

PROJECT 10073 RECORD CARD

1. DATE <u>16 Sep 52</u>		2. LOCATION <u>Portland, Maine</u>		12. CONCLUSIONS	
3. DATE-TIME GROUP Local <u>1822 EDT</u> GMT		4. TYPE OF OBSERVATION ☐ Ground-Visual ☒ AIR RADAR ☒ Air-Visual		☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical	
5. PHOTOS ☐ Yes ☒ No		6. SOURCE <u>Navy pilot and crew</u>		☐ Other ☒ Insufficient Data for Evaluation ☒ Unknown	
7. LENGTH OF OBSERVATION <u>20 minutes</u>		8. NUMBER OF OBJECTS <u>2</u>		9. COURSE <u>S</u>	
10. BRIEF SUMMARY OF SIGHTING				11. COMMENTS	

RA 115
OWPE100T

CBB132

JEDEN065

OPOP JEDWP

DE JEDEN 18F

OP 201440Z ZNJ

FM COC ADC ENT AFB COLO SPGS COLO

TO ATIC WRIGHT PATTERSON AFB OHIO

ACTION

OPERATIONAL IMMEDIATE

22 SEP 52 00 48

SEP 20 16 04

1552

1552

ATIC

19 SEP 20

11:2

ATTN ATIAA-2C: FOLLOWING MSG FM HQ 32 ADIV HANCOCK
FLD SYRACUSE N.Y. IS QUOTED FR YR INFO:

FOL IS COPY OF TWX MSG REC FR 654TH AC&W SQ: "NAVY PILOT AND CREW REPT
OF VISUAL AND ELECT SIGHTING OF UNIDENTIFIED FLY OBJ. ON NIGHT OF 16
SEP 52 THE PILOT AND CREW OF A READER EQUIPPED P2V OF VP SQ 26 PRESENTLY
LOCATED AT THE BRUNSWICK NAS, BRUNSWICK, ME, MADE THE DISCUSSED SIGHTING.
THE SIGHTING WAS REPT TO THE VP SQ INTEL OFF, LT BRITT, AT THE MORNING
BRIEFING AT 0800 HRS, 17 SEP 52. LT BRITT CONTACTED THE AC&W SQ INTEL
OFF IN PERSON AND MADE THE FOL REPT: LT J.M. BOAK AND CREW DEPT BRUNSWICK
NAS ON LOCAL FLT IN THE P2V AT 1822 HRS EDT. WHILE IN VICINITY OF
PORTLAND ME, 2 OBJ WERE SIGHTED VISUALLY FLY IN SOUTHERLY DIR. LT BOAK

PAGE TWO JEDEN 18F

REPT THAT THERE WERE 2 OBJ. ONE ABOVE AND AHEAD OF THE OTHER MUCH AS A TOWING OR REFUELING FORMATION. THE UPPER OBJ WAS DARK WITH NO VISIBLE LIGHTS. THE LOWER OBJ HAD 4 OR 5 LIGHTS ARRANGED IN A CIRCLE. THE VISUAL SIGHTING WAS VERIFIED BY RADAR, APS31. THE TGT APPEARED ON ~~RADAR AS A LINE RATHER THAN AS 2 SEPARATE PIPS.~~ THERE WAS A DISCREPANCY IN REPT TIME OF SIGHTING. LT BOAK, WHO WAS NOT AVAL FOR INTERVIEW REPT TIME OF SIGHTINGS AS 1950 HRS EDT. ALT OF OBJ WAS 4000 FT. NO LINES ATCH 2 OBJ WERE VISIBLE. NO DEFINITE DESCRIPTION AS TO SHAPES DUE TO DARKNESS. ENSIGN HARA STATED THE DARK OBJ WAS LARGE AND FIRST IMPRESSION WAS A CECA 54 OR COCA 119 TOWING A LIGHTED OBJ. HARA FURTHER STATED SINCE THE CLOSEST OBJ WAS APPROACHED WAS FR 2 AND ONE HALF TO 3MILES, ALL THAT HE COULD DEFINITELY SAY WAS THAT THE DARK OBJ WAS LARGE BUT COULD NOT MAKE OUT A SIZE OR SHAPE OF LIGHTED OBJ. HARA STATED THAT THE PAPA 2 VICTOR ALTERNATELY CLOSED IN ON AND FELL BEHIND THE OBJ AND THAT THE PAPA 2 VICTOR WAS UNABLE TO GET IN A POSITION TO GET OBJ DOWN SUN ON THEM. HARA COULD NOT DEFINITELY STATE OBJ WERE TAKING EVASIVE ACTION AS HE WAS ALTERNATING BETWEEN COCKPIT AND READAR POSITION. HARA STATED OBJ WERE FOL FOR 20 MIN AND THAT CONTACT WAS BROKEN OFF WHEN BOAK HEADED N IN VICINITY OF PORTSMOUTH NEW HAMPSHIRE AT 2010 EDT. FOL IS NARRATIVE OF PLT LT BOAK AND CO PLT LT C G RENTISS TO VP SQ

PAGE THREE JEDEN 18F

INTEL OFF. TWO OBJ WERE SIGHTED AT 1700 ON A SOUTHERLY HEADING IN PSN W/A LARGE DARK OBJ ABOVE THIS OBJ WITH CIR ARNG OF FIVE LIGHTS. COULD NOT DETERMINE PSN OF LIGHTS ON LOWER OBJ DUE TO DARKNESS. BOAK REPT OBJ SIGHTED OVER PORTLAND ME AND WERE FOL FOR PD OF 15 MIN W/ CONTACT BKN OFF NEAR PORTSMOUTH NEW HAMPSHIRE. BOAK SAID WHEN HE ATTEMPTED TO GET IN BETTER PSN TO VIEW OBJ THEY TOOK EVSSIVE ACTION W/OUT BREAKING FORMATION. FOR THIS REASON BOAK DID NOT BELIEVE THEY WERE REFUELING. BOAK REPT OBJ AT TIMES WERE ACCELERATED TO 300 KNOTS BUT DECELERATED RAPIDLY. BOAK STATED THAT IN VICINITY OF PORTSMOUTH OBJ TURNED TOWARD HIM AND HE BROKE OFF CONTACT AND HEADED N. OBJ THEN TURNED SW AND FLEW OUT OF SIGHT. BOAK BELIEVES BREAK OFF OF CONTACT WAS AT 1915 EDT. HARA STATED BREAK OFF TIME WAS APRX 2000 EDT. LT BRITT THE INTEL OFF STATES THAT LTS BOAK AND PRENTISS ARE THIRTY YR OF AGE WITH MANY YRS OF FLYING EXPERIENCE. FURTHER THAT BOTH OFF ARE VERY DEPENDABLE. THE VP SQ IS SCB TO DEPT BRUNSWICK VERY SOON. IT IS SUGGESTED THAT ANQ PERS INTERVIEWS WITH CREW BE ARRANGED ACCORDINGLY."

20/1442Z SEP JEDEN TERNSON AFB OHIO

Cy 1

*Applies to 16 SEP 52
Portland, Maine*

*1. Atia
2. Atia
4. C. files
3. Ati*

RF151V

WPG087

JEDBO 111

PP JEDWP

DE JEDBO 87

P 182130Z ZNJ

FM COADIV 801 LOCKBOURNE AFB OHIO

TO CG ATIC WRIGHT PATTERSON AFB OHIO

[REDACTED] 1DOO 2067-W PD UR MSG AFOIN-ATIAA-11-6-E DTD 14
NOV 52 PD REF PROJECT BLUE BOOK ANSWERED BY MYMSG 91DOO 847 DTD 12 NOV
52 PD

18/2136Z NOV JEDBO

1952 NOV 18

13:40

cy #1

PROJECT 10073 WORKSHEET

I. GENERAL

1. DATE <i>16 Sep 52</i>	2. LOCATION <i>Portland, Me.</i>	3. TIME Local: <i>1950 EDT</i> Zebra: <i>2350</i>
4. WAS OBJECT OBSERVED FROM THE GROUND?		☐ Yes ☐ Naked Eye ☐ Binoculars ☐ Telescope ☐ Theodolite ☒ No
5. WAS OBJECT OBSERVED BY GROUND RADAR?		☐ Yes ☐ By One Set ☐ By Two Sets ☐ By Three Sets ☒ No
6. WAS OBJECT OBSERVED FROM THE AIR?		☒ Yes ☐ A/C Observed Object ☐ Interception Attempted ☐ No Intercept Attempted ☐ No
7. WERE AIRCRAFT SCRAMBLED TO INTERCEPT?		☐ Yes ☐ A/C Scrambled ☒ Visual Contact Made ☒ A/I Contact Made ☐ No Contact Made ☐ No
8. DID OBJECT CHANGE DIRECTION AT ANY TIME?		☐ Yes ☐ Normal ☐ Violent ☐ No
9. IF OBJECT WAS A "LIGHT", WAS IT:		☐ Blinking ☐ Steady
10. LENGTH OF TIME IN SIGHT:		☐ 1-15 Seconds ☐ 1-5 Minutes ☒ Over 10 Minutes
11. REPORTING AGENCY (Unit Number and Mailing Address) <i>654TH ACW Sq., Brunswick, Me.</i>		

II. ASTRONOMICAL DATA

12. WHAT ASTRONOMICAL ACTIVITY WAS NOTED? <i>None</i>		
13. DID OBJECT APPEAR TO ARCH DOWNWARD?	☐ Yes	☐ No
14. DID OBJECT HAVE A TAIL?	☐ Yes	☐ No
15. DID OBJECT APPEAR TO DISINTEGRATE?	☐ Yes	☐ No
16. TIME OF SIGHTING RELATIVE TO SUNRISE OR SUNSET (Data From Air Almanac)		
☐ Night ☐ Day ☐ Sunrise ☐ Sunset		

III. AIRCRAFT DATA

17. WERE AIRCRAFT NOTED IN AREA?	☐ Yes	☒ No
☐ One Aircraft ☐ More Than One Aircraft		
18. WAS ANY SOUND HEARD?	☐ Yes	☐ No
19. WERE THERE INDICATIONS OF HIGH BACKGROUND NOISE?	☐ Yes	☐ No
20. WAS THE OBJECT VIEWED ABOVE 45° ELEVATION?	☐ Yes	☐ No

IV. BALLOON DATA

21. WERE BALLOONS RELEASED IN AREA? ☒ Yes ☐ No

22. TIME SINCE SCHEDULED BALLOON RELEASE: 82 Minutes on 440

23. POSSIBLE BALLOON LAUNCH SITES DOWNWIND OF SIGHTING:

	Location	Type	Launching Agency	Lighted?		Describe Lighting
				Yes	No	
a.	Portland, Me	P	W. B.	☒	☐	
b.	" "	Rebel	"	☒	☐	
c.						
d.						

(attach overlay)

V. EVALUATION

21. EVALUATION OF SOURCE: ☐ Excellent ☒ Good ☐ Fair ☐ Poor ☐ Unreliable ☐ Extremely Doubtful ☐ Hoax	22. DETAILS OF REPORT: ☐ Good ☒ Fair ☐ Poor ☐ Insufficient to Evaluate
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23. FINAL EVALUATION:

☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft	☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☐ Other: _____ ☐ Insufficient Data For Evaluation ☒ Unknown
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24. COMMENTS:

Possibilities: SAC refueling operation
Unfortunately, no!

PROJECT 10073 WEATHER DATA SHE

1. DATE OF OBSERVATION <i>16 Sep 52</i>		2. TIME OF OBSERVATION <i>2100Z</i>		3. STATION OBSERVING <i>Brunswick, Me.</i>	
4. WINDS ALOFT:					
ALTITUDE (feet)	VELOCITY (knots)	DIRECTION (degrees)	ALTITUDE (feet)	VELOCITY (knots)	DIRECTION (degrees)
0			25,000		
1,000			30,000		
2,000	<i>10</i>	<i>260</i>	35,000		
3,000			40,000		
4,000	<i>20</i>	<i>250</i>	45,000		
5,000			50,000		
6,000	<i>20</i>	<i>250</i>	55,000		
7,000			60,000		
8,000	<i>30</i>	<i>250</i>	65,000		
9,000			70,000		
10,000	<i>40</i>	<i>250</i>	75,000		
12,000	<i>45</i>	<i>250</i>	80,000		
14,000	<i>45</i>	<i>250</i>	85,000		
16,000			90,000		
18,000			95,000		
20,000			100,000		
5. WAS AN INVERSION LAYER NOTED? (If yes, at what altitude? _____) ☐ Yes ☒ No					
6. WERE ANY THUNDERSTORMS NOTED IN AREA? (If yes, at what quadrant? _____) ☐ Yes ☒ No					
7. CLOUD COVER: _____ tenths at _____ feet. _____ tenths at _____ feet. _____ tenths at _____ feet. _____ tenths at _____ feet.				8. VISIBILITY WAS _____ MILES.	
9. COMMENTS:					

AERONAUTICAL SYMBOLS

AERODROMES

LANDPLANE SEAPLANE



Military base



Civil



Joint civil and military base



Military



Civil



Joint civil and military



Landing area or anchorage

Of major aeronautical importance

Offering services that include repairs for normal traffic and/or refueling

No public services available

HARMON FIELD
78 L H 46
Airport of entry
GCA SYSTEM
278 126.18

LANDPLANE

78 Elevation in feet

L Minimum lighting

H Hard surfaced runway

46 Length of longest runway to nearest hundred feet

278 126.18 2870 Control tower transmitting frequencies

When information is lacking, the respective character will be replaced by a dash

AERODROME DATA

SEAPLANE

62 Elevation in feet

L Minimum lighting

S Normally sheltered take-off area

62 Length of longest runway to nearest hundred feet

NAS ANACOSTIA
00 L S 62
2870

VALLEY
1750 L - 32

AIR NAVIGATION LIGHTS

Rotating light

Rotating light (with flashing code)

Rotating light (with course lights)

Flashing light



Flashing light (with code)

Marine light

Lightship



F-fixed FL-flashing Occ-occulting Alt-alternating Go-group R-red W-white G-green B-blue (U)-unwatched SEC-sector sec-second
Marine alternating lights are red and white unless otherwise indicated. Marine lights are white unless colors are stated.

RADIO FACILITIES

Use of the word "Radio" within the box indicates voice facilities

Radio range
(Without voice)



WOODY RANGE
251 FWA

Marine radiobeacon
(Without voice)



EVERETT
224
10m-20m 30m-40m

Radio broadcasting station



BS WOL
1260

Radiobeacon, nondirectional
(homing)



BEDFORD RADIO
522 DBW

MISCELLANEOUS

Isogonic line or isogonal

8°E
(Values for 1950)

Mooring mast



Prominent transmission line



Obstruction



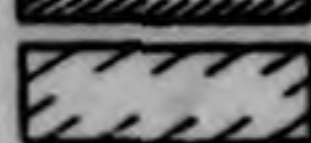
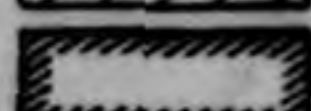
(Numerals indicate elevation above sea level or top.)

Restricted areas are numbered, and are indicated on the charts as follows:

Prohibited area
(AR-78)

Danger or warning area
(D-32) (W-46)

Caution area
(C-54)

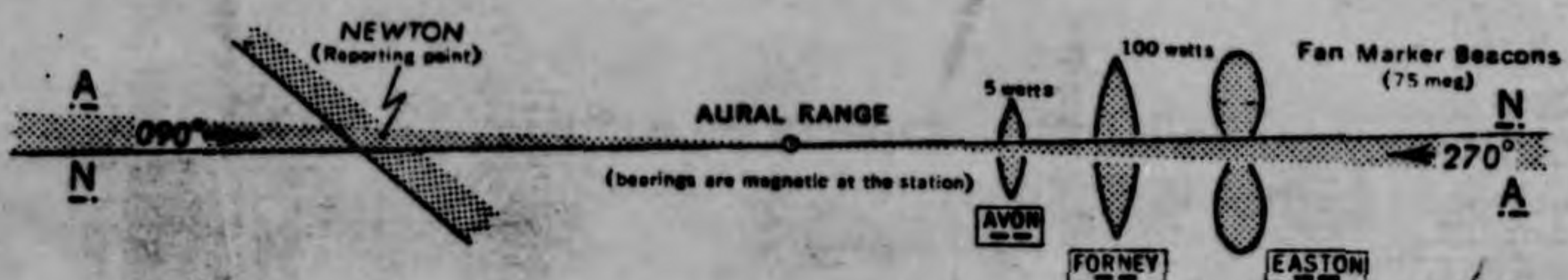


Civil airway

Control zone



Blue tint indicates extent of all controlled areas



VERY HIGH FREQUENCIES (VHF) PRINTED IN BLUE

VAR
MATAWAN RADIO
W 109.1 MWA

VHF FOUR-COURSE VISUAL-AURAL RADIO RANGE

The Blue and Yellow Visual Sectors are indicated by a B and Y; the Aural Sectors by A and N
Letter preceding frequency in box indicates channel

VHF OMNI-DIRECTIONAL RADIO RANGE DESCRIPTION

The VHF omni-directional range provides visual track guidance along any selected radial from the station out to a distance of approximately 50 miles when flying at the minimum instrument altitude. These ranges operate in the frequencies between 112 and 118 megacycles and require a special omni range type receiver to make use of the navigational features. Also provided are simultaneous voice communication and 3-letter (coded) identification. In operation, the pilot selects a course by setting the pointer on a course or radial selector to the desired magnetic bearing and then flies that course by reference to a cross pointer instrument.



