

NARCAP TR - 5

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“Pilot Survey Results”  
Part I

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## Abstract

This paper presents the results of a confidential aircrew survey presented to 298 currently rated and flying commercial pilots employed by a U. S. airline. Remarkably, a total of 70 completed surveys (23.5%) were returned to NARCAP within a 35 day period suggesting a high degree of general interest in this subject. Twelve questions were asked, most of which dealt with the possibility of past sightings of unidentified aerial phenomena (UAP) and how these pilots dealt with the experience afterward. Forty respondents were Captains (mean = 9,130 flight hrs.) and thirty were First Officers (mean = 4,799 flight hrs.). A number of interesting things were learned from this survey. It was found that (1) of the sixteen pilots (23% of total) who said they had seen something they could not identify in flight only four (25% of the sixteen) reported it to their company or to a government authority and only one of these pilots (a First Officer) who saw a UAP (he did not report it) felt that it was a threat to aviation safety. (2) Using a scale from one to ten concerning how interested each respondent was in the subject of UAP (ten is maximum) the mean rating by Captains was 5.4 (SD = 3.3) while the mean rating by First Officers was 7.3 (SD = 2.3). Ten Captains (25%) indicated no interest at all but no First Officers showed no interest. (3) Mean level of interest in UAP tends to increase slightly with total flight hours despite the Captains' responses who were not at all interested in UAP. (4) A variety of reasons were given for not reporting their UAP sightings. They included: not knowing whom to report it to or how to do so, judging the event to be unimportant, judging the phenomenon to be a military test, and (being) just too strange to report. These findings are discussed along with specific recommendations for future activities.

## Introduction

### Survey Background:

It would seem to be a fairly simple proposition to survey airline aircrews with regard to whether or not they have seen unusual lights and objects, i.e., UAP, during their flying careers. To all outward appearances, all that would seem to be required is the ability to communicate one's interest via a questionnaire, a modest financial outlay, and the cooperation of an airline to gain access to aircrews. However, conducting surveys on the topic of airline encounters with UAP is a somewhat more complicated undertaking.

In the summer of 2001, NARCAP was approached by a commercial airline captain currently flying for one of the largest carriers in the U.S.A. He was familiar with NARCAP's mission (cf. [www.narcap.org](http://www.narcap.org)) and expressed a willingness to informally represent our interests in some appropriate way within his airline.

As we discussed the topic of UAP and aviation safety, we emphasized the fact that our organization had not developed enough information to have any specific recommendations

to give to the aviation industry regarding particular responses to these apparent safety related events. We advised him that NARCAP was conducting pilot outreach programs to achieve several important objectives. The first being to raise general awareness in the pilot community about safety related UAP incidents. NARCAP has a highly focused interest in safety related encounters with rare or anomalous atmospheric phenomena and we would like to be contacted in the event of a specific incident. Our second objective is to develop accurate metrics regarding how often these events actually happen.

In the course of several conversations with this pilot, the idea of conducting a survey within the pilot community began to develop. It seemed to be a clear, direct and simple way to gain answers to some very important questions while also serving as an effective and relatively inexpensive outreach to the pilot community.

One of the authors (RFH) and NARCAP Technical Specialist Capt. Robert Durant began to design the questionnaire while our pilot began the process of requesting official permission from his management to distribute the aircrew survey.

While our first pilot was encountering certain difficulties that might delay approval of administering the NARCAP survey he suggested that we contact another pilot who flies for another commercial airline. NARCAP contacted this second pilot. In the course of our discussions, he agreed to attempt to distribute NARCAP's survey within his company. He approached his management and received permission to distribute our survey to all of their aircrews. As described below, NARCAP duly forwarded almost 300 surveys, with return-postage paid envelopes. These surveys were placed in their "in-house" mail boxes. Happily, this second pilot informed NARCAP that he has suffered no job-related difficulties in the course of this project.

### Reporting Bias and Historical Reasons for it:

The issue of UAP and commercial airlines is a complicated one. There is clearly a longstanding bias in place that severely inhibits the reporting of UAP incidents. This bias also acts to stifle open discussion of the topic of UAP amongst aircrews, management, safety administrators, and the researchers who try to acquire information on this important topic<sup>1</sup>.

Many UAP encounters involve radar contacts. Many are ground-based radars that provide verification of the presence of uncorrelated targets near aircraft whose crews report observations of UAP<sup>2</sup>. Due to the presence of this bias, observations and incidents go unreported even though these "radar/visual" events involve aircrews and passengers, radar operators, air traffic controllers and supervisors.

