ANNEX A

STUDY TERMS OF REFERENCE

1. **Aim** The aim of this task is to determine the potential value, if any, of UAP sighting reports to defence intelligence.

2. **Method** A limited analysis based on an electronic relational database containing data extracted from UAP sighting reports, over a period to the present date. The period will be dictated by the time available to input data to meet the task deadline, but should be sufficient on which to justify the analysis tasks

3. **Database** The database should, at least, record:

   a. A discrete event number for each event.

   b. Details of location(s), including any potential military or economic targets.

   c. Times and dates.

   d. Details of person(s) reporting the event and 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. A categorisation of the event as follows:

   - Probable Military/Civilian aircraft
   - Probable space-associated event, such as meteor, re-entry vehicle or planet.
   - Probable Hoax or publicity stunt.
   - Unidentified.

   g. Any possible explanation, such as military exercises etc.

4. **Report** A final report is required which should include:

   a. A description of the database.

   b. Discussion of the analysis.

   c. Findings and Recommendations

5. **Security** The classification for this task is **RESTRICTED UK EYES ONLY.**

ANNEX B

MODCIS (RAF10)

ANNEX A TO
SOP 502

101

REPORT OF AN UNIDENTIFIED FLYING OBJECT

1.	Date, Time & Duration of Sighting	262050 Local Apr 93 several minutes
2.	Description of Object (No of objects, size, shape, colour, brightness)	Like a puff of cloud, then circular, very light with a red light flashing (note - crossing from right to left)
3.	Location, indoor/outdoor, stationary/moving	Outside
4.	How observed (naked eye, binoculars, other optical device, still or moving)	naked eye
5.	Direction in which object first seen (A landmark may be more useful than a badly estimated bearing	Going from Wimbledon towards Roehampton
6.	Angle of Sight (Estimated heights are unreliable)	Not known
7.	Distance (By reference to a known landmark)	None estimated
8.	Movements (Changes in 5,6 & 7 may be of more use than estimates of course and speed)	Seemed to be about the speed of an aircraft
9.	Met conditions during observations (Moving clouds, haze, mist etc)	Clear sky
10.	Nearby objects (Telephone lines, 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 night lighting)	Nothing of note
11.	To whom reported (Police, military, press etc)	AFDO
12.	Name & Address of Informant	XXXXXXXX XXXXXXXXX just off Wimbledon Common

S. 40

13. Background of Informant that may be volunteered

Sensible, was partially mollified by the Airship Ford Mondeo

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14. Other Witnesses

---

15. Date, Time of Receipt (in AFOR)

261955Z Apr 93

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16. Any Unusual Meteorological Conditions

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17. Remarks

Would have believed the Airship Ford Mondeo but for the fact that we were told it was operating in the Ilford/Romford area. **May we have a Telephone No for the operators of the airship so that we may check its operating area? That would be very helpful.**

---

xxxxxxx S.40

Date: 26 Apr 93

RO2
Duty Operations Officer
Air Force Operations

Distribution:

Sec(AS)2, Room xxx Main Building
AEW/xx, Room xxx Main Building
DI 55, Room xxx Metropole Building
File D/AFOPS/2/5/1
NB. Please note that the format of this form accords with Civpol formats

not relevant

TO ALL AFDOS: PLEASE USE THIS AS A MASTER COPY AND IMMEDIATELY ON OPENING USE THE "SAVE AS " FUNCTION TO MAKE A COPY FOR THE ACTUAL REPORT! SORRY BUT IT WAS NOT POSSIBLE TO PUT THIS REMARK AT THE START OF THE REPORT,AS IF TRIED ALLTHE BLOCK SETTINGS ARE DESTROYED!!!

