

PROJECT 10070 RECORD CARD

1. DATE 13 Feb 52	2. LOCATION GRANITE CITY, ILLINOIS	3. CONCLUSIONS <input type="checkbox"/> No Return <input type="checkbox"/> Possibly Enemy <input type="checkbox"/> Possibly Friendly <input type="checkbox"/> No Aircraft <input type="checkbox"/> Friendly Aircraft <input checked="" type="checkbox"/> Possible Aircraft <input type="checkbox"/> No Return <input type="checkbox"/> Possible Return <input type="checkbox"/> No Return <input checked="" type="checkbox"/> RADAR <input type="checkbox"/> No Return Data for Evaluation <input type="checkbox"/> Unknown
4. DATE-TIME OF SIGHTING 13/1230 CST 13/1430 P	5. TYPE OF OBSERVATION <input type="checkbox"/> Ground Visual <input type="checkbox"/> Ground Radar <input type="checkbox"/> Air Visual <input type="checkbox"/> Air Radar	
6. NUMBER OF OBSERVATIONS 2	7. SOURCE Military Personnel	8. NUMBER OF OBJECTS 1
9. SUMMARY OF SIGHTING Target appeared on radar scopes of a/c and ground radar unit as being a normal a/c plotting traveling at a high rate of speed.	10. COMMENTS 1. <u>GD RADAR</u> <u>RADAR MALFUNCTION</u> 2. <u>AIR INTERCEPTOR RADAR</u> <u>INSUFF DATA</u>	

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~~SECURITY INFORMATION~~

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5 Page
A/C

Esc ltr fr 3903D Radar Bomb Scoring Group, Subject: Report of Incident, 353.41

DICT (353.4 19 Feb 52) 1st Ind

HEADQUARTERS STRATEGIC AIR COMMAND, Offutt Air Force Base, Omaha, Nebraska 3 ADD 1952

TO: Chief, Air Technical Intelligence Center, Wright-Patterson Air Force Base, Dayton, Ohio

The basic communication concerning sighting of an unconventional airborne object is forwarded as an item of interest to the Air Technical Intelligence Center.

FOR THE COMMANDING GENERAL:

J. H. Walsh
for

JAMES H. WALSH
Colonel, USAF
Director of Intelligence

4543

13 FEB 52
TJK

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DOD DIR 5200.10

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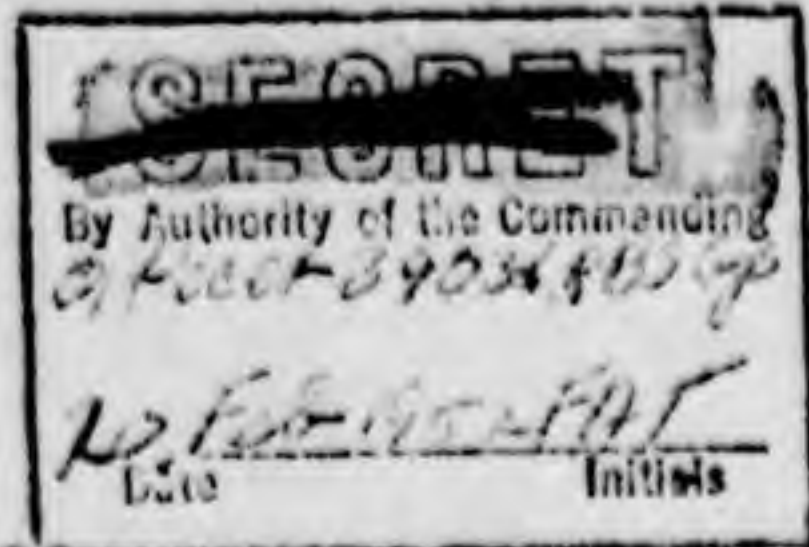
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752-6810

7-3712-43

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HEADQUARTERS
3903D RADAR BOMB SCORING GROUP
Carswell Air Force Base, Fort Worth, Texas

S3 353.41

19 February 1952

Xul
SUBJECT: Report of Incident

4543

TO: Commanding General
Strategic Air Command
Offutt Air Force Base
Nebraska

1. The following are the known facts concerning an unidentified "target" tracked by Detachment 4, 3903d RBS Group, stationed at Granite City Engineer Depot, Granite City, Illinois on the night of 13 February 1952 during the evaluation mission time scheduled for the 97th Bombardment Wing.

a. Aircraft 8095 was cleared from the IP of Jacksonville, Illinois, pressure altitude of 29,000 feet, at a range of about 75 miles from the RBS site, on a true course of 180° at about 2230 hours CST.

b. Ground-to-air radar contact was established with a "target" over the IP at which time the range and azimuth of the "target" appeared normal, the angle of elevation in mils appeared to approximate the altitude of the aircraft cleared for the run and the approach of the "target" was as reported by the cleared aircraft.

c. The "target" was locked in automatic tracking at about forty miles from the site, at which time an altitude check was possible; an altitude of 48,000 feet was read by use of a doubler control in the altitude circuit. Due to the fact that the progress of the "target" along the run up to the automatic tracking range appeared normal, it was assumed that the X-2 altitude doubler circuit was inoperative.

d. The "target" continued to progress at a normal ground speed and heading to the site and target area until a proximately twenty miles from the site, except for the questionable altitude readings.

e. At about twenty miles from the site, the "target" increased its speed and turned to a new heading of about 197° degrees and began descending.

f. During the time the plotting equipment was switched from map scale (1:250,000) to plotting scale (800 yards per inch), and the

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S3 353.41

SUBJECT: Report of Incident (19 Feb 52)

equipment "settled", the "target" had continued its descent and was then initially plotted at a horizontal range of about five (5) miles west of the site.

g. The "target" was recorded in the expanded scale of the plotting equipment to the maximum range possible for one setting of the controls, during which time the horizontal ground tracks measured succeeding speeds during five second intervals of 924, 888, 840, 804, and 744 miles per hour.

h. During the twenty-five seconds that the "target" was plotted in expanded scale settings of the plotting equipment, the "target" maintained a heading of about 197° for the first fifteen seconds and then a gradual change to the west was detectable during the last ten seconds of the plot, showing a heading of about 200°.

i. Radar contact was made with the "target" after the plot and it headed east at an altitude of about 30,000 feet, approximating that of the aircraft using the RES site.