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<sup>1</sup> Many scientists in America today maintain that they are not interested in UAP because there is nothing to study, i.e., there is no valid data available. Of course this view is fostered by the anti-reporting bias that exists.

<sup>2</sup> Dominique Weinstein has written a series of volumes on this subject and published privately in 1999.

This reluctance to report safety-related UAP incidents has its roots in several significant historical events. These events have served to create, or have significantly contributed to, an atmosphere of fear. Fear of ridicule, fear of having one's competence questioned, fear of losing one's career, fear of government reprisal, even fear of the phenomena itself are all cited as reasons why pilots are not officially reporting many observations, close pacing and near mid-air collisions, and even alleged collisions with UAP<sup>3</sup>.

In the early 1950s, as the potential threat of a confrontation with the Soviet Union solidified, it was clear that there was a need within America for early warning of a potential Soviet attack. In 1954 officials from the U. S. military and from the airline industry held a press conference announcing Joint Army, Navy Air Force Publication 146 (JANAP 146) and outlining *communications instructions for reporting vital intelligence sightings* or *CIRVIS*. It is important to remember that not until 1972 did the U. S. have the satellite capability to over-fly the Soviet Union and thereby obtain advance warning of an impending attack. Commercial airline pilots were considered an integral part of a forward observation corps. JANAP 146 and CIRVIS were instituted as a mandatory reporting system that eventually included both American and Canadian commercial and general aviation. All unusual observations were to be forwarded through the CIRVIS system to the U. S. military. Once an observation had been reported, the reporting aviator was obligated not to disclose the report to the press or public under threat of fine and imprisonment. This makes sense, security wise. JANAP 146 was interested in aircraft, formations of aircraft, missiles, and UFOBs.

Concurrently, the U. S. Air Force conducted an investigation into UFOs under several code names including Project Sign, Project Grudge and Project Bluebook. Reports of unusual observations, including military and civil aviation reports, were forwarded to its Air Technical Intelligence Command for review by air force investigators and civilian contractors. Project Bluebook closed in 1969 with public assurances that UFOs were not a threat to national security, that there was no evidence that they were extraterrestrial vehicles and that UFOs did not challenge any known laws of physics. The Condon Report, commissioned by the U. S. Air Force and conducted by the University of Colorado concurred and added that further research into UFOs/UAP would contribute little of scientific value. These conclusions have been challenged in later years (Jacobs, 1975; Saunders and Harkins, 1968, Sturrock, 1986).

In 1977, Janap 146E was released. This version relaxed the mandatory reporting requirement and suggested instructions to report if the reporter felt that the observation represented a matter of national security.

When journalist Leslie Kean recently interviewed the president of one the largest airline pilots union in the U. S. A., she asked him specifically about pilot reports of observations, near misses and close pacing incidents with UFOs. His response was "If these things happened, don't you think I would know about it?"

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<sup>3</sup> Of course it is not possible to interview the eye witnesses of these cases because they are dead. Nevertheless, radar records strongly suggest the direct involvement of UAP in some of these accidents.

Since investigators have many declassified American and international reports of civil, private, and military aviation related observations, since (the U.S.A.F.) *Project Bluebook* is declassified and all cases are available for review, why doesn't he know about it? Either he is not interested and has never taken the time to read the available evidence or he knows about this evidence and prefers not to speak out about it for some reason.

The fact is that from 1947 to 1977, data concerning UAP flowed directly away from civil aviation into the military domain. When the various accident, incident, and near-miss databases of the FAA, NTSB and NASA were established, the categories of observation for UFO/UAP events were not even included. In short, pilots were given no way to openly report such bizarre sightings. Perhaps this was a reflection of the opinions of the U. S. Air Force and a study of UFOs it sponsored (conducted by the University of Colorado) perhaps this was an oversight, or perhaps the bias against reporting and discussing UAP related aviation incidents was already well entrenched at the time these databases were established. Additionally, the majority of the UAP pilot cases that have been declassified have been made available approximately in the last decade. Unfortunately, this relatively recent access to these data has not been brought to the attention of the aviation community until now.

The phenomena of close pacing and near miss incidents with UAP has continued to the present, quite unabated, and with an apparent disregard for the opinions of the U. S. Air Force and the Condon Committee (i.e., the University of Colorado study). Commercial pilots have been faced with these experiences, with no official means of reporting them since the late 1970's. The present survey further supports this view as well. However, the minority of airmen who do choose to report these encounters often choose to use more politically correct terms like "unidentified object, unidentified aircraft, unknown aircraft, and unidentified traffic," or "balloon" to describe their sightings. Since many of these reports are submitted anonymously the airline managers involved are often unaware of them and can offer no support.

