PROJECT 10073 RECORD

| | |
|---|---|
| 1. DATE - TIME GROUP<br>31 July 64 01/0723Z | 2. LOCATION<br>33.00N 176.30W (Pacific) |
| 3. SOURCE<br>Military | 10. CONCLUSION<br>SATELLITE |
| 4. NUMBER OF OBJECTS<br>One | Regarded as possible Satellite by report and case carried in Satellite Category. ECHO schedules not available. |
| 5. LENGTH OF OBSERVATION<br>3 Minutes | 11. BRIEF SUMMARY AND ANALYSIS<br>Object on course from SW to NE observed for 3 minutes. Rapid transit, bright yellow color. Descending from 30 deg elevation to 20 deg elevation at disappearance. Evaluated by Navy as possible Satellite. |
| 6. TYPE OF OBSERVATION<br>Air-Visual | |
| 7. COURSE<br>NE | |
| 8. PHOTOS<br>☐ Yes<br>☒ No | |
| 9. PHYSICAL EVIDENCE<br>☐ Yes<br>☒ No | |

FORM
FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.

INCOMING MESSAGE

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH

UNCLASSIFIED

NNNN

AF IN: 37460 (1 Aug 64) N/dfc



INFO : NIN-7, XOP-1, XOPX-5, SAF OS-3, ARMY-2, CMC-9, JCS-35, OSD-15, NSA-7, DIA-15, (100)

SMB C171

ZCHQA091ZCCJB061

OO RUEAHQ

DE RUHPF B559 01/0814Z

ZNR

O 010814Z

FM COMBARFORVAC

TO RUHPHH/COMHAWSEAFRON

RUHLKM/CINCPACAF

RUAUAAH/HADD KUNIA

ZEN/CCNCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHLHQ/CINCPAC

RUHLHL/CINCPACFLT

RUHLHS/CINCUSARPAC

RUHLKSA/PACAFBASECOM COMMAND CENTER HICKAM AFB

RUECW/SECNAV

BT

UNCLAS.

A. JANAP 146D

1. CIRVIS REPORT

2. V43205

3. UFO

4. 33-00N, 176-30W

5. 010723Z-0736Z

6. 20 DEG. ABOVE HORIZEN TO 15 DEG.

7. SW TO NE

8. RAPID

9. BRIGHT YELLOW INTENSITY.

EVALUATE POSSIBEL SATELLITE

BT

NOTE : ADVANCE COPIES DEL TO CIA, DIA, NIN AND XOPX.

INCOMING
MESSAGE

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH

30 JULY

UNCLASSIFIED

AF IN : 37885 (1 AUG 64) T/chs



INFO : NIN-7, XOP-1, XOPX-5, SAF-OS-3, ARMY-2, CMC-9, JCS-35, OSD-15, NSA-7, DIA-15 (100)

SMB C190

ZCZCHQB579ZCEJC445

PP RUEAHQ

DE RUHLKH 4 01/0835Z

ZNR

P 080300Z

FM 326AIRDIV KUNIA FACILITY HA

TO RUHLKM/PACAF

RUHPHH/COMHAWSEAFRON

INFO RUEAHQ/CSAF

RUECW/CNO

RUECW/SECNAV

RUWGALB/CINCNORAD

RUHLHQ/CINCPAC

RUHLHS/CINCUSARPAC

RUHLHL/CINCPACFLT

RUAUAZ/COMUSJAPAN

RUAMC/COMUKOREA

RUAGFL/COMUSTDC

RUCSBR/CINCSAC

BT

UNCLAS 326DO-CO 0854

AF IN : 37885 (1 AUG 64)



A. JANAP 146D

1. CIRVIS

REPORT

2. V43205

3. UFO

4. 33-00N

176-30W

5. 010723Z -

0736Z

6. 20 DEG

ABOVE HORIZON

TO 15 DEG

7. SW TO NE

8. RAPID

9. BRIGHT

YELLOW

INTENSITY. NO EVALUATION THIS TIME

BT

NOTE: RETRANS TO CIA BY AF FORM 1392 #901.
ADV CY TO DIA,NIN AND XOPX.

