PROJECT 10073 RECORD CARD

1. DATE
18 Aug 59

2. LOCATION
Terre Haute, Indiana

3. DATE-TIME GROUP
Local 1310
GMT 18/1910Z Aug 59

4. TYPE OF OBSERVATION
☐ Ground-Visual ☐ Ground-Radar
☐ Air-Visual ☐ Air-Intercept Radar

5. PHOTOS
☐ Yes
☐ No

6. SOURCE
Civilian

7. LENGTH OF OBSERVATION
sev mins

8. NUMBER OF OBJECTS
1

9. COURSE
SE-NW

10. BRIEF SUMMARY OF SIGHTING

Obj sighted at zeneth of its angular flight. Calculated apparent velocity was 120,000 mph a height of 120,000 ft. At the same time of the observation a noise was heard which would resemble frying. Obj was shell like in shape & traveled directly over LAT 39°28'00" & LONG 87°26'00" SE-NW. No trail or impact noise. Flash was detected.

11. COMMENTS

Info is very limited, however ATIC & agrees w/conclusion of NASA that obj was probably a bolide.

12. CONCLUSIONS

☐ Was Balloon
☐ Probably Balloon
☐ Possibly Balloon

☐ Was Aircraft
☐ Probably Aircraft
☐ Possibly Aircraft

☐ Was Astronomical
☒ Probably Astronomical Meteor
☐ Possibly Astronomical

☐ Other _____
☐ Insufficient Data for Evaluation
☐ Unknown

ATIC FORM 329 (REV 26 SEP 52)

NATIONAL
AERONAUTICS
AND SPACE
ADMINISTRATION

GODDARD SPACE FLIGHT CENTER
GREENBELT, MARYLAND
GRANITE 4-9000 TWX: BYN MD 867

3

IN REPLY REFER TO

Theoretical Division
8719 Colesville Road
Silver Spring, Maryland

March 9, 1961

To ATIC for analysis and/or evaluation & basis for reply!

Mr. [redacted]
Terre Haute, Indiana

Dear Mr [redacted]

The object which you describe was apparently traveling at an angular velocity such that its apparent velocity was about 1 mile per hour for every foot of height. It would therefore reach an ordinary meteoric velocity of perhaps 120,000 miles per hour at a height of 120,000 feet or 24 miles, which is a reasonable height for a meteor.

A satellite on the other hand at this height would be moving only about 18,000 miles per hour; and the same would be true for objects of the type which I described.

If it were a meteor, then it is interesting that you should have heard a noise. Ordinarily, noises could not be propagated over distances such as 24 miles in less than about 120 seconds, or 2 minutes. By this time, the meteor should have been long gone. On the other hand, objects of the type which you seem to be describing, accompanied by a noise heard at the same time (which is sometimes described as "like that of frying") have been reported before. See for example Nininger's book, "Out of the Sky", page 55. If you are sure that the noise was heard at the moment the object passed overhead, it might be worthwhile recording--perhaps by a brief letter to some journal.

Sincerely yours,

John A O'Keefe

John A. O'Keefe
Assistant Chief
Theoretical Division

JAO:jer

[redacted]

March 14,1961

[redacted]

Dear Sir:

I have been advised by an expert that an observation carried on in August 18,1959 of a meteor like object may be worthwhile recording in some journal.

At 19h 10m G.C.T., on the above date,an object was sighted at the zeneth of its angular flight. The calculated apparent velocity was 120,000 miles per hour and a height of 120,000 feet. At the same time of thw observation a noise was heard which would resemble frying.The object was shell like in shape and traveled directly over LAT. 39° 28' 00" and LONG. 87° 26' 00" South - East to North - West. No trail or impact noise Flash was detected.

The observation was witnised .

Sincerely

[redacted]

SCIENCE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
1515 MASSACHUSETTS AVENUE, NW, WASHINGTON 5, D.C. • DUPONT 7-7171

22 March 1961

Mr. [redacted]

Dear Mr. [redacted]

Thank you for your letter of March 14 in which you describe seeing an object of unknown origin. As you know, there are a good many such sightings each year, and you should write not to us but to the United States Air Force, Section on Unidentified Flying Objects, Washington 25, D.C.

I am accordingly returning your letter.

Sincerely,

[redacted]

Enclosure

Am sending the entire thing to you do what you wish with it.

Sincerely

[redacted]

24 April 1961

Dear Mr [redacted]

This is in reply to your recent letter concerning an observation you described which occurred August 18, 1959.

The Aerospace Technical Intelligence Center furnishes the following explanation following a study of the situation reported by you.

ATIC states that the information furnished was very limited; however, the Center agrees with the conclusion offered by NASA that the object observed was probably a bolide. Bolides are those very bright meteors which are seen or heard to explode. (Your writer has been fortunate enough to observe two bolides.)

It is ATIC's opinion that the meteor observed by the witness was overtaking the earth at an angle of approximately 75 degrees to the plane of the ecliptic. This angle would be necessary to give the meteor the SE to NW path as reported. As a result of the 75° angle, the true velocity of the meteor in the ecliptic plane was approximately 40 Km (25 miles) per second, and the true velocity normal to the ecliptic was 10.75 Km (6.7 miles) per second. The earth's orbital velocity of 29.7 Km (18.5 miles) per second, subtracted from the meteor's velocity of 10.45 Km (6.5 miles) per second, gives the overall relative velocity of the meteor, which was 14.95 Km (9.33 miles) per second. Unless the meteor entered the atmosphere parallel to the tangent at the witness' location, the apparent velocity would be further reduced by the cosine of the angle between the tangent line and the meteor's real path. It is concluded that the meteor thus viewed was moving at a much slower relative velocity than that reported by the witness.

