

1. DATE - TIME GROUP 19 April 53 20/0118Z	2. LOCATION Calumet, Michigan and Lake Superior Area
3. SOURCE Military	10. CONCLUSION ELECTRONIC RADAR INTERFERENCE
4. NUMBER OF OBJECTS Several	Targets were believed to be interference from shipborne radar, originating on Lake Superior. Northern Lights visible throughout
5. LENGTH OF OBSERVATION 57 Minutes	11. BRIEF SUMMARY AND ANALYSIS Between 0118Z and 0215Z a series of targets were sighted on radar set of 665th AC&W Sq. Calumet, Michigan. The plots originated at approx 50 miles from station, from 50 deg clockwise to 251 deg. Speed was from 1800 mph to 2400 mph.
6. TYPE OF OBSERVATION Ground-Radar	
7. COURSE Not Reported	
8. PHOTOS ☐ Yes ☒ No	
9. PHYSICAL EVIDENCE ☐ Yes ☒ No	

Calumet, Michigan

19 April 1953

I. DESCRIPTION

On 20 April 1953 between 0118Z and 0215Z a series of targets were sighted by the 665th AC&W Squadron, Calumet, Michigan. The plots originated approximately 50 miles from their station, from 050° clockwise to 251°. Speed was from 1800 mph to 8400 mph. This sighting was a radar sighting only and appeared as a normal target except for speed. No abrupt maneuvers were noted. Several individual targets were noted. This squadron was using an AN/FPS-3 type search radar unit, with a Thyatron modulator. There had been no maintenance difficulties. The general weather conditions at the time of sighting were three miles visibility, snow and overcast. Northern Lights were clearly visible during this period.

II. DISCUSSION

This is another of the better type of FLYOERPT. The intelligence officer is to be commended for the initiative shown in making as complete a report as was possible under the circumstances. He made the preliminary evaluation at the time he prepared the report, saving Project Blue Book the time and effort it takes to investigate a sighting of this type. His evaluation was "Targets are believed to be interference from shipborne radar, originating on Lake Superior".

III. CONCLUSION

Other (radar interference).

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

UNCLASSIFIED

T53-7362

Multiple

HEADQUARTERS
AIR DEFENSE COMMAND
ENT AIR FORCE BASE
COLORADO SPRINGS, COLORADO

UNCLASSIFIED

AUTH: CG, ADC

22 Jun 53 (Date) *DMH* (Initial)

ADDRE 319.1

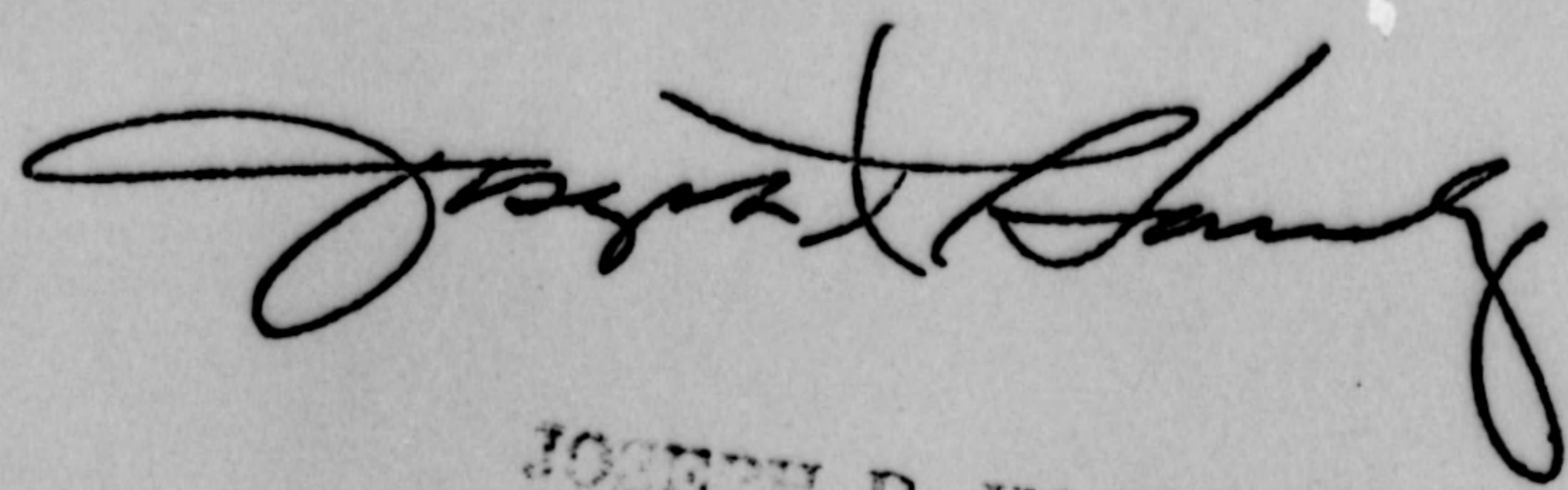
SUBJECT: (Restricted) Report of Unidentified Flying Objects

TO: Commander
Air Technical Intelligence Center
ATTN: ATIAA-2C
Wright Patterson Air Force Base, Ohio

23 JUN
20/2018 EST
CALW/ET, Mich

In accordance with Air Force Letter 200-5, 29 April 1952, the inclosed report of unidentified flying objects (AF Form 112) is forwarded for your information.