ASTRONOMY

# Saturn Shines in South

**The planet Saturn, visible all night in the southeast, and the brilliant star Vega, directly overhead, brighten the summer evening skies.**

By JAMES STOKLEY

➤ FOR THE FIRST TIME since last winter, the planet Saturn is now on easy view in the evening sky, shining as brightly as a first-magnitude star and visible all night. On Aug. 24 it will be directly opposite the sun. Its distance from earth will then be 815 million miles.

Saturn's position in the southeast, in the constellation of Aquarius, the water carrier, is shown on the accompanying maps. These depict the sky as it looks about 11:00 p.m., your own kind of daylight saving time, at the first of August; an hour earlier at mid-month and two hours earlier at the end.

Farther right, almost directly south, are two characteristic constellations of the summer evening. To the left is Sagittarius, the archer; and to the right Scorpius, the scorpion, with the bright red star called Antares. This, by the way, is a supergiant star of low density. Its diameter is approximately 430 times the sun's, which is 864,000 miles.

## Vega Directly Overhead

Directly overhead shines the brightest star of the summer evening: Vega, in Lyra, the lyre. Just below, toward the east, is Cygnus, the swan, with Deneb the brightest star. Both these constellations are shown partly on the northern and partly on the southern sky maps. High in the south—about half way from Vega to Saturn—is another bird. This is Aquila, the eagle; in it is the bright star Altair.

All these stars rank as first magnitude on the astronomical scale of brightness. And one more of similar brilliance shines in the west. This is Arcturus, in Bootes, the herdsman. A good way to find this star is first to locate the "big dipper," in the northwest. Perhaps you know the "pointers" whose direction guides you to Polaris, the pole star. Following the curve made by the handle of the dipper brings you to Arcturus.

Coming into view in the east is a well known stellar grouping in Pegasus, the winged horse. Although not a constellation, the "Great Square," is a striking star figure. The star called Alpheratz which marks one of the corners, is actually, in the next-door constellation of Andromeda. A little to the left are Cepheus and Cassiopeia. These three are linked in a famous myth, for Cephus and Cassiopeia were the king and queen of ancient Ethiopia, and Andromeda was their daughter.

By midnight in the middle of August, Jupiter is well into the sky, in Taurus, the bull. The planet is about 12 times brighter than Saturn. About two hours after midnight two more planets appear, in Gemini, the twins. One is Mars, less than half as bright as Saturn; the other, brilliant Venus.

Low in the northeast, just below Cassiopeia, part of the constellation Perseus is shown on our northern sky map. Mythologically, this represents the great hero who rescued Andromeda after she had been chained to a rock on the sea-coast, to provide a snack for a sea monster.

In the evening Perseus is so low that you cannot see it to advantage, but later in the night it climbs higher into the eastern sky. During August this area has a special interest, for that is the region from which the August meteors seem to radiate.

A meteor is commonly called a shooting—or falling—star. Actually it is a small bit of cosmic dust, seldom larger than a pinhead, moving through space at high speed. When one enters the earth's atmosphere, it encounters many air molecules, which are relatively numerous even at such high altitudes. Friction with these molecules heats the meteor until it evaporates. Then the evaporated atoms collide with more air atoms, which give off light. These form the visible part—the luminous streak that flashes briefly across the sky and that has a diameter much larger than the original solid meteoric particle.

