PROJECT 10073 RECORD CARD

20 September 1957	2. LOCATION Mantauk, N.Y. to Benson, Pa.	12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☒ Other Radar malfunction & ECM ☐ Insufficient Data for Evaluation ☐ Unknown
3. DATE-TIME GROUP Local GMT 20/1906 to 1917Z	4. TYPE OF OBSERVATION ☐ Ground-Visual ☒ Ground-Radar ☐ Air-Visual ☐ Air-Intercept Radar	
5. PHOTOS ☐ Yes ☒ No	6. SOURCE USAF Radar Units	
7. LENGTH OF OBSERVATION approx 12 minutes	8. NUMBER OF OBJECTS exact nr not given	9. COURSE 275 dgr app

10. BRIEF SUMMARY OF SIGHTING

Two radar untis (one in N.Y. & other in Pa) observed high speed targets heading west. Alerted other radar units along a pre-plotted track. Fighter intercepter units (ADC) in Michigan & Wisconsin scrambled to intercept. No contact made. Nothing unusual seen. Targets faded. Radar investigation team set up to check this incident. Findings made in special report(in case file).

11. COMMENTS

Investigations disclose that there was an equipment malfunction in first radar unti; when frequency changed, spurious targets disappeared. //Determined that two SAC a/c were dropping streams of radar chaff in area. Also, the targets shown in the set were completely abnormal.//Conclusions: No compelling reason or indications that targets were hostile or enemy a/c or missiles.

ATIC FORM 329 (REV 26 SEP 52)

(7) Other applicable units were checked.

In brief, the conclusions are as follows:

a. From the information and data studied from all pertinent units it appears that the tracks were from separate causes; and, in fact much of the information appeared to be contradictory.

b. No hostile or unknown aircraft, missiles or vehicles were in the area at the time and places of the radar sightings. The UFOs were concluded to have been caused by radar-equipment malfunctions and interference.

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3. Alleged High-Speed "UFOs" Tracked from Montauk, New York and Reading towards SAC Headquarters, Nebraska - 20 September 1957 ([redacted])

a. Commander, ATIC, was requested by Deputy ACS/I, Headquarters USAF to provide full particulars and other related information regarding a reported potential, very high-speed unidentified object alleged to have been picked up near Montauk, N.Y., passing over Buffalo, towards SAC Headquarters at Offutt AFB, Nebraska. The incident resulted in an immediate alert by both SAC and ADC.

b. Detailed report of the incident based on investigations and analyses conducted:

(1) Track was picked up originally by the radar unit at Montauk, N. Y. at 1906Z time, 20 September 1957. It was picked up by Benton, Pa., unit at 1918Z.

(2) The radar units at Highlands, N.Y., N. Truro, Mass., Locksport, N.Y. and Claysburg, Pa., were alerted. However, these units could not make contact with the supposed target.

(3) F-102 aircraft were scrambled from Kinross AFB (ADC) (Michigan) as well as additional F-102's from Truax AFB (Wisconsin) as the target was reported bearing on a pre-plotted track in that direction. No contact made; nothing unusual found. The tracks faded at this point. (Significant to point out that the last observed track was in the vicinity of Benton, Pa., and not in the vicinity of SAC Hq as reported to ATIC). Weather conditions: overcast and rain.

(4) NORAD set a radar team to study this incident, including similar targets if they should appear.

(5) On 25 September, a radar team noted a series of blips on the radarscope of the Montauk, N.Y. Station, the unit originally reporting the tracks. The tracks were "exactly identical" to those of 20 September. When the channel (frequency) was changed the blips disappeared. They reappeared when the original frequency was tuned in. A circuit malfunction or interference from a radar set having a non-rotating antenna was considered the most probable cause for this.

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(or changed to UNCLASS)
Auth: Gunstan Lt Col, USAF
By: (ITDPT (AFC))
Date: 22 Jan 69
AFR 205-1 para 1-26

(6) Meanwhile, a check of the Benton, Pa. radar unit disclosed that there were two SAC aircraft in the area which dropped "Streams of radar chaff" near the station on the day of the incident. It was also determined that the detection and characteristics of these targets were completely abnormal, probably caused by equipment malfunction.

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[redacted]

1230 - Wed sday, 26 Feb 58

Mr. [redacted]:

(Paraphrased) Reference inquiries regarding Martha's Vineyard radar incident evaluation requested by General W., full particulars are in. In brief, report not entirely correct that radar units made observation all the way across to point supposedly a target.

Track was picked up originally by two stations in New York. First contact was at Montauk, N. Y. However, radar units along line (paraphrase) to S were alerted. These units did not see target on radarscopes.

F 102 aircraft were scrambled from various bases in Michigan as well as Wisconsin. No contacts made, nothing unusual found, and tracks faded at this point.

A radar team was set up to study this incident, including similar targets if they should appear. On 25 September the radar investigating team was in the original radar unit that sighted the tracks. Exactly identical tracks appeared. When frequency was changed to new channel the blips disappeared. They reappeared when the previous channel was tuned back in.

A check of the second radar unit disclosed that there were two SAC aircraft in the area which dropped "streams of radar chaff" near the station on the date of sighting. It was also determined that the detection and characteristics of the targets observed were completely abnormal. The other applicable units were also checked by this investigative team.

CONCLUSION:

In brief the conclusions are as follows:

a. The information and data studied from all pertinent units appeared to be unrelated and in fact contradictory to each other.

b. It is, therefore, difficult if not impossible to draw any valid conclusions, although there is no compelling reason or indications that the tracks were hostile, or unknown aircraft, or missiles.

A full report will be on your desk upon return.

George T. Gregory/aa
Captain, USAF
Air Science Division
ATIC

file UFO

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D. C.

2 May 1958

MEMORANDUM FOR MAJOR GENERAL WALSH

SUBJECT: Air Defense Radar Incident

1. I have reviewed the attached account of an Air Defense radar incident with great interest. I referred the report to my electronics officer who advised me that he is inclined to agree with the NORAD team that the most probable cause of this incident was equipment malfunction. However, he also stated that he is unable to suggest a specific malfunction that would result in an incident precisely as reported.

2. Considering factors such as deceleration times, lack of good correlation, etc., I am inclined to believe that the object reported, if it actually existed, is most probably not a weapon of enemy origin. Nevertheless, I believe that from your standpoint, this incident should not be closed. Some additional engineering opinion would be of value and I suggest that your electronics people as well as ARDC may be able to shed further light on the problem. In the meantime, you may want to consider asking ADC's assistance in having radar sites report similar types of incidents on a special effort basis for the next few months with the objective of determining whether this is in fact an isolated instance.

Inclosure
NORAD Rpt
[redacted]

HOWELL M. ESTES, JR.
Major General, USAF
Assistant Chief of Staff for
Air Defense Systems

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Auth Quantanilla, LT Col, USAF
By OTDPT (AFO)
Date 27 Jan 67
NORAD 2054 para 1-12b

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AFCAD Cont. #580808

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[redacted]

For Gen Walsh

26 February 1958

Had alerted * Gen Partridge 30 days before we heard of this particular event

MEMORANDUM TO: Mr. Arcier, 4X1

THRU: Colonel Gilbert, 4E

SUBJECT: Evaluation of Air Defense Radar UFO Incident - Requested by General Walsh

* on spurious radar returns mistaken for UFOs or hostile missiles

1. Reference is made to Gen Walsh's request to Gen Watson regarding full particulars on a long-duration, potentially hostile high-speed tracks (reportedly) originating near Martha's Vineyard, Mass., passing over Buffalo, New York, Cleveland, Ohio and pointed towards SAC Headquarters at Omaha, Nebraska. The incident resulted in an immediate alert by ADC and SAC.

2. Attached is a detailed report of the incident, properly plotted, carefully analyzed and concluded. For purposes of contacting Gen Walsh and presenting the incident in brief form, the following are submitted:

a. Track was picked up originally by the radar unit at Montauk, New York at 1906Z time, 20 September 1957. It was picked by Benton, Pa unit at 1918Z.

b. The radar units at Highlands, N.Y., N. Truro, Mass, Locksport, N.Y. and Claysburg, Pa. were alerted. However, these units could not make contact with the supposed target.

c. Two F-102 aircraft were scrambled from Kinross AFB (ADC) (Michigan) as well as two additional F-102's from Truax AFB (Wisconsin) as the target was bearing on a pre-plotted track in that direction. No contact made; nothing unusual found. The tracks faded at this point. (Significant to point out that the last observed track was in the vicinity of Benton, N.Y. and not in the vicinity of SAC HQ as reported to ATIC). Weather conditions: overcast and rain.

d. NORAD set up a radar team to study this incident, including similar targets if they should appear.

e. On 25 September, the radar team noted a series of blips on the radarscope of the Montauk, N.Y. Station, the unit originally reporting the tracks. The tracks were quote "exactly identical" to those of 20 September. When the channel (frequency) was changed the blips disappeared. They reappeared when the previous channel was tuned in.

Not reported to NEGN-4, ~~until~~ like investigated this after being told about it by Gen. Walsh.

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Auth [redacted]
By [redacted]
Date [redacted]

Page 1 of 2 Pages

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CONTENTS

SECTION	PAGE
STATEMENT OF OBJECTIVES	1
RESUME OF EVENTS	1
RELATED DATA	2
1. General	2
2. Montauk AFS	3
3. Benton AFS	8
EVALUATION	12
1. Operational Procedures	12
2. Analysis of Track Overlays	13
3. Characteristics of Airborne Objects	16
4. Missile Characteristics	17
5. Meteor Characteristics	18
6. Aurora Borealis	20
7. Weather	21
8. Equipment Malfunction	21
CONCLUSIONS	23
RECOMMENDATIONS	25

Classification Cancelled
(or changed to UNCLAS)
Auth. Quadanillo, Lt Col, USAF
By DTDPT(AFO)
Date 27 Jun 69
AFR 205-1 para 1-12b

ATIC Electronics
Analysis Branch
Intelligence Group

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Encl #1

f. A check of the Benton, Pa. Unit disclosed that there were two SAC aircraft in the area which dropped "streams of radar chaff" near the station on 20 September 57. It was also determined that the detection and characteristics of these targets were completely abnormal.

g. Other applicable units were checked.

3. Conclusions: In brief, the conclusions are as follows:

a. The information and data studied from all pertinent units appeared to be unrelated, and in fact contradictory to each other.

b. It is therefore [redacted] impossible to draw any valid conclusions, although there appears no indication that the tracks were hostile or unknown aircraft or vehicles.

