1. DATE - TIME GROUP 23 May 53 23/1543Z	**2. LOCATION** Lackland AFB, Texas
3. SOURCE Military	**10. CONCLUSION** AIRCRAFT
4. NUMBER OF OBJECTS More than 5	Wire requesting AF Form 112 and Elect Data Sheet sent for more information. Aircraft F-47 (Mexico) engaged in cloud seeding.
5. LENGTH OF OBSERVATION 1 Hour 5 Minutes	**11. BRIEF SUMMARY AND ANALYSIS** A number of blips appeared on radar screen traveling in a N direction for 40 or 50 miles and then began to orbit. Object appeard to be at an estimated altitude of 35,000 ft.
6. TYPE OF OBSERVATION Ground-Radar	
7. COURSE North	
8. PHOTOS ☐ Yes ☒ No	
9. PHYSICAL EVIDENCE ☐ Yes ☒ No	

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

AF FORM 112
APPROVED 1 JUNE 1948

[redacted] UNCLASSIFIED Hqtrs Air A Mexico
Class Off
26 Aug 1953

COUNTRY	REPORT NO.	(LEAVE BLANK)
Mexico Multiple	IR-324-53	AF-579390 6

AIR INTELLIGENCE INFORMATION REPORT

ATIC

SUBJECT
Unidentified Aerial Objects 23 of 43 CST Monclova Mexico

AREA REPORTED ON	FROM (Agency)
Mexico	Air Attaché, Mexico City, Mexico

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
26 August 1953	25 August 1953	B-2

PREPARED BY (Officer)	SOURCE
Major Sigurd L. Jensen, Jr., Asst Air Attaché	General A[redacted]

REFERENCES (Control number, directive, previous report, etc., as applicable)
SRI - Control No. TIC-5111 dated 4 August 1953

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

1. The following is in response to SRI-TIC-5111 dated 4 August 1953.

2. On 25 August, the writer, on a periodic visit to Mexican Air Force headquarters, engaged in conversation with General [redacted] the [redacted] of the Mexican Air Force.

3. During the conversation, it was learned the MAF, in cooperation with the Secretariat of Agriculture, sent a number of F-47 type aircraft with MAF pilots to the Monclova area of Mexico to engage in cloud seeding in an effort to promote rainfall there. The aircraft were operating in that region during the time of the reported observation. It is felt, therefore, that objects observed could have been these aircraft operating at altitude in cloud seeding operations.

SIGURD L. JENSEN, Jr.
Major, USAF
Assistant Air Attaché

APPROVED:

WILLIAM K. SKAER
Colonel, USAF
Air Attaché

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12

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

0 INCLS.

AIR TIC-5111 940847

By Serial "A"

DISTRIBUTION BY ORIGINATOR

Copies 1 and 2 - Office of Air Attaché, Mexico City, Mexico; Copy 3 - CMDR CAIRC, Albrook AFB, CZ.

0-158/3 Lib 53

UNCLASSIFIED

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

[redacted]

16—55519-2 U. S. GOVERNMENT PRINTING OFFICE

[redacted] UNCLASSIFIED

CLASSIFICATION

IN REPLY REFER TO:
CONTROL NO. TIC-5111

SPECIFIC REQUEST FOR INFORMATION

DATE

SUBJECT: [redacted] Unidentified Aerial Objects

[redacted] SECRET

AUTH: COMDR, ATIC
BY: M.J. Piatnitza, Lt. Col.
DATE: 16 July 1953

TO: AA/Mexico UNCLASSIFIED

FROM: Headquarters USAF
Directorate of Intelligence
Washington 25, D. C.

DEGREE OR NEED FOR THE FOLLOWING SPECIFIC INFORMATION

- ☐ URGENT - REQUESTED BY _____ OTHERWISE CANNOT BE USED
- ☐ GREAT - DESIRED BY _____ OR AS SOON THEREAFTER AS POSSIBLE
- ☒ ROUTINE - DESIRED AS EARLY AS PRACTICABLE

1. Request the intelligence material described below be furnished this Headquarters, ATTN: Director of Intelligence, bearing the Control Number TIC-5111 UNCLASSIFIED

2. On any documents requested, this office has indicated whether loan or retention copies are desired by using one of the following remarks: *("Loan"); ("Retention if possible, otherwise loan");* or *("Retention only").* UNCLASSIFIED

3. A report has been received from a radar site at San Antonio, Texas concerning a radar observation of five or more targets which appeared to be orbiting over Monclova Mexico (125 miles NNW of Monterrey) from 0843 CST to 0926 CST, 23 May 1953. The number and maneuvers of the targets suggested military flying. They appeared on the radar scope as convential aircraft and intermittent contact was maintained for 39 minutes. Altitude was estimated to be over 20,000 ft; no speed estimate was possible. Airfields in that vicinity are located at Monclova, Monterrey and Rosita. (SECRET) UNCLASSIFIED

4. If circumstances permit, and at the discretion of the AA/Mexico, it is requested that information be obtained to determine whether Mexican aircraft were in the area at the time of sighting. [redacted]

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DOD DIR 5200.10

REMARKS (Including guidance, if appropriate)
Ok - Robert M. Olson Jr Lt.