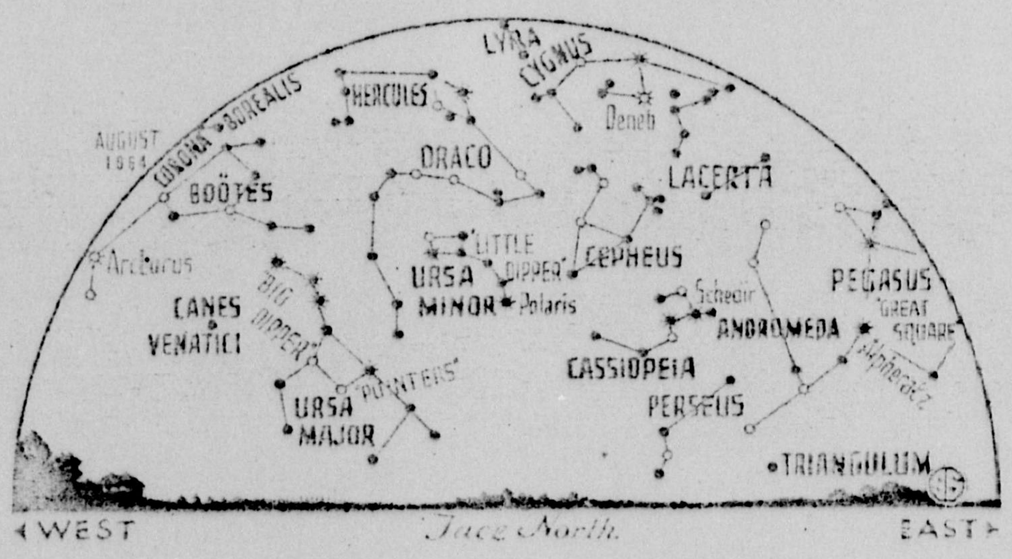
Generally a meteor first appears about 80 miles above the ground, and disappears at about 50 miles. The length of the visible path may be as much as several hundred miles, depending on the angle at which the meteor enters the atmosphere. The meteor's speed is usually around 20 miles per second but varies above and below depending on whether it meets the earth head-on, or has to catch up with it.

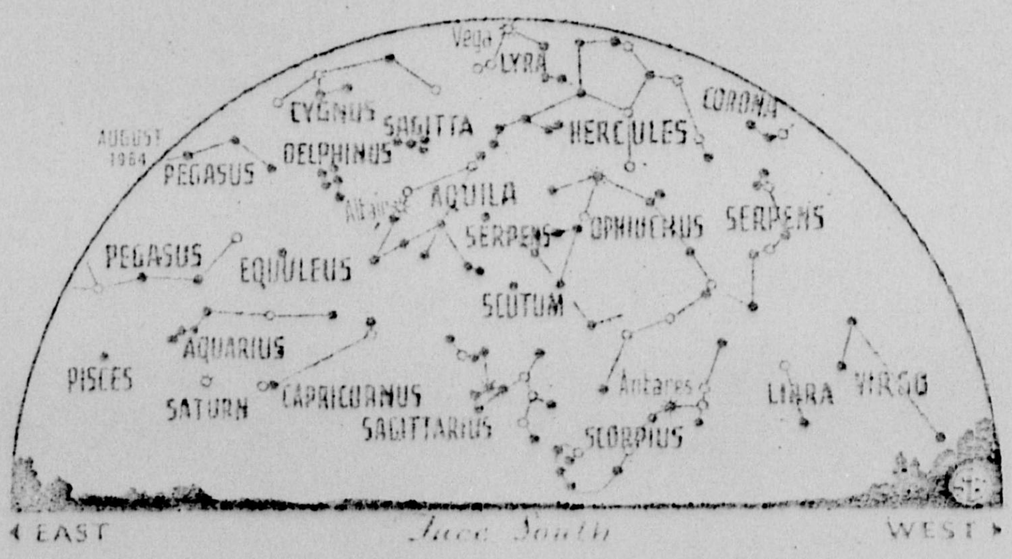
## Random Meteors Visible

On any dark night, if you watch long enough, you will see a few random meteors. But at certain times of the year, particularly about Aug. 12, you may see many more—perhaps one every minute or two. There are always more after midnight than before. Then the earth is head-on, sweeping up all in its path. In the evening only those meteors moving fast enough to catch up with the earth are visible.

Sporadic meteors, seen throughout the year, may move across the sky in any direction. But those we see in August seem to radiate from the constellation of Perseus—hence they are called the Perseid meteors. At other times of the year they seem to radiate from other constellations, as, for example, the Leonids, that appear in mid-November, apparently originating in Leo, the lion.

Actually this effect is one of perspective, for the meteors are moving through space in parallel paths. Like the parallel tracks of




SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

# FIELDS

PHYSIOLOGY

## Cleft Palate Caused by Prenatal Injections

➤ INJECTIONS of large amounts of hormone substances in pregnant mice have produced cleft palates and cleft lips University of Michigan researchers reported.

"Environmental shock," is the term applied to such injections along with excess radiation, insufficient oxygen, a deficient diet and other experiences that can produce malformed offspring in experimental animals.