FOR THE COMMANDER:



JOSEPH D. HORNSBY
Lt Col, USAF
Asst Command Adj

1 Incl
AF Form 112 Parts I
& II, subj: Rept
Unidentified Flying
Objects, dtd 20 Apr 53

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If the attached document is a memorandum (or not attached) the classification of this correspondence is downgraded to *Restricted* in accordance with para, 25E-APR 205-1

UNCLASSIFIED

E-70887
733-7498A

(CLASSIFICATION)

COUNTRY (a) USA. USAF.	REPORT NO. (b) SECRET	(LEAVE BLANK)
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AIR INTELLIGENCE INFORMATION REPORT

SUBJECT (c) FLYOBRT		
AREA REPORTED ON (d) Keeweenaw Peninsula, Michigan	FROM (Agency) (e) 665TH ACGW Squadron, Calumet, Michigan	
DATE OF REPORT (f) 20 April 1953	DATE OF INFORMATION (g) 20 April 1953	EVALUATION (h) B-2
PREPARED BY (Officer) (i) Capt. Russell H. Kline, Intel. Officer	SOURCE (j) "Personnel 665TH ACGW Squadron"	

REFERENCES (Control number, directive, previous report, etc., as applicable) dtd. 18 March 1953
(k) Utilization of AF Form 112, AFL 200-5, ADC Form 123, EADF Ltr., EAOIN 310.1

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

See Sect., (j) above for source:

Reference: EADF Ltr., EAOIN 310.1 dtd. 19 March 1953 Para. (j)

Chief Controller	Capt. James W. Doran, 665th ACGW Sqdn., Calumet, Michigan
Radar Observer	A/1c Billy F. Conway, 665th ACGW Sqdn., Calumet, Michigan
Radar Observer	A/2c Richard G. Hetrick, 665th ACGW Sqdn., Calumet, Michigan

(L) Summary: On 20 April 1953 between 2018 EST and 2115 EST a series of targets were sighted by the 665th ACGW Squadron, Calumet, Michigan. The plots originated approximately 50 miles out from the station, from 050° clockwise to 251°. Speed was from 1800 miles per hour to 8,400 miles per hour. Targets are believed to be interference from shipborne radar, originating on Lake Superior.

APPROVED

Russell H. Kline
RUSSELL H. KLINE
Captain, USAF
Intelligence Officer

1 INCIS
RO Data Sheet

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DOD DIR 5200.10

DISTRIBUTION BY ORIGINATOR In accordance with EADF Ltr., dtd. 18 March 1953, Para 2b.
Orig. and 2 cy - CG, EADF, Stewart AFB. Attn: Director of Intelligence.
1 cy - CG, 30th Air Division, Willow Run Airport, Belleville, Michigan
Attn: Director of Intelligence.
1 cy - Info., 4705th Air Def. Bn. Attn: Director of Intelligence

NOTE: THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE ACT, 50 U. S. C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. IT MAY NOT BE REPRODUCED IN WHOLE OR IN PART, BY OTHER THAN UNITED STATES AIR FORCE AGENCIES, EXCEPT BY PERMISSION OF THE DIRECTOR OF INTELLIGENCE, USAF.

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753-7498

(13)

(CLASSIFICATION)

UNCLASSIFIED

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COUNTRY

(1) U.S.A.

REPORT NO.

(2)

(3)

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT (4)

Report of Unusual Flying Objects

AREA REPORTED ON

(5) Keweenaw Peninsula, Michigan

FROM (Agency) (5)

665th AC&W Squadron, Calumet, Michigan

DATE OF REPORT

(7) 20 April 1953

DATE OF INFORMATION

20 April 1953

(8)

EVALUATION

(9) E-2

PREPARED BY (Officer)

(10) Capt. Russell H. Kline, Intel. Officer

SOURCE

(11) "Personnel 665th AC&W Squadron"

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

(12) Utilization of AF Form 112 (Air Intelligence Information Report) Form 123

AFL 200-5

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

(14)(Summary)

See Sect 11 - Capt. James W. Dorgan, 665th AC&W Squadron, Calumet, Michigan
Phone 31 or 8. Chief Controller
A/2c Richard G. Hetrick, 665th AC&W Sqdn., Calumet, Michigan
Phone 21 or 8 Radar Observer
A/1c Billy F. Conway, 665th AC&W Squadron, Calumet, Michigan
Phone 21 or 8 Radar, Observer
Crew Chief.

On 20 April 1953 between 0118Z and 0215Z a series of targets were sighted by the 665th AC&W Squadron, Calumet, Michigan. The plots originated approximately 50 miles out from the station, from 050° clockwise to 251°. Speed was from 1200 miles per hour to 8,400 miles per hour. Targets are believed to be interference from shipborne radar, originating on Lake Superior.

The following information is the track numbers and respective plots.

