



ORBITER

The New England Aerial Phenomena Report

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AN INTERESTING FOOTNOTE

Printed below is a footnote from the book titled, BRIGHTER THAN A THOUSAND SUNS authored by Robert Jungle, copywrite 1958. If anyone has seen this footnote printed elsewhere or has any information on the scientists mentioned please contact me or Barry Greenwood by calling 617-944-0686 or write to the address printed above.

The only exception to the lack of interest shown by authority was constituted by the Air Ministry. The Air Force research workers were in a peculiar position. They produced interesting new types of aircraft such as the Delta (trinagular) and "flying discs". The first of these "flying saucers" as they were later called - circular in shape, with a diameter of some 45 yards - were built by the specialists Schriever, Habermohl and Miethé. They were first airborne on February 14, 1945, over Prague and reached in three minutes a height of nearly eight miles. They had a flying speed of 1250 m.p.h. which was doubled in subsequent tests. It is believed that after the war Habermohl fell into the hands of the Russians. Miethé developed at a later date similar "flying saucers" at A>V> Roe and Company for the United States.

BALL-OF-LIGHT INTERNATIONAL DATA EXCHANGE

"There seems to be no end to the material which can be found in books and periodicals from the past; however, it ought to be set alongside material from our own time, and I do urge you all to keep your eyes open for articles in current scientific journals which could have a relevance to our field of interest." These are the words of Hilary Evans, UFO author who has cataloged hundreds of "ball-of-light" sightings from scientific journals. If you wish further information on this catalog, BOLIDE, contact Hilary Evans at 1 Tranquil Vale, London SE3 OBU England.

RADIO-TV LOG

- Jan. 10, 1988 - Budd Hopkins was a guest on WBCN-FM radio.
- Jan. 11, 1988 - Budd was a guest on WBZ-TV's People are Talking show.
- Jan. 21, 1988 - WBZ radio, Paul Harvey carried the Australian UFO car chase.
- Jan. 21, 1988 - NBC-TV, Today Show, also carried the Australian case.
- Jan. 21, 1988 - Channel 25-TV show, A Current Affair, carried a segment on the Australian case.

UFO CONFERENCE

Bill Pitts and the Arkansas chapter of MUFON, headed by Ed Mazur have announced a UFO Conference on the weekend of March 25-26, 1988 at the Inn of the Ozarks in Eureka Springs, Arkansas. Speakers presently committed are: Major Dewey Fournet (USAF Retired), Pentagon Head of the UFO Investigation during the 1952 Washington, D.C. flap; Al Chop, Pentagon spokesperson on UFOs; Max Futch, US Air Force Airman who worked with Captain Edward J. Ruppelt; and Curtis Fuller, Publisher of Fate Magazine. Confirmations are pending from early NICAP officers or staff members, and from former Project Blue Book Officers.

On Jan. 21, Venus is occulted by the crescent moon. The event can be glimpsed through a telescope, and the two parties can be seen, still close, in twilight.

Vital statistics

The mass of the earth is 6 sextillion, 588 quintillion short tons. The length of the equator is 24,902 miles, the length of a meridian is 24,860 miles and the equatorial diameter is 7,726.

WEIGH ALL THE EVIDENCE

One cannot deny that the abduction phenomena is the most bizarre aspect of Ufology. Even researchers who are knee-deep in investigating/researching the accounts of abductees publicly admit that this type of report is blanketed in absurdity. The abduction phenomena is having its heyday with the media. Whenever TV or radio talk shows have a program on abductions the listening audience is left standing with too many unanswered questions and fed a lot of speculation. A majority of the viewers and listeners to these programs are not knowledgeable on the topic of the UFO phenomena or abductions.

There are some points here that I feel serious students of this subject should give careful thought to:

VEHICLE INTERFERENCE

Oct 14, 1954: Chazey Wood (France). South of Gueugnon, Messrs. Jeannet and Garnier saw a reddish fireball fly low over their car as their engine and headlights died. (Passport to Magonia, Jacques Vallee author, 1969)

Aug. 22, 1957: Cecil Naval Air Station (Florida). A black bell-shaped object bearing two bright, white lights at the top and measuring 15 m in diameter was chased by a civilian in a car until the engine stalled. The object was then hovering 3 m away. The underside of the machine resembled a disk with fins. When a jet aircraft took off from the airfield, the object went out of sight almost instantaneously. The car battery was found completely dead. (ATIC)

Nov. 2, 1957: Levelland (Texas). A large number of reports from the Levelland area described a low-flying object, over 60 m long, equipped with a bright light, and which interfered with car ignitions. (Anatomy of a Phenomena, Jacques Vallee, author)

Jan. 13, 1958: Farm Hill (Australia). Brian Crittendon 21, was changed by a dome-shaped object that emitted a narrow light beam toward the ground. He was so frightened that he drove home on a half-flat tire, followed for 5 km by the object, which was about 50 m away and 10 m above ground. It overtook his car at a speed exceeding 100 km/h. Radio interference was noted. (Passport to Magonia, Jacques Vallee, author)

March 30, 1966: Lexisburg (Indiana). A civilian woman and her four children observed an oval object crossing the road as they were driving south about 15 km north of Lexisburg. It came close to the car, and a pulsating sound was heard, increasing in frequency as the object came nearer, but it seemed to come through the car radio rather than directly from the object. The witness drove away in fear, but was followed for 13 km by the object whose color suddenly changed from reddish-orange to bluish-white before accelerating out of sight. (ATIC)

January 24, 1985: Rye Beach, NH. Three witnesses claimed their 1974 Firebird they were traveling in stalled on Route 1A south when an oval or football-shaped object blue and yellow in color passed overhead. Also an audiotape being played in the dashboard sounded as if it was playing backwards. Vehicle and cassette returned to normal function when object moved away. Jets were scrambled. (Personal and confidential)

The above case reports pose a typical vehicle interference scenario. A car traveling along turns a bend and suddenly comes upon an object sitting smack in the middle of the road. The vehicle's engine ceases to function. The object leaves and the vehicle returns to normal. Sometimes the object shows curiosity towards a moving vehicle as if the car were a living animal. The object maneuvers closer to the vehicle and then the driver notices the car experiencing E.M. effect, lights dimming, radio malfunction, motor problems, etc. It appears that the typical vehicle interference encounter is purely accidental.