An interesting trend, supported by the present survey, is that there is a large contingent of respondents who expressed a great deal of interest in the topic of UAP encounters. This suggests that there is a receptive audience for a balanced presentation of UAP/aviation safety related information.

### Method

A one page, pencil and paper survey<sup>4</sup> was developed (Figure 1) and made available to all two hundred ninety eight pilots of a major regional U. S. airline between September 13, 2001 and September 15, 2001. One of the company's pilots made these arrangements and carried out the distribution<sup>5</sup>. NARCAP is extremely grateful to him for this service to this particular cause of aviation safety.

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<sup>4</sup> The authors gratefully acknowledge the assistance of Captain Robert Durant in the development of this survey.

<sup>5</sup> A survey was placed in each pilot's v-file in their crew room and additional copies were set out in a "Please Take One" container on the wall along with a brief explanation of the survey's objectives.

narcap.survey.1  
7-10-01 rev.2

### *Confidential Aircrew Survey*

THANK YOU FOR TAKING THE TIME TO RESPOND TO THIS BRIEF, CONFIDENTIAL SURVEY WHICH WILL GREATLY HELP OUR ORGANIZATION IN PLANNING ITS FUTURE OPERATIONS RELATED TO AIR SAFETY AND ANOMALOUS AERIAL PHENOMENA. ALL COMMENTS WILL BE COMPLETELY CONFIDENTIAL.

The *National Aviation Reporting Center on Anomalous Phenomena* (NARCAP) has been established as a scientific, non-profit organization of aviation professionals who are working together to: (1) provide a confidential reporting center for air crew, ATC personnel, and radar operators who want to report strange or unexplainable phenomena that impacts aviation safety without fear of ridicule or career impairment, and (2) collect scientifically valid data with which to gain significant new understandings about the nature of these atmospheric phenomena.

Your assistance in completing this survey is appreciated very much. Your comments will not be traceable back to you. SIMPLY FILL IN OR CHECK ANSWERS TO THE QUESTIONS BELOW AND RETURN THIS FORM TO NARCAP in the addressed envelope provided. Use opposite side if necessary.

- 1) Check your current job: Capt. \_\_\_; F/O \_\_\_; F/E \_\_\_; Other \_\_\_\_\_
- 2) Approximately how long have you held this job/position? \_\_\_\_\_ Total Flt. Hrs. \_\_\_\_\_
- 3) In all of my aviation career (check one) I have \_\_\_; I have not \_\_\_; Unsure \_\_\_  
ever seen anything while I was in the air or on the ground that I could not identify.
- 4) If you marked "*I have seen something...*" (above) did you report it to someone? (check one)  
Yes \_\_\_; No \_\_\_.
- 5) If you marked "did not report it" (above) please tell why: \_\_\_\_\_  
\_\_\_\_\_
- 6) If you marked "I did report it" (above) please tell to whom (at least in general) and their  
response: \_\_\_\_\_
- 7) In your professional opinion, did the phenomenon you saw pose any threat to flight safety  
in any way? Yes \_\_\_; No \_\_\_; Possibly \_\_\_; Not sure \_\_\_
- 8) Add any comments/qualifications here: \_\_\_\_\_  
\_\_\_\_\_
- 9) Does your company have any formal or informal policy for reporting unidentified aerial  
phenomena. (check one): Yes \_\_\_; No \_\_\_; I don't know \_\_\_
- 10) On a scale of 1 to 10 (10 is max.) about how interested are you in these phenomena? \_\_\_\_\_
- 11) If you have experienced some aviation safety incident involving an unidentified aerial  
phenomenon of any type (electrical phenomena; gaseous plasma; solid object, etc.)  
would you be willing to provide NARCAP with a completely confidential report for  
scientific study? (We employ the same procedures as NASA's *Aviation Safety Reporting  
System*). Yes \_\_\_; No \_\_\_; Not at this time (maybe later) \_\_\_\_\_

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Appendix A provides the text of this explanation.

12) How (and when) may we contact you? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Thank you for your assistance -  
Contact us at: 1-800-732-3666 (24 x 7) or by mail at NARCAP P. O. Box 140  
Boulder Creek, Calif. 95006 or visit our web site at: [www.narcap.org](http://www.narcap.org)

Several features of this survey are notable: (1) It was carried out in a completely confidential manner so that no-one could trace the respondent’s identity, (2) It was linked to aviation safety and not to ufo or other “borderline” topics. These first two features probably contributed to the higher than anticipated response rate, and (3) It attempted to raise issues that are still considered to be “sensitive” and therefore previously overlooked by the nation’s aeronautics research community (e.g., question 3, 6, 7, 9, 10).

