# PROJECT 10073 RECORD CARD

14 Oct 61  3. DATE-TIME GROUP  Local	Las Vegas, New  4. TYPE OF OBSERVATION  XII Ground-Visual  D Air-Visual  6. SOURCE  Civilian		12. CONCLUSIONS  Was Balloon Probably Balloon Possibly Balloon Probably Aircraft Probably Aircraft Possibly Aircraft Possibly Aircraft Possibly Astronomical Possibly Astronomical Possibly Astronomical		
7. LENGTH OF OBSERVATION 8 min	8. NUMBER OF OBJECTS	9. COURSE WSW	Other		
Objt responsible for sighting is that which is characterist Reports state that an inverse reported any lateral velocity this fact probably indicates an error made by typist, con All evidence indicated that	stic of a planet or sion existed in area ty. Due to fact that s that objt was lst pying 10° as 40°.	star distorted by during time of s sighting took pl seen at an elev of	sighting. Witness never lace in a mountainous area of 40° but this probably		
ALL EVIDENCE LIQUEAGED GHAU	Coje responsible re	a signound was by	Coadly planed ouplace.		

ATIC FORM 329 (REV 26 SEP 52)

HOCASE INFO ONLY 500TCI SEYMORE JOHNSON AFRINC. RR RJEDSO DE RJESFH 11 100ct 61 17 15z 3 101600Z FM 4TACFTMEG SEYMOUR JOHNSON AFB NC TO FID WPAFE OHIO ET UNCLAS ABDO 10-2143 FOR TD-E. REF UR MEG TD-E-6-10-122 SUBJECT UFO SIGHTING DATED 7 OCT 61 THE FOLLOWING INVESTIGATION REVEALS UTO CIGHTING REPORT CHECKED OUT AND FOUND TO BE UNCUALIFIED. 19'1605Z OOT RJEFFM (4.55 ) (3.55) \*\*\*\*\*

JOINT MESSAGEFORM			SI	SECURITY CLASSIFICATION  UNCLASSIFIED				
SPACE BELOW RESERVED PO								
				0	7/0243=	7		
PRECEDENCE	TYPE	MSG (	Oheck)	ACCOUNTING	ORIG. OR REFERS	то	CLAS	SIFICATION
ACTION ROUPETER	воок	MULTI	SINGLE	SYMBOL			OF R	EFERENCE
INFO				AF	X			
PTD WPAFB O  O:  SEYMOUR-JOHNSON AFB NC  UNCLASSIFIED TD-E  IT HAS BEEN BROUGHT TO THE  REPORTS OF A UFO SIGHTING I  THERE WAS VERY LITTLE INFO  INVESTIGATION BE MADE IN AC	ATTEMT IN YOUR PASSET	ICE O	F FTD SPEC	IFICALLY YO	UR STATION. UE REQUEST AN			
CNLY CHE NAME WAS REPORTED,	AS FO							
						DAT	E	TIME

TYPED NAME AND TITLE (Signature, if required)

PHONGOT ROBERT J. Friender NR. of PAGES
SECURITY SECURI

TYPED (or stamped) NAME AND TITLE

EDWARD H. WYNN Colonel, USAF Dep for Science & Components

DD FORM 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

# U.S. AIR FORCE TECHNICAL INFORMATION SHEET (SUMMARY DATA)

In order that your information may be filed and coded as accurately as possible, please use the following space to write out a short description of the event that you observed. You may repeat information that you have already given in the questionnaire, and add any further comments, statements, or sketches that you believe are important. Try to present the details of the observation in the order in which they occurred. Additional pages of the same size paper may be attached if they are needed.

NAME	Co ot	
IVAME	(Please Prince)	
SIGNATI	IDE	

(Do Not Write in This Space)
CODE:

DATE 5004.61 /2200

Received a call from Maj. Wayden at the A.F. Command Post concerning a DFD sighting, at Semour Johnson AFB, which was passed to him. There were several reports of this. One of the People reporting this was:



He reported the object as a large red ball of Sire sighted high and to the East of S. J. The sighting was for 5 minutes during which the object appeared to more in a Northerly direction. Additional reports described the object as a basketball sige or wash tub size. Three AC+W sites in the avea gave negative vadur veports. NoRAD also had similar object reportings.

# INCOMING

AF IN: 21082 (6 Oct 61) G/ns

ACTION: CIN-17

INFO (SAFS-3,)00P-2, 00P-CP-1 (24)

SMB C 250

ZCHQD845ZCAMA853

PP RJEZHO

DE RJEZAMR 1

ZNR

P 061330Z

FM 792D ACW SO NORTH CHARLESTON AFS SC

TO RJWFAL ADC ENT AFB COLO

RJEZSN/26TH ARIDIV HANCOCK FIELD NY

RJEDSQ/AIR TECHNICAL INTELLIGENCE CENTER WRIGHT PATTERSON AFB OHIO

RJEZHQ/HQ USAF WASH 25 DC

RJEZHQ/SECRETARY OF THE AIR FORCE WASH 25 DC

INFO RJEZAM/WAADS FORT LEE AFS VA

BT

UNCLAS 7920DC 0225. UFO

- A. DESCRIPTION OF OBJECTS:
  - 1. DISHPAN
  - 2. DISHPAN
  - 3. BRIGHT ORANGE
  - 4. THREE
  - 5. TWO CLOSE ONE A BIT TO THE EAST
  - 6. NONE
  - 7. NONE
  - 8. NONE

AF IN: 21082 (6 Oct 61)

Pg 2 of 4

PAGE TWO RJEZAMR 1

THE OBJECT TO THE EAST MOVING FASTER THAN

OTHERS.

- B. DESCRIPTION OF COURSE OF OBJECTS:
  - 1. BRIGHT COLOR
  - 2. ABOVE A POINT BETWEEN GRANGE NC AND GOLDSBORO NC
  - 3. DUE NORTH OF GOLDSBORO 40 50,000 FT
  - 4. NORTHERLY
  - 5. FADED
  - 6. 5 MINUTES
- C. MANNER OF OBSERVATION:
  - 1. VISUAL
  - 2. NONE
  - 3. NONE
- D. TIME AND DATE OF SIGHTING:
  - 1. 6 OCT 61 Ø12ØZ TO 6 OCT 61 Ø125Z
  - 2. NIGHT
- E. LOCATION OF OBSERVERS:
  - 1. 3520N 7758W GOLDSBORO, N.C.
- F. IDENTIFYING INFORMATION ON OBSERVERS:
  - MRS WIFE) BASE ENGINEERS, SEYMOUR-JOHNSON AFB, NC

AF IN: 21082 (6 Oct 61)

Pg 3 of 4

PAGE THREE RJEZAMR 1

MR&MRS (PARENTS)

- G. WEATHER AND WINDS ALOFT CONDITIONS AT TIME AND PLACE OF SIGHTING:
  - 1. CLEAR
- 2. AT 30,000 DIR 250 DEGREES 40 KTS 50,000 DIR 250 DEGREES 45 KTS
  - 3. CLEAR
  - 4. 10 MILES
  - 5. NONE
  - 6. NONE
  - 7. NONE
- H. NONE
- I. NONE
- J. ONE A/C TRACKING NORTH IN THE AREA AT THE TIME OF THE SIGHTING, WAS GOING NORTH OF GOLDSBORO (ID NOT KNOWN)
- K. SENIOR DIRECTOR ALPHA CREW 701ST ACW SQ., FORT FISHER AFS,

  NC 701ST HRI ROCP. 614 ACW SQ CHERRY POINT, NC MEASURED SAME A/C

  AT 20,000 FT. COULD HAVE BEEN ABOVE A/C ALTHOUGH LIGHTS SHOULD NOT

  HAVE APPEARED THE SIZE OF DISHPANS WHEN SEEN AT 20,000 FT FROM

  THE GROUND
- L. NONE

AF IN: 21082 (6 Oct 61)

Pg 4 of 4

PAGE FOUR RJEZAMR 1

REMARKS: NONE

BT

06/1400Z OCT RJEZAMR

Sound Like On October 6, 1961 a tragedy occurred when an enormous UFO pappeared over Lake Maracaibo, Venezuela, casting its glare on many fishing boats. Dozens of terrified fishermen leaped overboard. One man, Bartolme Romero, went down in the frantic swim for safety.