UNCLASSIFIED

INCLS:

[redacted]

CLASSIFICATION

T53-8309 -5

FOR USE OF THE ORIGINATOR AE5/RM0/RC1/ELW

REQUESTED BY	NAME	BRANCH OR SECTION	ROOM NUMBER	PHONE
	Mr. Weyland/jww	ATIRC-1	B263C	51279

SUGGEST CHECK WITH	ALREADY CHECKED WITH	DATE	APPROVED BY
		22 JUL 1953	

FOR COLLECTION USE

CHECKED FOR DUPLICATION	COORDINATED WITH
	Patrick J. Hess, Maj, USAF Chief, Collection Control Branch Technical Requirements Division Air Technical Intelligence Center

[redacted]

CLASSIFICATION

AFHQ FORM 0-228 22 JUN 49 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

UNCLASSIFIED ((SECRET ((AUTH: [redacted] ATIC
BY: H.C. Johnston
Lt Col, USAF
DATE 22 June 1953

REQUEST FOR AIR TECHNICAL INTELLIGENCE INFORMATION

THRU: ATIAE
THRU: ATIA
TO: ATIRC-1

FROM: ATIAE-5 DATE: 22 June 1953

UNCLASSIFIED

SUBJECT: (Uncl) Unidentified Aerial Objects

1. PERTINENT BACKGROUND INFORMATION:

(Secret) ATIC has received a report from a radar site at San Antonio, Texas concerning a radar observation of targets over Mexican territory from 0843 CST to 0926 CST, 23 May 1953. Five or more targets appeared to be orbiting over Monclova, Mexico, which is 125 miles NNW of Monterrey. They appeared on the radar scope as conventional aircraft and intermittent contact was maintained for 39 minutes. Altitude was estimated to be over 20,000 ft. No speed estimate was possible.

2. SPECIFIC REQUEST:

(Uncl) It is requested that you determine if Mexican aircraft were in the area at the time of sighting. The number and maneuvers of the targets suggest military flying. There are fields at 1) Monclova, 2) Monterrey, and 3) Rosita, Mexico, which can be checked.

3. REMARKS:

T53-7294

ORIGINATED BY: APPROVED APPROVED:

Lt R. M. Olsson H.C. JOHNSTON, Lt Col, USAF RAY W. McDUFFEE, Col, USAF
Chief, Electronics Branch Chief, Technical Analysis Div

COORDINATED WITH:
ATIAA
ATIAE
ATIAS Chief, ATIAA Chief, ATIA
ATIAS Date: Date:

ATIC Form 317 (19 Nov 51)
(Formerly MCI Form 17)

Auth: ATICOI 200-10.16

(If additional space is required, continue on reverse side.)

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SECURITY INFORMATION UNCLASSIFIED SECRET

UNCLASSIFIED

DISPOSITION FORM

SECURITY CLASSIFICATION (If any)

SECRET

FILE NO.

SUBJECT (Uncl) Transmission of Radar Sighting

TO ATIAE-2
ATTN: Mr. James

FROM ATIAE-5

DATE 17 June 1953

COMMENT NO. 1

A/1C M.G.Futch/jos
65365/B263A/P A10

1. Inclosed is all the information received by ATIAE-5 concerning a radar sighting on 23 May 1953 in the vicinity of Lackland Air Force Base, Texas. Adiabatic charts have been requested in order to check the possibility of weather conditions having caused such a sighting.

2. Request you comment on what could have caused the unidentified radar targets.

Robert M. Olsson

ROBERT M. OLSSON, 1st Lt, USAF
Acting Chief, Aerial Phenomena Section

1 Incl
File dated 23 May 1953
Lackland AFB, Texas

If inclosure #1 is withdrawn (or not attached), the classification of this correspondence will be downgraded to Unclassified in accordance with paragraph

Note:

Mr. James stated to Lt R.M. Olsson that the inclosed radar information would seem to support the fact that aircraft caused this sighting. He suggested that we check on Mexican airfields in the area. He stated that no calculation of the speed of the objects was possible.

Mr. James stated on 21 July 1953 after reviewing the newly recieved adiabatic chart that this sighting possibly was caused by wea. effects on radar.

22 July 1953
Robert Olsson

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UNCLASSIFIED

SECURITY INFORMATION

SECRET

ROUTING

JOINT MESSAGEFORM

COMMUNICATIONS CENTER NO.

UNCLASSIFIED

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

FROM: (Originator)

CG ATIC

TO:

CG SAAMA KELLY AFB TEX

INFO:

DATE-TIME GROUP | SECURITY CLASSIFICATION

PRECEDENCE FOR: | ACTION | INFORMATION

☐ BOOK MESSAGE | ☐ ORIGINAL MESSAGE

☐ MULTIPLE ADDRESS | CRYPTOPRECAUTION ☐ YES ☐ NO

REFERS TO MESSAGE:

IDENTIFICATION | CLASSIFICATION

UNCLASSIFIED

FROM: AFOIN-ATIAE-6-19-E

ATIAE-5 File

Reference your message SAIP-284. In regard to observation of white light observed over San Antonio, Texas, on 16 June 53, ATIC agrees with your evaluation. ATIC also emphasizes the importance of attempting an evaluation at reporting level such as you have done. To give you a background of Project Blue Book evaluations, sightings of 19 May at Ellington AFB, Texas, and 23 May at Lackland AFB, Texas, have been evaluated as probably aircraft by ATIC specialists.

No reply is required.

In reply cite Project Blue Book.

