UFOB INDEX CARD

Kansas City, Mo. Was Balloon Probably Balloon			AISS-UFOB-283-57		
3. DATE-TIME GROUP 18/07002 Sep 57 20 Ground-Visual Ground-Radar Air-Intercept Radar 5. PHOTOS 7. LENGTH OF OBSERVATION Three to five minutes One One 11. COMMENTS Description, durat on, flight path indicate that this sighting was probably as roraft.	1. DATE 17 23 Oct 57 18 Sept 57	Kansas City, Mo.		12. CONCLUSIONS D Was Balloon Probably Balloon	
S. PHOTOS Oreginal Visual Air-Intercept Rodor Air-Intercept Rodor Air-Intercept Rodor Oreginal Rodor Air-Intercept Rodor Oreginal Rodor Air-Intercept Rodor Oreginal R		4. TYPE OF OBSERVATIO	N	D Possibly Balloon	
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	One round white object, across the sky from north was seen making a sharp tu	to south. Object	Description, indicate that t	is sighting was probably	

AISOP Form 5 (15 Oct 54)

ASTRONOMY

Venus, Saturn Now Seen

Although Venus is becoming brighter in the evening sky, it is still retiring early from view. September will have a kind of replacement for Venus—the "harvest moon."

By JAMES STOKLEY

THE PLANET Venus is gradually brightening, and becoming more prominent in the evening sky. However, it still sets about an hour and a half after the sun. This is before twilight has completely ended, and the sky has become dark. If you look toward the southwest as dusk gathers. Venus will soon appear. Of magnitude minus 35 on the astronomical brightness scale, it exceeds any other star or planet. It is in the constellation of Virgo, the virgin, and close to the star called Spica, which is so much fainter that it will be considerably more dishcult to locate.

The accompanying maps are drawn to show the appearance of the evening sky at about 10:00 p.m., your own kind of standard time—add one hour for daylight-saving time—at the first of the month, an hour earlier at the middle and two hours earlier is September gives way to October. Thus, Venus does not appear upon them.

They do, however, show the second plant

of the September evening.

This is Saturn, which stands in the constellation of Ophinchus, the scrpent pearer. During the early evening Saturn is in the southern sky, but it moves toward the southwestern horizon and goes down, it the beginning of the month, around 11:00 p.m. by your kind of standard time.

September's Brightest Star

Brightest star of the September evening is Vega, in Lyra, the lyre, high in the west. Directly overhead is Cygnus, the swan, in which Dench may be seen. This group is also called the Northern Cross. Deneh marks the top of the cross, toward the northeast. Moving down from Cygnus, toward the southwest, one comes to Aquila, the eagle, of which Altair is the brightest star.

Three other stars which, like these, are of the first magnitude, are also shown on the maps. These are all so near the horizon that they appear considerably tamter than

if they were high overhead.

This is a result of the absorption of their light by the greater thickness of the earth's atmosphere which must be penetrated. Low in the northwest is the figure of Bootes, the bear-driver, with Arcturus. Next, to the right, is the Great Dipper, which is part of Ursa Masor, the great bear. The dipper's handle extends movard Bootes, and if you follow the curve of the handle, it brings you directly to Arcturus.

Farther right, low in the northeast, is Capella, in Auriga, the charioteer, which will become prominent in the winter evenings.

High in the southeast are four stars which form the "Great Square" in the constellation of Pegasus, the winged horse. Below this is Aquarius, the water-carrier, one of the constellations of the zodiac, the path of the sun, moon and planets. And below Aquarius we find Piscis Austrinus, the southern fish, with the first-magnitude Fomalhaut, also dimmed by its low altitude. For our latitudes, it never rises much higher than it is now; you have to travel southward to see it high in the sky.

Mercury Becomes Morning Star

As for the other planets, Mars and lupiter are now both too nearly in line with the sun to be observed. Mercury, on Sept. 9, passes nearly between the earth and the sun, but by the 25th it will be farthest west of the sun. It will use ahead of the sun, and for a few days around that date will be visible as a morning star, in the east just before sunrise.

