1. DATE - TIME GROUP	2. LOCATION
13 Feb 53 13/0835Z	Carswell AFB, Texas

3. SOURCE

Civilian Man

4. NUMBER OF OBJECTS

Three

5. LENGTH OF OBSERVATION

10-15 Min.

6. TYPE OF OBSERVATION

Ground-Visual
Ground-Radar

7. COURSE

8. PHOTOS

☐ Yes
☒ No

9. PHYSICAL EVIDENCE

☐ Yes
☒ No

10. CONCLUSION

VISUAL - WAS AIRCRAFT. RADAR - GROUND TARGETS.
Evaluation: Possible ground clutter & F-86. Tempeture inversion excistent. Radar analyst stated that it had highly probably that blips were ground targets. VISUAL: It is believed that lights were from an a/c.

11. BRIEF SUMMARY AND ANALYSIS

Three bright lights were observed hovering in various formations during a period of 10-15 minutes. Objects were also picked up by radar on B-36 a/c, 2 minutes elapse between visual sighting and radar sighting.

FORM
FTD SEP 63 0-329 (TDE) Previous editions of this form may be used.

UNCLASSIFIED [redacted]

[redacted]

Multiple

13/0235

SUBJECT: Carswell AFB Radar Sites

TO: ATIAE-5
THRU: ATIAE

FROM: ATIAE DATE: 4 Aug 53 COMMENT NO. 2
ATIAE2/Mr. James/wh
65364/Bldg 268 A

1. Reference is made to the additional information mentioned in paragraph 1 of Comment No. 1. This information is quoted below:

"Blips were at extreme range of radar and operator could not tell whether they moved in range, but they did not move in azimuth. Blips did not change size. Blips disappeared into noise and did not reappear. Radar observers then attempted to pick them up on tail radar of another B-36 aircraft unsuccessfully. Returns of nearest blip were very sharp compared to B-36 target. Other blip was just above noise level of the radar."

2. The characteristics of the above signals are compatible with those of ground return. The inclosed weather information indicates that there was a temperature inversion at 1000 Mb pressure (near the earth) and at 890 Mb pressure. Also a rapid moisture lapse began at 890 Mb pressure.

3. It is considered that it is highly probable that the reported radar targets were ground targets.

4. This correspondence may be downgraded to CONFIDENTIAL upon removal of inclosure, in accordance with paragraph 25e, Air Force Regulation 205-1.

R. L. James

1 Incl
n/c

R. L. James
Chief, Radiation Section

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DOD DIR 5200.10

[redacted] UNCLASSIFIED

[redacted]

SECURITY CLA[illegible]CATION (If any)

[redacted]

UNCLASSIFIED

DISPOSITION FORM

FILE NO.	SUBJECT
	Carswell AFB Radar Sites

TO ATIAE-2 FROM ATIAE-5 DATE 27 Jul 53 COMMENT NO. 1

Lt Olsson/vs
65365/B263A/P A-12

1. Inclosed is a radar sighting on 13 Feb 53 from Carswell AFB, Texas, concerning radar blips picked up by B-36 tail radar. In a preliminary analysis of this report, your office stated that the radar information supplied was insufficient for you to analyze. For example, there was no indication that the targets observed on the APG-41 were moving targets. Project Blue Book has requested and received the additional information needed and incloses it herewith.

2. According to this information the targets in question were moving and also a certain amount of ground clutter or "noise" was present. Project Blue Book requests your office determine, in the light of the additional information you had requested, whether temperature inversion was present or any other phenomena known to you could have caused this sighting.

1 Incl
File dtd 13 Feb 53
Carswell AFB, Texas

for Max G. Futch, A/c
ROBERT M. OLSSON, 1st Lt, USAF
Chief, Aerial Phenomena Section
Electronics Branch
Technical Analysis Division

If inclosure 1 Is withdrawn (or not attached), the classification of ~~this~~ correspondence will be downgraded to Rest in accordance with paragraph 25E, AFR205-1.

3

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DOD DIR 5200.10

UNCLASSIFIED

DD [redacted] Y BE US [redacted] 16—54801-3 U. S. GOVERNMENT PRINTING OFFICE: 1952 O - 986875

CASE #24

13 Feb 53 Carswell AFB, Texas

At 0235 in the morning of 13 Feb 53, a civilian visually observed 3 very bright lights traveling across the sky over Fort Worth, Texas. The weather was clear and calm. These unidentified objects were traveling from ESE toward the observer at a moderate rate of speed. (Cruising speed of a F-86.) The 3 lights had the same intensity as the rotating beacon at Carswell AFB. All 3 lights were of similar intensity, and white in color except the center light which was bluish-green. These lights were observed for a period of 10-15 minutes until disappearing out of sight.

The lights were first observed approximately 500' apart and appeared stacked in vertical echelon. The light suddenly accelerated a distance of 1500' and came to a complete stop. In sequence the other 2 lights duplicated this maneuver. After assuming the original formation these lights repeated the same maneuver only ending up in horizontal echelon. These maneuvers appeared to take place over a distance of 2 miles and at an altitude at or below 4,000'. After the 3 lights came to a stand-still in a third maneuver they were arranged in a vertical echelon; then with the center light acting as a pivot the 2 outer lights maneuvered in a swinging motion resembling the motion of a kite's tail. The lights were next observered in a steep climb and attained an altitude of approximately 20,000' very rapidly.

A Radar technician then picked up blip on the tail radar of B-36 a/c. The lapse of time between visual and first radar sighting was estimated 2 minutes. The lights were observed at a maximum azimuth of 80 deg to the S, between 40-50 deg vertical angle, between 8-10,000 yards on etchings. On a 2-2½ multiplier, this distance would be approximately 16,000 yards.

Only two of the three original lights were observed on the radar. There was a considerable amount of "snow" but the closer blip was distinguished easily. A check for ground returns was made and none was received. An attempt was made to pick up these lights on 3 different radar sets of other a/c with negative results.

CASE #24 (contd)

Besides the original observerx, 8 other observers witnessed this incident. An Electronics Data Sheet was forwarded to Carswell AFB to be filled out so as to get technical information on radar.

The radar data contained in the report from Carswell AFB was not sufficient for analysis purposes. For instance, there was no indication that the targets observered on the radar set were moving targets. The weather data submitted indicated that there was xx a temperature inversion and a moisture lapse at about the time of the incident. This weather condition could cause radar ground clutter signals to appear above the horizon, although the report states that a check indicated no ground return signals were received. A wire was sent to Carswell AFB requesting information as to whether the objects moved or not. Radar operators at Carswell AFB stated that this was extreme range of radar and operator could not tell whether they moved in range but they did not move in azimuth. Also stated that blip did not change side. Blip disappeared into noise and did not reappear. Radar spe observers then attempted to pick them up on tail radar of another a/c. This attempt was unsuccessful.

ATIC Comment and Conclusion

From

Since the above stated information, there was a temperature inversion at the time of sighting and it is believed by ATIC analyststhat radar sighting was a temperature inversion or weather effects on radar and the visual sighting was an a/c flight.

UNCLASSIFIED

[redacted]

ER/jw

1443

HEADQUARTERS 19TH AIR DIVISION
Carswell Air Force Base
Fort Worth, Texas

7DI 350.09

- 6 JUL 1953

SUBJECT: Unidentified FLYOBRPT 13 February 1953

TO: Commander
Air Technical Intelligence Center
Wright-Patterson Air Force Base
Dayton, Ohio

1. Reference your letter AFOIN-ATIAE-5, 9 June 1953.

2. ATIC Form 332, forwarded to this headquarters by referenced letter, has been completed and is returned herewith as Inclosure #1.

FOR THE COMMANDER:

Carl T. Grounds

CARL T. GROUNDS
WOJG USAF
Ass't Adj.

1 Incl:
ATIC Form 332, completed
29 June 1953 (1 copy)

If inclosure no. 1 is withdrawn (or not attached) the classification of this correspondence will be downgraded to Unclassified in accordance with AFR 205-1.

