





This startling picture of a saucer-shaped flying object was taken near Santa Ana, California. The photographer, who doesn't believe in flying saucers, estimated the object to be 30 feet in diameter and 8 feet thick and went out of view "about the same speed as a jet." The photo was taken with a polaroid camera about the same time numerous reports of UFO sightings were made throughout the western states.

-UPI Telephoto

## UFO's

A REPORT
ON UNIDENTIFIED
FLYING OBJECTS

UNIDENTIFIED FLYING OBJECTS (UFO), in military parlance, means any aerial object that fails to identify itself to, or to be identified by, trained ground or air-borne crews using visual or electronic detection methods. Since 1947, owing to a sequence of bizarre circumstances, UFO has become an omnibus term connoting any object or optical phenomenon, usually aerial, that the observer cannot readily explain. UFO frequently is used interchangeably with "flying saucer," a term coined in 1947 as a result of the reported sighting by a civilian pilot, Kenneth Arnold, of a series of disk-like objects over the mountain ridges in the vicinity of Mt. Rainier, Washington. As a result of the wide publicity given to this sighting, there followed a wave of reports of unidentified objects by observers in various parts of the U.S. as well as in other countries.

First regarded by many as a bizarre, peculiarly American psychological phenomenon that would quickly fade away, the UFO instead showed an amazing tenacity over more than a dozen years, and the U.S. Air Force was officially charged with investigating the reports. Often several reports were made to the air force in one day, and reports came also from France, Great Britain and other countries. Indeed, if account is taken of the smaller area of some of the countries and the greater percentage of cloudy weather they experience, the sightings "per square mile per day" often were more frequent there than in the U.S.

The UFO should not be regarded as something that came into being in 1947, even though the phenomenon burst suddenly upon the public consciousness in that year. History is full of references to strange sights in the sky. In ancient and medieval times a comet was a strange and terrifying sight, as was an aurora, and it would be impossible to say whether the pattern of sightings in those days was the same as in the 20th century.

From the Pages of the Latest Edition of ENCYCLOPAEDIA BRITANNICA and ENCYCLOPAEDIA BRITANNICA RESEARCH SERVICE. Certainly, in some respects it must have been different. There were no "sky-hook" research balloons, unusual types of aircraft or re-entering missiles or artificial satellites. A comet, though described in terms recognizable to us, was often regarded as a true visitation.

It is easy to imagine that there were many UFO's in those times, many stories of strange sightings in the sky; but since communication was poor and record-keeping almost nonexistent, such sightings became part of the underbrush of local folklore and old wives' tales. Certainly, in times when people believed that a woman could give birth to dogs and pigs, that witches could levitate and fly about, and when credulity ran high, it would be not at all surprising to find a similarly uncritical attitude toward ordinary—and today well-understood—aerial phenomena.

Reports since the birth of the "modern" UFO in 1947 generally occurred in waves, but on the average, during the period of the U.S. Air Force study, they numbered more than one a day. If consideration is taken of the fact that many reported sightings were not made through official channels, but to newspapers and to civilian groups interested in the phenomena, the rate of observations may have been as high as two or three a day in the U.S. over a period of a dozen years. France, Italy, England and a number of Latin American countries also experienced minor waves

of UFO reports.

The steady stream of sightings became a cause for concern to the Air Force, and detailed investigations were made to discover reasons for such reports. The objectives were to determine (1) whether the reported UFO's constituted a threat; (2) whether the phenomena had any intrinsic scientific value; and (3) what role UFO's might play as a factor in the sky surveillance program. It was concluded after the many years of investigation that (1) the phenomena bore no hostile purport and did not constitute a security threat; (2) there was no compelling reason to believe that the great majority of sightings arose from anything other than misidentification of natural objects and phenomena, and that the real cause of these sightings generally lay in the conditions under which an object or phenomenon was seen; and (3) the continued evaluation of UFO reports is of scientific value, especially in relation to the military sky surveillance problem.

It was established that many sightings arose from seeing startling natural objects for the first time; e.g., very bright meteors, high-altitude scientific balloons (which can attain high velocity when caught in the jet stream) and especially distant terrestrial or celestial objects seen under such unusual meteorological conditions as those that produce mirages, which can distort, displace and animate objects detected visually or by radar. Such meteorological conditions, some thoroughly understood (mirages) and some poorly understood (ball lightning), can easily cause even an experienced observer to ascribe what he sees to a tangible, nearby, self-

propelled object.