Since there was no report of the duration of this sighting, it must be pointed out that long duration "flights" have been recorded. The record is that of a meteor which lasted for 9011 Km (5,650 miles) at an average velocity of 8 Km (5 miles) per second. This meteor would have taken 18.8 minutes to complete this flight (Journal Royal Astronomical Society, Canada, Volume Seven, page 145, 1913). Slow

meteors such as that reported by you ionize at approximately 85 Km (53 miles - 279,840 feet) and only the largest, slowest-moving fireballs have not burned away by 60 Km (37.5 miles - 198,000 feet). The meteor reported by you seems to fall into the bright fireball class and probably endured to a much lower altitude. The absence of a trail, which would have appeared as smoke in the daytime, is not unusual for slow meteors.

Since the sighting reported by you probably lasted a relatively long time, it is possible that the sound reached the witness shortly after the meteor disappeared from sight. Experiencing such a sight is rather startling and it is possible that the witness was unable to recall a time lag between the sighting and the occurrence of sound.

I would like to recommend that you contact Dr. [redacted] who is conducting extensive study on meteors of the fireball class. His address:

Dr. [redacted]
[redacted] Pennsylvania

I hope you will find the above helpful.

Sincerely,

WILLIAM T. COLEMAN
Major, USAF
Public Information Division
Office of Information

Mr. [redacted]

File 18 Aug 59
Apr.

AEROSPACE TECHNICAL INTELLIGENCE CENTER
UNITED STATES AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE
OHIO

REPLY TO ATTN OF: AFCIN-4E

SUBJECT: UFO Sighting [redacted]

12 APR 1961

TO: SAFOI-3d (L/Col Tacker)

1. References:

a. Letter to [redacted] from NASA, dated 9 March 1961 explaining the probable cause of [redacted]sighting of an unidentified flying object on 18 August 1959.

b. Letter to Science, AAAS from Mr [redacted] dated 14 March 1961 outlining general information concerning his sighting of an unidentified flying object on 18 August 1959.

c. Letter to Mr [redacted] from Science AAAS, dated 22 March 1961 suggesting that [redacted] report his sighting to the United States Air Force.

2. The information concerning Mr [redacted] sighting, reference 1b, is very limited; however, ATIC agrees with the conclusion of NASA that the object observed by Mr [redacted] on 18 August 1959 was probably a bolide. Bolides are those very bri[redacted] meteors which are seen or heard to explode.

3. Very little data was provided concerning Mr [redacted] sighting, and that which is provided is very rough. However, it is the ATIC opinion that the meteor observed by the witness was overtaking the earth at an angle of approximately 75° to the plane of the ecliptic. This angle would be necessary to give the meteor the SE to NW path as reported by [redacted]. As a result of the 75° angle the true velocity of the meteor in the ecliptic plane was approximately 40Km (25 miles) per second, and the true velocity normal to the ecliptic was 10.75 Km (6.7 miles) per second. The earth's orbital velocity of 29.7 Km (18.5 miles) per second subtracted from the meteor's velocity of 10.45 Km (6.5 miles) per second. The overall relative velocity of the meteor was 14.95 Km (9.33 miles) per second. Unless the meteor entered the atmosphere parallel to the tangent at the witnesses location the apparent velocity would be further reduced by the cosine of the angle between the tangent line and the meteor's real path. It is concluded that the meteor viewed by Mr [redacted] was moving at a much slower relative velocity than that reported by the witness.

4. [redacted] did not report the duration of his experience, but long duration me[redacted]or flights have been recorded. The longest recorded flight is that of a meteor which lasted for 9011 Km (5650 miles) at an average velocity of 8Km (5 miles) per second. This meteor would have taken 18.8 minutes to complete this flight (Journal Royal Astronomical Society,

Canada, Vol 7, page 145 (1913)). Slow meteors such as that observed by Mr [redacted]onize at approximately 85 Km (53 miles, 279,840 feet) and only the largest, slowest moving fireballs have not burned away by 60 Km (37.5 miles, 198,000 feet). The meteor observed by Mr [redacted] seems to fall into the bright fireball class and probably endured to a much lower altitude. The absence of a trail, which would have appeared as smoke in the day time, is not unusual for slow meteors.

5. Since Mr [redacted]s sighting probably lasted a relatively long time, it is possible that the sound reached him shortly after the meteor disappeared from sight. Experiencing such a sight is rather startling and it is possible that the witness was unable to recall a time lag between the sighting and the occurrence of sound.

6. It is suggested that Mr [redacted] be forwarded the address of Dr [redacted] who is conducting extensive study on meteors of the fireball class.

7. The addresses of Dr [redacted] and M [redacted] are as follows:

[redacted]

FOR THE COMMANDER:

PHILIP G. EVANS
Colonel, USAF
Deputy for Science and Components

3 Atch:
1. Fax cy ltr NASA, 9 Mar 61
2. Fax cy ltr to Science, 14 Mar 61
3. Fax cy ltr fr Science, 22 Mar 61