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[redacted]

6897/70E

ACTION

[redacted]

1953 FEB 16 B 14 12 41 09:18

1956

RBØ91 O

JPB119

MAØ89

JYA2Ø4

WDA2Ø5

JWFQB AØ65

PP JEDMH JEDWP JEDEN JEPHQ 444

DE JWFQB Ø66

P 132335Z ZNJ

D2

DISPATCHED

UNCLASSIFIED

1. Ata
3 Ate
3 C files

ATIC

FM CGADIV 19 CARSWELL AFB TEX

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TO JEDMH/CGSAC OFFUTT AFB OMAH NEBR

JEN/CGAF 8 CARSWELL AFB TEX

JEPHQ /DIRECTOR OF INTEL HQ USAF WASHINGTON 25 DC

JEDWP /AIR TECH INTEL CENTER WRIGHT-PATTERSON AFB OHIO ATTN ATIAA2C

JEDEN/CG ENT AFB COLORADO SPRING COLO

[redacted]/7A2 644. FLYOBRPT. 3 BRIGHT LIGHTS WER FIRST VISUAL SIGHTING STACKED IN VERTICAL ECHELON HOVERING. SECOND VISUAL SIGHTING WAS HORIZONTAL ECHELON IN BROKEN FORMATION. THIRD SIGHTING WAS A VERTICAL ECHELON HOVERING WIHT LIGHTS MOVING AS INVERTED PENDULM. A FOURTH SIGHTING WAS MADE BY B-36 GL TAIL RADAR. SIGHTING S WERE MADE 13 FEB 53 BETWEEN Ø235 AND Ø3ØØ FOR A PERIOD OF 1Ø TO 15 MIN. THE OBS WAS AT CONVAIR E OF THE FLTLINE FACING ESE. RELIABLILTY OF OBS IS F-6. OBS WAS MR J V RUTH 12Ø5 GRACE ST WEATHERFORD TEX. WEATHER AND WIND CONDITIONS AT TIME WAS CLEAR. SHORTLY AFTER SIGHTING A B-36 APPROACHED FROM THE WEST.

14/Ø137Z FEB JWFQB

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[redacted]

IR-11-53

UNITED STATES

UNCLASSIFIED

0835 0900 Lunch

FLYOBRPT

TEXAS 7TH BOMB WING, CARSWELL AFB, TEXAS

13 February 1953 13 February 1953 F-6

2nd Lt Charles F. Springer Mr. J[redacted]; [redacted], Weatherford, Texas; Pho: [redacted]

AF Ltr 200-5; 19th AirDivision Message 7A2 644, DTG 132335Z Feb 53

F-6 answer

1. At 0235 on the morning of 13 Feb 1953, Mr [redacted] visually observed 3 very bright lights traveling across the sky over Fort Worth, Texas.

2. The lights were first observed approximately 500 feet apart and appeared stacked in vertical echelon.

3. The lights were next observed in a steep climb and attained an altitude of 20,000 feet very rapidly.

4. Mr [redacted] then picked up blips on the tail GL APG-41 Radar on B-36 aircraft 310, station 47, at Convair, Fort Worth Division.

5. Mr [redacted] observed only two of the 3 original lights on the APG-41. There was a considerable amount of "snow" but the closer blip was distinguished easily.

6. Besides Mr [redacted], 8 other members of Department 76 at Convair witnessed this incident.

APPROVED:

Edward Ratkovich

EDWARD RATKOVICH
Major, USAF
Director of Intelligence

1

Sketch of Radar Return (8 copies)

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6

FWB 23 12 12

[redacted] IL-11-53

UNCLASSIFIED

1. At 0235 on the morning of 13 Feb 1953, Mr [redacted] visually observed 3 very bright lights traveling across the sky over Fort Worth, Texas. The weather was clear and calm. These unidentified objects were traveling from east southeast toward the observer at a moderate rate of speed (cruising speed of an F-86). The 3 lights had the same intensity as the rotating beacon at Carswell AFB. All 3 lights were of similar intensity, and white in color except the center light which was bluish-green. These lights were observed for a period of 10 to 15 minutes until disappearing out of sight.

2. The lights were first observed approximately 500 feet apart and appeared stacked in vertical echelon. The lower light suddenly accelarated a distance of 1500 feet and came to a complete stop. In sequence the other two lights duplicated this maneuver. After assembling in original formation, these 3 lights repeated the same maneuver only ending up in horizontal echelon. These maneuvers appeared to take place over a distance of 2 miles and at an altitude at or below 4,000 feet. After the 3 lights came to a standstill in a third maneuver they were arranged in a vertical echelon; then with the center light acting as a pivot the 2 outer lights maneuvered in a swinging motion resembling the motion of a kite's tail.

3. The lights were next observed in a steep climb and attained an altitude of 20,000 feet very rapidly. (merely a visual estimate - not to be taken at face value)

4. Mr [redacted] then picked up blips on the tail (GL APG-41) radar on B-36 aircraft 310, station 47, at Convair, Fort Worth Division. The lapse of time between visual and first radar sighting was an estimated 2 minutes. The lights were observed at a maximum azimuth 80 degrees to south, between 45-60 degrees vertical angle, between 8-10,000 yards on etchings. On a 2-2½ multiplier, this distance would be approximately 16,000 yards. A sketch of the radar presentation received is attached as an inclosure. or approx. 9 miles away

5. Mr [redacted] observed only two of the 3 original lights on the (APG-41). There was a considerable amount of "snow" but the closer blip was distinguished easily. A check for ground returns was made and none was received. Mr Ruth attempted to pick up these lights on three different radar sets of other aircraft with negative results.

6. Besides Mr Ruth, 8 other members of Department 76 at Convair witnessed this incident. They are listed below.

Name	Address	Phone
[redacted]	[redacted]	
[redacted]	[redacted], Tex	NO 8432
[redacted]	[redacted], Tex	SU 5403
[redacted]	[redacted], Fort Worth, Tex	LA 0783
[redacted]	[redacted] Fort Worth, Tex	NO 4852
[redacted]	[redacted] Fort Worth, Tex	[illegible] 3558
[redacted]	[redacted], Fort Worth, Tex	WI 1300
[redacted]	[redacted], Fort Worth, Tex	

COMMENTS of preparing officer:

Mr Ruth is employed by Convair, Fort Worth Division, Department 76. His total radar experience is 4 years. He has approximately 3 months experience with the APG-41, 2½ years with the APG-32A on ship 34 from its engineering stage.

Charles F. Springer

CHARLES F. SPRINGER, 2nd Lt, USAF, Asst Opnal Intel

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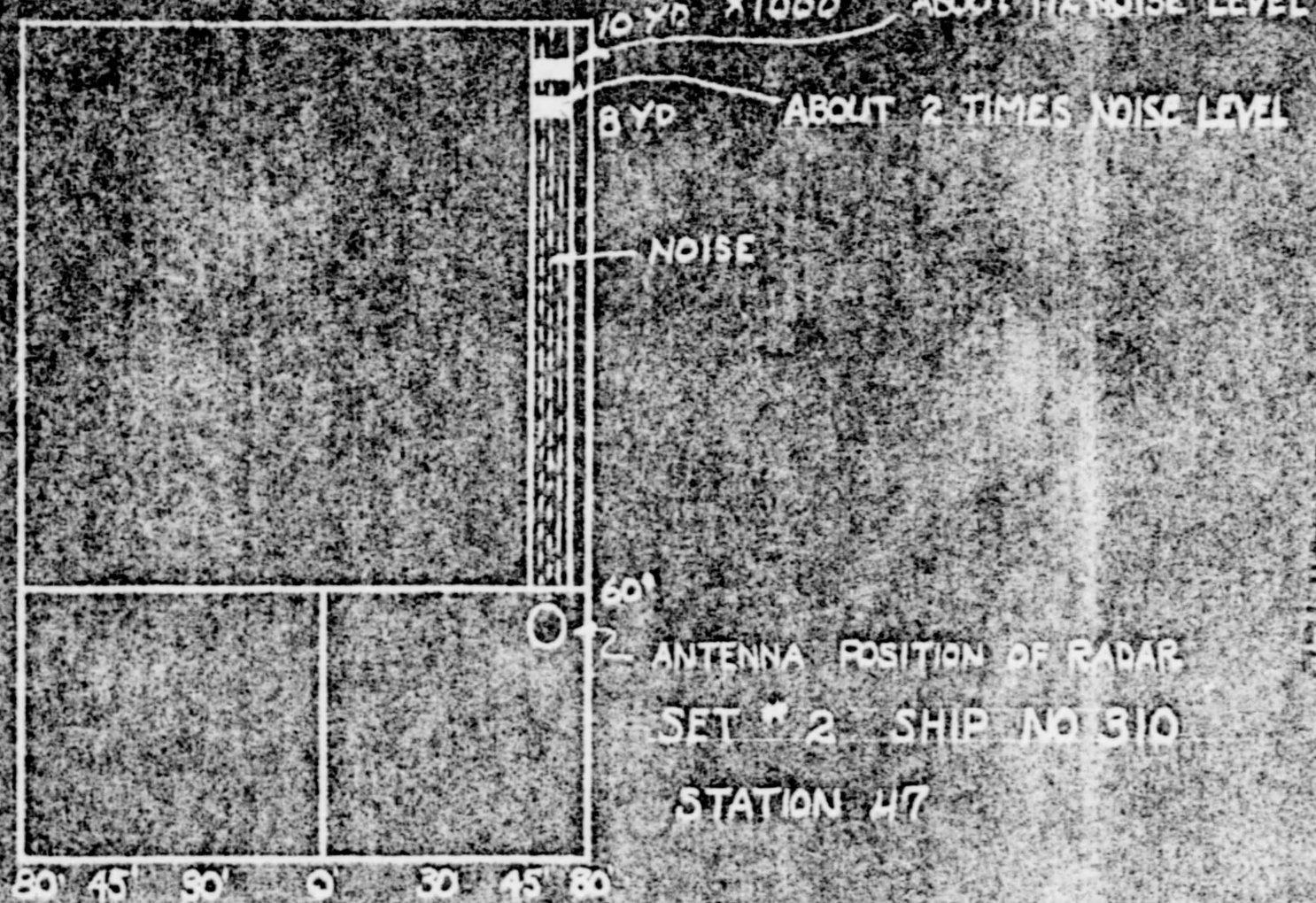
APG 41 IN TRACK WITH LR SWITCH ON