SECTIONAL CHARTS

The sectional aeronautical chart series provides complete coverage of the United States. An additional chart covers the Hawaiian Islands. These charts are designed primarily for piloting, which is also known as contact flying. They contain a maximum amount of cultural topographic features including important landmarks.

Sectional charts are revised at six-month periods to insure that the airman has the latest information available, and are sold through authorized agents located at airports and principal cities throughout the United States. They may also be obtained by writing to the Director, U. S. Coast and Geodetic Survey, Department of Commerce Building, Washington 25, D. C.

In the lower right-hand corner is printed the date of the chart. Below this the next scheduled printing is indicated. If the date of the chart is more than six months old, users are advised to check with the notices (Dates of Latest Prints) on file with authorized agents. Charts that carry older dates than those shown in large type on this list of dates are obsolete.



ADDITIONAL AERONAUTICAL CHARTS PUBLISHED AND PRINTED BY THE U. S. COAST AND GEODETIC SURVEY

Planning Charts	AP-9 and 3069a	1:5,000,000
	3060d	1:3,000,000
Aircraft Position Charts	3071 North Atlantic	1:5,000,000
	3073 Caribbean Sea	1:5,000,000
Route Charts	Show limited topographic information, selected aerodromes, and major radio data.	1:2,000,000
Direction Finding Charts	Six charts cover the United States	1:2,000,000
World Aeronautical Charts	Forty-three charts cover the United States	1:1,000,000
Flight Charts	Thirty-seven charts cover the principal air routes of the United States	1:1,000,000
Local Charts	Designed to provide additional landmark information and topographic detail for important air terminals.	1:250,000
Instrument Approach and Landing Charts	More than 475 charts designed for use in manuals with Radio Facility Charts	Approach 1:250,000 Landing 1:31,680
Instrument Landing System Charts	Similar to Instrument Approach and Landing charts but printed in black and halftone instead of color. Show very little detail.	Approach 1:250,000 Landing 1:75,000 1:90,000
Airport Obstruction Plans	Show runways and selected aerodrome information and objects in the vicinity that may be hazards to air traffic.	1:12,000
Radio Facility Charts	Sixty-five charts of the U. S. show all radio facilities, airways and other information necessary for instrument flying.	1:2,000,000

A catalog giving a complete list and description of the various series is available upon request

SEARCH AND RESCUE:

Search and Rescue Service is a life saving service provided through the combined efforts of the CAA, Air Force, and Coast Guard who are assisted by other organizations such as the Civil Air Patrol, Sheriffs Air Patrol, State Police, and such other agencies as may be available. It provides search, survival aid, and rescue of personnel of missing or crashed aircraft.

All you need to remember to obtain this valuable protection is:

1. File a Flight Plan with a CAA Airway Communications Station in person or by telephone or radio.
2. File an Arrival Report.
3. If you land at a location other than intended destination, report the landing to the nearest CAA Communications Station.
4. If you land enroute and are delayed more than an hour, report this information to the nearest communications station.
5. Remember that if you fail to report within one hour after your E.T.A., a search will be started to locate you. If you fail to report within three hours after your E.T.A., the full facilities of the Search and Rescue Service will be activated.

Searches are expensive, they inconvenience other people, and on numerous occasions the lives of other pilots are sacrificed when searching for lost or overdue pilots. SO, FILE AN ARRIVAL REPORT!

GROUND TO AIR EMERGENCY CODE DISTRESS SIGNALS

REQUIRE DOCTOR, SERIOUS INJURIES ——— I	REQUIRE SIGNAL LAMP WITH BATTERY AND RADIO ——— I	REQUIRE FUEL AND OIL ——— L
REQUIRE MEDICAL SUPPLIES ——— II	INDICATE DIRECTION TO PROCEED ——— K	ALL WELL ——— LL
UNABLE TO PROCEED ——— X	AM PROCEEDING IN THIS DIRECTION ——— ↑	NO ——— N
REQUIRE FOOD AND WATER ——— F	WILL ATTEMPT TAKE-OFF ——— ▷	YES ——— Y
REQUIRE FIREARMS AND AMMUNITION ——— W	AIRCRAFT SERIOUSLY DAMAGED ——— L7	NOT UNDERSTOOD ——— JL
REQUIRE MAP AND COMPASS ——— □	PROBABLY SAFE TO LAND HERE ——— Δ	REQUIRE MECHANIC ——— W
	IF IN DOUBT, USE INTERNATIONAL SYMBOL ——— SOS	

INSTRUCTIONS:

1. Lay out symbols by using strips of fabric or parachutes, pieces of wood, stones, or any available material.
2. Provide as much color contrast as possible between material used for symbols and background against which symbols are exposed.
3. Symbols should be at least 10 feet high or larger, if possible. Care should be taken to lay out symbols exactly as shown to avoid confusion with other symbols.
4. In addition to using symbols, every effort is to be made to attract attention by means of radio, flares, smoke, or other available means.
5. When ground is covered with snow, signals can be made by dragging, shoveling or tramping the snow. The depressed areas forming the symbols will appear to be black from the air.
6. Pilot should acknowledge message by rocking wings from side to side.

VISUAL EMERGENCY SIGNALS

NEED MEDICAL ASSISTANCE - URGENT USED ONLY WHEN LIFE IS AT STAKE  LIE PRONE	ALL OK - DO NOT WAIT  WAVE ONE ARM OVERHEAD	CAN PROCEED SHORTLY - WAIT IF PRACTICAL  ONE ARM HORIZONTAL	NEED MECHANICAL HELP OR PARTS - LONG DELAY  BOTH ARMS HORIZONTAL	DO NOT ATTEMPT TO LAND HERE  BOTH ARMS WAVED ACROSS FACE
LAND HERE  POINT ONE ARM FORWARD	USE DROP MESSAGE  ONE ARM FORWARD AND DOWN	OUR RECEIVER IS OPERATING  BOTH HANDS OVER EARS	NEGATIVE (NO)  ONE ARM FORWARD AND DOWN	AFFIRMATIVE (YES)  ONE ARM FORWARD AND DOWN
BOTH ARMS FORWARD HORIZONTALLY, SQUATTING AND POINTING IN DIRECTION OF LANDING - REPEAT  SQUAT WITH BOTH ARMS FORWARD	MAKE THROWING MOTION  ONE ARM FORWARD AND DOWN	CUP HANDS OVER EARS  BOTH HANDS OVER EARS	WHITE CLOTH WAVED HORIZONTALLY  BOTH ARMS HORIZONTAL	WHITE CLOTH WAVED VERTICALLY  ONE ARM FORWARD AND DOWN
PICK US UP - PLANE ABANDONED  SQUAT WITH BOTH ARMS FORWARD	AFFIRMATIVE (YES)  ONE ARM FORWARD AND DOWN	NEGATIVE (NO)  ONE ARM FORWARD AND DOWN	HOW TO USE THEM IF YOU ARE FORCED DOWN AND ARE ABLE TO ATTRACT THE ATTENTION OF THE PILOT OF A RESCUE AIRPLANE, THE BODY SIGNALS ILLUSTRATED ON THIS PAGE CAN BE USED TO TRANSMIT MESSAGES TO HIM AS HE CIRCLES OVER YOUR LOCATION. STAND IN THE OPEN WHEN YOU MAKE THE SIGNALS. BE SURE THAT THE BACKGROUND, AS SEEN FROM THE AIR, IS NOT CONFUSING. GO THROUGH THE MOTIONS SLOWLY AND REPEAT EACH SIGNAL UNTIL YOU ARE POSITIVE THAT THE PILOT UNDERSTANDS YOU.	
BOTH ARMS VERTICAL  SQUAT WITH BOTH ARMS FORWARD	UP SIDE OF PLANE SEVERAL TIMES  ONE ARM FORWARD AND DOWN	FIGHTER PLANE  ONE ARM FORWARD AND DOWN		

AF147

157

JEDMH B129

RR JEDWP

DL JEDMH 212

R 251652Z ZNJ

FM CGSAC OFFUTT AFB NEBR

TO CGATIC WRIGHT PATTERSON AFB OHIO

[REDACTED] DOC 27202. REF URMSG AFOIN-ATIAA-9-9E.

PROJECT BLUE BOOK. THIS MATRS REPORTS TWO KC-97 ACFT OVER
PORTLAND, MAINE AT 1617 EST ALTITUDE 7000 FEET HEADING 036
DEGREES.
2117 Z.

25/1710Z SEP JEDMH

ACTION

1. ATIAA
2. ATIAA
3. C. Files

se

Cy-1

NAUTICAL MILES

The CAA is adopting, for all air-ground communication within the continental United States and Alaska, the nautical mile as the unit of horizontal distance, and the knot as the unit of horizontal speed.

The United States nautical mile is defined as equal to one-sixtieth of a degree (one minute) of a great circle on a sphere whose surface is equal to the surface of the earth. The value of a nautical mile is calculated on this basis as 1853.25 meters or 6080.20 feet. Since the common or statute mile is equal to 5280 feet, one nautical mile equals approximately 1.152 statute miles, and one statute mile equals approximately 0.868 nautical mile. For quick calculation the nautical mile may be considered approximately one-seventh longer than the statute mile, and the statute mile approximately one-eighth shorter than the nautical mile.

In the lower margins of the sectional charts is provided a convenient conversion scale by which values in statute miles may be readily converted to nautical miles and vice versa. Distances expressed in either unit may thus be scaled directly on the charts.

The length of one minute of latitude measured along a meridian on the surface of the earth at latitude 48°15' is equal to a United States nautical mile. North or south of 48°15' the length of a minute is slightly longer or shorter, since the earth is not a perfect sphere. However, for practical purposes, the nautical mile is considered equivalent to a minute of latitude at any point on the earth's surface. Therefore, the one-minute subdivisions of the meridian lines on the face of charts may also be used for scaling distances.

The knot is a unit of speed only. One knot is equal to one nautical mile per hour; as, when an aircraft is travelling 200 nautical miles per hour, its speed is 200 knots.

CONVERSION TABLES

STATUTE MILES TO NAUTICAL MILES

STATUTE MILES	NAUTICAL MILES	FEET	STATUTE MILES	NAUTICAL MILES
0.1	0.087	528	100	86.8
0.2	0.174	1056	110	95.5
0.3	0.261	1584	120	104.2
0.4	0.347	2112	130	112.9
0.5	0.434	2640	140	121.6
0.6	0.521	3168	150	130.3
0.7	0.608	3696	160	138.9
0.8	0.695	4224	170	147.6
0.9	0.782	4752	180	156.3
1.0	0.868	5280	190	165.0
			200	173.7
2	1.74		210	182.4
3	2.61		220	191.0
4	3.47		230	199.7
5	4.34		240	208.4
6	5.21		250	217.1
7	6.08		260	225.8
8	6.95		270	234.5
9	7.82		280	243.1
10	8.68		290	251.8
11	9.55		300	260.5
12	10.42		310	269.2
13	11.29		320	277.9
14	12.16		330	286.6
15	13.03		340	295.3
16	13.89		350	303.9
17	14.76		360	312.6
18	15.63		370	321.3
19	16.50		380	330.0
20	17.37		390	338.7
			400	347.4
30	26.05			
40	34.74		500	434.2
50	43.42		600	521.0
60	52.10		700	607.9
70	60.79		800	694.7
80	69.47		900	781.6
90	78.16		1000	868.4

NAUTICAL MILES TO STATUTE MILES

NAUTICAL MILES	STATUTE MILES	FEET	NAUTICAL MILES	STATUTE MILES
0.1	0.115	608.0	100	115.2
0.2	0.230	1216.0	110	126.7
0.3	0.345	1824.1	120	138.2
0.4	0.461	2432.1	130	149.7
0.5	0.576	3040.1	140	161.2
0.6	0.691	3648.1	150	172.7
0.7	0.806	4256.1	160	184.2
0.8	0.921	4864.2	170	195.8
0.9	1.036	5472.2	180	207.3
1.0	1.152	6080.2	190	218.8
			200	230.3
2	2.30		210	241.8
3	3.45		220	253.3
4	4.61		230	264.9
5	5.76		240	276.4
6	6.91		250	287.9
7	8.06		260	299.4
8	9.21		270	310.9
9	10.36		280	322.4
10	11.52		290	334.0
11	12.67		300	345.5
12	13.82		310	357.0
13	14.97		320	368.5
14	16.12		330	380.0
15	17.27		340	391.5
16	18.42		350	403.0
17	19.58		360	414.6
18	20.73		370	426.1
19	21.88		380	437.6
20	23.03		390	449.1
			400	460.6
30	34.55			
40	46.06		500	575.8
50	57.58		600	690.9
60	69.09		700	806.1
70	80.61		800	921.2
80	92.12		900	1036.4
90	103.64		1000	1151.6