U N C L A S S I F I E D

CYO044 23/1254 266C1360

FOR CAI

ROUTINE 221545Z SEP 97

FROM RAF WITTERING
TO MODUK AIR

U N C L A S S I F I E D
SIC Z6F
ATTN FOR SEC(AS)2A
A. 210115 SEP 97
B. 2 REVOLVING LIGHTS MOVING ROUND EACH OTHER, FLASHING AT DIFFERENT SPEEDS
C. XXXXXXXXXXX WERRINGTON, PETERBOROUGH S.40
D. NAKED EYE
E. OVERHEAD XXXXXXXXXX S.40
F. 15 DEGREES
G. 200-500FT HIGH
H. EAST TO WEST
J. SKY CLEAR
K. HOUSING ESTATE AND COUNTRY LANE
L. RAF WITTERING S.40
M. XXXXXXXXXXXXXXXXXXXX , WERRINGTON, PETERBOROUGH, XXXXX

PAGE 2 RBDBYL 0013 UNCLAS
N. AREA MANAGER FOR A TRADE ASSOCIATION
O. WIFE
P. 221515Z SEP 97
BT

DISTRIBUTION Z6F
F
CAB 1 SEC(AS) ACTION (CWE 1 DCMC REG DUTY(AIR))
CXL 1 DD GE/AEW
CAI 1 DI 55

REPORT OF AN UNEXPLAINED AERIAL SIGHTING

1. Date, time & duration of sighting	25 OCT 96 ONE MINUTE 5:35AM
2. Description of object (No of objects, size, shape, colour, brightness, noise)	KITE SHAPED. 4 WHITE + GREEN LIGHTS. 4 "FINS" UNDERNEATH. 6 RED LIGHTS IN THE CENTRE
3. Exact position of observer (Indoors/outdoors, stationary/moving)	INDOORS
4. How observed (Naked eye, binoculars, other optical device, camera or camcorder)	NAKED EYE
5. Direction in which object first seen (A landmark may be more useful than a roughly estimated bearing)	
6. Angle of sight (Estimated heights are unreliable)	280 feet HIGH.
7. Distance (By reference to a known landmark)	
8. Movements (Changes in 5, 6 & 7 may be of more use than estimates of course and speed)	CIRCLING ROUND ABOVE HIS FLAT THEN SHOT OFF AT HIGH SPEED.
9. Met conditions during observations (Moving clouds, haze, mist etc)	MILD
10. Nearby objects (Telephone lines, 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 night lighting)	PAGE 2.

11. To whom reported (Police, military, press etc)	
12. Name, address and telephone no of informant	XXXXXXXXX XXXXXXXXX S.40 XXXXXXXXX RUNCORN CHESHIRE. XXXXXX
13. Any further detail volunteered	ALSO SEEN IN NOVEMBER 94.
14. Other witnesses	
15. Date and time of receipt	27 JAN 97. 11AM
16. Remarks	REPLY REQUESTED.

ANNEX C

Code (date)	Location	Description of object
1607.11.27.KO1	BM-Brno-JM	during a storm a fiery sphere landed on the ground, illuminating the entire vicinity for an hour
1619.06.11.KO1	SY-Odranec-VC	resembling a mill wheel with letters, blood-red colours, 3 mornings, 3 pieces of metal fell to the ground
1624.11.00.KO1*	CC-Bohemia-CC	a rotating sphere, white to blue and dark red, flying from west to east on all occasions in afternoon
1684.10.13.KO1	KV-Jáchymov, Boží Dar-ZC	a strange body flew over Jáchymov and later over Boží Dar
1744.07.06.KO1$_1$	LI-Hrádek n. N-SC	two luminous spheres
1796.03.08.KO1	CC-Bohemia-CC	an enormous flying sphere, exploded on ground, a frothy material subsequently remained
1874.04.24.KO1$_1$	AB-Prague-Pha	a strange body flying across the face of the moon
1908.06.28.KO1	LT-Dolánky u Terezína-SC	bright yellow tube with flames coming out of both ends
1908.06.29.KO1	LT-Dolánky u Terezína-SC	red glowing [object] with distinct smoke trail

TABLE C-1 TYPICAL REPORTS – CZECHOSLOVAKIA (1607-1985)

Notes: 1. These reports are included as a confirmation of the consistency of descriptions, which apppear to be unchanged, compared to today's reports.
2. The Czech letters in column 2 are believed to represent: 'S' = 'North'; 'V' = 'East'; 'J' = 'South'; 'Z' = 'West'. 'St' may stand for 'Central', 'C' for 'Bohemia' and 'M' for 'Moravia'.

/contd.