UNCLASSIFIED

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO. 1039
17/2242Z
2 M

UNCLASSIFIED

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

FROM: (Originator)

COMDR ATIC

TO:

COMDR CARSWELL AF BASE TEXAS

JWFQB

INFO:

DATE-TIME GROUP	
161845 Z JUL 53	[redacted]
PRECEDENCE FOR: ACTION ROUTINE	INFORMATION
☐ BOOK MESSAGE	☐ ORIGINAL MESSAGE
☐ MULTIPLE ADDRESS	CRYPTO-PRECAUTION ☐ YES ☒ NO
REFERS TO MESSAGE:	
IDENTIFICATION 7A2 644	CLASSIFICATION [redacted]

RESTRICTED

FROM: AFOIN-ATIAE-7-16-E FOR 19th Air Division

Reurmsg 7A2 644 0835Z 13 Feb 53, radar-visual sighting of unidentified objects. Mr. [redacted]y, and [redacted] making radar sighting from B-36. ATIC has received Electronics Data Sheet submitted by your Base. Additional questions which arise follow: 1) Were the 2 radar blips moving? 2) Did they change size rapidly? 3) If moving, was the speed variable? 4) Did they appear and disappear, then reappear at a new location? 5) Were they sharp returns compared to known aircraft targets? The above is needed to analyze radar portion of sighting.

In reply site Project Blue Book.

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OFFICIAL FILE COPY
ATIAE-5
Office of Record
Project 10073

COORDINATION:

ATIAE-5 R. Olsson DATE 16 July '53
Lt Olsson

ATIAE H. C. Johnston DATE 16 July 53
Lt Col Johnston

ATIA W. McDuffee DATE 16 July 53
Col McDuffee

[redacted] UNCLASSIFIED

SECURITY CLASSIFICATION [redacted] | PAGE 1 OF 1 PAGES

DRAFTER'S NAME (Signature, when required) R. Olsson
Lt R. M. Olsson/jos

RELEASING OFFICER'S SIGNATURE Barbara B. Hanawalt 2d Lt

SYMBOL ATIAE-5 | TELEPHONE 65365 | OFFICIAL TITLE ROBERT C. BROWN, Major, USAF
Adjutant

DD FORM 1 OCT 49 173 REPLACES NME FORM 173, 1 MAY 48, WHICH MAY BE USED.

9

16—58923-3 ☆ U. S. GOVERNMENT PRINTING OFFICE

COORDINATION

INSERT ORGNL CODE AND FULL SIGNATURE

[redacted]

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In reply refer to
AFOIN-ATIAE-5

R.M.OLSSON/jos/65365

9 JUN 1953

SUBJECT: (Uncl) Unidentified FLYOBRPT 13 February 1953

TO: Commanding Officer
19th Air Division
Carswell Air Force Base
Fort Worth, Texas

1. Your station's unidentified object report involving radar detection for the above date has been received by the Air Technical Intelligence Center and reviewed by its electronics personnel.

2. It was found that insufficient radar data existed for an explanation of this sighting and, therefore, ATIC is forwarding the inclosed Electronics Data Sheet. This Center realizes that the subject sighting took place four months ago; however, if the radar personnel involved can remember the facts of the sighting, ATIC requests that they fill out this form.

3. With the information provided by this form the Air Technical Intelligence Center feels that a logical explanation can be made for the incident.

FOR THE COMMANDING GENERAL

1 Incl
Elec Data Sheet

BARBARA P. HANAWALT
1st Lt, USAF
Asst. Adjutant

COORDINATION:

ATIAE-5
Lt Olsson R M Olsson Date 5 June 53

ATIAE
Lt Col Johnston H.G. Johnston DATE 5 June 53

ATIA
Col McDuffee Joseph A Calhoun DATE 5 June 53

ATIG
Lt Hanawalt _____ DATE _____

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[redacted]

DESIGNATE AUTHD OFFICE OF RECORD

[redacted]

OFFICIAL FILE COPY

AMC Form 8 (Rev 17 May 50) Supersedes AMC Form 8, Rev 1 Apr 48, which will be used. Air Force-WPAFB-L-23 JUL 52 3600M

[redacted]

UNCLASSIFIED

ELECTRONICS DATA SHEET
(GROUND RADAR)

The purpose of this questionnaire is to provide technical data for evaluating the report of an unusual radar target or track. It is requested that it be completed as accurately as possible.

When not filled in, the form is Unclassified. The reporting officer will use his own judgement as to what degree of classification is required.

It is preferred that the answers to the questions be typewritten, however, if it will expedite the completion of the form, the answers may be printed in ink. If additional space is needed, use reverse side of form.

1. STATION OBSERVING TARGET:
CONVAIR ACFT PLANT
Organization
FORT WORTH, TEXAS
Location

2. DATE OF THIS REPORT:
29 (Day) June (Month) 1953 (Year)

3. DATE TARGET OBSERVED:
13 (Day) FEB (Month) 53 (Year) Local Time ☐ Z Time ☐
Time-Local 0235 CST Time-Z 0835

4. NAME, RANK AND ORGANIZATION OF REPORTING OFFICER:
THOMAS SMITH, CAPT
Hq Sq 7th BOMB WG
CARSWELL AFB, TEXAS

5. EXACT LOCATION OF STATION (COORDINATES):

6. OBSERVER DATE (LIST EACH OBSERVER):

	Name	Rank	Duty	No. of Years Exp. in Radar
A.	[redacted]	CIVILIAN	ELECTRONIC TECH	4 yrs
B.	[redacted]	CIVILIAN	" "	2 yrs
C.	[redacted]	CIVILIAN	ARMAMENT INSPECTOR	2 yrs
D.				
E.				

7. WAS A VISUAL SIGHTING MADE BY ANY PERSONNEL OF THE STATION? ☑ YES ☐ NO
IF SO, GIVE NAME AND RANK OF ALL PERSONNEL MAKING A VISUAL SIGHTING AND A BRIEF DESCRIPTION OF WHAT THEY SAW: [redacted]r; [redacted]; [redacted]g; J[redacted]; [redacted] and [redacted], all Third Shift workers at Convair Aircraft Plant, FortWorth Division, Texas.

Approx 0235 Hrs CST, 13 Feb 53, observers saw three bright lights in the sky at a distance of approx 2 miles and altitude between 1,000 and 4,000 feet. The lights were stacked vertically and moved from SE to SSE direction, with the outer two lights occasionally shifting position so that they appeared to swing like a pendulum on the center light. They gained altitude as they moved and suddenly appeared to accelerate at a tremendous speed away from the observers and disappeared. The outer lights were greenish-cast in color and the center light was white. No sound was heard. The weather was CAVU at time of sighting.