Studying the occurrence of facial and oral clefts, which strike one out of 800 American babies each year, Dr. James K. Avery with Dr. Peter Gryson, both of the School of Dentistry, and Dr. Alexander Barry, professor of anatomy at the University, found that there are critical stages during early pregnancy when the lip and palate develop. If the animal receives an "environmental shock" at this critical time, normal development is hindered.

Facial and palatal tissues, however, do not mature at precisely the same time, so clefts of the lip and palate can occur independently.

• Science News Letter, 86:57 July 25, 1964

MEDICINE

## Birth Control Cheapest With New Plastic Coils

➤ CHEAP PLASTIC or nylon coils, about the size of a nickel, provide the greatest hope for birth control in underdeveloped countries, a graduating class of physicians was told.

In the next 30 years, the doctor's practice should include the "awesome responsibility" of stemming the tide of births throughout the world, Dr. Nicholson Eastman, Ford Foundation population consultant, said in Brooklyn, N. Y. If the present rate of increase is unchecked, three billion people will be added in that length of time, which will almost double the population.

Although contraceptive pills have been successful in economically developed countries such as our own, Dr. Eastman pointed out, the bulk of the world's population needs a method that will cost virtually nothing and will give protection without further attention or the sustained wish of people for birth control. The cost of the coils is about two cents each.

The intrauterine devices are shaped like a coil or the letter S or X. They are inserted into the womb by a physician and remain there without further attention in most cases. One doctor with an assistant can insert 100 a day, and removal of the devices is equally simple.

The new coils have been found suitable for use in 85% of the women studied. In about 15% they were not successful because they either slipped out, caused bleeding or cramps, or pelvic inflammation.

The early future should see development of the "ideal" contraceptive, Dr. Eastman said. The new devices are a great improvement over the Grafenberg "ring" used in the 1930's, which had such bad effects that all intrauterine methods for contraception were condemned for a time. The old ring caused many kinds of pelvic inflammatory diseases, several of which were fatal.

More than 20,000 women all over the world are now wearing the new coils, which are being studied carefully for their efficiency as well as any hazards or side effects.

Dr. Eastman spoke to graduates of the State University of New York Downstate Medical Center in Brooklyn.

• Science News Letter, 86:57 July 25, 1964

MILITARY SCIENCE

## U. S. Cotton Spray Goes to Vietnam

➤ THE SAME CHEMICAL sprays used by farmers in this country to keep cotton foliage from fouling crop-handling machinery are uncovering enemy snipers in Vietnam.

This is the first time that defoliation by spraying has been used by the United States for military purposes, although burning napalm, a sort of jellied gasoline, was used for this purpose on Pacific Islands on several occasions during World War II.

In addition to defoliant sprays, which merely cause the leaves to drop off the trees, the Army is using soil-sterilizing sprays, or "herbicides," as Army information men put it, that kill all plants in their path.

Sterilants are commonly used in this country to clear paths for railroad tracks or rural power lines. Both sterilants and defoliants require from three days to a week to do their work, however. Even the "best" of them do not cause leaves to fall instantly.

As far as defoliation by low-yield nuclear weapons is concerned, despite a recent statement by Sen. Barry Goldwater (R-Ariz.) that it "could well be done," the Army says that nuclear weapons would not do the job. Too many would be needed, the Army contends, to produce enough flame for complete defoliation.

• Science News Letter, 86:57 July 25, 1964

TECHNOLOGY

## Weather Computer Free For Non-Profit Use

➤ WEATHERMEN who have a research problem they would like to solve on a computer now have one available, either without fee or at cost.

The National Center for Atmospheric Research, Boulder, Colo., is freeing some time on its computer, a CDC 3600, for use by scientists at non-profit research institutions. Problems in such diverse fields as turbulence, cloud formation, evolution of stars and the transfer of heat by radiation can be handled by the computer.

• Science News Letter, 86:57 July 25, 1964

PUBLIC HEALTH

## Measles Vaccine Too New Health Officials Say

➤ THE BIGGEST EPIDEMIC of measles in recent years occurred in the United States during the spring months of 1964, although measles vaccines had been licensed for use by physicians.

Public health officials told SCIENCE SERVICE that the vaccine had not yet "caught on," because it is too new. Doctors and the public should get more "excited," they say, in view of the potential complications.