Results

The findings of this survey will be presented in the original order of questions on the survey but will employ a common statistical data presentation format as:

[Total Number of Respondents] [Percentage of Respondents]

Question 1. Check your current job: Capt. \_\_\_\_; F/O \_\_\_\_; F/E \_\_\_\_; Other \_\_\_\_\_

[70] [100 %]

Table 1 shows the job breakdown for these seventy respondents.

Table 1

Respondents’ Job Breakdown

Captain .....	40	(57%)
First Officer .....	30	(43 %)

Question 2. Approximately how long have you held this job/position? \_\_\_\_\_ Total Flt. Hrs. \_\_\_\_\_

[70] [100 %]

Table 2 presents the distribution of total flight hours listed on the survey for possible future comparison with a similar distribution for this and other airlines. Such comparisons assist in showing how representative this survey sample was or whether there was a particular response bias.

Table 2  
Distribution of Total Flight Hours

From	To	Captains	First Officers
	< 100		1 (with this airline)
101	500		
501	1000	1	
1001	2500	1	2
2501	5000	8	17
5001	7500	8	7
7501	10,000	9	3
10,001	12,500	6	
12,501	15,000	4	
15,001	17,500	1	
17,501	20,000		
20,001	22,500	1	
22,501	25,000		
25,001	27,500		
27,501	30,000	1	

The mean of this entire distribution was 7,274 hours (S.D. = 4,543). Considering a pilot's relatively good vantage point during flight from which he or she may see something unusual, it is important to relate reported flight hours to whether or not the respondent claimed to have seen something that could not be identified (question 3) either in the air or on the ground. The survey's data were divided into the three groups shown in Table 3.



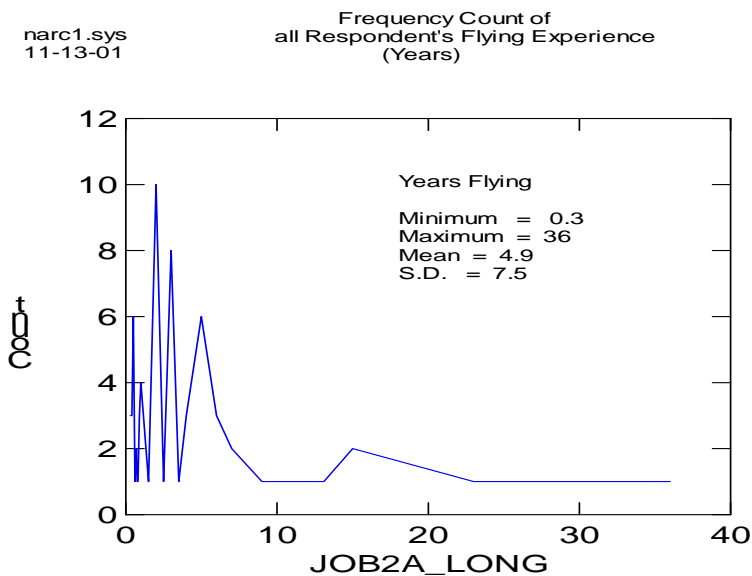
Table 3

Flight Hours by Responses to Question 3

Flight Hours		I Have Seen Something I Couldn't Identify	I Have Never Seen Something I Couldn't Identify	I am Unsure
From	To	No.	No.	No.
< 100			1	
101	500			
501	1000		1	
1001	2500	2	1	
2501	5000	2	22	1
5001	7500	6	7	2
7501	10,000	5	7	
10,001	12,500		6	
12,501	15,000	1	3	
15,001	17,500		1	
17,501	20,000			
20,001	22,500		1	
22,501	25,000			
25,001	27,500			
27,501	30,000		1	
Totals =		16	51	3

The graph of Figure 2 shows the frequency count (ordinate) of all respondents in years (abscissa). This experience ranged from 0.3 years to 36 years!

Figure 2  
Distribution of Years of Flying Career



Question 3. *In all of my aviation career (check one) I have \_\_\_; I have not \_\_\_; Unsure \_\_\_  
 ever seen anything while I was in the air or on the ground that I could not identify.*

[70] [100 %]

While the wording of this question confounds the matter of where the witness was located during the sighting it does provide some insight into the relative proportion of all respondents who have experienced something that they considered to be unusual. It is acknowledged that the fact that one could not identify what was seen does not prove the existence of UAP as extra-terrestrial. However, it should raise the discussion to the next level, a level that calls for much more scientific study than it has heretofore been given.