The other made shore, unnerved by the encounter.

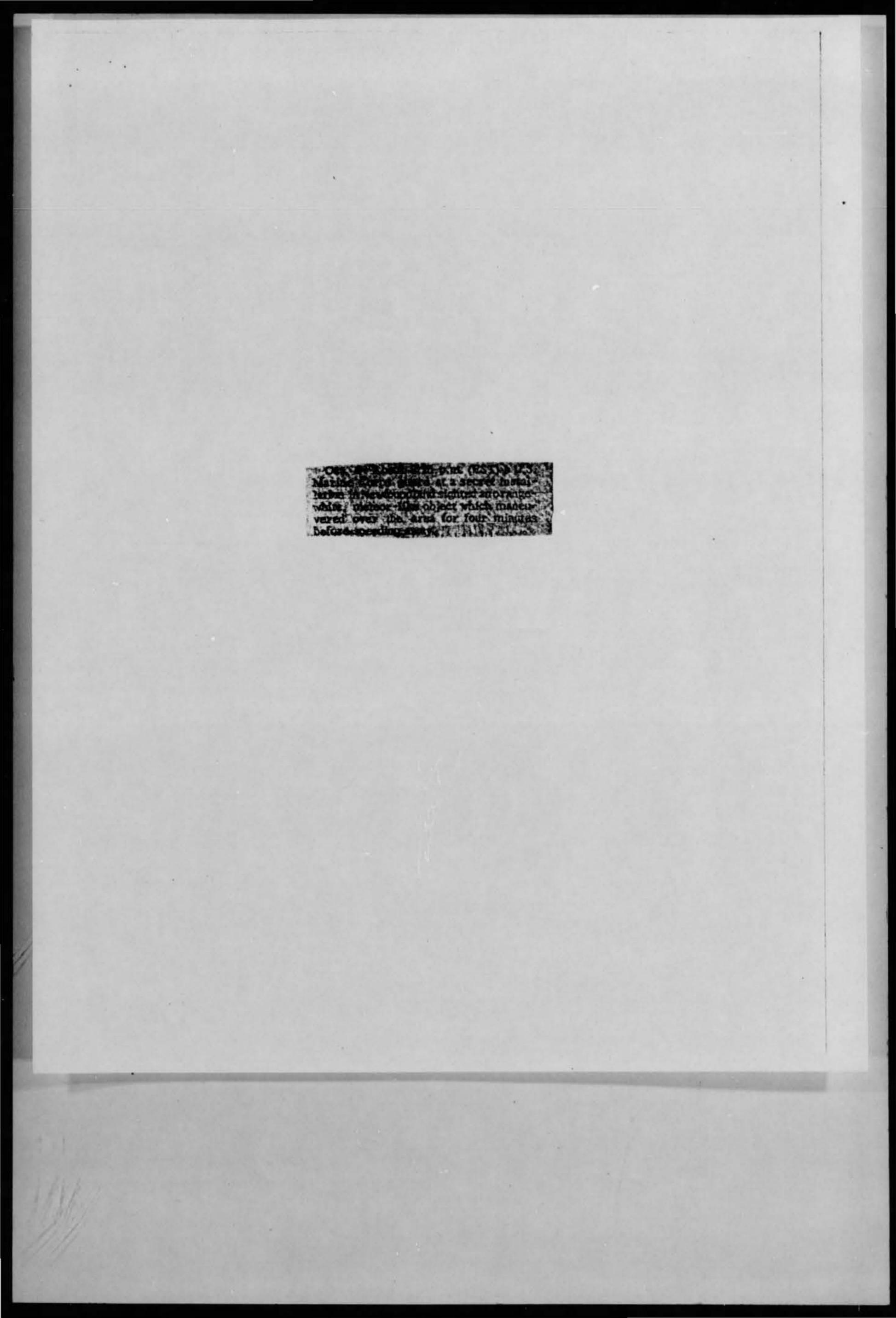
# UFO's Cause Panic, One Death

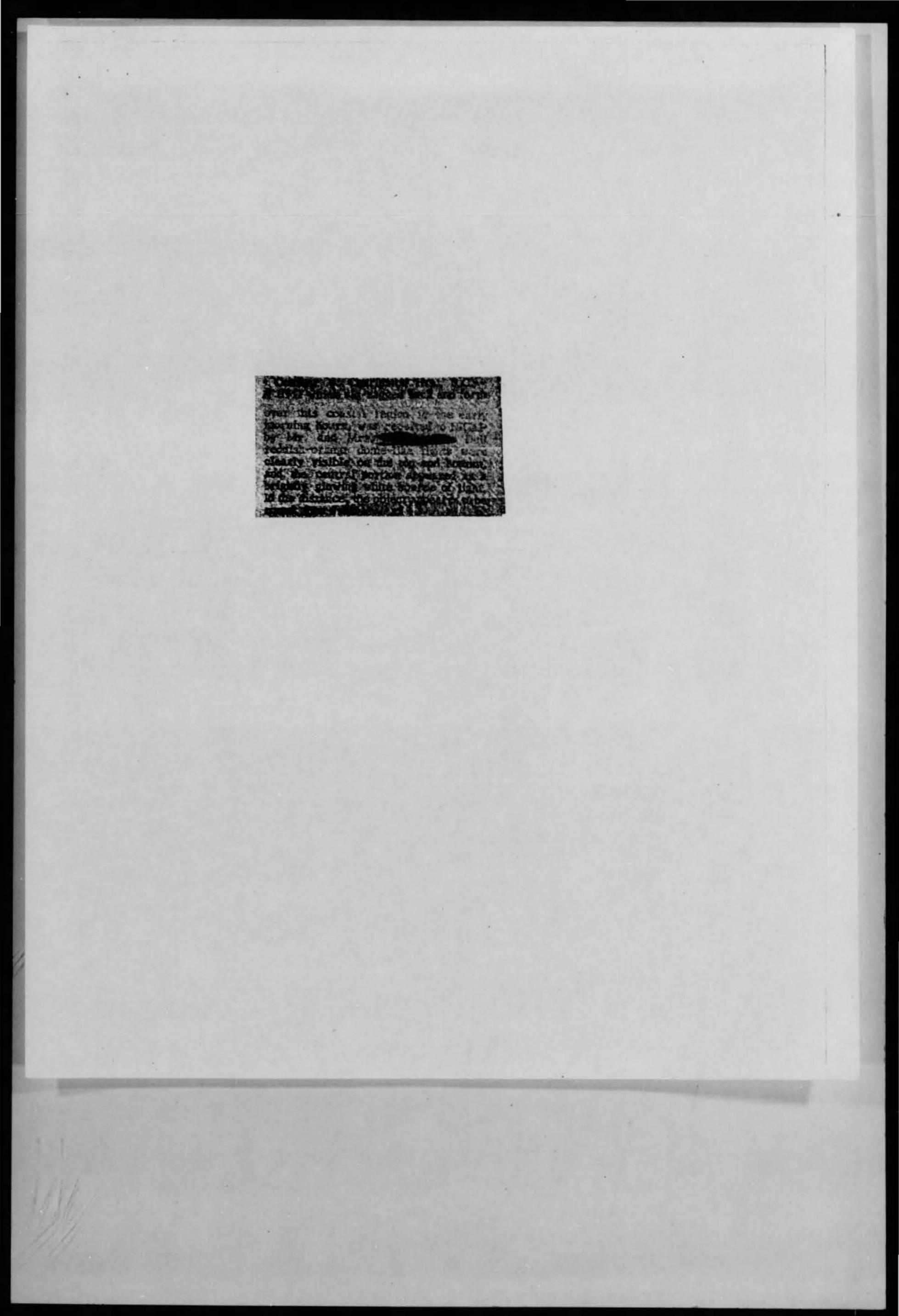
In the past six months, UFO close approaches have led to one observer's death and have badly frightened other witnesses in the U.S. and South America. At Santa Rita, Venezuela, a fisherman drowned when he and panic-stricken companions jumped from their boats as a huge, glowing object approached.