On Sept. 23, at 2:27 a.m., EST, the sun will be directly over the equator, at the halfway point of the southward journey in the sky which it began last June. This is the autumnal equinox which marks the beginning of autumn in the Northern Hernisphere and of spring in the Southern.

On the night of Sept. 8 the moon is full. This is the "harvest moon" and we can see what it means if we consult a table that gives the times of moonrise, and see how much later this occurs on succeeding nights, it different times of year. On Sept. 9, we find, the moon will rise (at 40 degrees north latitude) only 28 minutes later than it did on the eighth.

Next March, on the other hand, the difference will be much greater.

The moon will be full on the fifth and the difference in time of moonrise, between that night and the next, will be 74 minutes. Thus, in September and October, when the moon is full and bright, it rises about the same time for several evenings.

Harvest Moon for Farmers

As John Ferguson wrote in a book on astronomy published in 1757, explaining why this is called the harvest moon:

"The farmers gratefully ascribe the early rising of the full moon at that time of year to the goodness of God, not doubting that He had ordered it so on purpose to give them an immediate supply of moonlight after sunset, for their greater conveniency in reaping the fruits of the earth."

The reason for the differences in the delay of moonrise from one night to the next is found in the changing angle made at various times of the year by the ecliptic, the path which the moon closely follows.

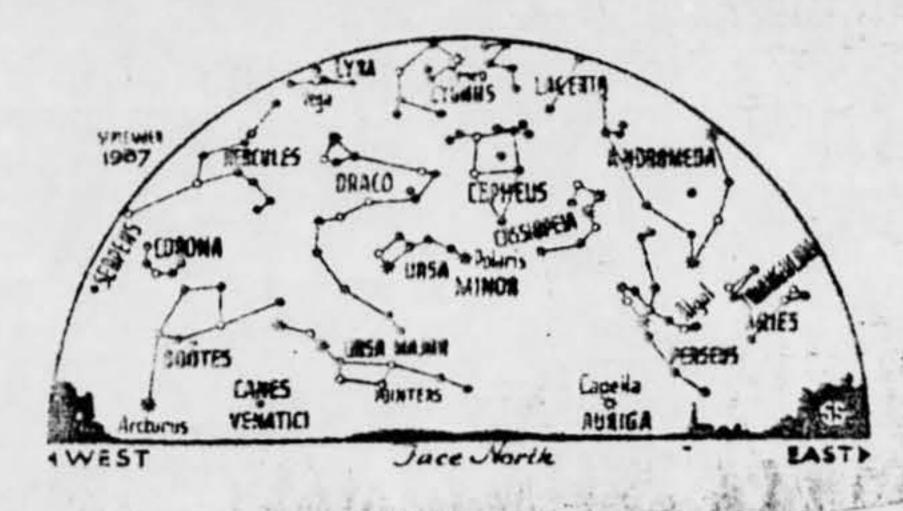
It makes a trip around the ecliptic about once a month; each night it is about a twenty-ninth of its circumference farther east. Thus, being farther east, it rises later—about 52 minutes on the average.

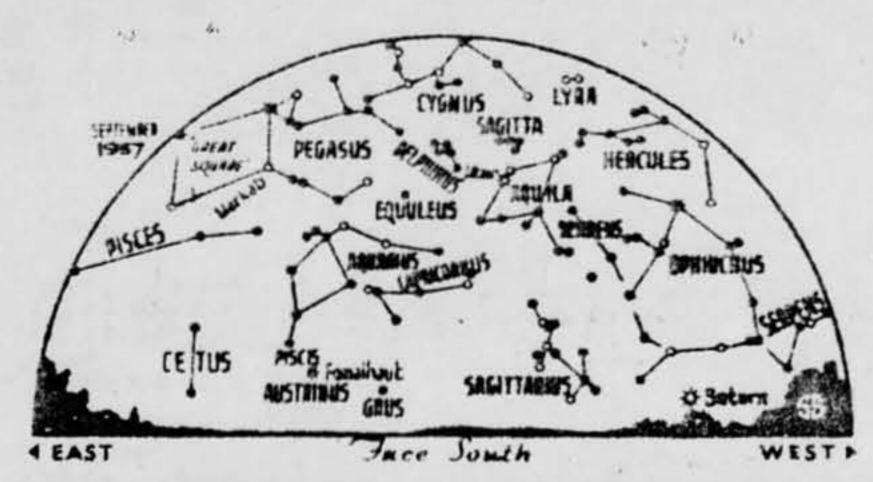
At this time of year the southernmost part of the ecliptic is in our evening sky—it passes through Sagittarius, the archer, and the line is not far from parallel to the horizon. Hence, the moon's daily eastward movement is utilized in moving it horizontally to a considerable degree. Just before moonrise it is not much farther below the horizon than it was the night before.