ATIC FORM 332 (REVISED 25 NOV 1952)

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[redacted]

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Action ATIC

[redacted]

2. Atic
3.
4. R. File

1953 JUL 22 08:41

JEDMH A12
JWFQB 120
RR JEDWP
DE JWFQB 09C

UNCLASSIFIED

PARAPHASE NOT REQUIRED. SEE CRYPTO-CENTER BEFORE DECLASSIFYING

DM

FM COMDRADIV 19 CARSWELL AFB TEX
TO COMDR ATIC WRIGHT PATTERSON AFB DAYTON OHIO
[redacted] 7DI 1416. PROJ BLUE BOOK, REF URMSG AFOIN-ATIAE-7-16-E. REQD INFO IS AS FOL. BLIPS WERE AT EXTREME RANGE OF RADAR AND OPR COULD NOT TELL WHETHER THEY MOVED IN RANGE BUT THEY DID NOT MOVE IN AZIMUTH. BLIPS DID NOT CHANGE SIZE. BLIPS DISAPPEARED INTO NOISE AND DID NOT REAPPEAR. RADAR OBS THEN ATTEMPTED TO PICK THEM UP ON TAIL RADAR OF ANOTHER B-36 ACFT UNSUCCESSFULLY. RETRNS OF NEAREST BLIP WERE VERY SHARP COMPARED TO B-36 TGT. OTHER BLIP WAS JUST ABOVE THE NOISE LEVEL OF THE RADAR.
JUL JWFQB

[redacted]

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10

T53-8472-

[redacted]

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8. HAVE YOU HEARD OF ANYONE NOT AT THE RADAR STATION MAKING A VISUAL SIGHTING AT APPROXIMATELY THE SAME TIME THE RADAR CONTACT WAS MADE? ☐ YES ☒ NO
IF SO, GIVE NAME AND ADDRESS.

9. RADAR SCOPE PHOTOS:
IS RADAR EQUIPPED WITH A SCOPE CAMERA? ☐ YES ☒ NO
WAS CAMERA OPERATIONAL? ☐ YES ☒ NO
WERE SCOPE PHOTOS TAKEN? ☐ YES ☒ NO
WERE PRINTS OF THE SCOPE PHOTOS FORWARDED TO THE AIR TECHNICAL INTELLIGENCE CENTER? ☐ YES ☒ NO

10. TRACK DATA:
WHAT WAS THE NUMBER OF THE TRACK? _____
WAS A PERMANENT PLOT MADE OF THE TRACK AT THE TIME OF THE OBSERVATION? ☐ YES ☒ NO

11. WERE AIRCRAFT SCRAMBLED TO INTERCEPT THE TARGET? ☐ YES ☒ NO
IF SO, WERE THE AIRCRAFT BEING OBSERVED ON THE SCOPE AT THE SAME TIME AS THE TARGET? ☐ YES ☒ NO

12. WERE ANY NEARBY RADAR INSTALLATIONS QUERIED WHETHER THEY HAD OBSERVED THE SAME TARGET OR TRACK? ☒ YES ☐ NO
IF SO, WHICH STATIONS? Carswell AFB GCA. This radar was not operating at the time of sighting.

13. WAS THE TARGET OBSERVED ON SEARCH RADAR? ☒ YES ☐ NO
IF SO, WHAT IS THE NOMENCLATURE OF THE EQUIPMENT? APG-41A Gunlaying Radar (Tail-mounted on B-36 acft)

14. WAS THE TARGET OBSERVED ON HEIGHT FINDING RADAR? ☐ YES ☒ NO
IF SO, WHAT IS THE NOMENCLATURE OF THE EQUIPMENT? _____

15. HAVE THERE BEEN ANY RECENT MAINTENANCE DIFFICULTIES? ☐ YES ☒ NO
IF SO, DESCRIBE. _____

16. WHAT TYPE MODULATOR (I.E., SPARK GAP, HARD TUBE, ETC.) IS USED IN THE RADAR EQUIPMENT?
Hard Tube

17. WAS THE AFC (AUTOMATIC FREQUENCY CONTROL) CIRCUIT OPERATING PROPERLY? ☒ YES ☐ NO
COMMENTS: _____

18. HAS INTERFERENCE FROM ANOTHER RADAR SET BEEN OBSERVED RECENTLY: ☐ YES ☒ NO
COMMENTS: _____

ATIC FORM 332 (REVISED 25 NOV 1952)

[redacted]

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[redacted]

UNCLASSIFIED

19. ARE PERSONNEL FAMILIAR WITH THE EFFECTS CAUSED BY AN INTERFERING SIGNAL? ☑ YES ☐ NO
COMMENTS:

20. ARE PERSONNEL FAMILIAR WITH THE EFFECTS OF ANOMALOUS PROPAGATION (DUCTING EFFECTS) AS THEY PERTAIN TO THIS TYPE OF RADAR? ☑ YES ☐ NO

21. HAS ANOMALOUS PROPAGATION (DUCTING EFFECT) BEEN OBSERVED TO EXTEND THE RANGE OF THE GROUND CLUTTER OF THIS RADAR AT THIS SITE? ☐ YES ☑ NO
COMMENTS:

22. WAS ANOMALOUS PROPAGATION (DUCTING EFFECT) EXTENDING THE RANGE OF THE GROUND CLUTTER AT THE TIME THE TARGET WAS OBSERVED? ☐ YES ☑ NO
COMMENTS:

23. HOW DID THE TARGET APPEAR IN SIZE AND SHAPE AS COMPARED TO CONVENTIONAL AIRCRAFT TARGETS?
About three times the size of a B-36.

24. PERFORMANCE OF TARGET:

a. REMAINED CONSISTENT IN SIZE	☑	CHANGED SIZE RAPIDLY	☐
b. SPEED WAS CONSTANT	☐	SPEED WAS VARIABLE	☐
c. FOLLOWED CONSISTENT TRACK	☑	APPEARED, DISAPPEARED, THEN REAPPEARED IN NEW LOCATION	☐
d. FUZZY COMPARED TO AIRCRAFT TARGET	☐	SHARP COMPARED TO KNOWN AIRCRAFT TARGET	☐
e. SAME AS AIRCRAFT TARGET	☑		

25. WERE OTHER TARGETS (KNOWN) OBSERVED IN THE SAME GENERAL AREA, AT APPROXIMATELY THE SAME TIME AND AT THE SAME ALTITUDE AS THE UNUSUAL TARGET? ☐ YES ☑ NO
IF SO, DESCRIBE.

26. WHAT TYPE INDICATORS ("A" SCOPE, "B" SCOPE, ETC.) WERE USED TO FOLLOW THE TARGET?
"B" scope

DESCRIBE THE SIGNAL: Two blips.

27. WHAT WAS THE RADAR SCAN RATE? 1 cycle in 3 seconds.

28. WHAT WAS THE FREQUENCY OF THE TRANSMITTER?
9245 Mcs

29. DID ANY OF THE OBSERVERS HAVE ANY OPINIONS AS TO THE NATURE OF THE TARGET? ☐ YES ☑ NO
IF YES, GIVE THEIR NAMES AND OPINIONS BELOW.

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ATIC FORM 332 (REVISED 25 NOV 1952)

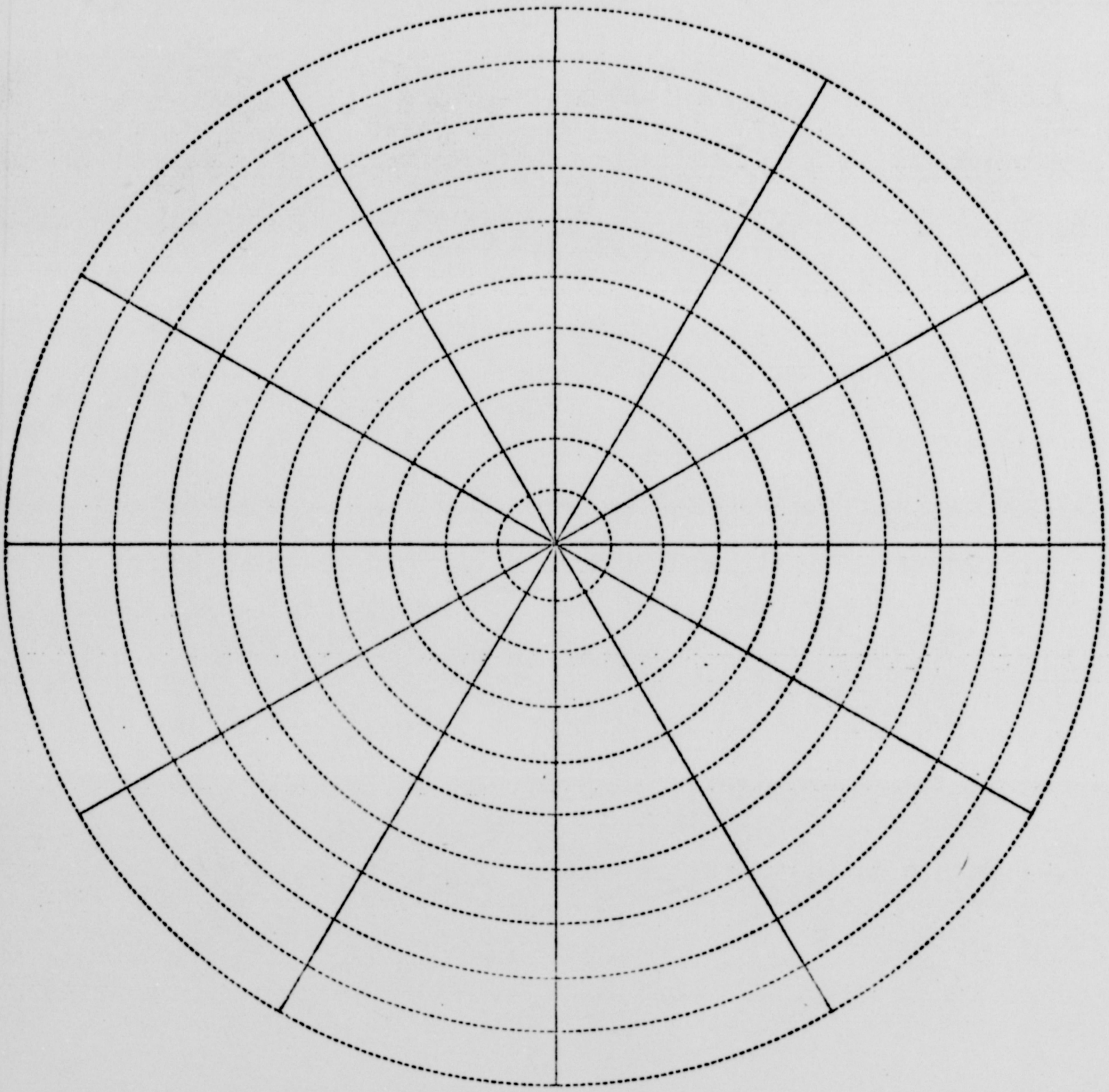
[redacted]