HUMANOID REPORTS

April 14, 1897: Gas City (Indiana). An object landed 2 km south of Gas City on the property of John Roush, terrifying the farmers and causing the horses and cattle to stampede. Six occupants of the ship came out and seemed to make some repairs. Before the crowd could approach the object, it rose rapidly and flew toward the east. (Passport to Magonia, Jacques Vallee, author).

June, 1914: Hamburg (Germany). Gustav Herwagen opened the door of his home and saw in a field a shining cigar-shaped object with illuminated windows. Near it were four or five dwarfs 1.20 m tall, clad in light clothing. He approached them, but they were aboard the object as soon as they appeared to be aware of his presence. A door closed, and the craft took off silently, climbing vertically. (Passport to Magonia, Jacques Vallee, author)

Oct. 3, 1954: Vron (France). Between Rue and Quend on Road D27, Rene Coudette and B. Devoisin were riding bicycles with a third witness when they saw an orange object, shaped like a honeycomb, on the road ahead of them. A strange "man" wearing a diving suit was standing close to it. When they got within 70 m of it, the object took off very fast. (Passport to Magonia, Jacques Vallee, author)

April 24, 1964: Socorro, NM. Lonnie Zamora observed an egg-shaped object with 2 small figures next to the object. Upon catching sight of the police officer, the figure seemed startled and entered the object. The craft began to rise slowly in a southwesterly direction. (The UFO Experience, Dr. J. Allen Hynek, author).

Feb. 24, 1967: Riachuelo (Chile). Approximate date. An engineer from Osorno, well-known locally, saw an object touch down and a strange being 1.50 m tall, emerge, wearing a transparent suit. He had a very white face and white hands, a pronounced jawbone, and no apparent nose. Seeing the witness, he got back inside the machine, which took off at great speed. (Passport to Magonia, Jacques Vallee, author).

Oct. 1, 1978: Groendal Reserve, South Africa. Peter Simpson and Jannie Bezuidenhout, Yugo Ferreira and Joe Pereno observed a silvery object with 3 humanoids dressed in silver suits standing nearby. One of the humanoids noticed the 4 witnesses. They moved away in a gliding motion towards the top of a hill and disappeared. The witnesses then noticed the oval-shaped object also gone. (UFOs - African Encounters, Cynthia Hind, author).

The above list of CE III reports show a clear intent that direct contact is systematically avoided by the UFO occupants. The occupants appear to be taken by surprise and quickly depart the area. They appear very shy. In approximately 90% of the humanoid reports between 1950 to 1970 the UFO occupants showed extreme interest in earth itself, not its inhabitants.

ATTEMPTED ABDUCTIONS

Sept. 12, 1953: Brovst (Denmark). Brovst was the scene of an attempted abduction of a girl by two humanoids emitting a golden light. Their hands were rugged and cold like a fish. (Passport to Magonia, Jacques Vallee, author)

Dec. 10, 1954: Chico (Venezuela). Having seen a bright object land near the Trans-Andean Highway, two young men approached it, found it was shaped like two bowls glued together, about 3 m diameter. The underside was a source of fiery light. Four small beings emerged and attacked them, in an apparent kidnapping attempt. They fled into the object and took off. (Passport to Magonia, Jacques Vallee, author).

May 9, 1956: Jacksonville (Florida). Two girls, Joan Frost and Gertie Wynn, while waiting for a bus, saw two pulsating lights flying horizontally and disappearing. 15 min later the lights were seen again, stopping at the zenith, merging, and diving to 50 m altitude. As the bus arrived, it seemed that the objects had separated and were about to abduct the witnesses, and they ran to the vehicle in terror. (Passport to Magonia, Jacques Vallee, author)

Dec 20, 1958; Domsten (Sweden). Hans Gustavsson and Stig Rydberg travelling in their car, saw a disc-shaped object 16 ft in diameter, resting on three legs. They left their car for a closer look and were attacked by 4 lead-gray creatures about 4 ft. tall. They attempted to drag the two witnesses into the craft. The witnesses described the creatures as sort of jelly-like as their arms would sink elbow-deep into them as they tried to pry themselves loose. Rydberg broke free and sounded the horn in the car. The creatures became startled and entered the craft which rose straight up. (Flying Saucers-The Startling Evidence, Coral Lorenzen, author).

Feb. 5, 1967: Hilliards (Ohio). A young man heard a strange noise and a barking dog, and saw an egg-shaped object land. From an elevatorlike shaft came human figures that placed small spheres around the craft. A man walked to them and appeared to speak with the entities. The witness was seen, the creatures tried to abduct him, and then took off. (Passport to Magonia, Jacques Vallee, author).

Nov. 1973: Manchester, NH. A 25 year-old woman driving home observed a spherical object, honeycombed with a design of hexagons. An occupant in the object was observing her. The witness was overcome by panic and thought the UFO was about to capture her. She stopped her car and ran for help to a nearby house. (The UFO Controversy, Dr. David M. Jacobs, author).

