



JULY 1967

THE AIRMAN

OFFICIAL MAGAZINE OF THE U.S. AIR FORCE

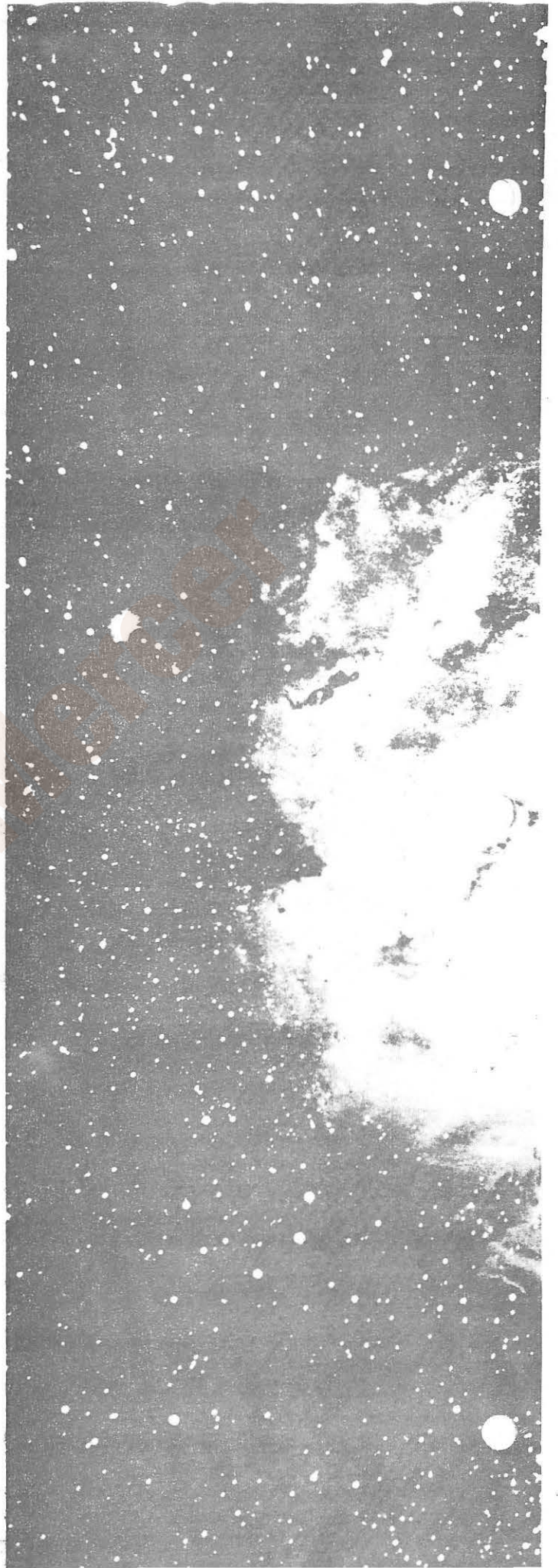
WHAT DOES
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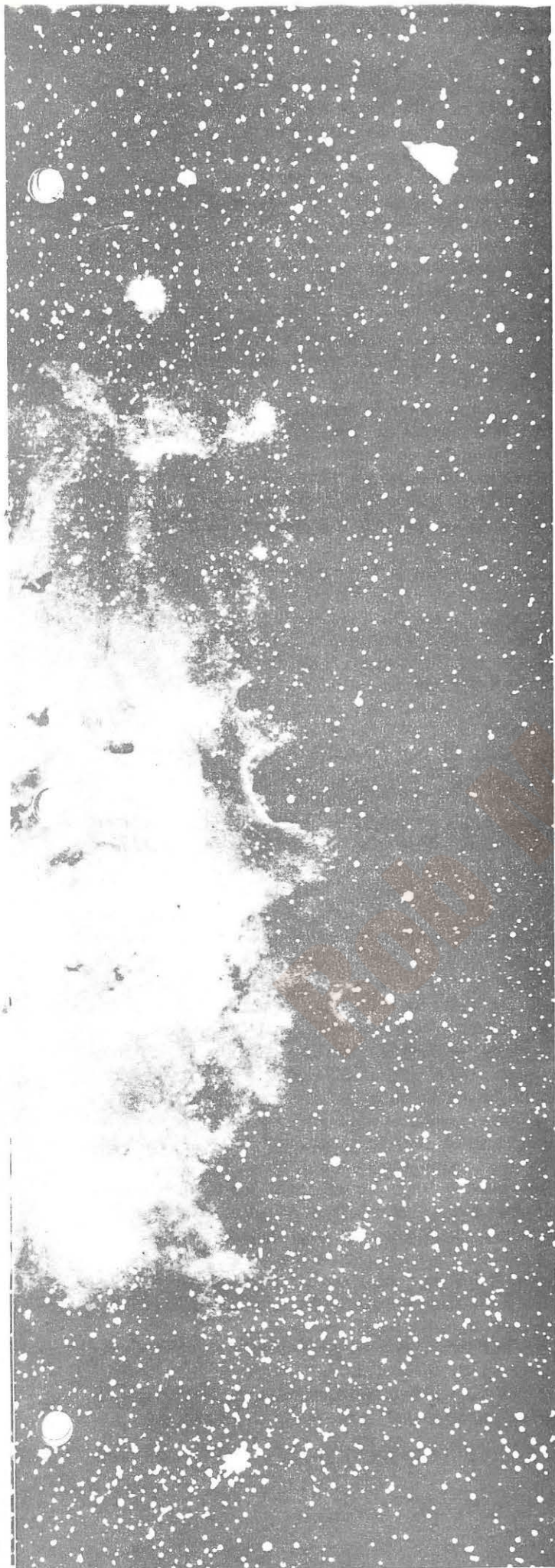
REPRINTED FROM JULY AND AUG. 1967 AIRMAN

**WHAT
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Here are the facts, backed by authentic statements from qualified people. You, however, must be the final judge of whether UFOs are fact or fiction.

by Maj. GEORGE W. OGLES
Hg. USAF





(Editor's Note: *The United States Air Force has never denied the possibility that some form of life may exist on other planets. Nor has it denied that there may exist a capability for interplanetary travel. The Air Force has only said that after 19 years of investigation and almost 11,108 reported sightings, it does not have a single photograph, film, graph or sample of any vehicle of unknown origin. Nor has it ever had.*

These facts should be understood by every member of the Air Force. For this reason, THE AIRMAN asked Maj. George W. Ogles, presently assigned to the Community Relations Division, Office of Information, Office of the Secretary of the Air Force, to prepare an article that simply "tells the truth about unidentified flying objects and what the US Air Force knows about them." He has done this admirably, and THE AIRMAN will present his article in two installments. This is the first).