There was also an epidemic of German measles, or rubella, which is not "reportable" except on an optional basis in this country. There is not yet a vaccine available for it.

During the first 26 weeks of 1964 there were 413,777 cases of ordinary measles reported. A comparable figure for this period during 1959-1963 was 359,673.

• Science News Letter, 86:57 July 25, 1964

GENERAL SCIENCE

## Science Service Writer Honored for Writings

➤ SCIENCE SERVICE WRITER Mrs. Barbara Tufty has won an honorable mention in the Fifth Annual Catherine L. O'Brien journalism awards just announced. This puts her in the top one percent of the thousand women's page writers who entered the nationwide competition.

Outranked by only the first three prize winners, Mrs. Tufty was among the seven honors winners in this contest held by Stanley Home Products, Westfield, Mass. Top winners were Muriel Fischer of the New York World-Telegram and Sun, Margaret Moore of the Indianapolis News and Ann Zurosky of the Pittsburgh Press.

• Science News Letter, 86:57 July 25, 1964

AERONAUTICS

## Plane Flies 35 MPH, Takes Off in 75 Feet

➤ A NEW "channel-wing" airplane can take off in 75 feet and fly at speeds as low as 35 miles per hour.

The plane, designed by the Custer Channel Wing Corporation, Hagerstown, Md., has no conventional wing flaps or slots to provide lift. Instead, the two engines are suspended in "channels" in the wing, with the propellers at the trailing edge.

By drawing air through the channels at high velocity, air pressure over the wing is lowered much more than in conventional kinds of aircraft.

The channel-wing provides three times as much lift as a straight wing, said Willard R. Custer, designer and builder of the plane. This means that a standard plane of the same weight would need three times as much horsepower to get the same lift.

Currently being tested for certification by the Federal Aviation Agency, the Custer Channel-Wing is powered by two fuel-injected 260-horsepower Continental engines.

• Science News Letter, 86:57 July 25, 1964

a railroad, these seem to converge in the distance; this happens in August to be in the direction of the stars of Perseus.

To see the Perseids at their best, you need a dark sky, preferably away from the glare of a city. Sometimes the moon interferes. If it happens to be a few days past the full phase, it will be shining brightly in the sky when you want to see the meteors. Its glare will blot out all but the brightest.

But this year the moon is new on Aug. 7, so on the 11th it will still be a crescent, setting in the west well before midnight. So take advantage of this opportunity if you can on the night of the 10th, or even later. It takes several days for the earth to go through the shower.

## Celestial Timetable for August

| AUG. | EDT | |
|---|---|---|
| 1 | 11:00 p.m. | Moon passes Jupiter |
| 4 | noon | Moon passes Venus |
| 5 | 11:00 a.m. | Moon nearest, distance 225,600 miles |
| | 3:00 p.m. | Mercury farthest east of sun |
| 7 | 3:17 p.m. | New moon |
| 9 | 10:00 a.m. | Moon passes Mercury |
| 12 | early a.m. | Perseid meteors visible |
| 14 | 11:20 p.m. | Moon in first quarter |
| 17 | 8:00 a.m. | Moon farthest, distance 251,400 miles |
| 23 | 1:26 a.m. | Full moon |
| | 3:00 a.m. | Moon passes Saturn |
| 24 | 4:00 p.m. | Saturn opposite sun, 815,000,000 miles distant from earth |
| 28 | 7:00 a.m. | Venus passes Mars |
| 29 | 6:00 a.m. | Venus farthest west of sun |
| | 9:00 a.m. | Moon passes Jupiter |
| 30 | 5:16 a.m. | Moon in last quarter |

Subtract one hour for CDT, two hours for MDT, and three hours for PDT.

• Science News Letter, 86:58 July 25, 1964

PUBLIC HEALTH

# Summer Ants, Flies Evicted from Houses

➤ TIGHTEN THE LID of your garbage can and do not let food sit out during the summer months.

This removes breeding and feeding grounds of the obnoxious house fly, one of the filthiest of insect pests, states insect specialists in the new bulletin, "Controlling Household Pests," recently published by the U. S. Department of Agriculture.

To keep the mosquito population down, clean out the rain gutters and make sure that any unneeded water is not standing around the house or garden in discarded tubs, buckets or other containers. Stagnant water is the home for the young mosquito larvae.