Indeed, it is not at all surprising, with so many more people turning their attention skyward, that many (including the scientifically trained) are confronted with an aerial phenomenon they cannot readily explain.

Virtually all the reports received by the Air Force were highly subjective, lacking such verification as pictures, material fragments, spectroscopic analysis of lights seen or precise technical data on trajectories, distances, accelerations, etc. As the investigation progressed, it became clear that most reports could be correlated with the appearance of aircraft,

birds, celestial objects, balloons, etc., under special conditions, and the number of unexplained cases fell from an early value of more than 10% to as little as 2% or 3%. It was readily admitted that this small residue—as reported—defied logical explanation. For none of the extraordinary "unknowns," however, were there scientific data on which to base valid,

definitive investigations.

The early difficulties in coming to grips with the successive waves of sightings, coupled with concern that UFO reports, often made by pilots, might constitute a threat to military security (and the consequent, unfortunate air of secrecy imposed in the early years of UFO reports), had an electrifying effect on the imaginations and emotions of a surprisingly large number of people. It led to an inordinate interest in UFO's and a logical, albeit scientifically unsupported theory of UFO's encouraged by the real possibility of life elsewhere in the universe, as well as by a strong, often unconscious, desire on the part of many people to believe in the probability of visitors from outer space.

This theory of UFO's, with its strong quasi-religious emotional appeal, holds it not only logical to assume that other intelligent beings exist in the natural universe, but that superior extraterrestrial civilizations might visit here periodically, as if to make periodic checks on a tribe of aborigines. The theory is seen to have support throughout history in accounts of strange apparitions in the sky, suggesting to some that the earth could have been visited many times in the past. Some believe such visits became more frequent as atomic and hydrogen bombs increased extraterrestrial

concern.

In the face of continued lack of empirical evidence, persistent attempts to link UFO reports with visitations from space merit socio-psychological study.

It is amply evident that UFO's and "flying saucers" exist as reports. This has led to the quip that UFO's are any aerial sightings that remain unexplained long enough for the preparation of written reports about them. It is the problem of the serious investigator to probe for stimuli

that give rise to the reports.

U.S. Air Force investigators long recognized that most originators of UFO reports are sincere, interested in the welfare and security of their country and honestly puzzled by the sightings they report. Their frequent readiness to ascribe a UFO to extraterrestrial sources, their emotional attachment to this explanation and their reluctance to take into account the failure of continuous and extensive surveillance by trained observers to produce such sightings is surprising. It appears unreasonable that spacecraft should announce themselves to casual observers while craftily avoiding detection by trained observers.

Nonetheless, it must be recognized that knowledge of the universe and of the physics of our atmosphere is still imperfect. UFO sightings, as long as they continue, will merit serious study and may lead to advances not only in physical knowledge but in the area of human behaviour as well.

(J. A. H.)

"As General Thomas D. White has indicated, the Air Force investigation and analysis of UFO's over the United States are directly related to its responsibility for the defense of the United States. Because prompt reporting and rapid identification are necessary to carry out the second of the four phases of air defense, detection, identification, interception, and destruction, the Air Force maintains the unidentified flying object program. "Statistics on the number of objects sighted and reported to the USAF for the past 13 years are as follows:

1947	79	1954	429	
1948	143	1955	404	
1949	186	1956	778	
1950	169	1957	1,178	
1951	121	1958	573	
1952	1,501	1959	364	
1953	425	1960	173	TOTAL-6,523

"In analyzing the above figures the reader will quickly see that the Air Force's peak years for UFO reported sightings were 1952 and 1957. Further analysis shows that there are usually definite reasons or specific incidents causing a peak year or a rash of sightings. In the year 1952 the famous Washington sightings, touched off a rash of sightings for the last six months of the year. In 1957, SPUTNIK I, the Russian satellite, was launched in October. Seven hundred and one of the total sightings for that year took place in the last three months of the year. This is most significant.

"In all the correspondence received by the Air Force over the past 13 years there are a number of allegations and charges against the Air Force which are repeated time and time again and which should be specifically answered.

"The first charge states that there is a document dated September 23, 1947 which is a *Secret* conclusion by the Aerospace Technical Intelligence Center that the flying saucers were real.

