



\*\* PLEASE NOTE CHANGE OF ADDRESS FOR ORBITER AT TOP RIGHT \*\*

FIREBALL PHOTO TAKEN FROM A B-29 OCT. 9, 1946.  
Source: Space Nomads - Lincoln Lapaz.



IN THIS ISSUE :

Two of the feature articles, in this issue, apply to fireballs - one current and the other from 1965, in Kecksburg, PA. Page-#2 carries Walter Webb's report of a unique event occurring here in New England and elsewhere. Page-#3 - From The Letter Box, more comments on the alien photo (Orbiter issue #27) and I'm sure many will find Christian Page's remarks most interesting. On Page-#4 we hear from PASU's Stan Gordon and his position/critique on Robert Young's article (published in the Skeptical Inquirer - Spring 1991) and what happened at Kecksburg in 1965. Another pleasant letter, Page-#5, comes from British Author/Lecturer Hilary Evans, regarding his thoughts on the circle phenomenon. Page-#6 MJ-12 Crazier Than Ever - by Christopher D. Allan (condensed version, please note my Ed. comment on p. #6). Page-9 & 10 Reproduction of Applied Optics articles (Dec. 1979 & June 1980) of the New Zealand film footage. Also, on p. #10, a reprinting of a 1964 newsclipping of a flying saucer report dating from '1933'. On Page #11 'Engineering Professor Teaches UFO Course At University of California'- reproduction of an article from 'The American Engineer'- May 1968.

*The New England Aerial Phenomena Report*

THE GREAT NORTHEAST FIREBALL OF 1991

March 6, 1991

By: Walter Webb

For at least the fourth time in little more than one year, New Englanders observed a major unusual fireball. The region shared the spectacle with the rest of the northeast U.S. The long-duration fireball traveled in a nearly horizontal, southwest-to-northeast, 500-mile path off the coast and was viewed from eight or nine states, including New Jersey, Pennsylvania, New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, and Maine. News reports also added West Virginia. The most likely time of the event appeared to be between 2:53 and 2:55 a.m. EST. Locally, the sky was extremely clear.

This fireball was remarkable in a couple of respects. First, it proved to be the longest-lived meteor in this region perhaps since April 25, 1966. Estimates ran up to 30 seconds or so where wide viewing angles were present. Second, anomalous sound was reported by one observer located at Weirs Beach, NH. He had just stepped out of his truck when he was alerted to the fireball behind him by a 'whooshing' sound. (It was more like a gentle whir in his creation of the sound over the telephone.) For another observation of anomalous sound, see my report "Daytime Fireball over Eastern Massachusetts: October 16, 1990."

The object generally was described as a bright blue-white ball trailing a long, very straight, gradually tapered orange tail (which changed to a greenish hue toward the end of its flight). Seven of the eight witnesses whom I interviewed over the telephone were unable to glimpse a final endpoint burst or fragmentation. Only one observer (Roxbury, NH) said he noticed a flash after the fireball disappeared behind trees. At least in New England, the glowing object generally was reported to be at low angular altitude toward the east or southeast, possibly 20° or less.

The truly amazing thing about this fireball was its longevity. An Attleboro police officer had time to radio another cruiser so both men could watch the phenomenon. And a West Swanzey, NH., father, who was up with his baby, was able to wake his wife; they then proceeded outdoors onto the balcony and observed the rest of the fireball's flight from there.

Observation sites from both news reports and telephone interviews. Sites shown are as follows (from south to north):

New Jersey

Absecon  
Atlantic Highlands  
Teterboro

Pennsylvania

Philadelphia

New York

Garden City  
New York  
Ithaca (Danby)

Rhode Island

South Kingston

Massachusetts

East Harwich  
Falmouth Bourne Duxbury  
Pembroke  
Attleboro  
North Attleboro  
Mansfield  
Sharon Canton  
Northbridge \*  
Auburn \*

Massachusetts (cont')

Norwood  
Braintree  
Dedham  
Milton  
Framingham  
Boston (Dorchester) \*  
Wellesley Hills  
Newton  
Woburn \*  
Burlington  
Lynnfield  
Tewksbury  
Andover  
New Hampshire  
Pelham  
West Swanzey \*  
Roxbury \*  
Manchester  
Weirs Beach \*  
Maine  
Portland \*  
Bridgeton  
Bangor

\* Telephone interview  
with W. Webb - (Manager of Planetarium  
Operations Charles Hayden Planetarium  
Museum of Science, Boston, MA.)

FROM THE LETTER BOX

Sal Amendola, from Brooklyn, NY., writes on his observations: "I saw a copy of the first page of the Nov/Dec. 1990, Issue #27, Orbiter. It shows a photo of what can be interpreted as a 'dead extraterrestrial'. The copy above the photo asked for information about the picture. Probably, by this time, you have more information than I can lead you to.... Enclosed is a sketch (from memory) of a slide I saw of the rest of this thing's body (apparently a sculpting or casting). I recall peculiar 'grooves' on its very flat feet, from toes to balls of feet. the thing looked like it could be made to stand up.

- This sketch is deliberately vague, because:
- a) Contrary to popular belief, ~~few~~ artists have so called 'photographic memories'
  - b) I'm 14 years
  - c) I'd be too predisposed to drawing what I thought I saw, based on my own preconceptions.
- ... But I do recall that the figure appeared very much like a "walking" human being in proportion (no extra fingers, under-eyes, etc.)



UFORCES' Bill Hamilton states: "...the first thing I noticed was the silver suit. It appears to be one of our pressure suits turned inside out. The zipper on the front shows the back side. Of course, this suit does not fit the verbal description of alien suits given by abductees. The second most notable feature is the pink skin color - similar to a caucasian human, I would conclude it was staged and that the figure is a dummy of some sorts dressed in an inverted pressure suit. But why inverted"?

Christian Page, of OCIPE, informs us:

"It is with great pleasure that I took note of the many commentaries risen by 'my' picture of the alleged 'extraterrestrial' of Roswell. Besides, I would like to take advantage of this occasion to bring here some rectifications about the commentaries of Mr. Grant Cameron.