	TIME (Z)	Georef Coord.	TRACK NO	TIME	Georef-Coord.	TRACK NO
20 Apr 53	0118 Z	DD 5013	T-1-T	0121:30	DD 2122	T-2-T
		ED 0019			DD 4012	
		ED 1212		0122	DD 5921	
		ED 3019		0122:30	ED 1510	
		ED 4919			ED 3115	
		FD 0016		0123	ED 4805	
		FD 1315		0123:15	FD 0900	
	0119:30	FD 2920 Fade		0123:30	FB 2555	
					FB 4951	
				0124	GB 1540 Fade	
	0125Z	EB 0027	T-3-T	0127	DB 0830	T-4-T
	0125:15	EB 2114		0127:15	DB 1109	
	0125:30	EB 3800		0127:30	DB 4905	
	0125:45	EA 5551		0128	EA 0538	
	0125:00	FA 1041		0128:15	EA 1534	
	0126:15	FA 2931 Fade		0128:45	EA 3713 Fade	

PHK

INCL.

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DOD DIR 5200.10

1 cys- Director of Intelligence, Headquarters USAF, Washington 25, D.C.
1 cys- Chief, Air Technical Intel. Center, ATTN: ATIAA-2c Wright-Patterson

DISTRIBUTION BY ORIGINATOR

1 cy - CG, ALO, Ent AFB, Attn: Deputy for Intelligence
1 cy - CG, EADP, Stewart AFB, Attn: Director of Intelligence
1 cy - CG, 30th Air Division, Willow Run Airport, Belleville, Michigan
1 cy - Info cy., 4706th Air Def WG. ATTN: Director of Intelligence

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753-4924

UNCLASSIFIED
AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency) 865TH AC&W Squadron
Calumet, Michigan

REPORT NO.

PAGE 2 OF 2 PAGES

Paragraph c of AFL 200-5 Con't

4. Radar Observation was made at 47° 23' N 88° 10' W. Altitude- Unknown, Distance was from 50 Miles out of the station to 200 miles out, clockwise around the station.
5. Targets were unidentified. Experience of Radar Observers; Billy F. Conway, A/1c AF 15298169, 3 Years in Radar Operations. Richard G. Hetrick, A/2c AF 13364788, 2 1/2 years in Radar Operations.
Witness: John Gebo, T/SQT. AF 21284191, Experience: 3 Years in Radar Maintenance.
6. Weather: Houghton County Airport located 19 miles from station during this period was:
Estimated 2000 ft. Overcast, 15 Miles visability, DP 21, temp. 31, Winds were from the North West at 8 Knots per hour. Winds aloft were unknown.
7. Meteorological conditions were: Nothern Lights were clearly visible during this period. No other information known of.
8. No photographs were taken, no Scope camera available. No physical evidence available.
9. No Interception action taken, due to no fighters assigned to this squadron.
10. Location of other air traffic in the area at the time:

<u>TRACK NO.</u>	<u>IDENT.</u>	<u>ALTITUDE</u>	<u>TIME</u>	<u>POSITION GEOREF</u>
A-66-T	TCA # 2	17,000	2014 EST	CC 0918
X-12-T	VC 1489	8,000	2012 EST	CC 3657

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AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency) 56th ACW Squadron Calumet, Michigan	REPORT NO.	PAGE 1 OF 2 PAGES
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The following information is the track numbers and respective plots.

20 April 1953

TIME (EST)	GEOREF COORD.	TRACK NO	TIME (EST)	GEOREF COORD.	TRACK NO.
2018:00	DD 5013	T-1-T	2021:30	DC 2122	T-2-T
	ED 0019			DC 4012	
	ED 1212		2022:00	DC 5921	
	ED 3019		2022:30	EC 1510	
	ED 4919			EC 3115	
	FD 0016		2023:00	EC 4805	
	FD 1315		2023:15	FC 0900	
	FD 2920 Fade		2023:30	FB 2555	
				FB 4951	
			2024:00	GB 1540 Fade	
2025:00	EB 0027	T-3-T	2027:00	DB 0830	T-4-T
2025:15	EB 2114		2027:15	DB 1109	
2025:30	EB 3800		2027:30	DB 4905	
2025:45	EA 5551		2028:00	EA 0538	
2026:00	FA 1041		2028:15	EA 1534	
2026:15	FA 2931 Fade		2028:45	EA 3713 Fade	
2029:00	CB 2115	T-5-T	2031:00	CB 0015	T-6-T
2029:20	CA 3158		2031:20	CA 0052	
2029:30	CA 3939		2031:45	BA 5527	
2029:45	CA 4112		2032:00	BA 5000 Fade	
2030:00	CA 4500 Fade				
2032:45	BB 4507	T-7-T	2034:30	BA 1112	T-8-T
2033:00	BA 3045		2034:45	AA 5851	
2033:15	BA 1520		2035:00	AA 3527 Fade	
2033:30	BA 1500 Fade				
2035:45	AB 0032	T-9-T	2038:00	AB 2527	T-10-T
2036:00	QB 3110		2038:20	QB 4115	
2036:15	AA 0550		2038:30	QB 1408	
2036:30	CA 3532		2038:45	AA 2952 Fade	
2036:45	QA 5918 Fade		2044:30	AA 4050	T-12-T
			2044:40	AA 0515	
2039:00	AB 1045	T-11-T	2045:00	CA 4500 Fade	
2039:15	FB 5829				
2039:45	FB 0020 Fade				
2045:20	AB 4905	T-13-T	2114:45	DB 5331	T-14-T
2045:45	AA 0045		2115:00	EB 1115	
2046:00	QA 2920 Fade		2115:15	FA 0450 Fade	

In accordance with AFM 200-5 Paragraph c, dtd 20 April 1952, the following information is submitted.

