has suggested that an unidentified supersonic aircraft spotted by a Scottish air-traffic controller on its way into Machrihanish, a remote airbase on the Mull of Kintyre which has been host to F-117As before now, might have been Aurora.

Many may take comfort in the belief that America has a super-plane girdling the earth. Others think it requires a selective and elastic approach to the evidence. John Pike, a respected analyst with the Federation of American Scientists in Washington, points to the rich variety in the sightings of "secret aircraft" that get reported in *Aviation Week*. That is the source of most of the detailed reporting on Aurora, and a magazine with such good informal links to the military-industrial complex that it has earned the nick-name *Aviation Leak*. There are big ones and small ones, quiet ones and loud ones, fast ones and slow ones.

To believe in all of these, you must be-



Sunrise behind the Blackbird

SCIENCE AND TECHNOLOGY

lieve in a range of secret programmes, some in development and some operational, that outstrips the new programmes revealed to the public in number, expense and technology. That suggests financial booms as well as sonic ones. And though Mr Pike agrees there are unexplained budget items and company revenues, they are just not that big. They might possibly support a prototype Aurora; or a couple of aircraft, perhaps unmanned, designed to test new types of engine; or some sub-sonic stealth reconnaissance aircraft designed to support F-117As: but there is only really enough around for one programme. In deciding which it is, the sightings are little help—they are so varied that they could support all the projects mentioned, and more.

Another consideration is that, to judge by its actions and the words of its members, Congress does not believe that America has these aircraft. That could be taken to imply positively stygian secrecy and unaccountability; more straightforwardly, though, it implies that the aircraft are really not there.

Aurora to orbit?

Despite such scepticism, *Aviation Week* this week reports sightings of an aircraft about the size and shape of the XB-70, a prospective supersonic bomber cancelled in the 1960s. The magazine speculates that such an aircraft might be used to give satellites a piggy-back half-way to orbit. The carrier aircraft, flying high and fast, would serve as a launch platform for a rocket which could then carry a satellite into orbit. Putting a small satellite into a low orbit this way is quite feasible—as shown by Pegasus, a satellite launcher developed by the Orbital Science Corporation with a lot of military help. It is launched from a B-52 bomber and can get small satellites into orbit. A supersonic aircraft and a more powerful rocket could get bigger ones there.

The idea has been around for decades, and Germany is designing just such a two-stage system, called *Sänger*, to fly sometime next century. The engineering, though, is not easy. Aircraft flying at many times the speed of sound depend on carefully maintained shock waves to keep the air flowing into the engines in the right way. A sudden change of only a few degrees in the aircraft's angle of attack can cause the engines to "flame out": bad news. It is hard to see how an aircraft could launch a heavy rocket from its back without such a dangerous bobble. Then there is the rocket's exhaust. In the 1960s an attempt was made to launch a pilotless supersonic drone from the back of one of the early Blackbirds; both craft were lost. After that the drones were launched from under the wing of a B-52, as Pegasus is.

Might this supersonic launcher be Aurora? The idea has some charms. The small number of such aeroplanes needed might be made on the quiet without huge strain on

Too clever by 66/77

IF THERE were a new easy way to get satellites into orbit, quite a few companies might want it. On August 5th various proposals for worldwide mobile telephone systems that would make use of lots of low-flying satellites were given experimental licences by America's Federal Communications Commission (FCC). The best known of them, and the one that plans to use the most satellites, is Motorola's Iridium. But although the FCC is rumoured to have wanted to give an advantageous "pioneer's preference" to Iridium, in reward for the good lobbying job it has done with overseas regulators, the system apparently cannot claim a clear innovative edge.

Soon after this disappointment came news of a redesign for Iridium. Originally the idea was to circle the world

with 11 necklaces of seven satellites each, making 77 satellites in all. This number gave the project its name—each atom of iridium has 77 orbital electrons. Now, though, the satellites are to be heavier and one necklace is to be removed, concentrating capacity on the places that will use it most. With 66 satellites Iridium's hordes still outnumber the more conventional systems, such as Loral's Globalstar and TRW's Odyssey, but they no longer justify their name. Atomic number 66 belongs to the altogether less euphonious element dysprosium—a more malleable metal than brittle iridium, but also a more obscure one. So will the \$3.37 billion project get a new name? "I will reserve comment on dysprosium. We're very happy with Iridium, and we'll stick with that," says a spokesman.

the Pentagon's budget. They would allow small spy satellites to be put into almost any orbit at short notice, without the tell-tale flare of a large rocket taking off from a known launch-site to alert an enemy. Such a launcher might explain the California booms, the money at the skunk works and some of the sightings of stranger aircraft (though it would be rather bigger than Mr Sweetman's version of Aurora).

The odd thing is that America is already working on something similar, if more ambitious, with its National Aerospace Plane programme. It is meant to produce an aircraft that can fly up to 20 times the speed of sound before nudging itself up into orbit with rockets. The programme, based around a consortium of aerospace companies which does not include Lockheed, has yet to start building its prototype. It would be odd and wasteful to have two such programmes, one public, one secret, but it would not be unprecedented.

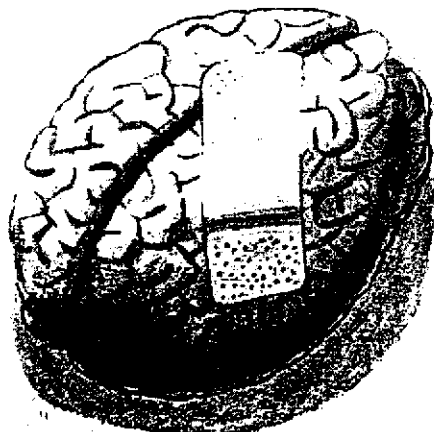
The distinction between the public and the secret, though, may yet turn out to be the key to the matter. A high-performance aircraft programme is not likely to be immune to budgetary pressures. One industry analyst says he has been given the impression that last year there was meant to be a decision either to put some sort of Aurora-like project into full development or to cancel it.

If the programme's fate is in the balance (and Mr Harris's figures do not show the surge in spending that full development would bring), some of those involved might suspect that they would be less likely to feel the force of defence cuts if their marvellous machines were visible to the public. That might explain the tantalising glimpses and hints, not to mention odd and decidedly indiscreet tricks such as rattling parts of Los Angeles at a specific time on Thursdays. Programmes coming out of the black might well want to do so with leaks and sounds, not leaps and bounds.

Parkinson's disease

Hell's hangover

THE underground industry in "designer" drugs is not noted for its beneficial spin-off products, but it has pointed the way towards a promising treatment of Parkinson's disease. Ten years ago, several hundred party-goers in northern California took an exotic drug called MPTP to zone out for a while; many have never zoned back in. Their symptoms—loss of facial expression, shuffling gait, stooped posture, trembling limbs—are those of Parkinsonism, caused by a shortage of the neurotransmitter dopa-



HEADLINES

NASA studies Russian HSCT test proposals

BY GUY NORRIS
IN LOS ANGELES AND
ALEXANDER VELOVICH
IN MOSCOW

NASA is studying an offer from the Russian Central Aero-Hydrodynamics Institute (TsAGI) to use the organisation's sophisticated windtunnel complex at its aviation centre in Zhukovsky for research on the high-speed civil transport (HSCT).

The agency will not comment specifically on the TsAGI proposal, which is also accompanied by an offer to use a Tupolev Tu-144 to conduct atmospheric research.

NASA is thought to be particularly interested in the windtunnel proposal as one of its own sites at NASA Ames is due to shut in 1994. Georgiy Svischev, TsAGI's deputy director, says that the Tu-144, known in the West as the Concorde, could be helpful to investigate environmental issues involved in the supersonic transport programme. Several Tu-144s have been kept in good condition at the Gromov Flight Research Institute based at Zhukovsky.

The offer comes as Boeing completes the first phase of an evaluation of TsAGI's T-128 transonic windtunnel for possible use in future research. The US company "flew" two different scale, half-models, in the windtunnel and collected data which has yet to be analysed.

Initial results are encouraging according to Boeing vice-president Ben Cosgrove. "We are very satisfied with the performance of the TsAGI windtunnel and are impressed with the knowledge, dedication and professional attitude of the TsAGI personnel. We intend to explore other capabilities of mutual bene-

fit to Boeing and TsAGI."

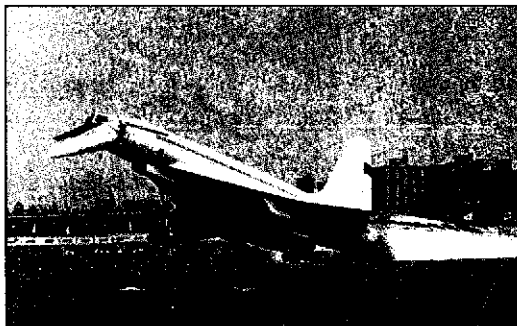
Boeing tested the transonic windtunnel, which is capable of speeds of Mach 0.15 to Mach 1.7. It has a 2.75m² working section capable of taking models at up to 60° angle of attack. It has a unique, "adaptive", 8m-long section lined with 128 individual moveable panels dotted with variable-density perfor-

of the characteristics of airflow over the wing), the maximum attainable being 10 million on a 0.275m-chord section. Boeing is also interested in the low turbulence levels which TsAGI claims to develop.

■ Aurora Flight Sciences has started construction of two composite unmanned aerial vehicles (UAVs) to be used by NASA for high-altitude atmospheric sampling as part of a research programme to assess the impact of supersonic transports on the ozone layer.

The Perseus light-weight (400kg) UAV is powered by a liquid-cooled Perseus rotary engine.

The UAV will cruise at 82,000ft (25km) for an hour during a 6h mission over ranges of 1,610km (870nm). The vehicle's 18m (58.7ft) wingspan will support a payload of 50kg (110lb). The first ozone research flights will take place in 1994. □



Russians offer Tu-144 for NASA research

rations (up to 18%) for reducing transonic flow interference.

This gives the tunnel special features for testing at high Reynolds numbers (a measurement

NEFMA asks for EFA cost studies

The NATO Eurofighter Management Agency (NEFMA) has asked Eurofighter and Eurojet to prepare cost-reduction studies for the European Fighter Aircraft by the end of this month to be presented to ministers of the four Eurofighter partner nations at a meeting in August.

NEFMA has also asked Eurofighter and Eurojet for a more detailed study of the options for submission by October.

The UK, Italian and Spanish defence ministers decided on 14 July to make a last-ditch effort to turn around Germany's decision not to proceed with production of the agile fighter.

The likely baseline for both studies is to have a common airframe and engines, but be-

yond this, equipment, including the radar, could be changed or the specification reduced.

On the industrial side, the work-share is also likely to be examined with a view to rationalising the manufacture of some of the systems proposed for European Fighter Aircraft.

Trying to patch together some kind of continuity for the programme is also thought to have been on the agenda of the NEFMA steering committee meeting on 16 July.

An industry source says that one of the main issues is: "What is our relationship to our German industry partners following the German Government's decision not to proceed to production? It's unclear." □

Black funding for Aurora

Analysis of "black" programme revenues at the Lockheed Advanced Development company's (LADC) "Skunk Works" site suggests that the Aurora hypersonic reconnaissance aircraft is already one-fifth of the way to development or has been extensively prototyped.

According to interpretation of LADC revenues by analyst Kemper Securities, the spending on classified programmes has grown from \$65 million in 1987 to \$400 million in 1991 and looks set to reach \$475 million by 1993.

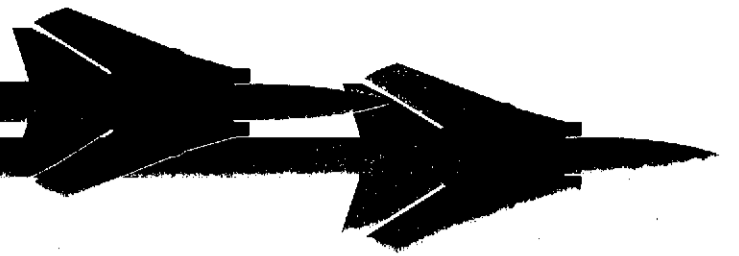
Kemper says these figures cannot satisfactorily be explained by Lockheed's assertion that the revenues come from modification programmes for the TR-1 and F-117A.

Kemper says the figures are not sufficient to bring a programme such as the Aurora, also known as Senior Citizen, to full-scale development and estimates that a limited production run of around 24 aircraft could be worth between \$10 billion and \$24 billion to LADC. Kemper suggests that between \$4.4 billion and \$8 billion has already been spent on development.

Spending on the Aurora can be traced back to fiscal year 1987 when a budget of \$2.27 billion was allocated. Based on the average development time of past programmes, this indicates a first flight in 1989, says Lockheed.

There have been several reported sightings in the USA and UK of the aircraft.

The Aurora has undertaken test flights from the US West Coast to Tahiti in the Pacific, where it is refuelled in-flight before flying on to the Royal Air Force base at Machrihanish in Scotland. The aircraft then returns to the US at night. An F-111 based at Palm Dale is scrambled to run a few seconds-ahead of the Aurora as it prepares to land in order to confuse any possible sightings of the aircraft. LADC was unavailable for comment. □



NEWS

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AIR SHOW BACKROOM TEAM — P8
LETTERS — P9
SPORT — P22/23

12-15

No. 801

June 26, 1992

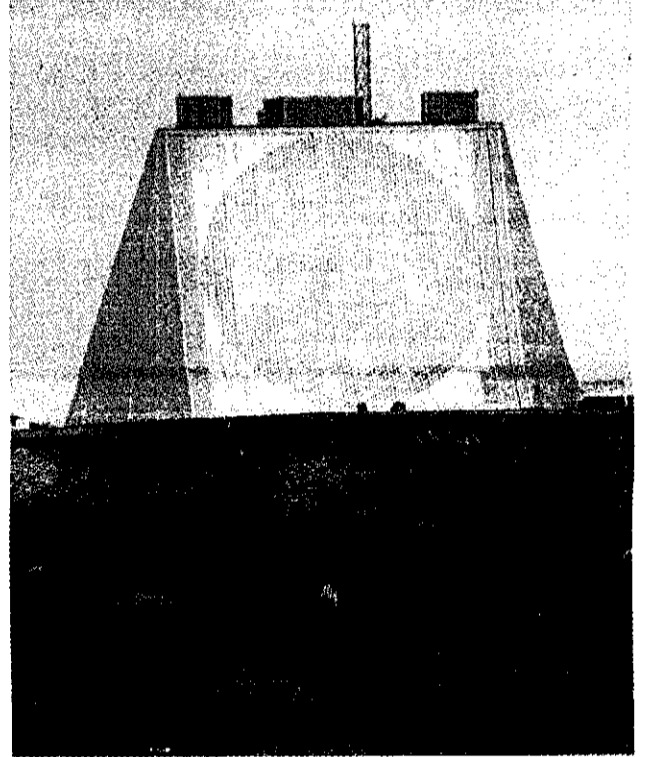
FORTNIGHTLY 20p

SPACE WATCH



The old

FOR the past 28 years three giant 'Golf Ball' radars on the North Yorkshire moors have scanned the skies eastwards to detect the unthinkable ... a missile attack on the West. These familiar landmarks are now changing shape to take on a new futuristic look and, the electronic eyes scanning the skies, are also taking on a role growing in significance ... that of space surveillance. Why? Because a decaying satellite can appear similar to a warhead about to plunge towards its target. On May 29 there were 6,974 man-made objects hurtling around in space, of which 1,972 were payloads in orbit and 62 space probes. Some of these satellites have operational lives varying from just 14 days to an incredible ONE MILLION YEARS. So, the West must know what is on its way down. There can be no margin for error. (FULL STORY PAGES 12-13).



The new

Artwork by Emma Sweet



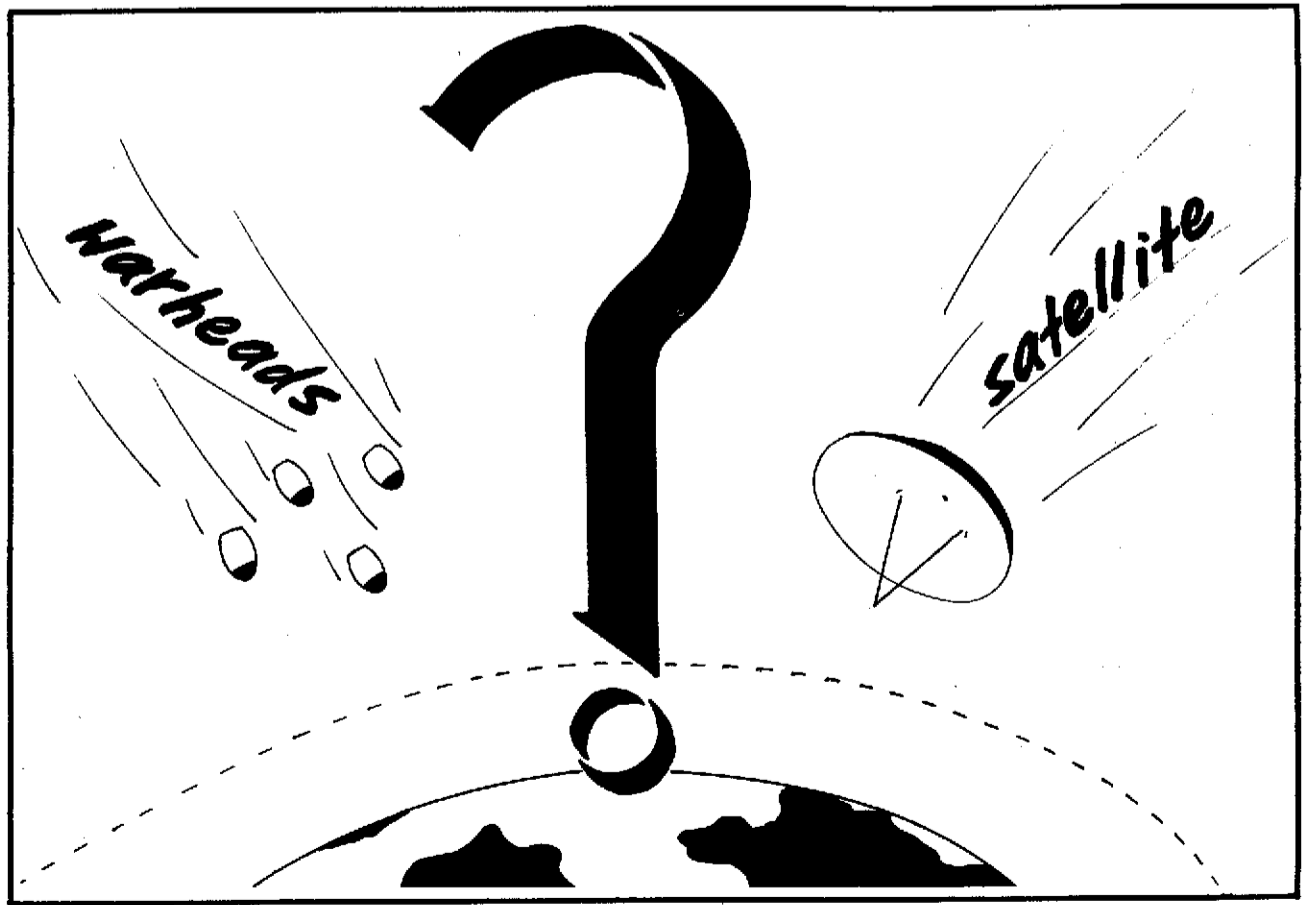
A WIVES TALE

SUN-SOAKED and enjoying life in Cyprus are two women at different ends of the RAF spectrum with their own stories to tell.