AERODROMES - BOSTON SECTIONAL CHART

LOCATION	NAME	GEOGR. POSITION	TYPE	ELEV.	FACILITIES				REMARKS
					FUEL (OCTANE)	REPAIRS	RUNWAYS NO. LONGEST	LIGHTS	
Alton Bay, N.H.	Downing's SPB	43°28'-71°14'	Com. Seapl.	504	80	Minor	1 5000		Ramp, buoy
Ashland, N.H.	Riverside	43°44'-71°40'	Com.	470			1 2000		
Auburn, Mass.	Auburn	42°11'-71°51'	Priv.	700			2 1550		
Ayer, Mass.	Ft. Devens AAF	42°34'-71°36'	Army	268	C	Minor	3 5200H		
Bedford, Mass.	Hanacom Field	42°28'-71°17'	Mun. & AF	135	80, 91, 100	Major	3 5000H	Rnwy., appr., hi-intens. rnwy.	
Berkeley, R.I.	Berkeley	41°56'-71°26'	Com.	75	80	Major	1 2050		
Berkley, Mass.	Myricks	41°50'-71°02'	Com.	65	80	Minor	2 2000	Port. prior req.	
Beverly, Mass.	Mountain	42°35'-70°55'	Mun.	108	80, 91	Major	3 5000H	Rnwy. prior req.	Ben. prior req.
Biddeford, Maine	Biddeford Mun.	43°28'-70°28'	Mun.	160			2 2150		
Billerica, Mass.	Shawheen Pines	42°33'-71°13'	Com.	110	80	Major	2 2125H	Rnwy. prior req.	2310 ft. gravel avail.
Block Island, R.I.	Block Island State	41°10'-71°35'	Mun.	105	80		1 2000H	Runway	Lgts. oper. by elec. car
Bolton, Mass.	Bolton	42°26'-71°39'	Com.	380	80, 91	Minor	3 2540	Port. prior req.	
Boothbay Harbor, Maine	Boothbay Harbor Flying Svc. SPB	43°51'-69°37'	Com. Seapl.	00			3 7800		Ramp, floats, dock, marine railways
Boston, Mass.	Logan	42°22'-71°01'	Mun.	19	80, 91, 100, J	Major	4 10022H	High intens. rnwy., approach	2 way radio required. Landing fee
Boston, Mass.	NAS Squantum	42°18'-71°02'	Navy	10	AB	Minor	3 4100H	Rot. ben., code ben., rnwy.	All lgt. prior req.
Boston, Mass.	NAS Squantum	42°18'-71°02'	Navy Seapl.	00	A+B	Minor	1 12000		Ramp, buoy
Brockton, Mass.	Brockton	42°03'-71°01'	Com.	80	80	Major	1 1800H		Closed daily at 1900
Brunswick, Maine	Brunswick	43°55'-70°02'	Com.	175	80	Minor	1 1665		
Brunswick, Maine	NAS Brunswick	43°54'-69°58'	Navy	77	A+B		3 6000H	Rnwy., appr., hi-intens. rnwy.	Lgts. prior req. off. bus. only
Brunswick, Maine	Riverside Arpk. SPB	43°55'-69°59'	Com. Seapl.	50	80		1 4000		Circle Mun. arpt. for ave. float
Canton, Mass.	Boston Metropolitan	42°10'-71°09'	Com.	50	80, 91	Major	4 2100		E/W rnwy. Closed
Charlestown, R.I.	NAAS Charlestown	41°22'-71°40'	Navy	32			3 5800H		Off. bus. only. AIF to NAS Quonset Pt.
Chatham, Mass.	Chatham	41°41'-69°59'	Mun.	66	80, 91	Minor	1 2500H	Rnwy. prior req.	
Concord, N.H.	Concord Mun.	43°12'-71°30'	Mun.	345	80, 91	Major	3 3996H	Rnwy. on req.	Aero. Adv. Sta. 122.8
Concord, N.H.	Merrimack Bay Arpk.	43°17'-71°34'	Priv.	260			1 1500		Emerg. use only
Conway, N.H.	Conway Valley	43°59'-71°08'	Com.	465	80	Minor	1 2400		Attend. weekends only Unattend Dec. 1 to May 1.
Coventry, R.I.	Coventry Airpark	41°41'-71°35'	Com.	260	80	Major	1 1460		Attend. weekends
Dartmouth, Mass.	New Bedford Aviation	41°38'-70°56'	Com. Seapl.	00	80	Minor	3 Unlim.	Flood in emerg.	Ramp, float, pier, haulout. Major acct. repairs.
Dracut (Lowell), Mass.	Richardson	42°40'-71°20'	Com.	115	80, 91	Major	2 2200	Strip prior req.	
East Baldwin, Maine	Baldwin	43°48'-70°41'	Priv.	290			1 1400		
Easton (Brockton), Mass.	Ames Field	42°03'-71°05'	Com.	120	80	Major	2 2000	Port. prior req. (by 5:00 P.M.)	
Edgartown, Mass.	Edgartown	41°31'-70°31'	Com.	20	80, 91	Minor	4 3300	Bndy. prior req.	
Fall River, Mass.	Fall River Mun.	41°46'-71°07'	Mun.	192	80, 91	Minor	2 3500H	Runway	
Falmouth, Mass.	Coonamassett Ranch	41°38'-70°35'	Com.	100	80	Minor	3 2000	Port. prior req.	
Falmouth, Mass.	Falmouth	41°34'-70°35'	Com.	35			1 2150	Strip, prior req.	Landing fee
Falmouth Foreside, Maine	Handy Boat Service Seaplane Base	43°44'-70°12'	Com. Seapl.	00	80		All way Unlim.		Mar. rwy., floats, dock, buoys, haulout
Fitchburg, Mass.	Fitchburg Mun.	42°33'-71°45'	Mun.	348	80, 91	Major	2 4500H	Runway	
Franklin, N.H.	Franklin	43°25'-71°39'	Com.	360	80		1 2000		Landing Fee
Freeport, Maine	Stover	43°54'-70°07'	Priv.	180			1 1100		
Grafton (North Grafton), Mass.	Grafton	42°13'-71°43'	Com.	450	80	Major	4 3000		
Greene, R.I.	Riconn	41°42'-71°47'	Com.	390	80	Minor	2 1700		Attend. weekends
Groton, Mass.	Groton	42°39'-71°39'	Com.	280	80	Major	1 2710	Port. prior req.	
Hampton, N.H.	Hampton	42°56'-70°50'	Com.	80			1 2000		
Hanover, Mass.	Clark	42°06'-70°52'	Com.	74	80, 91	Major	3 2350H		
Haverhill, Mass.	Walker-Dutton	42°48'-71°04'	Com.	125	80	Minor	3 1600		
Hillgrove (Providence), R.I.	Green	41°43'-71°26'	Mun.	56	80, 91, 100	Major	4 5466H	Rnwy. hi-intens. rnwy.	2-way radio required nights, receiver days
Hooksett, N.H.	Hooksett-Manchester	43°04'-71°28'	Com.	187	80	Major	1 3000		
Hooksett, N.H.	Hooksett-Manchester	43°04'-71°28'	Priv. Seapl.	178			1 8000		Ramp, haulout, float, beach
Hyannis, Mass.	Barnstable Mun.	41°49'-70°16'	Mun.	56	80, 91	Major	3 4140H	Port. flood, rnwy. prior req.	Aero. Adv. Sta. 122.8
Kennebunk, Maine	Kennebunk	43°22'-70°33'	Com.	50			1 2000		Rough
Laconia, N.H.	Laconia Mun.	43°34'-71°25'	Mun.	552	80, 91	Minor	2 3500H	Runway	Aero. Adv. Sta. 122.8
Laconia, N.H.	Paugus Bay SPB	43°34'-71°27'	Com. Seapl.	504	80	Minor	2 5000		Ramp, dock, beach. Repairs at Mun. Arpt.
Lawrence, Mass.	Lawrence Mun.	42°48'-71°07'	Mun.	165	80, 91	Major	3 4000H	Runway	
Leicester, Mass.	Leicester	42°16'-71°55'	Com.	1140	80, 91	Minor	2 2000H	Port. prior req.	
Limerick, Maine	Limerick Yarn Mills	43°42'-70°47'	Priv.	370			1 1500		Use at own risk
Mansfield, Mass.	Mansfield Mun.	42°00'-71°12'	Mun.	124	30		3 2200		Attend. weekends
Marlboro, Mass.	Marlboro	42°20'-71°36'	Com.	280	80	Minor	2 1670		
Marshfield, Mass.	Marshfield	42°06'-70°40'	Com.	9	80	Minor	1 2200		
Marston Mills, Mass.	Cape Cod	41°41'-70°24'	Priv.	100			3 2025		
Mattapoisett, Mass.	Wanderer SPB	41°39'-70°49'	Com.	00	80	Minor	2 Unlim.		Ramp, float, beach, haulout, buoys
Merrimack (Nashua), N.H.	Daniel Webster	42°48'-71°29'	Com.	195	80, 91	Major	4 2400	Strip prior req.	
Methuen (Lawrence), Mass.	Merrimack Valley Skyport SPB	42°42'-71°13'	Com. Seapl.	50	80		4 8000		Ramp, float, haulout
Middleton (Newport), R.I.	Newport Airpark	41°32'-71°17'	Com.	180	80, 91	Major	2 2330H		
Millbury, Mass.	Windle	42°10'-71°49'	Com.	750			2 2000		
Montaus, N.Y.	Montaus SPB	41°04'-71°56'	Priv. Seapl.	90			1 10560		Ramp

AERODROMES - BOSTON SECTIONAL CHART

LOCATION	NAME	GEOGR. POSITION	TYPE	ELEV.	FACILITIES					REMARKS
					FUEL (OCTANE)	REPAIRS	RUNWAYS		LIGHTS	
							NO.	LONGEST		
Nantucket, Mass.	Nantucket Memorial	41°15'-70°03'	Mun.	48	80	Major	2	4000H	Rwy., mobile flood, flare pots	Fld. lgt. prior req.
Naples, Maine	Naples Seaplane Base	43°58'-70°36'	Com. Seapl.	267	80		3	11000		Ramp
Nashua, N.H.	Boire Field	42°47'-71°31'	Mun.	193	80, 87, 91	Major	1	3200H	Bdy. prior req.	3800 ft. avail. Aero. Adv. Sta. 122.3
Nashua, N.H.	Gate City Airpark	42°43'-71°28'	Com.	120	80		1	1500		Attend. evenings & weekends
New Bedford, Mass.	New Bedford Mun.	41°40'-70°57'	Mun.	79	80, 91, 100	Minor	2	5000H	Bdy., rwy., hi-intens. rwy. & appr.	
Newbury (Newburyport), Mass.	Plum Island	42°47'-70°50'	Com.	15			2	1545H		2800 ft. rwy. avail. Inactive
North Attleboro, Mass.	Wilkins	42°00'-71°18'	Com.	200	80, 91	Major	2	2000	Port. prior req.	
North Westport (Fall River), Mass.	Fall River SPB	41°41'-71°07'	Com. Seapl.	131	80	Minor	4	11000		Ramps, piers, beach, mar. rwy., haulout
North Windham, Maine	Little Sebago Lake	43°51'-70°25'	Com.	285	80		3	6700		Attended part time Week-ends & evenings
Norwood, Mass.	Norwood Memorial	42°11'-71°10'	Mun.	61	80, 91	Minor	2	4000H	Rnwy., prior req.	Flare pots in emerg.
Oak Bluffs, Mass.	Oak Bluffs	41°26'-70°34'	Com.	40	80	Minor	2	2200		
Pachaug, Conn.	Pachaug	41°35'-71°55'	Com.	204		Minor	1	2350	Strip prior req.	
Pembroke (Concord), N.H.	Pembroke	43°10'-71°22'	Com.	320	80		1	2000		
Plymouth, Mass.	Plymouth	41°55'-70°44'	Mun.	149	80	Minor	3	2415		Attend. part time
Plymouth, N.H.	Plymouth Mun.	43°47'-71°45'	Mun.	506			1	2000		
Portland, Maine	Portland Mun.	43°39'-70°18'	Mun.	60	80, 91, 100	Major	3	4262H	Bdy., rwy. on request	
Portsmouth, N.H.	Portsmouth Mun.	43°04'-70°49'	Mun.	94	80, 91	Major	3	5000H	Rnwy. prior req.	
Providence, R.I.	NAS Quonset Point	41°35'-71°25'	Navy	14	A+B	Major	4	6000H	Flood, rwy., hi-intens. rwy.	
Providence, R.I.	NAS Quonset Point	41°35'-71°25'	Navy Seapl.	00	A+A BJ	Major	4	21000	Flare path 2 hr. prior req.	Ramps, buoys, beach. Facs. avail. 2 hr. prior req.
Provincetown, Mass.	Provincetown Mun.	42°04'-71°13'	Mun.	8	80	Minor	1	3500H	Rnwy. prior req.	Fee for lights Aero. Adv. Sta. 122.3
Revere (Boston), Mass.	Revere	42°28'-71°01'	Com.	25	80, 91	Major	3	2715H	Runway, port. prior req.	Fee for lights Aero. Adv. Sta. 122.3
Revere (Boston), Mass.	Revere Seaplane Base	42°28'-71°01'	Com. Seapl.	00	80, 91	Major	1	3300		Closed multi-engine & amphibious acft. Ramp, haulout
Rochester, N.H.	Skyhaven	43°17'-70°55'	Priv.	320			1	1350		Emerg. use only
Salem, Mass.	CGAS Salem	42°31'-70°52'	CG Seapl.	00	A+	Minor	2	10000		Ramp
Sanford, Maine	Sanford Mun.	43°24'-70°43'	Mun.	243	80, 87	Major	3	6000H		
Scarboro, Maine	Scarboro Downs	43°34'-70°21'	Com.	20	87		1	2400		Attend. part time
Seekonk, Mass.	Providence	41°47'-71°18'	Com.	25	80	Major	3	1700		
Smithfield, R.I.	Smithfield	41°55'-71°32'	Com.	400	80	Major	1	1780		
Somersworth, N.H.	Wayside	43°15'-70°54'	Com.	212	80	Major	1	1500		
South Portland, Maine	Port O' Maine	43°36'-70°16'	Com.	60	80, 91	Major	3	2715	Port. prior req.	
South Weymouth, Mass.	NAF South Weymouth	42°08'-70°56'	Navy	152			4	4500		Closed
South Woodstock (Woodstock), Conn.	De Flom	41°55'-71°57'	Com.	450	80	Minor	2	1850		Attd. noon to dusk summer, weekends winter
Spencer, Mass.	Spencer	42°17'-71°58'	Com.	1040			1	1700		Inactive
Sterling, Mass.	Sterling	42°25'-71°47'	Com.	450	80	Major	1	2800	Strip	
Taunton, Mass.	King Field	41°53'-71°01'	Com.	25	80	Major	2	2550		
Tewksbury (Lowell), Mass.	Tew-Mac	42°35'-71°12'	Com.	90	80	Major	1	1850		Attend. weekends
The Weirs, N.H.	The Weirs SPB	43°36'-71°27'	Com. Seapl.	504			3	5000		Ramps, docks, beach. Inactive
Truro, Mass.	Pilgrim Lake SPB	42°04'-70°08'	Com. Seapl.	2	80		3	5000		Pier, buoys, beach
Vineyard Haven, Mass.	Martha's Vineyard	41°23'-70°57'	Mun.	68	80, 91	Major	3	3765H	Port. prior req.	Fld. lgt. on req. Summer season
Wareham, Mass.	Counity Club	41°46'-70°43'	Com.	25			1	1780		Inact. not maint.
Warren, N.H.	Moss	43°58'-71°55'	Priv.	780			1	2700		Emerg. use only
Wentworth, Mass.	Wentworth	42°16'-71°36'	Com.	310	80		4	1800		
West Buxton, Maine	Hilltop	43°40'-70°37'	Com.	300			2	2000		Closed except prior permission
Westerly, R.I.	Westerly State	41°21'-71°48'	Mun.	81	80, 91	Minor	2	4000H	Runway	Field lgt. dusk-2200. After 2200 on req.
Wolfeboro, N.H.	Lakes Region	43°35'-71°16'	Com.	580						Closed. Under constr.
Wolfeboro, N.H.	Lakes Region SPB	43°35'-71°16'	Com. Seapl.	504			All way	Unlim.		Ramp, beach Inactive
Worcester, Mass.	Worcester Mun.	42°16'-71°52'	Mun.	1009	80, 91, 100	Major	3	5498H	Approach, hi-intens. rwy.	Field lgt. prior req. or circle field
York Beach, Maine	York Beach	43°10'-73°36'	Priv.	30			1	1400		Closed

Fuel octane ratings listed by number are those available to civil aircraft, unless otherwise noted.

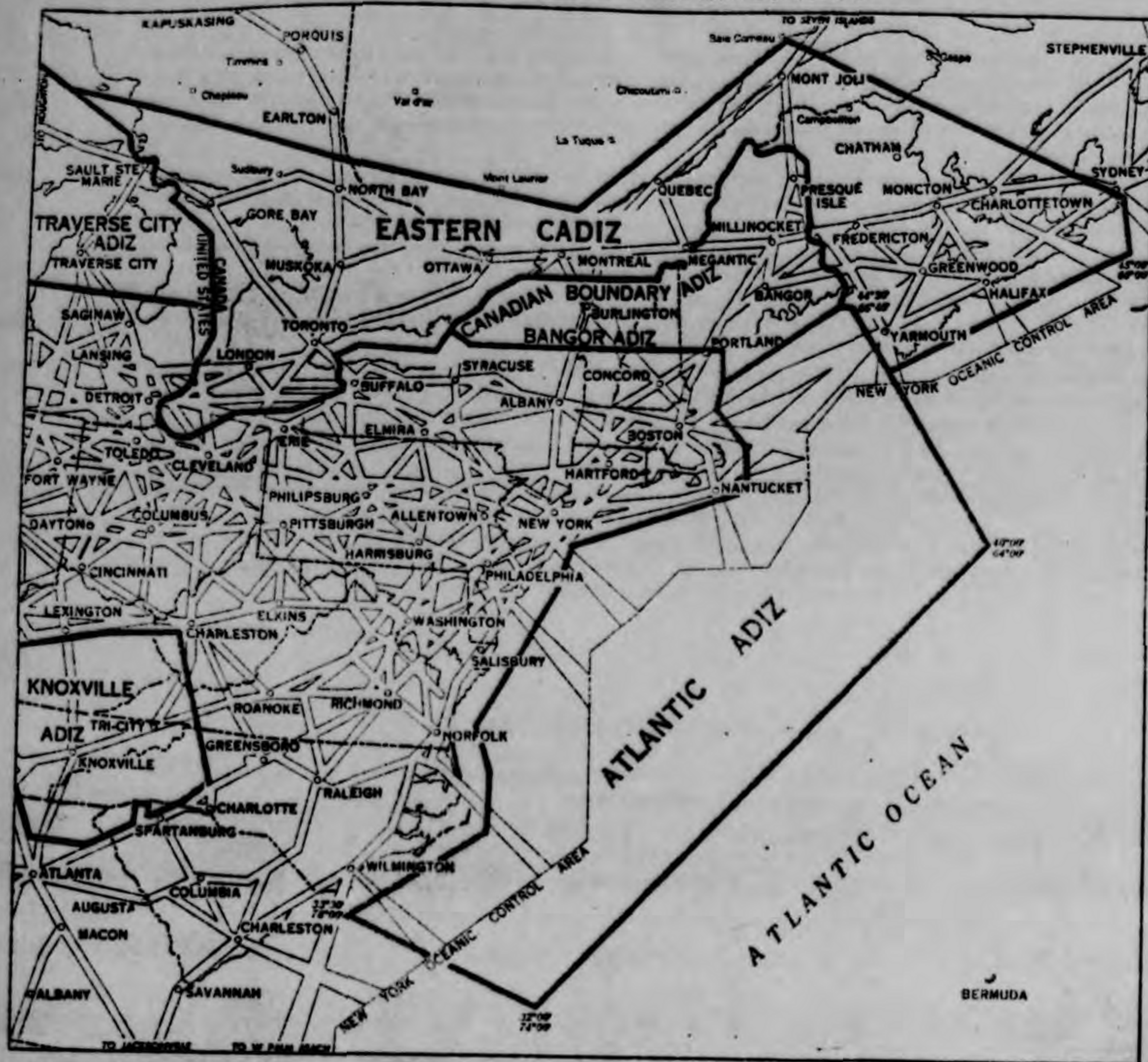
Military fuel is listed by letter code indicating octane ratings as follows: A+; 115/145, A: 100/130, B: 91/98, C: 83 or 80, J: JP-1, 2.