UNCLASSIFIED

[redacted]

UNCLASSIFIED

30. IF SCOPE PHOTOS ARE NOT AVAILABLE, PLOT THE TARGET TRACK AS ACCURATELY AS POSSIBLE. GIVE THE TIME AND ALTITUDE (IF MEASURED) FOR EACH POINT PLOTTED. PUT THE NECESSARY RANGE SCALE ON THE DIAGRAM.



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

UNCLASSIFIED

[redacted]

[redacted]

UNCLASSIFIED

31. USE THIS SHEET FOR ANY COMMENTS, OPINIONS OR ADDITIONAL DATA NOT COVERED BY THE QUESTIONS.

1. Visual observation was made of the target by the radar observers prior to observation on the APG-41A. And visual observation was being made at the same time as the radar observations. Azimuth of target was the same in both cases, and observers are certain that the visual target and radar target were the same object.

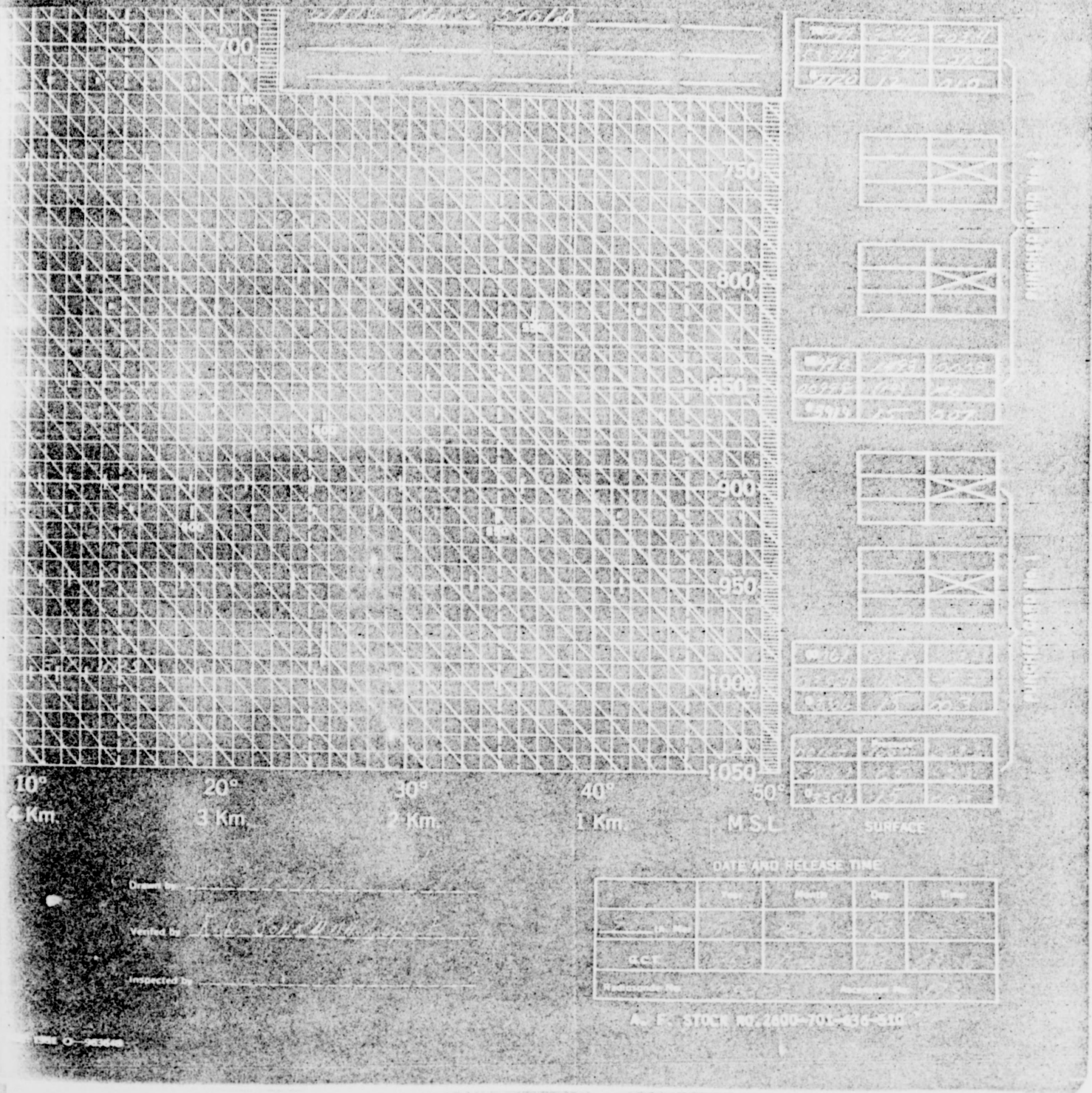
DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS,
DOD DIR 5200.10