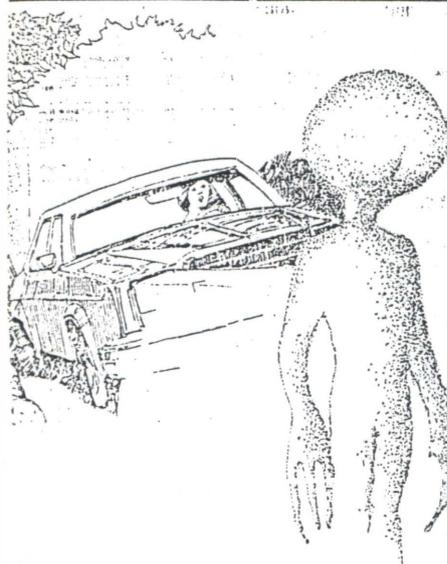
March 21, 1974: Salamanca, Spain. Maximiliano Sanchez was driving home in his Ford diesel truck when he observed a smooth metallic structure 10-12 m wide resting on 3 legs. The engine in his truck then failed. Four humanoids suddenly appeared, looked at the witness and pointed at him. They started walking towards him when he got out of the truck and ran away. (Catalog of Type I UFO Events in Spain and Portugal, Vicente-Juan Ballester Olmos).

The final list consists of reports of attempted abductions. In these reports the witnesses are aggressively approached by the entities but by some fluke the abduction is foiled. The abduction seems to be a spontaneous event. In a couple of the reports, the object chased a car with the frightened witness claiming an abduction attempt.

The above reports are just a small sampling of the huge volume of reports on record.

In studying the abduction phenomena, all of it must be studied to come to some sort of consensus. We cannot divide the phenomena, accepting some of it and rejecting others. The patterns and contents of the above cases are in direct conflict with what has now become the classic abduction. In the classic abduction scenario we have recurring dreams, alleged implants, missing time, hazy bedroom visitations, taking of ova and sperm, etc. There has also been much hypothesis of abductees and/or their families being tracked through certain stages of their lives just as a biologist tracks wildlife. Again if there is to be a scientific study of the phenomena, questions have to be asked. Why the trend change? Are we dealing with the same phenomena?

The purpose of this article is to pose questions, not debunk abduction reports. However, the above reports differ systematically from the classic abduction reports and they cannot be disregarded when objectively studying this baffling phenomena. Keep in mind that the more sensational a claim is the stronger the evidence will have to be to convince people of its truth.



UFO Reports from AIAA Members

By PETER A. STURROCK
Stanford University

Most UFO reports concern the experiences of laymen, but scientists and engineers divulge accounts resembling others when asked to do so in appropriate circumstances

For many years the "UFO phenomenon" has greatly interested the public but has elicited comparatively little response from scientists. "UFO phenomenon" means this question: Do reports of "unidentified flying objects" (UFOs) indicate or establish a set of facts which cannot be interpreted in terms of known natural phenomena and technological devices? And, if so, can these facts be organized into consistent patterns? Popular discussions of the UFO phenomenon pay special attention to the possibility that some of the observations yield a factual pattern supporting the hypothesis that extraterrestrial vehicles visit Earth.

Most scientists hoped that the problem would be definitely clarified and possibly settled by the "Condon Report" based on the "Colorado Project." Early reviews of the Report presented mixed opinions.^{2,3} The published account of the UFO Symposium organized by the American Association for the Advancement of Science in 1969 revealed a wide spectrum of opinion concerning the Condon Report at that time.⁴ The same is probably true today.

The American Institute of Aeronautics and Astronautics (AIAA) alone among established scientific organizations has taken the initiative in trying to bring the UFO phenomenon to the attention of serious scientists. In 1967 its Technical Committee on Space and Atmospheric Science set up a subcommittee "to gain a fresh and objective perspective on the UFO problem." In 1970 this subcommittee published a position paper.⁵ Its deliberations also led to publication of two extensive accounts of notable UFO observations.^{6,7}

Scientists have no doubt been discouraged from taking the problem seriously by the bizarre nature of some of the reports and emphasis upon the "extraterrestrial hypothesis" (ETH). The fact that most reports are anecdotal in nature and come from nonscientists also causes skepticism.

In his book "The UFO Experience,"⁸ J. A. Hynek confronts and counters the widespread view that "scientists do not make UFO reports"; he quotes a number of reports originating with scientists.

Did Hynek tap a unique group of scientists, or would many more make similar reports given a fair reason for divulging pertinent experiences? It appeared that this question could be answered by a simple survey over a limited sample of scientifically trained persons, and that it would be possible also to obtain a cross section of opinions concerning the UFO phenomenon.

The Executive Committee of the San Francisco Chapter of AIAA gave permission for a survey of its membership. This article describes the survey and gives the results.

The questionnaire shown here was mailed to all
Astronautics & Aeronautics



PETER A. STURROCK, Professor of Space Science in Stanford's School of Engineering and Professor of Astrophysics in its Applied Physics Dept., studied mathematics at Cambridge Univ., England. He won the Rayleigh Prize in 1949 and a prize fellowship in 1952. Dr. Sturrock went to Stanford in 1955, and was appointed a professor there in 1961. Since '64 he has chaired its Institute for Plasma Research and now also chairs its astronomy program. He is a Fellow of APS and RAS.