As Mr. Cameron said, the picture published in your issue #27 is effectively part of a series of photographs. Meanwhile, contrary to the discourses of Mr. Cameron, these pictures have not been taken in 1967, but in 1979. The 'creature' was at that time one of the permanent exhibits of the Montreal "Pavillon de l'Insolite" (thematic building built for the Universal Exposition of 1967 (it is probably here that took place the confusion of Mr. Cameron). The dummy, real size, was dressed with a metallic suit (in reality a scuba diver suit) and rested length wise under a plexiglass cylinder. Evidently, I would like very much to be the happy owner of the Popper's pictures (!) (as it is questioned in your issues #28) but unfortunately it was not the case. Sorry!

I would like also to bring here some precisions about an information under the title Communiqués and Bits N' Pieces. In front of the name Richard Glen (Glenn with two 'n' is the exact spelling), we can read the following description: "Top TV Canadian UFO Researcher". Mr. Glenn is effectively the host of a weekly show on the local TV (on the cable network), but does certainly not merit the qualifying of 'TOP'. Mix of George Adamski (besides he is himself in contact with some 'extraterrestrial beings that he names 'Egregores') and Bill Cooper, Mr. Glenn dropped such a discredit on the Canadian ufology that today some witnesses refuse to cooperate with the serious investigators because they are afraid to see their testimonies falling in the hands of this hare-brained host of 'Esoterisme Experimental'. Again recently, for the benefit of his french auditors, Mr. Glenn translated the name 'C.A.U.S.E.' by 'Groupe de citoyens contre le secret entourant le phénomène extra-terrestre', (that would mean in english 'Citizen against the secret surrounding the extraterrestrial phenomenon'). This lack of rigor says a lot about the intellectual integrity of Mr. Glenn. In short, it is not my aim to make the trial of Mr. Glenn, but I would be very curious to know who could have written this note about him (he would be himself the author of that commentary that I would not be surprised at all!)"

Stan Gordon's response to "Oldsolved Mysteries" - What really happened at Kecksburg, PA. on December 9, 1965, by Robert Young.

"I was well aware that Young was planning on publishing this marvelous work of journalism (Skeptical Inquirer article Spring 1991). We knew that with such a controversial case, it would be only a matter of time that we heard from those with a close minded approach.

We have been almost continuously working on investigations associated with Kecksburg. Believe me, if there was nothing to it, myself and PASU members wouldn't be wasting our personal time and expenses doing the field work.

The following are my comments on Robert Young's article:

My position is that on the afternoon of Dec. 9, 1965, an aerial object of yet undetermined origin, landed in a wooded area near the Village of Kecksburg, Pennsylvania. Within a very short time, a contingency of military personnel, from the Army and Air Force arrived at the site and took control of the situation. What the object was has yet to be determined. It could have been man-made, but it may have indeed been something much more interesting. Information from various sources, as well as dozens of eyewitness accounts, doesn't exclude the possibility of an extraterrestrial space craft. But we must first rule out any man-made experimental devices, before coming to this conclusion.

As I have told Mr. Young in a letter sent to him, I had learned many years ago as a serious researcher, never to rely on second hand information sources (news clippings, TV news reports, word of mouth etc.) as quite often this information is inaccurate, or at the least misleading. I have always attempted to try to find the primary sources involved in the case. Mr. Young unfortunately based his Kecksburg report largely on newspaper accounts, and excerpts from the Unsolved Mysteries segment of the event. He also makes references to information that he attributes to me, but which is indeed not true. For example, on page #284 he states, "Barry has also reported, citing Stan Gordon as his source, that a 1965 member of the Kecksburg Fire Company claims it had been contacted 'by NASA before the UFO crashed and asked to keep the public away from the area.'" Another example appears on page #285, where the sighting of a brilliant meteor observed on the night of January 27, 1990 (not the 28th as stated by Young) is discussed. It is stated that, "That night on ET Monitor Barry reported that a Greensburg source", 'a euphemism he sometimes uses for PASU's Stan Gordon,' had called to say that "an object had landed" nearby at about 7:20 p.m., that the area had been cordoned off, and that the source was "trying to get as close as he could".

Once again the information is untrue. Numerous newspaper accounts of this incident do accurately quote me as saying that the object appeared to have been a meteor. But as I had mentioned in our PASU DATA EXCHANGE of April, 1990, the story took on greater proportions as a result of the public and news media monitoring police and fire radio broadcasts. Some residents of Westmoreland County, after seeing the fireball pass, claimed to have seen some flaming reidue fall into a nearby woods. A fire company was dispatched out to look around. They found nothing, nor did our PASU field team which also responded. But the public's imagination took over quickly, likely due to the memories of what occurred at Kecksburg in 1965. People were calling radio talk shows that night and claiming that the area was cordoned off and that something was on the ground. I appeared very late that night on the Joe Gearing Radio Show on KDKA in Pittsburg, and put the rumor to rest very quickly. But the word traveled fast, and I had a number of calls from out of state wanting to know about the UFO crash. It was the apparent passage of a bolide and nothing else in this case.

Mr Young's article is filled with misinformation. Trying to belittle me, won't dismiss the testimony of the dozens of people who were at Kecksburg on the night of the occurrence and of which many are now going public. Currently a major newspaper is doing a very detailed unbiased investigation into the events of the Kecksburg case. This report is due to be released in late May, 1991. This research effort will cover many new aspects of the happenings of that case, and those who have read Young's report should soon be asking, not if indeed did anything happen at Kecksburg, but what was the object that landed?"

From Great Britain, author/lecturer Hilary Evans of BUFORA writes:

" A belated response to your Jan-Feb article on the 'swirls'....

There is no doubt, the circles are a mystery - and Meadon is the first to recognize it. But at the same time, they are far from being a total mystery. We know quite alot, not only about the circles themselves, but also about the circumstances in which they are caused. A sufficient number have been seen in the course of creation, or immediately after, for us to be sure (1) that they are associated with atmospheric disturbances; and (2) the forces involved are invisible, except in so far as certain characteristics such as swirling movements in the air and sometimes luminous effects are seen.

This by no means rules out the possibility that extraterrestrial spacecraft are responsible. Such craft could be invisible, and so could be actually present - invisibly present - when the circles are witnessed in the process of creation.