1913.11.KK.KO1	BI-Brno-Židenice-JM	6 red stars which rotated around an imaginary centre for approximately 7 minutes
1938.00.00.CO1$_{=}$	MM-Moravia-MM	3 shiny crosses in sky, 1 large and two smaller ones on the sides, strange light
1938.10.07.DO1$_{=2}$	JC-Slatiňany/Miličeves-VC	a red sphere surrounded by grey-black rotating rays, low flying, vicinity red
1939.00.00.DO1$_{=}$	BV-Pohořelice-JM	orange glow across entire half of sky
1944.LL.KK.DO1$_{+1}$	PJ-Blovice-ZC	silver cigar-shaped object with lighter area at bottom, flying to NE
1945.05.00.DO1$_{=}$	PV-Prostějov-JM	in a break in clouds 5 red oblong objects, without wings, noiseless
1951.00.00.KO1	CC-Western Bohemia-ZC	yellow-green luminous sphere, big as the moon, moving in various directions
1955.07.00.KO1	NJ-Trojanovice p. Radh.-SM	3 stationary orange spheres, then movement towards observer, then suddenly disappeared
1956.06.00.KO1	PI-Předbořice u Kovářova-JC	5 disks, at circumference [? yellow, white & red lights], howling of dog, sound resembling buzzing of bee, sailed to SW
1958.06.00.DO1	SU-Střelnice Hill, near Loštice-SM	isosceles triangle with rounded corners the colour of a red sky
1960.00.00.KO1	BM-Brno-JM	irregularly moving disk, intercepted neither by radar nor by fighter aircraft
1961.08.00.DO1$_{=}$	PI-Milevsko-JC	noiseless overflying by 5 orange, shining, oval objects above the town

1961.09.17.DO1$_2$	HB-Ledeč n. Sáz.-VC	golden-pink sphere, stopped for 30 sec. in front of the church tower, then circled upwards
1963.10.00.KO1	VS-Střelná-SM	strongly shining disk flying from N to S, something forced witness to turn round
1965.00.00.DO1$_1$	AB-Prague 10-Malešice-Pha	box-like object, hovering above spot, then suddenly disappeared
1965.11.LL.PR.DO1	PC Mníček p. Brdy-StC	two shiny, lenS-shaped, rainbow colour formations, each climbing in a different direction
1965.04.05.KO1	CC-Čechy-CC	4 to 6 luminous objects with a long luminous trail, reappeared after 12 minutes
1969.08.00.DO1$_{*2}$	OT-Vítkovice-SM	silvery figure above the witness and sleeping colleague, immobilization, avoided being touched
1970.10.18.DO1$_{*1}$	BE-Drozdov u Cerhovic-StC	point of light, in telescope sphere with rainbow around it
1973.10.07.KO1*	OT-Ostrava-Poruba-SM	moon-like sphere with orange spot at bottom left, stationary, then flew upwards
1974.00.00.DO1$_1$	PH-Mstětice u Zelenče-StC	round to oval orange object not more than 50 m from observer
1974.08.00.DO1$_1$	NA-Jaroměř-VC	metal disk/by day/orange light from sides, slowly rotating, size 200 m x 10 m
1974.08.DP.DO1$_2$	LN-Vršovice u Ohře-SC	unpleasant whizzing, cone of light searching the ground
1975.07.00.NO1$_1$	LI-Ještěd-SC	45-min. loss of consciousness, found stone in shape of head

1976.LL.00.KO1+	PA-Pardubice-VC	large metal disk, glowing and manoeuvring, observed by fighter pilot
1976.04.16.KO1	SC-all of Bohemia, Moravia and Slovakia	5-6 lights, flying in formation
1977.07.02.DO1UO	Kunvald-VC	triangular structure with 4 red lights, flying in a curve and disappearing beyond the horizon
1977.08.00.CO1=	RA-Zdeslav u Čisté-StC	2-m orange sphere which emerged from the water of a lake and disappeared again
1978.01.01.DO1+	UL-Ústí nad Labem-Sc	disk with two brighter spots (like eyes), jerky movement flying between clouds
1978.08.08.KO1	PM-Plzeň district-ZC	formation of 6 yellow and red lights, pursued by L-29 aircraft
1979.01.24.DO1	BR-Rudná p. Pradědem-SM	yellow and red sphere with sparkling tail circling in sky
1982.00.00.DO1+	AB-Prague 8-Čimice Pha	two luminous circles, the top one with variegated lights, stationary in sky
1982.JJ.KK.DO1=	TP-Dubí-SC	complicated, variegated but transparent formation, only the edges illuminated
1982.LL.00.UO1'	KH-Suchdol u Kutné Hory-StC	yellow and white point of light moving across the sky in a rectangular turn
1982.LL.00.DO1	AB-Prague 3-Žižkov-Pha	yellow and orange sphere, stationary, then flew upwards in a split second
1983.LL.00.DO1=	CH-Cheb-ZC	projectile-shaped object with rounded tip, flew away rapidly

