[redacted]

10/0162.

ATIC NO. ---

AF NO. ---

AF LTR NO. AF Letter

DATE OF INFO 9 March 1950

LOCATION Selfridge AFB, Mich.

SOURCE Radar Operators

DATE OF REPORT 3 April 1950

TIME OF SIGHTING 2046 EST

TYPE Radar

NO. ---

SHAPE Erratic

NO. OF OBJECTS 1

SIZE ---

WEATHER ---

DATE IN TO ATIC ---

COLOR ---

SPEED Up to 1500 MPH

ALTITUDE Up to 45,000'

LENGTH OF TIME OBSERVED ---

TYPE OF OBSERVATION Radar Scope

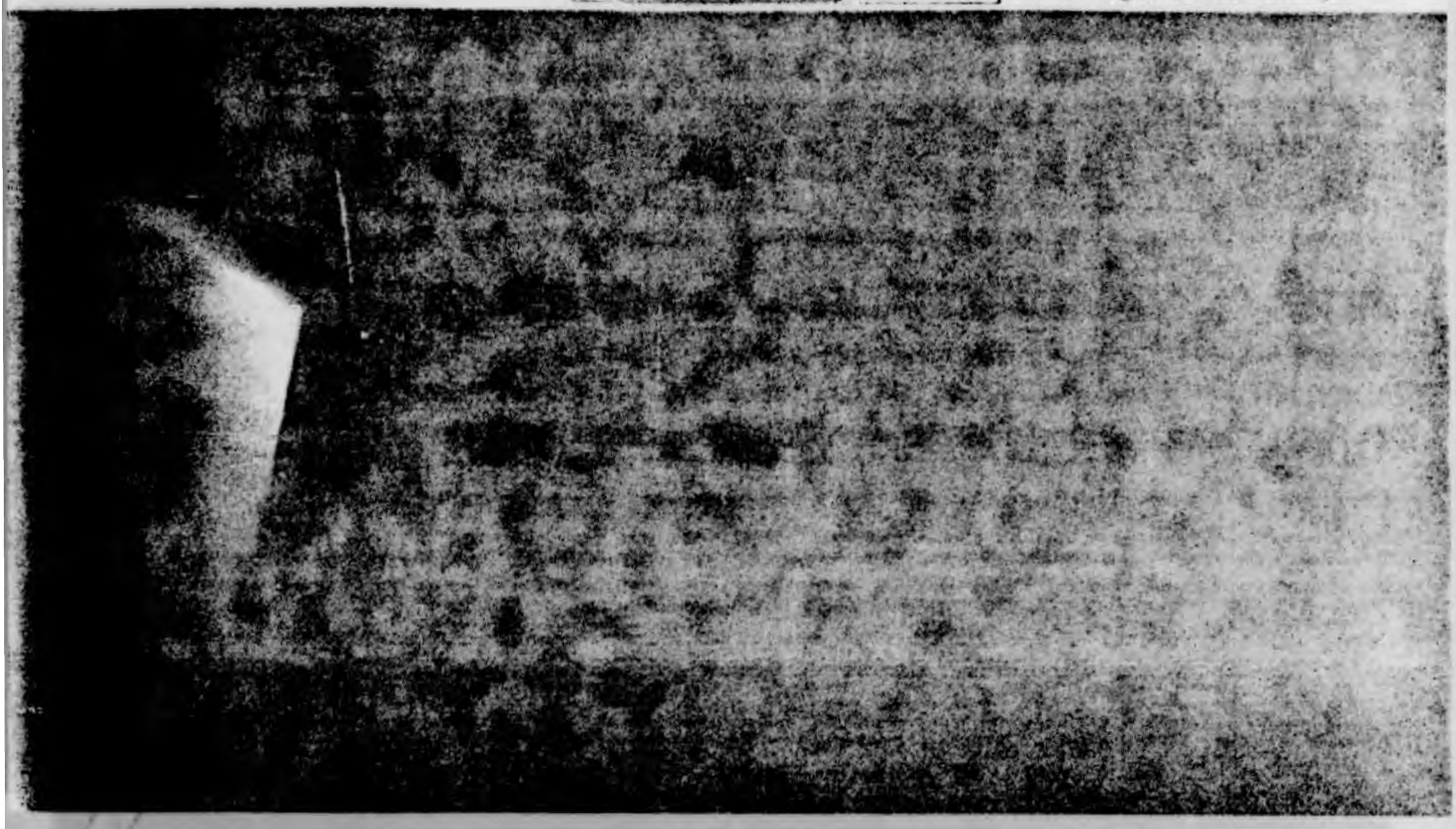
CLASSIFICATION ---

Secondary ATIC Form 329 (1 Jan 52)

REMARKS Changes in altitude very fast Object was observed in the area of Selfridge AFB for several hours by two radar sets. Object was in erratic flight. Analysis by radar station personnel is doubtful if return was due to phenomena. Size comparable to B-36.