Table 4 presents the results from question 3.

Table 4

Number (%) of Respondents Indicating

	Captain	First Officer
I Have Seen Something I Could Not Identify	9 (22.5%)	7 (23.3%)
I Have Never Seen Something	28 (70%)	23 (76.7%)
I am Unsure	3 (7.5%)	0 (0%)
Totals =	40 (100%)	30 (100%)

Question 4. *If you marked “I have seen something...” (above) did you report it to someone? (check one) Yes \_\_\_; No \_\_\_.*

[70] [100 %]

This is a particularly important question that has never before been asked in any formal way. It is important because, if these regional airline pilots surveyed are representative of all other U. S. commercial pilots, which they probably are, it permits a rough approximation to be made concerning the total number of UAP sightings that have gone unreported. As shown in Table 5 only one out of four witnesses of a UAP reported it!

Table 5

Results Related to Reporting One’s Sighting

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Total number of pilots having seen a UAP . . . .	16	(100%)
Number who did report the sighting . . . . .	4	(25 %)
Number who did not report the sighting . . . . .	12	(75 %)

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If there are about 600,000 commercial pilots currently flying in the U.S.A. and 23 percent of them saw something they couldn’t identify this amounts to 138,000 witnesses. So if 75 percent of these witnesses didn’t report it this amounts to 103,500 unreported sightings! Clearly more precise statistical data is needed to refine these numbers.

Question 5. *If you marked “did not report it” (above) please tell why:* \_\_\_\_\_  
 [11] [100 %]

Of course this is another key question as it goes to the issue of all-important motivational factors. If we are to plan an effective strategy to obtain more high quality UAP sighting data from the aviation community we must understand what is preventing them from making a report. Most of the answers given to this question (Table 6) are not all that surprising. In fact, most are very reasonable and do not suggest any deliberate cover up by these respondents. Responses 4, 6, and 9 may, however, conceal other motives.

Table 6

Reasons Given Why Respondents Did not  
 Make a Report (N = 70)

- 
1. “Not certain just how to report it.”
  2. “No one to report to” (I was in a VFR environment); “No factor on flight operations (I was at (an) extreme altitude).
  3. “Assumed (it) was something military.”
  4. “I didn’t know anyone who would be interested or could do anything about it.”
  5. “I didn’t know who to call or what to say.”
  6. “It seemed unimportant.”
  7. “I’m not sure. The captain and I talked about it – assumed military action.”
  8. “I was reasonably sure the objects were military related.” (32)
  9. “It was too strange to report.” (33)
  10. “We were close to Area 51 so I knew it wouldn’t believed.” (55)
  11. “Wasn’t sure that it wasn’t a high perf. (sic) military aircraft.” (57)
-

Question 6. *If you marked “I did report it” (above) please tell to whom (at least in general) and their response:*

[4] [100 %]

Table 7 presents these results, each of which appears both reasonable and correct.

Table 7

To Whom was the Report Submitted?  
(Survey number in parentheses)

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1.	“U.S. Air Force. I was military – investigated – no explanation.” (8)
2.	“ATC – They didn’t see anyone else on their radar.” (29)
3.	“ATC – Las Vegas area.” (66)
4.	“Asked ATC if they had seen anything on radar.” (69)

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Question 7. *In your professional opinion, did the phenomenon you saw pose any threat to flight safety in any way? Yes \_\_\_; No \_\_\_; Possibly \_\_\_; Not sure \_\_\_*

[22] [100 %]

Table 8 presents the results from this question. Several pilots answered the question even though they indicated that they had not seen a UAP.

Table 8

Did you Consider UAP Phenomena to be a Threat to (your) Flight Safety?

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Answer	Captains	First Officer
Yes	0	1
No	6	5
Possibly	1	1
Not Sure	6	2
Total	13	9

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Considering earlier research by one of the authors (Haines, 2000), the results from this question are of particular interest and somewhat perplexing. It was found that only one (1.4%) of the 70 respondents, a First Officer with 9,500 hours of flight time, said he had seen a UAP, did report it, and felt that there was a threat to aviation safety posed in some way by the phenomenon. NARCAP would be very interested in learning more about this particular sighting.

Of additional interest are the sixteen respondents who had seen something unusual. Here, eleven felt the phenomenon was not a threat to flight safety and two more indicated that a threat was only a possibility. Eight were not sure. It is these last eight respondents who are of particular interest to NARCAP because they may well have experienced a UAP.

Question 8. *Add any comments/qualifications here:* \_\_\_\_\_

This question was not analyzed since no one completed it.