The above listing does not include Air Force aerodromes.

*Joint civil and military operation; Air Force facilities at these fields are not listed.

Consult the latest Airman's Guide for changes in data subsequent to date of chart.

AIR DEFENSE IDENTIFICATION ZONES (ADIZ)



In the United States several areas have been designated as Air Defense Identification Zones (ADIZ) by the Administrator of Civil Aeronautics in the interest of national security. All aircraft entering the Air Defense Identification Zones are required to file flight plans, except aircraft entering from within the Continental Limits of the United States or operating within the Seattle, San Francisco, Los Angeles, Albuquerque, Knoxville, Great Falls, Minneapolis, Traverse City, and Bangor Zones, at altitudes of less than 4000 feet above the immediate terrain. Any person who knowingly or willfully fails to do so is subject to penalties of one year in prison or \$10,000 fine. The Air Defense Identification Zones are identified as follows: Seattle ADIZ, San Francisco ADIZ, Los Angeles ADIZ, Atlantic ADIZ, Pacific ADIZ, Albuquerque ADIZ, Knoxville ADIZ, Great Falls ADIZ, Minneapolis ADIZ, Traverse City ADIZ, Bangor ADIZ, Mexican Boundary ADIZ, and Canadian Boundary ADIZ. These areas are indicated on the face of Aeronautical Charts and are so labeled. For additional information see Civil Air Regulations Part 620.

Canadian Air Defense Identification Zones (CADIZ) have been designated by the Director of Air Services, Department of Transport. All aircraft entering these zones at altitudes of 4000 feet or more above the immediate terrain are required to file flight plans. The Canadian Air Defense Identification Zones are identified as the Eastern CADIZ and the Western CADIZ. They are also indicated on the face of aeronautical charts and are so labeled.

V.H.F. OMNI-RANGE (VOR)

The V.H.F. omni-range operates within the 112-118 megacycle band. In this band it is relatively free from atmospheric and precipitation static and interference from other radio stations. Furthermore, it is not limited to four courses as is the A-N range, but provides definite guidance on any course, to or from the station, the pilot may select. That is why it is called the Omni (Directional) Range. At minimum instrument altitudes the VOR gives reliable indications up to about 50 miles, depending on enroute terrain.

In flying the V.H.F. omni-range, the pilot uses three basic instruments. The first is the Flight Path Deviation Indicator (cross-pointer instrument), the same type used for the visual-aural range (VAR) and the ILS localizer. The vertical needle of this instrument tells the pilot whether he is right or left of the desired course. The second is an Omni-bearing Selector, manually operated by the rotation of a small knob, by which the pilot selects the course he desires to fly. When the cross-pointer needle is centered, the omni-bearing selector indicates the magnetic bearing of the aircraft either to or from the station. The third is a "TO-FROM" indicator which shows whether the bearing indicated by the Omni-bearing Selector is from or to the station. Furthermore, the "TO-FROM" needle can tell a flier when his aircraft is too far from the VOR or is otherwise receiving a weak signal. In this case the needle points to a red sector instead of TO or FROM.

In operation, the pilot selects a course by adjusting the omni-bearing selector to the desired magnetic bearing, and then maintains it by keeping the cross-pointer needle centered. If the aircraft is correctly aligned with the TO-FROM indications, when the needle swings to the right, for example, it indicates that the course selected lies to the right.

For example, an aircraft is due south of a VOR station. If its pilot desires to fly to the station, he sets the omni-bearing selector to indicate 0°. The "TO-FROM" indicator will then point to the word "TO". As the aircraft passes over the station the "TO-FROM" indicator will point to the word "FROM". If a turn of 180° is made north of the station, although the vertical cross-pointer needle will again become centered, the "TO-FROM" indicator will still point to "FROM". The pilot, however, will now find that he must fly "Away from the needle" to stay on course. This shows him that the "TO-FROM" indicator is incorrect. So, the pilot now rotates his omni-bearing selector to 180°. After he has done this, the "TO-FROM" indicator shifts to the "TO" position, and flying "Toward the needle" will keep him on course.

TABLE OF V.H.F. RECEPTION DISTANCES

With the increasing use of VHF and UHF frequencies for communication and navigation it appears desirable to publicize the reception distances for these frequencies. They, therefore, are tabulated below:

Feet Above Ground Station*	Reception Distance** Statute Miles
500	30
1,000	45
3,000	80
5,000	100
10,000	140
15,000	175
20,000	200

*No physical obstruction intervening.

**Based on zero elevation of the facility.

If you are using a VHF transmitter, remember that its effective range increases with your altitude. Don't attempt to contact a station unless you are within "line of sight"

U.S. WEATHER BROADCASTS AND TRANSMISSIONS

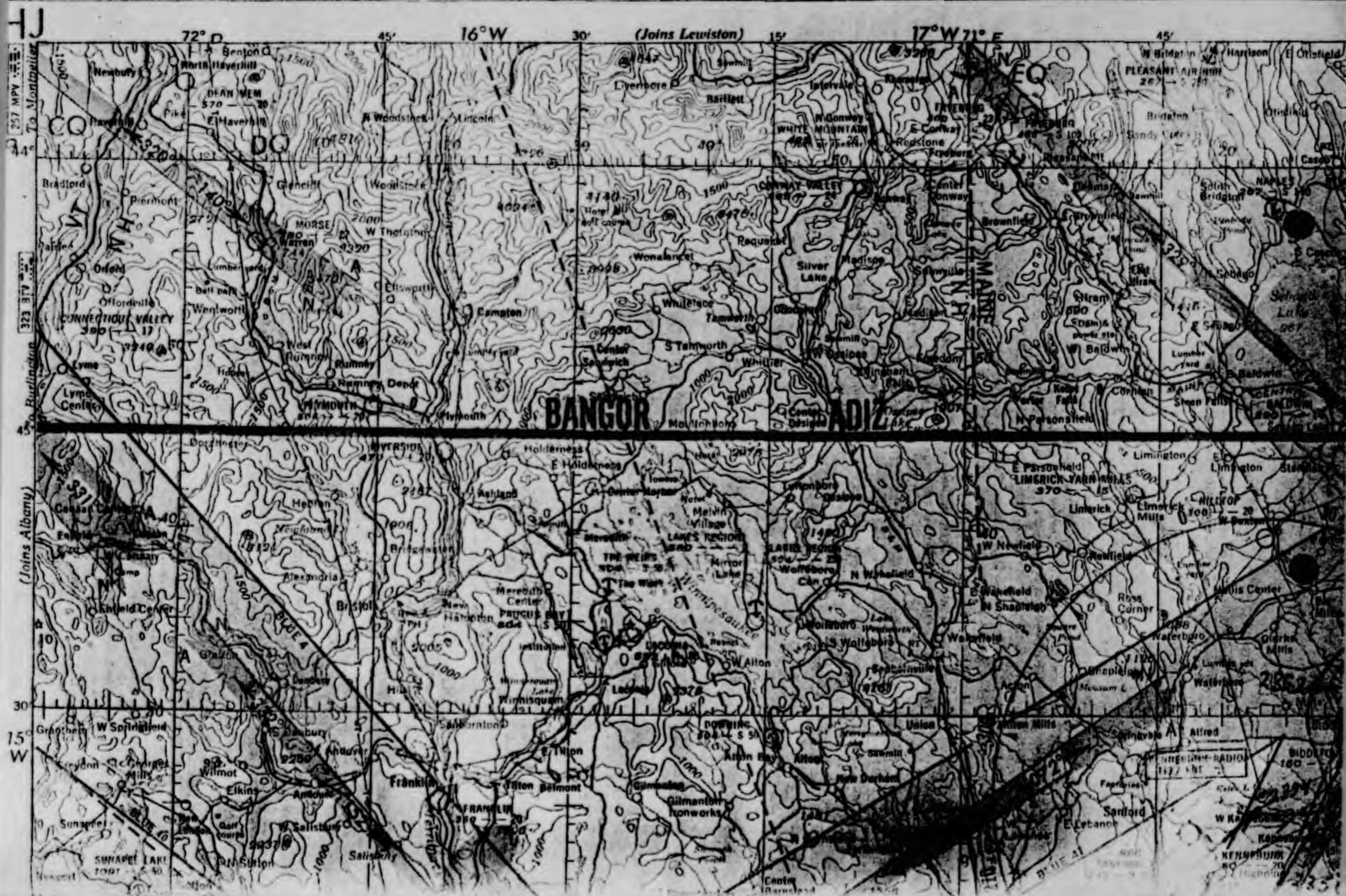
All continuously operated CAA radio range and radio beacon stations having voice facilities on the range or radio beacon frequencies broadcast weather reports and airway information at 15 and 45 minutes past each hour. The 15-minutes past-the-hour broadcast is an "airway" broadcast consisting of weather reports from important terminals located on airway (s) within approximately 400 miles of the station. The 45-minutes-past-the-hour broadcast is an "area" broadcast consisting of weather reports from locations within the flight information area of the station.

The broadcast consists of the local weather report and the latest available surface reports from other locations. Reports more than one hour old are not broadcast. Local winds aloft are broadcast 4 times after the broadcasts at 6:15 and 12:15 A.M., and P.M., E.S.T. The velocities of winds aloft are broadcast in knots - not miles.

At selected stations the Weather Bureau provides a local terminal forecast covering the next two hours. This forecast is broadcast, when available, immediately following the local weather report.

Pilots enroute are requested to avoid, if possible, calling airway communications stations at or about 15 and 45 minutes past the hour (which are the scheduled broadcast times) to request weather information, as such calls may delay starting of scheduled broadcasts and cause inconvenience to other persons who are dependent on the broadcasts for weather reports.

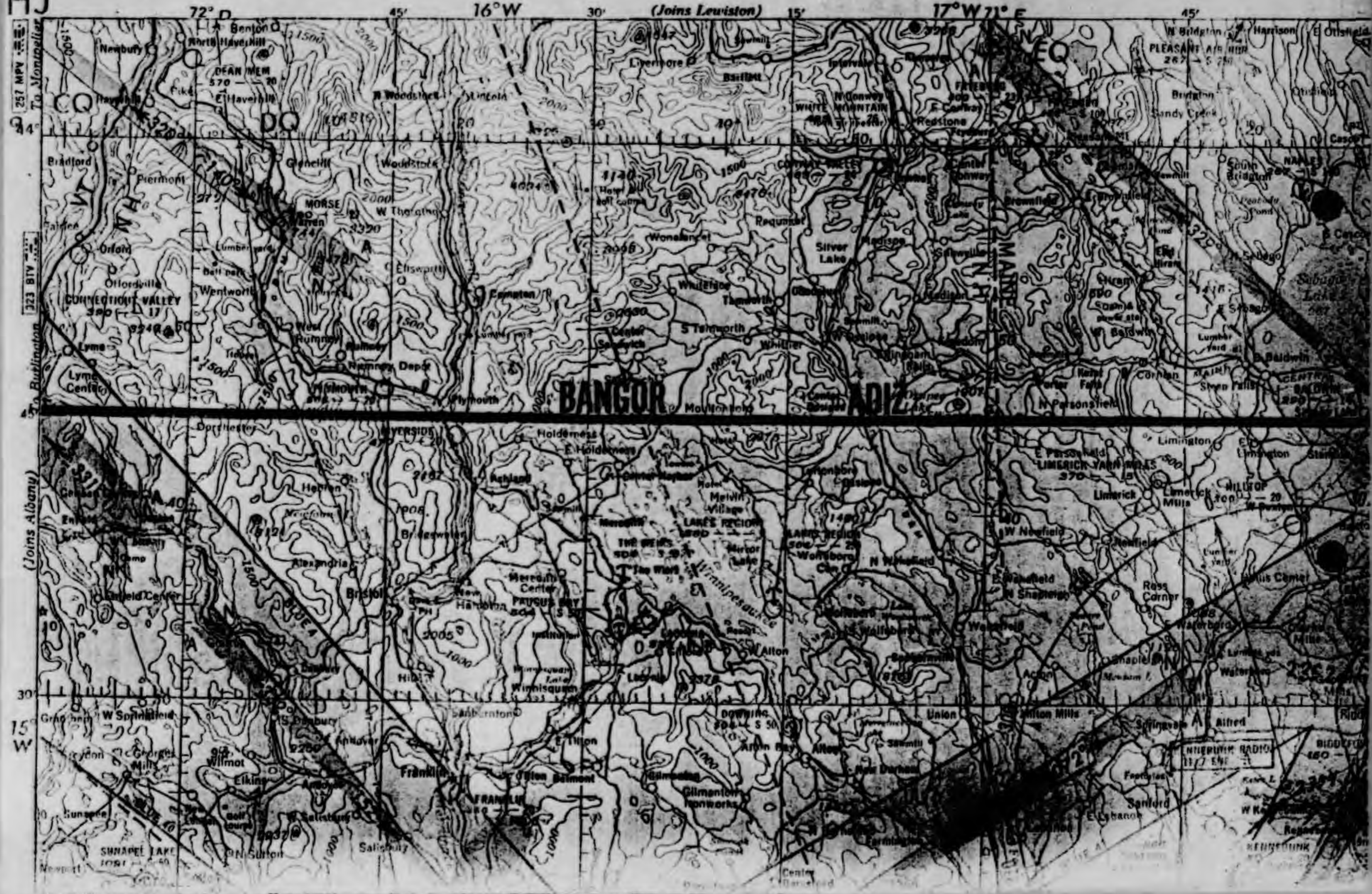
BOSTON (UV-10)