COORDINATION:

ATIAE-5 _____ Date _____
Lt Olsson

ATIAE _____ Date _____
Col Johnston

ATIA _____ Date _____
Col McDuffee

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DOD DIR 5200.10

UNCLASSIFIED

SECURITY CLASSIFICATION | PAGE 1 OF 1 PAGES

DRAFTER'S NAME (and signature, when required)

1Lt R.H. OLSSON/hc

RELEASING OFFICER'S SIGNATURE

SYMBOL | TELEPHONE | OFFICIAL TITLE

ATIAE-5 | 6966 | ROBERT C. BROWN, MAJOR, USAF

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

16—58223-3 ☆ U. S. GOVERNMENT PRINTING OFFICE

THIS MESSAGE REQUIRES PARAPHRASE
SEE CRYPTO-CENTER BEFORE DECLASSIFYING

SECURITY INFORMATION

MAY 53

UNCLASSIFIED BK

C2 PRIORITY SECRET

FROM 741 AC AND W SQ TINKER AFB OKLA

TO CG AMC WPAFB OHIO

HQ USAF WASH DC ATIAA-2C

ADC ENT AFB COLO

1-AFIC-ACTION
INFO
2-
3-

1. Atta
2. Ltr.
3. C. files

UNCLASSIFIED ACTION COPY

PRIORITY

CITE 7 K1 J-S IN ACCORD WITH AFL 200-5 (FLYOB RPT) PARA 1 SCOPE PICTURE FIRST TRACK N-94 INDICATED AT LEAST 5 OR MORE ACFT APPROX 35000 FEET. SPEED APPROX 240 KNOTS FLYING IN A NORTHERLY DIRECTION FOR 40 OR 50 MILES THEN BEGAN TO ORBIT. FORMATION FADED IN SAME LOCALTTE POSSIBLY DUE TO LOSS OF ALT. PARA 2 TOTAL TIME OBSERVED WAS 1 HR AND 5 MINS. FIRST SIGHTING 1543Z 23 MAY CURR. PARA 3 ELECOBS SPEED APPROX 240 KNOTS. ALT ESTIMATED 35000 FEET. TYPE OF ACFT, EITHER LARGE GROUP OF FTRS OR SMALL GROUP OF BOMBERS. ELEC EQUIP USED: AN/FPS-3 RADAR. PARA 4 LOCATION OF OBSERVER 741 ACW SQ LACKLAND AFB TEXAS. ACFT WAS SIGHTED NEAR MONCLACA MEXICO, 101 DEGS, 102 DEGS, 27 DEGS, 28 DEGS NORTH. PARA 5 TRINED ACFT CONTRS. PARA 6 WCGHOT, CLOUD COND 3000 SCTD WINDS 20 KNOTS 200 DEG AT 40000 FEET PARA 7 POSSIBLE TEMP INVERSION (NOT DEFINITE) PARA FIGHT SCOPE FILMS PARA 9 (DUTO BORDER VIOLATION) PARA 10 NONE KNOW

DOWNGRADED AT 3 YEAR INTERVA
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

SECRET

TWX
1) Was there definitely a ship sub and if so attempted A
2) Another report on the same frequency ?
3) State AFC in the area - local flight service

53MC-41826-1

UNCLASSIFIED

ROUTING

JOINT MESSAGEFORM

UNCLASSIFIED

COMMUNICATIONS CENTER NO. [redacted]

AUTH: CO ATIC
BY: W.E. Fensler
DATE: 26 May 1953

UNCLASSIFIED

SPACE ABOVE FOR COMMUNICATIONS CENTER ONLY

FROM: (Originator)

CO ATIC

TO: CO FLTINT AF HQ USAF WASHINGTON 25 D.C.

INFO:

DATE-TIME GROUP	SECURITY CLASSIFICATION
261302 MAY 53	SECRET

PRECEDENCE FOR:	ACTION	INFORMATION
	ROUTINE	

☐ BOOK MESSAGE ☐ ORIGINAL MESSAGE

☐ MULTIPLE ADDRESS CRYPTOPRECAUTION ☐ YES ☒ NO

REFERS TO MESSAGE:

IDENTIFICATION	CLASSIFICATION
252100Z May 53	SECRET

UNCLASSIFIED

FROM: AFOIN-ATLAS-2 FOR 71st ACSW Sq

Reference your message dated 252100Z May on unidentified radar targets seen at your station. Request you complete an Air Force Form 112 as per Air Force Letter 200-5 with specific reference to the following points: 1) Was there a temperature inversion and, if so, at what altitude? 2) Was there another ACSW Squadron on the same frequency? 3) State aircraft activity in the area. Under separate cover you will receive an Electronics Data Sheet which will complete the information on the radar sighting. Request you forward scope photos with Air Force Form 112.

In reply cite Project Blue Book.

note - Form 112 dated 27 May has been received - 10 June 1953 AFB. Electronics Data Sheet not included.

COORDINATION:

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SECRET DISCARD T53-6366

UNCLASSIFIED

SECURITY CLASSIFICATION: SECRET

PAGE 1 OF 1 PAGES

DRAFTER'S NAME (and signature, when required)
1/Lt R.H. Olsson/jcs

RELEASING OFFICER'S SIGNATURE
BARBARA P. HANAWALT, 1st Lt, USAF
ASST AIR ADJUTANT GENERAL

SYMBOL AT Lab-5

TELEPHONE 65365

OFFICIAL TITLE

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

16—58933-3 ☆ U. S. GOVERNMENT PRINTING OFFICE

UNCLASSIFIED

DIRECTORATE OF INTELLIGENCE
HEADQUARTERS
33D AIR DIVISION (DEFENSE)
TINKER AIR FORCE BASE, OKLAHOMA

DODI 319.1 3 June 1953

SUBJECT: AF Form 112 - Air Intelligence Information Report

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

Transmitted in compliance with AFL 200-5, dated 29 April 1952, one copy for information of Air Intelligence Information Report of Unidentified Flying Object sighted at Monclova, Mexico, 27 May 1953.