In March, on the other hand, the ecliptic is nearly vertical, and the same eastward movement of the moon takes that body considerably farther below the horizon, thus making the greatest changes at moonrise.

Hunter's Moon

In October, conditions will be quite similar to what they are in September. Again there will be relatively little delay in moon-rise from one night to the next when it is full. This is again on the eighth, and it will rise only 30 minutes later on the ninth. This is called the "hunter's moon," since the hunter is supposed to benefit at that time.





. . . SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

Celestial Time Table for September

miles.

	Have the resemble of the second secon
Sept. EST	
8 12:00 BOOR	Moon farthest, distance 252,000 miles.
11:55 p.m.	Fuil moon (Harvest Moon).
	Moon in last quarter.
21 10:00 a.m.	Sun and Mars in line with earth.
22 Midnight	Moon nearest, distance 122,300

2.27 a.m. Sun over equator, autumn com-

28 8:56 a.m. Moon passes Saturn. 30 13:49 p.m. Moon in first quarter. Subtract one hour for CST, two h

1:12 p.m. Moon passes Venus.

2:18 p.m. New moon.

Subtract one hour for CST, two hours for MST, and three for PST.

25 2:00 p.m. Mercury farthest west of sun;

Science News Letter, August 24, 1957

mences in Northern Hemisphere.

visible for a few days around this date low in east before sun-

ASTRONOMY

Early Stars Were Brighter

A study of the atmospheres of the B stars leads astronomers to believe that billions of years ago the stars were much brighter than they now are.

THE SKIES were adorned with much brighter stars billions of years ago than they are now and the rate of star creation then was much faster than now.

So conclude Drs. L. H. Aller and Jun Jugaku of the University of Michigan Observatory from a study of the atmospheres of the very young, but and bright objects known as B stars. The astronomers reported results of their study, supported by the National Science Foundation, to the American Astronomical Society meeting in Urbana, Ill.

B stars are only a few million years old, very young on the astronomical time scale that dates the sun's formation as five billion years ago. They are believed formed from interstellar gas in the spiral arms of the Milky Way galaxy in which the earth and are found.

Since B stars consume their nuclear fuel, hydrogen, at a rate hundreds of times faster than does the sun, their lifetimes must be relatively short. By comparing the sun's composition with that of a young B star, Drs. Aller and Jugaka hoped to find the amount of element building occurring in the last four billion years.

According to the present ideas of stellar evolution, the heavier elements are produced in the dense, hot cores of quassive stars, which subsequently spew these materials into interstellar space. The interstellar materiel is again collected into stars and the

same process is repeated in the more mas-

The sun is thus, since it was formed so many millenia ago, believed to have a smaller fraction of heavier elements than has a star made only "recently" from interstellar gas.

Although the problem of comparing the sun's atmosphere with that of a young B star is very complex and not very accurate, Drs. Aller and Jugaku found that some elements, such as silicon and oxygen, do not seem to be substantially greater in the young stars than in the sun.

Therefore, they conclude, the rate of element building, and of star formation as well, must have proceeded at a much slower pace since the sun was formed than it did in the early stages of the Milky Way galaxy.