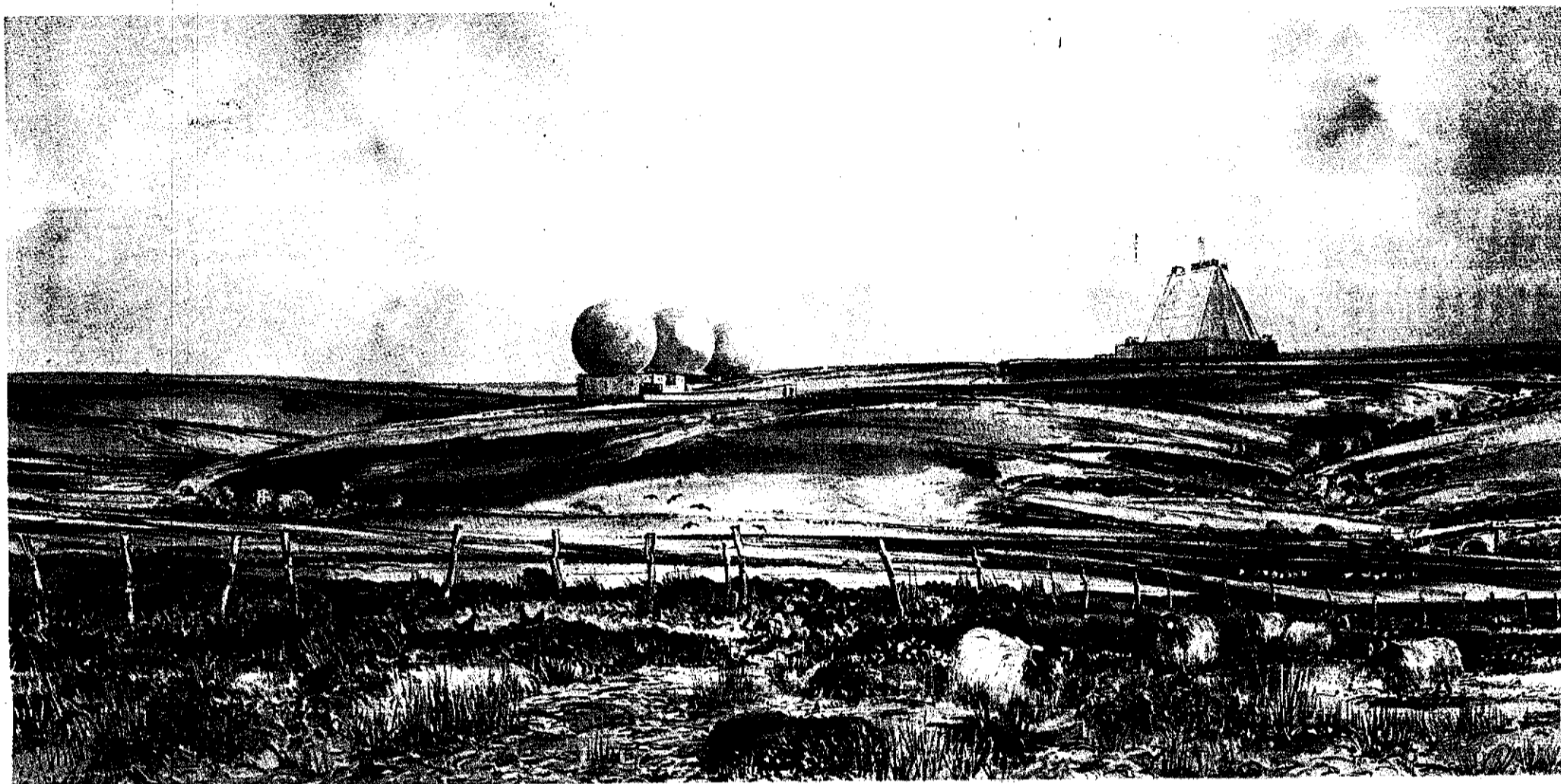
Jill Johnson (right in the picture) is the wife of OC Akrotiri and Cathy Roberts the wife of a Corporal serving at the station.

In our latest 'Focus on Wives' in our next issue they reveal that they have a lot in common and give us a view of life on the sunny Mediterranean Isle from their personal angle.

Gosh.



SPACE — THE FI FOR FYLI



Since January 1964 the familiar giant 'golf balls' at Fylingdales, perched amid the bleak North Yorkshire Moors, a dozen miles from the picturesque fishing town of Whitby, have been quietly getting on with a vital role — keeping the peace.

All day, and everyday, for just over 28 years the Ballistic Missile Early Warning System (BMEWS) Station has been scanning the skies making sure that the West is not caught out by a surprise missile attack.

The three large radars, each one 84 feet across, weighing 112 tons and protected from the elements by its own individual spherical dome, have performed their onerous task over the years with great success, evidenced by continuing international peace.

This has only been possible because of the unfailing support of the 500 or so civilian work force of the Operations and Maintenance Contractor, SERCO, Pennine Catering, the Department of the Environment/

Property Services Agency, NAAFI and, the Ministry of Defence. Most of them live in the local towns of Whitby, Scarborough and Pickering and many have been there since the early 1960s.

Fylingdales, although constructed as a joint venture of the UK and US Governments is very much under Royal Air Force command and control, and feeds information direct to the United Kingdom Government and British military command centres and, in parallel, to command centres in the United States.

In the primary task, the station is linked to the US Space Command Headquarters at Colorado Springs from where two other BMEWS sites are controlled — Thule, 600 miles inside the Arctic Circle in Greenland, and Clear, in Alaska.

Fylingdales also has a secondary role of space surveillance which is growing in significance. The radar is powerful enough to detect an object as small as a foot-square, hundreds of miles into space.

Satellites are classed either as payloads or debris — payloads are the operational hardware to perform specific functions such as communications, photographic reconnaissance or space exploration, whereas debris is any other object, usually related to placing payloads into space.

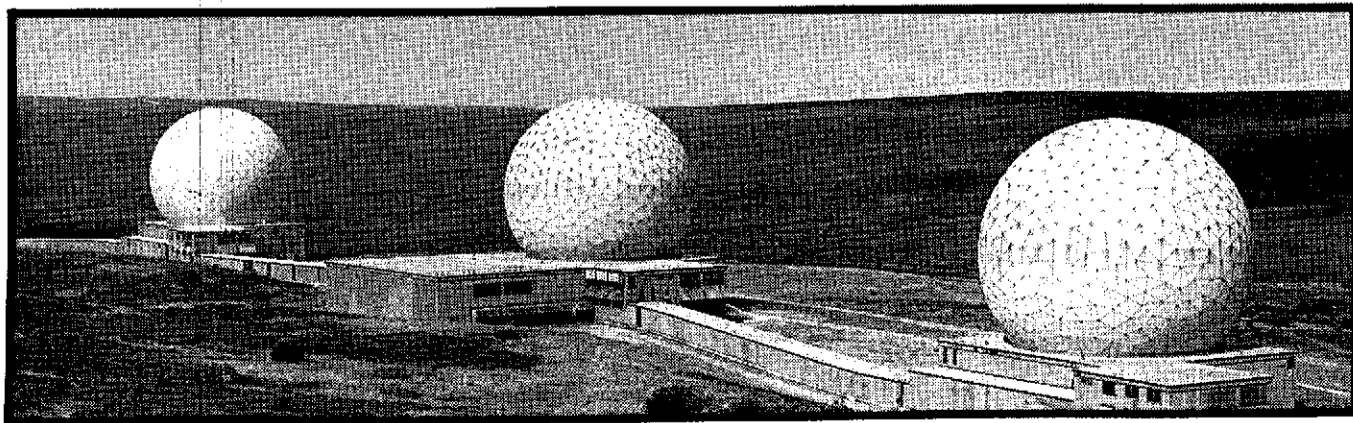
Nearly every space launch produces several satellites and over the years the total has grown. On May 29 this year there were 6,974 objects in space, of which 1,972 were payloads in orbit, and 62 were space probes.

The spacetrack task of Fylingdales is to provide satellite observational data to the Space Surveillance Centre (SSC) at Cheyenne Mountain Air Force Base, Colorado Springs, so that analysts can keep track of the constantly changing satellite population. Information also goes to the Royal Aircraft Establishment at Farnborough and the Royal Greenwich Observatory.

Fylingdales is one element of a global network of radar and optical satellite tracking stations providing information from which the SSC can determine which satellites may constitute a threat.

The station tracks on average about 2000 satellites each week, and the data, together with that from Thule and Clear, makes up about 25 percent of the information used by the SSC.

Since the launch of Sputnik 1 in October 1957, the first man-made satellite, a total of 21,974 satellites varying in size from that of an orange to massive structures weighing many tons such as the Russian MIR Space station, have been put into orbit.



FINAL FRONTIER FYLINGDALES

By Squadron Leader Sherry Davies

There are now 20 or so nations and consortia with satellites in space for a wide variety of roles, including the former Soviet Union, the USA, NATO, Britain, Canada, France, West Germany, the European Space Agency, Australia, Japan, Italy, Holland, Spain, India and China.

The life of a payload satellite varies from about 14 days for those orbiting at a height of 200 kms, to over one million years for those as far out as 36,000 kms. It is for this very reason that there is a provision in the Strategic Arms Limitations Treaty which requires the USA and what was the USSR to notify each other of satellites likely to decay over the other's land mass. This is because a decaying satellite can look similar to a re-entering warhead. Whenever the SSC predicts a satellite falling into CIS territory, the Centre tells the National Military Command in Washington, which has direct communications with Moscow.

BMEWS was built at Fylingdales in the early 60s under joint UK/US Government agreement and provides early warning of a Strategic Ballistic Missile Attack on Western Europe and North America. The system is in need of modernisation since the threat perceived in the 1960s has changed significantly and the 28 year-old radars are increasingly more difficult and expensive to maintain.

The UK and US governments announced their agreement to modernise the present

system on 22 May, 1986.

The American Government awarded the contract for the radar to the Raytheon Company on 30 June 1988 and the contract for the construction of the buildings was placed in the UK and awarded to John Laing (Yorkshire) Ltd in July 1989. Construction work began the following month and continued apace, helped by the good weather of the 1989/90 winter. Some 90 or so local firms have benefited from this work either as suppliers of goods or, as sub contractors. Up to about 350 local people swelled the work force at Fylingdales at the peak of building activity.

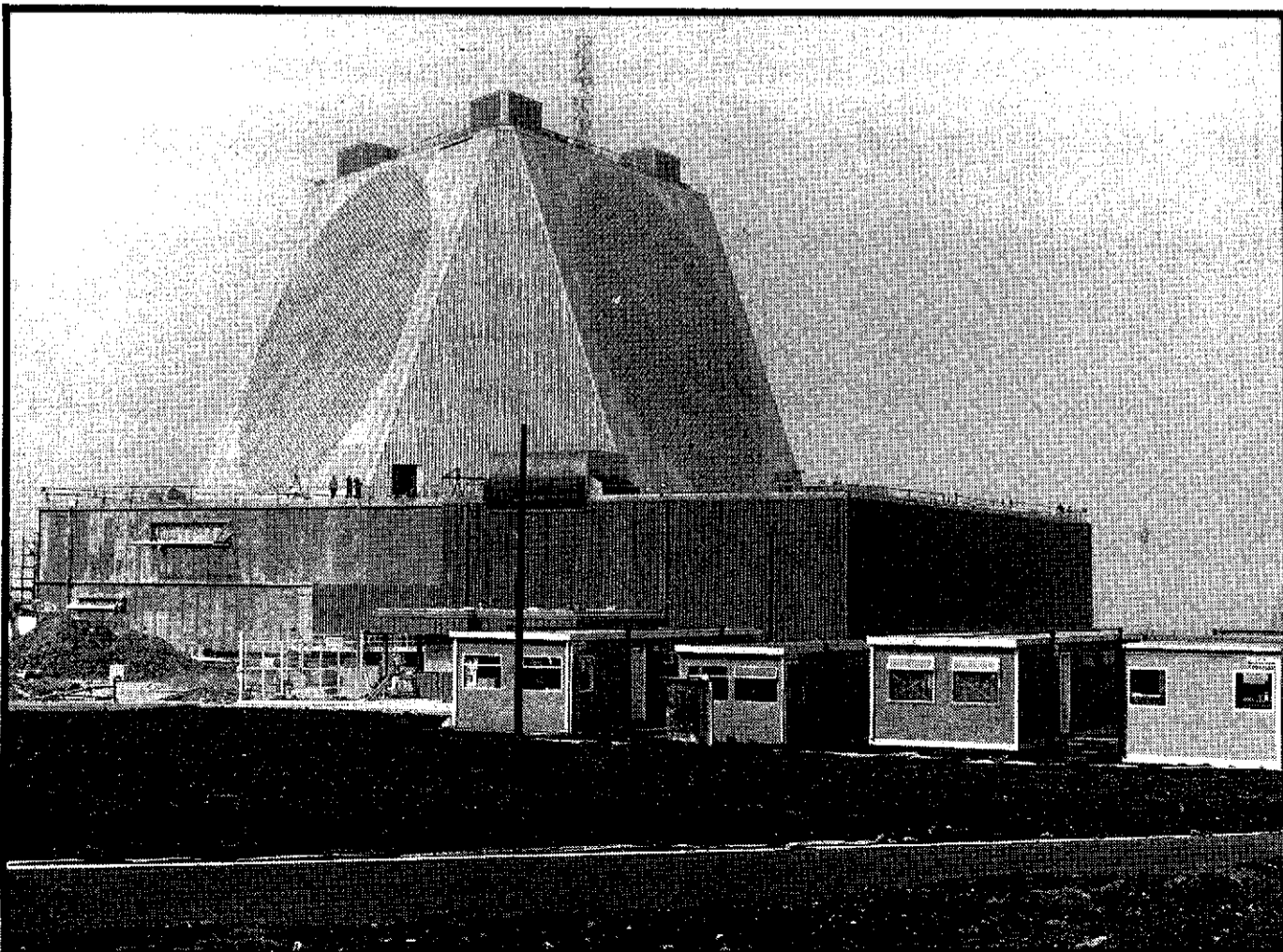
Raytheon's radar was installed in the completed building (late 1991) and there began an intensive period of about a year during which all the systems have to be tested. This has included a radiation hazard assessment and check of all safety precautions, following the standards accepted by the United Kingdom Health and Executive.

From previous tests and experience it was predicted that no hazard would exist at ground level outside the 32 metre security boundary fence for any member of the public, however long he, or she, may stay there. The tests have proved this to be the case. The radar testing is nearing an end when the entire system will enter a Trial Period during which RAF crews will complete their operational training. Equipment, crews and the entire system should become fully opera-

tional this Autumn.

The modernised radar is a Solid State Phased Array Radar (SSPAR) system with three 84 foot diameter arrays, each made up of hundreds of active antenna elements mounted on a unique three faced truncated pyramid structure. The pyramid stands on a rectangular base, two storeys high. It is some 60 m long by 50 m wide with the upper pyramid anodized aluminium array faces and the rest of a light colour. The lower structure is darker to match the surrounding moor. This is the first large phased array system with three faces, giving all round coverage, and helping to maintain peace for the coming decades.

Directly the SSPAR is declared operational, so the familiar 'Golf Balls' will be demolished and the land returned to moorland. To commemorate the unique view of both BMEWS radars the local Whitby artists John Freeman was commissioned to paint the accompanying North York Moors scene. The Station is offering limited edition prints signed by the artist and the Station Commander, Group Captain Mike Speed, at £12.50 plus 50p postage per copy (UK 2nd Class Parcel Post). Profits are to be donated to the Royal Air Force Association and cheques should be made out to RAF Fylingdales (NONPAS) addressed to Accounts Flight, RAF Fylingdales, Pickering, North Yorks, YO18 7NT.



COMBAT STRESS



**Nowadays,
this
Squadron
Leader
cries**

Squadron Leader R. G. n. DSO, DFC, was one of the first of the 'few' without him and his Spitfire the fires of London would have been much worse.

After the Battle of Britain, G. n. fought with Monty up through the Western Desert into Italy. Here his plane was hit by a German '88' shell. He spent the rest of the war in a prisoner-of-war hospital.

A brave man, a very brave man. Not the sort to burst into tears, but yet he does so,

covering into a corner at any unexpected noise. For G. n. the war is not and never will be, over.

The Ex-Services Mental Welfare Society exists to look after and to help people like R. G. n. Men with minds damaged in the service of their Country. Men who need our help with day-to-day living. Men who need a sheltered place in which to live. Men who, at the very least, need our help in getting their correct entitlement to pension.

We cannot work for these men without your help. The debt is owed by all of us, so please send us a donation, or arrange a covenant, or perhaps, a legacy.

**"They've given more than they could—
please give as much as you can."**



To protect those concerned, this is an amalgam of several such case histories of Patients in our care.

EX-SERVICES MENTAL WELFARE SOCIETY
BROADWAY HOUSE, THE BROADWAY, WIMBLEDON SW19 1RL. TEL: 081-543 6333

- Please find enclosed my donation for £50/£20/£10/£5/£
- Please send me details of Payroll Giving.

Name (BLOCK LETTERS)

Address

Postcode

RAFN

French firm's new missile

SINGAPORE

Aerospatiale was due to unveil its MM 15 anti-ship missile at the Asian Aerospace exhibition in Singapore which opened on 25 February.

The ship-launched missile has been developed in the last three months, according to officials from Aerospatiale's tactical missiles division (Engins Tactiques).

The MM 15, derived from the AS 15 TT air-launched weapon system, is designed to meet the growing demand for conventional lightweight weapons to destroy small surface targets within the 8-15 km range.

"Our new MM 15 missile will be offered as a direct competitor to the British Aerospace Dynamics ship-launched Sea Skua," a company official said.

According to Aerospatiale, the MM 15 could fill the gap between the shorter range (8 km) light naval artillery and long range tactical anti-ship missiles such as Exocet (20 km).

"In the 8-15 km gap, there is no effective conventional method of dealing with small targets which do not justify the use of Exocet."

MM 15 has a maximum effective range of 15 km, a maximum speed of Mach 0.9 and weighs 103 kg with a 30 kg warhead, says Aerospatiale. The light weight allows operation by small, fast surface vessels.

The MM 15 has no homing head but is guided by a radar-beam command-guidance technique via the Thomson-CSF AGRION 15 (X-band, pulse-compression) guidance radar installed on the platform.

The radar is used with the AS 15 TT helicopterborne missile system in service with the French, Saudi Arabian and Bahraini navies. It tracks both target and missile and computes the error in range and bearing between them.

Mystery contact may be Aurora

RECONNAISSANCE

BY BILL SWEETMAN

MINNEAPOLIS

Stealth Fighter lend credence to the new reports.

Meanwhile, the California booms are the first substantial, corroborated evidence of unidentified supersonic aircraft operating over the USA.

On at least four occasions, sonic booms have registered on some of the 220 sensors across Southern California, from the Los Angeles basin to the eastern edge of the Mojave desert, according to Jim Mori, a USGS seismologist at the California Institute of Technology. The incidents were recorded in June, October, November and late January. The seismologists estimate that the targets were flying at speeds between Mach 3 and Mach 4.

So far, all the tracks have been headed north and east over the Los Angeles basin, pointing directly to southern Nevada, 500 km away. Most secret US

Air Force activities, including the large flight-test base at Groom Lake, are within the Nellis range in Nevada. Since the range is only 8 min from Los Angeles at such speeds, the targets were presumably decelerating as they crossed the coast.

The USGS first noticed that its seismographs could detect sonic booms when they registered space shuttle landings at Edwards AFB, California.

Mori says the wave-forms detected in the latest incidents are characteristic of a smaller vehicle than the 37 m long shuttle orbiter. Neither the shuttle nor the single SR-71B which NASA maintains in flight status were operating on the days the booms were detected.

Reports that USAF is developing hypersonic aircraft in undisclosed 'black' programmes date back to the mid-1980s. In early 1988, the *New York Times* reported that a Mach 6, stealthy reconnaissance aircraft called Aurora was being developed to replace the SR-71, which was retired in early 1990.

More recently, witnesses in Nevada and California have reported hearing extremely loud or 'pulsing' noises caused by unidentified aircraft.

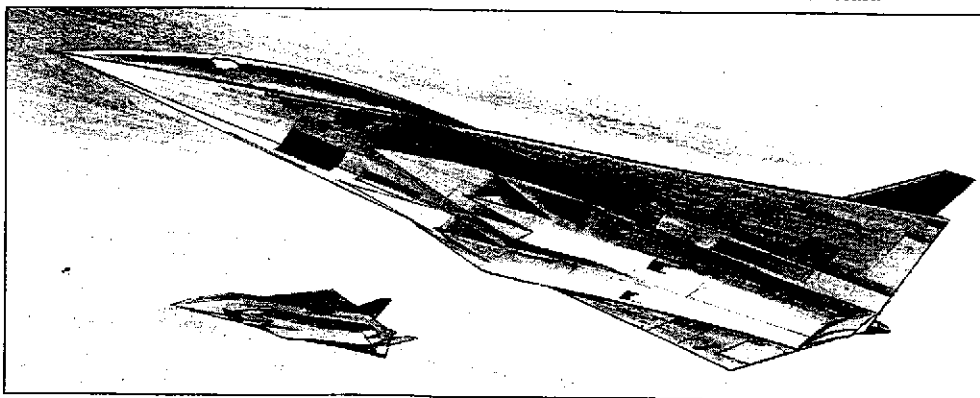
Mounting evidence suggests that the US Government has secretly developed and deployed a hypersonic reconnaissance aircraft, probably as a replacement for the SR-71.