"The second charge states there was a 1948 *Top Secret* document concluding that the unidentified objects were interplanetary spaceships.

"The third charge states that a Secret Air Force intelligence analysis of

UFO maneuvers concludes that the objects are interplanetary.

"The fourth charge states that a Secret report by a panel of top scientists convened in the Pentagon in January 1953 urges that the Air Force quadruple its UFO project and that the Air Force give the American people all UFO information, including Secret Air Force conclusions, unsolved sightings and photo analyses.

"In answer to the first charge, there is no official Air Force report or document which states that the so-called flying saucers are real. The writer does not doubt that in the early days of the UFO program many possibilities, including this one, were probably listed in order to develop an adequate investigation and evaluation program for the Air Force. Also, it is conceivable that some person or persons associated with the Air Force program were personally convinced that flying saucers might be real and could be interplanetary spaceships.

"In answer to the second charge, there has never been an official Aerospace Technical Intelligence Center estimate of the situation which stated that so-called flying saucers were interplanetary spaceships. Again, individuals associated with the early Air Force program, listing all possibilities, would probably have considered such a category but such a conclusion or document reaching such a conclusion is non-existent.

"The answer to the third charge is that such a report or intelligence analyses is non-existent. There is no such report. Again, there has never

been an Aerospace Technical Intelligence Center conclusion that any of the UFO's were interplanetary.

"The answer to the fourth charge is a simple one, On January 14, 15 and 16, 1953, at the request of the United States Air Force, a scientific advisory panel was established to consider the UFO program and to make recommendations based upon their conclusions. The recommendations of the panel as reported in the fourth charge above are completely erroneous. The final conclusion reached by the panel since declassified and released to the public were that UFO's (a) held no direct physical threat; (b) were not foreign developments capable of hostile acts against the U.S.: (c) were not unknown phenomena requiring the revision of current scientific concepts, and (d) the panel further concluded that unless deemphasized, UFO's or the subject itself, could constitute a threat to the national security because a rash of sightings could affect defense communications, national hysteria could be induced by skillful hostile propagandists, and a mass of false reports could screen planned hostile actions against the United States. As a result of this 1953 meeting, the panel made the following basic recommendations:

(a) That immediate steps be taken to strip the UFO's of the aura of mystery which they had unfortunately acquired:

(b) that the public be reassured of the total lack of evidence of inimical forces behind the phenomena;

(c) that Air Force investigative personnel be trained to recognize and

reject false indications quickly and effectively.

"An additional charge against the Air Force is that it is afraid to tell the public the truth concerning flying saucers because of the national hysteria and panic which will result. This is, of course, a ridiculous argument because the same groups hurling these charges and allegations against the Air Force are continually telling the public the same thing they want the Air Force to say and there is no resulting panic. The real truth of the matter is that the public itself trusts our government and our Air Force and does not believe that space people are visiting our planet in extraterrestrial vehicles.

"Reporting, investigating, analyzing, and evaluating procedures have improved considerably since Kenneth Arnold's sightings of the flying saucer on June 27, 1947. The study and analysis of reported sightings of UFO's is continued today by selected scientific personnel under the supervision of the Air Force and by qualified scientists and engineers from outside the Air Force on a contract basis.

"Dr. J. Allen Hynek, Professor of Astrophysics at Northwestern University and Associate Director of the Astrophysical Observatory for the Smithsonian Institution, Cambridge, Mass., is the chief scientific consultant to the Air Force on the subject of UFO's. In this capacity Dr. Hynek presided at a committee meeting held by the Department of the Air Force in the Pentagon on February 17, 1959, for the purpose of discussing the Air Force philosophy toward, and policy regarding, the unidentified flying object program.

"Recommendations resulting from this meeting were as follows. The Air Force must continue to take a positive approach toward the UFO program. Air Force investigations of reported sightings must be thorough and scientific with all possibilities considered. The entire resources of the Aerospace Technical Intelligence Center must be made available to help with the overall analysis and evaluation program of reported UFO's and

the public must be kept fully informed of the Air Force position regarding UFO's. These recommendations have been carried out and today a special Air Force UFO committee meets each month to make sure that every means available is being used in pursuit of a positive UFO investigation program and that a thorough information program is being conducted to keep the public informed.