(Balloon)

[redacted]



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from the station in Zone 4 and in as close as 38 miles in Zone 4. Lt. MATTSON advised that on Friday, 3 March 1950, at approximately 2305 hours, after he had left a stag party in the Officers' Club and having had only one beer during the course of the evening, he had observed a yellowish light in the sky. MATTSON, at this time, was driving his car from the Officers' Club in the direction of the PX on Selfridge Air Force Base. He slowed his car down and observed the light, the size and brilliancy undetermined but described to be the approximate color and size of an electric light within a house showing through a normal size window at a distance of about 50 to 75 feet on a dark night. The light was descending vertically over the Base and at first appeared to be a flare but, due to the color of the light, it was realized it could not have been a flare. MATTSON then stopped his car and observed the light further. The light then proceeded westward holding the same azimuth for approximately 40 to 50 miles. The light then went southward approximately the same distance, stopping and returning northward from the center line of sight the same distance giving the north-south movement approximately 80 to 100 miles. This occurred within four (4) minutes of time.

3. COMMENT: Persons furnishing this information appeared to be particularly sincere and interested.

4. ACTION: Two copies mailed through District Office No. 5 to Commanding General, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio, ATTN: MCIA. Additional copies forwarded to:

5th OSI District (IC) (2)
Commanding General, Tenth Air Force (2)
Commanding Officer, 56th Fighter-
Interceptor Wing, Selfridge AFB (2)
Commanding Officer, 5[illegible]st ACSW Gp. (2)

R. S. RIFE
Major, USAF
District Commander

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

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[redacted]

HEADQUARTERS
CONTINENTAL AIR COMMAND
MITCHEL AIR FORCE BASE, NEW YORK

Classified [redacted]
by Auth: CG ConAC
APR 1950
(Date) J.M.S. (Initials)

INT 373.5 (E)

APR 1950

503.2

SUBJECT: Unidentified Flying Object

TO: Director of Intelligence, Headquarters United States Air Force, Washington 25, D. C.

1. Attached for your information are two narrative reports concerning radar sighting of an unidentified flying object.

2. The fact that the object was sighted on the scopes of two (2) radars is considered worthy of special note.

3. Comment of technical experts, this headquarters, was solicited and is quoted in part for your consideration:

a. "While it is relatively well known that various ionospheric conditions cause reflections at lower frequencies, it is usually considered that these layers have no effect at the frequencies used by the two radar sets mentioned except when temperature inversion or other atmospheric or tropospheric conditions cause ducting and spurious reflections. Presuming that such idealized conditions existed at the time of these observations, it is conceivable that an actual small change in physical lateral motion in reference to the radar set could cause a seemingly greater change in relative position of the 'object' as observed on the radar scope due to the varying path lengths the radar energy takes to and from the 'object' as a function of the frequency sensitive layers and angles of incidence of the propogated wave. However, the great difference in the frequencies of the L-Band CPS-5 and the S-Band CPS-4 radar sets and the evident correlation of observations between these two sets almost rule out the possibility of anomalous propagation effects. Further, the magnitude of the velocity and accelerations of the three dimensional movements of the 'object' reported are beyond the capability of known heavier or lighter than air vehicles in controlled flight.

b. "Also substantiating this unlikelihood, is the fact that the 'object' was reported as remaining stationary in free space for a mean-period of two minutes.

c. "Further validity is lent to the contention of the reports by statements that first indications, which were at high altitudes, were

[redacted]

UNCLASSIFIED

INT 373.5 (E), "Unidentified Flying Object", (cont)

observed on the CPS-4 height-finder before being observed on the CPS-5 surveillance radar set. This follows logic and field experience, inasmuch as the high altitude coverage of the CPS-5 is known to be poor and the antenna is not capable of being automatically tilted as in the case of the CPS-4 on which the controller may tilt the antenna within wide limitations to observe any high altitude or high angle objects. It is to be noted that previous field experience with a CPS-5 surveillance radar set has indicated that targets picked up at ranges and altitudes indicated in subject report would probably have a reflection aspect ratio in the order of magnitude of a B-29 or greater.

d. "In the absence of detailed vertical and horizontal coverage charts for the specific radar sites and comprehensive weather reports for the area during the period of time these observations were noted, a more complete study or evaluation at this time is not feasible.

e. "In summary, no known electronic phenomena, nor combinations of several electronic phenomena could conceivably produce all of the observations covered by the attached reports."