A Royal Air Force air traffic controller tracked a target leaving the NATO-RAF base at Machrihanish, Scotland, at an estimated speed of Mach 3 last November, according to *The Scotsman* newspaper last week. Another witness heard an extremely loud jet noise near the base around the same time, it said.

In the USA, highly supersonic aircraft believed to be operating from Nevada have been detected and tracked by seismological sensors installed by the US Geological Service (USGS). The booms were first recorded in June last year.

Machrihanish is one of the most remote bases in Europe, located near the tip of the Kintyre peninsula in Western Scotland. Recent base modernization and a rumoured association with the F-117

Is this Aurora? Artist's impression of a Mach 6 reconnaissance aircraft incorporating ejector ramjet engine fuelled by liquid methane or hydrogen. Stealth would be maintained through ceramic radar absorbent material able to withstand the fierce temperatures encountered at hypersonic speeds (Julian Cook)



The shadow Scottish secretary, Donald Dewar, said that... Scotland can have independ... ence if Scotland wants it, but... took every opportunity to... attack the nationalist case. He said that independence... with a separate Scottish cur... rency would pose unnecessary... burdens on Scotland and... reduce its home market from... 50 million to five million... people. The SNP leader, Alex... Salmond, countered that Scot...

Both Mr Dewar and the... Scottish Liberal Democrat... leader, Malcolm Bruce, bit... terly criticised Mr Lang for... arguing that Scotland had no... choice of between independ... ence and the present system. Mr Bruce said that Spain, France and Italy had all... moved to decentralise power... and argued that Scottish home... rule would lead to a federal... Britain. Mr Lang clung to his asser... tion that Labour and Liberal... Democrat plans for a Scottish... parliament would be so un... stable that they would cause... the UK to break up. Minister's speech; TV in the chair, Page 6

rules out abortion

POLITICAL leaders in Ire... land were last night urged to... seek a review of the law as a... judge barred a pregnant... schoolgirl who had been raped... from having an abortion in... Britain. There were calls for the... resignation of the Irish at... torney general, Harry... Whelehan, who initiated the... legal moves to block the abor... tion, and the Irish Family... Planning Association called... for the review of the law. The case of the 14-year-old... girl was held in camera at the... Irish High Court but the text... of the judgment disclosed that... the rape had been committed... last December. The 16-page ruling also... revealed that rapist was the... father of the girl's best friend. It was believed an appeal to... the Dublin Supreme Court... could be heard later this week... after the High Court's con... firmation of an injunction... preventing the teenager's seek... ing a termination in Britain. Proinsias De Rossa, the... opposition Workers' Party... leader, said the ruling would... deter future rape victims from... reporting the crime to police. Full story, Page 2

Spey flooding

PROPOSALS to combat... flooding in Badenoch could... prove disastrous for two of... Scotland's most important... wildlife sites, the Nature Con... servancy Council for Scotland... claimed yesterday, writes... Frank Urquhart. Both schemes being con... sidered by Highland Regional... Council would have a detri... mental impact on the environ... ment of the Insh Marshes, part of the River Spey flood... plain, and the gravel fan of the... nearby River Feshie, a report... commissioned by the NCC... has concluded. Full report, Page 9

Hot on the trail of America's biggest flying secret

By Alan Dron

REPORTS of mysterious, fast-moving radar blips and strange engine sounds have heightened speculation that America's most secret aircraft has been operating in Scottish airspace. According to reports reach... ing *The Scotsman*, an RAF air... traffic controller was startled... to see a radar blip emerge... from the area of the joint... NATO-RAF station at Mach... rhanish at approximately... three times the speed of... sound. Puzzled, he phoned the... remote base near the tip of the... Kintyre peninsula to inquire... what type of aircraft was being... operated — and was promptly... told to forget what he had just... seen.

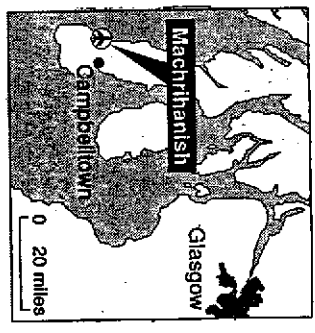
they fit with what little is... already known of a shadowy... project called Aurora. Aurora is believed to refer... to the ultra-secret replacement... for the high-altitude, Mach 3... SR-71 Blackbird reconnais... sance aircraft. Reports of a... "stealthy" Blackbird successor... have been circulating since the... mid-1980s. It is another product of... Lockheed's notorious "Skunk... Works" in Burbank, Cali... fornia. This secrecy-shrouded... plant has designed the U-2, SR-71 and the F-117A Stealth... fighter.

Range airfield, 170 miles... north-west of Las Vegas. It was the initial base for... the F-117 Stealth fighter, which the US Air Force... managed to keep hidden from... prying eyes for seven years... until 1988, through a combi... nation of the airfield's remote... ness and the simple tactic of... flying it only at night. Mr Sweetman added that... the Machrhanish reports of a... fast-moving radar contact and... of an extremely noisy aircraft... fitted in with information... from the US.

At around the same time in... November last year, there was... a report from nine miles away... from the base of an unusual... car-splitting jet noise. While the clues are sketchy,

In 1990, just after the SR-71's retirement, the Lockheed Advanced Development Com... pany president, Ben Rich, told *Jane's Defence Weekly*: "There is a need for some... vehicle — I didn't say SR-71... — to complement the sat... ellites. I won't tell you what it... is, but there is a need." Told of the Scottish reports, Bill Sweetman, technical edi-

"It's been described as a... noise that people don't forget... when they hear it," he said. Several had described it as... being "like the sky ripping... open". The MoD was last night still... checking to see whether it had... any record of a visit by a... Blackbird successor. The... Pentagon was closed for a US... holiday.

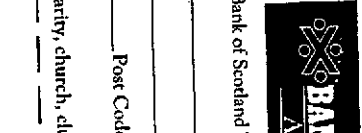


of Jane's Information Group and an authority on... Stealth aircraft technology, said: "That's very interesting. The last time I received a call... out of the blue from a Scottish... journalist was about five years... ago. He was talking about... reports of F-117s... operat... ing from Machrhanish."

Speaking from Minnesota, Mr Sweetman said there had... been reports since the mid-... 1980s of high-speed aircraft... seen over the Pacific. Seismologists from the... California Institute of Tech... nology had also discovered in... recent years that their earth-... quake sensors were being trig... gered by sonic "boom fronts"... caused by unidentified... aircraft. "They've been able to build... up the track of the boom... and tracking Mach 3 values... back to Nevada," Mr... Sweetman said. "That all adds to the sus... picion that there's a very high... supersonic, possibly hyper-... sonic, aircraft called Aurora... that we don't know about." For several years, Stealth... watchers' attention has been... focused deep on the Nevada... desert and the Tonopah Test

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LOOSE MINUTE

D/Sec(AS)12/1

24 October 1991

DI55c - **Section 40**

UFOs - PHOTOGRAPHS 

35

1. We spoke recently about the possibility of trying to obtain the photographs of the UFO seen over Porlock by **Section 40**
2. We have given this very careful consideration, but regret that we do not believe we should follow this up.
3. There is a very good chance that any efforts we make to obtain photographs or videos of UFOs will come to the attention of the press and/or the UFO lobby, and this could be seen as MOD investigation of UFOs - something that we (and, far more importantly, Ministers) have said we will not do.
4. Having said this, we will continue to look at each such request on its merits. Additionally, if we are ever directly offered photos/videos, we will say that we are prepared to have a look at them.

Section 40

N G Pope
Sec(AS)2a
MB8245 82140MB

VFOs

Thank you for an interesting note! Since there is no prima facie evidence of a security threat I don't think we can ask for the photos without cutting across the policy of non-investigation of UFOs.

If DI 55c really attach importance to this they can press us further; but from what you say they haven't offered any real arguments for us to consider. In any event we can leave them that we need to avoid taking steps which might be represented as investigating a UFO. I tend to agree with Section 40 that, unless directed otherwise, we should regard our role as a point of contact. This has value in its own right, since if a pattern started to appear in reported sightings we might

then wish to recommend some action.

Happy to discuss further if you wish,

Section 40
24/10

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thro'

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Section 40

over. Happy to discuss this at a convenient time.

Section 40

23/10

UFOs - PHOTOGRAPHIC EVIDENCE

Between 5-10% of my time is spent dealing with enquiries about UFOs. We receive several hundred sighting reports each year, and most of these are also sent to the relevant intelligence branch (DI55c) and military radar experts (GE3). In most cases these reports are very brief, but very occasionally there will be an indication that a UFO has been photographed or recorded on a video camera.

In August the new DI55c indicated that he was keen to obtain photographs/videos of UFOs, and asked specifically about a video of an object over the Isle of Wight. We advised that in this instance no action should be taken as the sighting had occurred some time ago.

DI55c have now contacted us about a sighting that occurred last Friday, where photographs were taken of the object, and have asked that we try to obtain these photographs. I have spoken to the police at Minehead, to whom the sighting was reported by the member of public concerned, Section 40 and they see no difficulty in getting the photos - indeed Section 40 offered to show them to the police when she reported the sighting.

The subject of UFOs attracts wide interest: a mixture of genuinely puzzled individuals, cranks, and a small but vociferous group who believe that the MOD is involved in a huge conspiracy to cover up "the truth about UFOs". The MOD's policy with regard to UFOs is that we do not investigate sightings; our role is limited to ensuring that what was seen does not constitute a threat to the security and defence of the United Kingdom, and if those who adhere to the conspiracy theory discover that we are obtaining photos/videos, they may say that this is tantamount to investigating UFOs - something we have said we do not do.

It is my belief, however, that we can justify trying to obtain photos/videos within our existing policy, by arguing, if pressed, that such an action is entirely consistent with trying to ascertain whether or not a threat to the security and defence of the UK exists. If a sizeable object has penetrated UK airspace, and has not registered on radar, then this would be of considerable defence significance! Additionally, I do not believe that our policy should be dictated by members of the UFO lobby who subscribe to the conspiracy theory; there will always be those who criticise our policy on UFOs, whatever we do.

In summary, I believe that we should follow up those (very infrequent) reports that do indicate that photos/videos were taken. We could at least ask, through whoever the incident was reported to, (usually the police, an RAF Station, or civilian Air Traffic Controllers) whether the witness would be prepared to lend us such material.

I would be grateful for your views on our obtaining **Section 40** photographs, and on the wider issues of obtaining photographs and videos.

Section 40

N G Pope
Sec(AS)2a

Section 40

Nick's case is very persuasive although I have traditionally resisted requests from DISS (who insist on anonymity) for us to approach members of the public either directly or through another agency in order to obtain photographs/videos of UFO sightings. I have two primary concerns and number of minor points of disquiet:

i) Is it proper for Sec(AS) to be "fronting" for DISS? It is not clear whether photographs + videos are vital to their work or whether their interest arises from the enthusiasm of a new officer there.

ii) Can we sustain our public and ministerially endorsed line of "not investigating" UFOs if we are shown to be seeking photographic "evidence". A member of the public might well accept our explanations but would an energetic journalist keen to make a feature?

iii) What is Sec(AS)'s role in handling UFO sightings? To provide an interface with the public whilst assisting DISS etc in their work or simply to provide a departmental point of contact to which people can report their sightings of UFOs? I believe it should be for latter.

10 Head ITAU
AD52
DI(ST)

Reference DI52/TMCK/1

Wednesday 19th June 1991

Report by **Section 40** (DI52)

about 2. if so, please
Mr Know. 4054

Arrived in my hotel room at approx 2305 and tuned in to Radio 1 "The Nicki Campbell Programme". I had heard last night (18th) that he was going to broadcast a "very controversial" interview regarding UFO's. It was due to start at 2230 so I've probably missed a lot!

The interview was with a Tim Good (I believe). He started expounding about his knowledge of UFO's and that 6 alien craft had arrived on our planet! He claimed that senior people in Whitehall and the states know of the reality of these events.

He said this was the "most sensitive area in the UK Intelligence field of all time". Sources had made him aware of MOD intelligence in Northumberland Avenue, and that there was a section DI55 working on this topic in a locked and guarded room No 801 (I think he said). He claimed that the facts relating to UFO's was classified 37 levels higher than Top Secret! Numerous references were made to an ex NASA physicist Bob Lassare. Apparently, alien craft had been studied, and their propulsion systems were so sophisticated technically that engineers had taken years to derive an understanding. Instantaneous motion. An ex astronaut (I think) **Section 40** had chased UFO's. There was video film of them in the Nevada desert. One planet he quoted where aliens had come from (37 light years away) was Zeta Reticuli. NORAD track such craft daily he claimed.

He claimed further that the states have a 'Black Budget' for such Projects - making it unaccountable to the senate.

→ STATIONARY

When asked if he believed George Bush had ever seen one of these "quarantined"? craft, he said he was sure that he had, as they were "available". Parts of his dialogue was linked to the Bible and spiritualism as a way of justifying the reality of such phenomena presumably. He mentioned ASC - alternative space craft. With that the interview ended.

Nicki Campbell asked listeners to phone in if they were interested to find out more. If response was good, he would try and set up a tele link with the states (one of his sources) tomorrow evening (20th).

I'm new to DI (4 weeks). I sat down and spent 30 mins considering what I should do. I didn't have any phone numbers to ring so decided to go to the office (by taxi) (I may put in a bill Ha). Couldn't find any next of kin lists for **Section 40** or anyone else. Used **Section 40** phone to make him aware of this (via his HOME Button!) This was at about 0005 I guess. He asked me to contact the Duty Officer in MB which I did. Rather than talk on the phone, I went across and told Sqn Ldr **Section 40** the above. He didn't seem unduly concerned, but said he would pass the details over to the "day shift".

I can't vouch 100% for the accuracy of my recollections above, but took lots of notes throughout the programme so am reasonably confident about names and statements made. It's now 0150 - I'm tired. I should have listened to Radio 4 perhaps! Maybe not. Hope I did the right thing.

Recommendations

I think it would be prudent to obtain a copy of the transcript of the interview, in order to verify/correct the foregoing for accuracy. I guess then its down to considering whether there is a justification for the security services to take the matter further in view of what has been broadcast.

Section 40



20/6/91

It's just got to be a flying saucer says tourist Mike

HAWAII UFO

Brit's holiday snap shocker

By DAVID PAUL

A FLYING saucer hovers over Hawaii... It looks like a case for TV cop Steve McGarrett and the boys from Five-O.

But this mystery has never been solved. British tourist Mike Page snapped the UFO while he was taking holiday photos on a two-week trip to the exotic islands.

"I only realised it was there when I got the prints back from the chemists," said Mike, 31, from Barnet, Herts.

"It sent a shiver through my spine. What else can it be but a UFO?"

The orange spaceship with two white lights was pictured near Kaomi's Mount on Maui island.



STEVE: Actor Jack Lord

Decided
Experts at the East Anglian UFO and Paranormal Research Society decided it was a UFO.

Flight magazine said it looked like no plane their experts knew of.

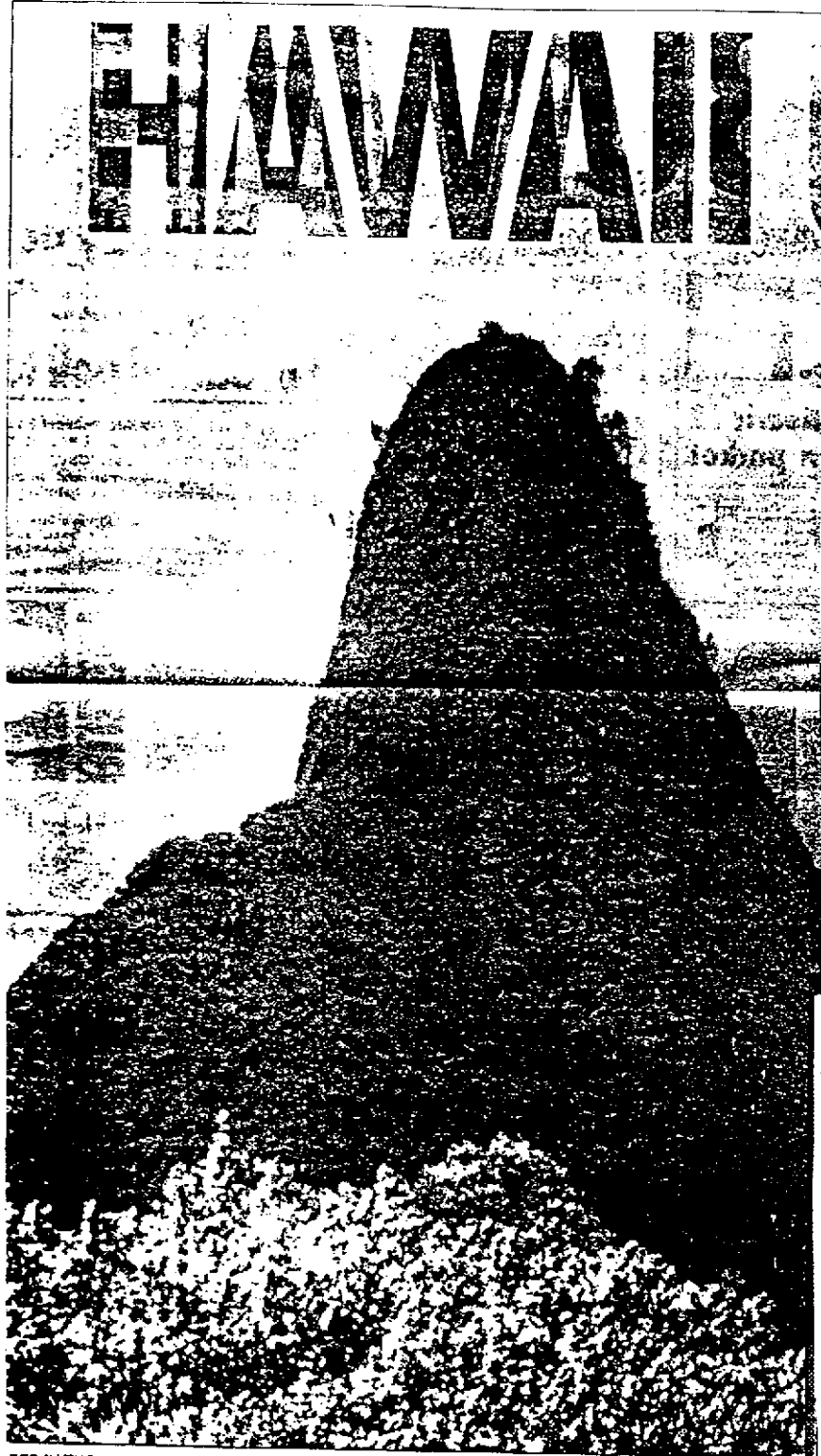
UFO expert Timothy Good couldn't tell him

what it was. I don't know enough about photography to fake something like this," said Mike. "If it's not a UFO, what is it?"

Top Gun's dogfight with a UFO — Page 27

ANYBODY SEEN ONE?

NOW it's UFOver to you. We asked yesterday to hear of your experiences with extra-terrestrials — and were amazed at your response. We're still very interested, so if you've had a close encounter with an alien send your letters and any photos to: UFOs, Daily Star, Ludgate House, 245 Blackfriars Road, London, SE1 9UX.



CER IN THE SKY: The mystery object photographed by Mike hovers near Kaomi's Mount, on the island of Maui

31

6 ↓

How fighter pilot took on a giant alien space ship

MY DOG FIGHT WITH A UFO!



By DICK DURHAM

TOP GUN fighter pilot Milton Torres has spoken for the first time about how he came within seconds of zapping a massive UFO over British airspace.

The American flier has lifted the lid on his amazing dogfight with a giant alien spaceship, despite warnings by defence chiefs to stay silent.

Torres was stunned when, as a 25-year-old ace, he was ordered to chase the UFO, which had been spotted over the Kent coast.

He flew his Sabre F-86D attack jet at 800 knots to get the alien ship into his sights.

Fifteen miles from his target, Torres had achieved full lock-on and had 24 rockets ready to blast the UFO.

But, just as he got the command to fire, the alien craft vanished from his sights and his mission was over.

Torres, who flew 260 combat missions in Vietnam, now lectures as a professor of industrial engineering.

His story began while on "alert duty" at his base.

"The RAF and the US Air Force shared the duties, and this particular night the 514th Fighter Interceptor group was on call.

Alert



TOP GUN: Pilot Torres and his Sabre Picture by Gerald Davis/Colonific

2

Recent Service appointments

Recent appointments in the Services include:

Army 26
Lieutenant Colonels:
 J Lowe RAEC—To be Comd 2 Resettlement Centre, 18.5.91; J W G Rogers RE—To HQ NORTHAG Staff, 18.5.91; D R Wainwright RA—To MOD, 18.5.91; A Dainty SFC—To SHAPE Staff, 22.3.91; A D Foster RAEC—To UNICOM Team, 18.5.91; D N Watson GO HLDRS—To be COS HQ 22 LOWLAND Bde, 18.5.91.