1. Radar sighting only, appeared as a normal target except for speed. No abrupt maneuvers were noted. Several individual targets were noted.
2. Time of sighting was between 2018 EST and 2115:15 EST on 20 April 1953.
3. Manner of sighting was electronic. Speed was between 1800 mph. to 3,400 mph depending on the target. Type aircraft was unknown, targets believed to be interference from shipborne radar.

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DOD DIR 5200.10

16-55670-1 U. S. GOVERNMENT PRINTING OFFICE

753-7495

(CLASSIFICATION)
UNCLASSIFIED
AIR INTELLIGENCE INFORMATION REPORT

FROM (Agency)			REPORT NO.		
665th AOCW Squadron, Calumet, Michigan.					
			PAGE 2 OF 2 PAGES		
TIME (Z)	Georef Coord.	TRACK NO.	TIME (Z)	Georef Coord.	TRACK NO.
0129	OB 2115	T-5-T	0131	OB 0015	T-6-T
0129:20	CA 3158		0131:20	CA 0052	
0129:30	CA 3938		0131:45	BA 5527	
0129:45	CA 4112		0132	BA 5000	Fade
0130	CA 4500	Fade			
0132:45	BB 4507	T-7-T	0134:30	BB 1112	T-8-T
0133	BA 3045		0134:45	AA 5851	
0133:15	BA 1520		0135	AA 3527	Fade
0133:30	BA 1500	Fade			
0135:45	AB 0032	T-9-T	0138	AB 1527	T-10-T
0136	QB 3110		0138:20	QB 4115	
0136:15	AA 0550		0138:30	QB 1408	
0136:30	QA 3532		0138:45	AA 2952	Fade
0136:45	QA 5918	Fade	0139	AB 1045	T-11-T
			0139:15	PB 3829	
			0139:45	PB 0020	Fade
0144:30	AA 4050	T-12-T	0145:20	AB 4905	T-13-T
0144:40	AA 0515		0145:45	AA 0045	
0145	QA 4500	Fade	0146	QA 2920	Fade
0214:45	DB 5331	T-14-T			
0215	EB 1119				
0215:15	FA 0450	Fade			

In accordance with AFL 200-5 Paragraph c, dtd 20 April 1952, the following information is submitted.

1. Radar sighting only, appeared as a normal target except for speed. No abrupt maneuvers were noted. Several individual targets were noted.
2. Time of sighting was between 0118Z and 0215:15 on 20 April 1953.
3. Manner of sighting was Electronic, Speed was between 1800 mph to 3,400mph depending on the target. Type aircraft was unknown, targets believed to be interference from shipborne radar.
4. Location of Observervation was at the 665th AOCW Squadron Operations.
5. Experience of Radar Observers: Conway, Billy F. A/1c AF15298169, 3 Years experience in radar operations. Hetrick, Richard G. A/2c AF13364788, 2 and 1/2 years in radar operations, Gebo, John T/SQT AF 21284191, 3 Yrs Radar Maint.
6. Weather 19 Miles from station, E 2000ft Overcast 15 Mi Vis. DP 21 Temp 31 Winds from the North West at 8 Knots.
7. Northern lights were clearly visible during this period.
8. No photographs were taken, no physical evidence taken.
9. No interception action taken, due to no fighters assigned to this Squadron.
10. Location of other air traffic in the area at the time:
Track no. A-66-T Ident. TCA# 2 ALT. 17,000ft. Time. 0114Z Position. CC0918
Track no. X-12-T Ident. VCI489 ALT. 8,000ft. Time. 0112Z Position CC3657.

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DOD DIR 5200.10

Russell H. Kline
RUSSELL H. KLINE
Captain, USAF
Intelligence Officer

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RADAR OBSERVATION DATA SHEET

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I. QUESTIONS REGARDING DETECTING RADAR EQUIPMENT

1. What type radar equipment is involved?
AN/FPS-3 (Search)
2. Has there been any recent maintenance difficulties? If so, describe.
None
3. What type modulator (i.e., spark gap, hard tube, etc.) is used in the radar equipment?
Thyratron
4. Was the AFC (automatic frequency control) circuit of the receiver operating properly?
Yes
5. Has interference from another radar set been observed recently, and are personnel familiar with the effects caused by an interfering signal?
Yes
6. What type indicators, "A scope", "B scope", etc., were used to follow the target?
PPI
7. What was the radar scan rate?
5 RPM Normal. Was frequently changed during detection of unusual activity.
8. What was the approximate frequency of the transmitter?
1312 mcs

II. GENERAL QUESTIONS

1. What were the general weather conditions at the time unidentified target was observed?
3 miles visibility, snow, overcast.
2. What weather data from nearby U.S. weather stations is available on temperature vs altitude, humidity vs altitude, and wind velocity vs altitude?
CMX 0130Z 20 Apr 53. E 2000 Overcast, 15mi. Vis. DP 21, Temp. 31, Winds NW 8.
3. Was the target observed by any other nearby radar equipments? If so, give details.
No
4. Are the operator and the supervisor familiar with the effects of anomalous (duct-effect) propagation as they pertain to this type radar?
Yes

ADC Form 123
20 October 1952

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Page 1 of 3

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753-4924

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(USE REVERSE SIDE OF SHEET IF MORE SPACE IS REQUIRED)

5. Has anomalous propagation been observed to extend the range of ground clutter by this radar at this site, and did this condition exist during or near the time that unknown target was observed?