"The official Air Force position can be summed up in a few words. In its attempt to put the UFO subject in proper perspective, it appears that the Air Force cannot compete with the science-fiction writer in satisfying the desires of those people who wish to believe in spaceships. The Air Force believes that the investigation of the UFO phenomena is in responsible hands and that an adequate, thorough, and honest program is being conducted.

"The Air Force does not deny that unknown objects have been seen by responsible people. It is in the interpretation of these sightings that they are questioned. From its investigations covering the past 13-year period, the Air Force contends that when the evidence of these sightings has been sifted through the scientific criteria it has always led to the conclusions that the objects were not spacecraft and they did not constitute a threat against the security of this country. As an act of faith, the UFO can be considered manned or unmanned craft from outer space. But as a scientific fact there has been no authenticated scientific evidence presented to or discovered by the Air Force to support this conclusion.

"Finally, when space travel is accomplished by the United States or should the Air Force discover that spaceships exist from out of this world, official government announcements would be made immediately through the Department of Defense to this effect."

-"This Is Our Position," Airman, January 1961, pages 2-5.

"The Air Force interest in UFO's is three-fold: first, as a possible threat to the security of the United States and its forces; second, to determine the technical or scientific characteristics of any such unidentified flying objects; and third, to explain or identify all sightings.

"The Air Force is often asked just what is an unidentified flying object? It is any airborne object which by performance, aerodynamic characteristics, or unusual features, does not conform to known aircraft or missiles, balloons, birds, kites, searchlights, aircraft navigation and anticollision beacons, astronomical bodies or phenomena, jet engine exhaust, condensation trails or known meteorological phenomena, and remains unidentified long enough to be reported.

"The initial investigation of an unidentified flying object sighting is the responsibility of the nearest Air Force unit in the area of the sighting. If this organization cannot identify the object, the sighting and results of the preliminary investigation are reported to the Office of Aerial Phenomena for further investigation and evaluation. With this move, the responsibility for release of information regarding the sighting is transferred to U. S. Air Force Headquarters. The Office of Aerial Phenomena is part of the Air Force's research and development arm known as the Air Force Systems Command. Each case is objectively and scientifically analyzed without regard to the outcome. If necessary, as in many cases, part of all of the scientific disciplines available to the Air Force can be invoked to assist the office in arriving at a conclusion. This is also true of

the many facilities available in the Air Force, such as materials laboratories where many of the parts of missiles and space vehicles are tested. Other government facilities outside the Air Force are also utilized from time to time.

"The personnel involved in the investigative and evaluation efforts of this program are a selected group of highly qualified scientists. They approach each case with no preconceived ideas and proceed to analyze each fact of each case on a scientific basis.

"The general conclusions are: To date, no unidentified flying object has given any indication of threat to the national security; there has been no evidence submitted to or discovered by the Air Force that unidentified sightings represented technological developments or principles beyond the range of our present day scientific knowledge; and finally, there has been nothing in the way of evidence or other data to indicate that these unidentified sightings were extraterrestrial vehicles under intelligent control.

## UFO REPORT EVALUATION

By Category and Percentage Breakdown 1 January 1961—31 December 1961

			or decrease or decrea compared to 1960	
Astronomical	175	35.86%	decrease	
Aircraft	55	11.27	increase	
Balloons	33	6.67	increase	
Insufficient Data	99	20.29	decrease	
Other (birds, lights, hoaxes, etc.)	56	11.48	decrease	
Satellites	55	11.27	increase	
Unidentified	10	2.05	decrease	
	483	100.00		

(five cases pending for a total of 488)

"To indicate improvement in the investigative and evaluation technique and processes the following table illustrates the number of sightings remaining unidentified has decreased considerably when compared with the earlier years of the project:

Period	Percent Unidentified		
1947-1952	19.74%		
1953-1954	9.13		
1955-1961	1.94		

"Several thousand balloons are released in the United States every day. There are several types of balloons: weather ballons (ozone-sondes and radio-sondes), private man-carrying balloons used as sporting devices and the large research balloons which have diameters of 300 feet. The larger balloons when airborne at night carry running lights which contribute to an unusual appearance when observed. Reflection of the sun on balloons at dawn and sunset produce rather startling sights, particularly when the observer's position is no longer in direct sunlight (in the earth's shadow) when the balloon, because of its altitude is exposed to the sun. Large balloons can move at speeds of over 200 mph when located within high altitude jet wind-streams. Sometimes these balloons appear to be flattened on top or because of the sun's rays reflecting through the plastic material of

the balloon from panel to panel, appear to be saucer shaped and to have lights mounted on the bag itself. Experienced pilots, although they may have observed high altitude balloons before, are sometimes startled by

their strange appearance under varying atmospheric conditions.