You might also look for the wiggling mosquito larvae in the water in flower vases, U. S. entomologists suggest. Look for them also in water that collects in saucers under potted plants. Even some fish bowls and aquariums may have the baby mosquitoes, as some kinds of fish do not eat the wigglers.

The researchers point out that it is easier to keep pests out than to get them out. The best preventative is good housekeeping, which includes sanitary practices and proper care of food, clothing and other household articles susceptible to insect damage.

The booklet discusses habits and control of all ordinary household pests such as ants, termites, rats, mice, centipedes and even bats.

• Science News Letter, 86:60 July 25, 1964

Information Only
Source: American UFO Committee Review, Vol 1, No 2, Sep 64

Defiance, Ohio
27 July 1964

July 27; Defiance, Ohio:
An 11-year old boy and his parents sighted a UFO over their home. It appeared "like the point of a pin," only with a streamer. Shortly thereafter four Defiance residents saw a ball-shaped object with a pale blue center.

Information Only
Source: American UFO Committee Review, Vol 1, No 2, Sep 64

Monterey, Calif.
28 July 1964

July 28; Monterey, California:
Two residents reported seeing an object, "like a huge "star" and with a tail. It was traveling south to north.

Information Only
Source: American UFO Committee Review, Vol 1, No 2, Sep 64

Livingston, Montana
29 July 1964

July 29; Livingston, Montana: A UFO, "too bright to look at," was reported by a woman resident. The woman said she watched a semi-transparent object, which resembled a "big, big ball of fire," for nearly two hours before it rose silently at dawn and passed out of view. She described its shape as resembleing a "washing machine lid."

NO CASE (INFORMATION ONLY)
SOURCE: Saucer News

DR 30 July 1964
Flemington, New Jersey

And, a newspaper article from Flemington, New Jersey, dated July 30th, tells of a local man who saw a UFO land in a field near his rural home. As Jack Hall was driving home late one night, he saw a strange glow, high up in the sky. Shortly afterwards the object landed in the middle of a 14-acre field. Mr. Hall walked toward it, but when he got to within about 500 feet of the object, it started moving toward him, causing him to panic and run. He described the thing as white, egg-shaped, and at least 30 feet in circumference. It had a glow coming from underneath it, and this light was seen by his wife and daughter in his house nearby.

THE FLEMINGTON, NEW JERSEY LANDING: About July 30th, a resident of Flemington, N. J. named Jack Hall reported that, while driving home late one night, he saw a UFO land in the middle of a rural field. Hall parked his car in his driveway, nearby, and walked toward the object. When he got to within about 500 feet of it, the UFO started to move toward him, at which point Hall panicked and ran. He described the thing as white, egg-shaped, and at least 30 feet in circumference. It had a glow coming from underneath it, and this light was seen by Hall's wife and daughter who were inside his house. State police were called, but a tour of the neighborhood turned up nothing unusual.