Royal Air Force
Air Commodores: P H Eustace—To MOD; S F Clark—To HQRAF; R M Best—To be Comd & D LOG Estab Stanbridge.
Group Captains: E J Black—To HQ AAFCE; P Langrill—To RAF Newton as Stn Cdr; D A Needham—To J MOTS Turnhouse; J H Haines—To RAF Neatishead as Stn Cdr; D H Nicholls—To MOD (CVE); D C Couzens—To MOD (AFD); M C G Wilson—To HQSTC; A J Pye—To MOD (CVE).
Wing Commanders: J Dyer—To RAF Mt Pleasant; A J Little—To RAF Kinloss; D N Case—To NEFMA Munich; D W McCormick—To MOD London; B E Dunford—To 217MU Cardington; B S Mahaffey—To Brunel; A J Labercombe—To MTS Dryad.

War crimes charade

SIR—After the resounding defeat of the War Crimes Bill in the House of Lords, the proposal should surely be put before the British electorate. With a general election not far away let those parties who so wish include their views in the party manifesto.

There appears to be an unseemly urge to steamroller through changes in legislation which, in the opinion of many, will bring nothing but discredit on the nation. There is no way in which those accused could be assured of a fair trial and we would therefore be presenting a macabre charade.

Let us have done with it.

K. M. GODDARD
 West Byfleet, Surrey



AMAZING: Torres recalls his experience

"Two F-86Ds were on alert at the end of the runway at RAF Manston, Kent, awaiting the signal to scramble," he says.

"We were airborne quickly and flew over the North Sea off East Anglia."

Torres' initial briefing told him a blip was orbiting the region. Checks revealed it was a UFO with strange flight patterns.

"The craft was motionless for long intervals and ground control described to me the strange antics of the UFO."

"I was given the exact manoeuvres so I could set my course. I was up to Mach .92, which is as fast as the F-86D can go," he reveals.

Then Torres got the order to fire a full salvo of rockets at the UFO.

"I realised it was now very serious. I asked who gave the order to fire. I received my answer and set about training 24 rockets on the target."

"The UFO was exactly where I was told it would be, a magnet of light."

But within seconds the ship had sped away.

Back on the ground Torres was debriefed and told his mission was "highly classified". He was told not to breathe a word about it to anyone.

The Ministry of Defence confirms Sabres were based at RAF Manston, but claim there is no record of the dogfight.

ANOTHER ACE JUST MISSED LOCK-ON

FIGHTER ace Milton Torres' amazing account of his dogfight with a UFO is backed up by another top American pilot.

Major David Robertson was also alerted that night in his own Sabre jet.

Advised

He recalls leaving RAF Manston and then landing at RAF Bentwaters at Bawdsey, Suffolk, to have his jet armed with live rockets.

"I was advised that more than one ground control site and multiple UFOs were involved, and that the

area extended into Scotland.

"I gave chase to several of the UFOs, but was unable to maintain radar contact long enough to get a lock-on," he reveals.

These accounts both come from the files of respected expert Harry Harris, a Manchester-based lawyer who has been investigating UFOs for 12 years.

Close encounters

HAVE you had a close encounter with a UFO? We want to hear from you if you have.

Send your letters and any photos to: UFOs, Daily Star, Ludgate House, 245 Blackfriars Road, London SE1 9UX.

File: 10/21

30

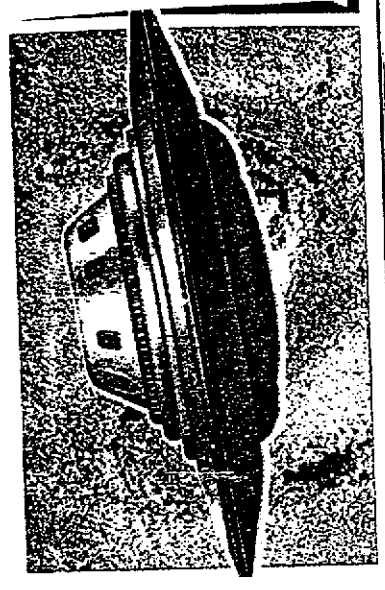
under hypnosis their close encounters with visitors from outer space

I WAS KIDNAPPED BY A UFO SWATCH SQUAD!

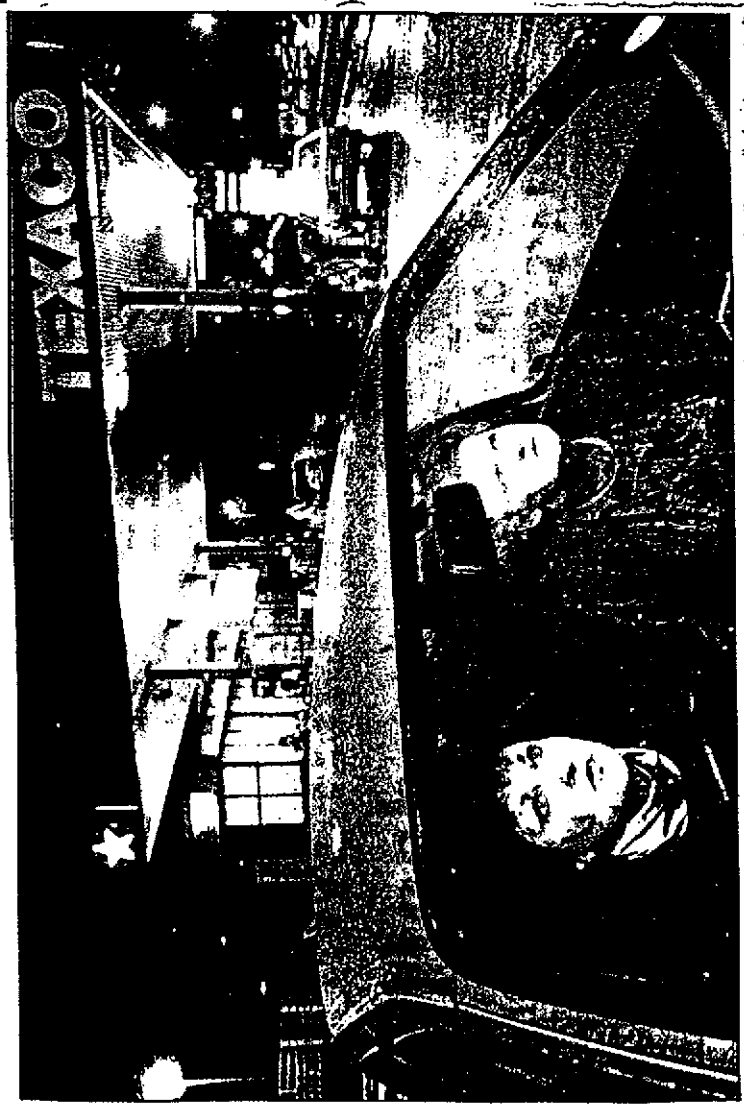
Terrified mum and daughter taken on hell ride by aliens



JOURNEY INTO THE MIND: Linda and Ursula relive their night of terror under hypnosis



13



DRIVING FORCE: Linda's car went out of control during the horrifying 55 minutes when she and Ursula were under the spell of a strange craft

usually starts with a bright light in the sky. Then the large, dome-shaped craft appears. The terrified witnesses begin to panic. They shake and fight for breath.

A sensation of floating follows and they are taken to a strange, clinical room where they are examined. After a long time

they are placed back in their cars. But their wrist watches bear witness to the fact during the strange experience time has stood still!

It sounds incredible but a leading UFO investigator, solicitor Harry Harris, has many such reports. Now he has agreed to open his files to DICK DURHAM.

WHEN Frank Taylor answered the knock on his front door he was horrified by what he found. His wife stood shivering in the bitter January night air. Her coat was missing and she was sobbing.

"My God love, you've been in an accident. What on earth has happened?" he said. But according to Linda, what had happened, had NOT happened on earth!

Linda, 42, was driving with her mother, Ursula, 67, were driving along the East Lancashire Road near Manchester, returning from a visit to a sick relative when she saw a huge light behind some trees.

She recalls: "It came down skimming the floor, then went up in zig-zags and all hell broke loose. God strike me dead if I tell a lie: this



really happened. A black, Thirties-type car just appeared in front of us.

"There were no sideroads and it hadn't overtaken us. It was just there. It had a small rear window. I felt as though my car was attached to this car in front.

"It was like a magnetic force — and yet I felt we weren't going to hit him.

"The car slowed and I changed into second gear. The driver behind the wheel, whoever or whatever it was, was weird.

Screamed

"It was very, very thickly built and wore a German-type military helmet. It had very wide shoulders and was all in black.

"The electrics in my car were going haywire."

Linda's mother screamed, fearing that the cars would collide. "I opened the window to shout to tell him to get out of the way," she says.

"It was then I caught sight of this huge craft, twice the size of a double decker bus.

"It had blue, green, red, violet and white lights. There was superstructure between the lights. It made no sound."

Linda started screaming and the car in front disappeared. The terrified women

screamed in to a petrol station. They stood arm-in-arm watching as the craft circled and stopped over a tree.

"It did a sharp movement left and started shaking and vibrating."

They called to another customer at the garage.

"He dropped the petrol pump, jumped in his car and drove off," says Linda.

It was only when she got home that she realised 55 minutes had been lost from her life. She was violently sick and later, while taking a shower, found heavy bruises on her outer thighs.

To try to discover what had happened in those missing 55 minutes, she allowed herself to be hypnotised by local doctor Geoff Shaw.

The video of the hypnosis shows Linda sobbing and breathing heavily. She is clearly terrified.

She gives an eerie account of a strange journey.

"I'm taken to a clinical room, all plastic squares. There are floor-to-ceiling computers and knobs.

"There are three people in one-piece suits. One is operating a machine.

"He is tall with blond, shoulder-length hair and piercing blue eyes. Next to him, in a pool, is a sick dolphin. I float over to the man. I know he isn't human. I

with a UFO



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UFOLOGIST: Harry Harris

touch his hand and we both touch the dolphin. The dolphin races round the pool."

That is the end of the dream-like sequence. Under hypnosis, she has repeated this account five times.

Linda, who runs a garage in Timperley, near Manchester, with Frank, 55, says she had no interest in UFOs before her close encounter.

She says: "It is the most traumatic thing that has happened to me and yet I'd do anything to experience it again."

HAVE you had a close encounter with a UFO?

Send your letters and any photos to: UFOs, Daily Star, Ludgate House, 245 Blackfriars Road, London SE1 9UX.



VISION: Jenny drew this under hypnosis

CASE THREE

Jenny resists their sinister demands

INSURANCE broker Jenny White was driving home at night with her boyfriend Jim, who was asleep after a night out. On the road from Crewe to Stretford, Jenny saw a bright light following her. Then a UFO overtook the car.

Ufologist Harry Harris took Jenny through her nightmare with hypnosis by Dr Joseph Jaffe. This is a transcript of their conversation.

Dr Jaffe: "Describe what you see."

Jenny: "There's someone there." Dr Jaffe: "Somebody?"

Jenny: "Oh, no, it's a man. He's there on the right side."

Dr Jaffe: "Is he near?"

Jenny: "He's coming close."

Jenny describes a seven foot tall silver man with a shiny head.

"By now she is terrified and pushing back in the seat trying to avoid the creature.

The transcript continues:

Jenny: "He's coming to the window. He has gloves on. He's putting his hand on the window. His hand is big."

Jenny starts crying, then describes a second man with slit eyes, a square head and pointed features.

Jenny: "They wanted me to do something and I didn't do it."

Dr Jaffe: "What did they want you to do?"

Jenny: "They tried to make me get out of the car and I didn't do it."

12 TODAY Tuesday March 19 1991 ★★

SIREN IN SKY IS SHE WHO MUST BE OBEYED

A WOMAN'S voice is being used to guide helicopter pilots in battle.

Although men in uniform are usually trained to the bark of a macho sergeant-major, scientists have discovered that they respond better when a woman hands out the orders.

The Ministry of Defence has hired an actress to record battle instructions, which will sound in pilots' earphones. Aircrews will know the

ELLIS PLAICE
Aviation Correspondent

actress only as Ava — Automatic Voice Alert.

The MoD has signed a £500,000 contract with electronics group Racal to link the voice to flight-deck sensors.

Nigel Edwards of Racal explained: "The value of a woman's voice is that it is probably the last thing a pilot expects to hear in the heat of battle.

"It could trigger a reaction that split-second quicker which could be the difference between

life and death. She will match the warning to the situation with phrases like "Fire on Board", "Detect enemy radar", and a caution if they are flying too low."

A spokeswoman at the Royal Aerospace Establishment at Farnborough said: "It might have something to do with the old rolling-pin-behind-the-door theory."

But there could be snags ahead, she added.

"We will probably have a lot of women pilots in future, and we don't expect to have male warning voices for them."

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CASE TWO

COP ALAN IS 'ARRESTED' BY ROBOTS

BOBBY Alan Godfrey's police report was so strange it didn't go to the Chief Constable — it went straight to the Ministry of Defence.

"I wasn't making any wild claims," says Alan. "It was real, as real as I would report a traffic accident or misdemeanour."

The 43-year-old former PC's report says: "At approximately 05.10 hours while proceeding up Burnley Road, Todmorden, in my patrol car, I came across an object 20 ft wide, 14 ft high, and 5 ft off the ground."

Alan was following up a report that some cows had escaped from a moorland farm.

When he saw the UFO, he put on his blue light and drove to within 20 yards of it.

"I tried to call for assistance on both my UHF personal radio and the car's VHF. Neither would work," he says. Alan made a

what happened under hypnosis with Dr Joseph Jaffe.

He describes going through total blackness and finding himself in a room with a tall man wearing a skull cap.

Eight other creatures surround him. He realises to his horror that they are robots.

A dog is in the room as well, and then Alan is asked by the tall man to climb on a black, leather bed.

Dr Jaffe: "And what is he doing now?"

Alan: "He's touching my forehead."

Dr Jaffe: "What with?"

Alan: "With one of his hands."

The transcript ends there, on the doctor's orders.

Harry Harris says: "At this stage Dr Jaffe terminated the session because of Alan's stressed state."

Alan is to tell his story in a TV series on UFOs, with David Frost.

Radio fails as he sends SOS

sketch of the diamond-shaped craft, then looked up to find his patrol car had somehow moved to the other side of the UFO.

Alan, now a textile worker, still vividly remembers what happened that night.

Burned

"I went home and went to bed without telling my wife what had happened," he says.

In the morning Alan found one of his new police boots had a split in the sole and his foot had been burned.

After meeting ufologist Harry Harris, Alan agreed to try to recall



SHIP SHAPE: Ex-bobby Alan Godfrey managed to sketch the UFO TOMORROW: 'My dogfight'



15

ENCLOSURE
29

LOOSE MINUTE

D/Sec(AS)12/1

1 May 1990

Hd CS(R)1

UNIDENTIFIED FLYING OBJECTS (UFO) RECORDS

References: A) D/CS(R)1/4/3/2B dated 23 April 1990
B) D/Sec(AS)12/1 dated 2 April 1990

1. Thank you for sight of the draft instructions on the review of UFO reports.

2. I am content that the instructions as drafted reflect our stated requirement (Reference B) to protect the confidentiality of witnesses for a reasonable length of time, and also not to divulge the internal distribution of UFO reports within MOD.

Section 40



Sec(AS)2a
MB8245 2140MB

LOOSE MINUTE

D/CS(R)1/4/3/2B

23 Apr 90

Sec AS(2a)

Section 40

UNIDENTIFIED FLYING OBJECTS (UFO) RECORDS

Reference:

- A. D/Sec (AS) 12/1 dated 2 April 1990.
- B. DCI Gen 224/89

1. Thank you for your helpful minute on the above topic.
2. I have attached a draft of the instructions on how to treat these files at our various review stages which I propose to include in our Instructions for Record Reviewers.
3. I should perhaps explain that extended closure, para 4a, is where the page(s) containing the sensitive details is removed from the file and a copy with the details deleted, inserted in its place. The original page is closed for a further 20 years, ie for 50 years from date of closure of the file, and passed to the PRO. The file is made available to the public after 30 years but these extracts are kept from public access until the PRO automatically re-associate them with their parent files after the further period of closure.
4. Material extracted as above, but then retained in the Department, para 4b, is retained in the CS(R)3 secure archive in Adastral House and is returned to the CS(R)1 reviewers every 10 years for re-review.
5. Please let me know if this proposed Annex S meets your requirements. If you are interested in knowing how the department's records are handled in order to meet our obligations under the Public Records Acts, Reference B gives details of CS(R)1 review procedure.

Section 40

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This seems to reflect our wishes. However, if you think it necessary I could write back and ask for witnesses names to be protected for a longer period.

Section 40

24/4

No - this seems fine - I take it that names will not become public until 50 years after closure. I assume we cannot conceal names permanently?

Section 40

1/5

Section 40

Hd CS(R)1

ST 7127

Section 40

UNIDENTIFIED FLYING OBJECTS

1. Unidentified Flying Objects have long been the subject of intense public and media interest and this interest is often reflected in demands to examine official records relating to this phenomena.
2. Prior to 1967 records relating to UFO reports were destroyed after 5 years, as stated by Viscount Long for the Government in the House of Lords in April 1982, but reports since then have been preserved. This has been restated as MOD policy by Ministers, as recently as 20 February 1990 by the Earl of Arran, US of S (AF).
3. The MOD policy branch who deal with this subject, Sec (AS) therefore mark all UFO report files for permanent retention, and in view of the ministerial commitment to keep such material, and the high public interest in this topic it has been agreed that all files relating to UFOs will be selected for 2nd review when they are examined at 1st review stage.
4. At 2nd review all "UFO files" are to be selected for the Public Record Office for normal opening at the usual 30 year point with the following exceptions:
 - a. The names and addresses of witnesses, and persons to whom these witnesses made their reports are not to be released into the public domain on privacy grounds. These should be flagged up by the reviewers for extraction by the Listing Section and closed for 50 years as personally sensitive, under B(1) of the Guidelines on Extended Closure.
 - b. In addition, the internal distribution on UFO reports are also to be extracted, as it is not the Department's practice to specify the areas, other than Sec AS, within the MOD which receive UFO reports, MOD's official line being that UFO reports are passed to those departments within the MOD responsible for the Air Defence of the UK. These extractions will be retained in the Department as Defence Security sensitive, under S 3(4), and re-reviewed every 10 years. They should be referred to Sec(AS), quoting their L/M D/Sec (AS) 12/1 dated 2 April 1990 and they will determine whether the sensitivity has lapsed, at the 10 yearly re-review.

Assoc file refs:

D/CS(R)1/4/3/2 Pt A (E60-65) Pt B (EO 66, 67)

Apr 90

DRAFT

RESTRICTED

27

~~RESTRICTED~~
UNCLASSIFIED

LOOSE MINUTE

D/Sec(AS)12/1

2 April 1990

CS(Records)1 - **Section 40**

POLICY ON UNIDENTIFIED FLYING OBJECTS (UFO) REPORTS

1. We have recently been clearing our cupboards of old files on the subject of UFOs, some of which have been sent to CS(Records) for retention.
2. Viscount Long stated for the Government in the House of Lords in April 1982, that prior to 1967 the Ministry of Defence maintained a policy of destroying UFO reports after five years but reports since then have been preserved. This has been restated as MoD policy by Ministers, as recently as 20 February 1990 by the Earl of Arran.
3. Sec(AS) have therefore marked UFO report files for permanent retention. As UFO reports are unclassified, it is likely that they will be released for public inspection after the file has reached the 30 year point. I would like to request that at some point before release to the public, that the names and addresses of witnesses, and the persons to whom the reports were made should be removed from the reports to protect their confidentiality. In addition, the internal distribution on UFO reports should also be removed, as it is not our practice to specify the other areas within the MoD which receive UFO reports except to say that UFO reports are passed to those departments within the MoD which are responsible for the Air Defence of the UK. We do not feel it sensible to release the titles of the other branches within MoD which have some interest in UFO reports, as firstly Sec(AS) is responsible for corresponding with the public on the matter, and secondly the topics (other than UFOs) with which these branches deal are in some cases extremely sensitive.
4. If this causes you any problems, please do not hesitate to contact me.

Section 40

Sec(AS)2a
MB8245 2140MB

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UNCLASSIFIED

Legal aid sought in defence cases

...or care in gathering the material.
The Bar Council does not support the widely held view that confessions should always be backed by other evidence to secure a conviction.