There is, however, a good reason for doubting that alien spacecraft are responsible: which is, that there isn't a single good reason to believe they are responsible. Nobody has reliably seen an alien spacecraft in the proximity of the circles (or indeed anywhere else): nobody knows how the spacecraft make the circles; nobody can make a good guess why they should do so. In short, the whole thing is not merely speculation, but wholly unsupported speculation, without even circumstantial evidence to back it, nor even probability. There is no more reason to hold UFOs responsible than there is for giving the credit to Bigfoot, Mothman or Santa Claus.

Last summer, Dennis Stacy and I drove across Europe at the height of the 'circle season'. Needless to say, we kept a good look out as we bowled through the fields of France, Germany, Luxembourg, and Belgium: we must have passed thousands of fields identical in all obvious characteristics to those in south-west England where the circles appear. We saw plenty of conventional wind damage - but never even the most rudimentary of circles.

Meadon has hypotheses to account for this; but it is perhaps the toughest nut of all to crack. Certainly, if the new complex shapes can be taken at face value, they too are a formidable challenge; but personally I incline to agree with Jenny Randles and Paul Fuller (1), that the amount of hoaxing that is going on has been much underestimated. (Ed. - Emphasis mine.)

Little publicity has been given to the experiment carried out by a French team, who commissioned a movie special effects expert to hoax a circle. (2) They gave him a demanding specification, stipulating for instance that ther should be no sign of access etc. He responded by producing a stunner, with outer rings and satellites, in just one hour. OK, not everyone has access to that kind of expertise; but if one man can do it, then there are surley others....

This summer's crop will doubtless resolve some aspects of the mystery; it remains to be seen whether it will also add to the mystery by offering even more elaborate developments. Whatever happens, it will surley continue to provide amusement for the public at large, amd a splendid bandwagon for the amateur theorists, occultists, and other fellow-passengers who love to grab hold of a natural mystery and turn it, if they can, into a supernatural one."

#### References

- 1 Jenny Randles & Paul Fuller, Crop circles, a mystery solved, Hale, 1990.
- 2 Thierry Pinvidic, L'histoire folle des ronds dans le ble, in science et vie, Novembre 1990.
- 3 see, for example, Ralph Noyes (ed.) The crop circle enigma, Gateway Books, 1990.

MJ-12: CRAZIER THAN EVER  
Critique by: Christopher D. Allan

Critique of: 'The MJ-12 Documents, AN ANALYTICAL REPORT' by William L. Moore and Jamie Shandera (Fair Witness Project, Burbank, CA; copyright 1990)

In what follows the authors William Moore & Jamie Shandera are denoted by MS. I assume, as have the authors, that readers are familiar with the MJ-12 story and some of the events surrounding it, since the three primary documents were released to the public in May 1987. Readers not so familiar should consult the references cited in the above report.

(Ed. Comment - C.D Allan's critique has been condensed due to its length. It is reprinted here, in part, and anybody wishing to receive Allan's complete critique can send a self addressed stamped envelope ,with about a \$1.00 worth of postage, to me at the address on the front page.)

The Weitzel letter (p. 6-7)

There are no grounds for thinking this is anything other than a fake produced by Richard Doty to fool APRO. The 'disinformation exercise' did indeed take place, but it was by Doty acting privately. What value the textual comparison with the Ellsworth document has is hard to say, especially since MS do not mention that Doty spells his name wrongly four times in the Weitzel letter. Is Doty so illiterate that he cannot spell his own four-letter name?

The Aquarius Documents (p. 7-14)

p.8 c.1: How can Moore possibly say that only three copies existed? Doty or 'Falcon' could have made many others. Certainly Peter Gersten should reveal how he acquired his copy.

p.9 c.2: Why did the Moore/Doty reconstruction not take place until 7 years after Moore received the original document, and how much reliability can we place on this exercise?

p.12 c.1: In discussion of 'bad data', it should have been pointed out that paragraph 3 of the 'AD' is missing.

p.13-14; Discussion of the various Aquarius projects is inconclusive and seems irrelevant to UFOs. If the said document is a 'hybrid of real and disinformation' as given by MS on p.69 then it is, quite simply, phoney. Whether you accept the document as genuine or not depends entirely on whether you believe MJ-12 exists or not. A genuine official document cannot refer to a fictitious project.

The Kirtland Documents (p. 17-20)

There are far too many mistakes in the cross-referencing. The whole of Appendix E is mis-numbered, as referenced by the text on p. 17-20. This makes checking very difficult.

Remember that Paul Bennewitz is the man who was the victim of an alleged disinformation exercise conducted by Doty & Moore, starting at the time of these documents (as detailed by Moore elsewhere). MS do not say whether these documents played a part in that exercise.

The Carter Briefing notes (p. 21-23)

p. 21 c.2: It is unfair to attack another editor (Barry Greenwood, who decided quite justifiably that the 'CD' was a fake), and then withhold over two-thirds of the documents so that readers cannot make a judgement.

p. 23 c.1: On what grounds do MS declare that the 'CD', if it is a fabrication, is "something created officially"? Why should we trust anything originating from 'Falcon' or some other anonymous courier?

p.23: MS do not mention the similarity of the typeface of the first page of the 'CD' to that of the 'MJ5 CIA Document' in appendix F (p. 98). The 'CD' is not shown in the report but is shown in JUST CAUSE #13, SPT. 1987.

The Eisenhower Briefing Document (p. 30-48)

p. 30 c.2 On what grounds do MS (and John Keel) say that the 'EB' was typed on 8 1/2" x 11" paper? Without the originals, we cannot say for certain unless we assume the 'EB' is authentic. If, however, it is a forgery it would be quite possible to type it on 8" x 10" paper, enlarge it slightly, then apply the rubber stamps and perforations before photographing. (The argument, on p.41-42, that the film is a photograph of a typed original is not overpowering).

p.31 c.2 MS do not say that Dr. Wescott later reversed his opinion, saying that the reasons he gave for the 'EB' being genuine could just as well be used to indicate the opposite. He ended by saying his results were inconclusive. The long list of Dr. Wescott's credentials (occupying 3 pages in Stanton Friedman's MJ-12 paper!) is 'puffery' by MS.