1 - 14 AUGUST 1964 SIGHTINGS

| DATE | LOCATION | OBSERVER | EVALUATION |
|---|---|---|---|
| Aug | Calumet, Michigan | [redacted] | SATELLITE |
| Aug | Oxnard, California | [redacted] | Astro (VENUS/JUPITER) |
| Aug | Mansfield Center, Conn. | [redacted] | SATELLITE |
| Aug | Fort Bragg, North Carolina | [redacted] | INSUFFICIENT DATA |
| 1 | 31.05N 175.30W (Pacific) | Military | SATELLITE |
| 1 | 31.11N 175.29W (Pacific) | Military | SATELLITE |
| 1 | Dayton, Ohio | Military | AIRCRAFT |
| 1 | Middleboro, Massachusetts | [redacted] | Astro (METEOR) |
| 2 | 36.40N 173.15W (Pacific) | Military | SATELLITE |
| 2 | Miamisburg, Ohio | [redacted] | SATELLITE |
| 2 | Frankfort, Indiana | [redacted] | Aircraft |
| 2 | Kansas City, Missouri | [redacted] | Astro (FORMALHAUT) |
| 2 | San Jose, California | [redacted] | AIRCRAFT |
| 2 | 33.35N 176.55W (Pacific) | Military | SATELLITE |
| 3 | Dayton, Ohio | [redacted] | INSUFFICIENT DATA |
| 3 | Pittsfield, Massachusetts | [redacted] | Astro (METEOR) |
| 3 | Ogdensburg, New York | [redacted] | SATELLITE |
| 3 | 32.32N 122.18W (Pacific) | Military | SATELLITE |
| 4 | Little Silver, New Jersey | [redacted] | BALLOON |
| 4 | 30N 140W (Pacific) | Military | SATELLITE |
| 4 | 42.00N 169.00W (Pacific) | Military | SATELLITE |
| 5 | Rickets Glen, Pennsylvania | Military | Astro (METEOR) |
| 5 | Wilkes Barre, Pennsylvania | [redacted] | INSUFFICIENT DATA |
| 5 | Brookville, Long Island, New York | [redacted] | INSUFFICIENT DATA |
| 5 | Wilkes Barre, Pennsylvania | [redacted] | SATELLITE |
| 5 | Fort Worth, Texas | [redacted] | 1-2. Other (MISINTERPRETATION OF CONVENTIONAL OBJECT) 3-4. Astro (STAR) |
| 5 | Fort Worth, Texas | [redacted] | SATELLITE |
| 6 | Wilkes Barre, Pennsylvania | [redacted] | INSUFFICIENT DATA |
| 6 | Lakeland, Florida | [redacted] | SATELLITE |
| 8 | Middletown, Ohio | [redacted] | Astro (VENUS/STARS) |
| 8 | 21.53N 157.00W (Pacific) | Military | INSUFFICIENT DATA |
| 8 | Ridgefield, New Jersey | [redacted] | SATELLITE |
| 9 | Colorado Springs, Denver, Colo. | [redacted] (PHOTOS) | INSUFFICIENT DATA |
| 10 | Wake Island | Military | UNIDENTIFIED |
| 10 | 41.30N 172.00W (Pacific) | Military | INSUFFICIENT DATA |
| 10 | 35.10N 168.00W (Pacific) | Military | SATELLITE |
| 11 | Parker, Indiana | [redacted] | Astro (JUPITER) |
| 12 | Uniontown, Pennsylvania | [redacted] | Astro (JUPITER) |
| 12 | LasVegas, New Mexico | [redacted] | Astro (METEORS) |
| 12 | Shawnee Mission, Kansas | [redacted] | INSUFFICIENT DATA |
| 12 | Brekkens Corner, Montana | Multiple | Astro (MOON) |
| 13 | South Peabody, Massachusetts | [redacted] | SATELLITE |
| 14 | 5.20N 170.40W (Pacific) | [redacted] MILITARY | SATELLITE |
| 14 | Kettering, Ohio | [redacted] | SATELLITE |
| 14 | Kettering, Ohio | [redacted] | AIRCRAFT |
| 14 | Brigham City, Utah | [redacted] | SATELLITE |
| 14 | Johnston Island, (Pacific) | Military | INSUFFICIENT DATA |
| 14 | DAYTON, OHIO | [redacted] | SATELLITE |

1 - 14 AUGUST 1964 SIGHTINGS

ADDITIONAL REPORTED SIGHTINGS ( NOT CASES )

| DATE | LOCATION | SOURCE | EVALUATION |
|---|---|---|---|
| Fall | Lansing, Michigan | [redacted] (Ltr) | |
| Aug | Pittsburg, Pa. | [redacted] (Ltr) | |
| Aug | San Jose, Calif. | [redacted] (Ltr) | |
| Aug | Parma, Ohio | [redacted] (Green 164) | |
| Aug | Quebec, Canada | News Clipping | |
| Aug | Texas Area | " " | |
| 1 | Portage Lake, Ohio | " " | |
| 2 | Blackfoot, Idaho | " " | |
| 4 | Billings, Montana | " " | |
| 4-5 | Helana, Montana | " " | |
| DR 5 | Missoula, Montana | " " | |
| 6 | Spokane, Washington | " " | |
| 6 | Eureka, Montana | " " | |
| 8 | Massillon, Ohio | " " | |
| 9 | Rockwood, Oregon | " " | |
| 9 | Hamilton, Montana | " " | |
| 11 | Defiance, Ohio | " " | |
| 11 | Route 281 | " " | |
| 13 | Royal City, Washington | | |