4. This report has not been channeled through the Electronics Division, because of the urgent request that all results be brought immediately to your attention, for subsequent transmission to AFCIN. This report, in the opinion of the undersigned, should be of value to personnel involved in analyzing radar UFOs. It will, therefore, be reproduced and forwarded to AFCIN-4E1 for their possible guidance.

George T. Gregory

1 Incl
NORAD Rpt, Cy #1
(T58-5070)

GEORGE T. GREGORY
Captain, USAF
AFCIN-4E4

Reason why NORAD Radar Ev. Rpt not Sent Rpt 4E1:

Mr. [redacted] was standing by and ready to leave for Wash D.C. when they left came me. Summary (This memo) made that afternoon — and given to Mr. G. who left the next morning.

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3. Benton established an initial plot on an unknown target north of the station at 1918Z. The track described a westerly course at a speed of about 920 knots. The target was tracked continuously until it faded at 1926Z. At 1924Z, 2 minutes prior to the fading of the unknown target, a new target appeared at a position northeast of the station at a speed of 1,200 knots. This target described a track that closely paralleled that of the first track and faded at 1943Z at a position northwest of the station.

4. These unknown tracks were passed to the 763d ACWRON (Migrate) at Lockport AFS, N.Y. and to the 772d ACWRON AFS (Silvertone) at Claysburg AFS, Pennsylvania; however, these radars failed to establish a contact with the targets.

5. Four Divisions went to a state of Increased Readiness during the time period. The 20th CADD and the 31st CADD at 2008Z and the 30th CADD and 37th CADD at 1943Z.

6. No scramble action was taken by the 26th CADD due to the very high speed of the target. When the track first appeared on the CFECR plotting board at 1907Z, the 37th CADD was notified and at 1910Z two F-102 aircraft from Kinross were scrambled. The 37th then scrambled two additional F-102s from Truax. By this time, both tracks had faded.

RELATED DATA

1. GENERAL: On 25 and 26 September 1957, ACW maintenance and operations personnel associated with the 20 September incident

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EVALUATION OF AIR DEFENSE INCIDENT OF 20 SEPTEMBER 1957

STATEMENT OF OBJECTIVES

The objective of this study is to evaluate the circumstances associated with the detection and reporting of high-speed radar tracks on 20 September 1957. Specifically, the evaluation was aimed at determining whether or not the tracks were caused by airborne objects and to determine, if possible, the nature of the airborne vehicles or other phenomena which caused the tracks.

RESUME OF EVENTS

1. On 20 September 1957 at 1906Z, the 773d ACWRON, located at the Montauk AFS, New York, established an initial plot on a high speed unidentified object southeast of the station at a range of 190 nautical miles, and tracking toward the station at an estimated speed of 3600 knots. Track information was forward told to the 26th CONAD Division, CFECR, and to NORAD COC. In addition, it was passed laterally to adjacent radars; the 646th ACWRON at Highlands AFS, N.Y. and the 762d ACWRON at North Truro, Massachusetts. These radars were not able to establish contact with the target.

2. The unknown track was lost at a range of 50 miles southeast of Montauk at 1907.45Z. The track was dead-reckoned by Montauk AFS and passed by the 26th CONAD Division to the 648th ACWRON at Benton AFS, Pennsylvania, as heading west at a speed of 2,000 knots and an estimated altitude of 50,000 feet.

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discussed with the NORAD team the events leading up to, and those associated with, the detection and reporting of the high speed tracks on 20 September 1957. The details of the above discussions along with the NORAD team observations are contained in the following paragraphs.

2. MONTAUK AFS: Montauk Air Force Station is located on the northeastern tip of Long Island, N. Y. The following is a list of radar equipment and operating parameters associated with this station at the time of the incident:

Prime Search AN/FPS-20	(1250-1350 mc) Dual Channel
Emergency Search AN/FPS-8	(1280-1350 mc) non-operational
Height Equipment AN/FPS-6	(2700-2900 mc)
Antenna Rotation Rate AN/FPS-20	5 rpm
Antenna Tilt (Electrical)	2.2°
Pulse Recurrence Frequency	400 pps
Blip/Scan Ratio on BB-6 from Detection to Fade	1.0

a. Circumstances Related by the Montauk Operations Personnel: Prior to the detection of the high speed track BB-6, the duty controller was engaged in an intercept over the Rocket and Gunnery Range south of the Montauk Station. Scope displays and the appearance of routine traffic seemed normal.

At approximately 1905:48Z, a target return was observed on a PPI console at a range of approximately 210 n.mi. east southeast of the station. An initial track was established on it at 1906Z,

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Range 190 n.mi., azimuth 140°, speed 3,600 knots. The scope operator immediately called this track to the attention of the duty controller and the floor supervisor. The three operations personnel observed this track throughout its course until it faded at approximately 50 n.mi. southeast of the station. This fade occurred within the M. T. I. area. The average speed of the track over its entire length was 5,400 knots. At the time of the incident, there were 3 UPA-35, 4 GPS-23 consoles and one height scope in operation.

The basis for the altitude estimation on track BB-6 was so unreliable the NORAD team was forced to disregard it. Derivation of height associated with part of track BB-6 is discussed later in this report.

The target was detected and tracked on a UPA-35 scope but it was not observed on the height finder nor on any other scope in the operations room; however, due to the short time that this target was carried, it was impossible for the operations personnel to evaluate or assess the conditions of the other scopes in the operations room. No jamming or intense interference were present at this time and weather in this area was low overcast with slight rain. Further weather analysis is included later.

Upon receipt of the initial target information, the 26th AD alerted other related sites within the 26th AD area to be on the lookout for this high speed track. The stations initially alerted were Highlands and North Truro. Subsequently, Claysburg, Pa., Benton, Pa., and Lockport, N.Y. were alerted as a result of

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dead-reckoned pre-plot information. None of these stations except Benton, Pa., detected anything that could possibly have been correlated with track BB-6. Antiaircraft units in the area of the track penetration were also advised but were unable to obtain contact with this target. Texas Tower #2, the picket ships and AEW stations in the area did not report unusual, high speed targets during this time.

The characteristics of the target blip described by the three operations personnel indicated that this return appeared realistic insofar as shape and size were concerned. The initial target return observed at 210 n.mi. was thought to be that of an aircraft showing Mark X identification. Several sweeps later the Mark X beacon control at the scope was placed in the off position but the target characteristics remained the same. As the target approached the station, the size diminished but the intensity remained the same. Tracking continuity and blip/scan were 100% throughout the entire track.

The FPS-20 was operating on Channel 2 during this period. At 1910Z, Channel 2 failed and the set went off the air. Thirty seconds later Channel 1 was in operation. A defective tube in the modulator caused the above failure. Set operation and console noise level appeared normal during the time of the incident.

b. NORAD Team Observations: At 2000Z on 25 September, the NORAD team observed a series of random blips on a UPA-35 console. These blips occurred at a constant azimuth of 160° but at various ranges. The operations personnel involved in the 20

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September incident were called to observe this and they immediately identified the blips as being exactly the same as those observed on 20 September. The variations in ranges were to some degree uniform in their appearance, i.e., the blips would occur at approximately 210 n.mi., approach the station at speeds of 3,000 to 3,500 knots for 3 or 4 sweeps then would appear at a different range unacceptable to track coherence. Other scopes in the operations room were also displaying these blips. This condition was observed throughout the night by the operations personnel at Montauk. The next morning the transmitter was changed to Channel 1 and the condition disappeared. At the request of the NORAD team, on the evening of 26 September, the site changed back to Channel 2 and the condition again appeared.

The following is a summary of the most important characteristics of, and technical environment surrounding, the Montauk target phenomenon on 20 September 1957.

At the initial stage of detection, this object's electronic configuration was described as similar to that of B-52 type aircraft when observed at long range, with the exception of its speed. Several sweeps later the electronic configuration of this target changed to that of a smaller object, yet the heading of the target and its aspect remained constant. Normal target returns from conventional or jet type aircraft do not reflect such radical changes in their size as this target did unless they undergo radical changes in aspect ratio. In fact, it is very difficult for experienced operators to detect changes in target size when the aircraft

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is maintaining a constant track.

The target intensity of track BB-6 remained constant throughout the entire tracking period. Normal target returns fluctuate in intensity to such a degree that the condition is visually obvious to the operator.

Tracking was continuous and the blip/scan ratio was 1.0 over the entire track. A 1.0 blip/scan ration on conventional and jet aircraft without beacon or Mark X is a rare occurrence under normal operation.

The fact that this target was of such size to sustain a 1.0 blip/scan ratio at Montauk AFS would indicate that other stations within detection distances certainly should have received some indication of this track.

Mutual interference, that is, interference of one rotating radar with another rotating radar operating at or fairly close to the same operational parameters will normally produce "spirals" occurring at the outer edge of the PPI scope and spiraling into the center of the scope along with extremely high background noise levels. The noise level on the scope, of course, is proportional to the power transmitted by the interfering radar. It was impossible to associate track BB-6 with previously experienced mutual interference patterns of two rotating radars. It would be possible, however, to generate a condition of this sort with a fixed-antenna type radar operating at or close to the frequency and PRF of the rotating radar. The team was unable to ascertain the location of any fixed radar stations in that area that could produce such a

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condition. The non-rotating radar station would have to have mobility in view of the movement of this phenomenon from one azimuth to another over a period of several days, and its installation would have had to have been made recently due to the absence of this type phenomenon in the past.

3. BENTON AFS: Benton Air Force Station is located approximately 35 n.mi. NW of Wilkes-Barre, Pa. The following is a list of equipment and operating parameters associated with this station at the time of the incident:

Primary Search Equipment	AN/FPS-10 (2700-3020 mc)
Height Finding Equipment	AN/FPS-6 (2700-2900 mc)
Antenna Rotation Rate	5 rpm
Antenna Tilt (Electrical)	Search 1.5° Vertical Lower 3° Vertical Center 6° Vertical Upper 11°
Pulse Recurrence Frequency	300 PPS
Blip/Scan on BB-6 and BE-111 from Detection to Fade	1.0

a. Circumstances Related By Benton Operations Personnel: Prior to detection of high speed track BB-6, traffic and scope presentations at Benton were normal. At 1755Z and 1758Z two SAC aircraft requested permission to run ECM against Benton. The duty controller advised approval and the two aircraft commenced chaff runs at 1805Z and 1810Z, respectively. Aircraft dropped chaff in streams north of the station extending west to approximately 220 n.mi. Chaff dispensing ended at 1832Z and 1835Z. The residual effects of the chaff cloud were visible on the radar consoles for over an hour's period.

