Air Intelligence Information Report

AFOIN-4E4
ATTN Capt Hardin

WCLGF-2

DEC 1 6 1955

Lt Hannen/hvt
27166/B22/P23A

1. Reference is made to AF Form 112, Subject, "UFOB," dated 17 May 1955 and originated by the Intelligence Officer, 11th Fighter Interceptor Squadron.

2. Weapons Guidance Laboratory comments on referenced report are as follows:

a. Based on the vectoring and range data contained in the report, a plot (Figure I) of the intercept shows that the target could have been an aircraft of similar performance to modern jet aircraft. During the intercept the target was executing a tight turn to starboard.

b. For a portion of the targets turn to starboard, the interceptor and target were flying approximately parallel (Figure I,D) at about the same velocity. With the target at 35 degrees starboard and flying parallel to the interceptor, the target would appear as a stationary return on the RO's scope.

c. It is doubtful that the pilots indicator or the RO's scope could be used to accurately measure the 1000 knots reported speed of the target as it was going out in range. The maximum opening range rate that can be observed from the range rate gap on the pilots indicator is 200 knots. The fire control system specification requires that the system should be able to measure range rate from 1200 knots closing to 200 knots opening range rate.

d. Another possible explanation of the reported speed of the target as it went out in range is that the interceptors radar jumped lock. For a short period of time and with a slight misaligiment of the system, the radar could appear to be locked onto the target while actually the radar had jumped lock. Under these conditions, the return on the scope could move in such a manner that the RO would believe that the return was a target.

e. The reported elevation angles of the target as it was going out in range at 1000 knots are considered to be approximate, as only the approximate elevation angles of the antenna are indicated by the position of the elevation marker at the right edge of the RO's scope. Also, because the indicated elevation angle is measured with respect to the interceptor heading and not with respect to ground coordinates, a diving or climbing attitude of the interceptor would result in a corresponding increase or decrease of the elevation angle.

2 Incls
1. 1st Ind fr 515th Air Def Gp dtd 21Jun55
2. 1st Ind fr 4602d Air Intel Ser Sq(ADC) dtd 1Jun55 w/2 incls

WILLIAM D. JONES
Lt. Colonel, USAF
Chief, Fighter Systems Branch
Weapons Guidance Laboratory

10073
ELECTRONICS BRANCH
Office of Record

ATIAE5/Capt C.A. Hardin
wm/69216

15 JUN 1955

...INATION
ATI
ATIM-1
ATIMG
ATIMS
ATIMX
ATIR
ATIS
ATIA
1 A.W. Dupperd T/SGT. AE-5
2 R.F. James AE
3 [illegible]
OTHERS

SUBJECT: (Uncl) Request for Additional Information

TO: Commander
515th Air Defense Group
Duluth Municipal Airport
Duluth, Minnesota

1. Reference AF Form 112, subject: UFOB, dated 17 May 1955 and originated by the Intelligence Officer, 11th Fighter Interceptor Squadron.

2. In order to facilitate an accurate analysis of the report, request the crew of aircraft #32525 be re-interrogated as to whether or not the target return was intermittent or steady.

FOR THE COMMANDER

MARY L. STORM
1st Lt. USAF
Assistant Adjutant

JUN 12 02 38 22

PERM____ TEMP____	RETENTION PERIOD
DESTROY	
RETIRE	
FILE AUTHORITY	

ATIC FORM 144 (REV 1 FEB 55) ROUTING AND COORDINATION SHEET

DATE ..... SUBJECT ..... SHEET NO. ..... OF .....

CKD. BY ..... DATE ..... JOB NO. .....

A.) TARGET PICKED UP AT 15 MILES, 45° STARBOARD

B.) ASSUMED 15 SECOND DECISSION TIME AND TURN 45° STARBOARD. TARGET THEN 20° STARBOARD.

C.) TURN 30° DEGREES PORT AND THEN TARGET IS 35° STARBOARD AT 8 MILES.

D.) PILOT FLEW ERROR DOT TO 3 MILES AND 35° STARBOARD.