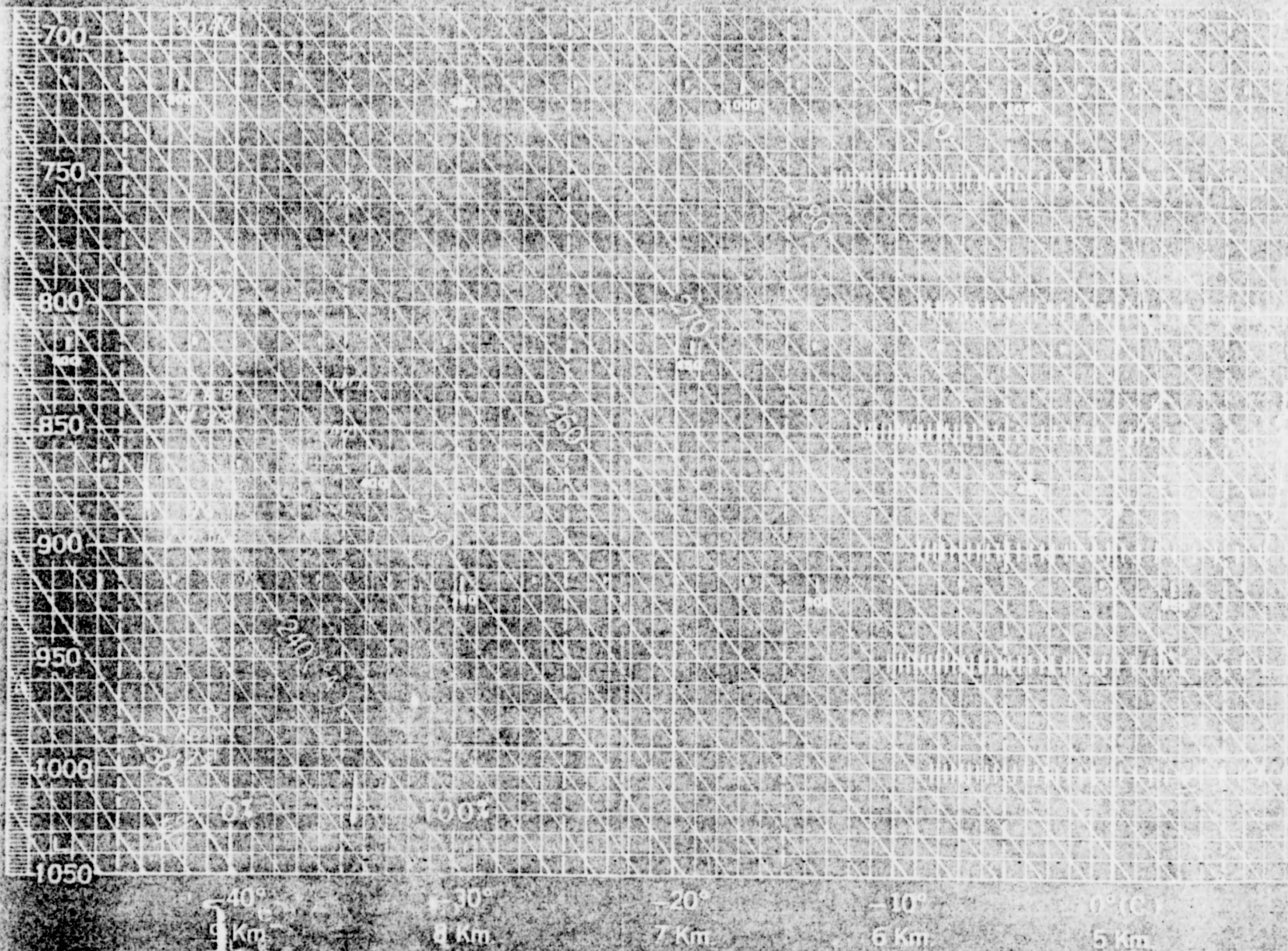
UNCLASSIFIED

ATIC FORM 332 (REVISED 25 NOV 1952)

[redacted]

UNCLASSIFIED


700
750
800
850
900
950
1000
1050
10°
20°
30°
40°
50°
4 Km.
3 Km.
2 Km.
1 Km.
M.S.L.
SURFACE
DATE AND RELEASE TIME
Verified by
Inspected by
GCT



Station SWELL AIR FORCE BASE

Lat. 32° 46' N. Long. 97° 2 1' W

DATA AS TRANSMITTED	D.P. TO 0.1°C OTHER DATA AS ENTERED ON WBAN-33 OR PUNCHED CARD.	
QQ hhh	H (gpm)	T
TTdTe	RH	D.P.
Odddff	D (16 pts.)	S (m.p.s.)

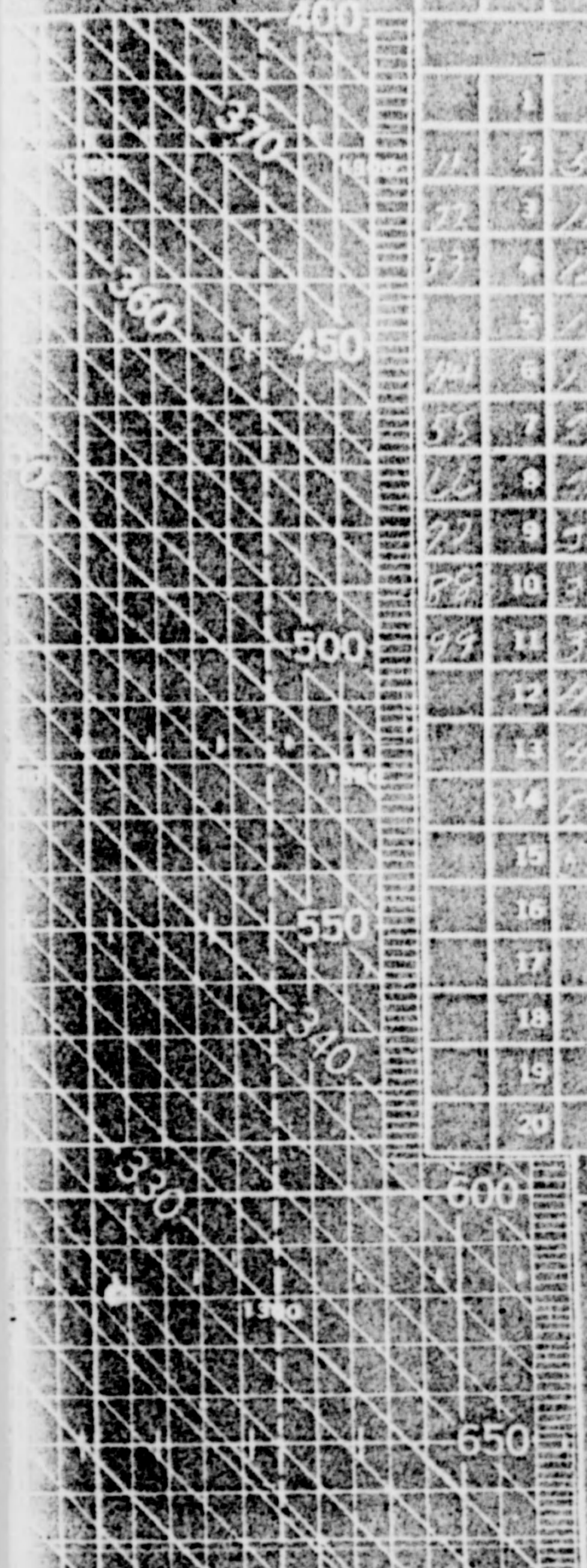
PH – Pressure Height

T – Temperature °C

RH – Relative Humidity

CHART ML-425/UM
1 AUG 1951 - SIG C STOCK NO. 7A507-425. REPLACES CHART ML-425/UM, 1 SEP 49, WHICH MAY BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE



DATA BLOCK A

Code Group	Level No.	Pressure: Contact	Pressure: mb.	Temperature: Ordinate	Temperature: Ascent (°C)	Relative Humidity: Ordinate	Relative Humidity: % Including Correction of ...	Dew Point: °C	Remarks
SIGNIFICANT LEVELS									
	1		[illegible]		[illegible]		[illegible]	[illegible]	
11	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
22	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
33	4	[illegible]	[illegible]	[illegible]	0.6	[illegible]	[illegible]	18.3	
	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
44	6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
55	7	[illegible]	[illegible]	[illegible]	0.6	[illegible]	[illegible]	[illegible]	
66	8	[illegible]	[illegible]	[illegible]	3.1	[illegible]	[illegible]	[illegible]	
77	9	570	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-18.5	
88	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.5	[illegible]	
99	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	16								
	17								
	18								
	19								
	20								

CODED MESSAGE FOR TRANSMISSION

[illegible]	20101	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	03414
[illegible]	57847	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	88120