WHEN the number of unidentified flying object sightings reported to the United States Air Force during 1966 were finally tallied, the total came to 1,060, an increase of 173 over the 1965 total of 887.

The figures were not surprising, because the trend has been rising steadily over the last four years. There were 399 reported sightings in 1963, and 562 in 1964. And indications are that there is little likelihood the number of flying saucer sightings will diminish. Flying saucer cartoons and jokes abound throughout the nation. Television has introduced several new flying saucer series. Scores of old and new movies are being shown about visitors from space. Newspapers, magazines and books contain reams of copy on the intriguing subject of flying saucers.

Small wonder that people ask, "What does the Air Force *really* know about flying saucers?" "Are they fact or fiction?" Small wonder, too, that the US Air Force has been taking it on the chin for several years, because it refuses to be stampeded into making statements that cannot be based on fact. For as a popular television star says, "All we want are the facts, sir. Just the facts."

Are flying saucers fact or fiction? What *does* the Air Force know about them? Read on, and then form your own judgments. Perhaps a good place to begin is with a letter Mr. B. F. Wood of Hollister, Mo., sent to Air Force headquarters about seven years ago.

"It happened right in front of our car just north of Amarillo, Tex., September 20, 1960," described Mr. Wood. "Jostling about in the 6 a.m. fog was what I thought to be a space ship from another planet. A pink-lighted dome had multicolored lights which danced around the outer edge of a disc. I could feel my blood pressure rise and was unable to make a decision as to what procedure or precaution to take as I did not know how many occupants I had to contend with.

"Then it happened," continued Mr. Wood. "I discovered the fog on this road was lifting and I could make out the terrible error I had made. The space ship was a jeep with an enclosure, towing a 10- or 12-



Disc-shaped AVROCAR, a research vehicle, was designed to explore potential of several new approaches to vertical takeoff and landing craft.

foot hay rake, the operator evidently taking up his task for the day. My headlights shining on this whole affair, bouncing up and down, half off and on the pavement, really stirred my imagination as it never has been aroused before.

"I can now realize how other sightings can be mysteries if the people involved do not get the answer right from the horse's mouth as I did," confided Mr. Wood.

Three years ago Mr. Stewart McManaway of Thaxton, Va., wrote the Air Force that he had seen a flying saucer near his home. He described a "bright object, round and luminous, which zoomed southward in a matter of seconds."

Last November the Air Force received another letter from Mr. McManaway in which he stated, "Seven hundred yards northwest of my home are hundreds of large thistles, a prickly weed whose blooms contain hundreds of fuzzy, silky hair-like things which float in the slightest breeze."

"On a clear bright day last October," continued Mr. McManaway, "I observed scores of these petals floating in the breeze, rising hundreds of feet in the air, getting caught in cross winds and updrafts zooming across the horizon in seconds."

"At this time," Mr. McManaway openly confessed, "I sincerely believe that three years ago what appeared to be a UFO flying at an angle, thousands of miles per hour, was really a cluster of silky petals caught in a cross wind which made it zoom across the horizon in seconds, resembling a UFO."

The terms "unidentified flying object (UFO)" and "flying saucer" are misleading expressions coined to usher in the "saucer" era in the late forties.

"UFO" implies that the unknown object is flying and is composed of solid material. Frequently neither is true.

The more sensational term "flying saucer" often is used when the object's shape does not remotely resemble a saucer.

The more serious "saucer believers" make a distinction between "UFO" and "flying saucer"; however, the general public uses the terms interchangeably.

The United States Air Force, which since 1947 has been responsible for investigating unidentified flying objects, says that a UFO is "any aerial phenomenon which the observer is unable to identify."

Thousands—possibly millions—of rational responsible persons are uncomfortable about UFOs. They know that most reported UFOs are usually natural phenomena observed under unusual circumstances; however, there is that statistical probability that there are other intelligent beings in the universe and some of them may have visited or might visit Earth.

UFOs have been reported by scientists, engineers, amateur astronomers, law enforcement officers, civil defense employees, educators, clergymen, newsmen, civilian and military pilots, professional and businessmen, officials and just plain citizens.

There is no question that they saw something—but what did they see?

It may surprise a lot of people to learn that the Air Force has never denied the possibility that some form of life may exist on other planets. However, based on research of 11,000 reported UFO sightings during the past two decades, the Air Force remains convinced that "no evidence has been received nor discovered which proves the existence and intraspace mobility of extraterrestrial life." (Of 11,108 sightings reported since 1947, only 676 are presently listed as "Unidentified").

A sighting is listed as "Unidentified" by the Air Force when "a report apparently contains all pertinent data necessary to suggest a valid hypothesis concerning the cause or explanation of the report but the description of the object or its motion cannot be correlated with any known object or phenomena."

Explaining that "virtually all of the sightings were derived from subjective human observations and interpretations," Air Force officials state that, "the most common were reports of astronomical sightings, satellites, mirages, airplanes, and spurious radar blips."

Appearing before a hearing on UFOs conducted by the House of Representatives Committee on Armed Services in April 1966, The Hon. Harold Brown, Secretary of the Air Force, said: "We know of no phenomena or vehicle, intelligently guided, which have come from extraterrestrial sources. I exclude meteors which do come from extraterrestrial sources."

However, a large percentage of UFO observers—including many well-educated persons—cannot accept a scientific explanation for what they witnessed.

Similarly, the subject of "flying saucers" and any efforts to "debunk" them evokes a strong psychological reaction in many persons who, admittedly, have never witnessed unusual aerial phenomena.

No intelligent, rational person questions that we see strange aerial objects which we cannot readily identify—man has been seeing strange things in the sky and recording his observations for hundreds of years.

Jacques Vallee, author of *Anatomy of a Phenomenon*, indicates that manuscripts and newspapers record many unexplained sightings prior to the 20th century. He discerns peaks of UFO activity in the 1882-1887 period and in 1906 and 1909. UFOs have been sighted in more than 50 countries.

Prior to 1947 (when the term "flying saucers" was coined), atmospheric phenomena were described as "fiery suns," "lighted pinwheels," "flying discs," "flaming shields," "moving lights," "will-o'-the-wisps," "Friar's Lanthorns," etc. The term "unidentified flying object" didn't originate until the Air Force started investigating the strange reports in 1948.

During and immediately after World War II, persons in many countries, especially in Europe, reported seeing "unusual aerial phenomena." However, it was a daytime sighting June 24, 1947, by businessman Kenneth Arnold that was to fire the interest and imagination of the American public.