Harold K. Kornberg
1 ST LT USAF
for JOSEPH W. CARAWAY
Major, USAF
Director of Intelligence

1 Incl
1. AF Form 112-Part I (2 cys)

AF FORM 112—PART I
APPROVED 1 JUNE 1948

[redacted]

[redacted]

COUNTRY: ~~United States of America~~ UNCLASSIFIED

REPORT NO. 741-53-1

(LEAVE BLANK)

BY AUTHORITY OF CG 33RD ADV (DEF)
DATE 2/5/53 Initials

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT: ~~Unidentified Aircraft~~

AREA REPORTED ON: ~~Honduras, Mexico (OP-5547)~~

FROM (Agency): ~~741st AC&W Sq~~ Lackland AFB, Texas

DATE OF REPORT: ~~22 May 1953~~

DATE OF INFORMATION: ~~23 May 1953~~

EVALUATION: A-3

PREPARED BY (Officer): ~~Ralph S. Hoggatt, Captain, USAF, DO~~

SOURCE: ~~AF Radar & GAA~~

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

None

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

1. An unidentified track (N94) containing five (5) or more aircraft at an estimated altitude of 35,000 Ft. or over. At 1507Z another unidentified track (N97) was picked up at DN4018 heading North. This target containing three (3) or more aircraft, went into orbit. At 1526Z contact was made with track number N3 at DN3031, and also, at this same time, contact was made at DN1950 with track number N4, and at 1529Z contact was made at DN 1005 with track number N5. None of these targets, though quite large in size, appeared to be making any directional progress, but rather seemed to stay in a definite orbit as if in the process of grouping.

2. First track was sighted at 0843 CST, 23 May 1953. At 0907 CST the second track was sighted. Third track was sighted 0926 CST. Number four track was sighted at same time of number three track. Number five track was sighted at 0929 CST.

3. 741st AC&W Sq, Lackland AFB, Texas. 0843

4. AN/FPS-3 Radar Unit.

5. Trained Air Force Personnel. Controllers, Captain Ralph S. Hoggatt, CWO Edwin R. Robinson, Sr. Radar Operator, Ray E. Duncan, A/2C.

6. Weather at the time: Hot, Cloud Condition 3,000 Ft. Scattered Winds, 20 Knots, 200° at 40,000 Ft. Temperature Inversion (Not Def).

7. None.

8. Photographs were taken with scope cameras. Development of film revealed camera mal-function.

9. None due to possible border violation.

10. San Antonio ARTCC was immediately contacted by commercial telephone for possible identification. ARTCC advised that Del Rio had no aircraft in that area and that Laredo had a flight of aircraft whose mission was to make touch-and-go-landings at Eagle Pass, Texas, however, they should not be in the questioned area.

_____ INCLS.

Ralph S. Hoggatt
RALPH S. HOGGATT
Captain, USAF
Intelligence Officer

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[redacted]
RESTRICTED
BY AUTHORITY OF CG, 33RDA
BY Rel
DATE 22 MAY 53

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3 copies forwarded to CG, Headquarters Air Division (Defense) Tinker AFB, Oklahoma

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[redacted]
SECRET
(CLASSIFICATION)

Encl #1
00264

☆ U. S. GOVERNMENT PRINTING OFFICE : 1950 O—918391

COORDINATION

INSERT ORGNL. CODE AND FULL SIGNATURE

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[redacted]

AUTH: CG ATIC
BY: W.E. FEISLER
DATE: 28 May 1953

In reply refer to
AFOIN-ATIAE-5

29 MAY 1953

RMO/JOS/65365

SUBJECT: (Uncl) Radar Sighting of Unidentified Object

TO: Commanding Officer
Tinker Air Force Base
Attn: 741st AC&W Sq
Oklahoma City, Oklahoma

1. With respect to a sighting made at your radar station on 23 May 1953 1543Z, the Air Technical Intelligence Center is forwarding the inclosed Electronics Data Sheet. In an attempt to uncover a logical explanation for such observations of unidentified objects, ATIC has developed this questionnaire which, when completed accurately by the radar technicians involved, allows ATIC radar specialists to attempt an evaluation of the sighting.

2. This Center would, therefore, appreciate the completion and forwarding of the subject Data Sheet with an Air Force Form 112 at your earliest possible convenience. Your original message states that a radar scope photo was taken and ATIC requests that you forward the same.

FOR THE COMMANDING GENERAL

1 Incl
z/s

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

Joseph A Calhoun
1Lt ATIA
28 May 53

C.J. Jonnum
ATIAD
28 May 53

W.E. Feisler
Lt. Col. USAF
ATIAE-5
28 May 53

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VAC

[redacted]

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DESIGNATE AUTHD OFFICE OF RECOI

T53-6400

[redacted]

UNCLASSIFIED

UNCLASSIFIED SECRET
BY AUTHORITY OF
C6 334DIV(DEF)
DATE 2 Jun 53 Initials mtl

741ST AIRCRAFT CONTROL AND WARNING SQUADRON
Lackland Air Force Base
San Antonio, Texas

319.1

UNCLASSIFIED

SUBJECT: (Uncl) Radar Sighting of Unidentified Object

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

1. In compliance with your letter AFOIN-ATIAE-5 dated 29 May 1953, the inclosed form's are submitted.

2. AF form 112 was submitted to your Headquarters through channels on 27 May 1953.

3. When the attached inclosures is withdrawn or not attached, the classification of SECRET on this correspondence will be cancelled in accordance with paragraph 25a, AFR 205-1, 9 October 1950.