UFO QUESTIONNAIRE

1. What is your subjective assessment of the probability that UFO's represent a scientifically significant phenomenon?
2. Have you ever witnessed an aerial phenomenon which you could not identify? Yes No (Check one)
If the answer is "Yes," please continue. If "No," please complete No. 8.
3. Please give place, date, time (am/pm). _____
4. Did you report the event? Yes No
If so, to which organization? _____
5. Please give a narrative account of the event on a separate sheet of paper.
6. If you have not covered the following points in your narrative account, please give the following information:
What were you doing at the time? _____
Age at time of observation. _____ Number of witnesses _____
Weather conditions. _____ Duration of sighting. _____ Number of objects. _____
Maximum angular diameter of largest object: Point-like Smaller than Moon Larger than Moon
Estimate of closest approach of nearest object. _____
Was object(s) luminous? _____ Color(s)? _____
7. What answer would you have given to Question 1 *before* you witnessed this event?
8. The following information is requested for our files but will not be divulged:
Name _____ Address _____
Tel. No. (optional) _____
Brief statement of scientific training: _____

1175 members of the San Francisco Chapter on April 9, 1973, and 423 questionnaires (36%) were returned. All subsequent percentages here refer to the number of questionnaires returned.

Question 1 asked: "What is your subjective assessment of the probability that UFOs represent a scientifically significant phenomenon?" Of the 423 returns, 93 (22%) gave numerical estimates (see T-1) of this probability and revealed a very wide spread of opinion, the median estimate being about $P = 0.4$, twenty-two returns having P in the range $0 < P \leq .1$, and eleven in the range $.9 \leq P < 1$. Notably ten returns give $P = 0$ and five returns give $P = 1$. Since these 0 and 1 values would be unchanged by further information, the groups giving them can not approach agreement by evaluating further information.⁹

Most returns (290, or 69%) gave verbal answers to Question 1. T-2 groups these, and for comparison includes the numerical returns. Those giving verbal responses shows even more dispersion in their views. Of those making verbal responses, 25% are definite ("impossible" or "certain"); of those making numerical responses, only 16% are definite ($P = 0$ or $P = 1$).

Of the remaining 40 returns, 33 made no response to Question 1, two made noncommittal responses, one asserted that the topic is not important, one that the topic is exciting, one that the topic should be investigated, and two (justifiably) that the question is not clear.

Here you will see the reports given in response to Question 2 of the survey, arbitrarily arranged by the times of day the person had the experience.

Many persons giving a negative answer to Question 2 nevertheless volunteered comments. For instance, eight expressed the view that further investigation is necessary, whereas one said the opposite. Two offered the opinion that UFOs are extraterrestrial, and four said that they are not. Five expressed the view that UFOs are natural phenomena; one called them a spurious phenomenon; and three stated that they consider UFOs to be "real." Three made "put-down" remarks about the whole subject, and four said

T-1 NUMERICAL RESPONSE TO QUESTION 1

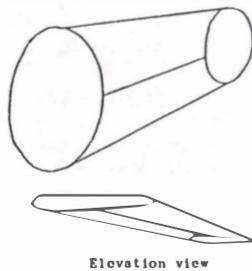
"What is your subjective assessment of the probability that UFOs represent a scientifically significant phenomenon?"

P	N(P)	P	N(P)
0	10	.4	1
10-9	1	.5	17
10-6	2	.55	1
10-4	1	.6	2
10-3	2	.7	2
.01	7	.75	1
.05	3	.8	5
.08	1	.85	1
.1	5	.9	10
.15	1	.9	1
.2	13	1	5
.3	1		

REPORT 1. 50 mi. N.E. of St. Louis, Missouri. July, 1947. 9-10 a.m. Age, 14. Nailing corrugated panels on a barn roof. Witnesses, 0. Weather, clear—no clouds. Duration, less than 1 min. One object, smaller than Moon. Moved east to west, slightly south of direction overhead, at 10-20,000 ft. Not luminous. Disk-shaped, uniform white. Not reported.

REPORT 2. Napa, Calif. ca. 1956, summer (too long ago to recall accurately). Age, 29. Working in backyard. Witnesses, 1. Weather, clear. Duration, 5 min. One object, point-like. Closest approach, 4-5 mi. Luminous, silver/white. Not reported.

REPORT 3. Dayton, Ohio. 1949. 2-5 p.m. Age 30. Witnesses, 4-5. Weather, clear and sunny. Duration, 3 hr. Two objects, larger than Moon. Closest approach, 2-3 mi. Silver, reflective object. Reported to Wright Field UFO Project. *Narrative account:* My wife and I and a woman friend were sitting in the backyard of our house in Dayton, Ohio in 1949. It was a Sunday afternoon, sunny, clear sky when we sighted two stationary disks at an elevation angle of 30° or less. All three of us saw them as well as neighbors we called. I studied them through 7 x 35 binoculars and noticed three lines connecting the disks, as follows:



(The sketch does not convey this, but the disks were essentially horizontal with the left one larger and above the right one.) I called the Wright Field Tower and described the location but they could see nothing. The tower was approximately 10 miles from my home.

The next day, my wife, myself and several neighbors were interviewed by the AF UFO Project from Wright Field.

I have since decided we must have seen an unusual kite.

REPORT 4. Central Nevada, spring, 1962. Dusk. Age 22. Driving home from fishing trip. Witnesses, 3 others. Weather, clear. Largest object, larger than Moon. Closest approach, approximately 5 mi. (?) Luminous—sufficient to light horizon. Dull white. Not reported.

Narrative account: Observed rapidly moving bursts of light for a period of over 2 hr. Four of us saw several "events" at various directions from N to SW (135°) from our vantage point. The sightings occurred near NAS Fallon, Nevada. We ruled out any Navy activities and, although the area is a marshy one, the bursts were not associated with methane luminescence, which we had all seen before. I lived near the area for 25 years and made several (like hundreds) of trips to this area and never saw another event.