Two further points in this connection:

(1) The reason Wescott was chosen to do the analysis was because of his known keen interest and sympathetic attitude towards the paranormal (this fact is ignored by MS).

(2) Wescott has made it quite clear that he did not necessarily believe in 'nuts & bolts' ETH (which is what the MJ-12 papers purport to reveal). He favored more the 'ultraterrestrial' idea.

The Truman-Forrester memorandum (p. 48-61)

p.49 c.1: I agree with points (A) and (B) but do not understand the argument that follows, wherein MS say that either both the 'EB' and 'TM' are genuine or that one is a 'ringer' and the other genuine. MS have obviously decided to reject the possibility that both are fakes. Why?

p.52-53: MS paint an ingenuous scenario indeed. Because some critics had noticed that the numerics in the date on the 'TM' are slightly offset from the word 'September', the authors (following in the steps of Stan Friedman) now propose that some secretary typed the memo, including the 'September' in the date, gave it to Bush to type the '24, 1947.', who in turn passed it to Truman for signing. MS claim this strange sequence of events is supported by the two typefaces apparent in the 'TM'. MS then further say that it is "difficult to explain why a forger would go to the trouble of using two machines when he could have done it all on one". The answer is simplicity itself. The forger did not use two machines, he used only one. He had only one vintage machine suitable for the 'TM'. With it he typed the text of the 'TM' and the word 'September'. The '2' key was not working, so he could not type the rest of the date. He thus had to lift the '24, 1947.' from another paper, fortuitously from a genuine Bush memo of the same date, and paste it alongside 'September'. (The numeric part of the date was thus not typed but transplanted).

The Cutler-Twining memo (p. 61-69)

p.62 c.1: Why cannot MS display the two cryptic postcards for readers, complete with stamp and postmark?

p.63 c.2: MS do not tell us that another memo written by James Lay in his own name on the same date as the 'CT' (July 14, 1954) had cutler on the circulation list. If the 'CT' was also written by Lay it too ought to have had Cutler on its list. It did not.

General comment: Why no mention of the National Archives disclaimer on the 'CT' in their 10-point letter of July 22, 1987, signed by Jo Ann Williamson?

Conclusion (p. 69-70)

p. 69 c.1: "Purveyors of Fantastic ....tales". Like Roswell perhaps?

p.70: The conclusions on the three primary documents, i.e. paragraphs numbered (10), (11) and (12) seem to be oriented entirely towards them being either authentic or some sort of official fabrication (i.e. disinformation). Indeed, this idea is prevalent all through the report. The authors seem to totally reluctant to consider that a private individual could have forged them for his own purpose. Such is symptomatic of the paranoia embodied in crashed saucerology in the U.S. today. I would myself give a probability of close to absolute zero for the 'EB' and the 'TM' being genuine, and only a slightly higher probability of them being official disinformation. The 'CT' does not concern me that much; but there has been enough counter evidence from others to convince me that it is as bogus as the other two.

Afterword (p.71)

For a good example of the delusions of grandeur that some ufologists exhibit, I recommend the third paragraph on p.71. Great words indeed by the two high priests of ufology. (watch out all you high school undereducated people!)

MY CONCLUSIONS

Ufologists who are, like me, getting bored with the endless spy fiction surrounding MJ-12, with the continued withholding of evidence by the two chief protagonists, and by the tiresome ravings put out by the mysterious entity known as 'Falcon', may like to put some direct questions to Moore and Shandera and demand the right answers. Here are a few:

1. When did MS acquire the Truman-Bush memo of October 1, 1947, and for what purpose?
2. When did MS acquire the Vannevar Bush memo of September 24, 1947, and for what purpose?
3. For what purpose did Moore obtain the Cutler-Twining memo of July 3, 1953 (the one ending with the phrase identical to the one in the 'CT')?

None of the above are connected with UFOs.

4. When are MS going to release the remaining 6 pages of the Carter Briefing? These pages are very likely to be similar in content to the 'EB', which explains the reluctance of MS show them.

Final Thoughts:

If Truman really did sign some 284,000 signatures while in office and if, as MS assume, the 'TM' (if not genuine) is some sort of official fabrication, what is the probability that the 'official disinformant' would have chosen a Truman signature that, out of the amssive numbers of signatures available was one which miraculously gave a very close (almost perfect) match to a signature which MS already had among the few Bush and Truman papers in their possession.

Exactly the same question could be put about the liklihood of James Iay writing a memo in July 1954, and which was intentionally placed in the records many years later for MS to find; this memo managed to contain the same phrase used by Cutler on a genuine memo in July 1953 and just happened to be already in the possession of Moore and Shanera.

Finally, if documents contain accounts of extraordinary events, as the 'EB' certainly does, then it is incumbent upon supporters of these documents to prove their authenticity; it is not incumbent upon me or any other opponent to totally disprove them. This applies even more in the case of papers which suddenly appear from nowhere 40 years later after the events allegedly occurred.

Photometric properties of an unidentified bright object seen off the coast of New Zealand:  
author's reply to comments

Bruce S. Maccabee

U.S. Naval Surface Weapons Center, White Oak, Silver Spring, Maryland 20910.  
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0003-6935/80/111745-02\$00.50/0.  
© 1980 Optical Society of America.

Maccabee<sup>1</sup> has claimed that conventional sources were ruled out as possible explanations for the observations and filming of a very intense ( $10^5$ - $10^6$ -cd) light source from an airplane that was flying east of the South Island of New Zealand on 31 Dec. 1976 between 2:19 a.m. and 2:35 a.m. local time. Ireland and Andrews<sup>2</sup> have suggested that the light actually came from a squid fishing boat that would have been fishing ~60 km north-northeast of Christchurch. In support of this explanation they have pointed out that a large squid fleet was in New Zealand waters at the time and that one of these boats "could have passed the site in question." Their information on the known locations of squid boats (several hundred kilometers east of and several kilometers north and west of the South Island) came from the New Zealand Ministry of Agriculture and Fisheries; these boats also showed up on satellite imagery.<sup>3</sup> Squid boats maintain fixed locations while fishing. According to a more recent paper by Ireland,<sup>4</sup> these locations are reported to the Ministry of Agriculture and Fisheries. However, ministry records failed to show any boats in the vicinity of the sighting area.<sup>4</sup> Furthermore, according to freighter aircraft pilots who have flown over the area in question for many years, squid boats have not been seen fishing in the Pegasus Bay, which is the body of water north-east of Christchurch where the hypothetical boat would have been. Since there is a lack of independent evidence for the existence of a squid boat at the location in question, the proof—or disproof—of the squid boat hypothesis must be based on information collected by the witnesses during the sighting.