FOR THE COMMANDING OFFICER:

Thomas L. Hill
THOMAS L HILL
1st Lt, USAF
Adjutant

2 Incls
1. AF Form 112 (1 cy)
2. AF Form 322 (1 cy)

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SECRET

UNCLASSIFIED

T53-7089

0049A

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~~CONFIDENTIAL~~ (CLASSIFICATION)

~~CONFIDENTIAL~~ SECRET

BY AUTHORITY OF CG 33rd ADIV (DEF)

DATE 11 Jun 53 Initials

AF FORM 112—PART I
APPROVED 1 JUNE 1948

COUNTRY	REPORT NO.	(LEAVE BLANK)
United States of America		

AIR INTELLIGENCE INFORMATION REPORT

SUBJECT
Unidentified objects

AREA REPORTED ON	FROM (Agency)
Monclova, Mexico	741st AC&W Sq. Lackland AFB, Texas

DATE OF REPORT	DATE OF INFORMATION	EVALUATION
11 June 1953	23 May 1953	

PREPARED BY (Officer)	SOURCE
Capt. Ralph S. Hoggatt, Intell. Officer	AN/FPS Radar Observation.

REFERENCES (Control number, directive, previous report, etc., as applicable)
None

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

1. Appeared to be either a large group of small planes or a small group of four motor planes.

2. 0843 CST.

3. 741st AC&W Sq. Lackland AFB, San Antonio, Texas. (29° 24' N 98° 38' W)

4. AN/FPS-3 Radar.

5. Observers were all quallified Air Force trained technicians.

6. 2 SCTD 15 SSE 9 990

7. None

8. Pictures were taken by scope camera, but due to camera malfunction pictures did not turn out.

9. None, due to possible violation of continental boundries.

10. All civilian air lines were contacted and had no aircraft in that vicinity.

RALPH S. HOGGATT
CAPT. USAF
INTELLIGENCE OFFICER

_____ INCLS.

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~~CONFIDENTIAL~~ (CLASSIFICATION)

T53-7085A

16—55560-1 ☆ U. S. GOVERNMENT PRINTING OFFICE : 1950 O—918331

SECRET
UNCLASSIFIED
UNCLASSIFIED
SECURITY INFORMATION
CLASSIFIED SECRET
BY AUTHORITY OF
CG 33A DIV (DEF)
DATE 6 Jun 53 Initials

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:
741 ST. AC & W SQ?
Organization
LACKLAND AFB. SAN ANTONIO, TEXAS
Location

2. DATE OF THIS REPORT:
9 JUNE 1953
Day Month Year

3. DATE TARGET OBSERVED:
Local Time ☐
Z Time ☐
23 MAY 1953
Day Month Year
Time-Local 0843 CST Time-Z 1443 Z

4. NAME, RANK AND ORGANIZATION OF REPORTING OFFICER:
CAPT. RALPH S. HOGGATT
741st AC & W SQ.
LACKLAND AFB. SAN ANTONIO, TEXAS

5. EXACT LOCATION OF STATION (COORDINATES):
29° 24' N 98° 38' W

6. OBSERVER DATE (LIST EACH OBSERVER):

	Name	Rank	Duty	No. of Years Exp. in Radar
A.	HOGGATT, RALPH. S.	CAPT.	OPERATIONS OFFICER	2
B.	SCHUMACHER, ELMER J.	1stLT.	DUTY CONTROLLER	2
C.	ROBINSON, EDWIN R.	CWO	CONTROLLER TRAINEE	2½
D.	COLLINS, JAMES J.	S/SGT.	CREW CHIEF	7
E.	DUNCAN, RAY E.	A/2C	SCOPE OPERATOR	4

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:

DOWNGRADED AT 3 YEAR INTERVALS;
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ATIC FORM 332 (REVISED 25 NOV 1952)

SECURITY INFORMATION

SECRET
UNCLASSIFIED SECURITY INFORMATION
CLASSIFIED SECRET
BY AUTHORITY OF
SG-330.04/4(DEF)
DATE 10 Jun 53

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.

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

9. RADAR SCOPE PHOTOS: SEE REMARKS
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? N97N N3N N4N N5N N94N N9N
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? _____

13. WAS THE TARGET OBSERVED ON SEARCH RADAR? ☒ YES ☐ NO
IF SO, WHAT IS THE NOMENCLATURE OF THE EQUIPMENT? AN/FPS 3

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?
THYATRON-PULSE MODULATOR

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

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

UNCLASSIFIED

ATIC FORM 332 (REVISED 25 NOV 1952)

SECURITY INFORMATION
SECRET
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DECLASSIFIED AFTER 12 YEARS.
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UNCLASSIFIED SECRET SECURITY INFORMATION

CLASSIFIED SECRET
BY AUTHORITY OF
CG 33 ADIV (DEF)
DATE 10 Jun 53

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?

SAME SIZE AND SAME SPEED

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?

PPI

DESCRIBE THE SIGNAL: _____

27. WHAT WAS THE RADAR SCAN RATE? 3.3 R.P.M.

28. WHAT WAS THE FREQUENCY OF THE TRANSMITTER?

UPPER BEAM 1292 MEG. LOWER BEAM 1259 MEG.

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.

GENERAL OPINION OF OBSERVERS, DEFINITELY AIRCRAFT. POSSIBLY OF MEXICAN ORIGAN, BUT NOT POSITIVE. ACCORDING TO THE CALIBRATION DATA, UNDER NORMAL CONDITIONS ALTITUDE OF AIRCRAFT WOULD BE BETWEEN 30,000 to 40,000 FT.