Flying in his private plane near Mt. Ranier, Wash., Arnold reported seeing "a chainlike formation of disc-shaped objects which skipped along like a saucer skipping over the surface of a body of water." His description was shortened to "flying saucers" and given national publicity. Newspapers and radios fanned the flames of imagination by suggesting that the objects might be visitors from outer space. Nationwide interest was sustained by numerous reports of additional sightings, most resembling saucers, pie pans, or discs of various shapes and sizes.

Late in 1947, the newly established Department of the Air Force, as part of its responsibility for air defense, became the official government agency for investigating unidentified aerial objects and for determining if they posed any latent threat to national security.

"Project Sign" was created in February 1948 to "collect, collate, evaluate, and distribute information concerning UFO sightings." Eleven months later, following analysis of 243 of the best documented UFO reports, Project Sign indicated that "no definite evidence was available to confirm or disprove the actual existence of unidentified flying objects as new or unknown types of aircraft."

The project name was changed to "Grudge" in late 1948 and 244 new reports analyzed. The conclusion: "The phenomena presented no threat to the security of the United States and the vast majority of sightings were misrepresentations of conventional objects."

During the early 1950s the Central Intelligence Agency (CIA) studied UFOs to determine if the objects were originating from sources overseas. All CIA materials concerning UFOs which did not concern the organization and CIA methods were subsequently declassified and made available to scientists, scholars, and others interested in the study of UFOs.

In March 1952, the Air Force project name became "Project Blue Book" and remains the official title today. Its objectives: first, to determine whether UFOs pose a threat to the security of the United States; and

second, to determine whether UFOs exhibit any unique scientific information or advanced technology which could contribute to scientific or technical research. In the course of accomplishing these objectives, Project Blue Book strives to identify and explain UFO sightings reported to the Air Force.

The program is conducted by the Aerial Phenomena Branch (Air Force Systems Command), at Wright-Patterson AFB, Ohio. Information concerning the program, including individual sightings, is provided by the Office of Information, Office of the Secretary of the Air Force in the Pentagon (SAF-OI).

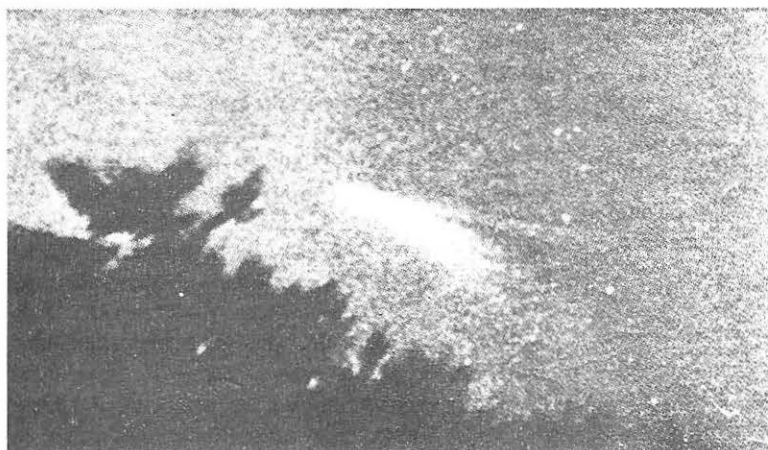
Various private organizations which collect information and publish UFO and "flying saucer" news have sprung up over the years. Many of these organizations allege that the Air Force is misleading the public and withholding information about UFOs. Some claim UFOs are really secret, highly sophisticated aircraft made by the US or possibly some other nation on Earth. If this were true, the obvious question is, "Why are we wasting so much time and money on such comparatively crude rocket-powered vehicles to reach and explore our solar system?"

The Air Force emphasizes that reports of UFO sightings and the Air Force findings are not censored. "We do have an obligation, however," stresses the Air Force, "to protect the name of the observer of the UFO sighting and the methods used to analyze the data concerning such a sighting."

"Also, for security reasons," says the spokesman, "we cannot release information that would give the location of a classified installation or reveal the defense capabilities of certain aircraft, detection equipment, or other devices. When the sensitive information is deleted, the remaining information—that which deals exclusively with the UFO—is unclassified."

Air Force Regulation 80-17, *Unidentified Flying Objects*, states that "Air Force members not officially connected with UFO investigations covered by this regulation will refrain from any action or comment on UFO reports which may mislead or cause the public to con-

Photo of 1957 Comet, Mrkos, taken by Curtiss A. Griffin, helps explain why such phenomena are often mistaken for "UFOs" or "flying saucers."



strue these opinions as official Air Force findings." "UFO reports submitted by military personnel are systematically analyzed by qualified researchers for one simple reason," say Air Force officials: "to insure that the public is not misled (intentionally or unintentionally) by a variety of reports and interpretations from individuals."

The air base commander closest to the scene of a reported UFO sighting is responsible for investigating the occurrence, interviewing witnesses, and completing a required form. The form is sent to Wright-Patterson AFB where it is reviewed by Project Blue Book personnel and other Air Force specialty groups, when appropriate.

If a second investigation is considered necessary, either Air Force or consultant personnel visit the scene of the incident, and submit an additional report.

Since 1955, Project Blue Book has investigated only those sightings which are reported either directly to the Air Force, or via some law enforcement agency. Normally, only sightings within the jurisdiction of the United States are investigated.

UFO reports submitted to the Air Force, and the Air Force analyses, are retained at the Aerial Phenomena Branch at Wright-Patterson AFB. The Air Force has announced that Project Blue Book files are open to examination by bona fide newsmen and scientists. Many have taken advantage of this offer.

UFOs have been reported in all conceivable shapes, sizes and colors. They resemble cigars, propellers, hats, pie pans, saucers, and balls. Sizes vary from tiny objects estimated in inches to massive space ships reported to be 250 feet or more in diameter. The predominant colors are red, green, blue, and white; however, the entire color spectrum has been reported at one time or another. UFO sounds range from eerie silence to high-pitched, penetrating tones. Propulsion may be evidenced by flaming exhausts, or there may be no exhausts whatsoever. UFOs hover, zig-zag, move in any direction at variable speeds (one observer reported a UFO moving at 25,000 mph). Structure of reported UFOs fluctuate from solid to "invisible." Although UFOs are observed throughout the year, the largest number of sightings occur at night during the spring and summer when people spend more time out of doors.