REPORT 5. University of British Columbia, Vancouver. January, 1970. 7 p.m. Age, 28. Walking home from class. Witnesses, 0. Weather, dark, cold and clear. Duration, 10 min. One object, smaller than Moon. Closest approach, unknown. Luminous, orange. Not reported. *Narrative account:* Sighted orange disk, which drifted slowly for some time, then suddenly shrank and disappeared. After disappearance, could detect no occlusion of starry background.

REPORT 6. Eastern U.S. (on

airline flight). 1960. 7 p.m. Age, 35. Weather, clear, just at end of twilight. Duration, few min. Three objects, smaller than Moon. Luminous, red. Not reported. *Narrative account:* Three red images of indeterminate size and range maintained same position relative to aircraft for several minutes.

REPORT 7. Santa Cruz Mountains, California. April 6, 1973. 7:45 p.m. Age, 51. Driving on Interstate 280 in west San Jose. Witnesses, 2. Weather, clear. Duration, 2-3 sec. One object, point-like, at 25-30 mi. Not luminous, bright, reddish. Not reported. *Narrative account:* Object appeared about 45° up from the horizon and appeared to be climbing slightly leaving a trailing horizon. Dull white. Not reported.



REPORT 8. 6 mi. north of Esparito, Calif. Late 1930s. 8-10 p.m. Age, 9-12. Witnesses, 0. Weather, clear, probably summer. Duration, many seconds. One object, either point-like or smaller than moon. Closest approach, less than 1 mi. Luminous, blue glow. Not reported. *Narrative account:* Relatively young when the event occurred. I recall standing outside observing the stars when this blue glow seemed to descend from the sky and it appeared to land in a neighboring field. This frightened me so I went inside. I have no memories beyond this. It was a clear warm night.

meteorology. Another stated that he had frequently seen what he thought were shooting stars. Another person recalled observing an event which he could not identify at the time, but which turned out to be the launching of a missile from Vandenberg AFB.

An aircraft pilot, with 41 years of flying time, much at night, reported many sightings of meteors, satellites and other objects. On one six-hour flight from Nandi to Honolulu, he once saw four satellites (point-like objects, seen by reflected light, at a distance of 150-200 n.mi.). He reported also seeing meteors as well as objects of space junk hardware luminously burning up, showing various colors, and looking like fireballs.

Another correspondent referred to an event recorded on film exposed in a rocket experiment at

REPORT 9. South of Whiskey Town Lake, Calif. Summer, 1967, around 9 p.m. Age, 47. Camping. Witnesses, 1 other. Weather, warm (80 F), humid, clear. Duration, approximately 1 min. One object, smaller than Moon. Closest approach, 1 mi. Luminous, bluish white. Not reported. *Narrative account:* Bright object moved east to west along transmission lines, then faded out. It moved several hundred yards. Several non-exotic explanations could account for sighting, but none could be confirmed or denied.

REPORT 10. Palo Alto, Calif. ca. 1958. About 9 p.m. Age, 50. Engaged in amateur astronomy. Witnesses, 2. Weather, clear. Duration, 20 sec. Three objects, smaller than Moon. First estimate of distance 100,000 ft; later estimate 50 ft. Luminous, dusky color. Not reported. *Narrative account:* While making astronomical observations in my backyard, I and another observer witnessed a most convincing illusion of three slightly luminous craft flying at great altitude and speed and in complete silence.

About a week later the phenomena recurred. This time one of them broke formation and made a noise and I realized they were white owls gliding in perfect silence (as only owls can), made to appear slightly luminous by diffuse city lights from below. An owl flies like a ghost.

REPORT 11. Foothills near Ojai, California. 1963. 9-10 p.m. Age, 20. Camping. Witnesses, none. Weather, clear. Duration, 10 min. One object, point-like, at indeterminate distance. Luminous, white. Not reported. *Narrative account:* I was on a weekend outing with some boy scouts and around 9 or 10 p.m. I went to bed under the stars (no tent or coverings). While I was awake and looking at the stars I noticed an object (about as bright and having

the size of the north star) moving at right angles. These angles were very long and sharp. In my estimation they were above the capabilities of modern aircraft. The object then left the field of view at exceptional speed.

REPORT 12. North of Jordanton, Texas. About December 31, 1951 (+ 1 yr.). Around 9:30 a.m. Age, 12+. Standing on the front porch of the house with my father looking to the north. Witnesses, 2. Weather, cool, low clouds occasionally, after storm. Duration, 2-3 min. One object, smaller than Moon, some miles away. Luminous, color of mercury street lamp, but much brighter. Not reported. *Narrative account:* The phenomenon I observed was at least twenty years ago, yet it is still fresh in my mind as to what I saw. There had been a storm, and to the north there was an area that was clear with a few clouds to the left, right and higher up. There was a Moon out. The "object" I saw resembled a disk of light as one might expect from the reflection of a searchlight on the base of a cloud ceiling. The area surrounding the "object" was bathed with considerable after-glow. The path of the object was such that it dipped and turned more or less in a figure eight. There appeared to be some regularity to its motion. The sky around the "object" was clear. The path of the object took it near the horizon and back up a few degrees. I watched it for several minutes before it disappeared. Today, I would be prone to dismiss it as a search-light except for the brilliance and the lack of clouds, or any visible shaft of light. Earlier "UFO" type sighting occurred in the summer of 1947—several (more than 10) disk-like objects flew overhead. (They appeared to tumble and oscillate). My grandmother called my attention to them as flying saucers. They did look like disks to me then. This was

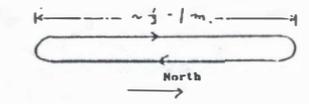
during the period of the "Lubbock lights."