Average amount of clutter, No other unknown aircraft were in the area.

6. What effects of rain storms and lightning have been observed on this radar?

Usual scope weather, Northern Lights were clearly visible during this period.

7. Were any checks made to determine if unknown target could have been one of our own aircraft?

Yes

8. Was any interception attempted? If so, give details.

No

9. Was a visual and/or Auditory observation made simultaneously with scope observation? If so, give detailed description.

No

III. SPECIFIC TARGET QUESTIONS

1. Did any technical personnel observe the unknown target on the Radar Scope? Have they been questioned thoroughly? What was their opinion?

Yes, interference, but of unknown origin, possible shipborne radar.

2. Was a permanent record "track" made of the target positions as they appeared on the indicators? If so, attach to this report. (Plot on back of page 1.)

Yes, see attached report on back of page one, (1).

3. At what range, azimuth, altitude, and time was the target observed?

Negative altitude was recorded, could not train height finder on track long enough to obtain altitude.

4. How did the target appear in size and shape as compared with conventional aircraft targets?

Same as normal target.

5. Was the target of consistent size, or did it change rapidly?

Consistent

6. Was the speed of the target constant or variable? Explain.

Constant

7. Did the target appear "fuzzy" or clear and sharp as compared with a known aircraft target?

Sharp, very defined.

8. What other (aircraft) targets were observed in the same general area, altitude, and time as that of the unknown target?

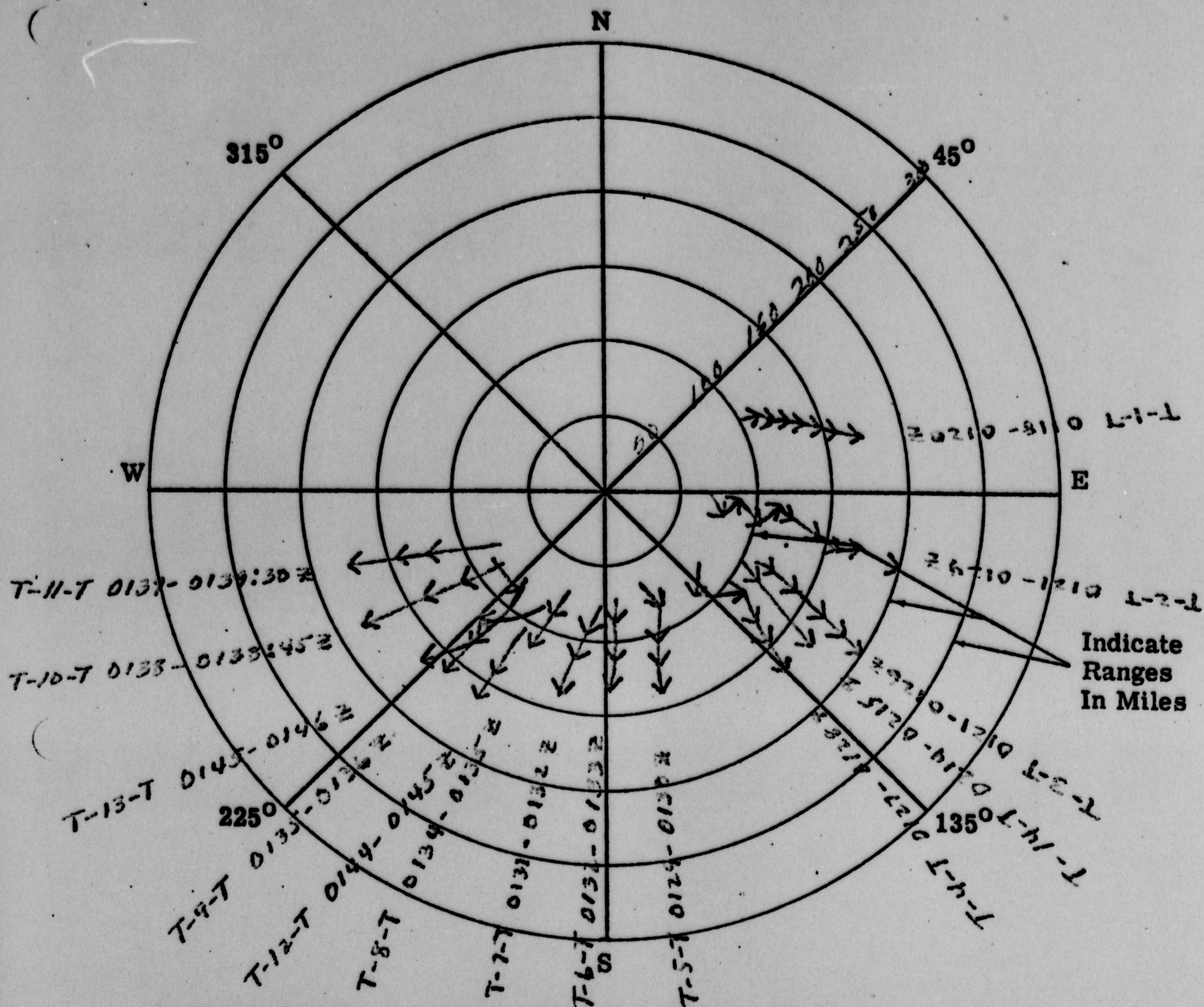
Track No. X-12-T Ident. VC 1429, Alt. 8,000ft. Time 0112Z Position CC 3657.