ELEVATIONS IN FEET

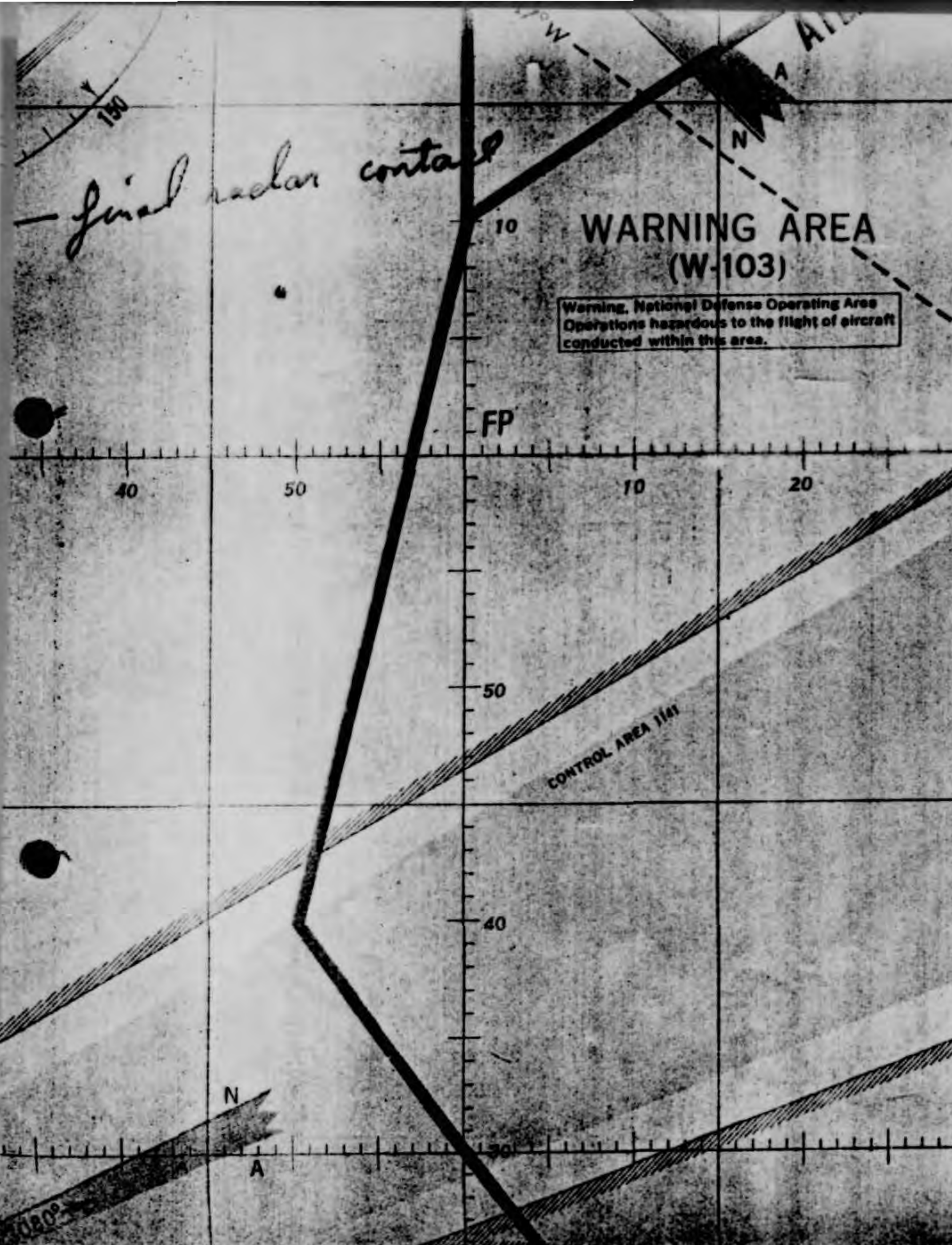
BOSTON (UV-10)

ELEVATIONS IN FEET

HJ



Final radar contact



2352Z First radar contact

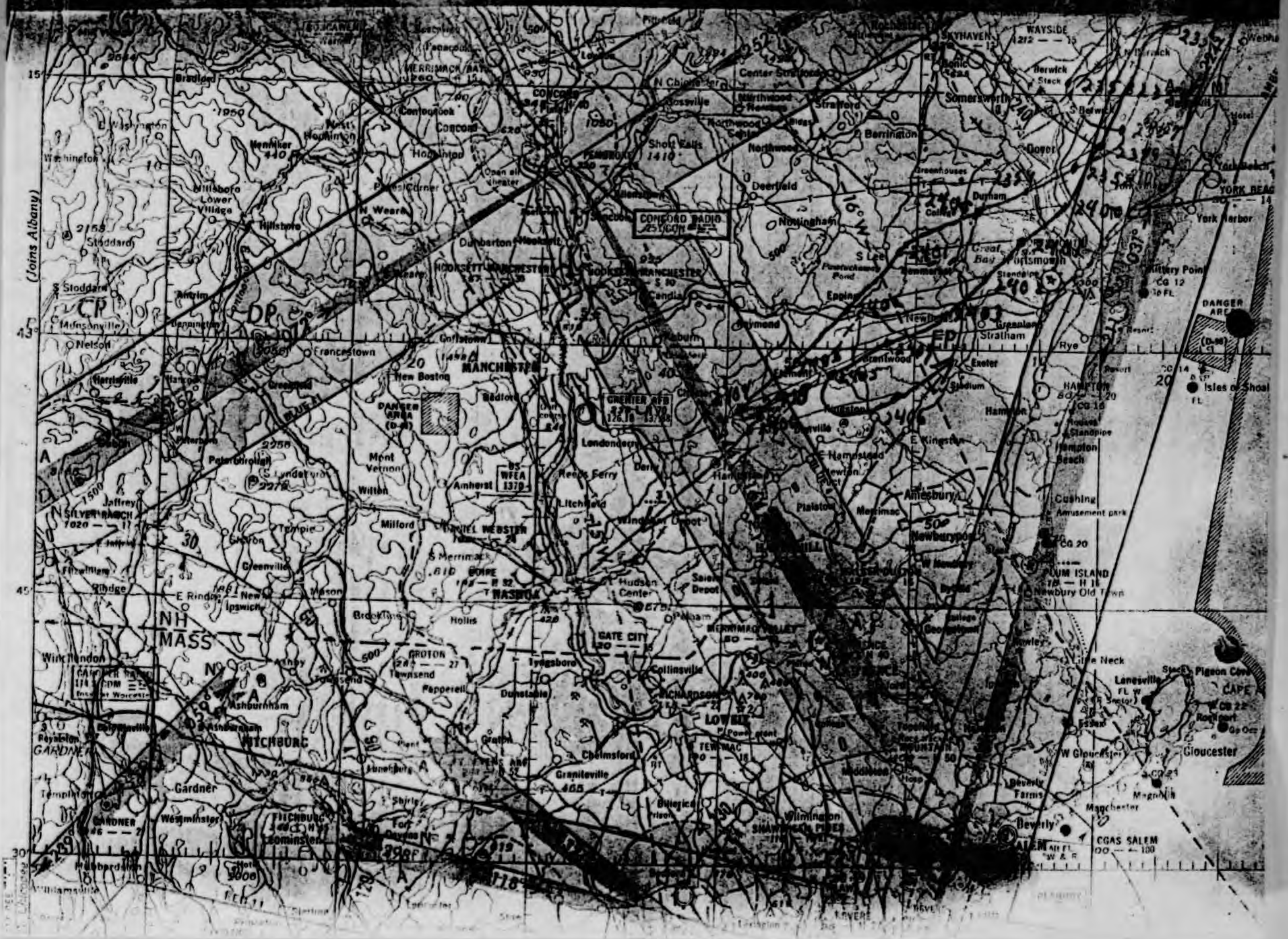
2400Z - Final radar contact

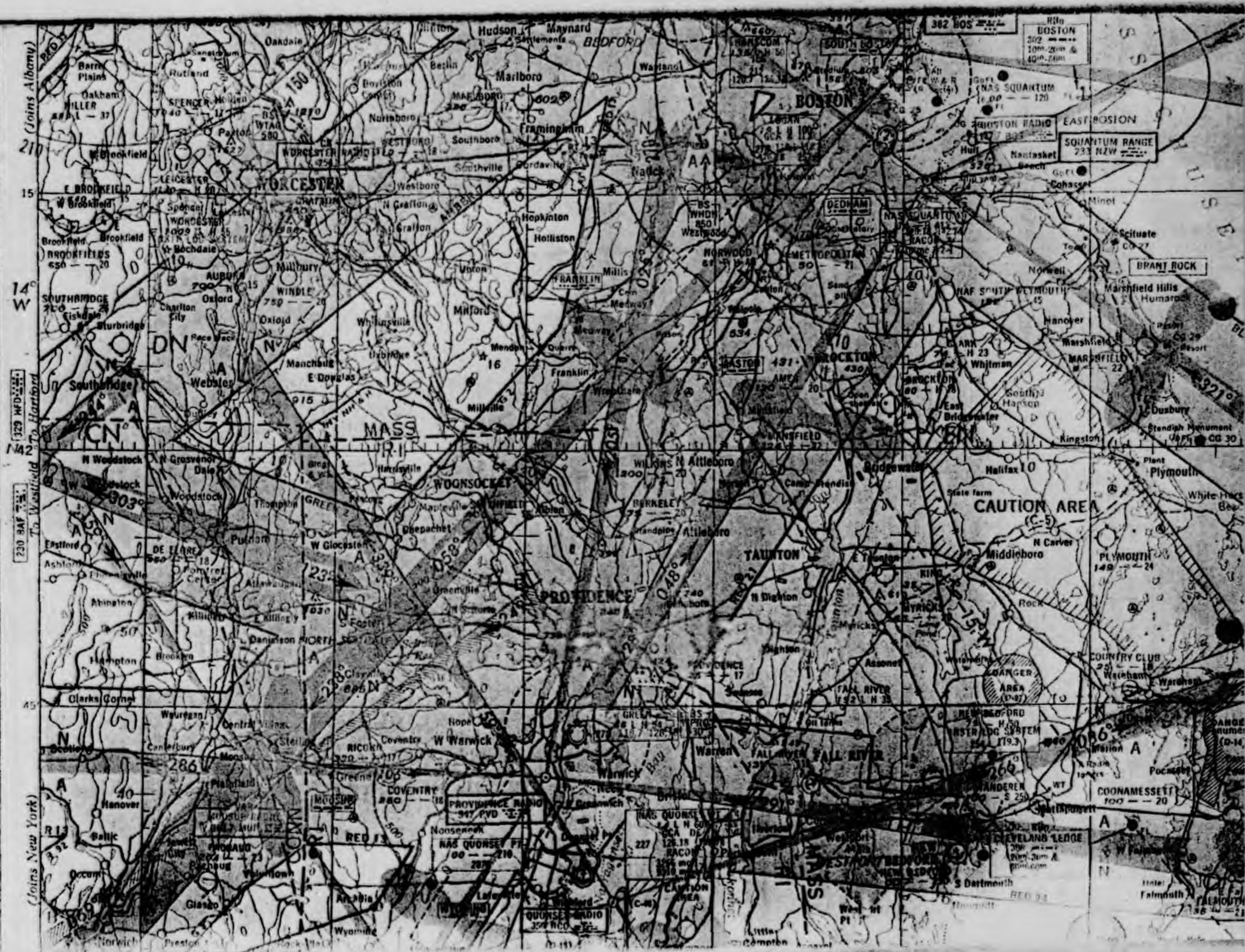
Radar contact was intermittent with first range at 3 mi and final range at 5 mi.

Course of P2V is approximate and red line is apparent relative direction of object to P2V course heading. Times are relative to initial sighting. Times of object and P2V shows change in relative speed between the two. P2V speed was constant at 165 K indicated, 180 K.

At 2403 a turn was made heading directly for object. At 2404 object appeared to be closing fast on collision course. At 2405 a turn was made because of high closing rate, which have been caused by object either on heading towards P2V. After turn was made object disappeared slowly in

WARNING AREA (W-104)
Warning. National Defense Operating Area Operations hazardous to the flight of aircraft conducted within this area.





(Joins Albany)

15

14°

142

142

230 BAF

To Hartford

To Westfield

45

(Joins New York)

382 BOS
BOSTON
302
10m, 20m &
40m, 60m

BOSTON RADIO
EAST BOSTON
SQUANTUM RANGE
233 NZW

CAUTION AREA
(C-5)

NEW BEDFORD
INTERLOG SYSTEM
179.3

COONAMESSETT
100 -- 20

FAIRMOUTH
186 -- 21

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO.

FROM: (Originator) **SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY**

DATE-TIME GROUP

222030Z SEPT 52

SECURITY CLASSIFICATION

PRECEDENCE
FOR:

ACTION

ROUTINE

☐ BOOK MESSAGE☒ ORIGINAL MESSAGE☐ MULTIPLE ADDRESS

CRYPTOPRECAUTION

☐ YES☒ NO

REFERS TO MESSAGE:

IDENTIFICATION

CLASSIFICATION

CG ATIC

TO: CG SAC OFFUTT AFB OMAHA NEBR

INFO:

FROM: AFON-ATIA-9-9-E

FOR DIRECTOR OF INTELLIGENCE

Naval P2V reported electronic and visual sighting of unidentified flying object from 162100Z to 170010Z Sept 52 in vicinity of Portland, Maine, 4340N - 07320W. Report indicates possibility that subject sighting was caused by an air to air refueling operation. Request you inform this Hq of any such SAC activities in area of Portland, Maine, at the above times. In reply, cite Project Blue Book.

DRAFTER'S NAME (and signature, when required)

RELEASING OFFICER'S SIGNATURE

SYMBOL

TELEPHONE

OFFICIAL TITLE

PAGE 1 OF 1 PAGES

ATIA-5

65365

AIR ADJUTANT GENERAL

DD FORM 173 1 OCT 49

REPLACES NME FORM 173, 1 MAY 48
WHICH MAY BE USED.

16-58923-2 ☆ U. S. GOVERNMENT PRINTING OFFICE

1. HJ identifies basic 15° quadrangle
2. DM identifies 1° quadrangle
3. 15 identifies Georef minute of longitude
4. 24 identifies Georef minute of latitude
5. Sample reference: HJDM1524

1. Atia
2. Atia
3. C. files

NR10230

001 12 00 13 1354

JEDMH B089

D 9

RR JESBA JEDWP JEDBO 333

DE JEDMH 438

R 111958Z ZNJ

ACTION

AT 1 C

FM CGSAC OFFUTT AFB NEBR

TO JESBA/CG 2 AF BARKSDALE AFB LA

INFO JEDWP/CGATIC WRIGHT PATTERSON AFB OHIO

JEDBO/CO 321 AIR DIV LOCKBOURNE AFB OHIO

[REDACTED] DOCOC 30708. PROJECT BLUE BOOK. FOLG MSG RECD FROM CG ATIC WRIGHT PATTERSON AFB OHIO IS FWDD FOR NECESSARY ACTION. FROM AFOIN-ATIAA-9-18-E FOR D/INT REOURMSG AFOIN-ATIAA-9-9-E CONCERNING FLYOBRPT OF 162345Z TO 170010Z SEP 52 AT PORTLAND, ME AND REURMSG DOCO 27202. ADDITIONAL INFO FR CREW OF U S NAVY P2V WHICH MADE SIGHTING INDICATES VISUAL CONTACT WITH OBJECTS WAS CONSTANT FR 162352Z TO 170001Z. OBJECTS WERE ON COURSE HEADING OF APRX 220 DEG FOR OVER 70 NAUTICAL MILES. NAVAL ACFT FOLLOWED OBJECTS FROM 4345N - 07015W TO 4300N - 07115W. DESCRIPTIONS OF THE FLYING OBJECTS BY PILOT AND CO-PILOT

ACTION

ACTION

PAGE TWO JEDMH 438

OF P2V NEVERTHELESS INDICATE STRONG POSSIBILITY THAT THEY OBSERVED A REFUELING OPN HOWEVER TIME QUOTED IN YOUR MSG DOCO 27202 AND COURSE OF THE 2 KC-97'S OVER PORTLAND ARE AT VARIANCE WITH NAVAL P2V'S RPT. REQ YOU VERIFY THE TIME THE 2 KC-97'S ENTERED THE PORTLAND MAINE AREA WHEN AND WHERE THEY CONDUCTED REFUELING OPN AND COURSE HEADINGS AND APPROXIMATE TIME AS THEY LEFT THE PORTLAND, ME AREA. ALSO REQ YOU DETERMINE WHETHER OR NOT CREWS OF KC-97'S WERE AWARE OF OTHER ACFT FOLG THEM. IF YOU ARE UNABLE TO DO THIS REQ NBRS OF KC-97 ACFT PILOTS NAMES, ORGANIZATIONS AND HOME STATIONS SO THAT ATIC CAN INTERROGATE DIRECTLY. IN REPLY, CITE PROJECT BLE BOOK." 2. TELEPHONE CONVERSATION WITH LOCKBOURNE CONTROL ROOM INDICATES THESE ACFT WERE KC-97'S NBRS 5-1243 AND 5-1262 OF 26 ARS. ACFT COMDRS WERE CAPT DONALD E DODDINGTON AND CAPT ALMERY R. HAMBLIN. REQ YOU FURNISH INFO DIRECT TO ATIC, INFO THIS HQ.

11/2847Z OCT JEDMH

11/2847Z OCT JEDMH

JEDMH 0000

11/2847Z

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO.

FROM: (Originator)

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

CG ATIS

TO: CG SAC OFFICE AND WFO

INFO:

DATE-TIME GROUP 311830Z OCT 52		SECURITY CLASSIFICATION UNCLASSIFIED
PRECEDENCE FOR:	ACTION ROUTINE	INFORMATION
☐ BOOK MESSAGE	☐ ORIGINAL MESSAGE	
☐ MULTIPLE ADDRESS	CRYPTOPRECAUTION ☐ YES ☒ NO	
REFERS TO MESSAGE:		
IDENTIFICATION DOGO 30708	CLASSIFICATION UNCLASSIFIED	

FROM: AFOWE-ATIAA-10-19-52 FOR DIRECTOR OF INTELLIGENCE

Reference your message DOGO 30708, ATIS has received no information from Lockbourne AFB. Request SAC follow-up or authorize ATIS to contact the 801 Air Div. directly. In reply cite Project Blue Book.

