PROJECT 10073 RECORD CARD

1. DATE	2. LOCATION		12. CONCLUSIONS
30 Jan 61	6357 N 2235W	(ATCANTIC)	☐ Was Balloon ☐ Probably Balloon
3. DATE-TIME GROUP Local 1355 GMT 301555Z	4. TYPE OF OBSERVATIO Ground-Visual Air-Visual	N Ground-Radar Air-Intercept Radar	Possibly Balloon Was Aircraft Probably Aircraft Possibly Aircraft
5. PHOTOS O Yes EX No	6. SOURCE Military		D Was Astronomical D Probably Astronomical D Possibly Astronomical
7. LENGTH OF OBSERVATION 5 min.	8. NUMBER OF OBJECTS	9. COURSE	Other Refraction Insufficient Data for Evaluation Unknown
		did not see object. Personnel on ground attempted to view object with negative results. Sun's position relative to wit-	

PARTE BUBBING BUT GIVE THE

ATIC FORM 329 (REV 26 SEP 52)

NO CASE (INFORMATION CNIX)

Source: Fawcett

-.19-

evidence as two such events take picked up by the eyes of cameras.

On January 22 at Ft. Waltan, Florida a metallic-looking,
revolving cigar-shaped object was photographed over the Gulf of
Mexico by Store Hanager Harry Caslar.

On January 30, 1961 near Greenfield, Massachusetts a report was relayed to me by the Rev.

Robbins Memorial Congregational Church in Greenfield. Was returning home from work on morth of Greenfield) at 5:30 P.M. Her car was passed by a low flying object of huge size, which showed large, very bright white lights at the front and back and a flashing red light in its center. Miss Kangas stopped her car motor and watched the aerial object then turn off, pass directly overhead and move away at increased speed and vanish in the distance. It made a slight sound, like the hum of a child's spinning top, she said.

ABEL REAL BOLLER Crews a fed teem osched, bie Preent near 1867 a D. William Business to be a bright out the design of the second to be a second of the second to be a second to the second The second section of ments desired and the section of the contract bas heogh beimaphil to well of the beat beat broken by The same and the same that the contraction

1 - 15 FEBRUARY 1961 SIGHTINGS

DATE	LOCATION	OBSERVER	EVALUATION
~1	Cambridge, Massachusetts	Military,	Astro (VENUS)
-3	Spangdahlem AB, Germany	Military	Astro (METEOR)
-3	Van Nuys, California		Insufficient Data
-3 -5	Maine/Vermont Area	Multi	Astro (METEOR)
1 -5	Cape Wales, Alaska		Astro (METEOR)
~63	20N 134W (Pacific)	Military	Astro (METEOR)
\ 63 \ 63 \ 63	Brooklyn, New York		Insufficient Data
-6	8 Mi E Indian Springs, Nevada	Military	Balloon
1 -6	43.17M .37.30W (Atlantic)	Military	Astro (VENUS)
6	Forsythe, Montana		Astro (VENUS)
7	L.G. Hanscomb Field, Massachusetts	Military	Astro (VENUS)
8	Philippine Sea	Military	Astro (METEOR)
8	23.34W 149.42W (Pacific)	Military	Satellite (ECHO I)
-8	Springfield, Massachusetts		Astro (METEOR)
8	Dayten, Ohio		Astro (ALDEBARAN)
8	Parkersburg, West Virginia		Insufficient Data
-9	Bitburg AB, Germany	Multi	Astro (VENUS)
~10	09.36N 145.15W (Pacific)	USM	Insufficient Data
12	Finland	Military	Other (VENUS PROBE)
`12	Sterling City-Garden City, Texas	Multi	Astro (VENUS)
-12	Guadalupe Island	Military	Satellite
-12Feb/3	Jun/21Jun Ft Worth, Texas		Aircraft
ALCOHOLD A			Astro (STARS/PLANETS)
-14	Dayton, Ohio		Astro (VENUS)
15	Dayton, Ohio		Satellite (ECHO I)

ADDITIONAL REPORTED SIGHTINGS (NOT CASES)

DATE	LOCATION	SOURCE	EVALUATION
Feb	Carbindale, Illinois Andrews AFB, Washington	MR (Sgt Moon)	
Feb	Universe	Science News Ltr	

The state of the s

DEPARTMENT OF THE AIR FORCE STAFF MESSAGE DIVISION UNCLASSIFIED MESSAGE

2470 (31 Jan 61) W/AbC O M I N G

CIN-14 ACTION:

OOP-2, OOP-CP-1, SAFS-3/(21)

RERUN OF SMD C Ø85

CZCHQD7Ø6ZCCJBØ27

PP RJEZHQ

DE RJD IKF 1

P 302345Z ZEX

FM AF ICELAND KEFLAVIK ICELAND

TO RJWFAL/ENT AFB COLO

RJEDSQ/WPAFB OHIO

RJEZHQ/HQ USAF AFCIN -

RJEZHO/SECRETARY OF THE AIR FORCE SAFIS

RJEDAA/SCOTT AFB ILL MAX IN

AF GRNC

UNCLAS KDOI 30-A-44. ATTN MAXIN, SAFIS THIS MESSAGE IN ONE PART. PART ONE RE PAR 15, AFR 200-2

UFO REPORT.

A. DESCRIPTION OF OBJECT

- (1) ROUND
- (2) MATCH HEAD
- (3) BRIGHT SILVER
- (4) ONE
- (5) N/A
- (6) INDIST INGUISHABLE

STAFF MESSAGE DIVISION UNCLASSIFIED MESSAGE

INCOMING

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PAGE TWO RJDIKF 1

- (7) NONE
- (8) SAME RADIANCE DURING OBSERVATION
- B. DESCRIPTION OF COURSE OF OBJECT
 - (1) BRIGHT SHINY SPOT IN SKY
 - (2) 45 DEGREES ABOVE WING LEVEL OF AIRCRAFT AT 20,000 FEET,
 90 DEGREES PORT RELATIVE ANGLE OF AIRCRAFT. HEADING
 290 DEGREES MAGNETIC (A/C HEADING)
 - (3) SAME
 - (4) APPEARED MOVING SLIGHTLY TO THE WEST
 - (5) AIRCRAFT CHANGED HEADING AND OBJECT WAS LOST.
 - (6) 5 MINUTES
- C. MANNER OF OBSERVATION.
 - (1) AIR VISUAL
 - (2) NONE
 - (3) TWO F 89 D, 54-199, 20, 000 FEET, 290 DEGREES MAGNETIC KEFLAVIK AIR PORT
- D. TIME AND DATE OF SIGHTING
 - (1) 301555Z
 - (2) DAYLIGHT
- E. 63 DEGREES 57 MINUTES NORTH; 22 DEGREES 35 MINUTES WEST

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INCOMING

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PAGE THREE RJDIKF 1

- F. HELAN T. JOHNSON, 1ST LT, 57TH FIS PILOT B-6
 KEITH M. BRATTON, CAPT. 57TH FIS RADAR OPERATOR B-6
- G. WEATHER AND WINDS--ALOFT CONDITIONS AT TIME AND PLACE OF SIGHTINGS.

(1)	CLEAR			TEMPERATURE GRAD.
(2)	ALT IT UDE	DIRECTON	VELOCITY	
,	SURFACE	Ø6Ø DEGREES T	10 KNOTS	2 DEGREES CNT.
	6,000	Ø9Ø DEGREES T	15 KNOTS	-6 DEGRREES CENT.
!		Ø8Ø DEGREES T	15 KNOLS	-15 DEGREES CENT.
	10,000		10 KNOTS	-29 DEGREES CENT.
	16,000	050 DEGREES T		-41 DEGREES CENT.
	20,000	Ø6Ø DEGREES T	10 KNOTS	
		120 DEGREES T	10 KNOTS	-61 DEGREES CENT.
	30,000		40 KNOTS	-55 DEGREAS CENT.
	50,000	270 DEGREES T		C CENT
	80,000	260 DEGREES T	100 KNOTS	-61 DEGREES CENT

- H. NONE
- I. SEE K BELOW
- J. SEE K BELOW
- K. COMMENTS OF THE PREPARING OFFICER:

 INTELLIGENCE TECHNICIAN, M/SGT ROBERT F. PLYMPTON. BASE

 CONTROL TOWER, 932ND AC&W SQUADRON AND DET 13, 9TH

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PAGE FOUR RJDIKF 1

WEATHER GROUP WERE CONTRACTED FOR POSSIBLE INFORMATION CONCERNING THIS SIGHTING. THE BASE CONTROL TOWER REPORTED SEVERAL AIRCRAFT OF VARIOUS TYPES IN THE AREA WITH THE HIGHEST BEING AT 30,000 FEET. NO UNIDENTIFIED OR STRANGE OBJECTS WERE OBSERVED BY ANY OF THE CONTROL TOWER OPERATORS AT THE TIME X THE SIGHTING. THE 932ND AC&W SQUADRON WAS IN CONTACT WITH THE TWO OBSERVERS AT THE TIME FOR THE SIGHTING BUT COULD NOT "PAINT" OR VISUALLY SEE THE OBJECT. SERGEANT KESSLER OF BASE WEATHER STATED THAT BALLOONS ARE RELEASED AT THE SAME TIME BY WEATHER UNITS IN GREENLAND, WEATHER SHIP ABLE 350 MILES WEST OF KEFLAVIK AND THE BASE WEATHER STATION. HE STATED IN HIS OPINION WITH THE WINDS, TIME AND DISTANCE FACTORS CONSIDERED THAT THIS COULD NOT HAVE BEEN A BALLOON RELEASED BY EITHER WEATHER OFFICIALS IN GREENLAND OR WEATHER SHIP ABLE. HE STATED THAT THE BALLOON RELEASED AT THIS BASE AT 30 1100Z, ACCORDING TO INSTRUMENTS TRACKING THE BALLOON, RFP BURST AT 30 209Z. HE FURTHER STATED THAT EVEN IF THE BALLOON DID NOT BURST, THAT ACCORDING TO WINDS ALOFT AT THAT TIME, THE BALLOON WOULD HAVE BEEN CARRIED FAR TO THE EAST. THE OBSERVERS WERE

DEPARTMENT OF THE AIR FORCE STAFF MESSAGE DIVISION UNCLASSIFIED MESSAGE INCOMING

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PAGE FIVE RJDIKF :

IMPRESSED AT THE OBJECTS BRIGHTNESS AND VERY HIGH ALTITUDE.

THEY STATED TO THE BEST OF THEIR KNOWLEDGE THE OBJECT MOVED

VERY SLIGHTLY DURING THE 5 MINUTES THEY SAW IT. OBSERVERS

DID NOT RULE OUT THE POSSIBILITY THAT THE OBJECT COULD

HAVE BEEN A BALLOON BUT ITS VERY HIGH ALTITUDE, IT

BRIGHTNESS, AND THEIR NOT HAVING SEEN A BALLOON QUITE LIKE

IT, ASTOUNDED THEM THE OBJECT WAS NOT PURSUED BY THEM, DUE
TO THE IR AIRCRAFT BEING LOW ON FUEL. BOTH OBSERVERS WERE
VERY SINCERE AND COOPERATIVE IN RELATING ALL INFORMATION
THEY HAD ON THE SIGHTING. THIS REPORT IS SUBMITTED ON THE
BASIS OF THE INFORMATION AND ANALYSIS SUPPLIED BY THE
BASE WEATHER DETACHMENT. NO FURTHER FACTS ARE KNOWN AT THIS
TIME CONCERNING THIS SIGHTING OR WHAT IT COULD HAVE BEEN.

L. NONE

BT

3 /0 Ø3 Z JAN RJDIKF

CALIFORNIA FIREBALL OF 1961 JANUARY 16 A.M.S. No. 2365

C. P. OLIVIER, N. D. PETERSEN and J. P. BAGBY

A very spectacular fireball appeared at 5:57 P.S.T., on this date, and passed over southern California, roughly from east to west. Our regional director, N. D. Petersen, at once began to collect observations with the aid of local papers. Later, J. P. Bagby made further efforts covering the territory to the north. Meantime, totally unknown to us, Dr. John A. Russell, Dept of Astronomy, Univ. of Southern California, Los Angeles, Calif., had started a campaign to collect reports on this object. His paper

these facts, it was obvious that Russell's than any we could make, but as both Petersen and Bagby had gone to so much trouble collecting data, and many of the ives filled out followi , it seemed that possible with the

the following solution has been made, fully realizing that lack of much data from north of the path and from the long eastern portion makes the solution of lower weight than one could wish.