4. The frequency of reports of this nature has recently increased; instructions have therefore been directed to all radar installations within this command to report scope sightings of unusual objects.

5. It is recommended that reports of unidentified object sightings be reconsidered for submission from all Zone of Interior Air Force agencies.

FOR THE COMMANDING GENERAL:

Neal J. O'Brien

NEAL J. O'BRIEN
Colonel, USAF
Air Adjutant General

2 Incls
1. Report of 1st Lt. F.E.Parker
2. Report of 1st Lt. F.K.Mattson

OIN
F5772

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

#J772

10 March 1950

NARRATIVE REPORT OF
1ST LT FRANCIS E. PARKER, AO 743 480, 551ST AC & W SQ, OCI STA COLDR,
SELFRIDGE AFB, MICHIGAN

On the night of 9 Mar 50, our radar station was in operation monitoring night flying by units of the 56th Fighter-Interceptor Group, Selfridge AFB, Mich. I came on duty approximately at sundown, relieved 1st Lt Mattson at the PPI scope (of the AN/CPS-5 Radar Sight), and established contact with the F-80's already airborne. Lt Mattson, Sgt McCarthy, and Cpl Melton, who made up the rest of our crew for this night, mentioned to me at this time that an aircraft had been picked up intermittently on the HRI scope of the AMC/CPS-4 height finder radar at 45,000 feet and over. I knew the highest assigned altitude of the F-80's was 24,000 feet; the target was not at that time visible on either radar scope, so I attributed the report of the high flying aircraft to interference, crew inexperience, or both. Over the next fifteen minutes the rest of the crew, mentioned above, repeatedly reported this high flying target at apparently rapidly changing altitudes without my being able to turn around rapidly enough from my monitering of the F-80's in the area to observe for myself. Finally, however, I saw this target which was a very narrow and clear-cut presentation on the HRI scope. It was at approximately 47,000 feet about seventy (70) miles out, and the indication was definitely not that of a cloud or atmospheric phenomena. I checked pilots in the area by VHF and was assured by F-80 pilot at the highest assigned altitude that he was at 24,000 feet. The clarity, narrowness, and definition of the presentation was definitely that of an aircraft. The target gave a similar presentation to that given by an F-80, and if anything, narrower. It was definitely at this time not presenting a very large reflecting surface towards our station and I could not at this time pick up the target on the CPS-5, ruling out B-36 or other large aircraft. Further indications of this aircraft were picked up intermittently but with increasing regularity for the next 45 minutes or an hour, and entries were made of these occurrences in the controller's log by Sgt McCarthy. Unfortunately, however, the times on this log, though relatively fairly correct, are inaccurate, due to the extreme inaccuracy of Sgt McCarthy's watch. During this period, approximately 1945 to 2030, this target seemed to stay in the area in which our fighters were flying, sometimes approximating their courses, but 20,000 feet above them. During this same 45 minute period, Lt Mattson and other members of the crew reported, both from the HRI scope of the AMC/CPS-4 and another PPI scope of the AN/CPS-5, that

[redacted]

the target hovered in one position and also that it progressed from a position given as 270°, 78 miles at 45,000 feet to a position at 358°, 58 miles at roughly the same altitude, in 4½ minutes. This would give it a speed upwards of 1,600 miles per hour for this run. I cannot substantiate this speed. Coverage of target during this run was reportedly intermittent and the times were not to my knowledge accurately tabulated at actual instances of radar pick-up during this run. Subsequent individual questioning I undertook with members of the crew bear out the possibilities of inaccuracy in timing during this run. I knew only that the target was very fast. I observed during this period, by momentarily turning around and watching the RRI scope, several extreme instances of gaining altitude and losing altitude. I was not able at this time to take down the actual figures, but observed it losing and gaining up to 20,000 feet very rapidly.