It was Oct. 8, 1961, about 11 p.m., when the enormous UFO appeared from the north, its glow lighting up the town. As it slowly crossed Lake Maracatho, casting its glare on the fishing boats, dozens of terrified fishermen leaped overboard. One man, Bartolme Romero, went down in the frantic swim for safety. The others made shore, unnerved by the encounter.

in Santa Ritz, alarmed inhabitants wanched the strange object pass slowly over the city. The UFO was visible five minutes before it vanished to the south, leaving a reddish, exhaust-like trail. (This slow operation rules out any fire-ball or meteor answer. The source and purpose of this apparently controlled device remain unexplained.)





# 4900TH AIR BASE GROUP

UNITED STATES AIR FORCE
Kirtland Air Force Base, New Mexico

REPLY TO ATTN OF:

SWBF

SUBJECT:

Unidentified Flying Object Report

16 NOV 1981

TO:

ATIC

Wright-Patterson AFB, Ohio

- 1. Forwarded herewith, in accordance with paragraphs 13b and 14b(1), AFR 200-2, is an Unidentified Flying Object Report.
- 2. Late receipt of information contained in subject report is the cause of the delay in submitting this communication.

FOR THE COMMANDER

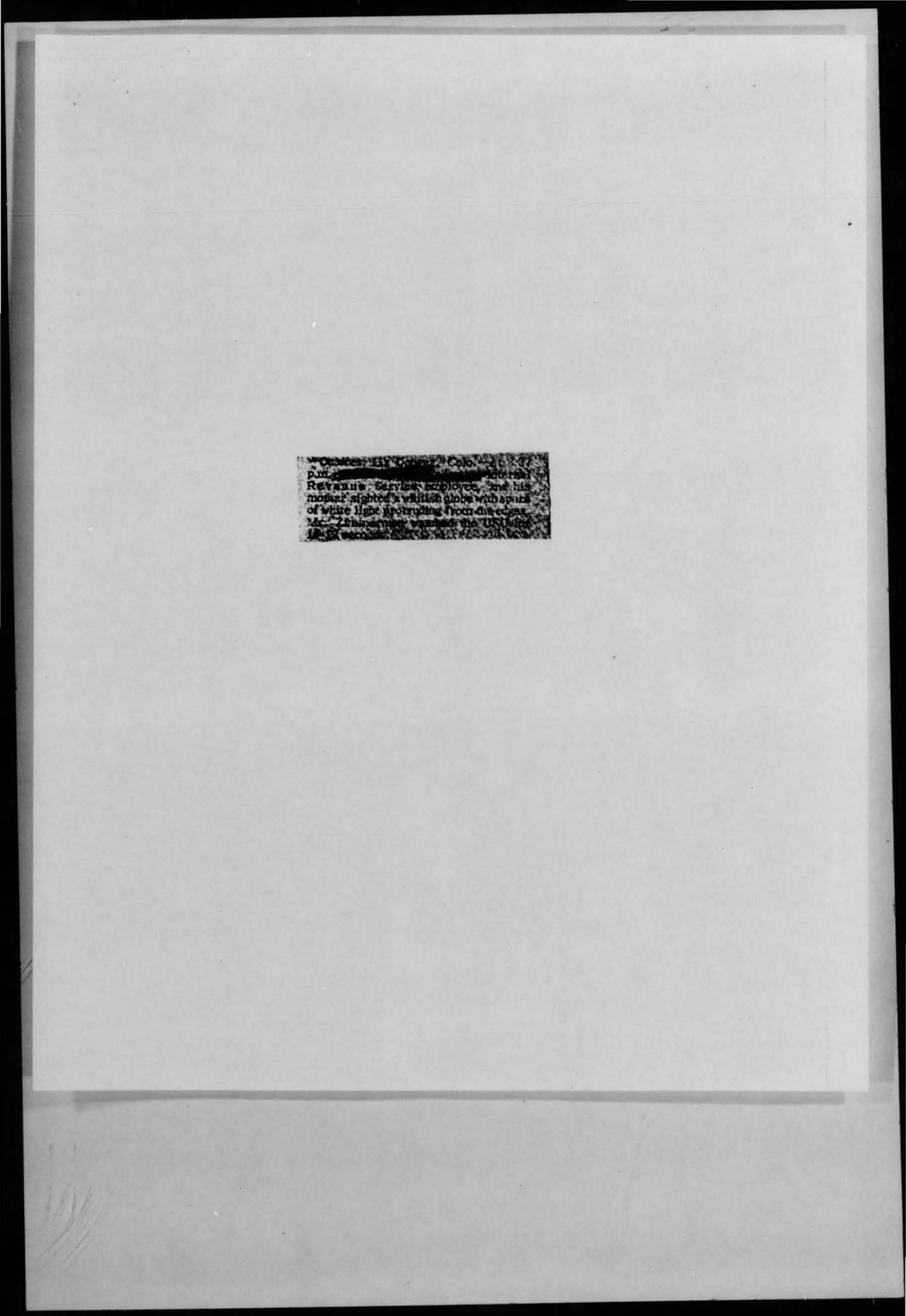
ROBERT B. RIVERS

MAJOR USAF

Assistant Administrative Services Officer

I Atch

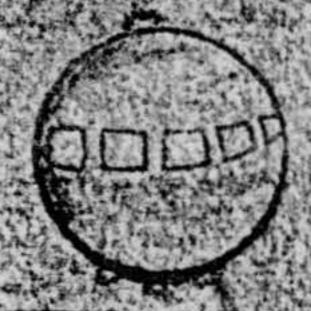
UFO Rpt 61-2 (Dup)



#### PRANK ELWAILS, MANY WITNESSES, SIGHT UPO OVER DEMANAPOLIS

A large, apparently spherical UFO with a row of lights howeved and important error over the shape of the contract of the contr

other citizens. A bright, pulsating white light flashed from the ports, and red lights flashed from the bottom of the object. A steady, bright grash light was visible on top. The UFO was silvery, apparently metallic, and it perferred city-lights.



memotor, was leaving the WYTV studio about 8:00 p.m. when he noticed the strange object hovering in the distance. It seemed to have a hand of light across the middles (Observers ploser to the UFO saw the "band" as a round "witdows.")

