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SECURITY INFORMATION

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STATUS REPORT

PROJECT BLUE BOOK - REPORT NO. 6

FORMERLY PROJECT GRUDGE

PROJECT NO. 10073

30 APRIL 1952

AIR TECHNICAL INTELLIGENCE CENTER
WRIGHT-PATTERSON AIR FORCE BASE
DAYTON, OHIO

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APPENDIX II

Nenana, Alaska - 22 January 1952

I. DESCRIPTION OF INCIDENT

At 1020Z on 22 January 1952, a radar station at Murphy's Dome, Alaska, observed an unidentified radar return. The target was going away from the station on an azimuth of 210°, at a speed of about 1100 mph when first observed but appeared to reverse its direction and returned toward the station. The set was adjusted so that the target could be observed as it closed in on the station but after this change was made the target was no longer observed. Seven minutes later (approximately 1030Z) the target was again observed, however at about its original location, and again going away from the station. Just before it faded it appeared to be making a turn back toward the station.

At 1030Z an F-94 was airborne to search for the object. At this time the object was going away from the station at a high rate of speed so the F-94 was told to orbit. About this time the ground station lost contact with the object but continued to track the F-94.

At about 1100Z as the F-94 was approaching Nenana (near Fairbanks), the radar observer in the F-94 observed two targets, one faint and one bright. The aircraft was at 30,000 ft. and the target was at 25,000 ft. The targets crossed from right to left and appeared to be traveling slowly and as the F-94 approached the target a high rate of closure was indicated. The contact was lost at a range of 200 yards.

Approximately one hour later, again near Nenana, another contact was made by the F-94. In this instance the target was kept dead ahead and level. When the target was at a range of 200 yards, the pilot pulled up and the target was lost. The rate of closure during the run was 100 knots even though the F-94 had flaps down. No other contacts were made and the aircraft was released at 1210Z.

During the two airborne contacts the F-94 was being tracked by the ground station but the object was not being picked up.

The weather was clear, but no visual sighting was made. On the same night, the same crew had visually identified a C-54, a C-47, and a small civilian aircraft from 300 to 500 yards. There were no clouds in the sky but it was a dark night.

No malfunctions were found in either radar set.

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AF FORM 112 PART I
APPROVED 1 JUNE 1948

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(CLASSIFICATION)

[redacted]
AUTHORITY OF CG AAC
DATE FEB. 52 INITIALS

COUNTRY	REPORT NO.	(LEAVE BLANK)
Territory of Alaska, U.S.A.	IR-1-52	941176

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT: Unusual Unidentified Radar Targets

TO Col Hearn

AREA REPORTED ON	FROM (Agency)
Ladd Air Force Base, Alaska	Intelligence Directorate, Hq AAC

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
8 February 1952	22 and 23 January 1952	F-6

PREPARED BY (Officer)	SOURCE
TIMOTHY J. FLANAGAN, Capt, USAF Chief, Elect Intel Br	Statements by observers of incidents.

REFERENCES (Control number, directive, previous report, etc., as applicable)

None

SUMMARY: (Enter concise summary of report. Give significance in final one-sentence paragraph. List inclosures at lower left. Begin text of report on AF Form 112—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:

Francis H. MacDuff
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. Ramey, Radar Observer
9. Statement, Lt R.R. Diment, Plt
10. Statement, Lt C.A. Hayward, Radar Observer
11. Statement, Capt R.B. Peterson, Plt
12. Statement, Lt C.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

SGC

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Alaskan Comd, ATTN: J-2
5001st Composite Wg, ATTN: Wg Intel Off

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OPERATIONAL INTELLIGENCE
SECURITY INFORMATION 1132

FROM: CG 5001st CORP PG LADD AFB

ACTION TO: CG AAC ESP AFB

DTG: 222340Z Jan 52

IFWCP 3-0103C for Dir of Intel ref AAC Ltr 200-3 par 6Ab, Preliminary Report on Unidentified Radar Plots follows: At 1018Z first plot track 17 picked up by F-2. Tgt was tracked intermittently beginning over b2 deg22Z151 deg 25 A at 1018z until its final disappearance over b3 deg 25N and 150136 at 1042Z. Minimum speed 1500 knots max 2400 knots. A-3 was unable to pick up track. Weather in area was VFR. F-94 was scrambled at 1028Z airborne at 1033, went to 20 thousand was vectored by A-2 towards track, unable to pick it up. Climbed to 30 thousand feet. Picked up tgt as a bright blip, radar observer states comparable to that of B-36, unable to lock on as tgt swept past scope too rapidly. This was approx 1053Z. Approx 40 mins later while cruising picked up tgt again in same general area as first contact, tgt was locked on, position was below at approx 24 thousand ft. Range was 24 thousand yds. Ftr closed on tgt dead ahead and level to 200 yds, overtaking speed was 100 knots, when it vanished. Ftr searched area but could not pick up tgt again. In both contacts radar observer states that immediately to rear of blip was a faint ghost like image of identical size. Radar observer reports contacts were sharp well defined images. Comment: Track contacts made by ftr were made after F-2 final track fade. In an earlier flight pilot of same acft reported sighting what appeared to have been a comet or meteor to the southeast approx 4 hrs prior to the above incident. Reliable ground observer at Ladd reported same incident to this office. Complete info by Office of Spec Inv this HQ to follow.