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At 1916Z, Benton received four overlap pre-plots from 26th AD Control Center on an unidentified target said to be heading west at 2,000 knots with an estimated altitude of 50,000 feet. At 1917Z Benton detected a target on the vertical upper beam heading northwest with an estimated speed of 920 knots. This target was correlated as being BB-6 from Montauk. The track was carried on VU until contact was lost at a point approximately 135 n.mi. northwest of the station. It was again picked up on vertical center and tracked until it faded at 1926Z. No further pickup on this track was made.

At 1924Z the second track was detected on VU 75 n.mi. north of the station heading 290°, estimated speed 1,200 knots. This track had no correlation and was numbered BE-111. It was carried on VU until contact was lost at a point approximately 145 n.mi. northwest of the station. It was again picked up on vertical center at 160 n.mi. northwest and carried until it faded at 190 n.mi., 305°. Both tracks were interrogated by Mark X with no response. All track information was passed to the ACW site at Lockport and Claysburg but these sites did not detect either of these tracks. Lockport was off the air for maintenance during the entire time Benton was tracking and did not return to operation until 1935Z, one minute after the track BE-111 faded. Lockport observed the residual effects of the chaff drop. Anti-aircraft units in the area of concern did not report any unusual, high-speed target activity.

B-58 aircraft activity was considered as a possible cause for the track at Benton AFS; however, a message to WADC established that no B-58s were flying in this area at this time.

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Technical data and radar performance characteristics associated with B-58 aircraft are non-existent at this time and as a consequence, the NORAD team was without a capability to effectively assess the target data derived and properly associate this data with B-58 characteristics.

At the time of the incident, Benton had one OA-99 PPI console on each of the three vertical beams and the Air Surveillance Officer used a fourth OA-99 to monitor all beams. Of these, only one OA-99, manned by two airmen, displayed the targets (first on the VU and then on the VC beams). No detection of BB-6 or BE-111 was made on any other scope in the station. No detections were made on FPS-6 or on the VL or search beams of the FPS-10. The operating parameters of the FPS-10 were within normal operating limits. Weather at this station was low overcast with slight drizzle.

b. NORAD Team Observations: The NORAD team was unable to duplicate the above condition by scope analysis. All scopes had indications of interference patterns typical of those that would be generated by interference from other radars. The technical parameters associated with this type interference should not produce crossing tracks. The degree of this interference was not sufficient to deteriorate the performance of the station. The radar returns as described by the operations personnel indicate that these returns were not characteristic of normal radar targets. Except for the high rate of speed and unexplained variations in speed, the blips described a normal aircraft track. These blips differed from normal returns in that they were round in shape with

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a slight fuzziness around the periphery and were estimated to be about twice the diameter of a return from a B-52 at maximum radar range. The intensity of the blips remained constant throughout the entire track. Tracking continuity and blip-scan ratio was 1.0.

The following is a summary of the characteristics of, and technical environment surrounding, the Benton target phenomenon on 20 September 1957.

The two tracks did not possess qualities of normal radar returns, i. e., they had a 1.0 blip-scan ratio throughout the entire tracking period. They maintained a constant target intensity. The size and shape varied considerably from that of normal returns and they were not detected on the search or vertical lower beams. Targets having returns as strong and persistent as these should be seen on all beams of an FPS-10. Only one scope in the station displayed this track and detection could not be made on the height finder. In addition, other sites in the immediate area were alerted sufficiently in advance to acclimate themselves to the situation, yet no other detections were made by these other stations.

It should be noted that Lockport was off for maintenance and did not return to operation until one minute after the target faded at Benton. The 1.0 blip-scan Ratio at Benton and the target location at the time of the fade would indicate the track should have been detected by Lockport.

The detection and fading characteristics of these targets were completely abnormal. The screening angles for Benton AFS do not exceed 0^{o} throughout the area of concern. The tracks were detected well within the

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line of site capabilities of the station and faded well within the line of site capabilities of the station. Both detection and fade plots were at 1.0 blip-scan ratio.

EVALUATION

1. Operational Procedures: Operational procedures as demonstrated by the NORAD system and its subordinate elements were as specified by appropriate operational directives. Weapon commitment procedures were appropriate to the speed, altitude and radar tracking characteristics of the target track.

a. Montauk AFS: The actions of the radar surveillance personnel were commendable in that during a 2-minute period the target was detected, initiated as a track, five position plots recorded and forward told to the 26th CONAD Air Division, and to adjacent radars.

It was noted that the height-range indicator at Montauk is physically located so that it cannot be used on short notice. It was also noted that radar scope photo equipment was not readily available to obtain a photographic record of this track.

b. Benton AFS: The operation at Benton, Pa., was in accordance with current operational directives. The target was detected and passed to adjacent radars and to higher echelons. A determined effort to collect data was made.

It was noted that radar scope cameras were committed to a training program and were not employed to record this track.

c. 26th CONAD Air Division: The control center personnel promptly noted the track, assembled personnel of authority and passed track information

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to other concerned radars and to higher echelons.

d. CONAD Forces Eastern CONAD Region: The Combat Operations Center personnel promptly noted the track and properly passed track information to those Air Defense Divisions along the probable flight path of the object. The appropriate divisions were placed on increased readiness. Interceptors were scrambled ahead of the track along its dead-reckoned course.

e. NORAD: Operational procedures at the NORAD Combat Operations Center were in accordance with current directives. Track information was passed to CONAD Forces Central CONAD Region in time for them to have interceptors on CAP along the probable flight path of the track. Preliminary information on this track and on NORAD actions were passed to the SAC Control Center and to the USAF Command post.

2. Analysis of Track Overlays: The most obvious feature of the two segments of Track BB-6, and one which contributed most directly to the original correlation, was the similarity of their courses. The first portion carried by Montauk described a course of approximately 289° while the course of the second portion carried by Benton was about 278°. A line drawn along the "average" course of the first segment and extended to the area where the second part of the track was established passes within about 20 miles of the point of detection of the second segment. Courses of radar tracks on bomber aircraft are seldom more consistent than this.

The first track segment appeared to curve slightly toward the west just prior to its fade. This change in course was based on only one or two returns; however, after discussing the track with the station operating personnel it was concluded that this change was well within the normal variations caused by plotting errors. This turn then, may not have actually occurred.

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The speeds of the two portions, while far less consistent than the courses, were compatible enough to preclude discounting a correlation on the basis of speed. The track carried by Montauk attained a length of about 143 n.mi. in 95 seconds, giving an average speed of 5,400 knots (as opposed to 3,600 knots reported on the initial plot). Although the time period over which the track was carried by Montauk was too short to provide accurate estimates of speed changes, it appears that the track speed was, if anything, increasing. The last two plots, covering a 15-second time span, advanced the track approximately 45 n.mi. giving an average speed of about 10,000 knots for this portion of the track. Again it is emphasized that these estimates must be viewed with caution because of the very short observation time.

The second part of BB-6 covered a distance of 128 n.mi. in a period of 8 minutes. The average speed here was about 960 knots. The plots in this track segment indicate a speed of above 1,200 knots at the beginning and end of the track and a speed slightly below 900 knots in the middle portion of the track. Track BE-111, which paralleled the segment of BB-6 carried by Benton, achieved a length of 205 n.mi. in 10 minutes for an average speed of 1,230 knots.

Since the speeds of the two segments of BB-6 differ by a factor of nearly six to one, a logical attempt to correlate the two segments can be made only if one assumes that the track decreased in speed during the 10 1/4 minutes it was dead-reckoned. On the basis of the two average speeds, i. e., 5,400 knots and 960 knots, an average deceleration of 26,600 knots per hour would be required over the entire 10 1/4 minutes to account for the

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speed difference. If the track had decelerated at this rate it should have progressed about 530 n.mi. during the dead-reckoned period instead of the 280 miles it actually did travel. Since neither segment indicated a marked deceleration it would be more logical to suppose that if the track decelerated, it did so only for a part of the dead-reckoned time. In this case, the time and distance correlation would have been even less acceptable.

Except for the high blip-scan ratio observed at each station, there was virtually no similarity in the scope displays on the track segments. The return seen at Montauk appeared to represent a normal target. The blips were approximately the same size and shape as normal target returns and the only discrepancy observed was the relatively great decrease in blip size as the track approached the station. The returns seen at Benton were larger than normal blips and appeared round in shape. All blips in Benton's track were identical and exhibited none of the variations in size or intensity characteristic of real target returns. The manner in which the second portion of the track faded was entirely unrealistic for an outbound track. The blips remained large and round out to the point where the fade occurred and at this point the "paints" abruptly stopped. The fade on the portion of BB-6 carried by Montauk was more abrupt than would be expected for such persistent returns but is believed that a real track could fade in this manner.