As the matched the UTO spire light memory to the UFO memory to the UTO spire light.

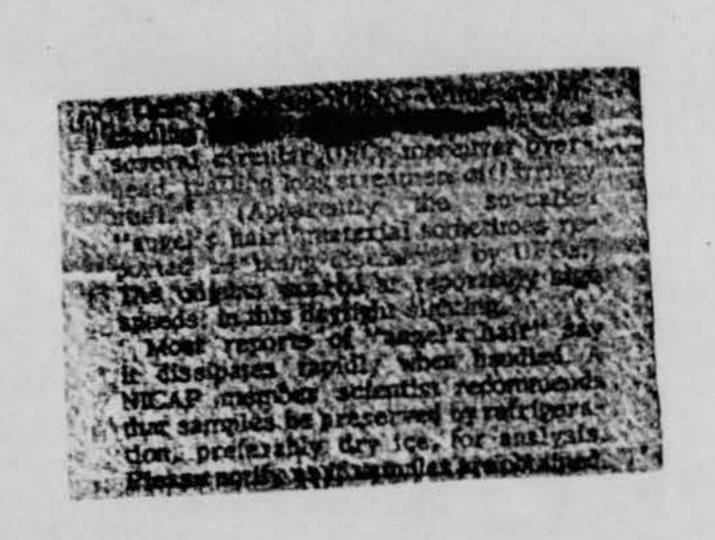
viewed by Mr. The crew of a

similarly, except that the band of light appeared as portiones. Two plant guards at a destinant meat making company—

But a destinant meat making company—

But and the process of the saw the undernessing a appeared as a directly overhead. From undernessing a appeared as a directly shing, glassing object which was rotating clockwise. They confirmed the blinking red lights seen on the bottom. Since the UPO appeared on the bottom. Since the UPO appeared on the bottom. Since the UPO appeared on the bottom. Since the Colimbia all angles, it was assumed to be spherical all angles, it was assumed to be spherical.

An unsuccessful anemost was made to "explain" the UFO as an advertising a trpiane, but the atternme terrifle speeds and acrossing proved that this unidentified round devices was beyond the hapabilities of any important materials.



0 ...

WPAØ12

T FTD

CZCSQM529ZCJYE5Ø1

RR RJEDSQ

DE RJEZFF 78

ZNR

R 212011Z

FM HQ AFSC ANDREWS AFB MD

TO ALAFSC

BT

UNCLAS SCEP 21-8-47. ALAFSC 511/61

ACTION FOR IO. THE FOLLOWING MESSAGE FROM SAFOI-2 IS QUOTED FOR YOUR INFORMATION AND GUIDANCE. QUOTE.

CANAIRHED FOR DPR SUBJECT IS GUIDANCE FOR PROCESSIGN OF FLIGHT
DISTURBANCE COMPLAINTS DURING EXERCISE SKY SHIELD. THIS MSG IN
FOUR PARTS. PART I. DURING THE PERIOD 1700Z 14 OCT TO 0500Z 15 OCT 61
NORTH AMERICAL AIR DEFENSE EXERCISE SKY SHIELD WILL BE CONDUCTED OVER
THE NORTH AMERICAL CONTINENT NORTH OF THE MEXICAN BORDER. APPROVED BY
THE GOVERNMENTS OF CANADA AND US THIS LARGE SCALE EXERCISE WILL PROVIDE
THE NECESSARY FRAMEWORK TO EXERCISE THE NORTH AMERICAN AIR DEFENSE

2 2 Aug 51

PAGE TWO RJEZFF 78

SYSTEM AS A WHOLE AND IS THUS AN IMPORTANT TRAINING OPERATION ESSENTIAL TO AEDQUATE DEFENSE READINESS. INT HE INTERST OF SAFETY AND TO PERMIT FULL UTILIZATION OF THE WHOLE RADAR ELECTRONICS SYSTEM USED IN AIR DEFENSE, CIVIL AVIATION AUTHORITIES HAVE DECIDED TO RESTRICT

CIVIL FLIGHTS IN THE EXERCISE AREA DURING SKY SHIELD. ARRANGEMENTS TO DO SO HAVE BEEN MADE IN COOPERATION WITH THE AGENCIES CONCERNED PART II. SINCE CONSIDERABLE NUMBERS OF SUPERSONIC AIRCRAFT WILL BE ENGAGED IT IS REASONABLE TO ASSUME THAT SONIC BOOM DISTURBANCES WILL OCCUR. THE INVOLVEMENT OF GEOGRAPHICAL AREAS NOT NORMALLY FREQUENTED BY SONIC BOOMS, THE VOLUME OF SUPERSONIC OPERATIONS AND THE LATE NIGHT HOURS ARE FACTORS THAT WILL COMBINE TO GENERATE NUMBEROUS COMPLAINTS AND/OR INQUIRIES. IT CAN BE EXPECTED THAT MANY OF THE QUERIES WILL BE DIRECTED BY TELEPHONE TO THE NEAREST AIR FORCE INSTALLATION. PART III. A. COMMANDERS, IOS AND OTHER AIR FORCE PERSONNEL RECEIVING SUCH CUERIES WILL NOT TAKE NEGATIVE APPROACH OR QUOTE PASS THE BUCK UNQUOTE. IMMEDIATE, COURTEOUS, POSITIVE ACTION TO IDENTFY THE SOURCE AND EXPLAIN THE CAUSE WITHIN THE PARAMETERS OF PART I ABOVE ARE ESSENTIAL TO MINIMIZE ADVERSE PUBLIC REACTION. B. IF A POSSIBLE DOUBT EXISTS THAT THE DISTURBANCE IN QUESTION WAS ACTUALLY A SONIC BOOM AN IMMEDIATE CHECK WILL BE MADE WITH THE NEAREST AIR

PAGE THREE RJEZFF 78

DEFENSE SECTIOR DIRECTION CENTER TO DETERMINE IF SUPERSONIC FLIGHT
WAS IN FACT CONDUCTED AT THE TIME AND PLACE IN QUESTION. ADC WILL
AUGMENT DIRECTION CENTERS AS NECESSARY WITH QUALIFIED IO FOR THIS
EVENTUALITY. C. IN THE EVENT OF DAMAGE TO PRIVATE PROPERTY THE
NEAREST AF CLAIMS OFFICER WILL BE NOTIFIED AND IMMEDIATE ASSISTANCE
WILL BE OFFERED IN FILING A CLAIM. D. THE AF COMMAND POST WILL BE
NOTIFIED BY MOST EXPEDIOUS MEANS IN CASES OF UNUSUAL AND/OR WIDESPREAD DISTRUBANCE. PAR IV. ALL PERSONNL PERFORMIN THE FUNCTION OF

DIRECT COMMUNICATION BE COEN ALL AGENCIES CONCERNED FOR ABOVE .

PURPOSES IS AUTHORIZED. UNQUOTE.