"Ground and air observers are susceptible to autokinesis, a physiological phenomenon sometimes causing psychological reactions. For example, a pilot who stares at a fixed light in an otherwise dark environment will soon experience the illusion that the light has begun to move erratically. If he stares at the light long enough, he may become almost hypnotized by it, so that it takes up practically all his attention. Size-distance illusion results from staring at a point of light which approaches and recedes from the observer. In the absence of additional distance clues, accurate depth perception is extremely difficult. Instead of seeing the light advancing and receding, the observer has the illusion that it is expanding and contracting at a fixed distance. The cause for autokinetic phenomenon is not fully understood. It can be prevented or dispelled by continually shifting fixation from point to point. Ground observers seeing a point of light in the night sky can also experience this phenomenon.

"For several months now some airliners, conventional and jet, have been using an experimental anti-collision beacon which, when viewed at slant range and under varying atmospheric conditions, has produced UFO reports. This light is a white strobe type light usually involving two or more lights operating alternatively. The beacon is intense and flashes for only a fraction of a second. It has been seen as much as 50 miles away and at that distance only the light could be seen thereby producing a rather

startling sight.

"Many modern aircraft, particularly swept and delta wing types, are reported as UFO's under adverse weather and sighting conditions. When observed at high altitudes and usually at some distance, aircraft can have appearances ranging from a disc to rocket body shapes due to reflection of sunlight off the bright surfaces or when only jet exhausts are visible. Vapor or condensation trails will sometimes appear to glow fiery red or orange when reflecting sunlight. After burners (reheating of jet exhaust gases) are often reported as UFO's and can be seen for long distances.

"Astronomical sightings include bright stars, planets, comets, fireballs, and bolide meteors and other celestial bodies. When observed through haze, light fog, moving clouds or other obscurations or unusual conditions, the planets, Venus, Jupiter, Mars and Saturn have been reported as unidentified flying objects. Stellar mirages are sometimes a source for an

unidentified flying object report.

"There are several meteor showers occurring each year. These sometimes produce rather spectacular displays and are suspect when evaluating reports during these periods. Recently, widespread reports were received of flashing objects in the sky. Investigation revealed that these objects were associated with the earth's passage through the meteor trails known as the Cygnids and the Quadrantids. Everyone can look for the following displays during the dates indicated:

There are other showers through the year; however, these displays are not as noticeable as the ones listed above.

"Because of the number of man-made objects in orbit (January 25, 1962—35 satellites, 88 pieces of associated 'junk') the separate category of Satellites was established. Keeping track of man-made objects in orbit about the earth is the job of the Space Detection and Tracking Systems (SPADATS). This sophisticated electronic system takes in complex space traffic data instantly from tracking stations within the far-flung air defense lines and supplies information on a rapid basis into the aerospace warning system. Inputs to this system are instantly fed from the Ballistic Missile Early Warning System, (BMEWS) sites, airborne and other radar installations which maintain a constant surveillance of space activity. Additionally, other space surveillance activities include the use of ballistic tracking and other large telescopic cameras.

"The category labeled 'Other' includes reflections, searchlights, birds, kites, blimps, clouds (particularly lenticular formations), sun and moon dogs, spurious radar indications, hoaxes, firework displays, flares, ice

crystals, and other meteorological phenomena.

"The 'Insufficient' category includes all sightings where essential details of information are lacking thereby prohibiting a valid conclusion. These will sometimes include lack of corroborating information from an additional witness or witnesses. For instance, a sighting in the city of New York reported by just one person with no other corroboration. Other missing details which are necessary in order to reach a conclusion include: description or size, shape or color of an object; direction and elevation; exact time and location, etc.

"A sighting is considered 'Unidentified' when a report apparently contains all the pertinent data necessary to normally suggest at least one valid hypothesis on the cause or explanation of the sighting, but the description of the object and its motion cannot be correlated with any known object

or phenomena.