When the plane was ~70 km from Christchurch, the pilot turned to the right. According to the witnesses (other than the pilot, who could not see the light from his left-hand seat because the depression angle of the line of sight was too great), the line of sight immediately after the turn was within 20° of straight ahead. Ireland and Andrews claim that the turn angle was ~120° to the right, which would be reasonably consistent with what would be expected if the plane turned toward a stationary light (e.g., squid boat). However, this amount of turning is contradicted by the explicit statement of the captain<sup>5</sup> that he turned from 053 magnetic to 125 magnetic or 92°. The more correct path of the aircraft is illustrated in Fig. 1. The figure illustrates two other modifications<sup>6</sup> in the information of Refs. 1, 2, and 3: (a) the radar detections began within 20 sec of the initial visual sighting, rather than 3 min later as previously reported, and (b) the target went off the aircraft radarscope at ~60° to the right rather than 50° (the 63° angle on Fig. 1 is drawn to the center of the radar blip, estimated to be 6° wide).<sup>7</sup> Figure 1 also illustrates the estimated visual sighting directions after the target went off radar. These directions are estimated from witness statements made during the flight (tape recordings and handwritten notes) and during extensive interviews after the flight.

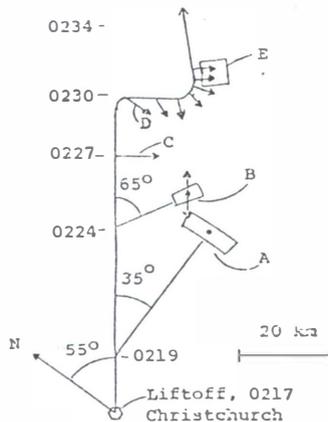


Fig. 1. Approximate flight path of aircraft. Sector A indicates uncertainties in the remembered radar distance and radar/visual azimuth angle when the object was first seen. The vertical arrows through sector B indicate an added uncertainty in the time at which the radar target went off the scope, here estimated to be 5 min after the first sighting. Line C indicates the position of the plane and azimuth of the object as recorded by the Wellington Air Traffic Control Center at 2:27 a.m. Sighting lines D to E are estimates based on witness statements. Associated with these azimuths are depression angles in the range 20-40°, with the depression angle at E being ~45°. The square area at E represents the estimated location of the object when last seen.

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Contrary to the stationary squid boat hypothesis, the available data suggest that the light moved a considerable distance during the 13 min or so that it was seen. According to the captain, the radar target moved in toward the center of the radarscope from 33-37 km to 15-22 km at approximately constant azimuth for several minutes, and then the target moved around to the right, disappearing at the limit of the sweep. As nearly as could be determined by the witnesses, the azimuth of the radar target was always the same as that of the light. As the flight continued, the witnesses had the impression that the object paced the aircraft at an apparently constant distance. Immediately after the turn the plane seemed to approach the light, but then it appeared to recede from or avoid the plane and move away and around to the right. There was a very noticeable depression angle in the line of sight after the turn, and there was no radar target, suggesting that the object was below the radar beam.<sup>1</sup> During the subsequent left turn the captain could not see the light directly because it was too far to the right and below his field of view, but he could see the glow in the right-hand windows. He was surprised to see the glow increase in intensity rather than decrease, as he expected would happen if he moved away from the light. A witness also recorded a statement mentioning an apparent increase in brightness during the turn. The light was last seen at the right at a depression angle of ~45° as it appeared to move behind and below the plane. Since the plane was at an altitude of ~3960 m, the light came within ~6000 m of the aircraft.

Because Ireland<sup>4</sup> failed to find a squid boat in the vicinity of the sighting area and because the available evidence indicates that the light source was capable of rather rapid motion (e.g., at least 42 m/sec, 82 knots), it appears that the light did not come from a squid boat. More detailed information on this and other sightings that occurred the same night is available from this author.<sup>5</sup>

References

1. B. S. Maccabee, *Appl. Opt.*, **18**, 2327 (1979).
2. W. Ireland and M. K. Andrews, *Appl. Opt.*, **18**, 3689 (1979).
3. B. S. Maccabee, "What Really Happened in New Zealand," privately circulated (1979).
4. W. Ireland, "Unfamiliar Observations of Lights in the Night Sky," Physics and Engineering Laboratory Report 659, Dept. of Scientific and Industrial Research, Lower Hutt, New Zealand.
5. These are magnetic compass readings; the magnetic declination is 22° east.
6. The first change corrects a mistake on the part of this investigator: the radar did not require 3 min to warm up after it was turned on because it was already in a warmed-up standby condition, a fact of which I was unaware until after publication of Refs. 1 and 3. The second change results from actual measurements of the radar sweep range. Previously the value had been only estimated.
7. The angular extent of the radar blip reported by the captain was unusually large. Experiments with the same aircraft radar indicate that it can just barely detect individual fishing boats beyond 20 km or so. The associated blips look like small dots on the screen.
8. This research has been supported in part by the Fund for UFO Research, Box 277, Mt. Rainier, Maryland 20822.

*Editorial Note:* The discussion of this particular incident now seems to be moving outside the realm of technical optics and into areas not relevant to the subject matter of *Applied Optics*. Therefore, publication of this rebuttal will close the discussion.

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NOW YOU KNOW

The noisiest animals are the howling monkeys of Central and South America, whose screams can be heard up to 10 miles away.

Uranus, discovered by Sir William Herschel on March 13, 1781, lies at a distance of 1.8 billion miles from the sun, taking 84 years to make its circuit around our star.