SECURITY CLASSIFICATION UNCLASSIFIED	PAGE 1 OF 1 PAGES
DRAFTER'S NAME (and signature, when required) LT A. C. FLIES/vs	
RELEASING OFFICER'S SIGNATURE ROBERT E. GENESEY, MAJOR, USAF	
SYMBOL ATIAA-5	TELEPHONE 6365
OFFICIAL TITLE AIR ADJUTANT GENERAL	

1. Atia.
2. Atiga
3. P. files

7 Nov 52 13 38
PS

ACTION INFOR. INFO. INFOR.

ATIC 7:42

RC93T

WPA122

YMA277

JEDMH 8093

RR JEDWP JESBA JEDBO 353

DE JEDMH 97

R 062300Z

FM CGSAC OFFUTT AFB NEBR

TO JEDWP/CG ATIC WRIGHT PATTERSON AFB OHIO

INFO JESBA/COMGENAF TWO BARKSDALE AFB LA

JEDBO/CO AD 801 LOCKBOURNE AFB OHIO

DOCOC 36280. PROJECT BLUE BOOK. REF OUR MSG DOCOC 30703

DTG 11958Z AND URMSG AFOIN - ATIAA-10-19-E. THIS HQ AUTHORIZES

CG ATIC TO CONTACT 801ST AIR DIV DIRECT TO OBTAIN DESIRED INFO.

06/2304Z NOV JEDMH

JEDMH 002
JESBA A 01
T

PARAPHRASE NOT REQUIRED. SEE CRYPTO-CENTER
BEFORE DECLASSIFYING

1. Atch
2. Atch
3. Atch
files

JEBBO A35
OPOP JEDWP JEDMH JESBA 333
DE JEDBO 68

OP 12/2210Z

FM COADIV 881 LOCKBOURNE AFB OHIO

TO JEDWP/AIR TECHNICAL INTELLIGENCE CENTER WRIGHT-PATTERSON FIELD OHIO

INFO JEDMH/CGSAC OFFUTT AFB NEBR

JESBA/;:1-1 2 BARKSDALE AFB LA

//91D00 1847 PD ICW SAC MSG DOCOC 30708 DTD
11 OCT 52 AND 2D AF MSG 2AFOO 4682 DTD 14 OCT 52 PD A THROUGH INSP OF
NAV LOGS AND INTERROGATION OF CAPT DONALD E DODDINGTON ACFT COMDR ON
KC-97 NO 5-1234 AND CAPT ALMERY R HAMBLIN ACNT COMDR ON KC-97 NO
5-1262 CMA PLT ASGD TO 26TH AIR RFLG SQ LOCKBOURNE AFB OHIO REVELS THE
FOLG INFO PD CAPT HAMBLIN IN KC-97 NO 5-1262 STATES THAT AT 2117Z CMA
16 SEPT 52 HE PASSED OVER PORTLAND CMA MAINE ON A TRUE CRSE OF 242
DEGREES E/R TO CONCORD CM NEW HAMPSHIRE ARR AT 2138Z NAD HELD UNTIL
2200Z THEN PRO TO MONTAUK PT CM NEW YORK RR AT 2240Z PD THIS ACFT
THEN PRACTICED RENDEZ-VOUS WITH ACFT KC-97 NO 5-1234 BETWEEN MONTAUK PT

PAG TWO JEDBO 68

CMA NEW YORK AND TEN MILES WEST OF PROVIDENCE CMA RHODE ISLAND CMA DEPT
42 DEGREES 15 MIN 71 DEGREES 30 MIN WEST AT 0019Z CMA 17 SEPT 52 FOR
LOCKBOURNE AFB OHIO PD CAPT DODDINGTON IN KC-97 NO 5-1234 STATES THAT
HIS ACFT ARR FROM ELMIRA CMA NEW YORK AT MONTAUK PT CMA NEW YORK ON A
TRUE CRSE ON 106 DEGREES AT 2240Z CMA 16 SEPT 52 AND PRACTICED REND
EZVOUS WITH ACFT KC-97 NO 5-1234 DEPT WORCESTER CMA MASSACHUSETTES AT
APPRX 0019Z CMA 17 SEPT 52 FOR NEWARK CMA NEW JERSEY E/R TO LOCKBOURNE
AFB OHIO PD FURTHER INFO SBM IS THAT AT NO TIME DID THESE ACFT FLY A
RFLG OR FORMATION MSN TO-GETHER AND WERE SEP AT ALL TMS BY AT LEAST
TWO MILES ON THE COMP OF THEIR RENDZG-VOUS PD PLT OF THESE TWO KC-97'S
ALSO HAVE STATED THAT THEY DID NOT AT ANY TIME OBSR ACFT FOL THEM
DURING THEIR MSN PD PLT STATE ALSO THAT THEIR PSN WERE KNOWN AT ALL TIMES
SINCE THE WEA WAS CAVU IN THE RENDEZ-VOUS AREAS PD FURTHER INTERROGATION
IS NEEDED ACFT AND PLT MENTIONED ABOVE ARE ASGD TO THE 26TH AIR RFLG
SQ LOCKBOURNE AFB OHIO PD THIS MSG SUPS AND CORRECTS ANY PREVIOUS MSG
GIVEN PD

12/2220Z NOV JEDBO

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO.

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

FROM: (Originator)

CG ATIC

TO: CO, LOCKEBOURNE AFB, COLUMBUS, OHIO

INFO:

DATE-TIME GROUP

121415Z NOV 52

SE

PRECEDENCE
FOR:

ACTION

ROUTINE

INFORMATION

☐

BOOK MESSAGE

☒

ORIGINAL MESSAGE

☐

MULTIPLE ADDRESS

CRYPTOPRECAUTION

☐ YES☒ NO

REFERS TO MESSAGE:

IDENTIFICATION

CLASSIFICATION

FROM: AFOIE-AFIAA-11-6-E FOR 801st Air Div, Hq, Intelligence Office

Headquarters SAC advises that two KC-97 aircraft of 26 ARS numbers 5-1243 and 5-1262, aircraft commanders Capt Donald E. Doddington and Capt Alnery R. Hambleton, were in the vicinity of Portland, Maine, at or about the time that a US Navy P2V aircraft reported sighting of two unidentified flying objects. US Navy aircraft maintained visual contact with objects from 164345Z to 170010Z Sep 52. Electronic contact with objects was intermittent from 164352Z to 164359Z Sep 52. Objects were on course heading of approximately 220° for over 70 nautical miles. US Navy P2V followed objects from 1315Z-07015Z to 1300Z-07115Z. Descriptions of the flying objects by pilot and co-pilot indicate strong possibility that they observed a refueling operation. Request all available information concerning times, courses, locations, and refueling operations of the above referenced KC-97 aircraft during the time of the sighting of the two unidentified flying objects. Also request you determine whether or not crews of

SE

PAGE 1 OF 2 PAGES

ATIAA-5

JOINT MESSAGEFORM

FROM: (Originator)

CG ATIC

TO:

INFO:

IC-97's were aware of other aircraft following them.

In reply cite Project Blue Book.

COORDINATION:

ATIAA _____

ATIA _____

DATE-TIME GROUP

121415Z NOV 52

SECURITY

PRECEDENCE
FOR:

ACTION

INFORMATION

☐

BOOK MESSAGE

☐

ORIGINAL MESSAGE

☐

MULTIPLE ADDRESS

CRYPTOPRECAUTION

☐

YES

☐

NO

REFERS TO MESSAGE:

IDENTIFICATION

CLASSIFICATION

DRAFTER'S NAME (and signature, when required)

Lt A. G. Flinn/jos

SYMBOL ATIAA-5

TELEPHONE

65365

SECURITY

PAGE 2 OF 2 PAGES

RELEASING OFFICER'S SIGNATURE

OFFICIAL TITLE

ROBERT E. KENNEDY, MAJOR, USAF
AIR ADJUTANT GENERAL

FM HQ USAF WASHDC

TO JEDEN/CGAIRDEFCON ENT AFB COLO

JEDWP/CHIEF ATIC WRIGHT PATTERSON AFB OHIO

JEPLG/CGTAC LANGLEY AFB VA

~~REDACTED~~ FROM: AFOIN 57793. FLYOBRPT. ATTN: ATIAA-20.

RE OUR AFOIN 57785/CMA PART ONE CMA SOURCE COCO PORTION CONCERNING

ELEV AT WHICH SIGHTED SHOULD READ AS FOLWS CLN OBJ OBSERVED

THROUGH ABOUT THREE FIVE DEGREES OF ELEV OR IN OTHER WORDS FR INITIAL

ELEV OF ABOUT FOUR FIVE DEGREES TO POINT OF DISAPPEARANCE BEHIND

HOUSE PD LATTER POINT CORRESPONDS TO ABOUT ONE ZERO DEGREE ELEV END

13/1722Z SEP JEPHQ

Cy 1

BASELINE CHECK READINGS

Time G.C.T.	Temperature			Relative Humidity			
	Ordinate	Dry	Wet	Ordinate	Raob	Cor.	Psychrometer
			°F		%	%	(ice)
			°C				(water)

CONSTANT PRESSURE DATA

9 Km.
-40°

8 Km.
-30°

7 Km.
-20°

6 Km.
-10°

400

450

500

550

600

650

700

0300 Z

1615

Slight inversion

0300 Z

0300 Z

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO.

10073

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

FROM: (Originator)

CG ATIC

TO: CG SAC OFFUTT AFB OMAHA NEB

INFO:

DATE-TIME GROUP

301315Z SEP 52

PRECEDENCE
FOR:

ACTION

INFORMATION

☐ BOOK MESSAGE☐ ORIGINAL MESSAGE☐ MULTIPLE ADDRESS

CRYPTOPRECAUTION

☐ YES☐ NO

REFERS TO MESSAGE:

IDENTIFICATION

DOCS 27202

CLASSIFICATION

UNCLASSIFIED

FROM: AFOIX-ATIAA-9-14-2 FOR DIRECTOR OF INTELLIGENCE

Receiving AFOIX-ATIAA-9-9-2 concerning Flychpt of 162345Z to 170010Z Sep 52 at Portland, Maine, and receiving DOCS 27202. Additional information from crew of U.S. Navy P2V which made sighting indicates visual contact with objects was constant from 162352Z to 170001Z. Objects were on course heading of approximately 220° for over 70 nautical miles. Naval aircraft followed objects from 16345N - 07015W to 16300N - 07115W. Descriptions of the flying objects by pilot and co-pilot of P2V nevertheless indicate strong possibility that they observed a refueling operation; however, time quoted in your message DOCS 27202 and courses of the two KC-97's over Portland are at variance with Naval P2V's report. Request you verify the time the two KC-97's entered the Portland, Maine area, when and where they conducted refueling operation, and course headings and approximate time as they left the Portland, Maine area. Also,

SECRET

PAGE 1 OF 2 PAGES

ATIAA

ADIABATIC CHART

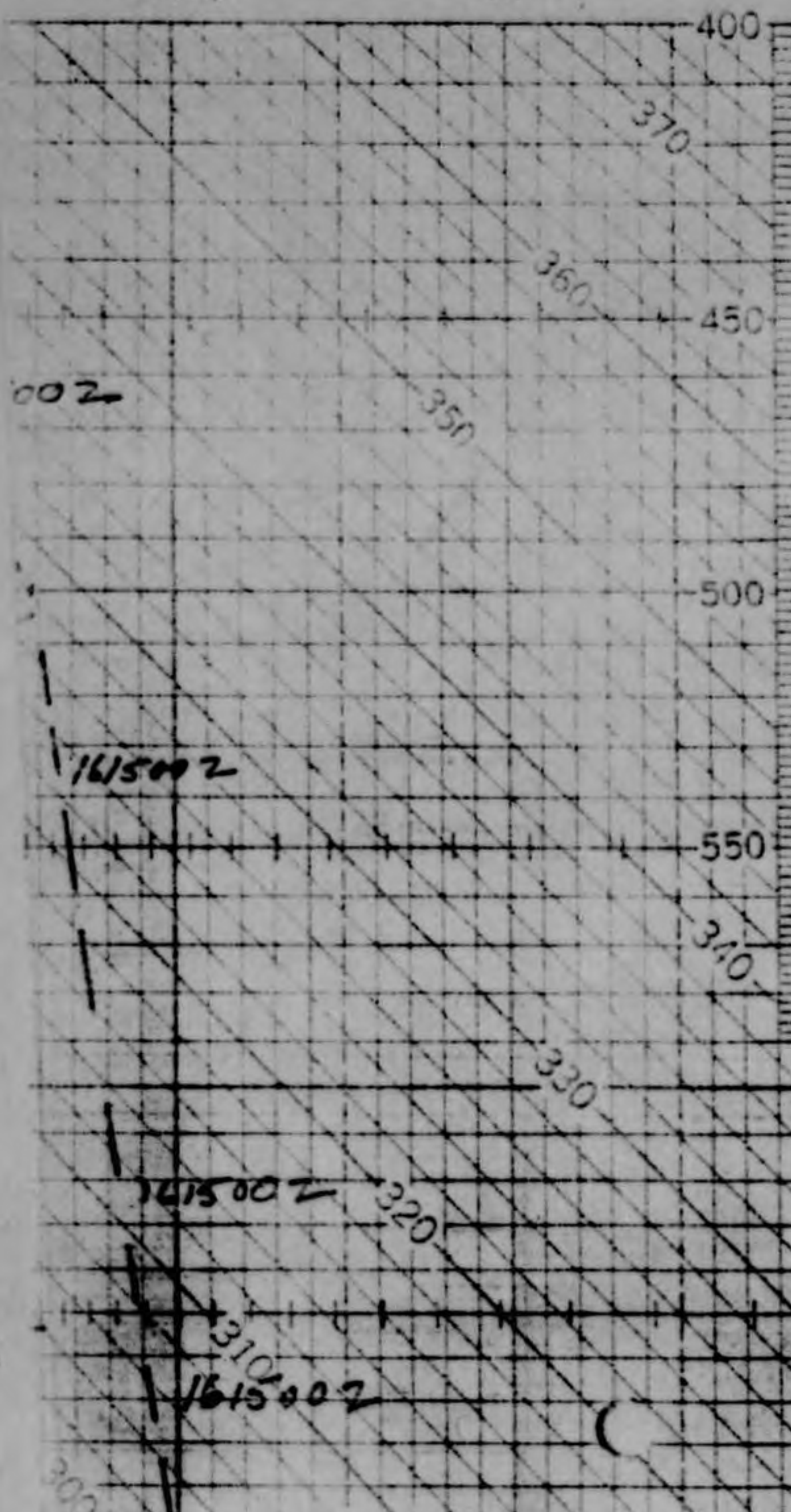
WBAN-31 A

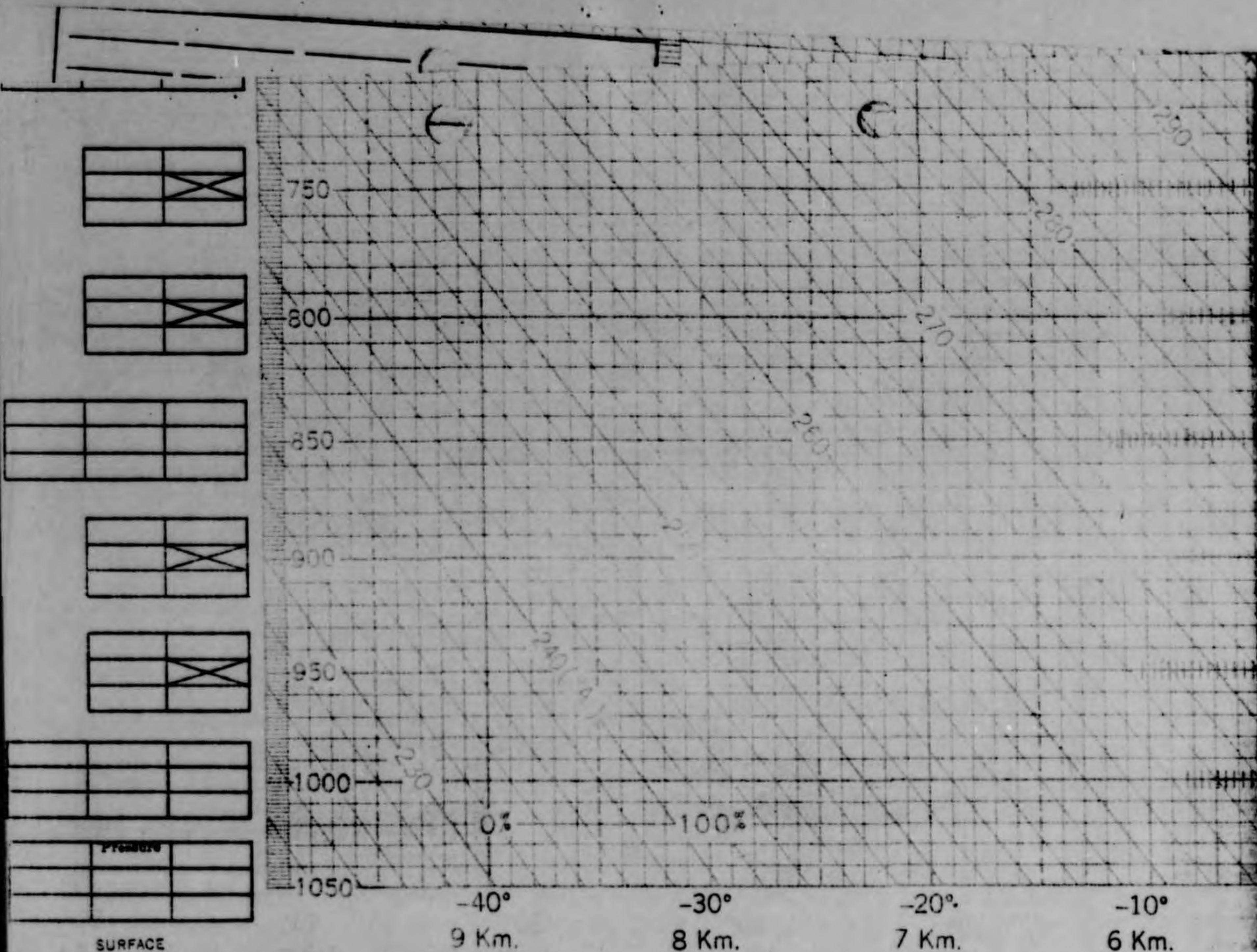
5 Km
0°(C.)