To summarize the discussion on track correlation: the correlation in the courses of the two segments of BB-6 is remarkably good while the correlation in time and distance, even assuming a highly unlikely speed profile, is questionable. There seems to be no similarity between the scope displays seen at the two stations. Track BE-111 carried by Benton

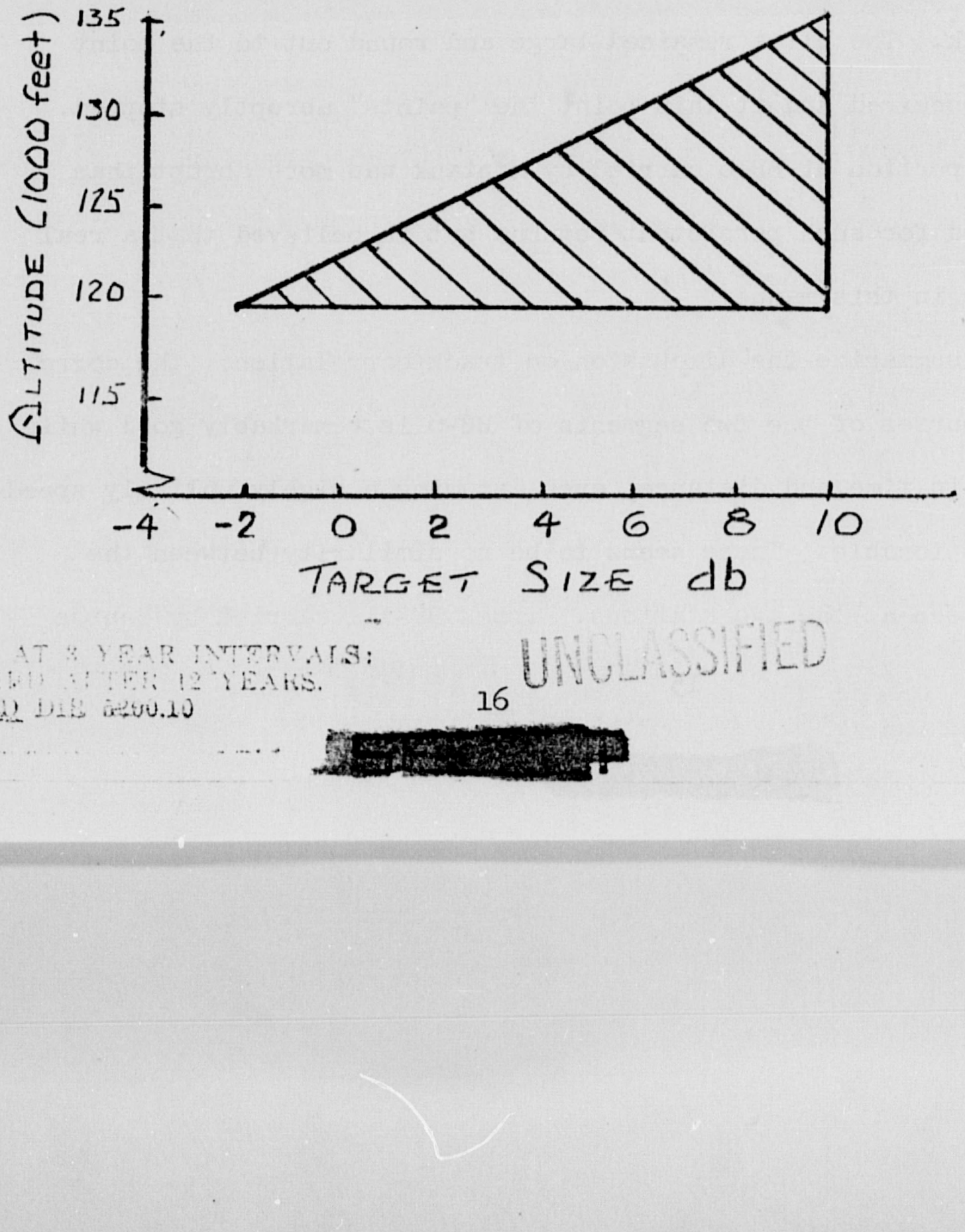
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must be considered an extra track which correlates with neither of the other segments.

3. Characteristics of Airborne Objects: The ADC Range Coverage Indicator was used in an attempt to determine the characteristics of an airborne object which could produce tracks similar to the ones observed at Benton.

Using an average range based on the range at which the target was last observed on the VU lobe and the range of initial detection on the VC lobe, an estimate of target size and altitude was made. It was found that a plus 10 db target at 135,000 feet is the smallest object that could be lost on the VU lobe and be detected on the VC lobe at approximately this range. Applying the same procedure to the range at which the target disappeared from the VC beam, it was determined that the smallest object which could produce this effect would be a minus 2 db target at 120,000 feet. This information is shown graphically in the following figure:



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The cross-hatched area of the figure represents the limits of the characteristics of an object which could produce the tracks observed at Benton; however, two major discrepancies must be noted concerning the above target size and altitude data:

a. No known type of airborne object should produce a 1.0 blip-scan ratio during the entire length of the track from its initial detection to its abrupt disappearance.

b. Based on the above target size and altitude estimates, the RCI indicates that the observed tracks were also within the detection capability of the VL and search kit beams; therefore, the tracks should have been detected in these beams.

4. Missile Characteristics:

a. Possibility of Cruise Type Missile: Tracking subsequent to the first pickup indicated a speed of approximately 5,400 knots or Mach 9. Considering the so-called heat or thermal barrier problem this would be an extension of the state of the art so far beyond present day accomplishments as to be considered impossible for some time to come. In order to escape the heat barrier an airplane flying at this speed would have to fly above 300,000 feet. This again is so far beyond present day accomplishment as to be considered extremely unlikely. On the other hand, if we consider only the second pickup (by Benton), the ground speed of that portion (approximately 1,000 knots) would be consistent with the present state of the art.

b. Possibility of Ballistic Missile: A horizontal speed of Mach 9 is consistent with a 900 n.mi. range ballistic missile. The 1,000 knot portion of the track is also consistent with ballistic missile re-entry

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speeds; however, a ballistic missile would re-enter the atmosphere and land in a period of 30 to 200 seconds and cover only 20-40 miles while doing so, whereas, the track carried by Benton extended over 100 miles and about 8 minutes subsequent to detection. Similarly, the second track carried by Benton fails to demonstrate the deceleration characteristics of a ballistic missile re-entry. Thus, if we consider the two pickups to be on the same object, it seems unlikely that the object was a ballistic missile.

c. To summarize: Considering the two tracks as a unit it seems very unlikely that the object was either a cruise type or a ballistic missile.

Considering tracking on the first segment only, one might conclude that it could have been a ballistic missile.

Considering tracking subsequent to the second pickup only, one might conclude that it could have been a cruise type missile.

5. Meteor Characteristics: Meteors were also considered as a possible cause of high speed radar tracks. It was hypothesized that a meteor approaching the earth at a relatively large angle (as measured from the horizontal) might produce a track having a horizontal component of velocity which could correlate with the portion of track BB-6 observed from Montauk. Upon closer examination, however, it appears that such a hypothesis is untenable.

Meteors penetrating the earth's atmosphere can be detected and tracked by radar, but the results of research in this area indicate that it would be extremely unlikely that a radar return from a meteor would

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appear as strong, clear, and persistent as the ones contained in track BB-6. Observations made by the U. S. Bureau of Standards show that the radar frequency is an important factor in the tracking of meteors. Radar returns are obtained more from the ionized gases surrounding the meteor than from the meteor itself, and as the radar frequency is increased more of the energy should pass through the ionized cloud rather than reflecting from it. In general, successful meteor tracking has been achieved only with radars having frequencies below about 60 mcs. Since the frequency of the FPS-20 is over twenty times as high as this, it is extremely doubtful that it would even detect a meteor. Perhaps the ionized "trail" could be detected particularly after it had had sufficient time to expand into a larger target, but such a return would not appear as a fast moving object.

A consideration of meteor speeds only serves to discount further the possibility that any of the tracks could have been caused by meteors. During the past twenty years, several thousand meteors have been observed scientifically, i.e., accurate records of their speed and trajectory have been made. Data on the velocities of over 10,000 meteors studied by Stanford and Harvard Universities* show that meteor velocities below 35,000 knots are rare, and none of the observations showed velocities below 23,000 knots. These studies also indicate that meteor trails, i. e., heating of the meteor to incandescence and ionization of gases rarely begin above 65 n.mi. or extend below a height of 25 n.mi.

A meteor approaching the earth at a velocity of 23,000 knots would have to follow a path inclined at least 77° from the horizontal in

*Fletcher G. Watson, Between the Planets, p. 84, 122

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order to produce a horizontal component of velocity of 5,000 knots (the approximate average velocity of the first segment of BB-6). In the nearly two minutes (95 seconds) that Montauk carried the track, a meteor at this velocity would travel about 575 n.mi. in the vertical plane. Thus, detection would have had to be made when the object was at least 575 miles above the surface of the earth.

On the other hand, a meteor at 23,000 knots, following a trajectory flat enough to be tracked for 95 seconds by radar, i. e., within 100 miles of the earth's surface, would travel nearly 600 n.mi. horizontally at a horizontal velocity of 22,500 knots.

To Summarize: A meteor following a trajectory having a horizontal component of velocity consistent with the speed of track BB-6 as seen at Montauk would have had to be detected nearly 600 miles above the earth's surface without benefit of a cloud or trail of ionized gas. Such a feat is considered extremely unlikely for a rotating, surveillance radar. A meteor remaining close enough to the earth's surface to afford even a remote possibility, of being tracked for 95 seconds would have to travel at a speed of at least 22,000 knots.

6. Aurora Borealis: Aurora Borealis was also a factor considered by the team as having possible effects of this nature. Research into past history on the subject indicates all known auroral effects in the radar frequency spectrum produces receiver saturation by random noise, creating an entirely different scope condition from those observed during this incident. No instances have been recorded where auroral effects have produced just one or two tracks similar to those observed at the Montauk station.

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In 1953, an evaluation and detailed report was made on a phenomenon existing at Cutbank, Montana, called "Pipsqueaks." This phenomenon could not in any way be associated with the 20 September 1957 incident by the NORAD team.

7. Weather: Immediately following the incident, the Division Weather Officer analyzed weather and atmospheric conditions prevailing in the 26th Division. This analysis was based primarily on soundings and reported weather conditions. In general, this analysis showed no ducts, inversions or other conditions which could account for high speed radar tracks.

A similar analysis was performed by members of the 3d Weather Group, Hq. ADC. The results of this analysis verified the findings of the Division Weather Officer.

Weather forecasts and soundings from the four weather stations closest to the area in which the tracks were observed are included in Attachment II. It should be noted that the only indication of a refractive layer is found in the plots of B units (refractive index) from Idlewild. This layer was not strong, however, and was at a higher altitude than are layers which normally cause false targets.

To summarize: Two independent studies of the available weather data by qualified weather officers failed to reveal conditions which are known to produce anomalous propagation or false targets. If weather conditions prevailing on 20 September did produce these high speed tracks, one would expect the occurrence of such tracks to be the rule rather than the exception.

8. Equipment Malfunction: Montauk Air Force Station has recently had the AN/FPS-3 search radar modified into an AN/FPS-20. The station has, in

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the past, experienced technical difficulties in several major components of the equipment. None of these were serious enough, however, to induce long periods of breakdown or degradation of operational performance.

The NORAD team could not find any specific source of component malfunction that could contribute to the cause of the 20 September phenomenon. The circumstantial evidence associated with the 20 September phenomenon such as the observation by the NORAD team of a condition similar to that observed by the operations personnel on 20 September would indicate erratic performance of some electronic component within the equipment. One member of the NORAD team has been closely associated with the technical development of the FPS-20 since its inception. It was indicated by this member during the evaluation that certain electronic components of this equipment, on rare occasions, would produce random noise known as "angel effects." These effects are similar to those experienced on 20 September by the Montauk station. The similarity, however, is not conclusive enough that the incident can be attributed to this effect. Further technical analysis must be accomplished before "angel effects" can be either accepted or rejected as a cause.