BT

21/2015Z UAG RJEZFF

NNNN

# 16 - 31 OCTOBER 1961 SIGHTINGS

DATE	LOCATION	OBSERVER	EVALUATION
-16	Dayton, Ohio	-	Astro (SIRIUS)
716	Gettysburg, South Dakota	Military	AIRCRAFT
-16	Jensen, Utah	- Alleganian	Other (MIRAGE)
-17	Canton, Chio		INSUFFICIENT DATA
-17	33N 177W (Facific)	Military	Astro (METEOR)
~17	West Florence, Chio	- Control of the cont	Astro (ARCTURUS)
~18	Philadelphia, Pennsylvania		Astro (METEOR)
-19-20	Grand Cayman, West Indies	The second second	INSUFFICIENT DATA
-21	38.44N 44.45W (Atlantic)	Military	Astro (METECR)
~21	Dayton, Chio		AIRCRAFT
-22	Fatrick AFB, Florida	Military	Astro (METEOR)
~23	58.14N 143.55W (Pacific)	Military	INSUFFICIENT DATA
-23	58.46N 144.29W (Pacific)	Military	Astro (METECR)
-24	Succasunna, New Jersey		Astro (METEOR)
	Greenwich, Connecticut	Silber	AIRCRAFT
24	Baltimore, Maryland	- ACCEPTANCE - MARKETON	INSUFFICIENT DATA
~25	Sheboygan, Wisconsin		INSUFFICIENT DATA
-25	Akron, Ohio	THE PROPERTY OF THE PARTY OF TH	AIRCRAFT
~26	McAllen, Texas	Military	Astro (METECR)
~27	Grand Rapids AFS, Michigan	Military	BALLOCN
-27	Dayton, Ohio	- CHILLIAN CO.	AIRCRAFT
29	Kadena AB, Naha, Ckinawa	Military	Astro (METECR)
24 25 25 27 27 29 29 29 29 29 29 29 29 29 29 29 29 29	30.30N 158.35E (Far East)	Military	SATELLITE
-31	Canton, Ohio	- Antighten - Carried States	Other, (UNFELIABLE REPORT)

## ADDITIONAL REPORTED SIGHTINGS (NOT CASES)

DATE - LOCATION	SCURCE	EVALUATION
Late Cot Fall River, Mills, California	News Clipping	
17 Oct Curocao, British West Indies		
17 Oct Tonawanda, New York		
17 Cct Radford, Virginia		
21 Oct New Mexico		
27 Cct Nilliard, Chio		
30 Cet Derry, Pennsylvania	. 9 0	

#### DEPARTMENT OF THE AIR FORCE

This material contains WARNING: information affecting the National Defense of the United States within the meaning of the Espionage Laws,

(Classification) UNCLASSIFIED Title 18, USC, Secs. 793 and 794. the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

COUNTRY USA

SUMMARY

REPORT NO. 61 -2

SUBJECT UFO Report - IAW AFR 200-2

14 November 1961 DATE OF REPORT

NO. OF PAGES

REFERENCES

DATE OF 15 October 1961 INFO

PLACE & Kirtland AFB, NMex - 25 Oct 61 DATE ACQ.

EVALUATION Flying Safety Division, KAFB, NMex SOURCE

Las Vegas, New Mexico Major Virgil 0. Hall PREPARED BY

Description of the Object

Round in shape and at one point appeared to be top shaped.

Size compared to star Venus.

Amber in color.

4. One.
5. N/A
6. None.
7. None visible.
8. No sound heard.

Object appeared to revolve.

Description of course of Object

1. Private citizen called via telephone.

About 240 or 235 degrees azimuth elevation about 40 degrees above the borizon.

3. About 240 or 235 degrees and disappeared behind the horizon.

Path flight of object WSW - no maneuvers apparent.

Object disappeared behind the horizon as in comparison to the sun.

Approximately 8 minutes.

Manner of Observation

1. Ground visual.

2. Binoculars. Naked eye.

3. N/A

Time and Date of Sighting

1. 15 October 1961 at 0613Z.

2. Night.

DISTRIBUTION BY ORIGINATOR

DISTRIBUTION BY HQ USAF

CIA

STATE

(Classification)

ARMY

NAVY

UNCLASSIFIED

NSA

INTELLIGENCE REPORT INTELLIGENCE REPOR

## UNCLASSIFIED

PAGE 2 OF PAGES 2

- E. At the Las Vegas Airport 6 miles NE of the town of Las Vegas, NMex
- F. Identifying Information on Observer

I. Civilian

rage 24

Las Vegas, NMex Home Address: Occupation:



- G. Weather and Winds Aloft Conditionsaat time and place of sightings
  - 1. Wx clear visibility more than 15.
  - 2. 6,000' N/A; 10,000' 100/10; 16,000' 080/10; 20,000' 070/10; 30,000' 360/5; 50,000' 020/15; 80,000 UNK.
  - 3. Clear.
  - 4. Visibility more than 15. 15+.
  - 5. N/A
  - 6. N/A
  - 7. Temperature estimated change W HT

800		780MB	+	2.5	C	SFC .		700'
-		690		6.5		700 -	10	0,000
690		660	+	2.5		10,000		12,000
660		300		42		12,000	**	32,000
300	***	120		36		32,000	-	50,000
120	**	100	+	5		50,000		53,000

- H. UNK
- I. NONE
- J. UNK
- K. Major Virgil O. Hall, Base Flying Safety Officer. UNK.
- L. UNK

(Classification)

UNCLASSIFIED

About 500 Feet In Air.

# Glowing Object Sighted In Sky Over Grafton

GRAFFON, N. D. (AP)-Asistant police chief Bill Janousek ollowed a "large, round object with a reddish glow" through rafton early Monday.

ears on the Grafton force, said stock ver traids one set in the air and heading . st. He said he noticed it about a.m. and followed it for four or five miles, past the Graffon sirport, but daren not get too far from town while

He said the object appeared to get lower and lower the further he got from it.

Local authorities are asking total notify them immediately. in an easterly direction.

The air base at Grand Forks, notified by police radio of the object, said it knew of no weather balloons in the area during the night

Intelligence officials at the air base said later Monday they are in the process of making a complete and thorough investigation of the incident

The public information office at the base said it had two reports of sightings. The other was from Donald Votada, Grafton, who was in his ear on the highway about the same time if was seen in Grafton. He was near Ardoch, about 15 miles anyone else who may have seen southeast of here, and heading



The Unidentified Hying Objects Research Committee P.O. B. 5242 - Al 13 CV.

C. REFLECTING? DING ST DOWN SASE ROE O. 4 Denone pt. iza a-one

E. HALF DOLLAR

ACOMULE KASIER, GIVE APPARENT BIZE IN INCHES ON A RULER HELD AT ARMIS LENGTH, TO WELL DILL

21 NO YOU HAPPEN TO NOTICE THE OBJECT(S)? Cruising in police car and observing 11Ents over city as I approached Grafton from the west

WHERE WERE YOU AND WHAT WERE YOU DOING AT THE TIME? About a mile west of Grafton on hi hway 17, coming back into city after the checking outskirts bisappeared, or passed ou

of view to the east of the city. MA. COMPARE THE SPEED OF THE OBJECT(S) WITH A PISTON OR JET ALRCRAFT AT THE SAME APPARENT ALTITUDE.

Faster than car. Drove 100 mph with car but it moved faster.