I was able, at 2046 EST, to identify this aircraft on my PPI scope (AN/CPS-5) and simultaneously on the RRI scope. The only actual timing and figures I took down on this target I did during the six minutes from 2046 to 2052, during which time this aircraft was giving indications on both scopes without fade. I took down the range and azimuth on the minute for this period and Sgt McCarthy took down the altitudes. (Sgt McCarthy's times were off as aforementioned but in this case, due to the fact that we were both following the same target, I have reconstructed these times into my own, which were taken in grease pencil directly on the scope head, and later transcribed.) Information recorded is as follows:

TIME	AZIMUTH	RANGE IN MILES	ALTITUDE IN FEET
2046	156°	45	25,000
2047	151°	49	29,000
2048	146°	56	35,000
2049	142°	60	33,000
2050	139°	67	35,000
2051	136°	73	33,000
2052	133°	79	33,000

These figures, although not as spectacular as some of the climbs and speeds I had observed, show definitely the erratic speed and altitude changes. The differences in speed from one minute to the next were apparent to me as were the climbs and dives. At 2052 the aircraft faded from the PPI scope and was picked up for periods of one and two minutes up to 120 miles. It appeared to hover for two minutes at approximately 110 miles distant. It faded at 120 miles for the last time. The height-finder carried this aircraft past the

[redacted]

six minute period listed above to a 123°, 87 miles 31,000 feet where it faded for the night from the CPS-4.

The CPS-5 was very accurate on this particular night which was supported by F-80 pilots agreement with many geographical positions given them off the CPS-5. The AN/CPS-4, though a more erratic piece of equipment, could not, through any known or prevalent weakness in its operation, account for this manner of extreme changes in altitude. I went over all possible errors which could be induced by AN/CPS-4 error exhaustively with my technical personnel.

We are continuing investigation at this station.

I have been a rated pilot since 12 Apr 43, and have been assigned to controller duties for approximately 2½ years.

Francis E Parker

FRANCIS E. PARKER
1st Lt, USAF

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE 5D-OSI/DML/fmn
WASHINGTON

THE INSPECTOR GENERAL, USAF
5TH DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
WRIGHT-PATTERSON AIR FORCE BASE, DAYTON, OHIO

IN REPLY REFER TO: 5D 24-21

14 March 1950

SUBJECT: "PROJECT GRUDGE" Unconventional Type Aircraft (Unexplained "Blip" on Radar Scopes Caused by Metallic Targets) SPECIAL INQUIRY

503.14

TO: Commanding General
Air Materiel Command
Wright-Patterson Air Force Base
Dayton, Ohio
ATTN: MCIAXS

1AXA

The attached copies of a spot report regarding the above subject, dated 10 March 1950, are forwarded for your information and file.

1 Incl
Spot Rpt dtd 10 Mar 50
(in dup)

JAMES F. X. O'CONNELL
Lt Colonel, USAF
District Commander

1st Ind MCIAXA-1/JJR/ed

Headquarters AMC, Wright-Patterson AFB, Dayton, Ohio.

TO: The Inspector General, USAF, 5th District Office of Special Investigations, Wright-Patterson AFB, Dayton, Ohio.

1. This Command is desirous of further information from the standpoint of radar:

a. Would like to know the type of radar equipment used.

b. Also would like to know what the weather conditions (in detail) were during the period in question and immediately preceding.

c. Did fighter planes observe anything unusual, or did they report any unusual turbulence in the area?

FOR THE COMMANDING GENERAL:

HAROLD E. WATSON
Colonel, USAF
Chief, Intelligence Dept

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

The Inspector General USAF
25th District Office of Special Investigations
Box 326, RPA, Detroit 32, Michigan

10 March 1950

SPOT INTELLIGENCE REPORT

SUBJECT: Unconventional Type Aircraft
(Unexplained "Blip" on Radar
Scopes Caused by Metallic Targets)

TO: Director of Special Investigations
Headquarters United States Air Force
Washington 25, D. C.
ATTN: Counter Intelligence Division

1. SYNOPSIS: 1st Lt. FRANK K. MATTSON, AO-926313, Radar Operator and Controller, 661st AC & W Squadron, Selfridge Air Force Base, Mich., and 1st Lt. FRANCIS E. PARKER, AO-743169, same duties, same organization, did on 9 March 1950 observe in radar scopes unexplained "Blip". The "Blip" acted in a peculiar manner. It was assumed by MATTSON and PARKER that the unidentified "Blip" was of an unconventional type aircraft. Observations of "Blip" also recorded by enlisted personnel on duty during the concerned period of time.