Question 9. *Does your company have any formal or informal policy for reporting unidentified aerial phenomena. (check one): Yes\_\_\_; No\_\_\_; I don't know\_\_\_*

[70] [100 %]

Interestingly, only one captain and one first officer indicated that their airline had a policy for reporting UAP. The captain had 9,000 hours of flight, had seen a UAP, and had reported it while the first officer had 7,500 hours of flight time but had never seen a UAP. All other respondents indicated either that there was no such policy or that they didn't know of one.

The absence of a specific reporting policy sends a clear message to pilots that it is all right not to submit a report on a sighting. There will be no negative repercussions for not making a report. Of course, this only reinforces the negative reporting bias that current exists with regard to UAP.

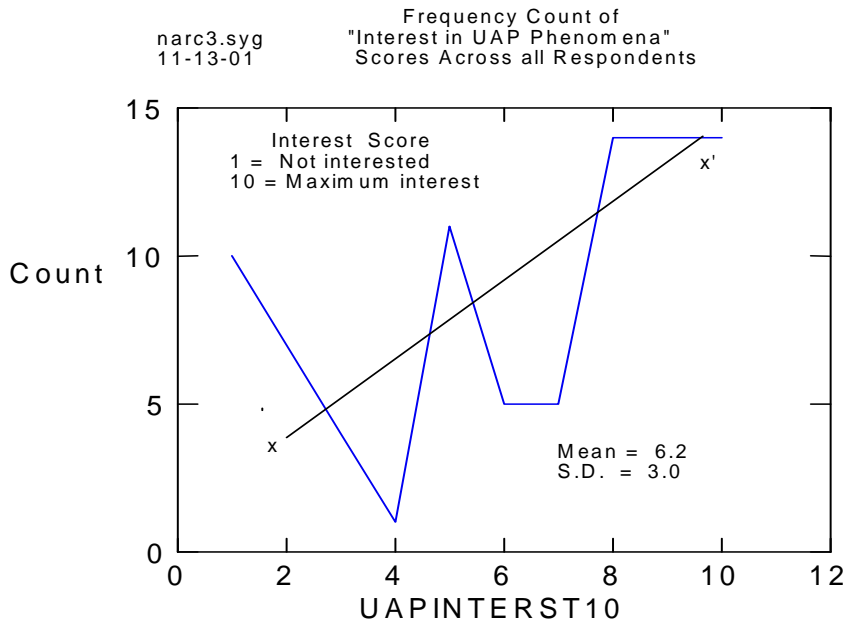
Question 10. *On a scale of 1 to 10 (10 is max.) about how interested are you in these phenomena? \_\_\_*

[70] [100 %]

The distribution of scores on this question are presented in Figure 3. This distribution is positively skewed toward being interested in UAP with a mean score of 6.2 and SD = 3.

Figure 3

Distribution of Scores Concerning  
How Interested Respondent is in the Subject of UAP



Question 11. *If you have experienced some aviation safety incident involving an unidentified aerial phenomenon of any type (electrical phenomena; gaseous plasma; solid object, etc.) would you be willing to provide NARCAP with a completely confidential report for scientific study? (We employ the same procedures as NASA's Aviation Safety Reporting System). Yes \_\_\_\_\_ ; No \_\_\_\_\_ ; Not at this time (maybe later) \_\_\_\_\_*

[32] [100 %]

Of the thirty two pilots who responded to this question seventeen were captains and fifteen were first officers. Since only nine captains and seven first officers indicated that they had sighted a UAP these responses suggest that either some of these pilots didn't understand the question or that they deliberately answered it anyway for some unknown reason. Table 9 presents these results.

Table 9

Responses to Question “Would you be Willing to Provide NARCAP with a Completely Confidential Report”

	Captain	First Officer
Yes	10	9
No	3	1
Not at this time	4	5

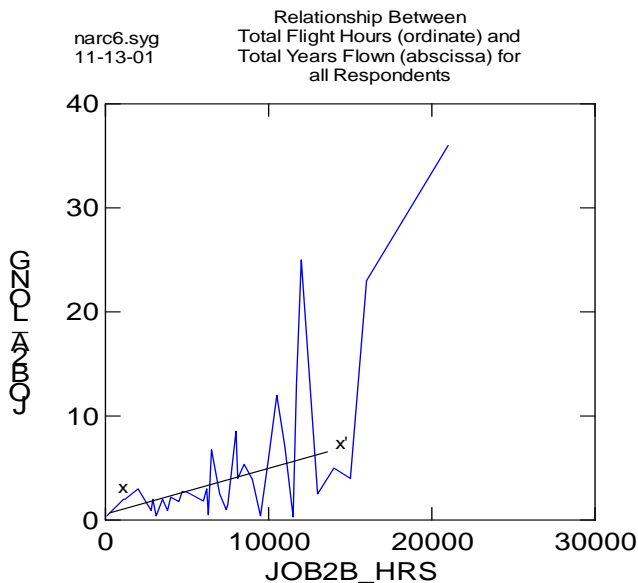
Additional Survey-Related Issues:

Number of Completed Surveys Sent to NARCAP by Mail vs. Number Given to Pilot to Send to NARCAP. It was discovered that all of the seventy completed surveys were mailed to NARCAP directly. This fact suggests that these pilots may not have wanted to be identified with their responses by the pilot who assisted NARCAP with the administration of this survey.

Relationship Between Total Flight Hours and Years Flying. Figure 4 presents this relationship in graphic form.

Figure 4

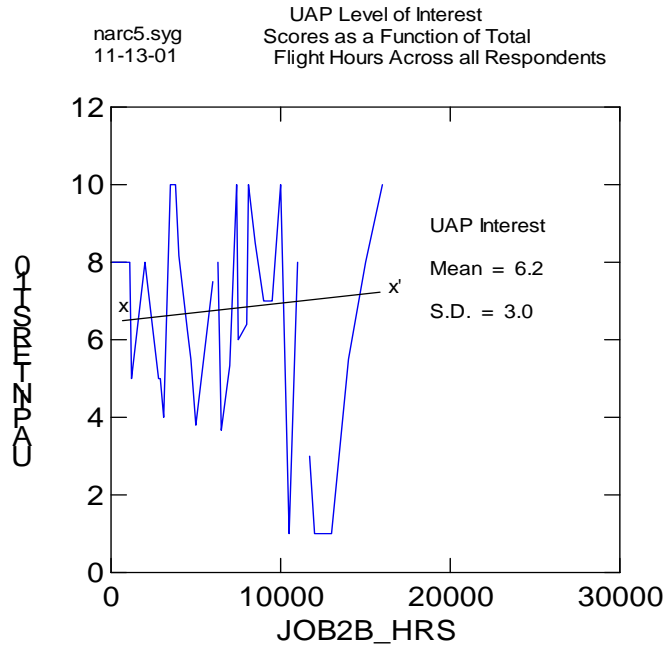
Relationship Between Total Flight Hours and Years Flying



Relationship Between Total Flight Hours and Level of Interest in UAP. This data is plotted in Figure 5.

Figure 5

Relationship Between Total Flight Hours and Level of Interest in UAP



Referring to Figure 4, it may be noted that level of interest in UAP tends to increase slightly with increasing number of flight hours.

Conclusions and Recommendations for the Future

Several conclusions may be drawn from this survey: (1) Pilots continue to be very hesitant to speak about their highly unusual sightings and this hesitancy translates into a negative reporting bias. The reporting rate found here was twenty five percent. (2) Despite what some aviation officials state, commercial pilots continue to see unexplained aerial phenomena, and (3) Personal interest in UAP is relatively high and tends to increase with an increase in flight hours.

Based upon these survey results NARCAP recommends the following to those who are interested in enhancing aviation safety: (1) Airline management should issue clear and positively worded guidelines related to encourage reporting of all unidentified aerial phenomena whether or not they may have in-flight safety significance. Only through such positive encouragement by management will the long-standing biases against reporting UAP be reversed. The fact that only a few respondents voluntarily provided their name and address may suggest that they are afraid of being personally identified with this



subject. Such generalized fear only acts to inhibit objective reporting. (2) Additional pilots should be surveyed in order to increase the statistical reliability of this study.