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REPORT 13. Virginia City, Montana. August 10, 1972. 10 p.m. Age, 31. Vacation visit to ghost town taking pictures. Witnesses, at least 4. Weather, very clear sky. Duration, 5 sec. Could not see object, only trail. Estimated distance, 15 mi. Not reported, but heard on news next day. *Narrative account:* Orange streak across sky from high altitude. High velocity object—orange trail remained.

REPORT 14. Stanford, California. Spring, 1965 (or 1964). 10 p.m. Age, 21. Witnesses, 2. One object, smaller than Moon. Not reported. *Narrative account:* At about 10:00 p.m. on a clear windless evening in the spring of 1965 (I think), my fiancée (now wife) and I were standing outside Florence Moore Hall on the Stanford University campus. We both observed a phenomenon for which I have no explanation.

We noticed a lighted object overhead at an altitude I estimated to be 2000-4000 ft. We watched it for roughly a half-hour before leaving, with the object still visible and doing its thing. The object was silent, but it moved slowly along a closed path which, in my opinion, could have been negotiated only by a noisy helicopter or possibly by a quietly powered balloon. The path appeared to be an elongated racetrack oval at a constant altitude. The turns at the ends of



the oval were extremely tight, and I think I could discern deceleration going into the turns and acceleration coming out. I think it took the object 5-10 min. to complete a circuit.

Only the light(s) of the object

White Sands Missile Range in 1965. Details of this observation were not included in the questionnaire, but had been transmitted to me at an earlier date, independently of this survey. For this reason, details of this event are not included in this article.

Scientists, as the reader sees, will respond to a questionnaire concerning UFOs. The questionnaire sent to AIAA's San Francisco Section members prompted a high proportion of returns, and almost all respondents were willing to give their names. It is probable that the guarantee of anonymity helped gain a high return.

The responses show no consensus whatever concerning the nature and scientific importance of the UFO phenomenon. Views cover the entire spectrum from "impossible" to "certain" in reply

to the question, "Do UFOs represent a scientifically significant phenomenon?"

Of those making positive reports (answering "yes" to Question 2), some subsequently interpreted their observation as a known phenomenon (R.3, R.10, and R.16). Some others may in fact be known phenomena. For instance, R.5 may have been caused by a barium-cloud experiment; R.7 might have been a launch from Vandenberg AFB; R.9 may have been St. Elmo's fire; and R.13 may have been a rocket trail.

On the other hand, some of the reports are in fairly close accord with types of UFO observation classified by Hynek.⁴ (Hynek's classification is concerned, of course, only with observations which he could not explain in terms of known phenomena

T-2 VERBAL RESPONSE TO QUESTION 1

Degree	Verbal		Numerical		
Impossible	38	13%	10	11%	P = 0
Impossible	91	32%	22	14%	0 < P ≤ .1
Possible	68	23%	45	58%	.1 < P ≤ .9
Probable	58	20%	11	12%	.9 ≤ P < 1
Certain	35	12%	5	5%	P = 1

SUBJECTIVE ASPECTS OF BALL LIGHTNING SEEN INSIDE AIRCRAFT

By E. W. CREW

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Abstract: The descriptions of the characteristics of ball lightning seen inside aircraft are influenced by an optical illusion frequently employed by film animators.

The rare, but reliably reported, occurrence of ball lightning inside aircraft has never been satisfactorily explained. In one much-discussed case, a scientific observer in an aircraft saw a luminous ball drift in the air along the aisle and apparently disappear through a door at the end.¹ There was no witness on the other side of the door to confirm this, and there is an alternative explanation which seems much more likely.

In another case, the pilot of a military aircraft saw St. Elmo's fire "dancing around the edges of the front windows" and then "a ball of yellow-white color approximately 18 inches in diameter emerged through the windshield center panels and passed at a rate of about that of a fast run . . . down the cabin passageway." About three seconds later a crew member at the rear of the aircraft reported that he had seen the ball come rolling through the aft cargo compartment and then dance out over the right wing, "rolling off into the night and clouds." A report on this incident by an authority on lightning²

was published³, but he offered no explanation, although he noted the significance of ball lightning being observed inside a closed metal structure.

In both these cases there was no explosion or any other audible noise from the luminous ball. It is difficult to understand how an object apparently floating in the air could leave an aircraft and not be carried away rapidly by the high velocity airstream outside. The explanation is evidently that the behaviour of the ball is the same as would be the case if a film animator wished to show a ball passing through the window of the aircraft and dance along the wing. He would illustrate it as progressively smaller, frame by frame, with the wing in the background, and the audience would interpret this as a movement away from the camera. In the same way, if he wished to make the ball appear to enter the aircraft from outside, he would show the ball increasing in size. The fact that it would be somewhat indistinct in outline and also jumping about to some extent would assist the illusion.

This suggested process makes it very much easier to develop a theory to account for the appearance of the ball. A brief summary of this is that the aircraft passes through a zone of very high electrical charge, as shown by the St. Elmo's fire, which causes ionisation in the atmosphere near the inside skin of the aircraft. When the aircraft flies out of the external charged zone, the internal charge is then free to dissipate, spreading negative charge rapidly by repulsion over the whole of the inside surface. As the field inside a charged cylinder is zero except at the ends, a discharge will start at one end, depending on the direction of air flow within the aircraft, by an encounter between the free electrons and the positive ions in the atmosphere of the fuselage. It may be objected that a metal aircraft would act as a Faraday cage, and that no charge can exist inside it. This is true only if the external charge is evenly distributed over the whole of the surface, which is clearly not the case when the charge is induced by an adjacent thundercloud charge.

The axial discharge of a cylindrical-sheath charge may be the cause of ball lightning in other circumstances, and where explosions are seen to occur, it is probably because there is a subsequent flash of lightning on account of the increased conductivity of the ionised channel.