2. DETAILS: Lt MATTSON was on duty with the 661st Radar Section on 9 March 1950 to control the positions of local jet aircraft. Observations and control were normal until approximately 1945 hours, at which time MATTSON observed a "Blip" on the "IRI" scope at approximately 40,000 feet, range and azimuth holding steady at 270°, 68 miles. "Blip" was brilliant for a few seconds, then faded, and came back at a different location approximately five (5) minutes later. At this time other radar operators observed the "Blip" and questioned it. The estimated speed, which was not well founded but assumed to be about 2500 miles per hour, is a combination of vertical speed and horizontal speed based on various vectors derived from the instruments. The "Blip" was observed when picked up the second time to move laterally to a bearing of 345° and was observed to be consistent for about three (3) minutes with the "PPI" scope. MATTSON, during this period of time, did not record the information in a log. However, his curiosity caused him to contact various jet fighters in the area to determine their altitude, bearing, and speed so it could be used as a double check on the radar scope. MATTSON then left the Radar Room and turned over controller work to

(S)

Subject: Unconventional Type Aircraft (Unexplained "Blip" on Radar Scopes Caused by Metallic Targets) 10 Mar 50

Lt. PARKER. Lt. PARKER requested that the radar crews record in the log various readings and coordinate the various scopes. When PARKER's crew first observed the unidentified "Blip", he noticed a very definite rapid decrease in altitude on "RHI" scope to about 15,000 feet. The time was not noted. The "Blip" was again picked up at approximately 2046 hours on the "PPI" scope.

To facilitate understanding of bearings and zones, a 360° circle divided into four (4) equal quadrants, the first quadrant, i.e., 0 to 90° being Zone 1, 90° to 180° Zone 2, 180° to 270° Zone 3, and 270° to 360° Zone 4, the radar lines being cardinal directions — north, east, south and west. Some of the entries from the "PPI" scope log reveal at 2046 hours, 156°, 45 miles, phantom aircraft; 2047 hours, 151°, 49 miles, phantom aircraft; 2048 hours, 146°, 56 miles; 2049 hours, 142°, 60 miles; 2050 hours, 139°, 67 miles; 2051 hours, 136°, 73 miles; 2052 hours, 133°, 79 miles. The readings of "RHI" scope log reveal at 2105 hours, 180°, 32 miles, 15,000 feet; 2106 hours, 175°, 36 miles, 24,000 feet; 2107 hours, 165°, 38 miles, 25,000 feet; 2108 hours, 160°, 39 miles, 27,000 feet; 2109 hours, 157°, 41 miles, 29,000 feet; 2110 hours, 153°, 43 miles, 33,000 feet; 2112 hours, 145°, 51 miles, 33,000 feet; 2113 hours, 140°, 56 miles, 35,000 feet; 2114 hours, 137°, 65 miles, 36,000 feet; 2115 hours, 129°, 70 miles, 38,000 feet. The "Blip" was then lost for a period of time, however, at various times throughout the evening, a one (1) to three (3) second observation was made of the unidentified "Blip".

Both PARKER and MATSON are agreed that the approximate size of the unidentified "Blip" would be similar to a B-36 and that the "Blip" at times apparently was following the vectors of various jet fighters in Zones 2 and 4. PARKER and MATSON also believe that the erratic vertical readings could be deliberate on the part of the "Blip", as it appeared to occur after the radar would hold steady on the "Blip" for a period of several seconds to a minute or so. MATSON and PARKER further estimated speeds to be from 420 miles an hour horizontal to 2500 miles per hour vertical. They observed more activity to be in vertical readings. MATSON and PARKER explained that the Radar Observation Room was in total darkness and the readings on the logs for the time element concerned would vary and it was caused by the man making recordings to have his watch position wrong. Both PARKER and MATSON recalled 15,000 feet altitude variations within a matter of seconds on the part of the unidentified "Blip". The rapid changes in vertical readings would occur between 30,000 and 45,000 feet. At one time, Lt. PARKER followed the unidentified "Blip" to a distance of 120 miles