Track No. A-66-T Ident. TCA #2, Alt. 17,000ft. Time 0114Z Position CC 0981.

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INSTRUCTIONS: PLOT TRACK OF TARGET, INDICATE RANGE AND AZIMUTH. GIVE TIME AT START AND END OF TRACK.

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ADC Form 123
20 October 1952

Page 3 of 3

~~SECRET~~
~~SECURITY INFORMATION~~

T53-4924

~~SECRET~~
~~SECURITY INFORMATION~~
RADAR OBSERVATION DATA SHEET

UNCLASSIFIED

I. QUESTIONS REGARDING DETECTING RADAR EQUIPMENT

1. What type radar equipment is involved?

AN/FPS-3 (Search)

2. Has there been any recent maintenance difficulties? If so, describe.

None

3. What type modulator (i.e., spark gap, hard tube, etc.) is used in the radar equipment?

Thyratron

4. Was the AFC (automatic frequency control) circuit of the receiver operating properly?

Yes

5. Has interference from another radar set been observed recently, and are personnel familiar with the effects caused by an interfering signal?

Yes

6. What type indicators, "A scope", "B scope", etc., were used to follow the target?

PPI

7. What was the radar scan rate?

5 RPM Normal. Was frequently changed during detection of unusual activity

8. What was the approximate frequency of the transmitter?

1512mcs

II. GENERAL QUESTIONS

1. What were the general weather conditions at the time unidentified target was observed?

3 miles visibility, snow, overcast.

2. What weather data from nearby U.S. weather stations is available on temperature vs altitude, humidity vs altitude, and wind velocity vs altitude?

CMX 0130Z 20 Apr. 53, E 2000 Overcast, 15mi Vis. DP 21, Temp 31, Winds NW 8.

3. Was the target observed by any other nearby radar equipments? If so, give details.

No

4. Are the operator and the supervisor familiar with the effects of anomalous (duct-effect) propagation as they pertain to this type radar?

Yes

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DECLASSIFIED AFTER 12 YEARS;
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ADC Form 123
20 October 1952

Page 1 of 3

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~~SECURITY INFORMATION~~

T53-7498

(USE REVERSE SIDE OF SHEET IF MORE SPACE IS REQUIRED)

5. Has anomalous propagation been observed to extend the range of ground clutter by this radar at this site, and did this condition exist during or near the time that unknown target was observed?

Average amount of clutter. No other unknown aircraft were in the area

6. What effects of rain storms and lightning have been observed on this radar?

Unusual scope weather, Northern Lights were clearly visible during this period.

7. Were any checks made to determine if unknown target could have been one of our own aircraft?

Yes

8. Was any interception attempted? If so, give details.

No

9. Was a visual and/or Auditory observation made simultaneously with scope observation? If so, give detailed description.

No

III. SPECIFIC TARGET QUESTIONS

1. Did any technical personnel observe the unknown target on the Radar Scope? Have they been questioned thoroughly? What was their opinion?

Yes, interference, but of unknown origin, possible shipborne radar.

2. Was a permanent record "track" made of the target positions as they appeared on the indicators? If so, attach to this report. (Plot on back of page 1.)

Yes, see attached report on back of page one, (1).

3. At what range, azimuth, altitude, and time was the target observed?

Negative altitude was recorded, could not train height finder on track long enough to obtain altitude.

4. How did the target appear in size and shape as compared with conventional aircraft targets?

Same as normal target.