At Benton Air Force Station, the NORAD team was unable to find any specific cases of malfunction of the AN/CPS-6B that would contribute to the 20 September phenomenon. The station has experienced only those minor equipment difficulties, all of them common to the AN/CPS-6B over long periods of sustained operation. The circumstantial evidence associated with this phenomenon, such as the pick-up and fade characteristics of the target, the appearance of the target on only one scope, the

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inability of the equipment to track the target on vertical, lower, and search beams, and the lack of height-finder detection would indicate erratic performance of some electronic component within the equipment. That component malfunction was the cause of the phenomenon can only be verified on the basis of further technical analysis.

CONCLUSION

1. In studying the characteristics of these high-speed radar tracks, it was found that much of the information pertaining to them appeared to be unrelated or contradictory.* Under these circumstances, it is very difficult and often impossible, to arrive at positive conclusions. None of the possible causes considered in the study could be supported indisputably as the one responsible for the tracks. The evaluation did show that certain of the explanations were much more tenable while others were rejected almost entirely. Therefore, the conclusions presented concerning the cause of tracks BB-6 and BE-111 are not stated in unequivocal terms as one would prefer conclusions to be, but rather they are statements of the relative probability that the tracks were the result of the various possible causes evaluated.

a. Despite the apparent track correlation between the two segments of track BB-6, it is highly probable that these two tracks resulted from separate, unrelated causes.

b. The most probable cause of track BB-6 carried by Montauk is believed to be either a circuit malfunction or interference from a radar

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having a non-rotating antenna. Of the two causes, the former is considered the more likely.

c. The most probable cause of track BB-6 and BE-111 carried by Benton is believed to be equipment malfunction. External interference is not considered a probable cause.

d. Estimates of the altitude of BE-111 and the portion of BB-6 carried by Benton are highly questionable. Estimates of the altitude of BB-6 carried by Montauk are totally without basis.

e. It is considered highly improbable that any of the track segments were caused by either meteors or auroral effects.

f. Although weather phenomena cannot be completely discounted, it is believed improbable that the tracks observed at Benton were a result of any known weather or atmospheric conditions.

g. Since weather data are not available from areas over the ocean, it is possible that unknown weather conditions could have caused the track observed at Montauk. On the basis of available data, however, weather is not considered a probable cause of the first segment of track BB-6.

h. On the basis of known missile capabilities, it is possible that a ballistic missile could simulate the trajectory of BB-6 as observed at Montauk and that the trajectory of a cruise missile could resemble BE-111 or the second portion of BB-6. Neither of these are considered probable causes.

i. Operational functions of the NORAD system were within established time criteria and in accordance with existing directives.

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RECOMMENDATIONS

1. It is recommended that further technical investigation be accomplished by appropriate Air Force agencies to attempt to isolate the phenomenon outlined in this report to insure proper recognition of this phenomenon should it re-occur.

Maurice D. Surratt
MAURICE D. SURRATT
Major, USAF
Member

Clarence W. Knott
CLARENCE W. KNOTT
Major, USAF
Chairman

Walter R. Goodrich Jr
WALTER R. GOODRICH, JR.
Major, USAF
Member

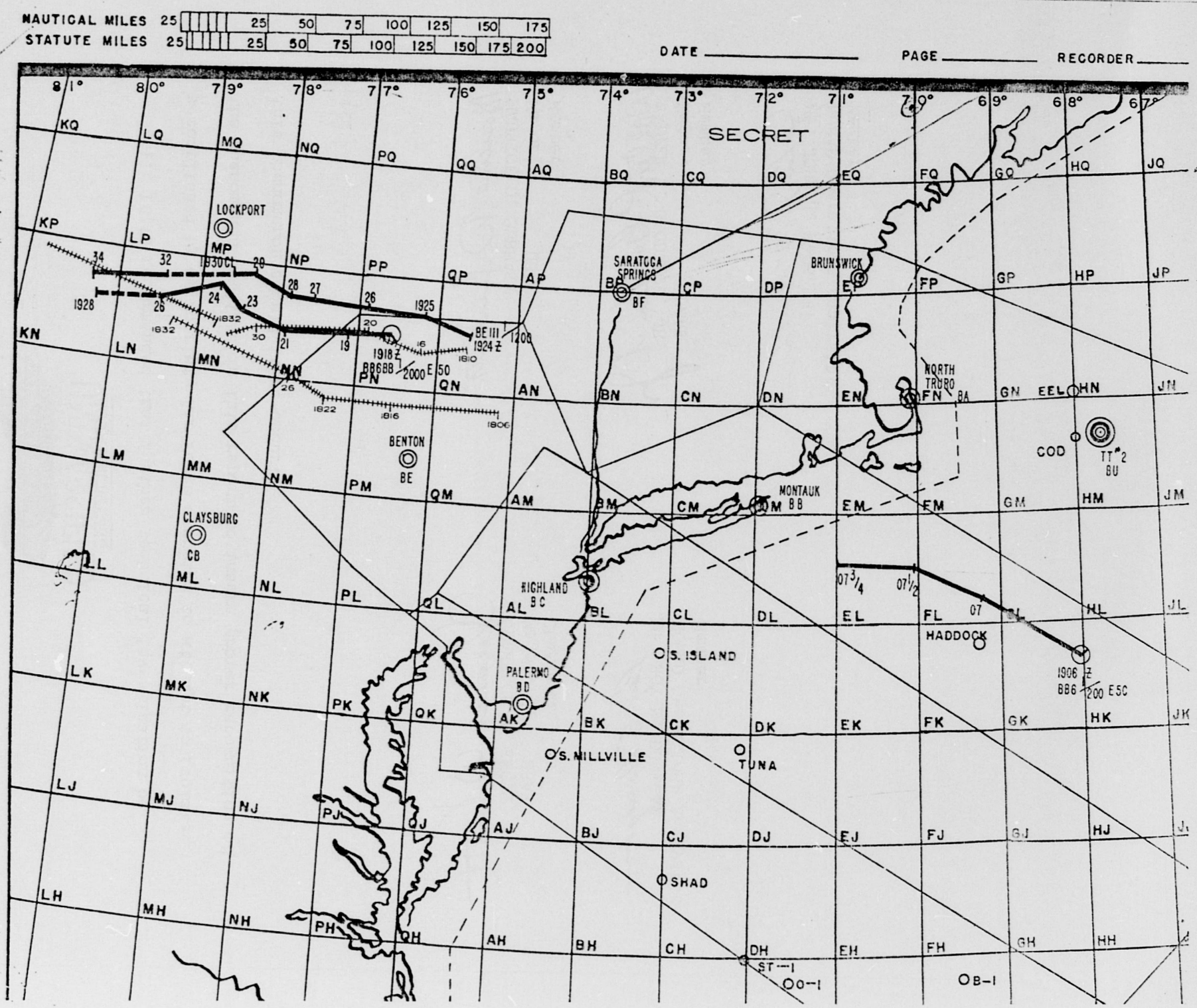
Roy E. Donegan
Mr. ROY E. DONEGAN
NORAD Operations Analysist
Member

John J. McGrath
Mr. JOHN J. McGRATH
NORAD Operations Analysist
Member

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NAUTICAL MILES 25 25 50 75 100 125 150 175
STATUTE MILES 25 25 50 75 100 125 150 175 200
DATE
PAGE
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SECRET
LOCKPORT
SARATOGA SPRINGS
BRUNSWICK
BENTON
CLAYSBURG
NORTH TRURO
COD
MONTAUK
HIGHLAND
PALERMO
S. ISLAND
S. MILLVILLE
TUNA
SHAD
HADDOCK
ST-1
OO-1
OB-1

Attachment II

AREA WEATHER FORECASTS FOR 26TH AIR DIVISION (DEF)

Valid 20/0900Z to 20/1700Z Sept 57

General Situation: Little change expected in synoptic picture during forecast period with high pressure area in North Atlantic and ridge extending southwest over Virginia.

All Zones:

Clouds: Mostly clear with increasing high cloudiness above 25,000 feet.

Precipitation: None

Visibility: Patches of ground fog burning out and vsby reaching 3 miles by 1330Z.

Freezing Level: 13,000 ft. msl.

Icing: None ft. msl.

Contrails: 38,000 ft. msl.

Remarks: Cloud bases given as ceiling ht. in feet--tops given in feet msl.

Valid 20/1500Z to 20/2300Z Sept 57

General Situation: Cold front approaching Div. from the northwest with considerable shower activity in advance.

Zone 1 and Northwest Sxns. 1f Zone III:

Clouds: Bkn-ovc near 1500-2000 ft. with tops to 35 thsd. ft.

Precipitation: Shwrs. and sctd. tstms.

Visibility: 7 plus xcept lwrng to 2-4 in pcpn.

Freezing Level: 13,000 ft. msl.

Icing: Severe in tstms ft. msl.

Contrails: 36,000 ft. msl.

Remainder of Division Area:

Clouds: Sctd ocnly bkn cumulus bases near 3,000 ft. tops to 12-15 thsd. with bkn middle clouds bases near 12-15 thsd. ft.

Precipitation: None.

Visibility: 6 mi in haze.

Freezing Level: 13,500 ft. msl. Icing: None ft. msl.

Contrails: 36,000 ft. msl.

Remarks: Cloud bases given as ceiling height in ft--tops given in ft. msl.

RADAR SITE Palermo, N.J.

RAOB STATION Albany, N.Y.