Dr. Carl Sagan, noted astronomer with Harvard University and the Smithsonian Astrophysical Observatory at Cambridge, Mass., describes in the *Encyclopedia Americana* various objects reported as UFOs:

"Confirmed identifications of UFOs have been made with the following: unconventional aircraft; aircraft under uncommon weather conditions; aircraft with unusual, external light patterns; meteorological and other high-altitude balloons; artificial earth satellites; flocks of birds; reflections of searchlights or headlights off clouds; reflection of sunlight from shiny surfaces; luminescent organisms, including one case of a firefly lodged between two adjacent panes of glass in an airplane cockpit window; optical mirages and looming, lenticular cloud formations; ball lightning; sundogs;

meteors, including the rare green fireballs; planets, especially Venus; bright stars; and the aurora borealis."

(A fireball is a brilliant meteor entering the earth's atmosphere at a slower rate of speed than the normal meteor. Fireballs have been known to light up areas for distances of 20 to 40 miles).

The night of April 18, 1962, a fireball which was observed over a four-state area, exploded near Eurica, Utah. The object was bright enough to activate the photo-electric cells controlling the street lights in Eurica and turn the lights off.

There are cases in Air Force files of UFOs being reported which later were identified as airborne residue which escaped through faulty plant filters; long plumes caused by silver oxide used in cloud seeding operations; and airborne soap detergent bubbles caused by train-cleaning operations.

The planet Venus frequently is reported as a UFO when it is low on the horizon. When viewed through the polluted air nearer the earth's surface, the planet appears to perform erratic maneuvers and change color.

Weather balloons are a chief contributor to UFO reports. Several thousand balloons are released each day from military and civilian airports, weather stations, and research activities. There are several types of balloons—weather balloons, rawinsondes, radiosondes, and the large research balloons which have diameters up to three hundred feet. At night, balloons carry running lights which cause an unusual appearance when observed. Reflection of the sun on balloons at dawn and sunset sometimes produces strange effects. This usually occurs when the balloon, because of its altitude, is exposed to the sun.

Large balloons can move at speeds of over one hundred miles per hour when moving in high altitude jet streams. These balloons sometimes appear to be flattened on top. At other times, they appear to be saucer-shaped and to have lights mounted inside the bag itself due to the sun's rays reflecting through the material of the balloon. The Balloon Control Center at Holloman AFB, N. Mex., maintains a plot on all military upper air research balloons. Various other organizations, such as the National Center for Atmospheric Research, in Colorado, also track research balloons.

Aircraft account for a major source of UFO reports, particularly during adverse weather conditions. When observed at high altitudes at some distance, aircraft can have appearances ranging from disc to rocket shapes due to the reflection of the sun on their bright surfaces. Vapor or condensation trails from jet aircraft will sometimes appear to glow fiery red or orange when reflecting sunlight. Afterburners from jet aircraft are often reported as UFOs since they can be seen from great distances when the aircraft cannot be seen.

During 1965, 210 of the 887 UFOs reported were identified as aircraft. UFO observers are advised that if they feel the urge to shoot at a "flying saucer," use a camera instead of a gun. That UFO may be piloted by some Earthman.

Satellites are another major source of UFO reports. An increase in satellites reported as UFOs has come about because of two factors. The first is the increase of interest on the part of the public; the second is the increasing number of satellites in the skies. Positive knowledge of the location of satellites enables rapid identification of satellite sightings. Keeping track of man-made objects in orbit about the earth is the responsibility of the North American Air Defense Command (NORAD) Space Detection and Tracking System. This sophisticated electronic system gathers complex space traffic data instantly from tracking stations all over the world. NORAD recently reported that there are more than 1,100 man-made objects in space.

Other space surveillance activities include the use of "ballistic camera tracking" and large telescopic cameras. *Echo* schedules are prepared by the NASA Goddard Space Flight Center at Greenbelt, Md., and schedules of the south-north equator crossings are prepared by the Smithsonian Astro-physical Observatory at Cambridge, Mass.

Some satellites are visible to the naked eye and frequently are mistakenly reported as UFOs. These satellites easily can be identified by the various tracking agencies. During 1965 the Air Force, with the assistance of the tracking agencies, positively identified 152 sightings as *Echo I*, *Echo II*, *Pegasus I*, *Pegasus II*, or *Pegasus III*.

To naked-eye observers, the motion of a bright artificial satellite may consist of tiny zig-zags rather than a smooth curve across the sky. This familiar illusion has been ascribed to the fact that we do not move our eyes continuously, but in little jerks. Actually, the zig-zag motions are due primarily to the physiology of seeing without reference points. This is not a frequent occurrence because the field of stars usually provides the necessary reference. Scintillation can cause apparent radial motions (zooming in and out along a fixed line of sight) but rarely ever angular motions.

The National Aeronautics and Space Administration (NASA) reports that the astronauts sighted unidentified objects during their *Gemini* flights. However, in all instances the objects were later identified as satellites or parts of satellites launched into orbit from earth.

Although professional astronomers do not constantly watch every square mile of the sky, there is a good possibility that the observatories and the tracking stations throughout the world will detect the presence of "interstellar space vehicles" long before "flying saucers" reach the earth's atmosphere. One Air Force officer said, "We honestly don't believe that the scientists will keep such an event to themselves and not reveal it to the general public."

Phillip J. Klass, senior editor of *Aviation Week & Space Technology* and an electronics expert, is a proponent of one theory which explains some "flying saucers." Mr. Klass thinks that many of the eerie, maneuvering lights people see at night really are formations of ionized air containing electrified particles which have

detached from power lines as a type of "ball lightning." The globs of "ball lightning" flutter and whirl erratically and give the appearance of performing flight maneuvers at high speeds.

While "saucer believers" and "saucer sympathizers" circulate a variety of statements and probing questions to support their belief, the "saucer doubters" also retort with a number of unanswered questions, such as:

Why do not UFOs, which reportedly move at supersonic speeds, produce sonic booms? An earth aircraft, or any solid object, *always* creates an audible "boom" when it exceeds the speed of sound. Bullets produce a sonic boom! Missiles cause a "boom" once they surpass the speed of sound! However, not one of the thousands of reports received by the Air Force mentions any sonic boom associated with the reported UFO sighting.

How can UFOs defy Earth's gravity and perform erratic aerial maneuvers and square turns at supersonic speeds? The pilots of *our* aircraft and space vehicles haven't been able to ignore laws of gravity and motion!

Why has there been no "extraterrestrial hardware" associated with any of the alleged "flying saucer" landings and sightings? To date, all material alleged to be associated with a "flying saucer" has proved to be space debris from United States or Russian satellites or missiles, meteoric substances, or materials common to earth which were already at the site or were placed there as part of a deliberate hoax.

How can "flying saucers" avoid detection by the astronomical observatories and radar networks throughout the United States? For several years vast expanses of the sky over the United States have been under surveillance by observatories on clear nights. To date, the observatories have not detected any "unusual" movements in space which would corroborate the thousands of "flying saucer" sightings reported to the Air Force during the past 20 years.