"The Air Force does not deny that animal life exists on other planets in the universe; however, there has been no evidence submitted to or discovered by the Air Force that proves or tends to prove such a contention."

 Department of Defense, Office of Public Affairs. From "Air Force Unidentified Flying Object Report," News Release No. 179-62, February 6, 1962.

"Invisible dimples in the sky may have caused radar reports of flying saucers the Air Force said today. Reporting on research done by its Cambridge research laboratory at Bedford, Mass., the Air Force office of scientific research said the dimples may stem from the same process that creates some cloud types.

"The dimples were described as concave and reflective, and set in undulating layers of the atmosphere at altitudes up to 6,000 feet. Radar beams are reflected back to earth by the turbulent air, and give the appearance

on a radarscope of an object moving swiftly across the sky.

"The Air Force said this apparently is what caused the unexplained radar sightings which supporters of the flying saucer theory have cited to prove the earth is being circled by strange spacecraft.

<sup>a</sup>P. J. Harney of the Cambridge laboratory developed the dimple theory from weather bureau and Air Force observations. Harney said that, since the early days of radar, false targets—known as angels—have appeared on radar screens. He said it has been known for some time that the false targets are due in part to sharp discontinuities in temperature and moisture content in the atmosphere."

-Chicago Sunday Tribune, July 22, 1962, page 10.

"Since the flying saucer or unidentified flying object (UFO) 'flap' began back in 1947, the community of believers has shrunk and fragmented into a mass of cult-like groups who spend much of their time attacking one another on obscure points of UFO doctrine. Reading their publications is

like reading another language.

"But some can break out of their isolation and throw fear and doubt into outsiders. In a recent issue of *True* magazine, veteran saucer warrior Maj. Donald E. Keyhoe, USMC (Ret.), must have startled many when he reported that two scientists who had observed an April, 1964, Gemini test launch told him the capsule was trailed by four spacecraft of unkown origin. This, his unnamed informants said, had been observed by official radar operators.

"How many people who read the Keyhoe article will hear that the Air Force, when questioned by one saucer group on this event, stated flatly that 'the objects observed which were detected on radar have been identified as minor structural pieces which routinely break free from the expendable booster portion of the spacecraft at booster separation process'?"

-Science Digest, June 1965, pages 41-42

"Compared to the boom years of 1947-58, flying saucers have today fallen into relative obscurity, but there are still thousands of people in the United States who believe passionately that the earth is being visited regularly by great numbers of spaceships from other worlds. Every unexplained light in the sky is a possible spaceship, every unexplained hole in the ground a sign of a possible spaceship landing, and anybody who calls this nonsense is a possible agent of a giant conspiracy to hide the truth. Some of the enthusiasts are quite mad, but surprisingly, the majority are sane and often very intelligent. Yet they have remained in this bizarre state of mind for nearly twenty years. Flying saucers are, as one commentator has termed them, 'a major myth of the space age.'

"The Air Force is still patiently investigating reports of saucer sightings. In the latest information sheet it notes that since 1957 it has investigated 9,127 cases of sightings. Of these only 667 are now classed as 'unexplained.' Any unusual bit of publicity will bring in a new flood of sightings. This happened last January when *True* magazine ran another 'flying saucers are really here now!' article by Maj. Donald E. Keyhoe (USMC Ret.). The article resulted in a healthy jump in newsstand sales for *True*, and Major Keyhoe's organization, the National Investigations Committee for Aerial Phenomena (NICAP), got some 3,000 letters from saucer-seeing readers.

"During the summer of 1965 the country experienced the biggest wave of saucer sightings it has had in years. Large numbers of reports came in from Oklahoma, Texas, Kansas, Colorado, and from as far east as Chicago. Newspapers gave saucer stories prominent display and flying saucers again became a common topic of dinner-table conversation. One

of the saucers that was seen over Texas was even photographed. The picture showed only an indistinct light, but according to *The Christian Science Monitor* of Aug. 16, 'It makes the clearest case yet for a thorough look at the saucer mystery.'

"Officers at Project Blue Book, the Air Force's agency charged with investigating saucer reports, calmly pointed out that the sightings were most likely cases of mistaken identification of the planet Jupiter and four prominent stars, due to unusual atmospheric conditions that 'gave them a scintillating effect.' But such an explanation was hardly satisfactory to the man who thought he had seen a spaceship. . . .