### References

- Haines, R. F., A Review of selected sightings from aircraft from 1973 to 1978. Proc. of 1978 MUFON Conference, Pp. 114-140, San Francisco, CA, July 7-8, 1979.
- Haines, R.F., Fifty-six Aircraft Pilot Sightings Involving Electromagnetic Effects. Proc. of 1992 International UFO Symposium, MUFON, Albuquerque, NM, July 10-12, 1992.
- Haines, R. F., Aviation Safety in America – A Previously Neglected Factor, (cf. Reference Section of [www.narcap.org](http://www.narcap.org); see especially pp.X – Y), 2000.
- Jacobs, D., The UFO Controversy in America. University of Indiana Press, Bloomington, Chpt. 9, 1975.
- Kean, L., Pilot Encounters with UFOs: Study Challenges Secrecy (and Denial). The Providence (R.I.) Journal, Pg. B4, May 3, 2001.
- Kean, L., Unexplained sightings met with denial. The Examiner (San Francisco), May 8, 2001.
- Saunders, D., and R. R. Harkins, UFOs? Yes! Signet Books, New York, 1968.
- Sturrock, P., An Analysis of the Condon Report on the Colorado UFO Project. Journal of Scientific Exploration, vol. 1, no. 1, 1986.
- Weinstein, D., Aircraft UFO Encounters: Radar/Visual Cases, Vol. 1, 1945-1952, Project ACUFOE, Privately Published, Paris, France, (40 cases), 1999.
- Weinstein, D., Aircraft UFO Encounters: Radar/Visual Cases, Vol. 2, 1953-1956, Project ACUFOE, Privately Published, Paris, France, (26 cases), 1999.
- Weinstein, D., Aircraft UFO Encounters: Radar/Visual Cases, Vol.3, 1957-1966, Project ACUFOE, Privately Published, Paris, France, (20 cases), 1999.
- Weinstein, D., Aircraft UFO Encounters: Radar/Visual Cases, Vol. 4, 1967-1976, Project ACUFOE, Privately Published, Paris, France, 1999.
- Weinstein, D., Aircraft UFO Encounters: Radar/Visual Cases, Vol. 5, 1977-1998, Project ACUFOE, Privately Published, Paris, France, (36 cases), 1999.

## Appendix A

### Text of Survey Objective Statement Placed Near Additional Copies of Survey in Crew Room

“This seems like a worthy effort to build a statistical database in the interests of science and safety. Even if you haven’t witnessed any unusual or unidentified aerial phenomena (UAP), please do me a huge favor and take a minute to check the boxes and either mail it directly (in the prepaid envelope) or, for your convenience, drop it in my v-file and I’ll post it for you.

“I’ve placed a copy of the survey in your v-file, but feel free to give one to any of your friends who may have seen something worth reporting. (Airline name) is definitely at the forefront of this venture, and your voluntary participation will be kept strictly confidential and would be most appreciated.

Thanks in advance,  
(Name of pilot)

## Appendix B

### Informal Internet Poll on UFOs as a Hazard to Aviation

Mr. Loy Lawhon conducted an informal, non-scientific poll on his web site (<http://ufos.about.com/gi/pages/poll.htm>) during the period from about July to October 2001 asking the question “Do you think UFOs are a hazard to aviation?” As of October 8, 2001 fifty five (33%) of the respondents said “yes, there have been many near-misses and a few possible collisions;” fourteen (8%) said, “No, not any more so than the ordinary objects that UFOs really are;” Sixty two (37%) said, “No, UFOs are too fast – they can maneuver around aircraft easily;” seventeen (10%) said, “I don’t know;” and eighteen (10%) said “You didn’t list my answer.” No details were given regarding the piloting experience or aviation background of any respondents.

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While airline pilots are excellent eye witnesses of so-called UAP as a group for various reasons discussed elsewhere (Haines, 1979; 1992) they are not necessarily the most reliable reporters due to various social pressures placed upon them by their employers and society in general (Haines, 2000). Indeed, many pilots have told us (NARCAP) that they were instructed not to discuss any in-flight events that could negatively impact their airline's economics, e.g., passenger confidence. Apparently this dictum has been interpreted to include sighting an unidentified phenomenon in the air, almost regardless of its visual features or judged impact upon flight safety. This fact is very unfortunate since this kind of response produces an under-reporting bias by U. S. pilots today; America's aviation community needs to understand *all* of the major and minor factors that interact to affect aviation safety. If even some low probability-of-occurrence factors are left out, for whatever reason, our knowledge will be incomplete and our ability to plan for optimal flight planning and control strategies will be inhibited/reduced/. We may be deliberately overlooking critical factors.

In order to gain a better idea of the approximate reporting frequency of aircrew of UAP NARCAP decided to conduct as many separate surveys to currently flying pilots of major U. S. airlines as possible. This paper presents the results obtained from the first such survey involving a relatively small airline in which the management was brave enough to permit it to take place. It will be through the actions of similarly open-minded airline management that further data will be collected that may contribute that one or two final - but previously overlooked - factors that will contribute to much safer flight in America.

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Quickly, within two weeks, he unexpectedly found himself facing an interview with a psychologist allegedly to assess his mental competency. While he was (later) deemed competent to fly, this was a disturbing response to a seemingly harmless inquiry. As our pilot faced these concerns for his career, it was clear that conducting a survey of aircrews within his company would not materialize soon.

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