The interstellar gas from which stars are formed is being continuously renewed by an outward flow of gas from the galactic center, or nucleus, Dr. Sidney van den Bergh of Perkins Observatory, Delaware, Ohio, reported to the meeting. The present rate of gas lost from the nucleus about equals the rate at which gas is lost from the spiral arms by star formation, he has calculated.

Dr. van den Bergh based his conclusion on the recent findings that the Milky Way galaxy, as well as the Andromeda nebula, contain "surprisingly" small amounts of interstellar gas.

Science News Letter, August 24, 195

Galley 88-THE WORLD OF FLYING SAUCERS

Sending a letter and two photographs of the fragments to Colonel Lawrence J. Tacker, then in the Office of Information, United States Air Force, she simultaneously released to the press copies of both letter and photographs, and suggested that the Air Force could "vindicate" itself by analyzing the material. The newspaper photographs showed one fragment about four inches long and two inches wide resembling petrified wood in appearance, and a smaller piece shaped roughly like a flattened cupcake, whose surface showed pits and whorls like those on the trailing end of a meteorite.

Two days later, without waiting for a reply from Washington, Mrs. Lorenzen through the newspaper amplified her challenge. If the Air Force wanted to examine the mysterious fragments, she said, they would first have to agree to certain conditions [22]:

- "(1) APRO officers, together with duly appointed Air Force liaison personnel, would establish a board of experts representing both military and civilian UFO researchers.
- "(2) This board of experts would decide what meaningful tests need to be performed on the material in question.
- "(3) The board then would select a qualified testing agency to perform these tests under its cognizance."

In all its history, the United States Air Force can surely have received no more extraordinary proposition. Whatever he may have felt, Colonel Tacker merely suggested that Mrs. Lorenzen could submit the material to ATIC for analysis.

The fragments were never forwarded to the Air Force.

Eventually APRO published some information about the "disaster." Early in September 1957 a group of fishermen on a beach near Ubataba, Brazil, had supposedly sighted a disk-shaped object flashing down toward the sea. The UFO had suddenly veered upward and exploded, showering down fragments and sparks like fireworks. Several pieces had been obtained by a Brazilian representative of APRO, who submitted them to a chemist for complete tests including spectrographic and X-ray diffraction analyses.

Details of the analyses have never been published. Although they evidently showed the presence of at least three elements common on earth—magnesium, hydrogen, and oxygen—APRO somehow deduced that the fragments in their original state had consisted of pure magnesium and that the hydroxide must have formed when they came in contact with the water. The final conclusion stated that "the airborne object . . . consisted, at least in part, of 100% magnesium, which is not within the technology of our times." [23] Similarly, perhaps, a cook might assert that since chocolate fudge consists, at least in part, of 100 per cent sucrose, fudge must originally have been composed entirely of pure sugar, except for a little chocolate and milk it picked up in passing through the kitchen.

From the few facts available a positive identification of the fragments is impossible. The description of the object seen by the fishermen fits that of a meteor that broke into pieces near the end of its flight. In the photographs the fragments look like ordinary meteorites, which often contain a fair amount of magnesium (see Chapter v). There is no evidence to suggest that the fishermen's "wrecked spaceship" was anything but an exploding meteor.

AV - 5

Other Mysterious Fragments

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do "

In the spring of 1960 Mrs. Coral Lorenzen, director of the Aerial Phenomena Research Organization, publicly challenged the truth of the Air Force statement that "no physical or material evidence, not even a minute fragment of so-called 'flying saucer' has ever been found." [20] Mrs. Lorenzen announced that she had in her possession two fragments of an extraterrestrial vehicle that had met with disaster in the earth's atmosphere. Without specifying the date and location of the event, the identity of the witnesses, or any corroborative details of the alleged disaster, she merely said that several persons had witnessed the catastrophe. She went on to assert, somewhat astonishingly, that "the gratifying aspect of this case, however, is that we do not have to depend on the testimony of witnesses to establish the reality of the incident for the most advanced laboratory tests indicate that the residual material could not have been produced through the application of any known. terrestrial techniques." [21]