Photometric properties of an unidentified bright object seen off the coast of New Zealand: comments

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Maccabee<sup>1</sup> has presented an analysis of a bright nocturnal light photographed from an aircraft off the coast of New Zealand. This analysis has significance only if, as the author claims, conventional sources of light are ruled out. We do not believe that this has been done. In particular, we do not accept the implication that the source was airborne at a height of ~1 km and consider that a very likely source of the light was one of a number of squid boats that could have been in the area.

The flight must be seen in context; it was the return leg of a flight between Wellington and Christchurch, during which the Wellington radar had recorded many anomalous echoes and the aircraft passengers had seen many unidentified lights. The passengers were a TV crew UFO-hunting following similar sightings on a previous night. The period of the sightings (on and after 20 December 1978) coincided with the arrival in New Zealand waters of a large squid-fishing fleet.

The light analyzed by Maccabee<sup>1</sup> was seen shortly after takeoff from Christchurch. Figure 1 in Ref. 1 is incomplete. Our interpretation of the available evidence is shown in our Fig. 1, where the data are drawn principally from a previous,

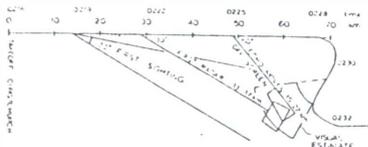


Fig. 1. Estimated flight path of the aircraft and position of the bright object on 31 December 1978. The object was in the enclosed areas at the times indicated.

detailed report by Maccabee.<sup>2</sup> The major difference is that ~3 min after the object disappeared off the right-hand side of the radar screen, the pilot made a right turn toward it. After flying southeast for ~2 min, during which time the light moved relative to the aircraft to an estimated 30° below and to the right, the pilot resumed his course, finally seeing the object below and to the left. During the southeasterly course, the fact that the object was not seen by the radar, together with the known radar antenna pattern, means that the object was more than 15° below horizontal and hence <15 km away.

Figure 1 shows no evidence that the object moved significantly when bearing and distance errors are allowed for. The only suggestion that it was airborne comes from the first visual sighting at a range of ~50 km, when witnesses estimated the object to be apparently at the level of the cloud tops through which the aircraft had just emerged. Clouds over the sea were described by the air crew as low and scattered. Since it was very dark (new moon), and an object on the surface would have a depression to the horizontal of only 1°, the observations are not inconsistent with a near-stationary surface object. The first radar return was strong, which also suggests that the sighting line to the object was depressed.

Maccabee<sup>1</sup> estimated the source to be 12 m high × 18 m wide, with an intensity of  $2.6 \times 10^3$  to  $2.5 \times 10^4$  cd. These figures are in fact consistent with a squid boat, which typically carries a total of 200 kW of incandescent lights strung around the gunwales, producing an intensity of  $3\text{--}4 \times 10^3$  cd. While the main fleet of thirty boats was fishing 250 km from the incident, records show that at least twenty boats were in transit between fishing grounds that night, and a few others were known to be fishing singly.<sup>3</sup> The routes taken by those in transit are not known, but they could have passed the site in question.

We conclude that the object may have been almost stationary, and the evidence that it was airborne is scant at best. Though the light was intense, it was quite compatible with potential shipborne sources known to be in the area. The claim of Maccabee that conventional sources have been ruled out and the implication that a UFO was photographed is therefore questioned.

References

1. B. S. Maccabee, *Appl. Opt.* 18, 2527 (1979).
2. B. S. Maccabee, *What Really Happened in New Zealand?* (Ulster Maccabee, Silver Spring, Maryland).
3. New Zealand Ministry of Agriculture & Fisheries, personal communication.

A little 'nostalgia!'

Area Man Says:

Flying Saucer Spotted in 1933

Flying saucers have been reported by persons in all walks of life all over the world, including the Lehigh Valley. About 30 years ago a Lehigh Valley man claims he actually entered and inspected a saucer of close hand. Mr. X's identity has been withheld to protect him from hecklers but his story is recounted here.

Early on a warm summer morning — actually about 2:30 a.m. in 1933 — I was on my way to Nazareth from Lehigh-ton. I was driving a 1925 Ford roadster.

Between Cherryville and Morrestown at a lonely spot on the road one of my tires went flat.

While jacking up the car, I noticed a faint violet or purplish light in the field on my right. It was not especially bright but the peculiarity of the hue made me curious.

**Bell-Shaped Object**  
I walked about 200 feet toward the light. On the grass lay a bell-shaped object about

ten feet in diameter and about six feet high.

There was no moon but a faint light emanated from the stars. Light was also issuing from a slit in the object which proved to be a circular door, slightly ajar, on close examination.

This door was about a foot in diameter. When I pushed it, it swung open. It was constructed somewhat like a bank vault door with sealing strips on its edges and at the opening.

There was nobody around so I put my head inside. But, because of the peculiar light — apparently coming from the ceiling — I had difficulty seeing.

**Tubing and Dials**  
The chamber was full of tubing and dials with a kind of console in the center. There were no perceivable windows. The chamber was about six feet in diameter and about four feet high and it had a dome.

I could see no beds or seats. But, I remember the walls had a striated pattern like that of marble. Since I was able to put my head through the door directly into the chamber, the object apparently had no air-lock — a device that is said to be important to earthly space ships.

The odor in the chamber was similar to ammonia and the temperature was quite cold.

The shapes of several small objects in the chamber had strange curves — unlike anything I had ever seen before or since.

**No Windows**  
I withdrew my head and walked around the object. There were no windows visible on the outside, either. Nor could I see any person or creature.

The outside surface of the object was extremely smooth — metallic in texture as I recall — and cold to the touch.

I walked back to the car after spending about ten minutes examining the object. I fixed my tire and went home.

At the time Mr. X was about 18. Today he makes this recapitulation of his experience:

When I had this experience I had never heard of a flying saucer and hadn't the remotest idea what the object was. But, now, looking back I am convinced I saw something, not of this earth and perhaps not even of our planetary system.

While inspecting the object, I neither saw nor heard any living thing. In fact, the

lence, was deadly. But, it's entirely possible I was observed.

I think we of this planet are presumptuous to suppose that all other intelligent beings in the universe have two arms, two legs and look like us.