WERE THERE ANY CONVENTIONAL AIRCRAFT IN THE LOCALITY AT THE TIME OR IMMEDIATELY AFTERWARDS? IF so, PLEASE ELABORATE. no. Checked with Grand Forks Air Dase

LOUGATION LIBRIONTERY 28. ESTIMATE THE DISTANCE OF THE OBJECT(S) FROM YOU. Prom four to five miles

TO THE TRUE BY SET TO SELVED FRATISHED T. WHAT WAS THE ELEVATION OF THE ORJECT (S) IN THE SKY? MARK ON THIS HEMISPHERE SKETCH -300t. 25. 1361 3:40

PERMISSION TO QUOTE YOU & NAME IN CONNECTION WITH THIS REPORT. ENCOURAGE OTHER RESPONSIBLE CITIZENS 1 ) REPORT SIMILAR OBSERVATIONS TO UPORC. HOWEVER, IF YOU PREFER, WE WILL KEEP YOUR HAME CONFIDENTIAL. PLEASE NOTE YOUR CHOICE BY CHECKING THE PROPER STATEMENT BELOW. IN EITHER CASE, PLEASE FILL IN ALL PARTS OF THE FORM FOR OUR CONFIDENTING FILE THANK YOU FOR YOUR COOPERATION.

PLEASE REES MY NAME CONSTERNINE

DATE OF FILLING OUT THIS REPOR Oct. 15, 1961



# Bright Jupiter Seen in October

Jupiter and Saturn are still visible in October skies during the evening. The moon can be observed during the second half of the month, James Stokley reports.

➤ WITH THE COMING of the month of October, the planets Jupiter and Saturn are still visible in the evening sky. Jupiter is brighter than any star or other planet that can now be seen.

Both planets are shown on the accompanying maps, which depict the heavens as they look about ten p.m. your own kind of standard time (add one hour for daylight saving time) on Oct. 1, nine p.m. on the 15th and eight p.m. on the 31st.

Saturn is a little to the right of Jupiter, nearer the horizon, and about a twelfth as bright. However, it still ranks with the stars of the first magnitude. These two planets remain on view until about midnight.

As for the stars themselves, the brightest now on view is Vega, in the constellation of Lyra, the lyre, high in the west (shown on the map of the northern half of the sky). Still higher is Cygnus, the swan, with a bright, first magnitude star named Deneb. Cygnus is divided on our maps, with part on the northern one and part on the southern. And between the lower part of Cygnus and the two planets lies Aquila, the eagle. This contains another star of the first magnitude, called Altair.

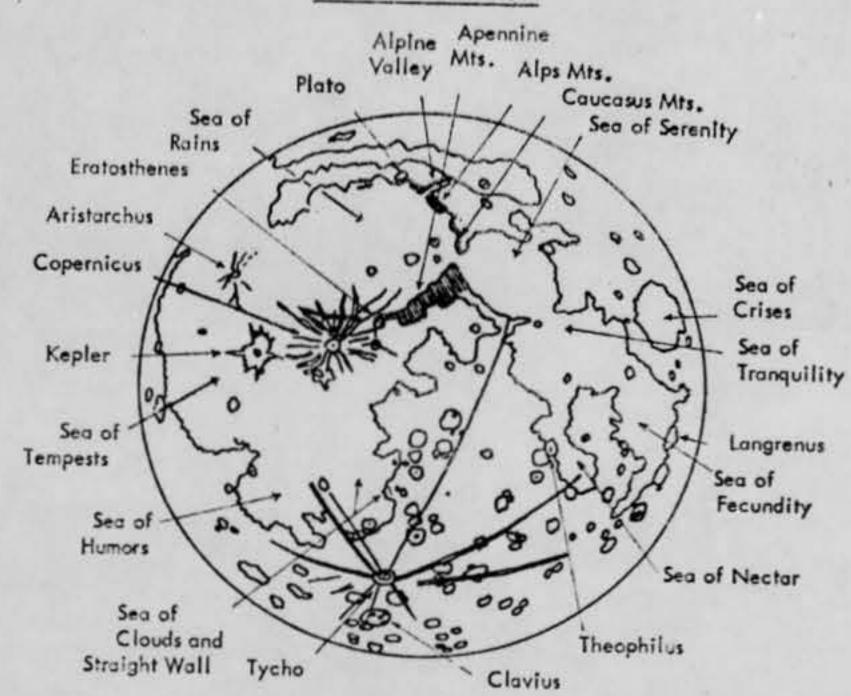
On the southern map, just to the east of

4 EAST

Cygnus you can find Pegasus, the winged horse of the old myth. This is a rather conspicuous group, even though the brightest stars in it are of the second magnitude.

The map shows the location of the "Great Square" in Pegasus, an easily located figure

MAP OF THE MOON



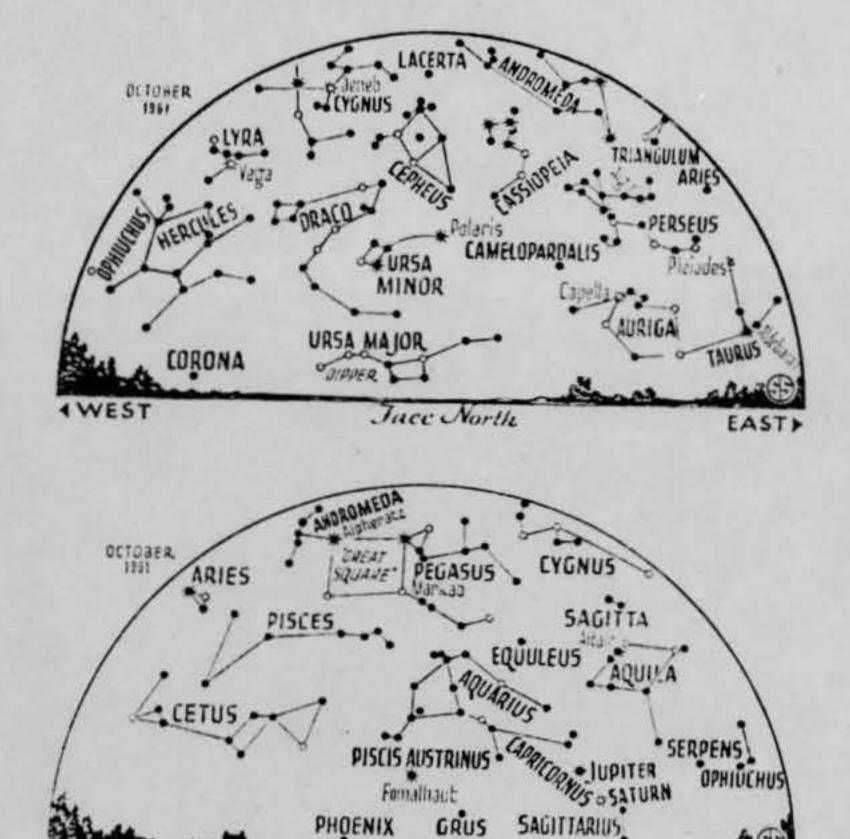
NORTH APPEARS AT THE TOP

that helps you to find other groups around it. Actually, only three of the stars that make up the square are in Pegasus. The one in the upper left, named Alpheratz, is in Andromeda. This, in mythology, represented the princess that was left chained to the rock, to be devoured by a sea monster. Since she was rescued by the hero Perseus, who was riding on Pegasus, her proximity to the winged horse is appropriate.

Perseus, too, is in the sky, for this constellation is in the northeast. Here is the interesting star Algol. A famous variable, Algol fades from its normal brightness of magnitude two to the third magnitude every 2 days, 20 hours, 48 minutes. It is really two stars, one much fainter than the other and revolving around it. The dimming occurs as the faint one partially eclipses its more brilliant companion.