4 Km.
10°

DATA BLOCK A

Code Check	Level No.	PRESSURE		TEMPER- ATURE		RELATIVE HUMIDITY		DEW POINT	REMARKS
		Contact	mb	Ordinate	Ascent (°C)	Ordinate	% Including Correction of %	°C	
SIGNIFICANT LEVELS									
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								
CODED MESSAGE FOR TRANSMISSION									



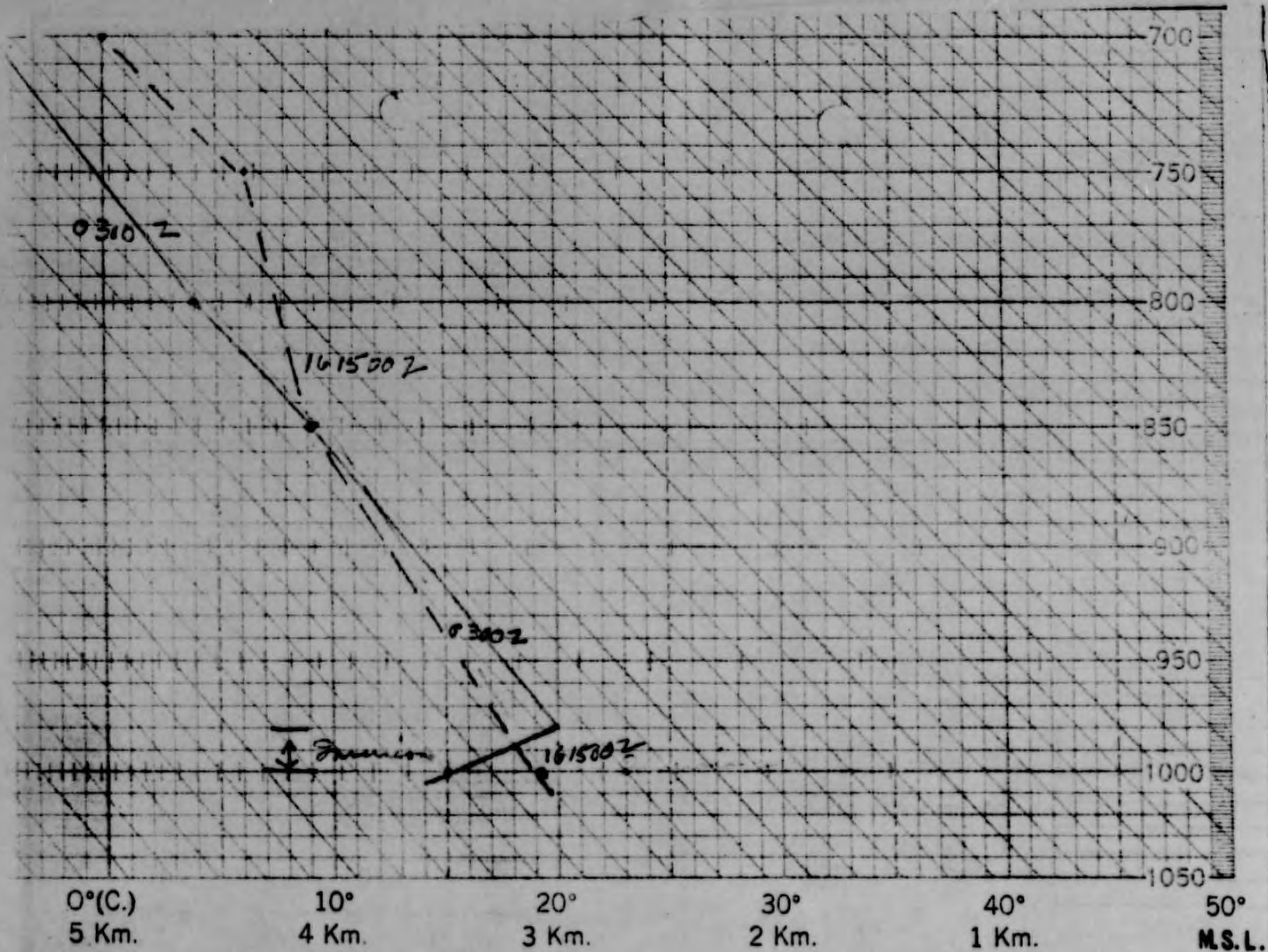


Station	<i>P W M</i>
<i>Portland, Me.</i>	<i>606</i>
Lat. _____	Long. _____

DATA AS TRANSMITTED	D. P. TO 0.1 °C OTHER DATA AS ENTERED ON WBAN-33 OR PUNCHED CARD	
00 hhh	H (20m)	T
TTT ₁ T ₂ T ₃	* RH	* D P
000W	Wind D (16 pts.)	S (m.p.s.)

PH—Pressure-height
T—Temperature °C
RH—Relative Humidity
Height scale in geopotential

* Omitted above 200 mbs.



Drawn by Fluer

Verified by _____

Inspected by _____

DATE AND RELEASE TIME

	Year	Month	Day	Time
th Mar.				
G.C.T.	52	SEP	17	0300Z
Radiosonde No.	Ascension No.			

A. F. STOCK NO. 2600-701-636-510

BASELINE CHECK READINGS

Time	G.C.T.	Ordinate	Day	Wet	Relative

SW AND FLEW OUT OF THE DROKE OFF CONTACT AND HEADS

DE JEPN 76

P 151950Z

FM HQ 32D AD HANCOCK FLD EASTWOOD STA 6 SYRACUSE NY

TO JEPNB/CG EADT STEWART AFB NEWBURGH NY

INFO JEDWP/ATIC WRIGHT- PATTERSON AFB OHIO

ACFOIN 9445. ATTN DIRECTOR OF INTELLIGENCE

EADT PD ATTN CAPT RUFFELT WRIGHT PATTERSON PD FLYOBRPT. FOL IS
COPY OF TWX MSG REC FR 654TH AC&W SQ: * NAVY PILOT AND CREW REPT OF
VISUAL AND ELECT SIGHTING OF UNIDENTIFIED FLY OBJ. ON NIGHT OF 16 SEP
52 THE PILOT AND CREW OF A RADAR EQUIPPED P2V OF VP SQ 26 PRESENTLY
LOCATED AT THE BRUNSWICK NAS, BRUNSWICK, ME, MADE THE DISCUSSED SIGHT-
ING. THE SIGHTING WAS REPT TO THE VP SQ INTEL OFF, LT BRITT, AT THE
MORNING BRIEFING AT 0800 HRS, 17 SEP 52. LT BRITT CONTACTED THE AC&W SQ
INTEL OFF IN PERSON AND MADE THE FOL REPT: LT J. M. BOAK AND CREW DEPT

CENTRAL FILES

PAGE TWO JEPN 76

BRUNSWICK NAS ON LOCAL FLT IN THE P2V AT 1822 HRS EDT. WHILE IN
VICINITY OF PORTLAND ME, 2 OBJ WERE SIGHTED VISUALLY FLY IN SOUTHERLY
DIR. LT BOAK REPT THAT THERE WERE 2 OBJ, ONE ABOVE AND AHEAD OF THE
OTHER MUCH AS A TOWING OR REFUELING FORMATION. THE UPPER OBJ WAS DARK
WITH NO VISIBLE LIGHTS. THE LOWER OBJ HAD 4 OR 5 LIGHTS ARRANGED IN A
CIRCLE. THE VISUAL SIGHTING WAS VERIFIED BY RADAR, APS 31. THE TGT
APPEARED ON RADAR AS A LINE RATHER THAN AS 2 SEPARATE PIPS. THERE WAS
A DISCREPANCY IN REPT TIME OF SIGHTING. LT BOAK, WHO WAS NOT AVAL FOR

INTERVIEW REPT TIME OF SIGHTING AS 1700 HRS. NO LINES ATCH 2 OBJ WERE VISIBLE. NO DEFINITE DESCRIPTION DUE TO DARKNESS. ENSIGN HARA STATED THE DARK OBJ WAS LARGE AND FIRST IMPRESSION WAS A COCA 34 OR COCA 119 TOWING A LIGHTED OBJ. HARA FURTHER STATED SINCE THE CLOSEST OBJ WAS APPROACHED WAS FR 2 AND ONE HALF TO 3 MILES, ALL THAT HE COULD DEFINITELY SAY WAS THAT THE DARK OBJ WAS LARGE BUT COULD NOT MAKE OUT A SIZE OR SHAPE OF LIGHTED OBJ. HARA STATED THAT THE PAPA 2 VICTOR ALTERNATELY CLOSED IN ON AND FELL BEHIND THE OBJ AND THAT THE PAPA 2 VICTOR WAS UNABLE TO GET IN A POSITION TO GET OBJ DOWN SUN ON THEM. HARA COULD NOT DEFINITELY STATE OBJ WERE TAKING EVASIVE ACTION AS HE WAS ALTERNATING BETWEEN COCKPIT AND RADAR POSITION. HARA STATED OBJ WERE FOL FOR 20 MIN AND THAT CONTACT WAS

PAGE THREE JEPEN 76

BROKEN OFF WHEN BOAK HEADED N IN VICINITY OF PORTSMOUTH NEW HAMPSHIRE IN 2015 EDT. FOL IS NARRATIVE OF PLTS LT BOAK AND CO PLT LT C G PRENTISS TO VP SQ INTEL OFF. TWO OBJ WERE SIGHTED AT 1700 ON A SOUTHERLY HEADING IN PSN N/A LARGE DARK OBJ ABOVE THIS OBJ WITH CIR ARNG OF FIVE LIGHTS. COULD NOT DETERMINE PSN OF LIGHTS ON LOWER OBJ DUE TO DARKNESS PD BOAK REPT OBJ SIGHTED OVER PORTLAND ME AND WERE FOL FOR PD OF 15 MIN W/CONTACT BKN OFF NEAR PORTSMOUTH NEW HAMPSHIRE. BOAK SAID WHEN HE ATTEMPTED TO GET IN BETTER PSN TO VIEW OBJ THEY TOOK EVASIVE ACTION W/OUT BREAKING FORMATION. FOR THIS REASON BOAK DID NOT BELIEVE THEY WERE REFUELING. BOAK REPT OBJ AT TIMES WERE ACCELERATED TO 300 KNOTS BUT DECELERATED RAPIDLY. BOAK STATED THAT IN VICINITY OF PORTSMOUTH OBJ

TURNUED TOWARD HIM AND HE BROKE OFF CONTACT AND HEADED N. OBJ THEN TURNED
SW AND FLEW OUT OS SIGHT. BOAK BELIEVES BREAK OFF OF CONTACT WAS AT
1915 EDT. HARA STATED BREAK OFF TIME WAS APRX 2000 EDT. LT BRATT THE

INTEL OFF STATES THAT LTS BOAK AND PRENTISS ARE THIRTY YEAR OF AGE
WITH MANY YR OF FLYING EXPERIENCE. FURTHER THAT BOTH OFF ARE VERY DEPEND-
ABLE. THE VP SQ IS ACD TO DEPT BRUNSWICK VERY SOON. IT IS SUGGESTED THAT
ANY PERS INTERVIEWS WITH CREW BE ARRANGED ACCORDINGLY.*

18/19522 SEP JEPSN

C-1-B

654TH AIRCRAFT CONTROL AND WARNING SQUADRON
U.S. NAVAL AIR STATION
Brunswick, Maine

CG 32-2110
245-4752
INITIALS: C

319.1

23 September 1952

SUBJECT: Navy Pilots sighting of flying objects.

TO: Lt. Flues
A.T.I.C.
Project Blue Book
Wright Patterson Air Force Base
Dayton, Ohio

1. In accordance with verbal instructions of Major Rudy, Intelligence Officer, 32d Air Division (Defense) on 23 September 1952 the following, and enclosed information and statements are forwarded.

2. The original report did not include original statements in writing of subject witnesses due to their non-availability at the time.

3. All statements enclosed are in the handwriting of the person whose signature appears on the statement.

4. All statements were prepared and signed in the presence of the undersigned.

5 Incls:

1. Question & Answer sheet
2. Chart showing tracks
3. PPI presentation sketch
4. Visual appearance - Lt. Boak
5. Visual appearance - Lt. Prentiss

Carl L. Rucker
CARL L. RUCKER
Capt., USAF
Intelligence Officer

[REDACTED]
[REDACTED]
QUESTION AND ANSWER SHEET

AUTH: CG 32 4 AD
DATE: 245-1252
INITIALS: CW

The following are the questions and answers directed by your office through Major Rudy.

1. (Q) Clarification of time and duration of visual sighting.
(A) Lts. Boak and Prentiss state that the time of initial visual sighting was at 2345 zebra and that visual contact was maintained until 0005 zebra.
2. (Q) Clarification of time of electronic contact and duration of electronic contact.
(A) Initial radar contact (APS 31) was at 2352 zebra. Electronic contact was intermittent with none when the object was dead ahead. Contact could be maintained only when the relative bearing of the objects were 15 to 30 degrees. Radar contact was last completed at 2400 zebra. The ranges varied from three to five miles.
3. (Q) Show track of Naval P2V and track of flying object on a sectional chart or sectional overlay.
(A) See enclosure two.
4. (Q) What was the range and speed of unidentified object as determined from radar scope of P2V?
(A) The range varied from three to five miles during the intermittent periods that the target appeared on the radar scope. The speed of the objects could not be determined electronically.
5. (Q) What was the appearance of target on radar scope?
(A) See enclosure number three.
6. (Q) What was the location of known a/c in the area?
(A) There were none in the area of sighting as far as is known.
7. (Q) This question concerned radar reports of a/c, etc. in the area at the time.
(A) The radar located at Brunswick was on preventative maintenance during the time of this occurrence. None of the adjacent sites had any radar information pertinent to the incident. The pilots did not report this sighting until the following morning or the radar located at Brunswick could have been placed back into operation at the time.

Question and Answer Sheet. (Cont'd)

AUTH: CG37-240
DATE: 245-2832
INITIALS: CS

8. (Q) What was the altitude of the P2V as compared to altitude of the unidentified objects?
- (A) The altitude of the P2V was 4000 feet plus or minus 400 feet. The altitude of the P2V was varied within these limits in the attempt to see the objects better against the remaining light of the sun. As far as could be determined the unidentified objects were at 4000 feet and did not deviate from that altitude.
9. (Q) What was the cloud cover in the area at the time of the sighting?
- (A) According to the pilot and co-pilot of the P2V it was a clear nite with no moon and with a few clouds on the horizon. This is borne out by weather report and the undersigned personal observation.