From the size of the door and the odor emanating from the object, it's possible the occupants of this ship were reptilian in nature.

And, obviously, judging from its shape, this vehicle propelled by some means other than our clumsy and relatively inefficient rockets.

**Anti-Gravity May Explain**  
Sir Isaac Newton discovered and explained gravity. Our world is waiting for some unknown genius to discover and explain anti-gravity.

It's quite possible other people in that neighborhood saw the object. It would be interesting to hear their views.

Our scientists say it would take four years to reach the nearest star if we traveled at the speed of light — roughly 186,000 miles a second. How long would it take traveling at, shall we say, a billion miles a second?

**No Speed Limit?**  
Just because Einstein limits us to the speed of light, there is no reason to believe that creatures in other galaxies are thus limited.

I might add that the shape of this shape was amazingly similar to that of the model George Fawcett of Easton held in a photo of him recently published by *The Sunday Call-Chronicle*.

Fawcett, an Eastonian, has been investigating flying saucer reports for 17 years).

Allentown PA. Call Chronicle Feb. 16, 1964

Now You Know

A black hole is thought to be a collapsed object, such as a large star, which has a surrounding field of gravity so strong that neither light nor matter can escape from it.

Students discuss social and technical implications of worldwide sightings in an experimental course given at the Davis Campus.

By Dr. P. S. Moller  
Assistant Professor, Mechanical  
Engineering  
University of California, Davis



## Engineering Professor Teaches UFO Course At University Of California

Intelligent curiosity and interest about UFO sightings are showing up in the college world. A course offered at the University of California, Davis Campus, for the winter quarter 1967-68, attempted to bring the knowledge of the physical scientists, the sociological interests of the political scientist, and the curiosity of the students together. The course was taught by the writer, assisted by Dr. Dennis Livingston, the political scientist, and attended by 30 students, with majors evenly divided among the natural sciences, physical sciences, and liberal arts.

The course, entitled *Flying Saucers: The Social and Technological Implications*, is exactly that. The requirement—an open mind to all phenomena. An open mind is a very difficult requirement since the barrier of superstition has closed off effective evaluation of the subject. Until 1951 it could be said that the public in general and the Air Force (the official governmental agency responsible for decipher-

ing UFO activity) in particular held a less biased attitude towards the existence of alien spacecraft. After 1951 when the Air Force reversed the opinion it had previously offered to the public and began selecting the information it released, nearly everyone's objectivity was affected.

Today, a tentative idea, such as this course, faces tremendous prejudice in all areas that might possibly be concerned with UFO's—from the scientist to the cultist who claims to believe Venus has chosen him as a prophet. Now almost everyone justifiably is wary of the religious fanatics and the claims made in a thousand homes, so the students were not surprised at the three men who showed up during one course discussion to sit back and scold at every point. This was an expected show of disbelief. However, the course tried to examine more unexpected negative attitudes held in the other areas where open minds are taken for granted. It is far more detri-

mental to the objective study of UFO's when Dr. Hugh Dryden, previous director, National Advisory Committee on Aeronautics, said, "There are no such things as flying saucers—nothing to them at all!"

A two-part danger arises from this refusal to deal with UFO's. First, the scientific world excuses its lack of objectivity and serious exploration into the subject because it is "obviously" an area reserved for crackpots and overly vivid imaginations. Secondly, the Air Force investigative apparatus uses these same hoaxes and fanatics as a smoke screen for their own very serious investigations and conclusions—mostly kept secret from the public. For example, there are many cases of UFO eye-witnesses questioned by the Air Force. The tactics prove to the witness he was hallucinating. Nonetheless, the interviewers write down every detail of the "hallucination" and even go as far as showing the witness photographs (many not available to the public) and asking him if he can identify any one of them as the craft he has just seen.

Creating doubts is a way of achieving skepticism. This is as false as the form of skepticism which makes itself the science with egocentricity the gauge, a gauge that is limited to measuring our life as the apex of all life. Today most of the scientific world accepts the existence of life elsewhere in the universe. Thus, the question becomes one of commutation, i.e., how do they get here. The main reason scientists discount the existence of flying saucers is still our own boundaries of



Photo of UFO taken through truck window with a model 101 Polaroid camera by Rex E. Hefflin, an Orange County, California, highway inspector, near Santa Ana on August 3, 1965.

knowledge concerning the physics of matter at speeds approaching the speed of light. Of course, for us traveling through the universe seems impossible because our physics states that we can travel only at speeds no faster than the speed of light. History is filled with examples of our unwillingness to look beyond the currently accepted theories. Some engineers may recall that the initial studies regarding the speed of sound led us to believe that the sound barrier presented a theoretical upper limit to that speed in the atmosphere.

It is necessary, however, to state that some skepticism is important. To say that it is not is just another unfair extreme. For instance, the students as a whole were very skeptical which provided sharp questions for the lecturers and themselves alike. This kept the course from being just a comparatively high-level cult of its own.

The scientific hypotheses form the bulk of this paper, and as it turned out, the course. Some interesting sociological implications, however, concerned the realization that history is filled with the eventual collapse of civilizations through the terror and loss of self-confidence in the face of a superior civilization. Our own American Indian is a familiar example. Would it affect us to know for certain someone is much more advanced, causing us to look at barbarians in comparison?

Another implication—religious cults formed because of UFO's have similar behavior patterns that in many ways take on man's ageless desire to attach higher meaning to the unexplained. A third idea—what might be "their" point of view? Could it be they feel we are much like the aborigines are to us, to be studied and observed undisturbed in their natural habitat? The sociological, then, attempted to broaden perspective, to use the knowledge gained from history to prepare for any future reality.

As curiosity increased about the technical implications of flying saucers, the writer approached outside sources to help correlate the rapidly increasing data in preparation for further exploration. To prevent the usual negative interpretations, the questions were presented as part of the writer's studies related to the physiological effects surrounding a state-of-the-art propulsion system to be designed. Only at the conclusion of the discussions were the questions revealed to be about UFO's. The reaction was always the same, shock at the amount of correlation between the reported environmental effects surrounding the UFO's and our own technological knowledge of the effects of magnetic fields, plasmas, etc. It was a very effective way of insuring objectivity on the subject and at the same time convincing the scientist to look further into the subject.