DATE 20 Sept 57 TIME 1800Z

FORECASTER _____

P	T	T_d	H_t	B
004	23	17	288	349
964	19	13	1500	338
884	16	12	3910	344
863	17	11	4550	341
850	16	19	4980	336

h_1 _____

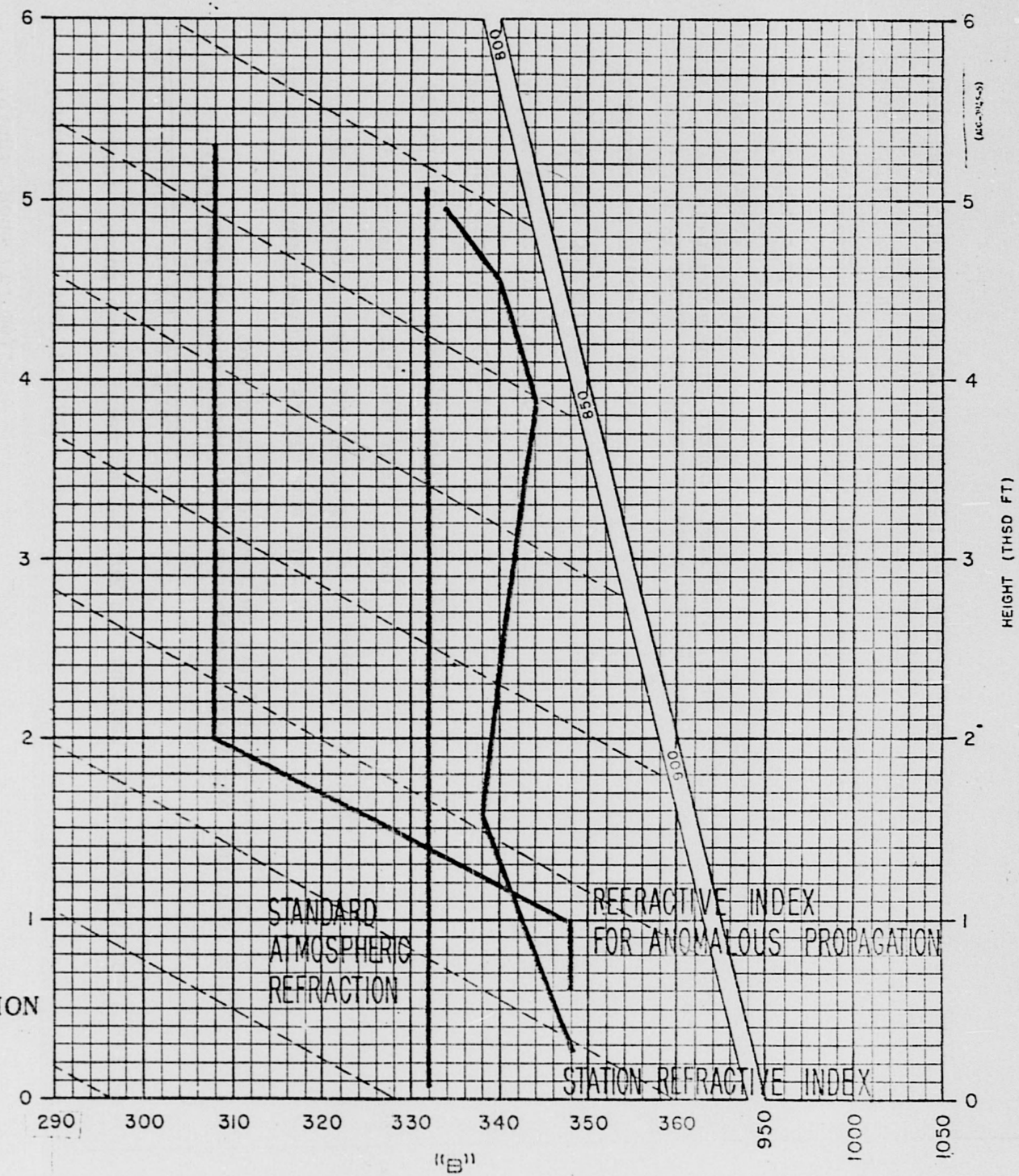
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COMPUTATION SHEET
FOR
ATMOSPHERIC INDEX OF REFRACTION

3 WG FORM 29-1SEPT 55



ATTACHMENT 2

RADAR SITE Lockport, N.Y.

RAOB STATION Buffalo, N.Y.

DATE 20 Sept 57 TIME 1800Z

FORECASTER

P	T	T_d	H_t	B
991	22	20	706	366
850	14	13	4940	353

h_1 _____

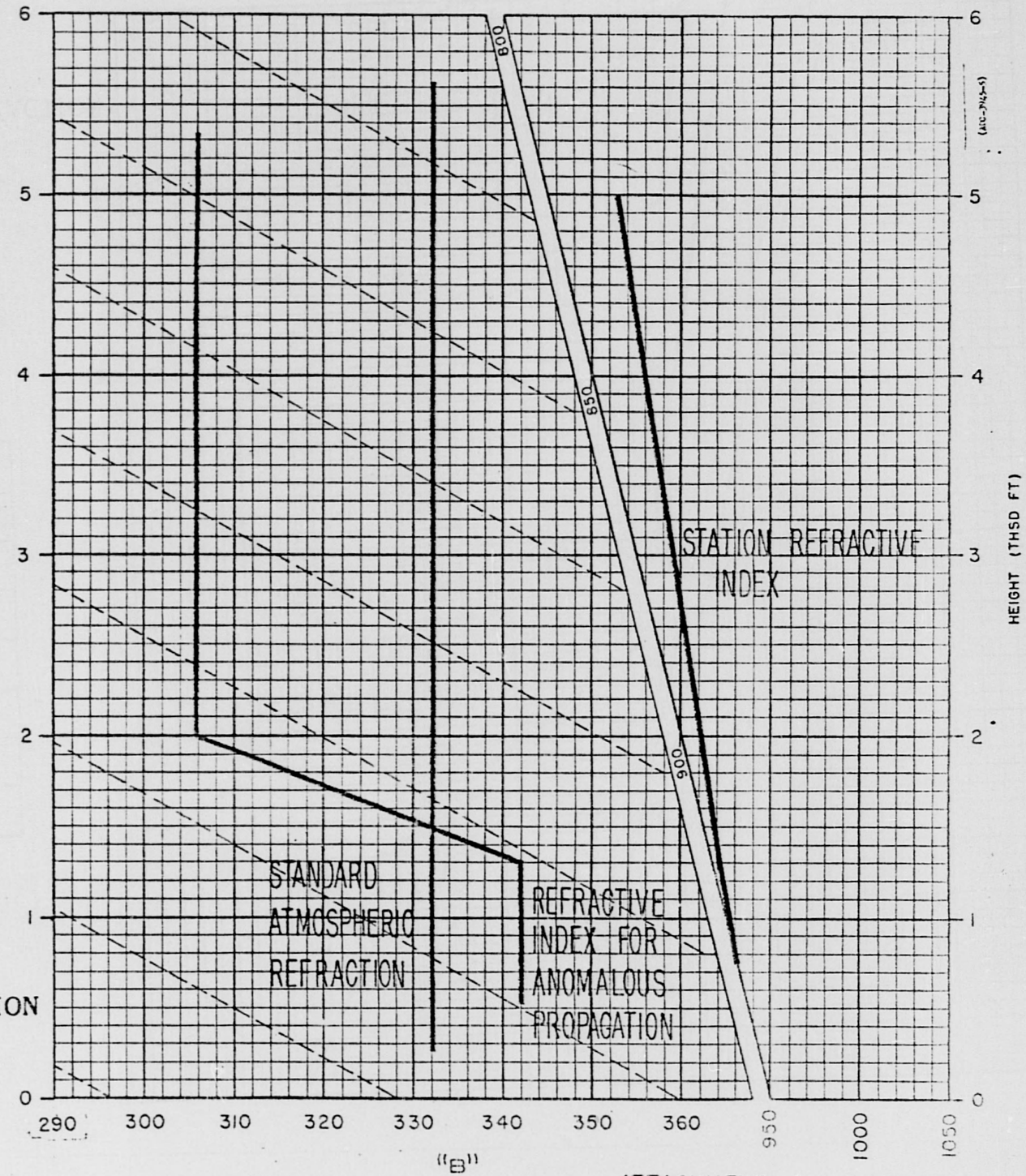
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COMPUTATION SHEET
FOR
ATMOSPHERIC INDEX OF REFRACTION

3 WG FORM 29-1SEPT 55



ATTACHMENT 2

RADAR SITE Montauk, N. Y.

RAOB STATION Idlewild, N.Y.

DATE 20 Sept 57 TIME 1800Z

FORECASTER _____

P	T	T_d	H_t	B
1017	23	19	52	358
920	14	13	2850	348
904	16	14	5850	351
874	16	MSG (6)	4300	325
858	16	5	4860	323
820	13	-7	6000	306
850	15	+2	5060	317

Δi _____

Δh _____

ΔB _____

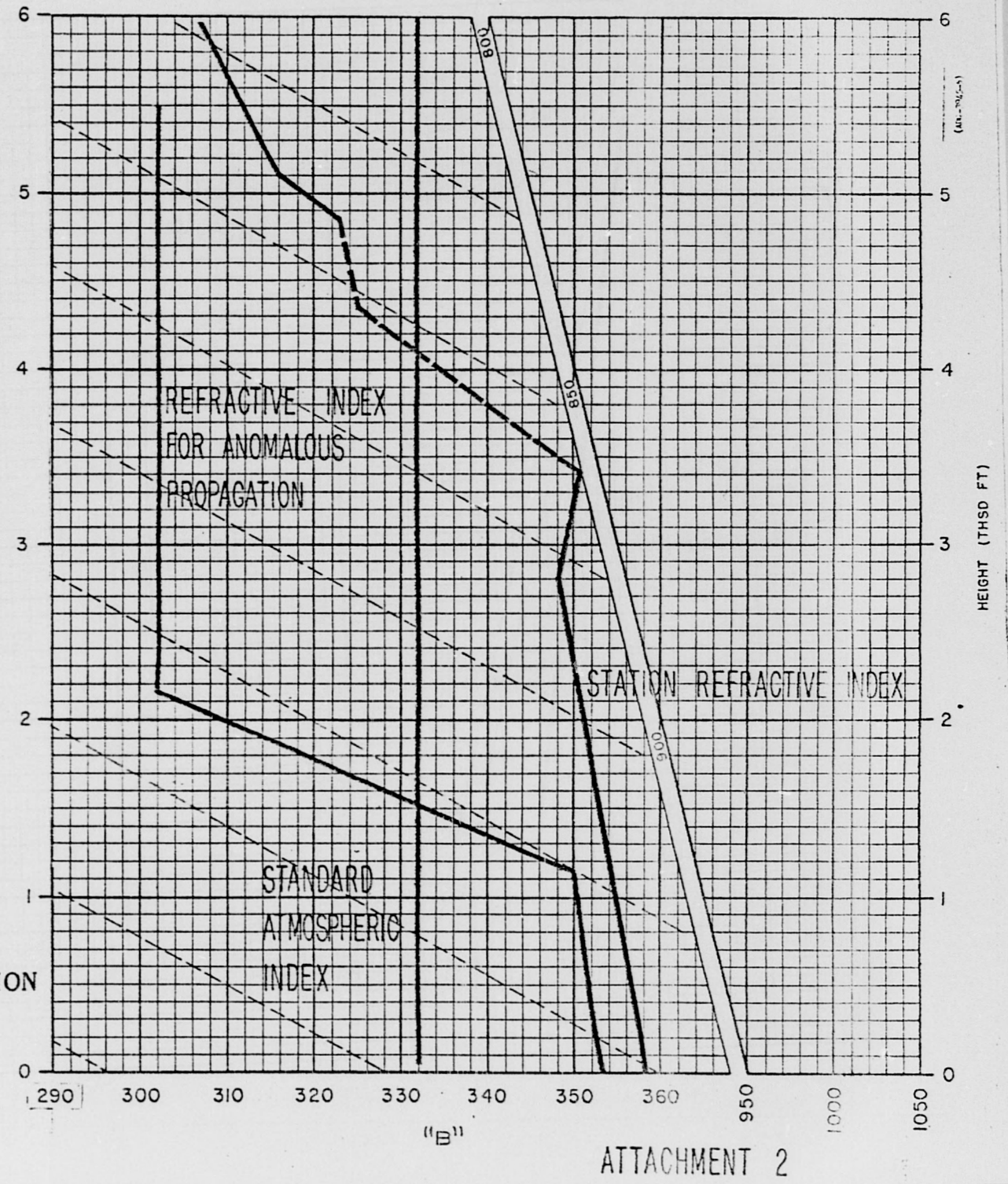
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FOR