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Now
you
know!

By United Press International

The moon's atmosphere is a virtual vacuum by terrestrial standards, so rarified that if all the molecules in one cubic centimeter of it were lined up end to end, they would fit into ~~the~~ period of this sentence. By contrast, the lined-up molecules taken from the same sized chunk of breathable Earth atmosphere would go to the Moon, and back — nearly 500,000 miles — with some to spare.

The sun has a diameter of 864,000 miles and is approximately 92,900,000 miles from Earth.

was (were) visible, so I couldn't estimate its dimensions. I don't recall the nature of the light(s), except that it (they) was (were) discrete and there was some color.

My memory of the particulars of the sighting is obviously hazy, but I was (and still am) perplexed by how the object could remain airborne at such a low speed and without audible propulsion, and by how it repeatedly followed the same path.

I did not report this sighting.

REPORT 15. Portola Valley, California. October 10, 1970. 10 p.m. Ago, 29+. Walking dog in backyard. Witnesses, 1. Weather, clear, starlit sky. Duration, 1 min. One object, smaller than Moon, 500-1000 ft away. Luminous, initially intensive, then fading; steadily pulsing, bluish white. Not reported. *Narrative account:* On or about October 10, 1970, I was walking our dog in our backyard at about 10 p.m., when a bright, bluish-white object giving steadily pulsating (from weaker to strongly bright) light appeared overhead in slightly northerly direction (i.e. above Stanford Accelerator or thereabouts) and slowly moved in easterly direction toward Palo Alto and the Baylands. After a minute or so, trees obscured vision and phenomenon was lost from sight. It was definitely different from an airplane, or meteor(ite) since it appeared to maintain its altitude, estimated at 500-1000 ft. There was no noise whatsoever associated with the phenomenon. Called wife to witness it.

REPORT 16. Stanford, California. 1961. 11 p.m. Ago, 31. Resting before falling asleep.

Witnesses, 0. Weather, cloudy. Duration, 1 sec. One object, smaller than Moon. Estimated distance, several miles. Seen in sky visible from bedroom. Not reported, because a plausible explanation of a searchlight on some low clouds was suggested by colleagues the next day.

REPORT 17. Pacific Ocean, 200 n.m. east of Wake Island. Flying at 10,000 ft. 1951, 1100 Z. Age, 44. Event seen from astrodome of DC-6 navigating aircraft. Witnesses, 1. Weather, scattered cumulus. Duration, less than 1 min. One object, smaller than Moon. (No known flares or rockets in area, no ships.) Closest approach, 200 feet. Luminous, green, steady color. Reported to flight operations at Wake Island. *Narrative account:* Bright green ball of light from below altitude of aircraft, 10,000 ft., rose above, remained steady, then drifted off in distance.

REPORT 18. (a, b, c) (All reported by same person) *Narrative accounts follow.* a. On official duties, mid-February, 1945—about 2100 hr. About 35 mi. northeast of Brussels, Belgium. Weather, clear, excellent visibility, starry skies. Sighting above a heavily defended area with IAZ rules of engagement in effect. No hostile or friendly aircraft within IAZ or above. Large bright object (white and yellow, with occasional red or blue) traversed a rectangular course for about 15 minutes slowly then made a very fast vertical escape. Altitude of item indeterminate but estimated to be greater than 5000 ft. Item not detected by extensive surveillance, gun-laying, and navigation radar networks of anti-

V1 (buzz bomb) defenses. Item definitely not friendly or hostile aircraft, pilotless aircraft, balloon, or parachute. Sighting not correlatable with observed, detected or reported intelligence.

b. Los Altos, California (at home, August 12, 1972). 1011 hr. Clear weather. Excellent visibility. Prior to sighting I received telepathic communication to go to kitchen window to witness flight of four UFOs. Telepathic communication sustained. Four silver vehicles observed about Mt. Bletawski (elevation 3231 ft.) on Skyline Drive, several miles south of Mountain View, California. This observer requested visible manifestation by vehicles. Vapor trails formed by four vehicles operating in intricate maneuvers. Vehicles disappeared on steep ascending and receding course. Sighting lasted about 3 min.

c. While travelling in automobile on February 18, 1973, received telepathic message about UFO sighting next day vicinity of San Luis Reservoir Complex. On February 19, 1973, at approximately 1045 hr sighted UFO in vicinity of Hollister, California, while traveling east on Route 152. Weather—clear. Visibility excellent. No aircraft, balloons, parachutes or pyrotechnics in area. Before reaching San Luis Reservoir Complex, a large ball of light (estimated diameter of 20 ft) traveled on a maneuvering north-south course at approximately 2500 ft. and disappeared in Anthony Peak (elevation 3300 ft.). Light was gold color. Telepathically this observer informed that UFO was a probe. Sighting about 1-2 min.

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Astronautics & Aeronautics

or devices.) In particular, R.1, R.5 and the first part of R.12 mention moving "disks"; R.3 describes a pair of stationary disks; and the latter part of R.12 recounts a group of more than ten disks.

It is notable that, of 21 or more events involved in the survey's returns, only two are said to have been reported. In no case did a scientist go on public record as having seen a strange phenomenon that he could not explain and might be related to the UFO phenomenon. So it appears, from this survey, that if you want to find out whether scientists see UFOs you must ask them, and you probably must guarantee them anonymity.

This survey certainly achieved its chief aim. It shows that a sample of scientifically trained persons reports aerial phenomena similar to so-called "UFO reports."