1983.10.09.D01	BR-Bruntál-SM	rotating disk giving off yellow and red flashes
1983.10.29.D01	BR-Nová Rudná-SM	two red pulsating lights
1983.11.21.D01$_2$	UL-Labské udolí	lens-shaped body powerfully illuminating the area with a cone of cold light
1984.01.01.D01=	PC-Černošice-Mokropsy-StC	3 white shining spheres, flying in formation
1984.01.09.K01*	BV-Dolní Dunajovice-JM	white point with bright red, long and thin tail, straight flight 4-5 secs.
1984.01.13.K01*	BN-Vlašim-StC	brightly shining object with fuzzy tail, flying noiselessly along a straight path
1984.10.00.K01$_2$	HO-Hodonín/Kopčany JM	pear-shaped body, 3 m away a figure in a metal space suit, conical head
1985.02.02.D01=	UL-Ústí nad Labem-SC	star, later more of an oval, illuminating the area underneath it with a conical variegated light
1985.06.05.K01*	PE-Horní Pravíkov-JC	bright yellow line from N to W - possibly the trail behind a body, interrupted by clouds
1985.07.05.D01*	PH-Srbín u Mukařova-StC	luminous object, its angular contours illuminated by small coloured luminous points
1985.08.03.D01=	AB-Prague 9-Pha	white luminous sphere flying low above the street lights in Prosecká ulice [street]
1985.08.14.D01=	FM-Ostravice-SM	slow-flying red potato-shaped object the size of a family house, blinking row [of lights? - LSlc]

ANNEX D

THE UAP ACCESS DATABASE

1. The ACCESS database for UAP analysis has been designed around 13 input Tables. The key table is the 'Base Table' and 12 are assigned to input information arising from UAP Sighting Reports. Table 12 is a location for storing and categorising the identification/cause of each event and is generated (currently) manually by reference to the input information. In order to complete Table 12 for each event, reference may be made to the manual interpretation tables (Tables 2 and 3) in the Main Text of this report; and for detailed phenomenal information to the Working Papers included at Volume 2. The database was designed so that it could accommodate future expansion, should this be required. It was recognised that if this turned out to be the case it might be possible to largely automate the identification process by constructing algorithms on which to evaluate the information. However, it was also recognised that it would always be necessary to interpret some reports manually, in order to try and extract meaning and detail. Often, due to the lack of information necessary to make a full identification, a number will always remain unidentified for this reason. In the ACCESS database software a **Table** is shadowed by its own '**Form**'. A **Form** has a more user-friendly display layout than a **Table,** allowing information to be grouped for easier interpretation for the task. Hence, although TABLES are initially useful for the insertion of bulk data (as many events can be listed in compact format on a TABLE and viewed at once), FORMS display individual events. For example, in the UAP database the consolidated Base-Table, lists the leading/overview attributes of every sighting entered, while there is a separate BASE FORM for each event and for each aspect of the event.

2. The data entry methodology is to first generate the BASE TABLE, which entails manual examination of every paper sighting report. This is a time-consuming task and was the main reason for limiting the detailed data entered to a ten year period . After the initial work new data can thereafter be entered or modified in two ways - either directly by calling up a blank BASE FORM, orindirectly, by filling-in/adding to the existing BASE TABLE.