2. Immediate checks were made on the RES equipment, and it was determined that the equipment was operating normally, therefore, the incident could not be credited to the ground radar.

3. It is estimated that the "target" was traveling at about a speed of 1090 miles per hour during its plotted descent, when the horizontal component of its speed registered 924 miles per hour.

4. It is assumed that the "target" was an aircraft pacing the bomber on its run; that at about twenty miles from the site, the aircraft banked and descended across St. Louis; that the aircraft began pulling out of its descent and decelerating at the same time banking to the west for a new level heading.

5. No wind information was available at the site for the extremely high altitudes, but the air mass movement at about 30,000 feet was in the neighborhood of 70 miles per hour from 260°.

6. Forwarded for your information and any action deemed appropriate.

FOR THE COMMANDING OFFICER:

F. A. Thompson

F. A. THOMPSON

Captain, USA

Adjutant

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(Uncl) Unidentified Radar Returns

ATLAI-2

ATIAF-5

27 May 1953

Attn: Mr. James

LT R.M. Olsson/Jos
65365/B263A/PA30

1. Inclosed are two sightings of unidentified aerial objects which Project Blue Book requests you review for a possible explanation.

2. The first, 13 Feb 52, Granite City, Illinois, concerns a seemingly conventional target painted by an automatic tracking device which eventually reaches the unconventional speed of 1090 mph. In this instance there is some confusion on whether the target was picked up by air radar or not. Further information to determine the presence of a possible inversion layer was requested but unfortunately not forwarded by Asheville.

3. The second sighting took place at Carswell AFB on 13 Feb 53. Project Blue Book believes that the visual and radar sighting may be explained by a/c and ground clutter respectively, just happening to be coincident.

4. As an item of general interest Blue Book would like to know if a moisture inversion can affect a radar as a temperature inversion often does.

2 Incls

- 1. File dated 13 Feb 52
Granite City, Ill
- 2. File dated 13 Feb 53
Carswell AFB

ROBERT M. OLSSON, Lt, USAF
Acting Chief, Aerial Phenomena Section

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SUBJECT: (U) Unidentified Radar Returns (27 May 1953)

THRU APLAE
TO APLAE-5

FROM APLAE-2

DATE 3 June 53 COMMENT NO. 2
Mr. James/lag
65364/Bldg 263A

1. The incident reported as happening at Granite City, Illinois, 13 Feb 52, cannot be firmly evaluated. However, since the target appeared to be normal until the radar tracking equipment was switched to an expanded scale for a 25 second period, it appears very likely that there was some malfunctioning of the radar; although the report states that immediate checks of the RBS equipment determined that the radar tracker was operating normally. It is very doubtful that additional data obtained at this late date would be of value in evaluating this target unless similar happenings have been experienced since 13 Feb 52.

2. The radar data contained in the report from Carswell AFB, dated 13 Feb 53, is not sufficient for analysis purposes. For instance, there is no indication that the targets observed on the APG-41 radar were moving targets. The weather data submitted indicates that there was a temperature inversion and a moisture lapse at about the time of the incident. This weather condition could cause radar ground clutter signals to appear above the horizon, although the report states that a check indicated that no ground return signals were received.

3. The following information is in reply to paragraph 4 of Comment No. 1:

"The properties of the atmosphere which determine the refractive index (bending) and which change with height are temperature, pressure, and moisture content.

"Excessive refraction occurs when there is a rapid decrease of moisture with height (moisture lapse) and, to a lesser degree, when there is a rapid increase of temperature with height (temperature inversion). The most pronounced cases of excessive refraction occur when both of these conditions prevail at the same time."

4. This comment is classified ~~RESTRICTED~~ UNCLASSIFIED

2 Incls
n/c

ROY L. JAMES
Chief, Radiation Section

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EXTRACT FROM STATUS REPORT # 6

DATE: 13 Feb 52

TIME (Local): Unknown

LOCATION: Granito City, Ill.

LENGTH OF TIME OBSERVED: Unknown

SOUND: Unknown

SPEED: High - up to 1090 MPH

ALTITUDE: 30,000'

HEADING: Varied

SOURCE: Radar Crew

ACTION OR COMMENTS: Pending

DESCRIPTION OF INCIDENT: Radar Bomb Scoring Group observed unusual radar returns while attempting to score bomb run. ~~(Secret)~~

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EXTRACT FROM STATUS REPORT # 7

DATE: 18 Feb 52

TIME (Local): Not Reported

LOCATION: Granite City, Ill.

LENGTH OF TIME OBSERVED: Not Reported

SOUND: Unknown

SPEED: High up to 1,000 mph

ALTITUDE: 30,000'

HEADING: Varied

SOURCE: Radar Crew

ACTION OR COMMENTS: Checked with Electronics Branch, AFIC. No conclusions.

DESCRIPTION OF INCIDENT: Radar Bomb Scoring Group observed unusual radar returns while attempting to score bomb run. ~~(Secret)~~

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