5. Was the target of consistent size, or did it change rapidly?

Consistent

6. Was the speed of the target constant or variable? Explain.

Constant

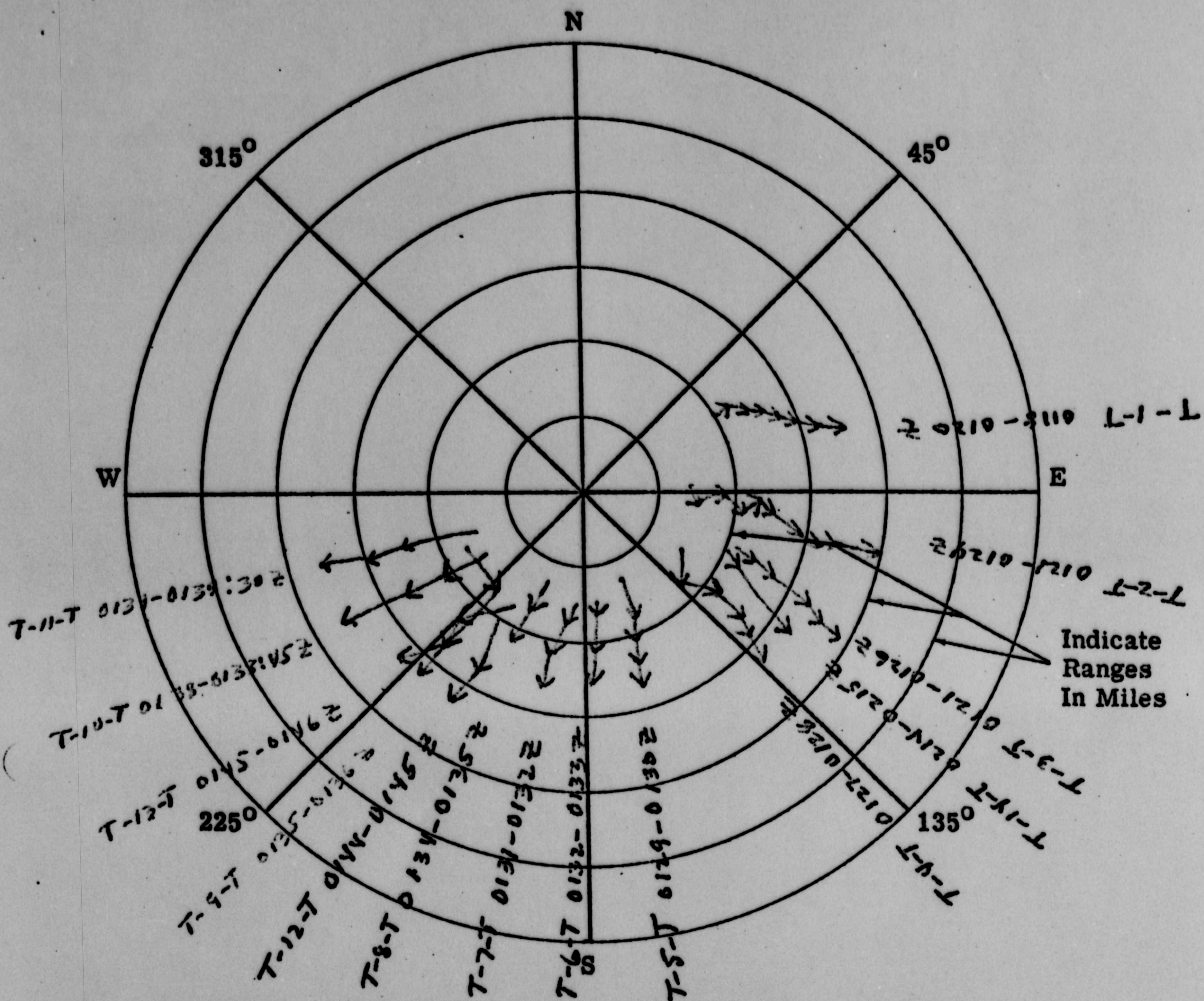
7. Did the target appear "fuzzy" or clear and sharp as compared with a known aircraft target?

Sharp, very defined.

8. What other (aircraft) targets were observed in the same general area, altitude, and time as that of the unknown target?

Track No. X-12-T Ident. VC 1489 Alt. 8,000ft Time 0112Z Position CC 3657.

Track No. A-66-T Ident. TCA # 2 Alt. 17,000ft Time 0114Z Position CC 0981



INSTRUCTIONS: PLOT TRACK OF TARGET, INDICATE RANGE AND AZIMUTH. GIVE TIME AT START AND END OF TRACK.

~~SECRET~~
~~SECURITY INFORMATION~~
RADAR OBSERVATION DATA SHEET

UNCLASSIFIED

I. QUESTIONS REGARDING DETECTING RADAR EQUIPMENT

1. What type radar equipment is involved?
AN/FPS-3 (Search)
2. Has there been any recent maintenance difficulties? If so, describe.
None
3. What type modulator (i.e., spark gap, hard tube, etc.) is used in the radar equipment?
Thyratron
4. Was the AFC (automatic frequency control) circuit of the receiver operating properly?
Yes
5. Has interference from another radar set been observed recently, and are personnel familiar with the effects caused by an interfering signal?
Yes
6. What type indicators, "A scope", "B scope", etc., were used to follow the target?
PPI
7. What was the radar scan rate?
5 RPM Normal. Was frequently changed during detection of unusual activity.
8. What was the approximate frequency of the transmitter?
1312 mcs.

II. GENERAL QUESTIONS

1. What were the general weather conditions at the time unidentified target was observed?
3 miles visibility, snow, overcast.
2. What weather data from nearby U.S. weather stations is available on temperature vs altitude, humidity vs altitude, and wind velocity vs altitude?
CMX 0130Z 20 Apr 53. E 2000 Overcast, 15mi Vis., DP 21, Temp 31, Winds NW 8.
3. Was the target observed by any other nearby radar equipments? If so, give details.
No
4. Are the operator and the supervisor familiar with the effects of anomalous (duct-effect) propagation as they pertain to this type radar?
Yes

ADC Form 123
20 October 1952

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

UNCLASSIFIED

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~~SECURITY INFORMATION~~

AF552157

Page 1 of 3

ATTC 131989A

(USE REVERSE SIDE OF SHEET IF MORE SPACE IS REQUIRED)

5. Has anomalous propagation been observed to extend the range of ground clutter by this radar at this site, and did this condition exist during or near the time that unknown target was observed?