I: Plane Spotter Sees Circling Objects Drop "Flimsy Material"

This sighting took place on Tuesday, Sept. 10, in Pleasant Valley, N.Y. (on the upper Delaware River in the Western Catskills.) Richard Holsapple, a self-employed builder, saw three objects circling silently in a clear sky, "near military planes, which took no notice of them." "Two were silvery and the other was somewhat darker," said Holsapple, who is a member of the Ground Observer Corps. "It was very hard to judge how far up they were, but they were certainly not high-flying jets. It looked to me as though they were flying faster than any jet I ever saw--at least 2000 miles an hour." Holsapple's father also saw the circling UFOs.

What makes this observation noteworthy is that "he reported also that strings of flimsy material dropped from the mystery craft and drifted earthward far away to the south." (Source: Danbury (Conn.) News-Times, Sept. 12, 1957.)

DATE	LOCATION	OESERVER	EVALUATION		
18 19 19 20 20	Gresham, Oregon Hollis, Long Island, New York Point Pleasant, New Jersey Kadena AFB, Okinawa Montauk, N.Y./Benson, Pennsylvania	Military Military (RADAR)	Insufficient Data Balloon Other (Hallucination) UNIDENTIFIED 1. Equip Malfunction		
20 21 23 23 24 24 24 24 24 24 24 26 27 27	San Antonio, Texas (CASE MISSING) New Carlisle, Ohio Panama Canal Zone Montezuma, Indiana Harve, Montana Virginia Beach, Virginia Dayton, Ohio (CASE MISSING) Fall River, Massachusetts Sanderson, Texas Egg Harbor, Wisconsin Perrin AFB, Texas New York, New York Kansas City, Missouri Washington, D. C. West Jefferson, Ohio Kokomo, Indiana	Military Civilian Military Brannif Airlines	2. ECM (Chaff Drop) Astro (STARS/PLANETS) Other (AUTO LIGHTS) Astro (METEOR) Aircraft Astro (STAR) Balloon Balloon Insufficient Data Balloon Astro (ARCTURUS) Aircraft Astro (METEOR) Insufficient Data Aircraft (BLIMP) Aircraft 1. Aircraft		
29 29 29 29 30 30 30 30	Piqua, Ohio Colorado Springs, Colorado N. Turo, Massachusetts San Antonio, Texas Palm Springs, California Los Angeles, California Claremont, California (CASE MISSING Cashmere, Washington Navy Chase, Texas	Military Military	2. Astro (STARS) Aircraft Astro (METEOR) Aircraft Insufficient Data Insufficient Data Aircraft Other (KITES) Astro (VENUS)		
ADDITIONAL REPORTED SIGHTINGS (NOT CASES)					
DATE	LOCATION	SOURCE	EVALUATION		
Sep 28	Universe Old Greenwich, Connecticut	Science News Ltr Newsclipping	1		

UFOB INDEX CARD AISS-UFOB-297-57 1. DATE 2. LOCATION 12. CONCLUSIONS Kansas City, Mo. Was Balloon Probably Balloon Possibly Balloon 3. DATE-TIME GROUP 4. TYPE OF OBSERVATION Was Aircraft 26/10402 Sep57 ☐ Ground-Roder ₩ Ground-Visual Probably Aircraft Possibly Aircraft Air-Visual ☐ Air-Intercept Radar 5. PHOTOS 6. SOURCE Was Astronomical O Yes Probably Astronomical Possibly Astronomical Civilian DONO NUMBER OF OBJECTS 9. COURSE 7. LENGTH OF OBSERVATION Other_ Insufficient Data for Evaluation 006 to 010° Ten to fifteen seconds Two Unknown 11. COMMENTS 10. BRIEF SUMMARY OF SIGHTING Two white objects withtrail. Concur with Reporting Officer th t Objects moved from 006 degrees to 12 010 degrees in there is insufficient data for evaluation. from 10 to fifteen seconds.

AISOP Form 5 (15 Oct 54)