Radar infrequently detects "unknown targets" which vanish from the scope as mysteriously as they appear. Many "saucer believers" refer to these radar detections as proof that the earth is being observed by intelligent space beings. However, these blips do not represent new phenomena to military and civilian radar operators. Reports by radar controllers checked against US Weather Bureau records indicate that these "unidentified targets" usually are due to precipitation echoes from rain clouds or occur during a temperature inversion (when an upper layer of air is warmer than one layer beneath it).

A member of Project Blue Book, the Air Force project which investigates UFO reports, told the House of Representatives Armed Services Committee in April 1966 that, "About 1.5 percent of the UFO sightings reported since 1947 were detected by radar. None of the unexplained cases on Air Force files were sighted by radar," he stated.

(Next Month: Have Flying Saucers Destroyed Military Aircraft?)

CONCLUSION

WHAT DOES THE AIR FORCE REALLY KNOW ABOUT FLYING SAUCERS?

Here are the facts, backed by authentic statements from qualified people. You, however, must be the final judge of whether UFOs are fact or fiction.

by Maj. GEORGE W. OGLES
Hq. USAF

(July Synopsis: For many years, reputable individuals have reported sighting "flying saucers." Such sightings have increased dramatically since 1947.

Air Force Project Blue Book has investigated thousands of such sightings. The "saucer"—a UFO or Unidentified Flying Object to the Air Force—has usually been found to be an aircraft, balloon, satellite, meteor or other explainable occurrence. About two percent of all reported sightings remain unexplained.

The Air Force has never denied the possibility of life on other planets. What it does say is that "no evidence has been received nor discovered which proves the existence and intraspace mobility of extraterrestrial life."

Saucer "believers" cite unexplained sightings as evidence of the existence of extraterrestrial visitors. Saucer "doubters" ask why we do not hear sonic booms from these hypersonic craft, why no saucer debris has ever been found and how saucers defy laws of gravity and aerodynamics.

The concluding part of our article discusses some widely publicized "sightings.")

SOME "flying saucer" advocates charge that flying saucers have destroyed military planes when the pilots became too inquisitive. One such alleged "crash" occurred in 1948.

Capt. Thomas Mantell led a flight of five P-51s to investigate an unidentified object high over Godman Field, Ky., on January 17, 1948. At 15,000 feet, four of the P-51s turned back because they were not equipped for flights requiring oxygen. The other four pilots attempted to radio Captain Mantell but were unsuccessful.

Captain Mantell's aircraft continued upward and he undoubtedly lost consciousness. Because of the increasing altitude, the P-51 lost power, winged over, and began an uncontrolled, downward spiral which ripped the plane apart. The canopy lock was still in place after the crash, indicating that Captain Mantell probably never regained consciousness. The excitement caused by the UFO presumably was responsible for this experienced pilot attempting a high altitude flight without the necessary oxygen equipment.

As for the unidentified object—Venus, one of the brightest objects in the sky, was at the elevation and azimuth of the UFO as was a large balloon used for high altitude experimental flights.

During the same month of Mantell's flight, the Navy was conducting a classified program in the Midwest using large balloons—known as "sky hooks" because they fly at altitudes above 60,000 feet. One of the 100-foot balloons released from Clinton County Airport, Ohio, was in the position of the object of Captain Mantell's attempted intercept.

Also, on that same date, Venus was not only in a directional position which coincided with that of the unidentified object, it was also bright enough to be seen in daylight hours.

The Air Force's conclusion is that Venus was probably the original cause of the sighting since the object remained in the area for some time and was relatively stationary. The object pursued by Captain Mantell, and described by other witnesses as "pear-shaped and metallic," is considered to have been the balloon.

Civilian saucer groups also claim that an Air Force aircraft crash in Lake Michigan in 1953 was caused by a flying saucer.

One stormy, electrified night in November 1953, radar scanning the Great Lakes area detected an unidentified plane headed from Canada toward the United States, Kinross AFB, Mich., scrambled an F-89 to intercept the "bogies." Interception was made and the F-89 crew of two identified the "unknown" as a Canadian C-47 *Kodiak*. No further radio communication was received from the crew of the Air Force jet as they turned for home. Ground radar, tracking the flight, detected a phantom blip or echo following the jet. The two blips seemed to merge as both disappeared from the screen.

The Air Force investigation concluded that the F-89 crashed into Lake Michigan and that the crash probably was caused by the pilot experiencing a state of vertigo (dizziness and loss of orientation). Unfortunately, since the exact point of impact could not be determined, the wreckage was never recovered. The phantom—or ghost echo—was considered to have been a secondary reflection produced by the jet in the electrified atmosphere.

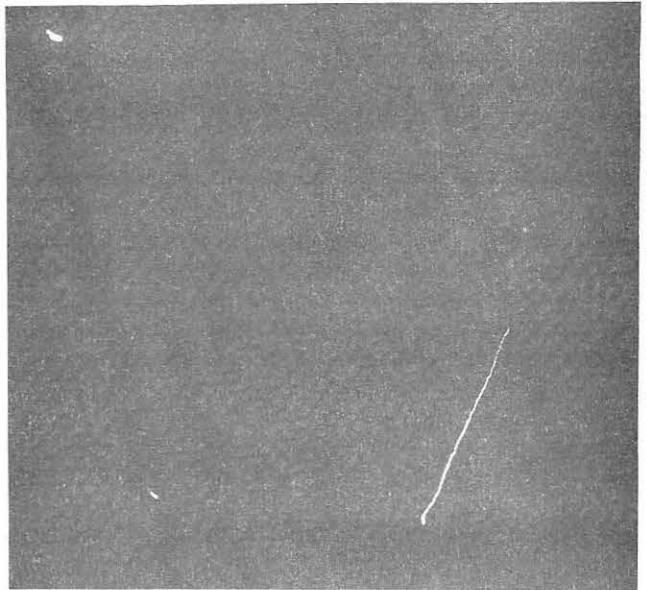
There have been several instances of Air Force pilots and crew members observing and chasing objects which, at the time, could not be identified.

A B-29 crew observed a number of strange objects with no aerodynamic features over the Gulf of Mexico on December 6, 1952. A steady blue-white light was reported by the crew during the split-second visual sighting. The flight engineer estimated that the objects were flying at approximately 5,000 miles per hour. No changes in heading, speed, or altitude were noted. Ra-

In search for verifiable photo of a "flying saucer," AF investigators review hundreds of pics. This is a typical photo of a lens flare. —Photo by AIC William Applewhite



August 1967



Time exposure of the night sky on a clear evening may reveal eerie white trails. This is Echo 1 as seen from Okinawa in October 1962. —Photo by AIC Joe F. Cox

dar sightings were made intermittently during a period of 10 minutes. No other aircraft were observed in the area of the sighting. This case has been placed in the "Unidentified" category by the Air Force even though the Air Force reports there is a possible explanation for the radar targets.