3. **Table Specifications** The specification of the BASE FORM and the supporting sub-items, shown as TABLES are at page D1. As two examples, the FORM layouts for sub-FORMS LIGHTS and AUDIO EFFECTS are respectively shown at the end of the TABLES. The rationale for the selection of the attriibutes for each TABLE and FORM is described at paragraph 10, below.

4. **Sub-FORM Data** It is, of course, possible that insufficient data is available to complete one or more sub-FORMS for a particular event. It is, for example, most likely that a LIGHTS sub-FORM will exist, whereas SOUNDS and ODOURS are much rarer occurrences; as are occurrences on some of the other sub-FORMS. To avoid wasting storage space a sub-FORM is only raised if the attribute is present. The fact that an attribute (e.g. ODOUR) is present is flagged on the BASE FORM and can be called at once from that FORM by clicking on the flag.

DATA KEYS

5. The data key for each record is its EVENT NUMBER. This number is unique to every sighting (even if more than one witness reports the same object at the same time, providing he/she submits a separate UAP report form). Hence, every individual paper report on the Department files has a unique identifier. This identifier appears on the top of the event BASE FORM, in the left-hand column of the DATA TABLE and on top of every Sub-FORM relating to the same event.

6. For ease of correlation with the paper records the EVENT ID number runs sequentially, re-starting at each New Year and is of the form 96/001...96/002 etc.

7. Because the data is entered going backwards in time, occasionally temporary numbers are used until the years input is complete. Hence, 96/A01 to 96/A28 has been used. This is because the final numbers cannot initially be allocated, this is because the paper files do not coincidentally start or end with the years. It is noted, however, that there is no particular reason why the length of a calendar year or the start or end of a year has any relevance to the number of sightings recorded in a year, since this depends on many factors. The useful evidence is, perhaps, in the frequency of events at different periods of the year or in combination with atmospheric conditions which are present. Hence, no particular importance can be placed on an annual record - it is just a convenient recording key. The correlation of sightings may or may not turn out to have any obvious major factors. For completeness it would have be prudent to fully check the correlation of UAP reports with, for example solar flare activity. As the main solar cycle is 11 years it will take some time to prove the fact or otherwise! Correlation tests over shorter periods have been made.

8. For statistical analysis, emphasis is placed on positive values. For example, a flag showing that no sound occurred does not necessarily mean that there was no sound present - just that it was not recorded on the form - even though it may have been heard. and missed off the report in error. The paper report forms do not call for nil returns in each field and often just have blank spaces. Hence, the YES/NO flag, apparently signifying the presence or absence of an attribute, does not always mean exactly what occurred in practice. A blank entry is not an assurance that the witness was even asked the questions. Statistical analysis must therefore proceed with caution. This is a clear limitation of the current reporting forms, which do not have 'computer friendly' format which computer analysis ideally requires. This is important, as, for example, if sound was definitely **not heard**, then the data must be examined further to see if the observer was or was not downwind of the object - a fact that should have been checked by the person supervising the reporting at the time. In this case sub-FORMs 9 (Observer Geometry) and 7 (Meteorological Conditions), would be appropriate. Before reaching this stage it would be appropriate also to consult sub-FORM 7 (Observer Location) to ascertain whether the witness was inside a house or car, for example, in which case sound may not be heard anyway. [Sub-FORM 7 has three sections - Meteorology, Observer Location and Viewing Background]

9. It was decided that a YES/NO flag would be adequate for many conditions, providing caution was exercised during any analysis carried out on the data. Each sighting would have to be examined and all available information extracted from the few sentences of expansion which occasionally accompanies the more formal part of the reports.

DATABASE TABLES

10. The need for separate database tables to describe the attributes reported in the paper database was established after a review of as many of the salient features of UAP as possible. Paragraphs 12 to 25 below, briefly describe each TABLE, examples of which are attached.

11. As the content of TABLES can also be displayed as FORMS, 2 examples of these, for LIGHTS and AUDIO, are also included. There are some visual advantages in using FORMS for updating and viewing data. A new event number is given to every sighting and heads every TABLE relating to the same event. Hence, to examine everything about a certain sighting a set of FORMS makes a complete record. There will be inconsistencies, since one sighting may general several of the attributes - for example there may be lights, sound, meteorological data and odours. Another may only describe lights. By this method the amount of computer storage is minimised. From the BASE FORM (or TABLE) it is possible to see at a glance how many of the SUB-FORMS apply to a sighting. If several witnesses see the same UAP event and each separately submit a report, then each report is given a different and unique identifier. The fact that more than one report has been received on the same event, or more than one person was present at the same event is recorded by the CORRELATION FLAG on the base form.