CONSTANT PRESSURE DATA

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

PUNCHED CARD COLUMNS

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

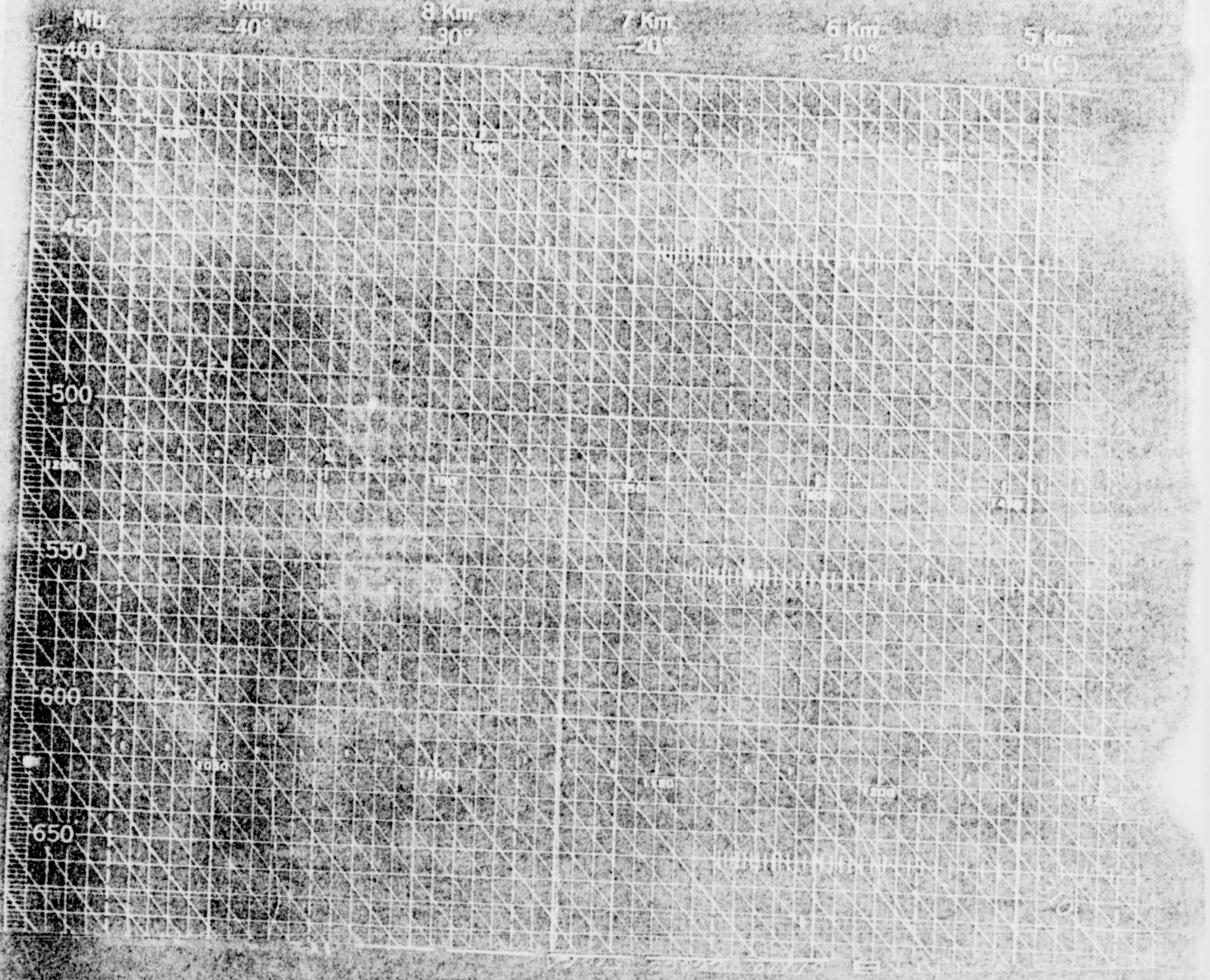
PUNCHED CARD No. 1

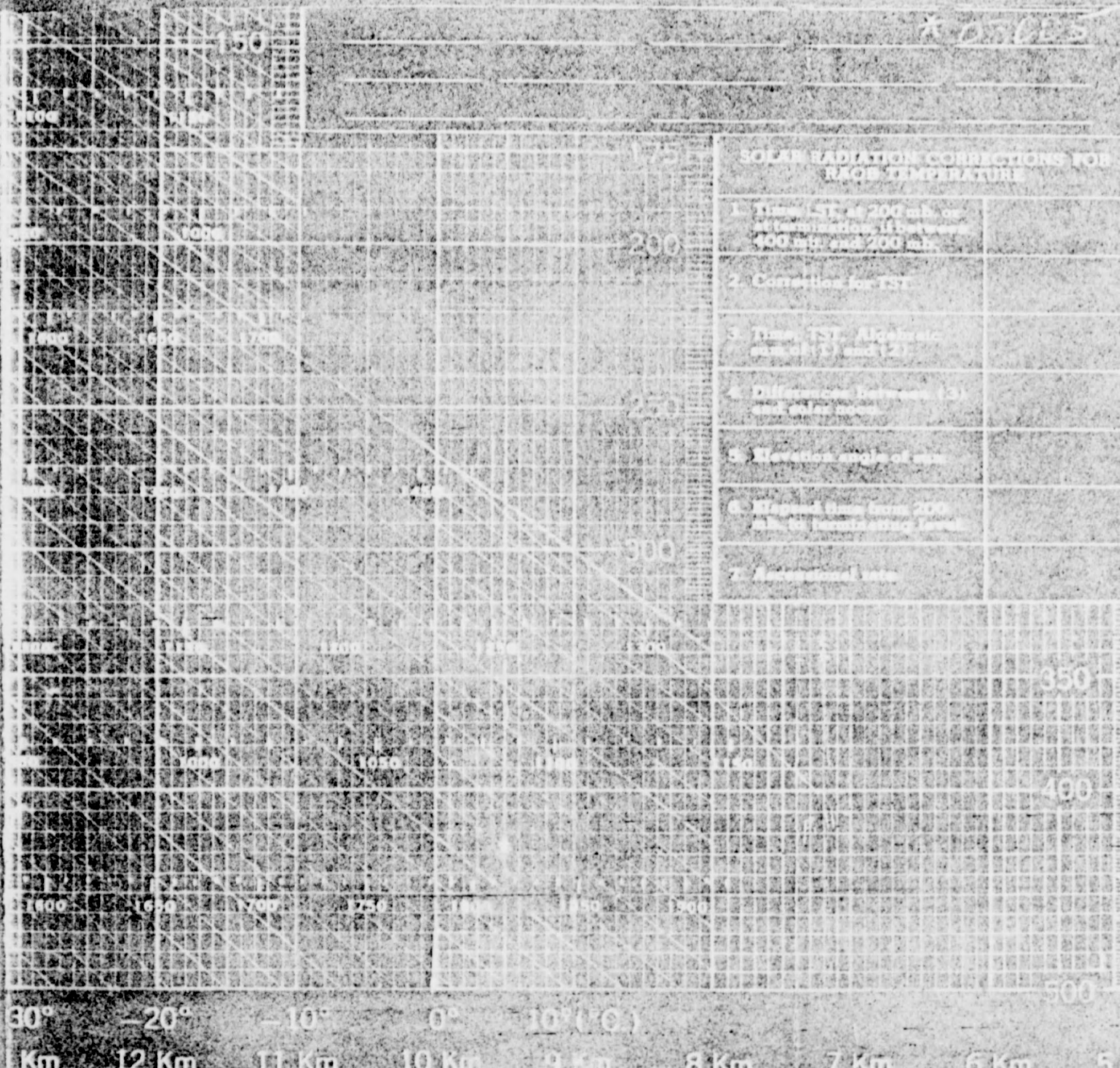
BASELINE CHECK READINGS

Time G.C.T.	TEMPERATURE			RELATIVE HUMIDITY			
	Ordinate	Dry	Wet	Ordinate	Raob	Cor	Psychrometer
			°F		%	%	Ice
			°C				Water

ADIABATIC

WBAN-31





SOLAR RADIATION CORRECTIONS FOR RAOB TEMPERATURE

1. Time, LST, at 200 mb. or at termination, if between 400 mb. and 200 mb.	
2. Correction for TST.	
3. Time, TST. Algebraic sum of (1) and (2).	
4. Difference between (3) and solar noon.	
5. Elevation angle of sun.	
6. Elapsed time from 200 mb. to terminating level.	
7. Ascensional rate.	

PUNCHED CARD No. 5

PUNCHED CARD No. 4

DATE AND RELEASE TIME

	Year	Month	Day	Time
[illegible] Mer.				
G.C.T.				
Radiosonde No.		Ascension No.		

