

AF FORM 118-PART I
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COUNTRY Territory of Alaska, U.S.A.		REPORT NO. IR-1-52	(LEAVE BLANK) Gd 11176
AIR INTELLIGENCE INFORMATION REPORT			
SUBJECT Unusual Unidentified Radar Targets <i>TC Col Hear</i>			
AREA REPORTED ON Ladd Air Force Base, Alaska		FROM (Agency) Intelligence Directorate, Hq AAC	
DATE OF REPORT 8 February 1952	DATE OF INFORMATION 22 and 23 January 1952	EVALUATION F-6	
PREPARED BY (Officer) TIMOTHY J. FLANAGAN, Capt, USAF Chief, Elect Intel Br		SOURCE Statements by observers of incidents.	
REFERENCES (Control number, director, previous report, etc., as applicable) None			
SUMMARY: (Enter concise summary of report. Give significance in final one-sentence paragraph. List inclusions at lower left. Begin text of report on AF Form 118-Part II.) This report contains a narrative statement based on observer reports and on conclusions of preliminary study of the unusual radar targets which appeared near Ladd Air Force Base, Alaska, on 22 and 23 January 1952.			
APPROVED: <i>Francis H. MacDuff</i> FRANCIS H. MACDUFF Lt Col, USAF Director of Intelligence			
17 Incls (1 ea) 1. Msg, 5001st Composite Wg, 22 Jan 52 2. Ltr, Hq Alaskan Comd, 24 Jan 52 3. Ltr, AAC, 25 Jan 52 4. Rept, 5004th Air Intel Sv Sq, 28 Jan 52 5. Statement, Lt A.L. Boyd, Jr., Controller, F-2 6. Statement, Lt J.C. Frost, Maint, F-2 7. Statement, Lt C.E. Garrett, Plt 8. Statement, Capt V.D. Ramsey, Radar Observer 9. Statement, Lt R.R. Diment, Plt 10. Statement, Lt G.A. Hayward, Radar Observer 11. Statement, Capt R.B. Peterson, Plt 12. Statement, Lt G.A. Garrett, Plt 13. Statement, J.S. Bangs, Gen Elec Co Tech Repr 14. Statement, J.S. Bangs, Gen Elec Co Tech Repr 15. Statement, A.G. Wedin, Opr Anlys 16. Statement, Lt G.H. Wilkinson, Controller, F-1 17. Overlay, Ftr Track and Unidentified Track			
UNUPGRADED AT 3 YEAR INTERVALS; DECLASSIFIED AFTER 12 YEARS. DOD-DIR 5200.10			
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AF FORM 112 - PART II
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AIR INTELLIGENCE INFORMATION REPORT

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At approximately 1020Z, 22 January 1952, Radar Site F-2 made an original contact with an unusual target in the area of Nenana (Point "Jig"). The scope presented the target clearly but on a slant of 15° - 20° instead of perpendicular to radii, the normal manner of presentation. The speed was estimated at 1350 to 1500 knots.

At 1030Z an F-94 (pilot, Lt C.E. Garrett; radar operator, Capt V.D. Ramsey) was airborne and vectored to Nenana. F-2 lost the target prior to the aircraft's arrival in the vicinity, so the aircraft was given a patrol mission along the Alaskan Range. At approximately 1052Z, F-2 again contacted this target and held it for about one (1) minute. Due to the fact that the target was outbound in relation to F-2 and to the aircraft and moving at a high rate of speed, no attempt was made to vector the aircraft on the target.

At approximately 1200Z, while the aircraft was en route to Ladd Air Force Base, the radar operator received indication of a target in the Nenana area. Finding the target ahead and low (approximately 24,000 feet altitude), the pilot made an intercept pass from 24,000 yards to 200 yards, with a good target on the radar scopes. The overtaking speed was better than 100 knots.

At 200 yards the pilot pulled up and over the apparent target location. Aircraft speed on the run was approximately 250 knots indicated. After going over the target, two (2) 360° turns were made and a search of the area conducted for several minutes without making further radar contact or visual sighting.

During this time F-2 was able to track the F-94 but had no other target visible. The F-94 landed at 1225Z. The weather in the Fairbanks area during this period - 1030Z to 1230Z, 22 January 1952 - was: ceiling unlimited; visibility 15 miles or more. The pilot reported that the Aurora Borealis was brilliant but not exceptionally so.

A pilot and a ground observer reported what appeared to be a comet or meteor to the southwest of Ladd Air Force Base, approximately four (4) hours earlier, this date.

On 23 January 1952, from 1020Z to 1140Z, the same F-94 (pilot, Lt R.R. Diment; radar operator, Lt C.A. Hayward) was dispatched on a mission to see if a target similar to that of 22 January could be found. At approximately 1050Z a radar contact was made at 20,000 yards. The aircraft at this time was between Clear and Nenana at 18,000 feet in a shallow climb. An intercept run was begun and followed through to 2700 yards, at which time the target disappeared. The overtaking speed was more than 100 knots, the aircraft indicating 230 knots.

After radar contact was lost, further search was made in this area. Contact was not made either by radar or visual observation. The weather was clear, with visibility unlimited; the pilot reported that the Aurora Borealis was very active and in his opinion, unusual.

At approximately 1030W, 23 January 1952, a team checked the aircraft, utilized in these flights, for radiation, but with negative results. Due to the time lapse between the flight on 22 January and the time at which this check was made, it is possible that the negative report is not of value.

Dr. C.T. Elvey, Director of the Geophysical Institute, University of Alaska, stated, in effect, that in his opinion it is unlikely that a meteor would produce an indication on a radar set that is not specifically designed or modified for that purpose.

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COMMENTS of Preparing Officer:

The following hypotheses are advanced concerning the aforementioned radar targets:

1. That the energy transmitted from F-1 might have reflected from Mt. McKinley in such a manner as to create these radar targets.

Comment: Due to the frequencies and the pulse repetition frequencies of the radar sets involved (AM/CPS-6B at F-1 and F-2, and the AM/APG-33 in the aircraft) it is thought highly improbable that this hypothesis is a valid one for technical reasons.

2. That ionized gases due to meteor activity might have produced these radar targets.

Comment: It is thought that the presence of a meteor southwest of Ladd Air Force Base at approximately 2000Z, 21 January 1952, might have some bearing on the subject. It is not considered likely, in view of Dr. Elvey's statement, that the meteor itself caused this target return. There is the possibility that the ionized gases, which may have been present with the meteor's passage, might have broken into small clouds (irregular masses of ionized gas) and have been floating around in the upper air. One or more of these clouds, being at the mercy of upper air currents, may have drifted into the area of Ladd Air Force Base. Further, the possibility exists that an ionized cloud may give a radar return. The passage of an aircraft near such clouds, such as happened when the fighter broke off the intercept on both nights, would tend to disturb the surrounding air in such a manner as to disperse the ionized cloud. This would tend to explain the aircraft's inability to re-establish radar contact with the target after an intercept pass. The failure of F-2 to contact a target on 23 January 1952 is not explainable.

3. That the activity of the Aurora Borealis might have produced these radar targets.

Comment: Due to the known effect of the Aurora Borealis on radio in this theater, it is thought that some effect on radar also might be experienced. This is believed to be beyond the scientific capabilities of this Command to determine.

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