To the west of Perseus stands Cassiopeia, the queen, and Cepheus, the king, who were Andromeda's parents. All the principal characters in the mythological story are depicted in the sky—even the sea monster. He is represented by the constellation of Cetus, low in the southeast.

Three other first-magnitude stars are now visible. In the northeast, below Perseus, is Auriga, the charioteer, with the star Capella. And farther right is Aldebaran, in Taurus, the bull. This star is considerably dimmed because of its low altitude. However, it rises considerably higher in the South, and becomes brighter, later in the



. . . SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

Jace South

WEST .

in Piscis Austrinus, the south is Fomalhaut, in Piscis Austrinus, the southern fish. This star is now about as high as it ever gets, for latitude 40 degrees.

In addition to Jupiter and Saturn there are three other planets sometimes visible to the naked eye. Two of these, Mercury and Mars, are now too nearly in the same direction as the sun to be seen. But the third, Venus, rises in the east about two hours before the sun. Its brightness is about 3.6 times that of Jupiter, so it is very easy to find. In fact, it remains visible well into the dawn, long after other stars have faded.

The moon during October will be most prominent in the evening from about the 12th to the 26th. On Oct. 9, when it is new, it is in the same direction as the sun, and we cannot see it. But a few days later it will have moved far enough to the east that it remains visible in the sky after the sun has set. Moreover, little of the lunar hemisphere on which the sunlight is shining will be turned toward us, and so it will appear as a crescent in the west in the early evening.

On the 16th it will be at first quarter, with half of the illuminated hemisphere visible. Then it is in the south at sunset, and it sets about midnight. On Oct. 23 it will be full. Then it is opposite the sun, so it rises at sunset and sets at sunrise. The entire bright half is visible. After that it continues to rise later and later, so it is soon gone from the evening sky. It reaches last quarter on the last day of October, when it does not rise until midnight.

If you have a good pair of binoculars, or even of opera glasses, try using them to watch the moon, night after night, as it goes through its phases.

The moon is not smooth, but has many mountain ranges and craters scattered around its surface, some of which can be seen with such simple optical aid. And then there are the dark areas, visible to the naked eye, which form the familiar face of the "man in the moon." These are called "seas," even though there is no water on our natural satellite. The early lunar observers thought they were bodies of water and so named them. Some of their designations, still used, are quite fanciful—Sea of Tranquility, Sea of Serenity, etc.

The craters, which probably were formed by the impact of huge meteorites that exploded as they hit, are named after famous astronomers and other scientists. One of the largest, about 140 miles in diameter, is called Clavius, after the astronomer who assisted Pope Gregory XIII when he introduced our present calendar in 1582.

The principal seas, as well as some of the most prominent craters, are indicated on the accompanying lunar map, but all of these features cannot be seen at any one time. When the moon is full the craters are nearly invisible, but the seas are conspicuous. Around first quarter is the best time to see the craters. Then, for those near the middle of the lunar disc, the sun is shining at a low angle, and there are many shadows which bring them into relief.

So try your binoculars on the moon. Probably you will be surprised at what you can see.

(continued on p. 215)

# Bright Jupiter Seen

(continued from p. 211)

#### Celestial Time Table for October

Oct.	EST	
1	9:10 a.m.	Moon in last quarter
3	12:08 a.m.	Algol (variable star in Per- seus) at minimum
5	3:00 a.m.	Moon farthest, distance 251,-
	8:56 p.m.	Algol at minimum
7	3:00 a.m.	Moon passes Venus
8 9	5:45 p.m.	Algol at minimum
9	1:53 p.m.	New moon
x6	11:35 p.m. midnight	Moon in first quarter Moon passes Saturn
17	9:00 a.m.	Moon passes Jupiter
21	2:00 a.m.	Moon nearest, distance 226,-
22	2:00 p.m.	Mercury between earth and
23	4:31 p.m.	Full moon
25	10:37 p.m.	Algol at minimum
28	7:26 p.m.	Algol at minimum
31	3:59 a.m.	Moon in last quarter
	ubtract one	hour for CST, two hours for hours for PST.

#### Know the Sky

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These star maps showing the positions of stars and planets can help you locate satellites when they flash briefly across the sky. Familiarity with the constellations and their relative positions makes locating artificial moons much easier whenever they are visible from your area.

. Science News Letter, 80:210 September 23, 1961

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fier, and other experimental circuits.

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TELESCOPE A mounted astronomical Telescope. High quality ground Lenses enable you to examine details of the moon's surface and distant objects.

MICROSCOPE High and low power, precision ground Lenses, Substage Light and Polarizer. Adaptable for photomicrogrophy in connection with Photo Lab.

LABORATORY MANUAL FOR DAIRY MICROSIGEogy-E. M. Foster and W. C. Frazier-Burgess, 3rd ed., 72 p., paper, \$3. Concise directions for experiments with milk microorganisms, milk quality testing and microbiology of dairy products.

SALES CALL

THE LORE OF LARGE NUMBERS-Philip J. Davis-Random House, 165 p., illus., paper, \$1.95. Written by professional mathematician to make the arithmetic of large numbers interesting and understandable to high school students and laymen.

MAN AND POWER: The Story of Power from the Pyramids to the Atomic Age-L. Sprague de Camp-Golden Press, 189 p., illus., \$4.95. Colorful panorama depicting and describing man's development of sources of energy to help him build, move around and produce.

MATHEMATICS IN THE MAXING-Lancelot Hogben-Doubleday, 320 p., 200 illus., \$9.95. Colorful, graphically presented review of man's use of mathematics through the ages, written by mathematician for the general reader.

MEDICAL AND BIOLOGICAL AFFECTS OF THE ENERGIES OF SPACE-Paul A. Campbell, Ed .--Columbia Univ. Press, 491 p. illus., \$10. Brings together special knowledge in the medical, biological, astrophysical and engineering sciences as related to the energies of space, their conversion and use.

MODERN SCIENCE AND THE NATURE OF LIFE-William S. Beck-Doubleday, 334 p., paper, \$1.45. Reprint of 1957 book on the historical development of the scientific attitude.

THE NEW LEADERS OF AFRICA-Rolf Italiaander, transl. from German by James McGovern-Prentice-Hall, 306 p., photographs, maps, S5. Portrays the lives and actions of the new native African statesmen and politicians.

THE OCEAN ISLAND (Inagua)-Gilbert C. Klingel-Doubleday, 415 p. map. photographs by author, paper, \$1.45. Reprint of naturalist's observations of life on land, in sea and air, on an island in the Bahamas.

ON THE VARIOUS FORCES OF NATURE-Michael Faraday, introd, by S.r. I Arthur Thomson, foreword by E. N. da C. Andrade-Crowell, 155 p., illus, with original diagrams, \$2.75. New edition of the first of the famous Christmas Lectures at the Royal Institution in London to appear in book form.

RED TAG COMES BACK-Fred Phleger-Harper, 64 p., illus. by Arnold Lobel \$1.95. Charming book for beginning readers, follows a tagged salmon through its life cycle.

SCIENCE AND THE NEW NATIONS: The Proceedings of the International Conference on Science in the Advancement of New States at Rehovoth, Israel-Ruth Gruber, Ed.-Basic Bks. 314 p., illus., \$6.50. Summaries of papers and highlights of discussions of delegates from developed and underdeveloped countries on five continents.

Science Survey 2-A. W. Hislett and John St. John, Eds., foreword by Sir Wilfrid Le Gros Clark-Macmillan, 372 p., illus., \$7.50. Second annual selection of scientists' reports on recent advances of interest to the intelligent layman, planned in cooperation with the British Association for the Advancement of Science.