CKDN 1132 (for 2301552)
COPIES T INCAL

AUTHENTICATION:

William H. Wick
WILLIAM H. WICK
Capt USAF
Exec.

11111

HEADQUARTERS
ALASKAN AIR COMMAND
ELMENDORF AIR FORCE BASE
APO 942, U. S. AIR FORCE

31 January 1952

STATEMENT
(James S. Bangs, Civilian)

I presented a theory which would tend to explain the rapid moving aircraft sighted over Mt. McKinley. I present this as a possibility though I would find it hard to duplicate the condition.

By coincidence, on that night we stopped our antenna for maintenance some time between 1000Z and 1015Z with the beam pointed on Mt. McKinley or within 5° of that peak. This was known since we had had reason to check the bearing shortly after stopping rotation. As far as we know, none of the magnetron frequencies were changed until some time between 1045Z and 1100Z. These times coincide closely with the time of initial pickup and final fade of the plots.

Three things are necessary to give this result:

1. Our transmitter frequencies must, in at least one case, be the same as one of their receivers.

2. Our antenna must be pointed at a target (P.E.) which can be "seen" by their radar.

3. The pulse repetition frequencies of the two sets should be nearly equal (almost identical).

Condition 1 is probably present at least once a week by the laws of average since each transmitter is operated over a limited frequency range and the two systems use the same ranges of frequency.

PRF, though close, it is improbable that they would be quite so identical. However, such a condition is always possible.

Our antenna was stopped on Mt. McKinley which can be seen by both sites.

The conditions could be possible, and even though unlikely, I feel that the possibility should be considered.

The reason the track appeared as dots rather than as a land mass is that, even though our beam hits considerable land that could reflect energy to the other site, time required for energy to travel from our antenna to their antenna by way of several land bodies which are relatively close together would give them a point plot.

HEADQUARTERS
ALASKAN AIR COMMAND
ELMENDORF AIR FORCE BASE
APO 942, U. S. AIR FORCE

31 January 1952

STATEMENT

The night following the phenomenon, we attempted to duplicate the results but without success. We stopped the antenna at same azimuth and changed transmitter frequency over a considerable range. No plots were received by F-2.

/s/ JAMES S. FANGS
Field Service Representative
General Electric Co.

CERTIFIED TRUE COPY

Timothy J. Flanagan
Captain, USAF

Incl. # 14

AF111176 14

DISPOSITION FORM

SECRET INFORMATION

FILE NO.	SUBJECT: Comments on Incident of False Targets at Ladd AFB January 22 and 23rd.

TO: AAOID Attn: Capt. T. J. Flanagan

FROM: Operations Analysis

DATE: 4 February 1952

SYMBOL NO. 1

1. From the evidence presented by the various participants it may be concluded that the cause existed in the atmosphere and not from interference. As Mr. Bangs indicated the possibility is remote that F-1 signals reflected from Mt. McKinley caused a target indication at F-2. The detection and tracking of such spurious targets by the F-94's (x-band radar with high prf compared to CPS-6B) plus the fact that they have been so detected at other times and places indicates that interference from F-1 was not the cause.

2. Considering that the target provided sufficient return to provide long range detection and good tracking by the F-94 but disappeared after the F-94 flew near the target location would indicate the possibility that a "blob" of atmosphere temporarily was in a condition to provide radar reflection and passage of the jet disperse: the "blob". It is doubtful that this "blob" could be one of high moisture since the ground radar measured speeds of 1500 to 2400 knots. It might be an ionized "blob".

3. It is recommended that the following actions be taken.

a. That since this is a phenomenon which is observed periodically, pilots and RO's provide reports on each occurrence reporting altitude, initial range of detection, quality of tracking, weather and visibility, condition of Aurora Borealis. Also, when the opportunity is present it is recommended that instead of closing on the target that the pilot fly around the target and determine whether it appears from all directions around the area.

b. That the information concerning the subject incident be transmitted to laboratories specializing in propagation studies for comment.

c. That if the phenomenon is found to occur sufficiently often, a requirement be established for an investigation to determine the cause.

A CERTIFIED TRUE COPY:

Timothy J. Flanagan

TIMOTHY J. FLANAGAN
Capt. USAF

/s/ Arvid G. Wedin
/t/ Arvid G. Wedin
Operations Analysis

AF411176

Incl # 15

DD FORM 96