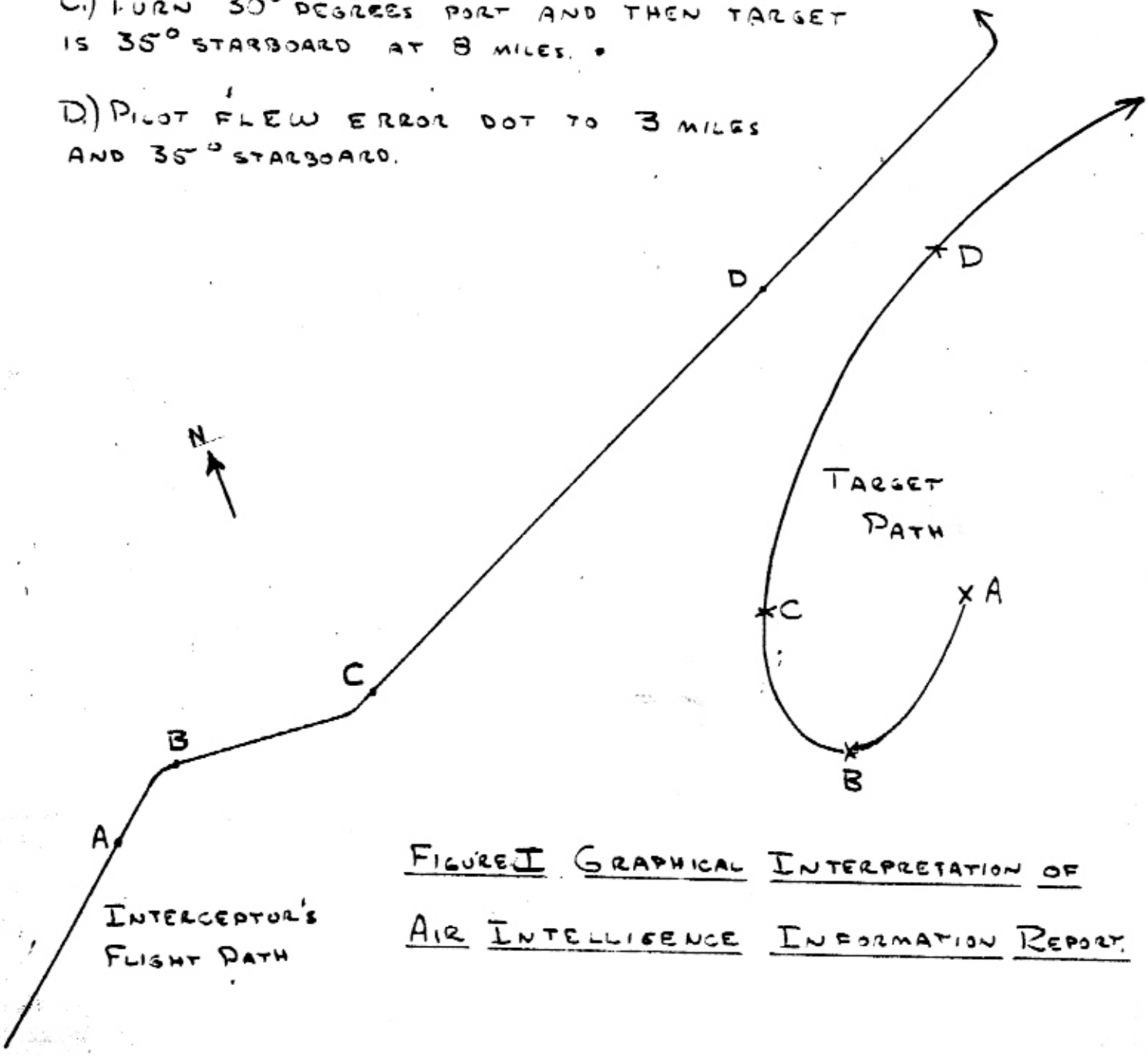

FIGURE I GRAPHICAL INTERPRETATION OF AIR INTELLIGENCE INFORMATION REPORT