But it accepts there is some force in recommendations that other evidence should be sought in cases where a confession is obtained in breach of the rules laid down under the Police and Criminal Evidence Act, or from a child, young person or mentally handicapped adult, or where it is an oral confession not backed by a tape recording.

In other recommendations to the May inquiry, the Bar Council says suspects detained under the Prevention of Terrorism Act should have the same rights as those suspected of other crimes.

It also wants the CPS to be given greater resources to supervise police inquiries.

The Law Society, in evidence to the May inquiry, says that where the only evidence against a suspect is his confession, the courts should look for some supporting evidence before accepting its veracity. But, like the Bar, it stops short of recommending that corroboration should be required.

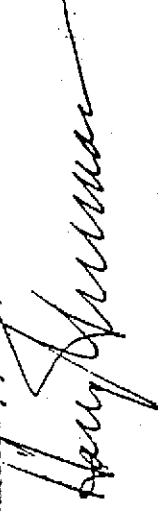
It also wants legal aid to be extended to help defence solicitors investigating possible miscarriages of justice.

GENUINE (Oct 1 1947)

Dr. Bush:

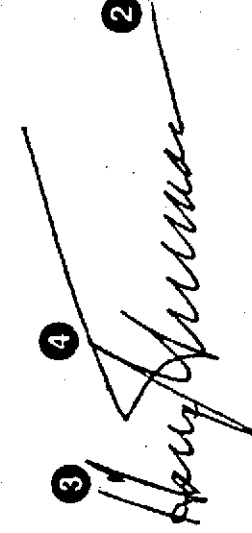
I appreciated very much your good of September twenty-sixth and I hope will work out in a satisfactory manner morning season.

Sincerely yours,



FORGERY (Post 1963)

to be my feeling that any future tive to the ultimate disposition ld rest solely with the Office Bush and the Director of Central



1. Typescript from 1963 model Smith Corona typewriter. 2. Forged signature 3.2% canper. 3. Unique ink blotch in 1947 letter. 4. Thinning at top of 'T' due to removing the letter.

Note: This refers to the alleged 'Magistie 12' document.

File 7-12/h

Truman's UFO paper 'a forgery'

By Adrian Berry, Science Correspondent

A DOCUMENT purportedly signed by President Truman ordering the investigation of a crashed spacecraft containing alien corpses in the New Mexico desert is a forgery, a scholar said at the weekend.

Mr Phillip J Klass, distinguished for his exposures of UFO hoaxes, said the alleged "secret Presidential order", dated Sept. 24, 1947, was written on a Smith Corona typewriter which did not exist until 1963.

The faked order has often appeared or been quoted in best-selling UFO books and has been brandished at UFO conferences, where the US government has been repeatedly accused of suppressing information about visits to Earth from little green men.

Moreover, Mr Klass says in the latest issue of Sceptical Inquirer that Truman's signature on the document was identical to an authentic signature which appeared on a genuine document.

Since no two signatures are identical, this showed, according to the evidence of signature experts he had consulted, that someone had copied one from the other.

The only difference was that the faked order, allegedly written to Defence Secretary James Forrestal, was 3-6 per cent bigger than the genuine one because of optical distortions made in photocopying.



Truman: split ink

Furthermore, Truman's pen accidentally skidded and split ink as he wrote the second stroke of the H in "Harry" in the genuine signature. An identical splodge appears in the same place in the forgery.

A second forged document, also related to the supposed aliens, was a "Top Secret" order allegedly sent on July 14, 1954, by President Eisenhower's special assistant, Robert Cutler, to the Air Force Chief of Staff, Gen Nathan Twining.

But, says Mr Klass: "Cutler could not possibly have written this memo because the National Archives reveal that he was out of the country on July 14, 1954."

Plant closure will end smog risk at cost of 350 jobs

By Michael Fleet Welsh Correspondent

THE closure this Thursday of a factory known as Dante's Inferno has split a close Welsh community into those wanting to safeguard jobs and those fearing for the environment.

The British Coal Products factory at Abercwmboi in the Cynon Valley, Wales's area of highest unemployment, is to close with the loss of 350 jobs, bringing an end to the stream of black, grey and yellow smoke which has poured out of its huge chimneys since 1942.

For Mr Keith Vallance, 37, his wife, Sharon, and their three children the closure means probable unemployment in an area where one man in five is out of work, but for Mrs Pauline Jarman, a local councillor, it signals the success of years of campaigning.

The plant makes high quality smokeless fuel. The extracted smoke and gases pour into the Cynon Valley, leaving the factory shrouded in smog.

"We have suffered for years so that people in other areas can have clean air. Perhaps now we can start thinking about having clean air ourselves," said Mrs Jarman, who lives two miles away.

British Coal Products has applied to the local council for permission to build a factory using a cleaner process and employing 180 men. Three mild winters plus delays in processing the plan-

Phone call from Sec (Pol Studies)

Section 40

ENCL
25

Suggested amendment to UFO 'line to take'

Del after 'the continuing' to 'This being so'

Insert 'maintaining the security of the UK
and meeting our responsibilities to allies
and dependent territories. Therefore ...'

Section 40

4/3

24
1 x 2 sheets

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LOOSE MINUTE

D/Sec(AS) 12/1

6 March 1990

Sec(Pol Studies)

UNIDENTIFIED FLYING OBJECTS (UFOS) - CORRESPONDENCE WITH MEMBERS OF THE PUBLIC

1. Sec(AS) has the responsibility within the MoD for dealing with members of the public on the subject of Unidentified Flying Objects (UFOS). This can take the form of a conversation on the telephone, or written correspondence.
2. I attach at Annex A a part of our standard 'line to take' which we use when dealing with UFO enquiries. You will see that this mentions that 'defence funds are fully committed to the continuing security of the UK against, primarily, aggression from the Warsaw Pact countries'.
3. Given the recent events in a number of the Warsaw Pact countries, I have been considering whether the above phrase needs updating. I would greatly appreciate advice regarding the current thinking on the WP threat, and more particularly how we represent this in our dealings with members of the public.

Section 40

Sec(AS)2a
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Annex A
to D/Sec(AS)12/1
dated March 1990

UFOs - Sec(AS) 'Line to take' (extract)

' Since our interest in UFOs is limited to possible defence implications we do not carry out full time studies into the phenomenon nor do we have the resources to undertake any in-depth investigations. I'm sure that you will appreciate that defence funds are fully committed to the continuing security of the UK against, primarily, aggression from the Warsaw Pact countries. This being so we could not justify the use of defence funds on scientific investigations, unless a clear threat to the security of the UK had been identified.'

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Section 40

MINISTRY OF DEFENCE
Sec. (AS) 1
21 APR 1988
FILE 12/1

Section 40

2/4
2/4

At last!

LOOSE MINUTE

D/DSc(Air)/60/2/10

19 April 88

DIFS (RAF)

EMPLOYMENT OF Section 40 ON IFS (RAF) PROJECT

Reference A: LM D/IFS/(RAF)/68/14/14 19th Apr 1988

1. It is confirmed that Section 40 will be available for this work between 25 Apr 88 and 26 Aug 88 and that the project final report is requested by 5 Aug 88.

2. The project would be suitable for Section 40 to undertake as part of his placement, in that his experience on a previous project in Science 3 (Air) has involved understanding the requirements of a modern database system, and devising techniques for the recording and analysis of imprecise data. The principal requirement is that the work he does is available for assessment by his academic supervisors, and this endorses the security level suggested.

3. The Science 3 (Air) tasking number for this work is 13/88. Details are given at ANNEX A attached.

4. The point of contact in Science 3 (Air) for the personnel management of Section 40 will be Section 40

5. Para 5. of Reference A refers to the need for some travel within the UK. I trust that this travel will be funded by DIFS.

Section 40

AD Science 3c (Air)
LN803 Section 40

Copies:

D Science (Air)
Sec (AS) 2

19-APR-88

SCIENCE 3(AIR) TASK LIST

Task No: 13/88
Sheet Updated To:
Priority: 1

Title: REPLACEMENT PANDORA CODING SHEET

Date of Tasking: 19-APR-88

Tasking Reference: D/IFS(RAF)/68/14/14

SPONSOR INFORMATION

SCIENCE 3 INFORMATION

Unit/Branch: IFS(RAF)
Tasking Officer: GpCapt Section 40
Point of Contact: FS ADP (RAF)
Sponsor Aid: Yes

Science 3 Ref: D/Sc(Air)/
Location of Study: Adastral+Fieldwork
Special Facilities:None
Study Leader: Section 40
Study Staff: Section 40

TASK OBJECTIVES

Determine needs and format for a coding system of aircraft accident data to replace the existing PANDORA and produce report.

PLANNED MILESTONES

19-APR-88 Task commenced
05-AUG-88 Final Report draft due

Estimated Duration (mths):4.00 Staff Effort (man/mths):4.00

Required Completion Date: 05-AUG-88 Actual Completion Date:

PROGRESS REPORTS

The current status code of this project is : 0

UNCLASSIFIED
RESTRICTED

E21 Section 40

Section 40

D/DSc(Air)/61/4/1

24 March 1988

DSc(Air)

Copies:
DGSTI
Sec(AS)2
D115c

UFOs - Sc3(AIR) STUDY

Reference:

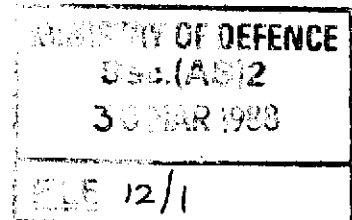
A. DI55/108/15 dated 11 Mar 88

In view of reference A and earlier discussion with Sec(AS)2 it has become clear that there is no requirement for Science 3(Air) to undertake work on UFO sightings.

As of now the subject is removed from Science 3(Air)'s field of professional interest and the subject has been deleted from its task list.

Section 40

AD Science 3(Air)
LN803 Section 40



RESTRICTED
UNCLASSIFIED

(E20)

4/3

UNCLASSIFIED
RESTRICTED

*Not quite accurate
but the gist is OK !!*

DI55/108/15

11 Mar 88

MINISTERIAL STATEMENTS 14/03/88
ONE 12/1

DGSTI (Through DI(ST) and AD/DI55)

Copies:

- D Sc(Air)
- AD Sc3(Air)
- Sec(AS)2

UFOs - Sc3(Air) STUDY

1. There has been a major development in relation to the study Sc3(Air) were undertaking on UFOs and which was the subject of a discussion between yourself and DSc(Air). I understand that when Sec(AS)2 heard about the study, they decreed that all work should cease as it was in contravention of Ministerial statements to the effect that UFOs did not pose a threat to the UK, and that resources would not be diverted from more important work to investigate UFO incidents. I also understand that there was some concern about public reaction if knowledge of the work being undertaken emerged in the media.

2. As you know our hope was that the Sc3(Air) report would provide the definite UK position on the subject, and that it could be used for many years to respond to PQs and the like. However, it now seems that all work must stop. I do not believe that we should contest this position since no way could the work be described as essential; nevertheless, we will continue to log UFO events as and when they occur.



Section 40

Wg Cdr
DI55c

RESTRICTED

UNCLASSIFIED

9343

From: Section 40 AD Science 3(Air)

MINISTRY OF DEFENCE Room 803
Lacon House Theobalds Road London WC1X 8RY

Telephone (Direct Dialling) 01-430 - 6333
(Switchboard) 01-430 5555

DI55c

Can we please get to

Section 40 the bottom of this. I have no record or recollection of X
attached and certainly did not agree to any study

Section 40
D Science(Air)
Room 1225
Main Building

Scene 3. AD Sec 3 has Your reference
repeatedly said that you were Our reference
about to speak with me

Section 40
4/1
4/2

Section 40
D/DSc(Air)/61/4/1
Date
7 March 1988

DSec(A)

SC 3 UFO STUDY

Ref: DI55/108/15 dated 25 Feb 88 DI55c to Sc3c(Air)

Please see Reference A which is probably the stimuli for the recent activity from Sec(AS).

DI55c's first paragraph implies that DSTI and yourself have agreed that Sc3 will continue with the feasibility study to look at the value of an interrogative database. Is this so?

I have met Section 40 of Sec(AS) and she remains firm in the view that we should not be doing anything about UFOs. We discussed alternative topics and these are being followed up with IFS.

Section 40

Enclosure

MINISTRY OF DEFENCE
Sec.(AS)2
10 MAR 1988
FILE 12/1

UNCLASSIFIED
RESTRICTED

DI55/108/15

25 Feb 88

Sc3c (Air) ←

Copy: Sec(AS)2a (Attn **Section 40**)

UFO STUDY

1. Further to our conversation some months ago, and subsequent correspondence, I understand that DSTI and DSc (Air) have spoken about the study you are undertaking on UFO events; no further action is planned by either Director. For his part DSTI is content that the study is progressing as we envisaged, and that you will be producing a report later this year. X |

2. As we discussed I believe that the report should cover a significant number of UFO incidents (say 100 or more) and that some attempt should be made to correlate the sightings by geographical area and/or period of day/year, and to resolve some of the questions continually posed in Parliament and by members of the public. It would also be helpful to give some examples of 'explainable' events; eg the widely reported sighting earlier this year which in the end turned out to be VENUS.

Section 40

Wg Cdr
DI55c

RESTRICTED
UNCLASSIFIED

Section 40

UNCLASSIFIED
RESTRICTED

*side D Sc. Air
explaining that this could be
very embarrassing for us and
copying caution. It is
exactly what we (administer)
have been saying for years we
do not do, and could not
do it.*

(E17)

DI55/108/15

25 Feb 88

Sc3c (Air)

Copy: Sec(AS)2a (Attn Section 40) ←

Section 40

UFO STUDY

1. Further to our conversation some months ago, and subsequent correspondence, I understand that DSTI and DSc (Air) have spoken about the study you are undertaking on UFO events; no further action is planned by either Director. For his part DSTI is content that the study is progressing as we envisaged, and that you will be producing a report later this year.

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Section 40

Wg Cdr
DI55c

MINISTRY OF DEFENCE
Sec 1/512
29 Feb 1988
E12 12/1

RESTRICTED
UNCLASSIFIED

STAT 121
EQ
soon

11 Jan 88

UFO DATA ON SCIENCE 3 (AIR) COMPUTER

1. Section 40 SC 3 (Air) rang last week to ask for copies of UFO reports sent to Sec (AS). He said that they were required for a scientific study currently being set up by SC (Air). To obtain further information I rang Section 40 (LN 633) today.
2. Although we mentioned in Aug 87 that there was no Sec (AS) requirement for UFO data to be put into the Science 3 (Air) database, Section 40 said that DISS had expressed an interest. He said that SC (Air) currently have a "work experience" sandwich course underway. Who is setting up a database of recent UFO reports together with an interrogation system for use in future analyses. I said that Sec (AS) still did not need UFO information on the computer but if there were other requirements, such as DISS, then we would have no objections. Although I couldn't see any need for computerised info for the answering of PE's / RP's / letters, there might be occasions when it would be useful.
3. At present there will be no formal study of the data, although information within the database can (when completed) be played with for analysis. Details will not be published to the general public.
4. I see no problems from our point of view. This is a DISS and SC 3 (Air) backing and should proceed if DISS formally ask SC 3 (Air) to carry it out. This will need to be done at Director level. Our standard paragraph will need to be altered slightly to reflect the change but alterations will be minor as our basic policy remains unchanged. As a final point, my recent draft letter for CSA will need to be changed: I should also ^{like to point out opportunities within the science staff!}

Section 40 14/1

Section 40

11/1

Pl speak DISS, to determine the requirement, and generally find out the b/g. Also, pl tell DISS about SC 3's approach to us, and our response (EIS).

Section 40 13/1

PTO →

OK. If DISS want to sponsor
- written heads be it!

Note of telecon

Section 40

DISS of 14 Jan 88

I rang Section 40 to ask if he knew anything about the recent SC3(Air) proposal to place UFO reports on their computer. He said that DISS had received letters from SC(Air) about this which stated that SC(Air) had highlighted a requirement to put UFO reports on computer. SC(Air) said that SEC(AE), although originally in favour of the idea, now felt that it wasn't necessary and SC(Air) had then asked DISS if they would like to sponsor this project. DISS have since written back to SC(Air) and said that they would agree to sponsor it as long as there was sufficient money within SC(Air) to fund it.

Comment :

It appears that SC(Air) have an undergraduate who needs a project to keep him busy. It seems that SC(Air) have struck on the idea of putting UFO reports on the database and have asked the student to set up a program to interrogate the data. This will provide good work experience for the student and SC(Air) feel that the data will prove useful for analysing PQS, letters, etc. [Although we will be able to give statistics, etc, I doubt that the data will prove that useful].

DISS say that they haven't been pressurized to support the project and they feel that, should there be sufficient money, this two month project may prove useful. Having said that DISS will continue to put data on their computer as well.

To conclude, it could be argued that there is not a pressing need for SC(Air) to carry out this project and the student could be better employed elsewhere. Having said that, however, the project is only to last a short time and if we were to state that there was no need for the project - it might take his employers 2 months to think of something else for him to do / post him to a new branch - during which time he could have carried out the study.

EIS

file copy

LOOSE MINUTE

D/Sec(AS)12/1

18 Aug 87

Science 3(Air)

UFO COMPUTER MODELLING

Reference:

A. D/DSc(Air)/61/4/1 dated 4 Aug 87

1. Thank you for your minute of 4 August about putting UFO data on the ORACLE database.
2. I am aware that **Section 40** was quite keen on this idea and that a considerable amount of discussion has taken place already, and I am most grateful to your staff for their interest and assistance.
3. However, having considered the matter carefully, whilst I recognise the theoretical merits of a computerised database, I am convinced that, at least as far as Sec(AS) needs are concerned, the effort and expense of such a step would be unjustified. To put the matter into context, we actually get relatively few UFO reports (around 110 per annum) and a fairly small public correspondence which, as it usually concentrates on only a handful of incidents, is not difficult to manage.
4. We therefore have no requirement for an upgraded system and can manage our correspondence from the information on our files.
5. As far as your own records and analyses are concerned, however, I am not clear what responsibilities you may have to others. Thus whilst I do not believe that Sec(AS) require any "analysis" of UFO data in order to enable us to handle public letters or ministerial enquiries on the subject, I cannot say whether the AFD, DIS or indeed CSA have any separate requirement for scientific analysis of UFO data.

Section 40

Sec(AS)2
MB 8247

Section 40



MINISTRY OF DEFENCE

Room 803
Laccon House Theobalds Road London WC1X 8RY

Telephone: (Direct Dialling) 01-430 - 6333
(Switchboard) 01-430 5555

Section 40 [redacted]

P Sec(AS)2
Room 8247
Main Building

Your reference

Our reference

D/DSc(Air)/61/4/1

Date

4 August 1987

Dear

Section 40 [redacted]

AERIAL PHENOMENA

I wish to draw your attention to the recent meeting with Section 40 [redacted] at Science 3 which contained a demonstration of how UFO data could be handled more efficiently by the ORACLE database.

Following that meeting my interpretation of a subsequent telephone message is that you have no requirement for Science 3(Air) to maintain or upgrade the current system.

The UFO project currently remains on our list of tasks with Sec(AS) as the sponsor. In the light of the outcome of the meeting will you provide written confirmation that Science 3(Air) will no longer be required to maintain UFO sighting records and analyses on behalf of MOD.

Yours sincerely,

Section 40 [redacted]

BACKGROUND TO SUGGESTED UFO TASKING

1. The present method of storing information on Aerial Phenoma is to file the various reports and proformae as they arrive. Copies are sent to various other Government bodies for study and filing. These files run to many parts (Science 3 is currently on Part M of its UFO file) making cross-referencing with other earlier files a lengthy and arduous task.
2. Science 3 has been a recipient of sighting reports for many years and has previously taken a fairly passive role. With the procurement of the ORACLE database it was thought that storing the information in the database would offer significant benefits to those involved in making use of UFO sighting reports, in particular Sec(AS).
3. The chief benefits that a database offers over conventional methods is speed. Information retrieval takes mere seconds and reports can be computer generated to user specifications within minutes, printed to the highest quality so as to be acceptable for submissions to the Minister etc ...
4. ORACLE is a fully relational database and may be interrogated on any item which is stored within its tables. Enquiries of a very complex nature are easily executed. It has all the security features that one would wish to see in a product of its type. Only specially nominated users may query a table and, even then, restrictions can be placed upon what may actually be seen.
5. Data entry into ORACLE is achieved by means of a simple form and is designed for ease of use. Data retrieval may also be performed using the same form or by means of reports set out to user defined formats. The reports are generated on a simple interactive question and answer session during which the user effectively tells the computer which item to search on. The retrieved data are then stored in a computer file for subsequent printing.
6. A major advantage of computerising the system is that considerable data may be stored in one place without the need for large files taking up valuable cabinet space. Thus many years' worth of sighting reports can be stored with ease. As stated, data searches are extremely rapid and a search through, say, five years' records of UFO sighting information of a similar kind (eg from a particular location or objects of a particular colour) would take a few minutes to perform at the most helpful in the limited time given in preparing an answer to a PQ.
7. It is not thought that additional staff would be required to input data, or that there would be any operational problems in running the task. A demonstration of ORACLE using examples of UFO data can be arranged if required.