TABLE DESCRIPTIONS

12. The purpose of each TABLE (and hence, it's corresponding FORM) is each briefly described below. Most of the samples at Appendix D1 are self-explanatory.

13 **Tables 1 & 2: Base Table & Proximity Log** Table 1 provides a summary overview and is known as the **BASE TABLE**. Table 2 is the **Proximity Log** and acts as an aid to the elimination of spurious and misreported information, by recording the data for nearby objects, installations and events which might be mistaken for 'genuine UAP'.

14. **Table 3 Observer Description** For analysis it is useful to have a brief profile of the witnesses, and their addresses. Almost all sightings by the general public happen at home or within a few miles of home. Credibility can nevertheless range from fully trained observers - such as HM Coastguards, Pilots of Civil and Military aircraft to the humble man walking his dog - who often turns out to have military or police background - and is exercising his citizenship by reporting what is clearly an unusual and inexplicable event. All of this information is useful for cross-correlation purposes. **There is no other reason for maintaining this record**. Names have been freely given by the reporting public who have the option of leaving their name off the report form; although only a small number do so. Hence the inclusion of these details makes the database confidential and not releasable in the public domain.

15. **Table 4. Physical Description.** This form contains the shape, size, 'portholes' and any other useful information for analysis. As there are perhaps a dozen descriptions given for shapes and patterns. some rationalisation has been necessary. For example, where possible the term sphere is used when a sphere was clearly observed. On other occasions some objects which were spheres will inevitably be included as 'round'. There is a particular problem here in that, for example, this does not clearly filter ball lightning from a plasma disc - which is round in plan but elliptical, egg, saucer or even cigar shaped when viewed side-on.

16. **Table 5 Object Motion** This is a critical attribute when filtering manned aircraft from the slower buoyant bodies which are often seen. An important filter is that of erratic motion.

17. **Table 6A Odours** These, it seems, are associated with an event as a result of an electrical discharge and the chemicals in the air at the time.

18. **Table 6B Technical Effects** The table records any effects reported on humans, buildings or on the terrain. For example, ball lightning has been known to boil water. In particular, this table is used to record anomalous effects on electrical equipment, such as police or public radios.

19. **Table 7A Meteorological Conditions** This information sets the background for visual viewing, for example the use of reflected light or silhouette and wind, which affects the probability of hearing noise, seeing contrails, etc.

20. **Table 7B Observer Location** Certain 'UAP' events can only be seen in mountains and hills or at sea. Hence, observer position can be very important. This table also records factors such as viewing outdoors compared with observing an object through glass which may be curved and introduce distortion.

21. **Table 7C Viewing Background** Viewing over lakes and smooth water can clearly provide different optical effects than over rough land. Surface effects, such as charring etc. caused by UAP events and remaining as evidence on terrain, cannot be determined over water.

22. **Table 8 Optical & Radiation.** This table records any device which may have influenced what was seen. For example, use of viewing aids, such as binoculars or use of still and video cameras, or any other visual recording or sensing device.

23. **Table 9 Observer Geometry** The main purpose of this table is to record the position of the observer of the incident with respect to the position of the sun. This is critical in filtering out satellites in UAP reports and silhouettes and colours.

24. **Table 10 Final Description** This is necessary to describe what happened at the end of the sighting, as the UAP went from view - enabling, once again elimination of collapsing entities - such as the pop or explosion when ball lightning finally decays. The direction in which the UAP went helps to correlate with other witnesses' reports as the event progresses across country. Events at the end of a sighting often do not resemble those at the start.

25. **Table 12 Event Categorisation Log** The table is an assessment of the most likely cause of the event.

26. **Table 13 Imagery & Audio Log** The log indicates the presence of any imagery, JARIC report, video records, etc. which may have become available to support the compilation of Table 12.

27. Table 11 was allocated but not required.