SECURITY INFORMATION
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DECLASSIFIED AFTER 12 YEARS.
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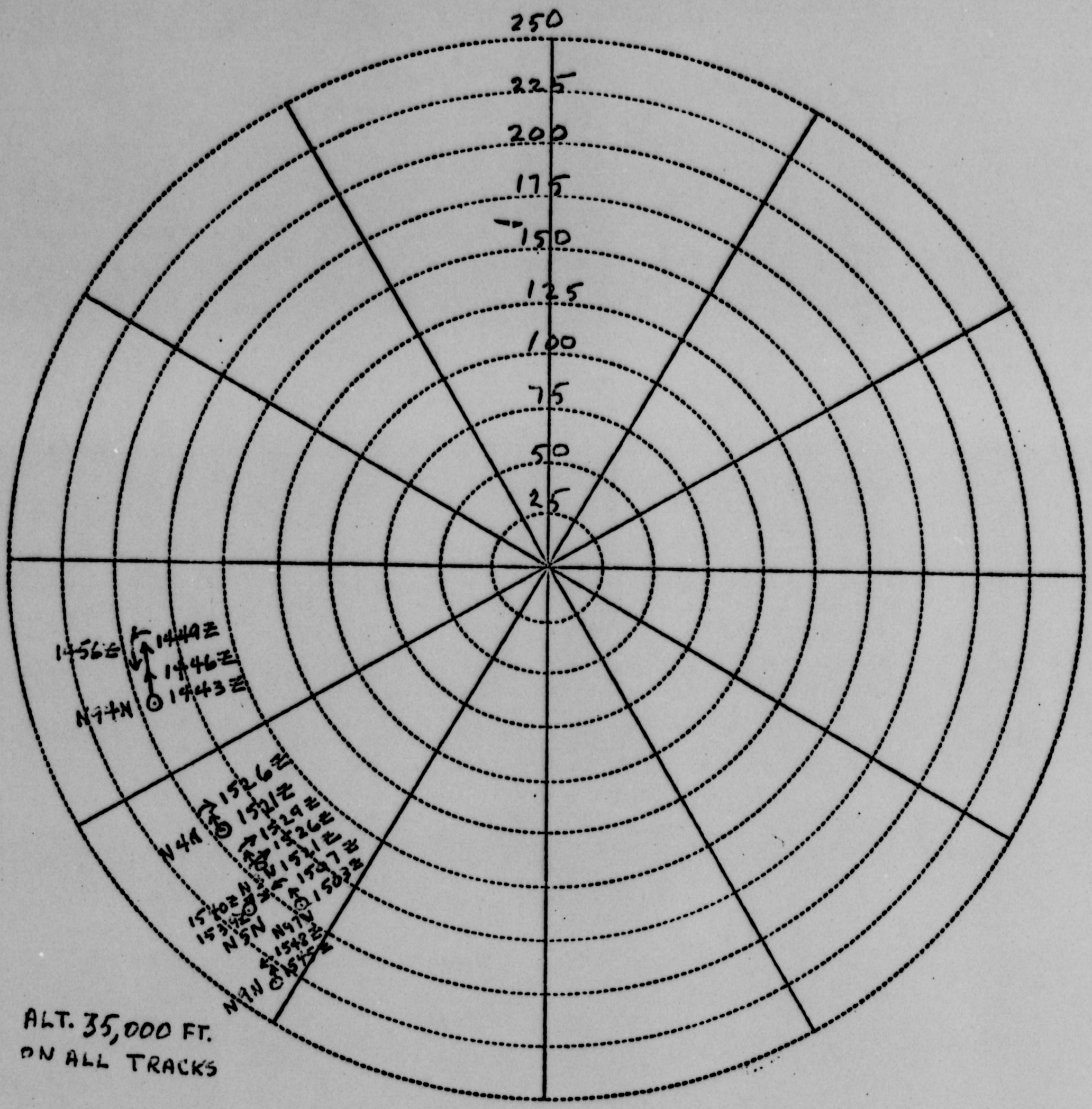
SECRET
SECURITY INFORMATION
CLASSIFIED SECRET
BY AUTHORITY OF
CG. 33 ADIV (DEF)

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.



ALT. 35,000 FT.
ON ALL TRACKS

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

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SECURITY INFORMATION
SECRET

SECRET UNCLASSIFIED
SECURITY INFORMATION

CLASSIFIED SECRET
BY AUTHORITY OF
CG. ADIV (DEF)
DATE 10 Jun 53 Initials

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

#9. SCOPE PHOTO'S UNREADIBLE DUE TO CAMERA MALFUNCTION.

AS

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

UNCLASSIFIED

SECURITY INFORMATION

This case includes two (2) 16"x16" photocopied charts and two (2) 15"x18½" photocopied charts.