Section 40

From Section 40

E38/L

E12

Sec (AS) 2a

Science 3 (Air)

Mo 245

LN 804A

Date 29 April 1987

Tel. 6102 / 6070 LN

Your ref. D/Sec (AS) 12/1

Our ref. D/DSc (Air) / 61 / 4 / 1

Subject UFO Computer Modelling.

1. Herewith, a list of things we can do with our computer on the subject of UFO computer modelling.
2. In addition the list shown in 3 on the sheet, we can also do a check on the most commonly seen colour, the most commonly seen shape and whether the male or female of the species sees the most UFOs. There are probably other things we can also study that I have forgotten to mention or not yet thought of. With a computer, such studies should not take long to carry out.
3. I'll be in touch as soon as we are fully operational.

MINISTRY OF DEFENCE
Sec.(AS)2
- 6 MAY 1987

FILE 12/3

Rank/
Appointment H50

Name in
Block Letters Section 40

Signature Section 40

~~E38/T~~
E11

AERIAL PHENOMENA

Using ORACLE database and the Science 3(Air) VAX 11/750 it will be possible to :-

1. Conduct rapid searches on any item covered in the proforma, based on however much data is held;
2. Produce Reports on sightings by Geographical Location
Shape of Object
Colour of Object

with other options being easily added on later;

3. Perform statistical analyses on the data to determine
correlations between sighting type and sex of observer
" " " " " area in which seen
" " " " " exact location of
observer
" " number of sightings and time of year

plus any others not mentioned here but considered later. All such studies can be broken down by geographical location, how the sighting was observed, etc.;

4. Perform Factor Analyses;
5. Perform an overall scan of the UK to determine whether there is any pattern of sightings. This can be produced using data stored over a week, month, year etc.
6. Initiate any other analyses which seem relevant to the subject.
7. Total confidentiality of observers names and addresses will be maintained and Sec(AS) would be kept fully informed of any studies undertaken and of the results of any such studies.

To: Section 40

2045A

From: Section 40

E36/2
E10Sec (AS)
MBScience 3 (Air)
Laccon House

Date 13 April 1987

Tel. LN 6070 / 6102

Your ref. —

Our ref.

Subject: Aerial Phenomena

1. I enclose some UFO sighting printouts produced by our database system as mentioned in our telephone conversation.
2. One set are the result of searching by object shape, the other by location. We have developed software for other searches eg colour, country.
3. I look forward to seeing you on 28 April

MINISTRY OF DEFENCE
Sec.(AS)2
14 APR 1987

FILE 12/3

Rank/
Appointment 1750Name in
Block Letters

Section 40

Signature

Section 40

~~E36/1~~
EQ

02-JUN-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 27-MAY-86 11:08PM

Duration of Sighting: Min : Sec

Description of Object: 4 LIGHTS SHIMMERING YELLOW

District of Sighting: BOURNEMOUTH, DORSET

Exact Position of: SEA ROAD, BOSCOMBE, STATIONARY OUTDOORS
Observer

Method of Observation: NAKED EYE

Direction of First: DURLSTON HEAD
Sighting

Angle of Sight: ABOVE HORIZON

Distance Away: OVER SWANAGE

Object Motion Details: 4 LIGHTS IN A LINE CHANGED TO FORM DIAMOND SHAPE

Met Conditions at: CLEAR NIGHT

02-JUN-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 05-JUN-86 03:30AM

Duration of Sighting: 12 Min : Sec

Description of Object: 1 ROUND TO OVAL SHAPED OBJECT WITH PIECE MISSING
OUT OF CENTRE. SOMETIMES HAD 2 POINTS ON TOP. PALE
YELLOW IN COLOUR WITH BRIGHT DOT ON EDGE

District of Sighting: CRAWLEY, SUSSEX

Exact Position of: INDOORS AT ADDRESS BELOW
Observer

Method of Observation: BINOCULARS

Direction of First: EAST TO WEST
Sighting

Angle of Sight: 75 DEGREES

Distance Away: CONSIDERABLE DISTANCE AWAY

Object Motion Details: CHANGING

Met Conditions at: DRY, BELIEVED HIGH CLOUD AS NO STARS VISIBLE
Time

Nearby Buildings etc : GATWICK AIRPORT APPROX 4 MILES NORTH

Sighting Reported To: CRAWLEY POLICE

Background Infor-:
mation on Informant

X LOSE ON FORM ONLY

Date & Time Reported: 05-JUN-86 08:45AM

02-JUN-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 15-APR-86 04:44AM

Duration of Sighting: 6 Min : Sec

Description of Object: 1 OBJECT CONSISTING OF 2 LARGE YELLOW LIGHTS
CONNECTED AND PRECEDED BY A SMALLER WHITE FLASHING
BRIGHT LIGHT.NO SOUND OR SMELL

District of Sighting: BRAUNTON, DEVON

Exact Position of: LOOKING OUT OF EAST-FACING BEDROOM WINDOW
Observer

Method of Observation: NAKED EYE AND BINOCULARS

Direction of First: IN DIRECTION OF FREMINGTON FROM BRAUNTON
Sighting

Angle of Sight: 3 DEG ABOVE HORIZON

Distance Away: POSS ABOVE FREMINGTON VILLAGE

Object Motion Details: STEADY,HEADING 250 DEG

Met Conditions at: CLEAR NIGHT SKY
Time

Nearby Buildings etc : HOUSING ESTATE

Sighting Reported To: ATC RAF CHIVENOR

Reporter's Details:

Background Infor-:
mation on Informant

Witness Details:

Date & Time Reported :

02-JUN-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 05-JUN-86 03:30AM

Duration of Sighting: 12 Min : Sec

Description of Object: 1 ROUND TO OVAL SHAPED OBJECT WITH PIECE MISSING
OUT OF CENTRE. SOMETIMES HAD 2 POINTS ON TOP. PALE
YELLOW IN COLOUR WITH BRIGHT DOT ON EDGE

District of Sighting: CRAWLEY, SUSSEX

Exact Position of: INDOORS AT ADDRESS BELOW
Observer

Method of Observation: BINOCULARS

Direction of First: EAST TO WEST
Sighting

Angle of Sight: 75 DEGREES

Distance Away: CONSIDERABLE DISTANCE AWAY

Object Motion Details: CHANGING

Met Conditions at: DRY, BELIEVED HIGH CLOUD AS NO STARS VISIBLE
Time

Nearby Buildings etc : GATWICK AIRPORT APPROX 4 MILES NORTH

Sighting Reported To: CRAWLEY POLICE

Reporter's Details: Section 40, SOUTHGATE, CRAWLEY, SUSSEX

Background Infor-:
mation on Informant

Witness Details:

Date & Time Reported : 05-JUN-86 08:45AM

10-A-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 04-JUL-86 00:30AM

Duration of Sighting: Min : Sec

Description of Object: 1 SPINNING TOP WITH RED, GREEN AND RED FLASHING
LIGHTS. NO SOUND OR SMELL

District of Sighting: CRAWLEY , SUSSEX

Exact Position of: INDOORS AT HOME ADDRESS
Observer

Method of Observation: NAKED EYE

Direction of First: OVER GATWICK AIRPORT, SUSSEX
Sighting

Angle of Sight:

Distance Away:

Object Motion Details: HOVERING

Met Conditions: CLOUDY
at Time

Nearby Buildings etc: GATWICK AIRPORT

Sighting Reported To: POLICE

Background Infor-: STATED THAT SHE HAD SEEN AND REPORTED 2
mation on Informant PREVIOUS UFO SIGHTINGS ABOUT 2 YRS AGO

Date & Time Reported: 04-JUL-86 00:35AM

These 2 pages were from a search by town, using CRAWLEY Sussex as item to search on

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 05-JUN-86 03:30AM

Duration of Sighting: 12 Min : Sec

Description of Object: 1 ROUND TO OVAL SHAPED OBJECT WITH PIECE MISSING
OUT OF CENTRE. SOMETIMES HAD 2 POINTS ON TOP. PALE
YELLOW IN COLOUR WITH BRIGHT DOT ON EDGE

District of Sighting: CRAWLEY , SUSSEX

Exact Position of: INDOORS AT ADDRESS BELOW
Observer

Method of Observation: BINOCULARS

Direction of First Sighting: EAST TO WEST

Angle of Sight: 75 DEGREES

Distance Away: CONSIDERABLE DISTANCE AWAY

Object Motion Details: CHANGING

Met Conditions at Time: DRY, BELIEVED HIGH CLOUD AS NO
STARS VISIBLE

Nearby Buildings etc: GATWICK AIRPORT APPROX 4 MILES
NORTH

Sighting Reported To: CRAWLEY POLICE

Background Information on Informant

Date & Time Reported: 05-JUN-86 08:45AM

10-AL-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 03-MAY-86 10:35PM

Duration of Sighting: Min : 2 Sec

Description of Object: 1 FIREBALL SHAPED, VERY BRIGHT, RED AND ORANGE
COLOURED OBJECT

District of Sighting: WILTON , WILTSHIRE

Exact Position of: OUTDOORS
Observer

Method of Observation: NAKED EYE

Direction of First:
Sighting

Angle of Sight: 30 TO 40 DEGREES

Distance Away:

Object Motion Details: VERY FAST FLASH ACROSS SKY

Met Conditions: CLEAR SKY
at Time

Nearby Buildings etc:

Sighting Reported To: Section 40 WILTSHIRE POLICE DIV

Background Infor-:
mation on Informant

Date & Time Reported: 04-MAY-86 02:30AM

These reports were produced by searching for ROUND shaped objects.

10-APR-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 05-JUN-86 03:30AM

Duration of Sighting: 12 Min : Sec

Description of Object: 1 ROUND TO OVAL SHAPED OBJECT WITH PIECE MISSING
OUT OF CENTRE. SOMETIMES HAD 2 POINTS ON TOP. PALE
YELLOW IN COLOUR WITH BRIGHT DOT ON EDGE

District of Sighting: CRAWLEY , SUSSEX

Exact Position of: INDOORS AT ADDRESS BELOW
Observer

Method of Observation: BINOCULARS

Direction of First: EAST TO WEST
Sighting

Angle of Sight: 75 DEGREES

Distance Away: CONSIDERABLE DISTANCE AWAY

Object Motion Details: CHANGING

Met Conditions: DRY, BELIEVED HIGH CLOUD AS NO
at Time STARS VISIBLE

Nearby Buildings etc: GATWICK AIRPORT APPROX 4 MILES
NORTH

Sighting Reported To: CRAWLEY POLICE

Background Infor-:
mation on Informant

Date & Time Reported: 05-JUN-86 08:45AM

10-AM-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 12-MAY-86 07:30PM

Duration of Sighting: 1 Min : Sec

Description of Object: 1 LARGE CIRCULAR WHITE OBJECT WITH SHORT TAIL.VERY BRIGHT WITH NO SMELL OR NOISE

District of Sighting: BROKENHURST , HAMPSHIRE

Exact Position of: AT HOME
Observer

Method of Observation: NAKED EYE

Direction of First: HEADING EAST TO WEST
Sighting

Angle of Sight: 30 TO 40 DEGREES

Distance Away: VERY CLOSE

Object Motion Details: HEADED EAST TO WEST VERY STEADY.CIRCLED THEN HEADED OFF WEST

Met Conditions: CLOUDS BUT VISIBILITY GOOD
at Time

Nearby Buildings etc:

Sighting Reported To: BROKENHURST POLICE HQ

Background Infor-:
mation on Informant

Date & Time Reported: 13-MAY-86 09:00AM

10-AP-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 13-JUL-86 06:05PM

Duration of Sighting: Min : Sec

Description of Object: 2 WHITE LIGHTS,CIRCULAR,VERY BRIGHT,NO NOISE OR
SMELL

District of Sighting: BRISTOL , AVON

Exact Position of: INDOORS,STATIONARY
Observer

Method of Observation: NAKED EYE

Direction of First: ABOVE DUNDRY HILL THEN MOVED TOWARDS WILLS FACTORY
Sighting

Angle of Sight: 875FT AMSL

Distance Away: 0.5 NAUTICAL MILE

Object Motion Details: FAST MOVING IN STRAIGHT
LINE,THEN TURNED SHARP RIGHT

Met Conditions: SKY CLEAR
at Time

Nearby Buildings etc:

Sighting Reported To: Section 40 ATC BRISTOL LULSGATE

Background Infor-:
mation on Informant

Date & Time Reported: 13-JUL-86 07:05PM

10-APR-87

AERIAL PHENOMENON SIGHTING REPORT

Date & Time of Sighting: 14-JUN-86 10:36PM

Duration of Sighting: Min : 4 Sec

Description of Object: 1 VERY BRIGHT,LARGE OBJECT

District of Sighting: WHITSTABLE , KENT

Exact Position of: OUTDOORS,STATIONARY
Observer

Method of Observation: NAKED EYE

Direction of First: ABOVE WHITSTABLE RAILWAY STATION
Sighting

Angle of Sight: 10 DEGREES

Distance Away: 0.25 TO 0.5 MILES FROM STATION

Object Motion Details: CHANGING

Met Conditions: SKY CLEAR
at Time

Nearby Buildings etc: FACTORIES

Sighting Reported To: MANSTON AIR TRAFFIC CONTROL

Background Infor-: AISM NOTE:SEVERAL ENQUIRIES RECEIVED BY
mation on Informant AISM BUT NO UFO REPORTS FORTHCOMING FROM

Date & Time Reported: 14-JUN-86 10:50PM

TIMES FRIDAY JUNE 13 1986

SPECTRUM

Phantom of
the skies ¹²

Air Force men drop to the tarmac, face down, pointing away from the hangar as a raucous klaxon echoes across the hot, dry lakebed. No one without clearance may look upon the best kept US military secret — a jet-black dumpy looking plane emerging through the hangar doors. The place is the remote Nellis Air Force Base in Nevada. The stubby black shape is an American spy plane being readied for another test flight.

Half an hour later, American radar men defending a mock Soviet target strain over their screens for an attacking aircraft. Occasionally, tiny traces appear, no more than echoes from a bird, but they are lost in the radar noise. Then comes the news: they have been overflown, undetected, by the aircraft.

This plane is so important that a new classification, "Royal Secret", way above "Top Secret", was invented to protect it — but not from the toy manufacturer in Illinois who has caused a furore by producing a plastic model kit claiming to be the Stealth bomber, though the Pentagon says any similarities are "coincidental or guesswork".

The "toy trauma" has served to raise anew the issues — political, military and economic — surrounding a project so secret that until recently it did not exist officially; only a handful of administrators and engineers were in the know.

Affectionately known as "Harvey" after the six-foot invisible rabbit that haunted James Stewart in the film of the same name, the first aircraft flew as long ago as 1975. A full squadron has been operating as spy planes for more than two years. The success of the work can be gauged by supremo Robert S. Cooper's recent comments to a House sub-committee.

"These techniques are the most revolutionary aeronau-

So secret that a
new Pentagon
classification had
to be invented for
it, the American
Stealth bomber is
at the centre of a
political row in
Washington.
Keith Hindley
pieces together
the story

tics technology since the invention of the jet engine and the swept wing. It includes reducing radar, infrared, sound, visual and other observable characteristics. Coupled with electronic warfare and medium and long range weapons, it provides a highly lethal system able to survive any threatening environment. It allows one to shoot at an opponent from the dark without being seen." Cooper is the head of the Defense Advanced Research Projects Agency, DARPA, a CIA-run and protected organization that handles research too secret for NASA.

Research includes the shape of an aircraft, the materials from which it is built and the electronic jamming equipment it carries. Many of the techniques are not new but their importance became clear after war in the air went electronic in the late 1960s. In October 1973, Soviet SAM anti-aircraft missiles efficiently destroyed more than 40 American-built fighter aircraft equipped with the latest American jamming devices during the Arab-Israeli war.

That experience may have

been the point when the Americans decided it was time to build a radar-invisible aeroplane. Much work had already been done. German scientists used techniques in World War Two to protect a submarine's "snorkel" or breathing tube from radar detection. After the war, engineers found that certain aircraft shapes and equipment gave particularly strong radar echoes.

Sharp edges, spinning turbine blades, engine pods and large tailfins all reflected strongly while rounded, delta wing aircraft like the RAF's Avro Vulcan bomber were difficult to detect. The Americans were greatly impressed when a Vulcan penetrated the US air defence radar network undetected during a Nato exercise.

This knowledge was built into the U-2 and SR-71 Blackbird spy planes (which were therefore the first such "aircraft") and the Tomahawk and air-launched cruise missiles.

The Boeing, Grumman, Lockheed, Northrop, Rockwell and Vought corporations all continued research and began to fly half-sized remotely piloted planes. A few technical papers even appeared in print. After the 1973 debacle in the Middle East, it was decided to build several full-size experimental planes, designated XST. Lockheed led the way and in August 1977 their engineers concluded that a radar invisible aircraft was possible.

The Pentagon acted quickly. The research budget was increased tenfold overnight as a DARPA project under the code-name "Have Blue". The work was classified "Royal Secret" and the CIA even retrospectively classified reports already published and tried to plug early leaks of information. The project moved to a remote, CIA-run

secret airfield known as the "Ranch" at Groom Lake near Indian Springs Air Force Base, about 30 miles northwest of Las Vegas, Nevada, and close to the bombing ranges at Nellis Air Force base.

These ranges allowed the rapid development of ideas and in open competition a Lockheed design by the flamboyant Clarence "Kelly" Johnson came out streets ahead of the others. It had flown undetected through all the Nellis targets.

Security was intensified and an operational design was developed for a reconnaissance-fighter, based on a Lockheed demonstrator. This was designated the F-19 Aurora or CSIRS (Covert Survivable In-weather Reconnaissance Strike) aircraft.

About 20 aircraft a year are being built and the first secret F-19 squadron was formed in early 1984. The F-19s can be flown to any US or NATO base unseen — inside a C-5 cargo jet. From there they can leave at night and in bad weather, if possible, on reconnaissance flights over targets too sensitive to risk the loss of the more vulnerable U-2 and

SR-71 Blackbird spy planes. They may well now operate occasionally from the RAF base at Mildenhall in Suffolk, which is used by the American Air Force. The F-19 operates between two bases to cross a specific target — the plane would never take off and then retrace its path to the same airfield.

With the first reconnaissance aircraft flying, designers turned their attention to a desperate Pentagon need — for a bomber to replace the ageing B-52. Several expensive designs developed in the 1960s and 70s became obsolete at once thanks either to new Soviet fighters, missiles or advanced radars. Even the B-1 swing-wing bomber was so easily detectable that it was

Cont.

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A'S 'INVISIBLE' AIRCRAFT

SPYPLANE

Smooth underside
Weapons and camera bay

BOMBER

Weapons and camera bay
Smooth underside

NORTHROP BOMBER

Smooth, rounded wing coated in radar-absorbing materials

Air intakes to chill exhaust

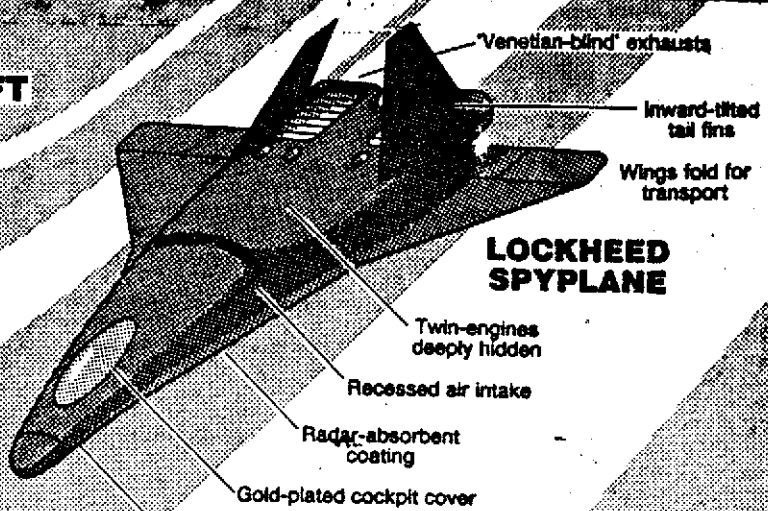
Four engines deeply hidden

Four-man cockpit

Directional jets to control aircraft

'Venetian-blind' exhausts

Advanced radar-jamming system in wing-tips



LOCKHEED SPYPLANE

Twin-engines deeply hidden

Recessed air intake

Radar-absorbent coating

Gold-plated cockpit cover

Electronic countermeasure equipment

'Venetian-blind' exhausts

Inward-tilted tail fins

Wings fold for transport

THE PRICE WAR

The Stealth bomber is at the centre of a major political and financial row in Washington. Its opponents are pressing for more details to justify a cost of nearly \$300 million for each of 110 planes. To have these planes operational by 1991 with a prototype only flying in 1987 must be very tight timing. The plane is clearly a considerable risk but the Pentagon believe it is worth taking. If it works it will give America an edge in military aviation that could last a decade; if it does not work or if the Soviets quickly develop effective countermeasures it will prove a \$50 billion flop, the biggest boondoggle in military history. Mr Caspar Weinberger, the Defence Secretary, told Congress recently that to produce 132 radar-evading planes would cost \$36.6 billion or \$277 million for each one. The cost of the model Stealth, meanwhile, is just over \$9 (£5.80).

cancelled. With the success on the Nellis ranges, the Pentagon decided to hedge its bets. It chose to build 100 improved B-1Bs while a new bomber was being developed for the 1990s.