Aircrews of an F-84 and a T-33 sighted a UFO on December 15, 1952, near Goose AB, Labrador. The object was reported to have no definite shape or size. It appeared first as bright red then alternated between red and white while fading away. The two planes and crews chased the object for 25 minutes before it faded when about 30 to 40 miles from the base. No jet or rocket exhausts were observed, no sound was heard, and the manner of propulsion could not be determined. Two C-54 aircraft in the general area during the chase did not report any unusual sightings to the tower operator. This case has also been placed in the "unidentified" category by the Air Force.

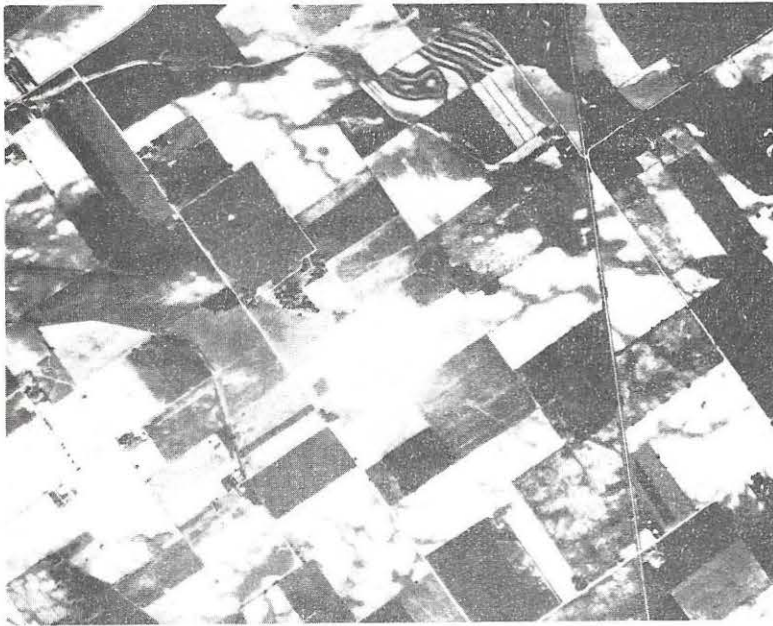
Many UFO sightings are reported by civilian pilots.

At approximately 3 a.m. on March 9, 1957, the pilot and copilot of a commercial airliner flying from New York to Puerto Rico reported that a "brilliant greenish object resembling a huge spotlight" suddenly appeared in their path. The pilot took violent evasive maneuvers which hospitalized some of his passengers.

Military and civil aviation agencies later confirmed that the same object was observed at 3 a.m. on the same day by two other airliners 175 miles away.

Based on descriptions given by the crew and passengers who observed the object and the reports from the Civil Aeronautics Administration and the Navy, the Air Force concluded that the UFO actually was a seldom-seen form of meteor—a bolide—commonly referred to as a "fireball." The analysis was independently reviewed and confirmed by a well-known astrophysicist now with the Smithsonian Astrophysical Observatory.

However, most "saucer" reports come from observers on the ground.



Shining object was photographed by individual flying over Richmond, Ind., in 1954. It was identified as a "sun dog," or refraction of the sun's rays, a phenomenon similar to the one producing a rainbow.

A New York farmer reported seeing a flying saucer 20 feet thick and 50 feet long hover over his barn on August 19, 1965. The strange object pulsed with red, yellow and green colors. The farmer reported that the flying saucer disturbed a bull in a nearby field, caused his dog to bark, and caused his cow's milk production to drop from two and one-half cans to one can per day.

State policemen and other investigators could not agree as to whether the sighting was a hoax. Air Force records indicate that although the sequence of events are dubious, the sighting is carried as "unidentified" because there is no definite concrete explanation.

Strange lights of varying shapes frequently are seen at night over lakes, ponds, marshes, or swamps. Scientists have long known that decaying vegetation forms gases which ignite spontaneously. "Marsh gas" is listed by the Air Force as the probable explanation for the highly publicized UFO sightings at Dexter, Mich., on March 20, 1966, and at Hillsdale, Mich., on March 21, 1966. An Air Force news release made by on-the-scene investigators of the cases accompanies this article.

Occasionally, an observer will report seeing a "creature" associated with a flying saucer landing. One such incident allegedly occurred at approximately 10:30 p.m. July 31, 1966, at Presque Isle State Park near Erie, Pa.

Picnickers reported seeing a square or hexagonal-shaped object which appeared to fall from the sky to a position between 5 to 10 feet above the beach. The object reportedly descended left to right, approximately north to south taking about three to five seconds. A soft buzz or hum was heard for about three seconds, followed by a groan or turbine sound which stopped as the object hit the beach. Immediately, according to the reports, several bright, small spotlights came on, seem-

ingly arranged in a circle around the top of the object. The circle of lights moved around as individual beams on the sand and nearby trees. Approximately five minutes later, the park police arrived and immediately the lights from the object disappeared.

As three observers approached the object they heard a rustling in the nearby bushes. One witness reported seeing a "dull black shape, bigger than a man, big head and shoulders, arm-like appendages, no hands, no face visible, as though it had its back turned." The alleged "black creature" lumbered into the bushes when the occupant of a nearby car blew her horn.

After leaving the scene, the original observers and policemen returned to the beach, searched the area and discovered food missing from the picnic tables.

Early the next morning, two policemen searched the area and noticed three V-shaped marks in the sand. Damp spots also were noted in the sand near the marks.

Air Force investigators give the following analysis of the incident:

"No evidence exists to relate the damp sandy areas and the indentations found on the beach to the visual sighting." The Air Force Dynamics Laboratory at Wright-Patterson AFB, Ohio, reported that "considering the three indentations, no evidence is present to indicate a landing of any type occurred." Chemical analysis of the soil was performed by the Air Force Materials Laboratory. The report: "There was nothing unusual in the samples except urine.