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cr. B. Greenwood

Fremont, NH Page 5
1/16/88
A Speculative Vignette on
Extra-terrestrial Visitations.

by Duane E. Shaffer

To assume that we are alone in this vast universe is a parochial attitude that reminds one of the egocentrism of those who ages ago thought that the sun and stars revolved around the Earth. The whole subject of life beyond our Earth has been a difficult subject to discuss without being branded a publicity-seeker or lunatic. Now, scientists are searching the cosmo in earnest with all the tools at their disposal.

It is generally known that our government has withheld information on alien visitation for several decades. Their excuse is that mass panic would result if the truth were revealed. The science fiction works of authors like Arthur C. Clarke and the non-fiction work of John G. Fuller, who wrote "INCIDENT AT EXETER", have created a broader interest in this area.

The problem in the past that has prevented a general acceptance of such visitations is that mankind has judged the universe from its own frame of reference. In "MASKS OF THE UNIVERSE" by Edward Harrison, he explains how each generation believed that it had reached the pinnacle of discovery and development. To them an ultimate universe had been achieved and there was nothing left to invent or discover. Therefore, their societies would stagnate.

There are many who believe that our universe is anything but complete and that man's greatest challenges are still ahead of us. Looking backwards, could it have been possible for a 16th century man to foresee the inventions and discoveries of the 20th? Looking forward, can we do more than offer educated guesses about mankind's development by the 23rd century?

Therefore, it is easy from our earthbound home to assume that the stars are too far apart to permit interstellar travel. Are we omniscient enough to know what kind of propulsion systems could be used by alien civilizations when we don't even acknowledge their existence?

A study done in the late 60's by the Rand Corporation predicted through statistical

cr: R. Giordano

E.T. (continued from p.4)

analysis that there are over 640,000,000 Class M Planets in our galaxy that could sustain life as we know it. What about other forms? Alien civilizations may only be 300 years ahead of us but millenia. If they are incorporeal they may use everything from pure energy to thought processes and extra-dimensional modes that we have no concept of. There are many forms beyond the standard flying saucer that they could use.

I would be scared senseless if we ever discovered that we really were alone in the universe. A profound sadness would consume me everytime I looked up at the stars and knew that of the several billion suns in our galaxy, that are constantly going through the cycle of birth and death, that our's was the only one with a planet that held beings which could wonder at the process in awe and amazement. Are the galaxies that have been measured as far as 20 billion light years out only there for our enjoyment? Hardly.

It is a comforting thought that maybe our world is progressing and not wallowing in stagnation. I think that the human race is ready. Mankind would probably not be thrown into a panic if the truth were known. If the government would declassify the mountains of data on extra-terrestrial visitations, we could start down the road to planetary unity and interstellar cooperation. Until then, we can only dream of the benefits of such contacts. Science fiction has conditioned the human race enough through books and movies that such revelations would be warmly embraced worldwide.

On a negative note, let's assume that the skeptics are correct and we are completely alone. Does that not then make the preservation of the human race an urgent and awesome responsibility? If this is so then it becomes more than imperative for the human race to survive this nuclear era without committing planetary suicide. I would like to think that someday our descendants, putting wars, famine and prejudice behind will journey to the stars to meet other civilizations. Only then will we be on the way to an ultimate universe.

Australian family says UFO chased its car

SYDNEY, Australia (UPI) — An Australian family told police a "huge bright glowing object" chased their car down a highway and then sucked it into the air, and officers who talked to the family said today they were taking the report seriously.

The alleged incident occurred Tuesday on a road near Mundrabilla, a small village 750 miles east of Perth, on the remote Eyre Highway in the vast desert of southern Australia.

Police Sgt. James Fennell in Ceduna, 370 miles away, said authorities were taking the report seriously because the vehicle was covered in a black ash and its roof was damaged. The unidentified flying object also was reported by three other people.

"The sightings took place hundreds of kilometers apart and they had no reason to conspire," he said.

Fennell said four people — Fay Knowles, 48, and her sons, Sean, 21, Patrick, 24, and Wayne, 18 — were inside the car when it was suddenly sucked into the air and then dropped back onto the highway, blowing out the rear tire.

"I inspected the car when it arrived at Ceduna," Fennell said. "The car was covered in a thick coating of black ash and there was ash inside the car. There was slight damage to the roof of the car."

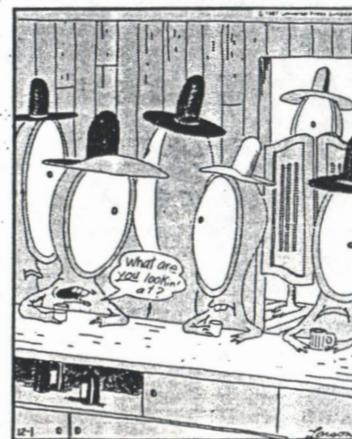
"The family were extremely distraught," he added. "Something happened out there. They said their voices became slurred and abnormally slow."

Fennell said there were four reports of UFO sightings that night.

"Apart from the family's report, a truck driver reported being followed by a UFO on the highway, a tuna spotter aircraft said it spotted a bright light near the highway and later a fishing trawler in the Australian Bight reported a hovering UFO," Fennell said.

Daily Times Chronicle, Reading, MA. 01/21/88

THE FAR SIDE © by Gary Larson



Saloon scenes on other planets

KIT 'N' CARLYLE © by Larry Wright

1988 eclipse

There will be four eclipses in 1988. A partial eclipse of the moon on March 3 will be visible in Asia, northern and eastern Europe and Africa. A total eclipse of the sun on March 17 will be visible in parts of Siberia, Alaska and Canada. A partial eclipse of the moon on Aug. 27 will be visible in most of the Western Hemisphere. An annular eclipse of the moon on Sept. 11 will be visible in Asia, Australia and New Zealand.