Average amount of clutter. No other unknown aircraft were in the area.

6. What effects of rain storms and lightning have been observed on this radar?

Unusual scope weather, Northern Lights were clearly visible during this period.

7. Were any checks made to determine if unknown target could have been one of our own aircraft?

Yes

8. Was any interception attempted? If so, give details.

No

9. Was a visual and/or Auditory observation made simultaneously with scope observation? If so, give detailed description.

No

III. SPECIFIC TARGET QUESTIONS

1. Did any technical personnel observe the unknown target on the Radar Scope? Have they been questioned thoroughly? What was their opinion?

Yes, interference, but of unknown origin, possible shipborne radar.

2. Was a permanent record "track" made of the target positions as they appeared on the indicators? If so, attach to this report. (Plot on back of page 1.)

Yes, see attached report on back of page one, (1).

3. At what range, azimuth, altitude, and time was the target observed?

Negative altitude was recorded, could not train height finder on track long enough to obtain altitude.

4. How did the target appear in size and shape as compared with conventional aircraft targets?

Same as normal target.

5. Was the target of consistent size, or did it change rapidly?

Consistent

6. Was the speed of the target constant or variable? Explain.

Constant

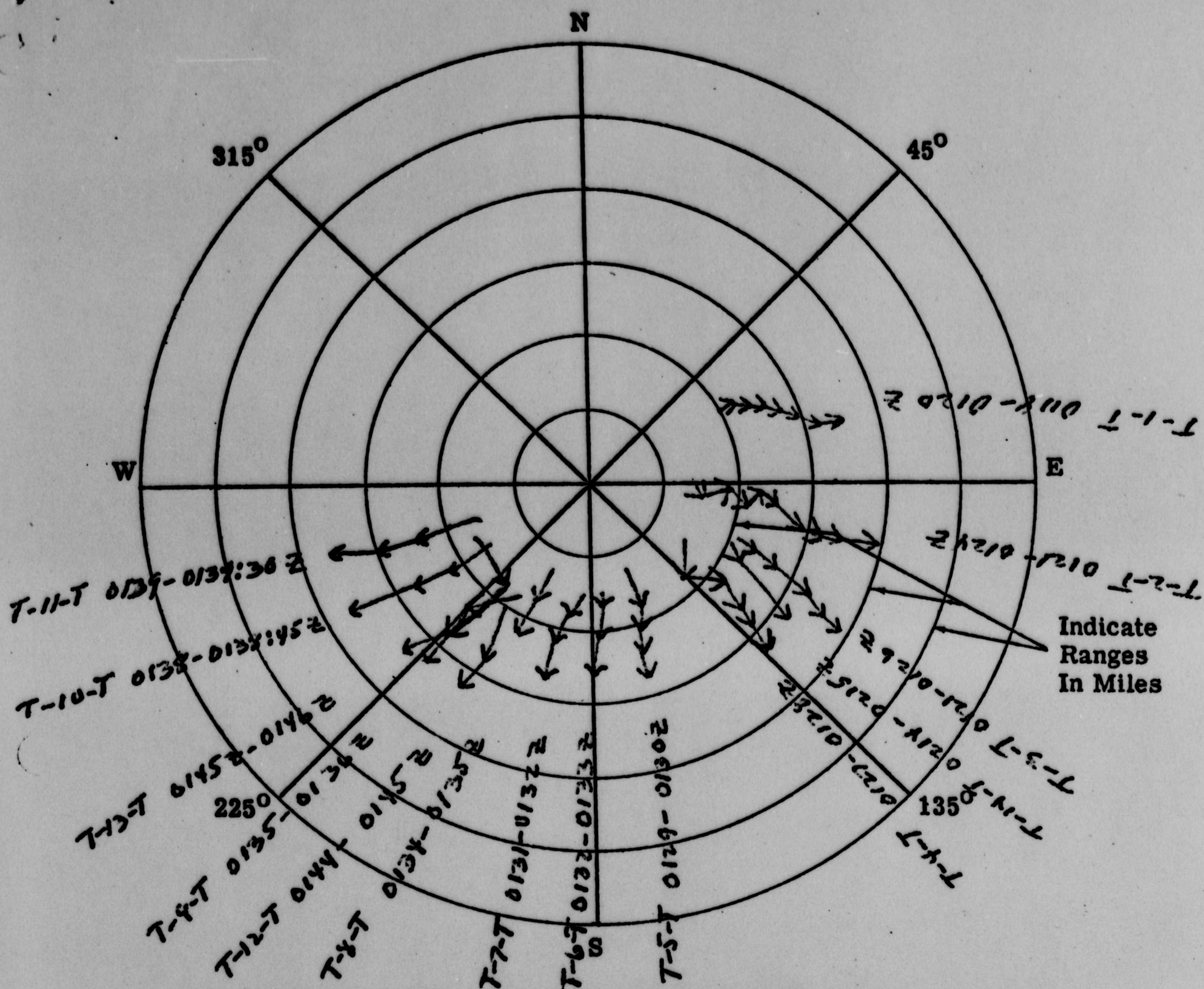
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