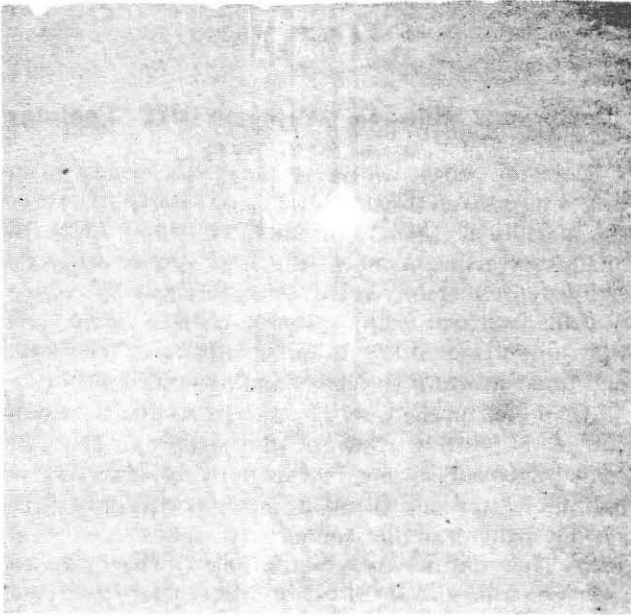
"There is no evidence to substantiate the presence of a black monster," the Air Force report continued. "No unusual markings were found to indicate such a 'thing' was observed. The scratching sounds and missing food are indicative of some type of animal in the area.

"As yet," stated the report, "there is no explanation of the lights that were observed. The Smithsonian Institution has no information of any meteors being observed over the area on July 31. The park police and nearby US Coast Guard base reported they had not seen any unusual lights over the park."

The position of the planets in the night sky can often create the strange effect of a UFO. Bright spot in the sky here is Jupiter. —Photo by O. Wahl



The Airman



A photographer inspects a negative in his darkroom and finds he's photographed a UFO; only here the "UFO" is a drop of chemical on the film.
—Photo by Richard Bacom

Another report had its beginning when a forest ranger discovered a hard, metal spherical object in a Wisconsin woods October 13, 1966. The object, originally suspected by some persons to be part of a flying saucer, turned out to be space debris—one of the rare instances when a piece of a rocket or satellite did not burn up when it re-entered the earth's atmosphere.

While most UFO sightings received by the Air Force come from intelligent, well-meaning persons, some reports are out-and-out hoax attempts.

One such report forwarded to the Air Force by the Federal Bureau of Investigation occurred in California in 1956. A teen-age girl submitted to the FBI a photograph of a "flying saucer" which she allegedly had obtained while taking a time exposure of the moon. She reported leaving the camera for 20 minutes while it was pointed toward the moon. Upon developing the film, she was "startled when the photograph revealed a flying saucer hovering over the tree in the front yard between the camera and the moon." She insisted to the FBI that the camera was not moved during the time-exposure photographing period.

Air Force officials report that magnification of the photos disclosed that the moon track had been interrupted. Measurement of known diameter and movement of the moon revealed that the camera had been moved and also revealed the duration of time during which the camera was not focusing on the moon. Photo analysis also revealed that the light fixture had been superimposed before the camera was returned to its original position. The conclusion was that the photograph was obviously a hoax.

The alleged wreckage of a flying saucer at Spitzbergen, Norway, some years ago has been denied by the Royal Norwegian Air Force. The Royal Norwegian Air Force stated to the United States Air Attache in Oslo that the information regarding the flying saucer was definitely a hoax perpetrated by a newspaper in a neighboring country.

During May 1957, an individual submitted colored motion pictures taken at night which showed bright spots moving through the sky. The owner, when sending this film to the Air Force, contended that the spots were flying saucers.

When the Air Force subjected the motion-picture frames to high magnification under various densities of light, wing and tail surfaces were revealed. The objects were identified as fighter aircraft with their jet afterburners in operation.

The position and shape of the moon in the frames confirmed that the objects were photographed on the same date when a base near the photographer's home was conducting night training operations. Because the photographer gave incorrect dates of the incident and indicated that he planned to exploit and publicize the film for his own interests, the Air Force recorded the incident as an "attempted hoax."

After 19 years of investigation and more than 11,000 reported sightings, the Air Force does not have a single photograph, film, or graph of a UFO.

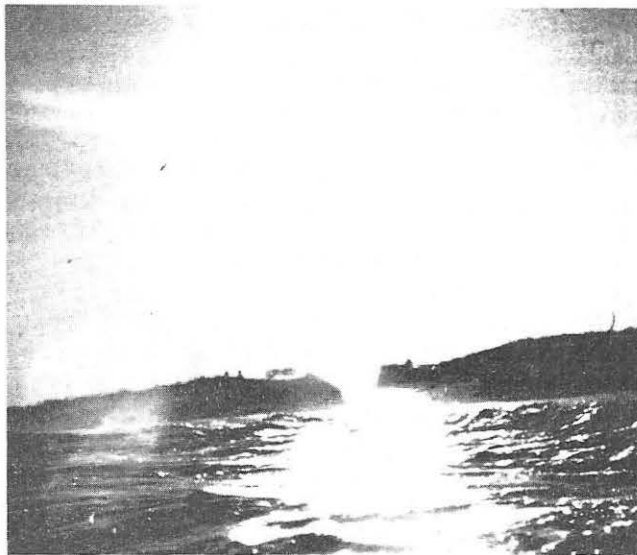
"It's very simple," say Project Blue Book officials. "Every photograph of an alleged UFO forwarded for analysis has proved to be an astronomical body, balloon, lens flare, emulsion flaw, double negative, photographic defect, etc. A small percentage have been hoaxes."

After scientific analysis of a print or film, the Air Force returns the material to the owner.

Photo analysts state that a photograph cannot be scientifically analyzed without the negative. Project Blue Book officials indicate that persons who include photographs of alleged UFOs with their report often fail to include the negative or refuse to submit the negative. While some individuals attempt deliberate hoaxes by double-exposing the negative, most reports are from honest, well-meaning persons who submit legitimate photographs—occasionally with a negative—of objects which they cannot identify.

Dust devils, common in the open areas of the western US, are like miniature tornadoes. They often cause flattening out of bushes and grass.





Camera often plays tricks on the photographer. The weird image in this seashore shot is identified as a reflection of the iris diaphragm. —Photo by Janet Viertel

At the request of the Air Force Director of Information, the Air Force Scientific Advisory Board looked into the matter of UFOs last year and concluded that the UFO phenomena posed no threat to the security of the United States. The Board did recommend that the Air Force UFO program be expanded to include investigation of selected sightings by independent scientists.

As a result of the recommendation, the Secretary of the Air Force announced on October 7, 1966, that the University of Colorado had been selected to conduct independent investigations into unidentified flying object reports. The research agreement, valued at approximately \$300,000, covers a 15-month period.

Air Force Project Blue Book files, as well as other UFO information in the possession of the Air Force, according to the research agreement, will be made available to the University of Colorado. The University of Colorado investigators will be free to follow whatever lines of study they decide are best and will be free to release and publish their findings. The report will be made available to the public sometime next year.