"The United States is not the only country with saucer enthusiasts. One of the slickest saucer publications today comes from Japan. The French, who take a more theoretical approach, have contributed much sophisticated pseudo-scientific hash to saucer lore. Aime Michel claimed that saucers drew their tremendous power from an unknown electromagnetic force.

"Brazil has had a particularly embarrassing time with saucers. In 1958, a group of faked saucer pictures was presented to the Brazilian Government. After weeks of dispute they were released to the press as genuine by the President of Brazil himself. On July 12 of this year, *The New York Times* reported sightings in Britain, France, Portugal, the Azores and Deception Island in the Antarctic.

"Science popularizers like Isaac Asimov and Willy Ley have made occasional forays against the saucer enthusiasts. At a lecture Asimov once said, 'I think anyone who believes in flying saucers is a crackpot.' Most scientists however, simply don't want to get involved and ignore the

whole thing. . . ."

-"The Return of Flying Saucers," The Nation, September 13, 1965.

"To Dr. J. Allen Hynek, the persistent flying saucer reports present one of the challenging mysteries of our time.

"As a civilian consultant to the United States Air Force, the Northwestern University astronomer has assisted with this puzzle for many

years. Summing up that experience, he says:

"'In reports of UFO's [unidentified flying objects], we have a phenomenon that has persisted over the past 18 years. The Air Force has been getting an average of one to two reports a day over that period. The fact that people continue to send in reports still is an inadequately explained phenomenon of our times.'

"The very great majority of the reports—the run-of-the-mill cases—you can explain in familiar terms of perhaps an aircraft, balloon, or planet seen under unusual conditions. But I keep asking, what about the well-

documented yet unexplainable case?'

"'I cannot, just absolutely cannot, believe in extraterrestrial visitation. The distances are too great. It doesn't make sense to me. Furthermore, any craft coming to earth surely would be picked up by our defense radars. But we don't know all about the natural phenomena that may lie behind the unexplained sightings.'

"'I would like the subject of UFO's admitted into the realm and given at least as much serious scientific attention as extrasensory perception,

ghost stories, or folklore.'

"By Air Force count, there have been 9,267 UFO reports between 1947

and last July 23. Of these, 663 are classed as unexplained. This is a separate classification from that given to reports which contain too little information to aid identification.

"Actual sightings must number far higher. The Air Force doesn't get all American reports, let alone those from other countries. Dr. Hynek often finds news of a sighting in reports of flying saucer clubs, local and foreign newspapers, and other unofficial sources.

"Those unexplained sightings run the flying saucer gamut from strange lights seen at night to what appear to be solid 'craft' seen in daylight by many observers at a time. Some of the 'craft' have even appeared to land

or hover near the ground.

"Many of these cases have seemed evidence enough to convince many enthusiasts that we are being visited from outer space. But Dr. Hynek says that there is no consistent pattern in the sightings to support such a conclusion, spectacular though individual cases may be.

"He feels challenged by the unknowns for more earthly reasons.

"For one thing, Dr. Hynek noted in a recent interview, 'In 1965, we don't know all there is to know about natural phenomena. Take ball lightning for example,' Presently inexplicable UFO's may lead to a greater understanding.

"For example, UFO's often are reported to have made sharp right-angle turns in maneuvering. 'Now,' Dr. Hynek explained, 'it is a physical impossibility for a material object to make an instantaneous right-angle turn. But what is going on here? Is it an unknown optical effect or an unsuspected psychological effect?"

"Also, he added, 'social scientists might find it very interesting to study the kind of people who make reports and why they make them. They will

find, by and large, that these people are not crackpots.'

"He likened the situation to one that prevented the discovery of meteorites for a long time. People who saw them coming in generally described them as stones falling from the sky. This seemed so farfetched to scientists of another era that they long dismissed all the reports with contempt and ridicule..."

-" 'Flying Saucers'-Puzzle for the Sciences," The Christian Science Monitor, September 4, 1965, page 5.

## SUPPLEMENTARY READING

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Menzel, D. H. and Boyd, L. G. World of Flying Saucers. Garden City, New York: Doubleday and Company, Inc., 1963.

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