Surprisingly, more information is available about this new bomber than the F-19 spy plane. It consists of a flying delta wing with no fuselage or fins and was designed by the Northrop corporation in tandem with Boeing and Vought. Delta wings always show the lowest radar echo and Northrop engineers had worked on two flying wings in the late 1940s.

They are also expert in the use of composite plastic materials and designers of the latest boxes of electronic countermeasures. The original con-

tract to build a prototype plane was for \$7.3 billion (£4.7 billion) and it should fly by the end of next year.

The plane probably has a wingspan of about 175 feet and weighs in at 180 tonnes. It is powered by four General Electric F101 engines used in their low temperature mode to reduce the aircraft's heat signature.

The engines are buried deeply within a thick wing, fed by curved intakes and with venetian blind exhausts supplying directed jets to help control the aircraft. There may be no conventional control surfaces on the plane at all — thereby removing another source of radar echoes.

The whole delta outline is smooth and even the cockpit consists of small windows barely rising above the wing's upper surface. The pilot may use a television camera on the landing gear to land.

... and Vladimir Gubaryev at the Ph...
... and the use of a special microphone, the play he wrote after the Chernobyl...

Voices of the unexpected on UFO hotline

By Peter Dunn

THE AEA Society, whose members believe in flying saucers, has had 50 reports of sightings of unidentified flying objects only three days after installing a UFO hotline.

The calls are being monitored at the society's European headquarters, a converted shop in the Fulham Road, west London.

"Most people when they have a sighting, get fobbed off," Dr John Holdren, committee member, said. "Some of our callers had their sightings 30 years ago and they've just wanted to get it off their chest. People have said they've been fed up with the authorities calling them 'foolish and glib'."

The hotline has been opened to celebrate what Acetherians believe to be the 50th anniversary of the first sighting of a UFO in the world in 1908 in the Osceola business.

The society has obtained a copy of a 200-page report from the Federal Aviation Authority describing in detail "the astounding UFO sightings" by a Japanese pilot over Alaska on 17 November last year.

Dr Holder, 36, a biochemist turned unit trust adviser, says he has seen more than 100 UFOs. One of the best, when he was at Hull University, was "as big as the moon".

Another was at Putney about three years ago in the middle of a sunny day. Sir George King, founder-president of the society, was with me when he flew from Putney High Street across the river towards Fulham football grounds. Sir George looked at it and said: "Oh yes. That one's from outside the solar system."

Dr Holder said that the Acetherians take their name from one of several extraterrestrial voices which have been in touch with Sir George.

"In 1954, after 10 years of practising yoga, he was contacted by a voice in his room in Maida Vale. 'Prepare yourself,' the voice said. 'You're becoming the voice of interplanetary parliament.'"

"The words turned his life upside down. Since 1955 there have been more than 600 communications through Sir George. The aim of the society is to propagate the contents of these messages.

"The voices in the recordings are in English because Sir George is English. They come from Venus, Mars, the two moons, and Jupiter and Saturn.

"We believe the extra-terrestrial transmission in the 1950s inspired the Ban the

Bomb movement. That message was passed on to all MPs at the time. Feedback was, as usual, zero," Dr Holder said.

The society believes there is a government cover-up of UFOs. They discovered a department inside the Ministry of Defence, run by a Mrs Titchmarsh, to keep the wraps on sightings.

Inquiries by *The Independent* show that Mrs Titchmarsh, a clerical officer dealing with members of the public ringing up to say they have seen a flying saucer, has been replaced by a Mr Ross.

"In the old days," Dr Holder insists, "they actually put D-notice on sightings and photographs. A member who worked for *The Star* had a picture of a sighting over the first Hyde Park porpoise festival. He rushed into his editor who was excited as well. Then they had a D-notice slapped on it."

HOW A BUG-EYED ALIEN GREETED AIR CHIEF

AMAZING new facts about the night a UFO came to Britain have been revealed by the U.S. airman who saw the craft land.

The secrets were locked away in 22-year-old Art Wallace's mind. But following hypnosis, he has now given us:

- A FULL description of the aliens who manned the ship.
 - DETAILS of how a senior American officer actually communicated with one of the beings.
 - EVIDENCE that the U.S. Air Force may have helped repair the damaged craft.
- The UFO landed near the American base at RAF Woodbridge, Suffolk, in December, 1960.
- But the close encounter was kept secret — until last month when the massive cover-up was exposed by the News of the World.

WARNED

Since Wallace — now a civilian back in the US — revealed to us what he saw that terrifying night, his life has been threatened.

During his session with two top hypnotists, Wallace — this is not his real name — not only confirmed



his original story but made some astonishing new revelations.

He now says he remembers seeing a face-to-face meeting between one of the aliens and the officer who was in charge.

The alien was between three and four feet tall, with a very large head and huge saucer-like eyes.

It appeared to have greyish skin and was wearing what looked like a dark jump suit.

Wallace was unable to hear any voices as Wing Commander — now Brigadier General — Gordon Williams and the being communicated with much hand waving and pointing

One of them floated over the UFO near to where Wallace was standing and he blacked out. The next thing he remembers, he was back in his barracks.

Wallace believes the craft needed repairs after hitting a tree.

He was told later by some of his pals on the base that a US transport plane flew in from Germany just hours after the UFO landed, and was immediately surrounded by armed military police.

A package from the plane was put in a jeep which then drove off towards the landing site at Tangham Wood. Later that day, the craft was gone.

The fact that the UFO clipped the tree has been confirmed by an official report.

The base's deputy commander, Lt. Colonel Charles Halt, admits there is "one hell of a lot more" to come out.



How Art Wallace visualised an alien.

On the road to mystery

A NIGHT out at bingo ended in a chilling encounter with a UFO for three women and a schoolgirl last week.

As they drove home to Rippingale, Lincolnshire, they spotted a strange light in a field.

Said Mrs Jenny Clarke, 31: "This object was literally dormant in the sky." "Then all of a sudden it circled round us, before going away."

(E8)

200/8 FILE

LOOSE MINUTE

D/Sec(AS)12/1

29 Nov 86

Sc3c(Air)

UFO COMPUTER MODELLING

Reference:

A. Telecon Burton/Ross dated 21 Nov 86

1. Please find attached, as requested, a typical, completed report of a UFO sighting. This is the standard format of reports, on which we draw for our replies to public enquiries.

2. For reasons of confidentiality however, when copying such reports to our various enquirers (usually UFO Societies) we remove the name and address of the informant. For this reason it would be useful if you could arrange for the programme to produce reports both including and excluding item M of the form. Item R can be excluded completely as it should no longer exist on future report forms.

3. The enquiries normally concern items A, B or C of the report form and it would be most useful if your 'search' programme could focus upon these three items ie reports by Date, Area or Shape.

Section 40

Sec(AS)2a
MB 8245 2140 MB

Colonel's top secret report tells the facts

Mystery craft in exploding wall of colour

Animals flee from strange glowing object

UFO LANDS IN SUFFOLK

A UFO has landed in Britain—and that staggering fact has been officially confirmed. Despite a massive cover-up, News of the World investigators have proof that the mysterious craft came to earth in a red ball of light at 3 a.m. on December 27, 1980.

It happened in a pine forest called Tangham Wood just half a mile from the United States Air Force base at RAF Woodbridge, in Suffolk. An American airman

And that's OFFICIAL

NEWS OF THE WORLD INVESTIGATES

By KEITH SEABEY

There were three brigades in silver space suits around the craft. The pilot and largest command was the US Air Force Major General Charles E. Hall. Other witnesses included a British Army sergeant and a civilian journalist. British Army Major General Charles E. Hall, deputy commander of the

report was intended to be confidential. "I have been told very clearly that I would not be allowed to say a word about it," he said. "But now I have no choice. I have been told very clearly that I would not be allowed to say a word about it," he said. "But now I have no choice."

The on-duty flight chief reported that a glowing object in the forest.

The object was described as being metallic in appearance and triangular in shape, approximately 100 to 150 feet across. The object had a pulsing light on top and a faint blue light underneath. The object was hovering or on the ground. The object was approached through the trees and disappeared. At this time the American and British men went into a frenzy. The object was briefly sighted approximately an hour later near the base. The next day three depressions, one-and-a-half

WORRIED

Immediately thereafter three star-shaped objects were seen in the forest. The object was described as being metallic in appearance and triangular in shape, approximately 100 to 150 feet across. The object had a pulsing light on top and a faint blue light underneath. The object was hovering or on the ground. The object was approached through the trees and disappeared. At this time the American and British men went into a frenzy. The object was briefly sighted approximately an hour later near the base. The next day three depressions, one-and-a-half

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Report Colonel Hall's account of the sighting of a "unexplained light" and a strange glowing object that lit up the forest.

The first I knew of these events was when he called to me and told me what he had seen. I know that he was very nervous and that he was very nervous. I know that he was very nervous and that he was very nervous.

I have a completely open mind. It was never thought to be an aircraft in difficulty either. The whole rescue fleet would have been sent into the forest. The whole rescue fleet would have been sent into the forest.

But whether I was in a position to perform duty in the air when so many aircraft are capable of doing.

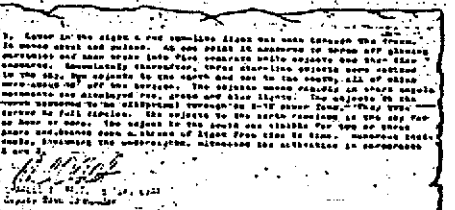
CONVOY

"I am a Christian and believe that certain things can happen which are attributed to spirits such as the birth of Jesus Christ. But the events of the night related to me are completely unbelievable."

He asked me what he should do. I told him to get on with his job. He was a pilot and he was a pilot. He was a pilot and he was a pilot.

The colonel's report confirms the sighting of a "unexplained light" and a strange glowing object that lit up the forest. The whole rescue fleet would have been sent into the forest.

When we caught up with the last of the aircraft, Art Wallace, a USAF airman, said that he saw three was a



DETAIL from Lt. Col. Charles Hall's confidential report about the sighting of a "unexplained light" and a strange glowing object that lit up the forest.

EVIDENCE



No HOAX: Brig. Gen. Williams

NO HOAX SAYS THE AIR CHIEF

THERE has been no hoax, says the man who was in charge of the USAF base at Woodbridge at the time the UFO came down. The wing commander, Major General Gordon Williams, said back home in America: "I recall Lt-Colonel Hall's report.

Silence "I don't know exactly what happened. It is all there."

"We are not a man who would give the British Ministry of Defence or the American Air Force Department. I am a Christian and believe that certain things can happen which are attributed to spirits such as the birth of Jesus Christ. But the events of the night related to me are completely unbelievable."

USAF Lt. Col. Kathleen McCullen, chief of the public affairs division at the base, said that she had seen the object. She was not an eyewitness to the events. "I was not an eyewitness to the events. I was not an eyewitness to the events."

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VEHICLE THROWING out an explosion of colours, this is airman Art Wallace's drawing of what he saw when the pulsating craft came to earth in the Suffolk countryside.

AIRMAN'S STORY Page 3

Feb 12/1

BRENDA BUTLER
JENNY RANDLES
&
DOT STREET

SKY CRASH

*A Cosmic
Conspiracy*



SUFFOLK
NEVILLE SPEARMAN

84

(E7)

Knox. There were bars protecting everything and security guards at many points. Jenny asked the receptionist if she could see someone at the department which deals with UFOs, and it took several minutes to make any progress. Denials that there was such a department were given. Even when Jenny explained that the section also dealt with low-flying aircraft complaints it did not immediately produce a response. Eventually she was asked to go and sit on a seat and pick up a telephone beside it. She did so and found herself through to Pam Titchmarsh, head of DS8.

Jenny gave her name and explained that she wanted to talk about the 1980 UFO incident in Rendlesham Forest, the name by which we knew it. Pam Titchmarsh showed instant recognition of the case. She also knew who Jenny was. 'We have corresponded,' she confirmed.

Jenny explained that she, Brenda and Dot had come into possession of a document relevant to the case, through the Freedom of Information Act in the USA. But that DS8 had denied her access to the same document and they were now worried that they might be contravening the Official Secrets Act by possessing a copy. Could Pam Titchmarsh perhaps sort things out?

The MOD official remarked that she did not think we were breaking any laws—a point subsequently affirmed by her. But she was not keen to let us into the building proper to see her. Instead, she would come down and see us. 'I'll be right along,' she said. It was twenty minutes before she turned up.

Pam Titchmarsh turned out to be a reserved, officious looking secretary, with the sort of dead-pan expression that might have framed a robot. She was obviously well trained in giving nothing away and batted question after question in a professional manner. At no point did she offer any apology for taking so long to arrive at reception.

She sat next to Jenny by the phone, and while Jenny asked most of the questions Brenda and Dot watched for reactions. They noticed how a couple of security guards stayed close to us all the time, well within earshot of the hour-long conversation that followed.

Jenny first quizzed her on the official MOD policy in general. She said she was the only person who had any involvement in UFO study and that she only spent about two or three per cent of her time on the problem. It was treated at a routine secretarial level and afforded very low priority. She was not yet too familiar with procedure as the normal rotation period was three years and she

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A Breach of Security

THE position of the MOD was now a curious one. They had told Dot they had no record of the case, and had written to Brenda saying they could not help in her quest for material. They had given Jenny the run-around until suddenly in their letter of 13 April 1983 they confirmed that a few 'lights' had been seen, but which remained unexplained. They had continued to deny access to any report upon which this letter was based.

But now we had that report, given by the MOD to the US Air Force to release to UFO investigators in America through Freedom of Information. And that report spoke of rather more than a few lights. There was animal disturbance, physical traces and radiation. And there was the second sighting, involving Lt Col Halt, which the MOD had conveniently forgotten to mention to Jenny.

On top of this there was the problem of RAF Watton. This was under MOD control. The US Intelligence officers who went there for the radar records must have had MOD permission. And the British plain clothes individuals who went around the forest asking questions of civilians on 1 January 1981, were at least potentially there with MOD backing. Yet all of this was well before the sending of Halt's 13 January 1981 memo supposedly first alerting them.

The MOD had quite a lot of answering to do. It was time to confront them head on.

On Thursday, 18 August 1983, Brenda, Dot and Jenny had an appointment in London which ended earlier than expected. We had already decided that if the opportunity arose we would take a taxi to Whitehall and see what DS8 at the MOD had to say for themselves. Gathering our thoughts we set off to do just that.

Entering the main building was rather like walking into Fort

had only been there for a few months. Interestingly, shortly after this meeting Pam Titchmarsh was moved on and yet another new head was given to DS8—well inside the normal three years!

We wanted to know how things were progressing with the decision to release files. She said that usual policy was to destroy files after five years, which is why no records exist before 1962. But in 1967, after a major wave of sightings had brought questions in the House of Commons, a decision was taken to retain them, and so everything from 1962 is still intact. 'If we do not decide to publish them', she added, 'these early ones will go to the Public Records Office in 1992.'

Jenny wanted to know if the thousands of reports she admitted were on file were all of the same format as the few bits of paper she had sent to UFO investigators—one-word answers on a single sheet. Pam Titchmarsh said that they were all like that and that each of them was just a light-in-the-sky. 'We never get cases like the ones you keep telling us about,' she pointed out. 'When pressured she claimed that *none* of the cases in the thousands they had were landings, close encounters, sightings of entities, burns on witnesses, failed car engines, physical marks on the ground—and so on. To any UFO investigator familiar with the incoming data it will be literally inconceivable that the MOD, who get reports by way of police stations, air bases and airports, *never* get sent such sightings.'

Off the top of her head Jenny could think of dozens known to have been reported to one or other of these authorities, and presumably passed to the MOD. But she was so stunned by this incredible claim that she sat open-mouthed for a few seconds trying to figure out how the MOD expected any half-knowledgeable investigator to believe such a story.

Pam Titchmarsh went on to explain how the MOD investigate a UFO claim, using 'operational staff', as she called them. Later she described these as intelligence officers, mostly from the RAF. But 'we have far more important things to bother about than UFOs' she complained, in defence of why no proper investigation was ever done. 'Our staff just satisfy themselves that the incident has no defence implications,' she told us. 'After that, we forget about it—no matter what it might be.'

Why could they not recommend that a scientific study be made of the data? 'The department could not justify recommending another department to spend money on a scientific problem,' she answered. 'If someone else wants to do a science study based on our

reports then that's fine,' she added hopefully. But, she concluded, 'That is—provided we decide to release the reports.'

Jenny had now regained some composure and was trying to reason out of her why they did not have any 'good' cases. She spoke of a few close encounters she expected the MOD to know about. 'You tell us about them. We don't get them,' Pam Titchmarsh repeated.

'Fine,' Jenny answered. 'But why do you think your sample of reports is so different from ours?'

Pam Titchmarsh began to show a hint of strain, but said 'No idea.' Undeterred Jenny tried again. 'All right, but might it not be that you never answer witnesses and you give the impression that you are not really interested. I know it is difficult, because if you admit there are UFOs—even if they don't have defence implications—you run the risk of making people think you are accepting the existence of spaceships.'

'Yes,' she agreed. 'It's a very fine line we have to tread.'

'But by doing what you do, and just dismissing them, you never get the best cases like we do. The ones that *might* have defence implications. Doesn't that worry you?'

Pam Titchmarsh gave another shrug, 'We can't force people to report to us.'

Jenny realised that she was banging against a wall, but she kept trying. How could they justify their talk of cases having no defence implications when by self-admission the MOD policy was preventing the best cases from being reported to them? All this brought was another shrug.

'All right,' Jenny decided on one last attempt. 'Suppose we were to tell you about some cases that have been reported to us. Say cases in the vicinity of air bases. Ones that look as if they might have defence implications. If we co-operated fully and passed the information on to you—would you investigate them?'

'Maybe.'

'Would you?'

'No—we probably wouldn't follow it up.'

Pam Titchmarsh then quoted off the top of her head figures for the number of sightings received in 1982 and up to that point in 1983. Later figures given in response to a question tabled in Parliament proved her quotes to be accurate. For such a low priority matter, on which she spent so little time and to which she had only just been seconded, she was certainly knowledgeable.

The figure offered for 1982 was about five times as many as the

number of cases on record with BUFORA (Britain's biggest national UFO group) for that same year. This BUFORA figure included car-stop cases, a close encounter with entities, an abduction, a burns on witness case and several other close encounters. Was Pam Titchmarsh suggesting that in a sample five times as big (reported to more official sources) the MOD had no such cases and just lights? She was asked this directly. She answered yes.

It was evident this game was leading nowhere, so Jenny turned her attention to Rendlesham Forest. This was not a light-in-the-sky, even though the MOD had called it that in their letter to Jenny. Here there was a landing, radiation, traces and so on. Pam Titchmarsh conceded that, but said, 'It's the first one we've ever had.' All the more reason to take it very seriously then. So what had been done about it? She explained to us.

The report was passed to their 'specialist staffs' who checked and satisfied themselves it was not a security threat. It was not. End of story.

How did these 'specialist staff' check, Jenny asked. The same way as usual, Pam Titchmarsh explained. All the radars in the area were contacted to see if they had a target that correlated. None of them did.