Dr. Edward Condon, professor of physics and former head of the National Bureau of Standards, is the scientific director of the University of Colorado study of UFOs. Dr. Condon has requested that the public continue to make reports of sightings to the nearest Air Force base, or directly to Project Blue Book at Wright-Patterson AFB, Ohio. "However," he says, "reports may be received by the university group at Boulder (Colorado) when there is some special reason to handle them this way."

What does the Air Force *really* know about flying saucers? Are they fact or fiction?

You be the judge. You know about as much now as the Air Force does. And as General J. P. McConnell, Air Force Chief of Staff, said, "Medals, fame, and our gratitude await any citizen who brings us a flying saucer."

Dexter and Hillsdale, Michigan UFO Sightings

March 20-21, 1966

Scores of persons will never forget the strange sights they witnessed at Dexter, Mich., on March 20, 1966, and at Hillsdale, Mich., on March 21, 1966. While the total observers is unknown, at least 12 police officers, a civil defense director, various educators and 85 college students watched weird glowing objects dance and whirl in defiance of the mystified witnesses. The sightings drew crowds of spectators and national publicity.

Air Force on-the-scene investigators listed "marsh gas" as a possible cause of the sightings. The Air Force statement says: "The majority of observers in both the Dexter and Hillsdale cases reported only silent glowing lights near the ground—red, yellow, and blue-green. They did not describe an object. The only two observers who did describe an object stated that they were no closer than 500 yards—better than a quarter of a mile away—a distance which does not allow details to be determined.

"Witnesses described glowing light—lights that seemed to move but never far from a definite place, or lights which suddenly disappeared and popped up at another place. The locale in both cases was a swamp. In both cases, the location of the glow was pinpointed—in Dexter it was seen between two distant groups of people and at Hillsdale it was seen in a swampy depression between the observers and the distant trees. It was, in both cases, a very localized phenomena. The swampy location is most significant.

"A swamp is a place of rotting vegetation and decomposition. Swamps are not a province of astronomers. Yet, the famous Dutch astronomer, Minnaert, in his book, *Light and Colour in the Open Air*, describes lights that have been seen in swamps by the astronomer Bessel and other excellent observers. The lights resemble tiny flames sometimes seen right on the ground and sometimes rising and floating above it. The flames go out in

To the unpracticed eye this photo taken near Sloan, Nev., in March 1965 seems to reveal a UFO. The "saucer" was nothing but a developer smear. —Photo by Lewis Pierce



The Airman

one place and suddenly appear in another, giving the illusion of motion. The colors are sometimes yellow, sometimes red, and sometimes blue-green. No heat is felt and the lights do not burn or char the ground. They can appear for hours at a stretch and sometimes for a whole night. Generally, there is no smell and no sound except for the popping sound of little explosions such as when a gas burner ignites.

"The rotting vegetation produces marsh gas which can be trapped during the winter by ice. When the spring thaw occurs, the gas may be released in some quantity. The flame, Minnaert says, is a form of chemical luminescence, and its low temperature is one of its peculiar features. Exactly how it occurs is not known and could well be the subject of further investigation.

"The glowing lights over the swamps near Dexter and Hillsdale were observed for two or three hours, and they were red, green and yellow. They appeared to move sideways and to rise a short distance. No sound was heard except a popping sound.

"It seems entirely likely that as the present spring thaw came, the trapped gases, CH₄, H₂S, and PH₃, resulting from the decomposition of organic material, were released. The chemistry book by Sienko and Plane has this to say: 'In air, Phosphine PH₃ usually bursts into flame apparently because it is ignited by a spontaneous oxidation of the impure P₂H₄. The will-o'-the-wisp, sometimes observed in marshes, may be due to spontaneous ignition of impure PH₃ which might be formed by the reduction of naturally occurring phosphorous compound.'

"It has been pointed out to the investigating personnel by other scientists in this area that in swamps the formation of H₂S and CH₄ from rotting vegetation is common. These could be ignited by the spontaneous burning of PH₃.

"The association of the sightings with swamps in this particular instance is more than coincidence. No group of witnesses observed any craft coming to or going away from the swamp. The glow was localized, and a deputy sheriff described the glow from beyond a rise adjacent to the swamp as visible through the trees. He stated that the light brightened and dimmed much as stage lights do—smoothly and slowly—and this description exactly fits the Hilldale sighting also. The brightening and dimming could have been due to the release of variable quantities of marsh gas.

"The disappearance of the lights when people got close with flashlights or car lights would indicate that the glow seemed bright to dark-adapted eyes. The night was dark and there was no moon. The Hillsdale girls kept their rooms dark in order to see the swamp lights.

"It appears very likely that the combination of the conditions of this particular winter (an unusually mild one in that area) and the particular weather conditions of that night—it was clear and there was little wind at either location—were such as to have produced this unusual and puzzling display."

The Need for Positive, Credible Proof

There is a rational and rather straightforward explanation for the great majority of sightings of unidentified flying objects, or "flying saucers." Since the first mysterious object was reported almost 20 years ago United States Air Force official investigators have tabulated thousands of sightings. They can account for more than 98 percent as balloons, aircraft, reflections of ground lights, satellites, meteorites, planets, hoaxes perpetrated by pranksters, or, more recently, ball lightning or plasma cloud phenomena observed and photographed near high-tension power lines.

But it is that unaccounted two percent that makes flying saucer enthusiasts cling tenaciously to their conviction. I cannot account for that two percent either. But a lifetime spent in testing of rockets has taught me to be extremely careful with eyewitness accounts of mishaps during launch. If three experienced observers are questioned after a typical mishap, their accounts of what they saw will differ widely. We are invariably confronted with this situation, even though the experienced observers have not only seen many firings but have the great advantage of being mentally prepared for the imminent test.

For this reason I am highly skeptical about the objectivity of any "sighting" report of a fleeting, mysterious object in the sky submitted by an equally surprised and inexperienced observer. And that unaccounted-for two percent of UFOs absolutely fails to raise my blood pressure. To me, 98 percent is a mighty good batting average. I wish we could account for 98 percent of what we observe in many other fields of human endeavor! But it has not been customary since the Middle Ages for science to call upon ghosts or witches—or little green men from Mars—to explain a phenomenon for which we do not yet have a satisfactory answer.

To those who still insist that objects of extra-terrestrial origin are roaming through our atmosphere, I can only say that I cannot believe in their existence without positive, credible proof.

Dr. Wernher von Braun, Director
Marshall Space Flight Center
National Aeronautics and Space Administration
Huntsville, Ala.