ATMOSPHERIC INDEX OF REFRACTION

3 WG FORM 29-1SEPT 55



ATTACHMENT 2

MEMO R[illegible]ING SLIP — NEVER USE FOR APPROVALS, CONCURRENCES, OR SIMI[illegible]ACTIONS

	INITIALS		
1 NAME OR TITLE. Dr. Miley	JHM		CIRCULATE
ORGANIZATION AND LOCATION AFCIN-4E4	DATE 4 Feb 58	✓	COORDINATION
2 COL. GILBERT			FILE
AFCIN-4E			INFORMATION
3 MR. ARCIER			NECESSARY ACTION
AFCIN-4X1			NOTE AND RETURN
4 GEN. WATSON			SEE ME
AFCIN-4		✓	SIGNATURE

REMARKS

1. Attached draft of proposed letter to General Partridge was prepared in accordance with Gen. Watson's and Mr. Arcier's instructions.

2. By strange coincidence the attached press release arrived at the moment this was being forwarded, one month to the date of the original short memo submitted by the undersigned.

FROM NAME OR TITLE	DATE
Capt Gregory	3 Feb 1958
ORGANIZATION AND LOCATION AFCIN-4E4	TELEPHONE 6-9216

DD FORM 1 FEB 50 95 Replaces DA AGO Form 895, 1 Apr 48, and AFHQ Form 12, 10 Nov 47, which may be used.

☆ GPO : 1956—O-403461

RADAR SITE Claysburg, Pa.

RAOB STATION Pittsburgh, Pa.

DATE 20 Sept 57 TIME 1800Z

FORECASTER

P	T	T_d	H	B
975	20	19	1152	365
850	14	13	4980	353

h_1 _____

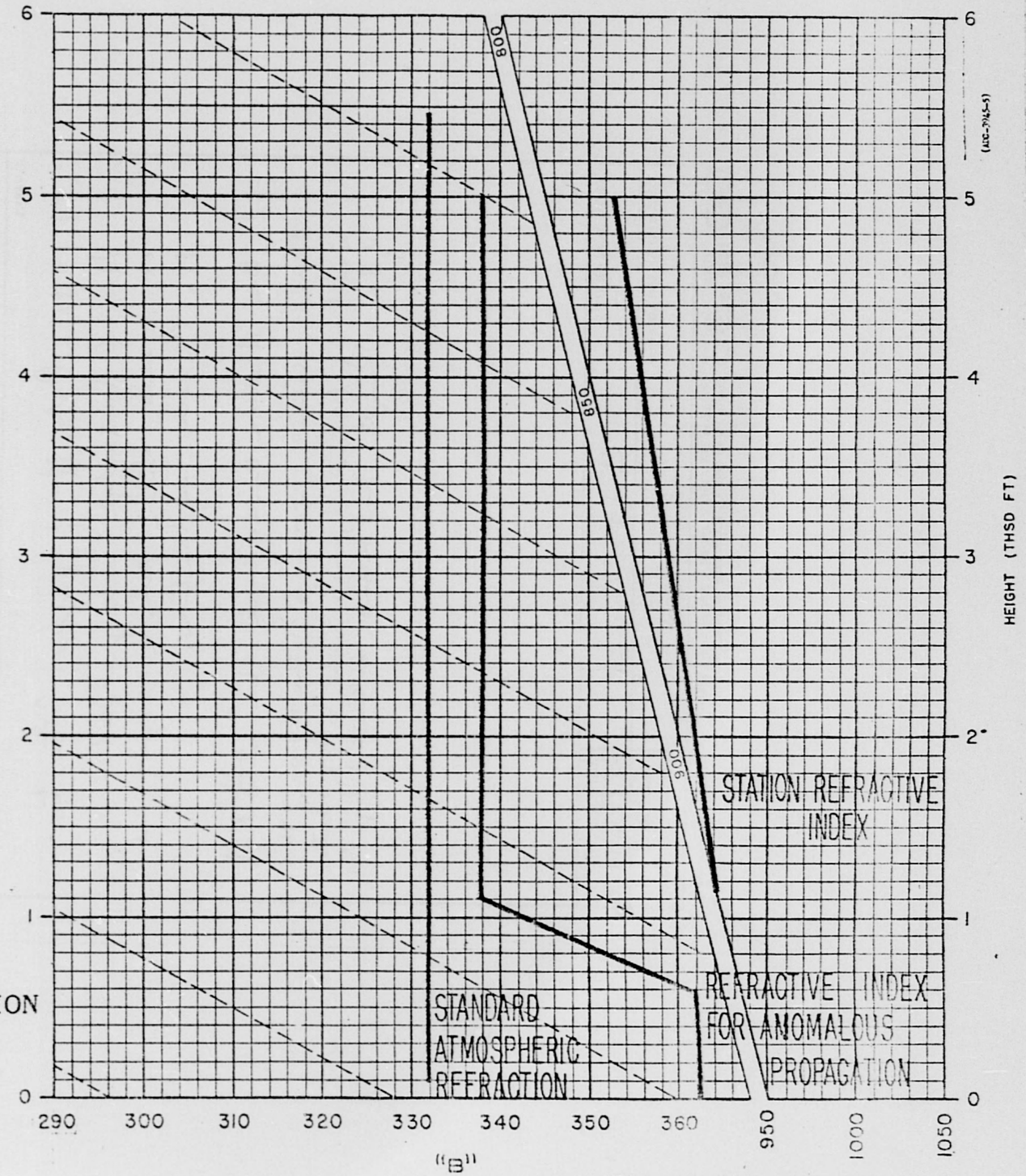
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COMPUTATION SHEET
FOR
ATMOSPHERIC INDEX OF REFRACTION

3 WG FORM 29-1SEPT 55



ATTACHMENT 2

WA42A

WITH DEENSE

WASHINGTON, FEB. 3--(UP)--STRATEGIC AIR COMMAND HAS BEEN ALERTED AT LEAST ONCE BECAUSE OF A RADAR REPORT OF UNIDENTIFIED SUPERSONIC PLANES APPROACHING THIS COUNTRY. THE REPORT TURNED OUT TO BE FALSE.

SEN. RALPH E. FLANDERS (R-VT.) TOLD ABOUT IT IN THE CENSORED ACCOUNT OF SENATE APPROPRIATIONS HEARINGS, MADE PUBLIC TODAY, ON THE $1,260,000,000 (B) SUPPLEMENTAL DEFENSE BILL.

THE SENATOR QUOTED GEN. THOMAS POWER, STRATEGIC AIR COMMANDER, AS SAYING THAT ON ONE OCCASION "APPARENTLY AUTHENTIC INFORMATION HAD COME FROM OUR RADAR STATIONS IN THE OCEAN AND CORROBORATED BY OUR RADAR STATIONS ON THE COAST, OF A FLEET OF PLANES TRAVELING AT 2,000 MILES AN HOUR HEADED FOR THE INTERIOR OF THIS COUNTRY."

"THE QUESTION WAS: WHAT SHALL WE DO ABOUT IT?" FLANDERS SAID.

"HE (POWER) SAID WAIT AND THEY WAITED, AND (THE REPORTED PLANES) DISAPPEARED INTO THIN AIR AFTER THEY HAD PASSED THE COAST.

"IT WAS ONE OF THESE UFO'S, UNIDENTIFIED FLYING OBJECTS, WHICH WERE DUE TO THE SENSITIVENESS OF THE RADAR AND NOT TO ANY ACTUAL EXISTING OBJECT."

JE136P

See date of receipt - on back.

WA42A

Our switch to the late date
the matter was formally brought to
the attention of [illegible]
that [illegible]
[illegible]

3 FEB 59

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NORAD Report on
this subject is
in Mr. Marion Lewis
for a briefing he is
to give Ben. Welsh
on the Incident

Will not back within 2 weeks
request report.