Carl L. Rucker
CARL L. RUCKER
Capt., USAF
Intelligence Officer

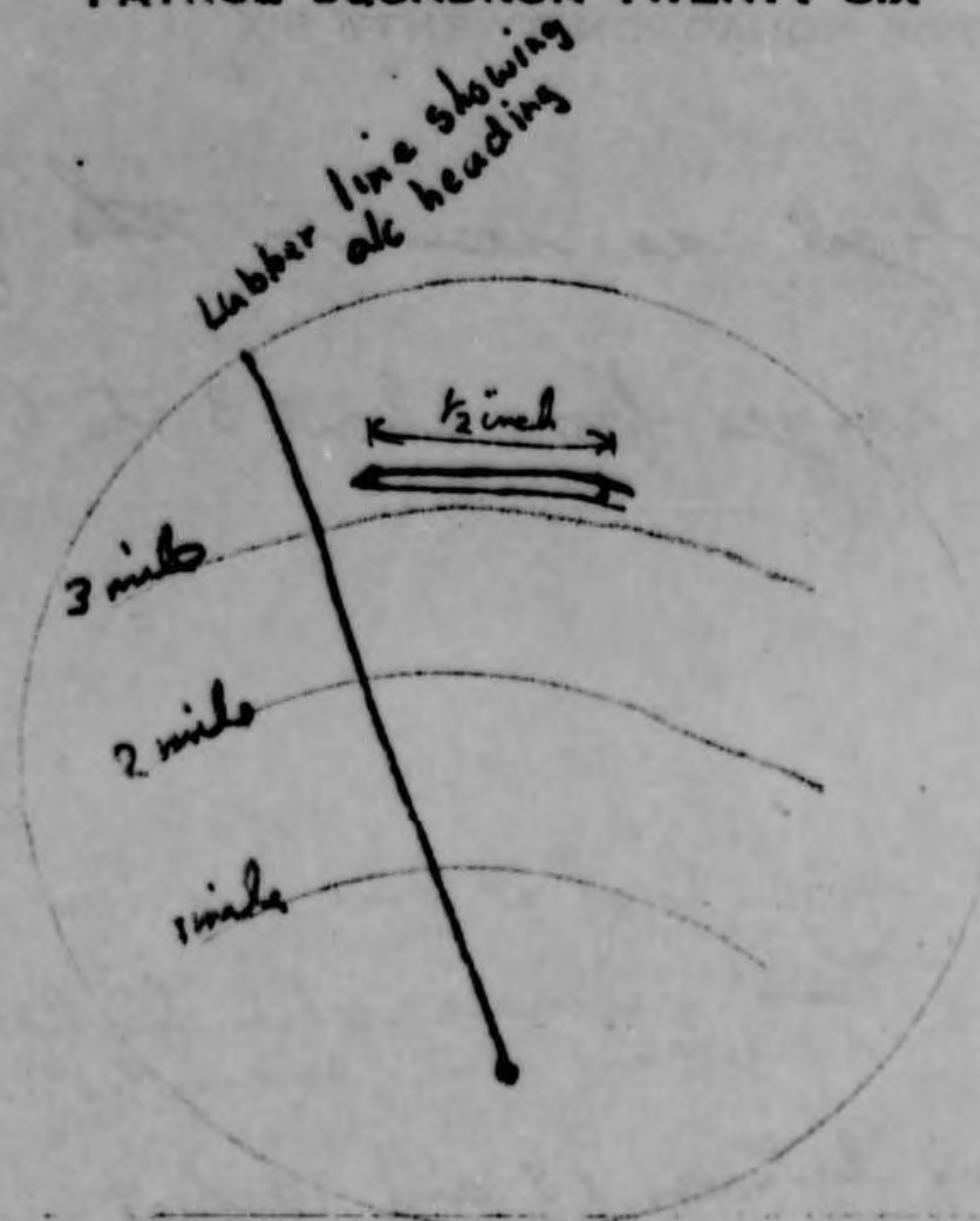
NOTE: All answers excepting the concurrence listed in (Q) #9 and the answers to questions #6 and #7 are those of Lts. Boak and Prentiss. These pilots were interviewed 23 September 1952.

PPI Presentation

VP-30/

SERIAL

UNITED STATES ATLANTIC FLEET
AIR FORCE
PATROL SQUADRON TWENTY SIX



normal pip of plane
at 3 miles looks
like  and about
twice as wide as
the object sighted

appearance of object on APS 31 radar ~~scope~~ ^{scope}

It is felt that the equipment was operating properly and that the object on the radar scope was the same as the object sighted visually.

J. B. Cook

JOINT MESSAGEFORM

FROM: (Originator)

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

CG AFIC

TO:

INFO:

DATE-TIME GROUP

301315Z SEP 52
PRECEDENCE FOR: ACTION

INFORMATION

☐ BOOK MESSAGE☐ ORIGINAL MESSAGE☐ MULTIPLE ADDRESS

CRYPTOPRECAUTION

☐ YES☐ NO

REFERS TO MESSAGE:

IDENTIFICATION

CLASSIFICATION

request you determine whether or not crews of KC-97's were aware of other A/C following them. If you are unable to do this, request numbers of KC-97 A/C, pilots' names, organizations and home stations, so that AFIC can interrogate directly.

In reply cite Project Blue Book.

Continuation:

AFIC-5

AFIC

AFIC

SECRET

PAGE 2 OF 2 PAGES

DRAFTER'S NAME (and signature, when required)

RELEASING OFFICER'S SIGNATURE

Lt A. G. Fines/jos

SYMBOL

AFIC-5

TELEPHONE

65365

OFFICIAL TITLE

ROBERT E. KENNEDY, Major, USAF
Lieutenant GeneralDD FORM 173
1 OCT 49REPLACES NME FORM 173, 1 MAY 48,
WHICH MAY BE USED.

~~Visual appearance of object~~

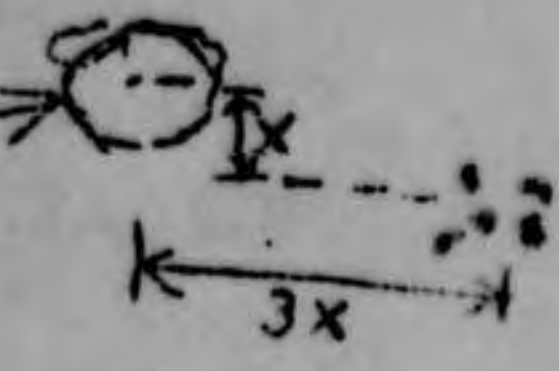
VP-26/

UNITED STATES ATLANTIC FLEET
AIR FORCE
PATROL SQUADRON TWENTY SIX

SERIALS

Appearance of object as seen in the afterglow
of the sunset at ranges from about 3 to 6 miles

dark object with
no lights;
also at
some angles
seemed to
be in front
of lights cluster slightly
on the port beam of
the cluster



← cluster of at least five very bright white
or ~~very~~ yellowish-white lights. Due to brightness
of lights and state of darkness no form could be seen.

X = something between 15 and 30 feet

J. W. Boak
Lt USN

Event #4

The appearance of this object did not accurately
fit anything which I have previously seen or
heard of, which is flyable. I have approximately
1000 hours in the air (3 years experience) and five
years of combatant sea duty working with naval
aircraft JWB

~~_____~~

~~_____~~

VISUAL APPEARANCE OF [REDACTED] OBJECT.

VP-26/

UNITED STATES ATLANTIC FLEET AIR FORCE PATROL SQUADRON TWENTY SIX

SERIAL/

DARK OBJECT (I THOUGHT IT WAS AN AIRCRAFT^{SILHOUETTE} DEFINITELY)
(THINK)

NO LIGHTS AT ALL.
VERY DARK - NO EXHAUST

WE SAW THIS BEFORE DARK,
AGAINST THE SKY JUST ABOVE EARTH'S SURFACE.

IF ANYTHING WERE
SPACED WIDER AS THIS SHOWS

I CANNOT ESTIMATE THE
DISTANCE BETWEEN LIGHTS
AND I DO NOT KNOW THE
SIZE OR BRILLIANCE OF THEM

AFTER DUSK ALL WE COULD
SEE WAS THE LIGHTS (NO
COLORED LIGHTS) LIGHTS LOOKED
LIKE LANDING (AIRCRAFT) LIGHTS,
STEADY. THEY DID NOT SEEM TO
SEPARATE. I AM INCLINED TO THINK
THAT ~~IF~~ THESE LIGHTS WERE
ON THE SAME OBJECT.

THERE WAS NO
DEFINITE PATTERN
TO WHITE LIGHTS

Carroll D. Prentiss, Lt.
USNR 230688/1310
VP-26

(THE REASON FOR THIS STATEMENT IS) I don't want to give the impression
that I think it was definitely an airplane, but ^{that} the silhouette was of
that nature.

T-52-16909-E

[REDACTED]

EC. STF. MSG. DIV

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE DIVISION

06 21 52

INCOMING CLASSIFIED MESSAGE

ATTC

SND C 089

HQB051

TDC037

[REDACTED]

CBC028

JEPSN 006

PP JEDEN JEPHQ 222

DE JEPSN 00

P 191910Z

FM HQ 32D AD /D/ HANCOCK FLD EASTWOOD STA 6 SYRACUSE NY
TO JEDEN/CG ADC ENT AND COLO SPRINGS, COLO
JEPHQ/HQ USAF WASHINGTON 25 DC

[REDACTED] ACFOIN 9486. ATTN: DIRECTOR OF INTEL. FLYOBJRPT.
FOL IS COPY OF TWR MSG REC FR 654TH ACAW SQ: "NAVY PILOT AND CREW REPT
OF VISUAL AND ELECT SIGHTING OF UNIDENTIFIED FLY OBJ. ON NIGHT OF 16
SEP 52 THE PILOT AND CREW OF A REARER EQUIPPED P2V OF VP SQ 26 PRESENTLY
LOCATED AT THE BRUNSWICK NAS, BRUNSWICK, ME, MADE THE DISCUSSED SIGHTING.
THE SIGHTING WAS REPT TO THE VP SQ INTEL OFF, [REDACTED], AT THE MORNING
BRIEFING AT 0800 HRS, 17 SEP 52. [REDACTED] CONTACTED THE ACAW SQ INTEL
OFF IN PERSON AND MADE THE FOL REPT: [REDACTED] U.S.N. [REDACTED] AND CREW DEPT BRUNSWICK
NAS ON LOCAL FLT IN THE P2V AT 1822 HRS EDT. WHILE IN VICINITY OF
PORTLAND ME, 2 OBJ WERE SIGHTED VISUALLY FLY IN SOUTHERLY DIR. [REDACTED]

GAF IN: 67732 (20 Sep 52) Page 1 of 3 pages

AFHQ FORM 0-309g

PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

[REDACTED]

ATTC 82173

LPAGE TWO JEPSN 60

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE DIVISION

INCOMING CLASSIFIED MESSAGE

REPT THAT THERE WERE 2 OBJ. ONE ABOVE AND AHEAD OF THE OTHER MUCH AS A TOWING OR REFUELING FORMATION. THE UPPER OBJ WAS DARK WITH NO VISIBLE LIGHTS. THE LOWER OBJ HAD 4 OR 5 LIGHTS ARRANGED IN A CIRCLE. THE VISUAL SIGHTING WAS VERIFIED BY RADAR, APS31. THE TGT APPEARED ON RADAR AS A LINE RATHER THAN AS 2 SEPARATE PIPS. THERE WAS A DISCREPANCY IN REPT TIME OF SIGHTING. LT BOAK, WHO WAS NOT AVAILABLE FOR INTERVIEW REPT TIME OF SIGHTINGS AS 1950 HRS EDT. ALT OF OBJ WAS 4500 FT. NO LINES ATCH 2 OBJ WERE VISIBLE. NO DEFINITE DESCRIPTION AS TO SHAPES DUE TO DARKNESS. ENSIGN HARA STATED THE DARK OBJ WAS LARGE AND FIRST IMPRESSION WAS A CECA 54 OR COCA 119 TOWING A LIGHTED OBJ. HARA FURTHER STATED SINCE THE CLOSEST OBJ WAS APPROACHED WAS FR 2 AND ONE HALF TO 3 MILES, ALL THAT HE COULD DEFINITELY SAY WAS THAT THE DARK OBJ WAS LARGE BUT COULD NOT MAKE OUT A SIZE OR SHAPE OF LIGHTED OBJ. HARA STATED THAT THE PAPA 2 VICTOR ALTERNATELY CLOSED IN ON AND FELL BEHIND THE OBJ AND THAT THE PAPA 2 VICTOR WAS UNABLE TO GET IN A POSITION TO GET OBJ DOWN SUN ON THEM. HARA COULD NOT DEFINITELY STATE OBJ WERE TAKING EVASIVE ACTION AS HE WAS ALTERNATING BETWEEN COCKPIT AND RADAR POSITION. HARA STATED OBJ WERE FOL FOR 20 MIN AND THAT CONTACT WAS BROKEN OFF WHEN BOAK HEADED N IN VICINITY OF PORTSMOUTH NEW HAMPSHIRE AT 2010 EDT. FOL IS NARRATIVE OF PLTS LT BOAK AND CO PLT LT C G PRENTISS TO VP SQ

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AFHQ FORM 0-309g
19 JAN 51

PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE DIVISION

INCOMING CLASSIFIED MESSAGE

PAGE THREE JEPSN 60

INTEL OFF. TWO OBJ WERE SIGHTED AT 1700 ON A SOUTHERLY HEADING IN PSN
W/A LARGE DARK OBJ ABOVE THIS OBJ WITH CIR ARNG OF FIVE LIGHTS. COULD
NOT DETERMINE PSN OF LIGHTS ON LOWER OBJ DUE TO DARKNESS. BOAK REPT
OBJ SIGHTED OVER PORTLAND ME AND WERE FOL FOR PD OF 15 MIN W/ CONTACT
BKN OFF NEAR PORTSMOUTH NEW HAMPSHIRE. BOAK SAID WHEN HE ATTEMPTED TO
GET IN BETTER PSN TO VIEW OBJ THEY TOOK EVASSIVE ACTION W/OUT BREAKING
FORMATION. FOR THIS REASON BOAK DID NOT BELIEVE THEY WERE REFUELING.
BOAK REPT OBJ AT TIME WERE ACCELERATED TO 300 KNOTS BUT DECELERATED
RAPIDLY. BOAK STATED THAT IN VICINITY OF PORTSMOUTH OBJ TURNED TOWARD
HIM AND HE BROKE OFF CONTACT AND HEADED N. OBJ THEN TURNED SW AND FLEW
OUT OF SIGHT. BOAK BELIEVES BREAK OFF OF CONTACT WAS AT 1915 EDT. HARA
STATED BREAK OFF TIME WAS APRX 2000 EDT. LT BRITT THE INTEL OFF
STATES THAT LTB BOAK AND PRENTISS ARE THIRTY YR OF AGE WITH MANY YRS
OF FLYING EXPERIENCE. FURTHER THAT BOTH OFF ARE VERY DEPENDABLE. THE VP
IS SCD TO DEPT BRUNSWICK VERY SOON. IT IS SUGGESTED THAT ANQ PERS
INTERVIEWS WITH CREW BE ARRANGED ACCORDINGLY.

19/1921Z SEPT JEPSN

ACTION: OIN

INFO : OOP, ARMY, NAVY, JCS, CIA, AFSA, OAC

CAF IN: 67732 (20 Sep 52) Page 3 of 3 pages

FRD/mew

AFHQ FORM 0-309g
19 JAN 51

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Memorandum for Record

22 September 1952

These questions passed by telephone to Director of Intelligence, Hq 32nd Air Defense Division, Syracuse, New York, on 22 Sept 52 by Lt Flues.

Reference your FLYOBRPT of 16 Sept 52 in vicinity of Portland, Maine, concerning sighting of unidentified flying object by Naval P2V as passed to your Hq by 654th AC&W Squadrons Brunswick, Maine. The following additional information is requested:

- a. Clarification of time of visual sighting and duration of visual sighting.
- b. Clarification of time of electronic contact and duration of electronic contact.
- c. Track of naval P2V and apparent track of unidentified flying object on sectional chart.
- d. Range, speed, etc., of unidentified flying object as determined from radar scope of P2V.
- e. Appearance of target on radar scope.
- f. Location of known air traffic in area and presence of any other unidentified targets on AC&W radar.
- g. Existence of simultaneous reports from GOC in area.
- h. Altitude of P2V as compared to altitude of unidentified flying object.
- i. Cloud cover in area at time of sighting.

Suggest submission of AF Form 112 to this Hq as per AFL 200-5, dated 29 Apr 52, via air mail. In reply, cite Project "Blue Book".