We have approximately 65 reports, of which 30 give some angular estimates. . mong them are two from Las Vagas, Liev., where mountains unfortunately restricted accurate altitudes, and one from the Am.S.S. Matsonia which was at sea and west of the entire path. This last is of key importance. Twilight still lingered for most observers, so we in general lack any comparison with stars. Time of appearance was given accurately by 11, and approximate by 17 other observers, so it is certainly known to one minute. That it had a disk is definitely stated by 24; 12 of these give angular diameters: mean 17' = 12'. The color, given by 47, vary greatly. Many color of the head doubtless " erhaps blueobservers 12 estimating duration, - committely they saw only part of the path. The average for the other 18 is 5.75 seconds. The end point is fairly well determined as 11.7 ± 9.9 km; 12 observers. It lies over λ=119°54'W, φ=34°43'N. It is absolutely impossible for us to determine the beginning point. However, by laying off

on the chart a projected path which

has been printed in Griffeth Observer, September 1961. It is also designated as Contributions of the Meteoritical Society, Vol. VI, No. 10. It seems that he was unaware that the A.M.S. was also collecting reports. Having read his interesting paper it is clear that he had the great advantage of having people north of the path who collected reports in numbers, some by trained observers. Nearly all of our reports came from the Los Angeles area, hence south of the path and very near its end. In view of

seemed reasonable, the heights of 12 solution should be considerably better points on the path, for which altitudes were given, were calculated and a line passed through them as well as possible. While the scatter is large, the line turned out better than expected, giving $h=21^{\circ}$ for the radiant, and $a=277^{\circ}$. Russell's projected path was then entered on our chart and the same 12 points calculated for it. The mean line, then drawn, shows far greater deviations and h=27°; his a=291°. (Our azimuths are always counted from the south point, in his article from the north point.) Despite the relatively favorable result of our solution, Russell's should be the better one, as he had many observers in favorable places north of the path and also some along the eastern portion. The method used here is a most approximate one, but we either had to use it or give up any attempt at a solution. As it is, we get almost the same end height, but our sub-end point is distant 30 km in azimuth 321° from his. Though the true length of the path could not be determined by us it was certainly much over 170 km. If one of the Las Vagas observers was correct, the path was more than twice that length. By using the segments of path seen by 8 observers who also gave durations the velocity in last part of path was 19.2 km/sec, but the average deviation from the mean is so very large that little confidence can be placed in this result. The object broke up into perhaps four units following one another, near end of the path. Others described it as followed by a "flame" four times the length of the main body. No long enduring train was left nor any authentic sounds heard. The usual tabular data follow:

Date	
Sidereal time at end point	25°36′
Barran over	indeterminate
Ended over	$\lambda = 119^{\circ}54'W$, $\phi = 34^{\circ}43'N$, at 21.7 km
Length of path	over 170 km
Duration	5.75 + sec.
Radiant uncorrected	a=277°, h=21°
Zonith correction parabolic	
adiant corrected	a=277°, h=17°
	$\alpha = 98^{\circ}, \ \delta = +4^{\circ}$
	$\lambda = 98^{\circ}, \beta = -19^{\circ}$

Parabolic orbit: $i=11^{\circ}$, $\Omega=117^{\circ}$, $\pi=172^{\circ}$, q=0.77 A.U. For comparison's sake Russell's two elliptical orbits are copied from his paper their differences due to what velocity he adopted:

1) a=1.7 A.U., e=0.51, $i=14^{\circ}$, $\Omega=117^{\circ}$, $\omega=53^{\circ}$, q=0.85 A.U., P=2.3y 2) a=2.5 A.U., e=0.66, $i=16^{\circ}$, $\Omega=117^{\circ}$, $\omega=49^{\circ}$, q=0.85 A.U., P=4.0y

It is rather surprising that our parabolic orbit agrees fairly well in inclination, longitude of perihelion and perihelion distance—the node being longitude of Sun + 130° had to agree—when our radiants differed considerably, namely 4° in altitude and 14° in azimuth. It was impossible for us to compute an elliptical orbit as our data did not give the beginning point. Had either Dr. Russell or we had all the

data obtained separately a far better orbit would have been obtained.

Both Petersen and Bagby collected the data and put them in form for use. Without this no solution would have been possible. Olivier made the final calculations. Our sincere thanks go to the numerous observers who sent in reports and to the newspapers which kindly published the requests for them.

1961

White of Norco, California, was sitting in her yard when a faint whistling noise attracted her attention. A ball of fire came screaming down toward the ground, and hit in back of a house across the street. The next day Mrs. White investigated the spot where the object had hit, and saw three charred sircles in the back yard. The ground appeared to be baked by intense heat, but no objects were found.