DATA BLOCK B

Press Code	Data Type	PRESSURE Millibars	PRESSURE mb	TEMPERATURE Significant	TEMPERATURE Ambient (°C)	TEMPERATURE Significant	TEMPERATURE Ambient	RELATIVE HUMIDITY Significant	RELATIVE HUMIDITY Including Correction %	DEW POINT °C	Significant
SIGNIFICANT LEVELS											
	9	950.	511	11.6	-2.4	-2.5	-2.4	76	76	10	
	10	1000.	509	5.6	-3.1	-3.6	-3.0	76	76	4.6	
	11	1170.	472	2.8	-4.3	-4.7	-4.0				
	12	1200.	464	2.4	-5.6	-6.2	-5.4				
	13	1260.	446	1.6	-6.0	-6.8	-6.0				12X10⁴
	14	1310.	432	1.2	-7.4	-7.8	-7.5				10.160
	15	1400.	409	0.8	-7.9	-8.3	-7.8				8440.
	16	1440.	398	0.6	-8.0	-8.6	-8.0				
	17	1460.	392	0.4	-8.5	-9.1	-8.4				9.152
	18	1500.	381	0.2	-8.9	-9.5	-8.9				9.152

CODED MESSAGE FOR TRANSMISSION

SOLAR RADIATION CORRECTIONS FOR RADIOSONDE TEMPERATURE

1. Time (EST) at 200 mb or at highest data point if below 200 mb	09 21
2. Correction for (1)	10
3. Time (EST) Algebraic sum of (1) and (2)	07 11
4. Difference between (3) and solar noon	1 49
5. Elevation angle at (3)	26
6. Correction from 200 mb for Temperature (°C)	0.4 1.5
7. Correction to be applied	1.9

CONSTANT PRESSURE DATA

DATE AND RELEASE TIME

W. B. Form 1120 B (Revised Dec. 1951)

U. S. DEPARTMENT OF COMMERCE WEATHER BUREAU

ADIABATIC CHART

WBAN 31B

Mb.

10 15 20 30 40 50 60 100 125 150 175 200 250 300 350 400 500

−90° −80° −70° −60° −50° −40° −30°

24 Km. 23 Km. 22 Km. 21 Km. 20 Km. 19 Km. 18 Km. 17 Km. 16 Km. 15 Km. 14 Km.

DATA BLOCK B

Pressure Code (hPa)	Pressure Code (mb)	Pressure (hPa)	Pressure (mb)	Altitude (m)	Temperature Ascent (°C)	Temperature Correction	Temperature Reduced (°C)	Relative Humidity (%)	Relative Humidity Including Correction (%)	Dew Point (°C)	Remarks
SIGNIFICANT LEVELS											
	9	950	319	446	-20.2	-0.2	-20.4	16	16	16	
	10	1000	309	340	-19.4	-0.6	-19.0	14	14	14	
	11	1170	277	2[illegible]2	-14.3	-0.4	-14.0				
	12	1200	272	210	-13.6	-0.2	-13.4				
	13	1250	186	1[illegible]2	-6.0	-0.2	-6.0				12160
	14	1350	109	1[illegible]4	-7.4	-1.1	-7.5				14160
55	92	1424	96	5[illegible]	-7.9	-1.3	-7.2				14210
	16	1440	63	1520	-6.4	-1.6	-6.6				
	20	1460	56	187	-5.2	-2.1	-5.4				00151
	30	1500	28	2[illegible]6	-1.6	-5.3	-6.3				02131

CODED MESSAGE FOR TRANSMISSION

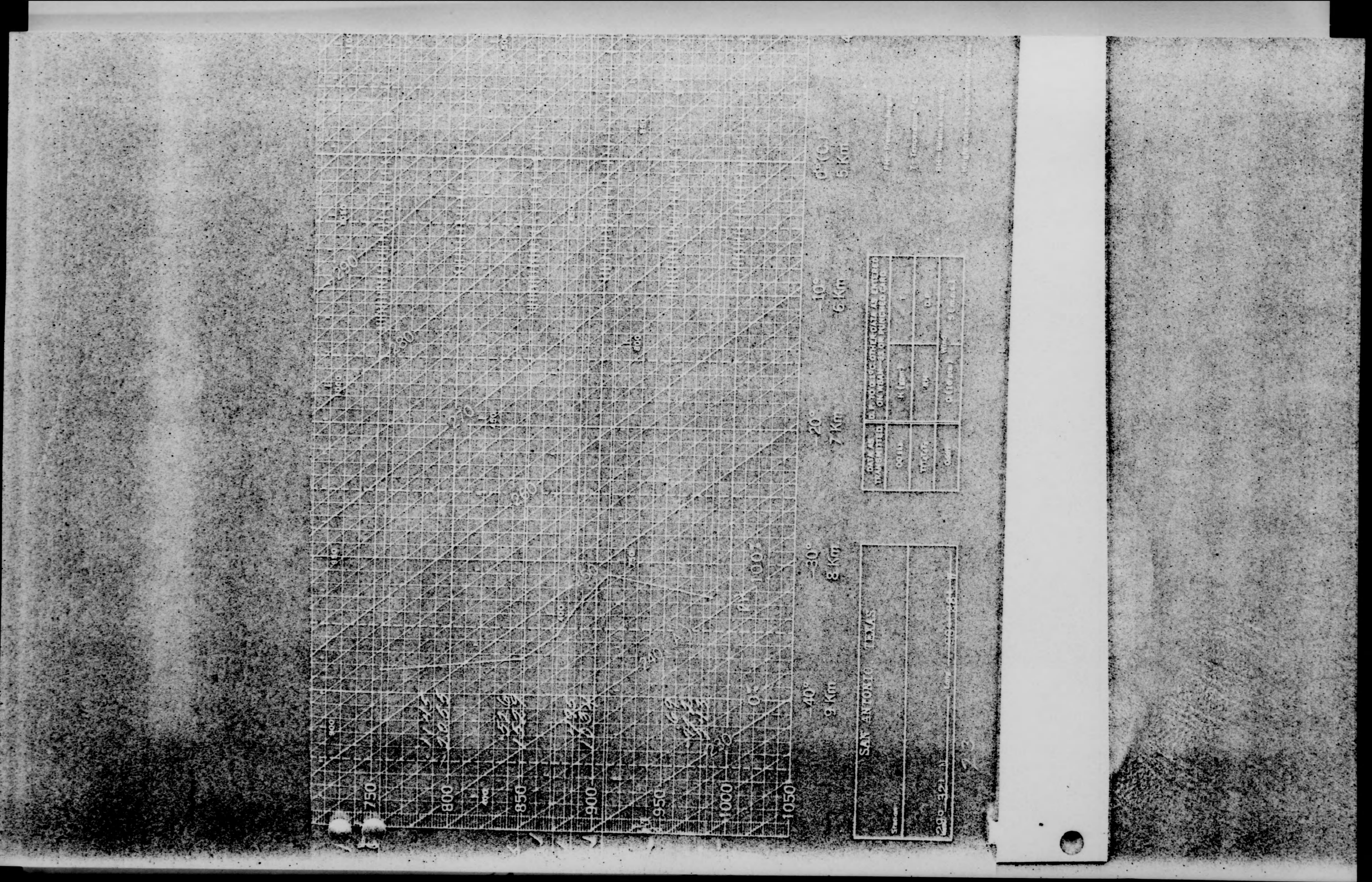
72365	30204	82921	02104	40085
07824	02012	25818	29991	02185
10210	25101	02929	04522	06202
02010	20606	06224		