Reproduce it and give
copy to Special TE 2, Electron

Upon ret. of NORAD Report
Classify File [redacted]

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Classification Cancelled
(or changed to _____)
Auth. _____
By _____ Date 9

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MMCA063
FF RJEDSQ 13Jun 13 26
DE RJEPHQ 141
P 1315302
FM HEDUSAF WASH DC
TO CCHATIC WRIGHT PATTERSON AFB OHIO
BT
//C O N F I D E N T I A L//FROM AFCIN 52033
REFERENCE FORTHCOMING UFO BRIEFING OF CONGRESSMAN J. E. HENDERSON, FOR WHICH AFCIN-4E4 HAS PREPARED MATERIAL, SAFLL HAS REQUESTED THE ATTENDANCE OF AN AFCIN TECHNICAL CONSULTANT TO ANSWER QUESTIONS THAT MAY ARISE, PARTICULARLY CONCERNING THE FIVE TYPICAL UNKNOWN CASES. THE BRIEFING IS SCHEDULED FOR 16 JUNE. IT WILL BE INFORMAL, NOT IN THE NATURE OF ACONGRESSIONAL HEARING OR INVESTIGATION. ON SELECTIONOF AN ATIC REPRESENTATIVE, CONTACT MAJOR BYRNE, EXT. 74903, FOR FURTHER ARRANGEMENTS.
BT
13/1634Z JUN RJEPHQ

T5S-1441

[redacted]

UNCLASSIFIED

Classification Cancelled
(or changed to _____)
Auth. _____
By _____
Date 27 Jan 69

DOWNGRADED AT [illegible] YEAR INTERVALS;
DECLASSIFIED AFTER [illegible] YEARS.
DOD [illegible]

MEMO ROUTING SLIP	NEVER USE FOR APPROVALS, DISAPPROVALS, CONCURRENCES, OR SIMILAR ACTIONS		
1 NAME OR TITLE MR. ARCIER	INITIALS		CIRCULATE
ORGANIZATION AND LOCATION 4X-1	DATE 2/19		COORDINATION
2			FILE
			INFORMATION
3			NECESSARY ACTION
			NOTE AND RETURN
4			SEE ME
			SIGNATURE

REMARKS

1. Ref. our Conversation re obtaining info. for Gen. Walsh on the (alleged) Continuous UFO track from Martha's Vineyard — to Omaha Nebraska.

2. Regret to inform you that AOC "crossed" us up again. They're sending the info. apparently, by slow Mail.

3. Recommend that the Martha Vineyard [illegible] prepared for you be submitted to Gen. /over

FROM NAME OR TITLE	DATE
ORGANIZATION AND LOCATION	TELEPHONE

DD FORM 1 FEB 50 95 Replaces DA AGO Form 895, 1 Apr 48, and AFHQ Form 12, 10 Nov 47, which may be used.

☆ GPO : 1956—O-403461

W. as originally suggested by
you, with statement that the
data is being studied, Results
to be forthcoming within a
few days. (Keeping on fingers
crossed that the "All 1 to C" Dept
arrives within a reasonable
time.

Capt. Gregory

JOINT MESSAGEFORM

SECURITY CLASSIFICATION: UNCLASSIFIED

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

PRECEDENCE	TYPE MSG (Check)			ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
	BOOK	MULTI	SINGLE			
ACTION / INFO: PRIORITY			X	AF	ORIGINAL	

FROM:
CONDR ATIC

SPECIAL INSTRUCTIONS

Classification Cancelled (or changed to ____)
Auth. ____
By ____
Date 27 Jan 69

TO:
CONDR, ADC, ENT AFB, COLORADO SPRINGS, COLORADO
ATTN: SENIOR CONTROLLER

[redacted]/FROM: AFCIN-4B4

REQUEST INFORMATION AND DATA REGARDING UFO REPORTEDLY TRACKED BY RADAR FROM AREA NEAR MARTHA'S VINEYARD, MASS. TO SOME POINT IN VICINITY OF OMAHA, NEBRASKA. SPEED ESTIMATED AS 2000 MPH. ALSO REPORTED THAT TRACK PLOTS MADE OVER BUFFALO, NEW YORK, AND CHICAGO, ILLINOIS AS IT PASSED OVER THESE CITIES. THIS SIGHTING IS REPORTED AS A SINGLE, CONTINUOUS TRACK PLOT, AND BELIEVED TO HAVE TAKEN PLACE SOME TIME IN SEPTEMBER 1957.

THIS CENTER HAS NO OFFICIAL RECORD OF ANY SINGLE, CONTINUOUS UFO LONG TRACK PLOT OF THIS NATURE. REFERRED TO YOUR OFFICE UPON QUERY TO HEADQUARTERS SAC FOR PARTICULARS ON THIS CASE. DESIRE FOLLOWING BASIC INFORMATION:

1. WAS THIS A SINGLE, CONTINUOUS TRACK OF THE SAME OBJECT FROM POINT OF ORIGIN TO POINT OF DISAPPEARANCE OR A SERIES OF SEPARATE PLOTS MOVING IN SAME GENERAL DIRECTION, WITH ASSUMPTION THAT SOME[redacted]

1 2
4 4

DATE	TIME
17	1430
MONTH: FEB	YEAR: 58

WRITER	RELEASER
SYMBOL: AFCIN-4B4	SIGNATURE
TYPED NAME AND TITLE (Signature, if required)	TYPED (or stamped) NAME AND TITLE
PHONE [redacted] / PAGE NR. 1 / NR. OF PAGES 2	
SECURITY CLASSIFICATION: UNCLASSIFIED	

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DOD DIR 5200.10

DD FORM 1 MAY 55 173 REPLACES DD FORM 173, 1 OCT 49, WHICH WILL BE USED UNTIL EXHAUSTED

JOINT MESSAGEFORM - CONTINUATION SHEET

SECURITY CLASSIFICATION: UNCLASSIFIED

FROM:

COMAIR ATTIC

TRACK AND OBJECT?

2. HEADINGS, ALTITUDES AND SPEED?

3. TIME UFOS PICKED UP AND WERE DISAPPEARED?

4. MANNER OF APPEARANCE?

5. MANNER OF DISAPPEARANCE?

6. ACTION TAKEN TO IDENTIFY AND/OR INTERCEPT, WITH RESULTS?

7. IF IDENTIFIED AS AERONAUTICAL PHENOMENON, OR SPURIOUS BLIPS DUE TO TEMPERATURE, INVERSIONS, ELECTRONIC INTERFERENCE, RADAR SIMULATORS OR OTHER NATURAL PHENOMENA, GIVE DETAILS.

REQUEST EXPEDITED RESPONSE, AS INFORMATION REQUIRED FOR PART OF A USAF, ASSISTANT CHIEF OF STAFF REPORT.

COORDINATION:

AFCIN-4Ch Mr. I. A. Kelly DATE

AFCIN-4E Col L.K. Gilbert DATE

AFCIN-4Cl Mr. A. P. Ander DATE

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SYMBOL | PAGE NR | NR OF PAGES | SECURITY CLASSIFICATION [redacted] | INITIALS

DD FORM 1 MAY 68 173-1

U. S. GOVERNMENT PRINTING OFFICE: 1968—0612256

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3 }
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(or changed to _____)
Auth. _____
By _____
Date 27 Jan 69

FP RJEDSQ

DE RJEDDN 168

FMCOMDR ADC ENT AFB COLO

TO COMDR ATIC WPAFB OHIO

BT

/FRO ADODI-B 662 REFERENCE YOUR MESSAGE AFCIN-4E4 1C 40194, 18 FEBRUARY 1958. INVESTICATION OF THE INCIDENT OF 20 SEPTEMBER 1957 WAS CONDUCTED BY A HEADQUARTERS NORAD AD HOC COMMITTEE. INCIDENT DATA REQUESTED IS CONTAINED IN THE AD HOC COMMITTEE REPORT WHICH IS BEING FORWARDED TO YOUR HEADQUARTERS BY SEPARATE COVER THIS DATE.

BT

PARAPHRASE NOT REQUIRED EXCEPT PRIOR TO CATEGORY B ENCRYPTION—PHYSICALLY REMOVE ALL INTERNAL REFERENCES TO DATE-TIME GROUP PRIOR TO DECLASSIFICATION

Jac
T5 3
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Classification Cancelled
(or changed to UNCLAS)
Auth Lieutenant, LT Col, USAF
By DDRI (WLO)
Date 2 Jan 62
AFR 205-1, para 12b

Memo for Mr. Archer, AFCIN-X 1

Thru: Col. Gilbert, AFCIN-9E

Subject: Evaluation of Air Defense Radar UFO Incident - Requested by Gen. Walsh.

1 - Reference is made to Gen. Walsh's request to Gen. Watson regarding full particulars on a long-duration, potentially hostile, high speed tracks (reportedly) originating near Martha's Vineyard, Mass, passing over Buffalo, N.Y. Cleveland, Ohio and pointed towards SAC Headquarters at Omaha, Nebraska. The incident resulted in an immediate alert by ADC and SAC.

2. Attached is a detailed report of the incident, properly plotted, carefully analyzed and concluded. For purposes of contacting Gen. Walsh and presenting the incident in brief form, the following are submitted:

a. Track was picked up originally by the radar unit at Montauk N.Y. at 1906 Z time, 20 September 1957. It was picked by Benton, Pa. unit at 1918Z.

b. The radar units ~~(along the probable track line)~~ at Highlands, N.J., N. Truro, Mass, Lockport, N.Y. and Claysburg, Pa. were alerted, however, these units could not make contact with the supposed target.

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c. Two F-102 aircraft were scrambled from Kinross AFB (ADC) (Michigan) as well as two additional F-102s from Truax AFB (Wisconsin), the target was on a pre-plotted track in that direction. No contact made; nothing unusual found. Tracks faded at this point. (Significant to point out that the last observed track was in the vicinity of Benton, N.Y. and not in the vicinity of SAC HQs, as reported to ATIC). Weather conditions: overcast and rain.

d. [redacted] NORAD set up a radar team to study this incident, [redacted] including similar targets if they should appear.

e. On 25 September, the radar team noted a series of blips on the radarscope of the Montauk N.Y. Station, the unit originally reporting the tracks. The tracks were "quite exactly identical" to those of 20 September. [redacted] When the channel (frequency) was changed the blips disappeared. They reappeared when the previous channel was tuned in.

f. A check of the Benton, Pa. Unit disclosed that there were two SAC aircraft in the area which dropped "streams of radar chaff" near the station on 20 September 1258. It was also determined that the detection and characteristics of these targets were completely abnormal.

g. Other applicable units were checked.

3. Conclusions: In brief, the conclusions are as follows:

a. The information and data studied from all pertinent units appeared to be unrelated, and in fact contradictory to each other.

b. It was therefore impossible to draw any valid conclusions, although there appears no indication that [redacted]

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vehicles.

4. This report ~~[illegible]~~ has not been channeled through the Electronics Division, because of the urgent request that all results be brought immediately to your attention, for subsequent transmission to AFCIN. This report, in the opinion of the undersigned, should be of value to personnel involved in analyzing UFOs. It will, therefore, be reproduced and forwarded to AFCIN-4E1 for their possible guidance. (radar)

Incl.
1. [redacted] NORAD
Rept, Ev. of 20 Sept Incident.

George T. Gregory
Capt USAF
Air Sciences Division

CC. AFCIN-4E1
Attn: Col. Hoffman

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