SHEARWATERS-R. M. Lockley-Doubleday, 256 p., illus., paper, \$1.25. A record of the breeding and migration habits of the seabirds.

South Africa-Monica M. Cole-Dutton, 696 p., photographs, maps, diagrams, \$16.95. Comprehensive work on South African geography, water supply, agriculture, mineral resources, power resources, industries, communications and major regions.

Sovier Power: Energy Resources, Production and Potentials-Jordan A. Hodzkins-Prentice-Hall, 190 p., maps, \$5.25. Analysis of distribution, reserves and energy potential of Russian

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# EFIELDS

SURGERY

## Uncommon Lung Disease Healed by Operation

THE ONLY KNOWN surgical operation for sporotrichosis, an uncommon fungus-type lung disease, has been reported at the Veterans Administration Hospital, Oteen, N. C.

Drs. Stewart M. Scott, E. D. Peasley and Thomas P. Crymes describe in The New England Journal of Medicine, 265:453, 1961, the case of a 42-year-old Negro florist whose X-ray showed a cavity in the left upper lung. Tests showed Sporotrichum schenckii, the type of fungus that causes sporotrichosis.

After giving the patient the usual treatment of potassium iodide for two months with no significant change on X-ray examination, the left upper lobe was removed.

Although the operation was successful, the surgeons continued treatment with potassium iodide for six months.

Since 1912, 20 cases of pulmonary sporotrichosis have been reported, but only six have been "adequately documented," the surgeons report.

The dramatic results of treatment with potassium iodide have prevented thorough bacteriologic confirmation by animal inoculation, they point out.

. Science News Letter, 80:209 September 23, 1961

GENERAL SCIENCE

## Scientists' Income Up: Median Salary Is \$9,000

➤ MOST UNITED STATES scientists were better paid during 1959 and 1960 than they were during the years from 1956 through 1958, the National Science Foundation reports.

Questionnaires returned by 112,432 fulltime employed scientists to the Foundation's National Register of Scientific and Technical Personnel showed a 1960 median annual salary rate of \$9,000. This is a \$1,100 increase over the \$7,900 median reported for the 1956-58 period.

The same group reported a median gross income of \$10,000 for 1959. The additional income (above salaries) comes from such sources as supplementary employment, royal-ties and consulting fees.

The highest median gross income for 1959, \$14,000, was reported for those in medical sciences. Physics and chemical engineering, each with \$11,000, were second. Agricultural scientists ranked lowest with \$7,000 as both 1959 median income and 1960 median salary.

Rated by work activities, the 27% engaged in management and administration made up the best paid group, with a median income of \$12,000 in all fields. For managers and administrators in research and development, the median income rose

to \$13,000. Teachers, with a median 1960 salary of \$8,000, were among the lowest paid work groups, although full professors attained a median of \$19,000 in medical sciences and \$13,000 in engineering.

The median age was 38. The largest age group, 43%, was 30 to 39, with 40 to 49 next at 27% of the total. Thirteen percent were in their fifties and another 13% were under 30. The general pattern in earnings was a steady increase from \$6,000 at the youngest age group to \$12,000 at the oldest, the Foundation said.

Fifteen years of experience are necessary before income exceeds basic salary in most fields.

The scientists included 47% who were employed in private industry or self-employed, 27% by educational institutions, 13% by the Federal Government, six percent by other government activities, five percent by non-profit organizations, and about two percent on active duty with the Armed Forces or the U.S. Public Health Service.

. Science News Letter, 80:209 September 23, 1961

NOMENCLATURE

## Numbers Seen Replacing Latin Names of Plants

➤ AS ELECTRONIC computers take over the tough job of sorting out members of the animal and plant kingdoms, Latin names will be replaced by numbers, a zoologist predicts.

Machines should help take some of the many kinks out of the present system of classifying living things, which is known as taxonomy, Dr. Theodore L. Jahn of the University of California at Los Angeles believes. This would necessitate devising a numbers code that would denote the features of an organism useful in classifying it as to kingdom, phylum, class, order, family and species.

The ultimate in such a system would be to use the same code that the genetic mechanism employs to insure that an organism passes on the same set of characteristics to succeeding generations. This code is contained in the DNA (deoxyribonucleic acid) of each chromosome.

This poses quite a problem, Dr. Jahn admits. It has been estimated, he points out, that the code of the 46 chromosomes of man, if set in type, would fill a thousand books. It may be a long time before man can design a code as compact as DNA.

Cracking the DNA code, regardless of whether it can be incorporated practically into a computer system, would be a boon to taxonomy, Dr. Jahn notes. For example, it might tell us whether a virus is some fragment of a chromosome or the leftover of a primordial organic soup that preceded the existence of cellular organisms.

In order to convert the present system for use with a computer it will be necessary to improve it through increased knowledge of the organisms. Progress might be greatly enhanced if there were an International Taxonomic Year, similar to the International Geophysical Year, devoted to a study of classification of organisms.

• Science News Letter, 80:209 September 23, 1961

BIOCHEMISTRY

## Some Mental Diseases Linked With Chemical

➤ SOME MENTAL diseases are probably caused by a chemical derived from a nerve hormone in the brain.

Experiments conducted on rats have shown that the chemical, 10-methoxyharmalan, if produced in the body, can cause abnormal behavior. The chemical is derived from serotonin, a nerve hormone found in the brain and intestines.

Small doses of 10-methoxyharmalan fed to well-trained rats caused the animals to make mistakes each time they were used in an experimental "shuttlebox." Larger doses produced tremors that lasted nearly one hour.

The chemical is formed by removing a molecule of water from melatonin, a substance isolated from brain tissue. Melatonin, in turn, definitely forms from serotonin, Drs. William M. McIsaac, Philip A. Khairallah, and Irvine H. Page of Cleveland Clinic Foundation, Cleveland, report in Science, 134:674, 1961.

Definite evidence of the production of 10-methoxyharmalan in the body is still lacking, the scientists note. However, the present experiments plus the fact that "the highest concentration of serotonin has been found in brain tissue of mental patients," tends to support the hypothesis that "some psychotic states could be due to the chemical, 10-methoxyharmalan," the scientists conclude.

. Science News Letter, 80:209 September 23, 1951

PUBLIC HEALTH

# Cesium-137 in Diet Determined by Urine Test

➤ CESIUM-137, a radioactive fission product present in fallout, can be measured in urine samples by a new radiochemical method that forms a simple and reliable basis for determining the amount of the isotope present in a person's current diet.

A. Morgan and Gloria M. Arkell of the Atomic Energy Research Establishment, Harwell, England, analyzed samples obtained from subjects with no known exposure to cesium-137 other than dietary fallout levels, gauging both cesium and potassium content. Cesium closely resembles potassium and travels with it through animal tissue.

They point out in Nature, 191:1100, 1961, that the ratio of cesium-137 to potassium in urine is equal to that in the diet and, under normal or near-normal conditions, is about one-third of that in the entire body. If the cesium-137 intake increases, urine analysis therefore will show it.

The researchers also note that the technique could be used to determine strontium90 consumption as well as cesium-137 consumption. The ratio of strontium-90 to
calcium in the diet is known to be about
twice that found in urine samples. Strontium-90, which gets into bone and milk, is
more widespread than cesium-137 and has
been studied more extensively.

• Science News Letter, 80:209 September 23, 1961