Jenny then pursued the Watton story. Just how could the USAF officers have taken any recordings from there? She had no idea. Could they do it without MOD permission? She did not believe so. What did this mean then? Again she fell back on, 'You told us about this side of the story. We know nothing about it.' But she would not admit that they had not checked with Watton. Eventually she implied that certain bases had recorded a radar target that they could not explain, but that this was found *not* to correlate with the visual sighting from Woodbridge. Because it did *not* correlate that was the end of the investigation.

Jenny probed. 'Suppose there had been a radar correlation. What would have happened?'

'I don't know.'

'Well, what has happened in the past when a radar tracking has been found to correlate with a visual sighting?'

'That has never happened.'

'Never?'

'No.'

Again this was a staggering statement. She repeated it. Jenny then inquired about the Lakenheath/Bentwaters case of 1956, when there had been simultaneous ground radar/airborne radar/airborne

visual tracking of a UFO. She had corresponded with the MOD on this matter a few months before and was still waiting for a reply—which eight months later has still to come. Yet again, Jenny was told, 'You have told us about this case. We don't know of it.'

After much fruitless arguing around this topic the closest we got to any kind of reasonable reply was a slight alteration in the tone of response. We were now told that when checking radar tapes they were really only concerned about looking for an unknown aircraft. That phrase was used deliberately. If an uncorrelated target on radar was satisfactorily shown not to be an 'unknown aircraft' then they were not really interested in it any more.

'Do you mean, if it was a UFO, then you would not be interested?'

Another shrug.

'So although you have found no interest in all these years of UFO reports, you still collect them?'

'I did not say that UFOs were without interest to us.'

But Pam Titchmarsh could not be made to elaborate on that. Warming to the challenge, and noting what we sensed was the beginnings of a few cracks in the armour, Jenny went on with the grilling. She turned to the file on the Rendlesham case. What was on it? Did it include the Halt letter they now had? Pam Titchmarsh glanced at our copy and said, 'Yes—well at least something very like this.' But they had *not* released it to the Americans, despite what the USAF had said.

'And what else?'

'Nothing else.'

'No report from the operational staff saying it was not of interest?'

'Nothing.'

'Do the operational staff have files of their own then?'

'I wouldn't know,' Pam Titchmarsh said uneasily.

Brenda interposed to point out that Squadron Leader Moreland had told her he had included a forwarding letter with Halt's report. 'Yes, we do have that,' the MOD secretary now admitted. 'But nothing else,' she insisted. Dot wanted to know why she had been told that she was not with the department in 1981, when Dot made the call, but suggested that the file might have got temporarily mislaid. Things did sometimes get filed in the wrong place, she offered tentatively.

Jenny knew that the MOD also had several letters from her and

Brenda on the case. Those presumably were in the same file. But she had not talked of those, although she had admitted receiving them when asked.

By now the case had been talked around in much detail and the secretary had displayed excellent familiarity with it. She had been able to quote dates and point to articles written about it, even though she carried no notes or documents with her to which she referred. Jenny was of the opinion that the delay between the internal phone call and Pam Titchmarsh's appearance in reception was probably because she had either gone to take advice on what to say, or had been to consult the 'file', which from her claims about it could have been read through in two minutes, not twenty. So Jenny asked her this.

No, she assured them. She had not taken advice or read a file. But she still offered no reason for the delay. So Jenny asked how she was familiar with so much detail about the case, considering UFOs were of so little importance to her department. Did she have a photographic memory perhaps? That would be quite a boon. But the reason given was most intriguing.

'I was given a briefing earlier in the week by our specialist staff who look at radar cases. This case was brought up as an illustration. That's how I know about it.'

What a fortunate coincidence that was. Jenny was fairly sure she had slipped and said 'we had a briefing', which would be odd since she was supposed to be the only one involved with UFO work. But the moment passed by.

Jenny wanted to know what explanations the specialist staff had to offer about the sighting. 'None', she was told. 'They had no idea what it was.' Jenny inquired again. 'No,' was the firm reply. In that case, Jenny wondered, what else did the MOD do about the matter? 'Nothing' was the sum of the answer.

'You mean to ask us to believe that such an incident right next to a base, involving radiation readings and traces and where whatever it was did not record on your radar, and for which your staff had no explanation—that was just ignored?'

Jenny was indignant, but it made little impact on the unflappable Pam Titchmarsh.

'The staff were obviously satisfied they were not a defence threat,' was the reply.

Who were 'they'? Brenda leapt in immediately, with a vital question. 'How were they satisfied? Did they speak to them and find out they weren't hostile?'

The lady with the security clearance stayed calm and collected and shrugged yet again.

The strains of this session were beginning to tell on all of us, and we felt that we had come as far as we were ever likely to get. So we thanked Ms Titchmarsh and proceeded to leave.

It was 5.30 pm. We did not want her to have to work too much overtime. Perhaps she would now have a report to write.



MINISTRY OF DEFENCE
Main Building Whitehall London SW1A 2HB
Telephone 01-218 2140 (Direct Dialling)
01-218 9000 (Switchboard)

Section 40

Head ATC Licensing
Room T807
Civil Aviation Authority
CAA House
45-59 Kingsway WC2B 6TE

Your reference 8W 3/11/14

Our reference D/Sec(AS)/12/1 ✓

Date 17 July 1985

Dear Section 40

UFO REPORTS

Thank you for your letter of 28 February 1985, I am sorry that I have not been able to reply before now. As I informed you on the telephone recently, I have however consulted the London ATC Centre (Military), who are mentioned in the page of MATS Part 1 requested by the Lancashire Centre for UFO Studies. I can now confirm that we would have no objections to the page being reprinted by the Centre.

Yours sincerely

Section 40



ES

LONDON AIR TRAFFIC CONTROL CENTRE (MILITARY)

Royal Air Force West Drayton, Middlesex, UB7 9AU

Telephone West Drayton 44077 ext

Ministry of Defence
Room 8245
Main Building
Whitehall
London
SW1 2HB

*Please reply to
The Officer Commanding*

*Your reference
D/SEC(AS)/12/1*

*Our reference
LATCC(Mil)/100/2/Ops*

Date

26 Mar 85

UNIDENTIFIED FLYING OBJECTS

1. Your letter dated 14 Mar 85 requests our approval before you agree to the Head of ATC Licencing allowing the Lancashire Centre for UFO Studies to reproduce the UFO report form, as published in the Manual of Air Traffic Services, because AIS(Military) is mentioned in the text.
2. It is well known that AIS(M) at LATCC(Mil) is the receiving point for the numerous UFO reports. Any requests, received at AIS(M) for information concerning UFOs are politely denied and the caller referred to MOD S4F.
3. No difficulty is foreseen by AIS(M), in allowing the UFO report form being reproduced by the Lancashire Centre for UFO Studies.

Section 40



Wg Cdr
for OC



With Compliments

Please find attached a further letter from Lancashire Centre for UFOs following my letter dated 28 Feb.

Civil Aviation Authority
CAA House, 45-59 Kingsway, London WC2B 6TE
(main entrance Kemble Street)

Telephone **Section 40** Telex **Section 40**

Section 40

ATC
LICENSING

14 Mar 85

154

NATIONAL AIR TRAFFIC SERVICES

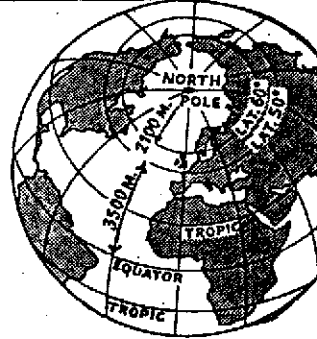
L. C. F. U. F. O. S.

13 MAR 1985

LANCASHIRE CENTRE for U. F. O. STUDIES SENSING

ODYSSEY

LANCASHIRE CENTRE FOR U.F.O. STUDIES
Section 40
BURNLEY, LANCS. ENGLAND.



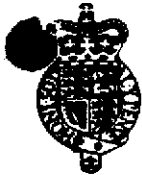
Dear Section 40

Thank you for your letter dated 28th Feb 1985. You ask in your letter the extent of this distribution of the reprinted page 6-18 from MATS Pt 1. It goes out to all members of the L.C.F.U.F.O.S. also sells some 40 copies in some books shops in our town. This is to try and show the general public that certain Authorities like the CAA do have a serious attitude towards this subject. I await your letter, of approval from the MOD.

Yours

Section 40

(Director-L.C.F.U.F.O.S.)



MINISTRY OF DEFENCE
Main Building Whitehall London SW1A 2HB
Telephone 01-218 214 (Direct Dialling)
01-218 8000 (Switchboard)

Aeronautical Information
Section (Military)
London Air Traffic Control
Centre (Military)
Royal Air Force
West Drayton, Middx UB7 9AU

Your reference

Our reference

Date

D/Sec(AS)/12/1 ✓

14 March 1985

Dear Sir

UFO REPORTS

1. You will wish to see the attached correspondence which is self explanatory. Clearly Head of ATC Licencing sees no difficulty in allowing the Lancashire Centre for UFO Studies to reproduce this page of the Manual. Indeed we would be equally happy to allow this release on the grounds that the format given at sub-paras 3A to L is freely available from this office on request. Indeed sub-paras M to P are withheld merely to protect the privacy of the informant who, of course, submits a report in confidence.

2. However, AIS(Military) is mentioned in the text as the reporting point for ATC controllers and I would therefore be grateful for your agreement to the Centre's request before I reply to Mr Staley.

Yours faithfully

Section 40



ATC Licensing
Room T807
Civil Aviation Authority
CAA House
45-59 Kingsway
(main entrance Kemble Street)
London WC2B 6TE
Telephone Section 40
Telex Section 40



Section 40

Sec (AS)2
Room 8247
RAF Main Building
Whitehall
LONDON S.W.1

8W 3/11/14

28 February 1985

Dear Section 40

I enclose a copy of the letter from Lancashire Centre for U.F.O. Studies we spoke about last Monday together with my initial response. I also enclose a copy of the page from MATS Pt 1 to which they refer.

I look forward to your reply in due course. Please feel free to contact the club directly for further information if you need it.

Yours sincerely

Section 40

Head ATC Licensing

CHAPTER 4 MISCELLANEOUS REPORTS

1 BIRD STRIKES

The completion and processing of bird strike report forms (CA 1282) is the responsibility of the aerodrome authority, but controllers should be aware of local arrangements for the input of information and should, where appropriate, encourage pilots to follow the procedure. This complies with Mandatory Occurrence Reporting procedure.

2 MARITIME INCIDENTS

Disasters at Sea

Pilots witnessing a disaster at sea or seeing a disaster not previously notified have been requested to report the incident to any ATSU as quickly as possible.

Marine Pollution

Pilots sighting substantial patches of oil or possible harmful substances have been asked to make reports to the ATSU with whom they are in communication, or to the appropriate FIR controller. Reports on RTF will be prefixed 'Oil Pollution Report', or '. . . Pollution Report' and should contain the following basic information:—

- (a) The time pollution was observed.
- (b) Position and extent of the pollution.
- (c) Name and nationality, or description, including any distinctive markings, of any vessel seen discharging oil or other harmful substances.

Information on the following may also be included:—

- (d) Assessment of the course and speed of any vessel seen discharging oil or other harmful substance.
- (e) Whether any pollution was observed ahead of the discharging ship and the estimated length of the slick in her wake.
- (f) The direction in which the pollution was drifting.
- (g) Identity of any other vessels in the immediate vicinity.
- (h) Wind and sea conditions.

ATC Action

Any ATSU receiving such reports should pass them without delay to an ATCC. The ATCC supervisor on receiving such a report should pass this as soon as possible to:—

- (a) the nearest District Officer of H.M. Coastguard (a list of addresses and telephone numbers is held at each ATCC), and
- (b) the appropriate Maritime Headquarters of the Ministry of Defence at Rosyth (Pitreavie) if the incident occurs north of 52° 30' N. or at Plymouth (Mount Wise) if it occurs south of that latitude.

Similar procedure should be followed if a pilot makes such a report by telephone after landing.

A LIST OF TELEPHONE NUMBERS AND LOCATIONS IS SHOWN IN THE DIRECTORY
AT APPENDIX H

Chapter 4

3 UNIDENTIFIED FLYING OBJECTS

A controller receiving a report about an unidentified flying object must obtain as much as possible of the information required to complete a report in the format shown below.

Report of Unidentified Flying Object

- A. Date, Time and Duration of Sighting**
Local times to be quoted.
- B. Description of Object**
Number of objects, size, shape, colours, brightness, sound, smell, etc.
- C. Exact Position of Observer**
Geographical location, indoors or outdoors, stationary or moving.
- D. How Observed**
Naked eye, binoculars, other optical device, still or movie camera.
- E. Direction in which Object was First Seen**
A landmark may be more useful than a badly estimated bearing.
- F. Angular Elevation of Object**
Estimated heights are unreliable.
- G. Distance of Object from Observer**
By reference to a known landmark wherever possible.
- H. Movements of Object**
Changes in E, F and G may be of more use than estimates of course and speed.
- J. Meteorological Conditions During Observations**
Moving clouds, haze, mist, etc.
- K. Nearby Objects**
Telephone or high-voltage lines; reservoir, lake or dam; swamp or marsh; river; high buildings, tall chimneys, steeples, spires, TV or radio masts; airfields, generating plant; factories; pits or other sites with floodlights or other lighting.
- L. To Whom Reported**
Police, military organisations, the press, etc.
- M. Name and Address of Informant**
- N. Any Background Information on the Informant that may be Volunteered**
- O. Other Witnesses**
- P. Date and Time of Receipt of Report**

The details are to be telephoned immediately to AIS (Military), LATCC.

The completed report is to be sent by the originating air traffic service unit to the Ministry of Defence (AFOR).

A LIST OF TELEPHONE NUMBERS AND LOCATIONS IS SHOWN IN THE DIRECTORY
AT APPENDIX H

L. C. F. U. F. O. S.

NATIONAL AIR TRAFFIC SERVICES

21 FEB 1985

LANCASHIRE CENTRE for U. F. O. STUDIES

ATC LICENSING 3750

Directors: Section 40

Section 40

Council: Section 40

Burnley, Lancs

Date 16th Feb 1985

Dear Civil Aviation Authority

I am writing to you to ask your permission to re-print one of your publications. That publication being 'Manual of Air Traffic Services Part 1 Chapter 4, 3 Unidentified Flying Objects. Because it is an official publication, it is essential that I obtain your permission.

Hopeing for your co-operation

Yours

Section 40

(Director-L.C.F.U.F.O.S.)

LANCASHIRE CENTRE FOR U.F.O. STUDIES

Section 40

BURNLEY, LANCS. ENGLAND.

ATC Licensing
Room T807
Civil Aviation Authority
CAA House
45-59 Kingsway
(main entrance Kemble Street)
London WC2B 6TF
Telephone Section 40
Telex Section 40



Section 40

Director
Lancashire Centre for U.F.O. Studies
23 Queen Victoria Road
Burnley
Lancashire

8W 3/11/14

28 February 1985

Dear Section 40

Thank you for your letter dated 16 February 1985.

I do not think there would be any difficulty in principle in reproducing page 6-18 from MATS Pt 1 provided you acknowledged the source of the information (ie: with permission of CAA). However, before I can give approval I will have to ask MOD if they have any objection. I would also be grateful if you could give me some idea of the extent of the distribution of the re-printed page and what use is to be made of it. Do you intend to make reports to MOD in that form yourself?

I will write to you again when I have had a reply from MOD.

Yours sincerely

Section 40

Head ATC Licensing

file
EA

LOOSE MINUTE

D/Sec(AS)/12/1

4 Mar 85

AF Ops

Copy to:
DI55

REVIEW OF AIR FORCE OPERATIONS SOPS

Reference:

A. D/AF Ops/2 dated 14 Jan 85

1. Thank you for Reference A in which you asked us to examine the existing SOP No 502 (Reports of Unidentified Flying Objects).
2. Please find attached an updated version of the SOP which takes account of reorganisation. Unless copy addressees wish to add anything I see no need for further amendment.




Sec(AS)2a
MB 8245 2140 MB

COPY NO _____

SOP NO 502

MINISTRY OF DEFENCE
AIR FORCE OPERATIONS ROOM
STANDARD OPERATING PROCEDURE NO 502

REPORTS OF UNIDENTIFIED FLYING OBJECTS

Reference: AF Ops/1/11 
Annex : Report of an Unidentified Flying Object
Sponsor : Sec(AS)2

INFORMATION

1. Sec(AS)2 co-ordinate detailed investigation into reports on Unidentified Flying Objects, consulting AEW/GE and DI 55, and correspond with the public on the subject of UFOs when required.
2. Circulation of reports on UFOs is the responsibility of Sec(AS)2 during normal working hours, and AF Ops outside normal working hours. Reports may be received by telephone message or by signal message.
3. Copies of all UFO reports received in AF Ops and reports of AF Ops initial investigation, are circulated to Sec(AS)2, AEW/GE and DI 55.
4. The above mentioned reference gives considerable detail on the stages of investigation of UFO reports, and information should be passed to Sec(AS)2 as early as possible.

ACTION BY THE DUTY OPERATIONS OFFICER

5. During Normal Working Hours. Refer telephone calls reporting UFOs to Sec(AS)2, Ext 2140. No action is required on signal message reports.
6. Outside Normal Working Hours
 - a. Reports Received by Telephone. Complete the proforma at the Annex to this SOP. Dispatch it through the Registry.
 - b. Reports Received by Signal Message
 - (1) Ensure that the message has been circulated to the staffs detailed at para 3 above.
 - (2) Complete para R of the proforma at the Annex to this SOP and insert on the proforma the signal message reference to which the investigation refers. Dispatch it through the Registry.

REPORT OF AN UNIDENTIFIED FLYING OBJECT

A.	Date, Time & Duration of Sighting	
B.	Description of Object (No of objects, size, shape, colour, brightness)	
C.	Exact Position of Observer Location, indoor/outdoor, stationary/moving	
D.	How Observed (naked eye, binoculars, other optical device, still or movie)	
E.	Direction in which object first seen (A landmark may be more useful than a badly estimated bearing)	
F.	Angle of Sight (Estimated heights are unreliable)	
G.	Distance (By reference to a known landmark)	
H.	Movements (Changes in E, F & G may be of more use than estimates of course and speed)	
J.	Met Conditions during Observations (Moving clouds, haze, mist etc)	
K.	Nearby Objects (Telephone lines, high voltage lines, reservoir, lake or dam, swamp or marsh, river, high buildings, tall chimneys, steeple, spires, TV or radio masts, airfields, generating plant, factories, pits or other sites with floodlights or night lighting)	

L.	To whom reported (Police, military, press etc)	
M.	Name & Address of Informant	
N.	Background of Informant that may be volunteered	
O.	Other Witnesses	
P.	Date, Time of Receipt	
Q.	Any Unusual Meteorological Conditions	
R.	<u>Remarks</u>	

Date.....

.....
Squadron Leader
Duty Operations Officer
AF Ops

Copies to:
Sec(AS)2
AEW/GE
DI 55
File AF Ops/1/11

E1
file

~~CONFIDENTIAL~~
UNCLASSIFIED

LOOSE MINUTE

D/AF Ops/2 - 766

14 Jan 85

See Distribution

1/30
15 JAN 1985

REVIEW OF AIR FORCE OPERATIONS SOPS

Reference:

- A. SOP No 502: Reports of Unidentified Flying Objects
- B. SOP No 504: Flying Complaints - UK

1. The recent changes in MOD Organisation and the age and suitability of some AFOPS SOP's have highlighted the need for a comprehensive review.

2. It is requested that the above SOPs be examined and redrafted as needed and resubmitted to AFOPS.

3. The SOP should cover as much background information as required and should clearly indicate the action expected from the AFOPS Duty Officer (DO) both during and outside working hours. Wherever possible an SOP should conform to a standard layout ie:

SOP No

TITLE

SPONSOR

INFORMATION

ACTIONS BY THE DO

a. DURING NORMAL WORKING HOURS

b. OUTSIDE NORMAL WORKING HOURS

4. Where it is necessary for the DO to contact staff by telephone, only the appointments should be given in the SOP. Telephone numbers should be provided separately and updated as required by the sponsor. This will keep the SOP tidy and avoid frequent amendments.

UNCLASSIFIED
~~CONFIDENTIAL~~

5. Copies of the relevant SOP's are available from AF Ops on request.

Section 40

Sqn Ldr
for OIC AF Ops

Distribution:

SEC(AS)2 ←
DDGE/AEW
DD AIR OFF
DD AIR SUP
DD AIR DEF
DD MAR
DD EW & R
DIFS(RAF)
DDTO
SIGS 61
FLS
MOV OPS(RAF)
DI 61
WPN ENG 3
ENG POL 31
REGT 1
LOGS PLANS 1
D CTS(NATO)(EW)1
NAR(TE)
Sy 3a