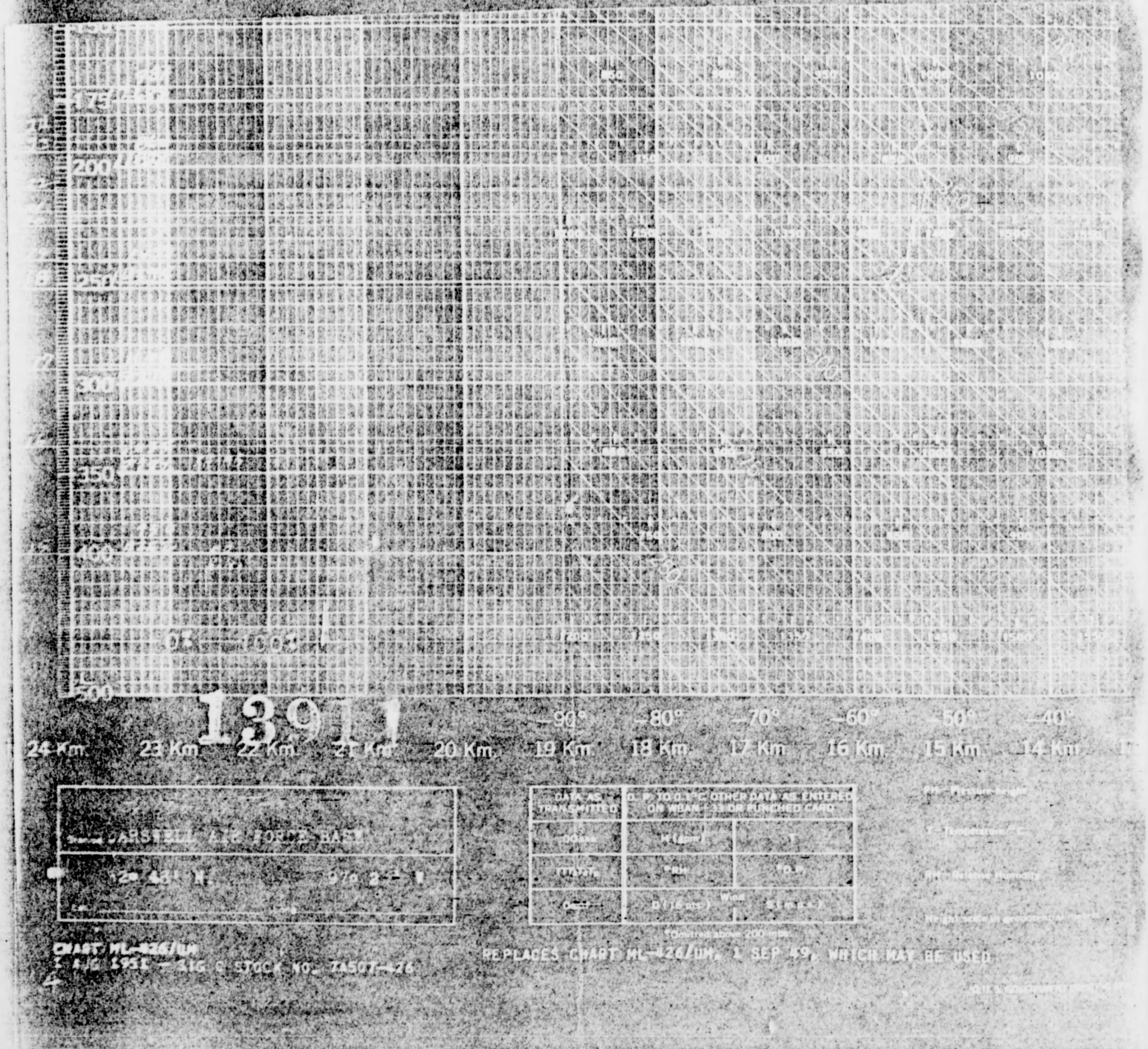
Drawn by ______

Verified by ______

Inspected by ______

1951 O—963645

A. F. STOCK NO. 2600-701-636-515


13911
-90°
-80°
-70°
-60°
-50°
-40°
24 Km
23 Km
22 Km
21 Km
20 Km
19 Km
18 Km
17 Km
16 Km
15 Km
14 Km
DATA AS TRANSMITTED
OTHER DATA AS ENTERED ON WBAN 33 OR PUNCHED CARD
CHART ML-426/UM
REPLACES CHART ML-426/UM, 1 SEP 49, WHICH MAY BE USED

-30°

900

850

800

750

700

650

600

1600

1800

1700

100

125

DATA BLOCK B

Code Check	Level No.	PRESSURE Contact	PRESSURE mb.	TEMPERATURE Ordinate	TEMPERATURE Ascent (°C)	TEMPERATURE Correction	TEMPERATURE Corrected	RELATIVE HUMIDITY Ordinate	RELATIVE HUMIDITY Including Correction of	DEW POINT °C	REMARKS
SIGNIFICANT LEVELS											
	[illegible]			212							
	11	[illegible]		6	[illegible]						
08	9	206	[illegible]	[illegible]							
	19	224	[illegible]	139	[illegible]						
	20	245		141							
11	21	277	[illegible]	142							
	22	286		150							[illegible]
	23	225	[illegible]	160							(C3)
22	24	1350	[illegible]	150			[illegible]	13	49	[illegible]	[illegible]
	25	1050	[illegible]	130			[illegible]	10	47	[illegible]	48
	26	1060	[illegible]	[illegible]			[illegible]	13	44	[illegible]	41
	27	1110	[illegible]	10	[illegible]			13.6	38	[illegible]	41
33	[illegible]	1140	[illegible]	[illegible]			[illegible]	10	37	[illegible]	23
44	[illegible]	1164	[illegible]	7	[illegible]						
55	30	1190	[illegible]	[illegible]							
66	[illegible]	[illegible]			[illegible]						
77	[illegible]	[illegible]	[illegible]								
88	[illegible]										
99		[illegible]		[illegible]							
				[illegible]							

CODED MESSAGE FOR TRANSMISSION

[illegible]

CONSTANT PRESSURE DATA

PUNCHED CARD No. 8

PUNCHED CARD No. 7

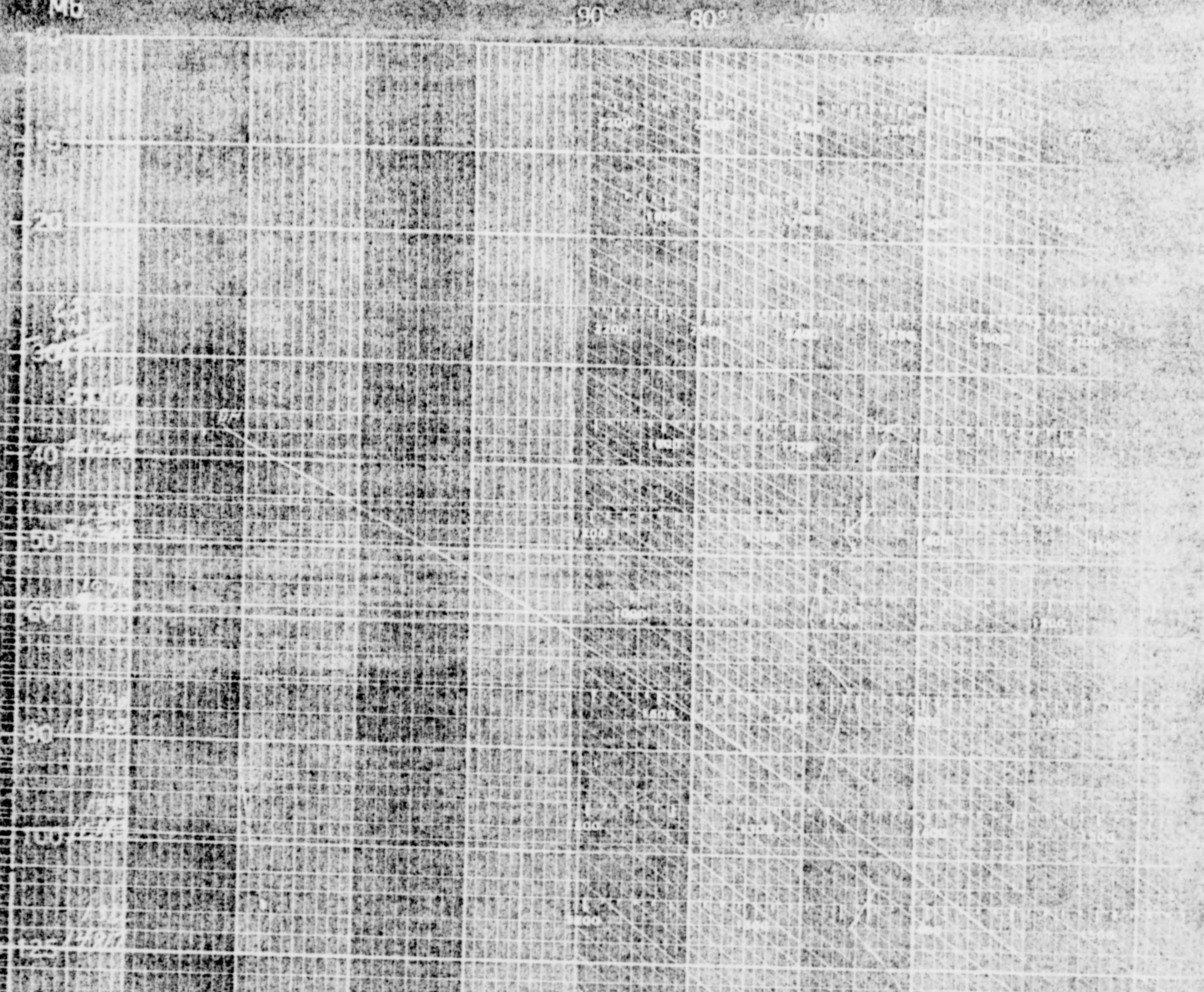
10

0

PUNCHED CARD No. 6

ADIABATIC CHART

WBAN-31B



This case includes two (2) 16" x 16" ~~photographic~~ charts.