The exciting technical areas studied in the course related to propulsion systems that might duplicate the reported performance and environmental effects of UFO's. The physical evidence of reported performance was gathered by the writer and extrapolated into our own state-of-the-art. One potentially useful propulsion system was designed by the writer which employs very large alternating magnetic fields > 100 kilogauss that might be obtained through the use of superconductors. Unfortunately, due to the proprietary nature of the propulsion system, the writer can only hint at its characteristics.

A large magnetic field, > 10 kilogauss, is capable of setting up eddy currents within the body. If one makes any movement an EMF will be developed which will give the effect of shock and tend to terminate the motion made, causing a temporary paralysis. By moving a hand or arm a subject will also experience a prickling sensation. A third magnetic field effect causes subjects to see "stars" when their

The American Engineer  
May 1968

heads are put into even weak magnetic fields. In an extremely large alternating magnetic field one would not have to move to experience paralysis and the prickling sensation. The exciting correlations here are the number of reliable cases brought out by such reports as UFO evidence by the National Investigation Committee on Aerial Phenomena where witnesses have reported this same temporary paralysis and prickling sensation when near a UFO. These same people could not have known about the magnetic effects since very few scientists are aware of them.

Another piece of relative technical evidence—when certain materials such as tungsten are placed in magnetic fields, their measured electrical resistance undergoes a large increase. There are literally hundreds of reported cases where automobile and house lights have dimmed or gone out when in the vicinity of a UFO. An interesting case is that of an airplane flying over South America with a full load of passengers. The cabin lights dimmed for over an hour, the exact length of time the plane was paced by a UFO witnessed by a large number of the passengers. This piston engine airplane had tungsten filament cabin lights, while modern aircraft employ fluorescent lighting and are not affected. The aircraft's magnetic compass was also reported to be totally inoperative during the time it was being paced.

In another case a house located near a hovering UFO underwent a

dimming and brightening of its lights at the same frequency as the light intensity changes of the UFO ( $\approx 1$  c.p.s.). This frequency is near the optimum theoretical frequency for pulsing the superconductor in the writer's aforementioned design.

A further question arises—why do so many of the reported UFO's hover near high-voltage lines. This cannot be answered for certain, but it is possible to charge an electric power supply by induction from a high-voltage alternating current power source without being in contact with it. The explanation that some scientists give, however, is that what appears to be a UFO near a power line is actually ball lightning or plasmas. In the writer's opinion, this is a case of trying to explain something taboo that we know little about by something we know even less about but is not taboo.

A propulsion system employing a large magnetic field could use it in conjunction with a plasma (possibly ionized air). If such a system is designed the circular shape would be near optimum and the plasma would probably be generated near the edge of the machine to maximize both thrust and control. If such a plasma were employed it would glow in the dark and change color with the degree of ionization (power level, or speed) and the altitude of operation of the vehicle. Those familiar with reports of UFO sightings will recognize this behavior as characteristic of many of the good UFO reports.

In addition to the above-mentioned correlations between our technical knowledge and the reported performance of UFO's; the lack of sound at high and low speeds; the heat sometimes reported; and the failure of automotive ignition systems in the proximity of UFO's can also be accounted for fairly well technically. Thus the technology available provides reasonable answers to most of the questions concerning the performance of those reported UFO's within our atmosphere.

In conclusion, the writer feels that the time devoted to such an experimental course was small in proportion to the value gained both from the questions brought out and the beginnings made in utilizing any technical correlations. There was an overall feeling by the students—the more knowledge shared, the less fear and absurdities, surrounded the UFO's. But above all, if such courses can just help to bring the scientific world closer to objective investigation, the vicious cycle of superstition could be stopped—a cycle that enables scientists to excuse UFO's as too ridiculous for thought, which in turn allows the clutter of superstition and fear to feed on itself with little denial. More disciplined thought and exploration is needed to correlate the large amount of relevant technical information. If this is done, the disturbing UFO could very well become the more useful and didactic identified flying object.—End.

### THE CURRENT UFO SITUATION IN RUSSIA

In May, 1967, a sponsoring group of scientists, the military, writers, and public figures met to form an unofficial body whose purpose it would be to conduct a preliminary scientific investigation of UFO's. Those present included Professor Heinrich Ludwig; Doctors of Science Nikolai Zhirov and Igor Bestuzhev-Lada; chief navigator of Soviet polar aviation Valentine Akkuratov; Generals Porfiri Stolyarov, Leonid Reino, Georgi Uger and Georgi Zevalkin, twice Hero of the Soviet Union Grigori Sivkov, Master of Science (engineering); Heroes of the Soviet Union docent Yekaterina-Ryabova and Natalia Kravtsova.

The organization, set up October, 1967, is called the UFO Section of the All-Union Cosmonautics Committee, with headquarters at the Central House of Aviation and Cosmonautics in Moscow. Air Force Major General Porfiri Stolyarov was elected chairman of the section. Those of us who are participating in this new and exciting undertaking have an ambitious program of work ahead. The first step will be to organ-

ize the collection of reliable information on UFO's. That will be done at the outset by the existing systems of astronomical, meteorological, and geophysical observatories, satellite and space-rocket tracking stations, and the radar installations of civilian airports, and the hydrometeorological service. All these organizations can make UFO observations with equipment now available.

In the design stage are special devices for photographing UFO's and recording the radiation and magnetic disturbances which they may be responsible for. The recorded observations will serve to check hypotheses. These hypotheses should not, in my opinion, attempt to explain the nature of UFO's in terms of familiar phenomena. Judging by other surprises, nature has some in store for us here too, and we must be ready for perhaps a radical "reassessment of values." The hypothesis that UFO's originate in other worlds, that they are flying craft from planets other than earth, merits the most serious examination.

... From an article in the February, 1968, issue of *Soviet Life* by Felix Zigel, Doctor of Science (Technology), Assistant Professor, Moscow Aviation Institute.

The Editor wants you to look this one over.

## Strange Phenomena INVESTIGATIONS

"We must seek to answer that which at present eludes us."



Newsletter

The American Engineer - May 1968

SPI - Researcher Malcolm Robinson  
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