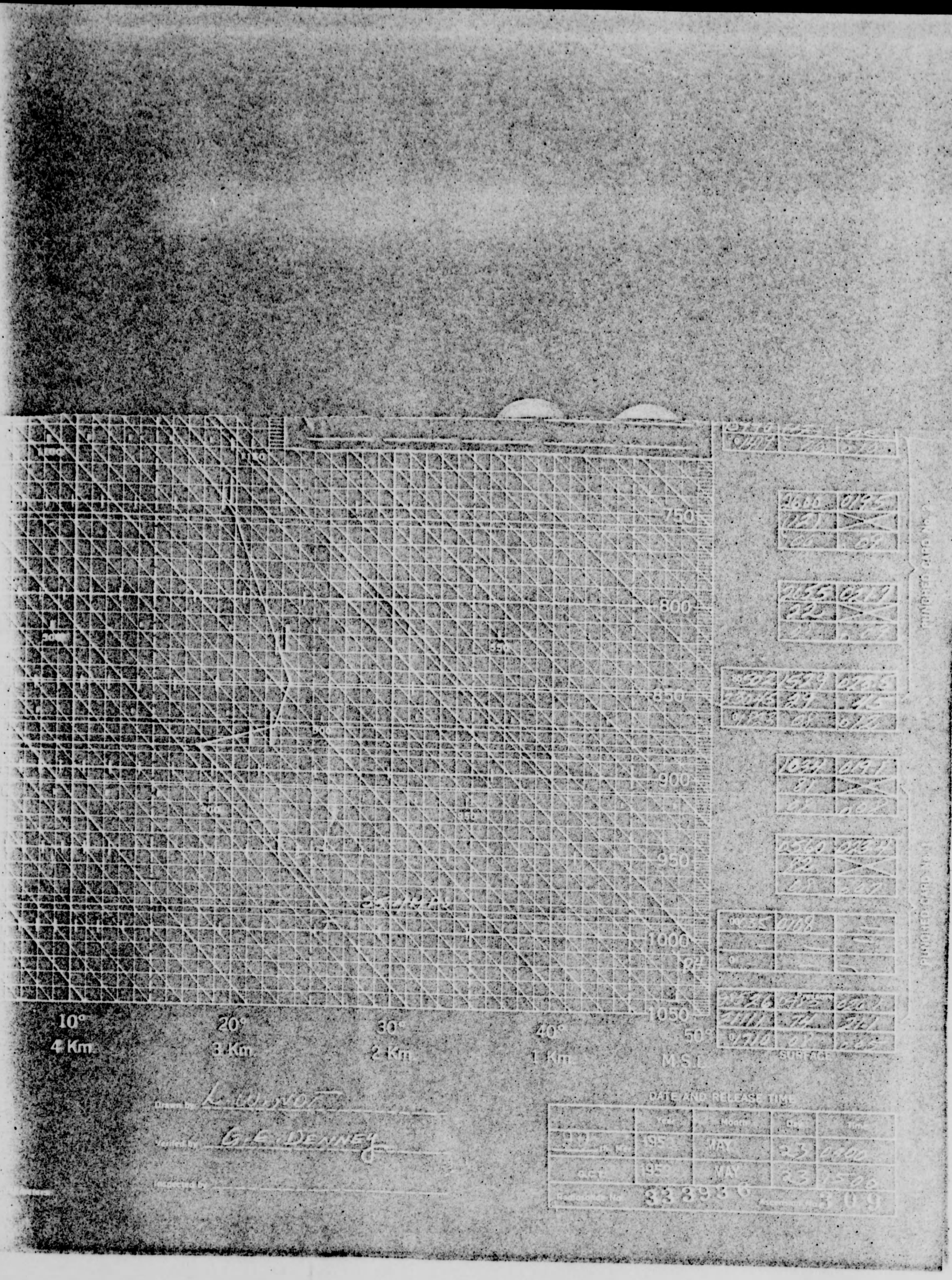
SOLAR RADIATION CORRECTIONS FOR THERMISTOR

1. Time (1ST) at 200 mb or [illegible] 400 mb and 200 mb	
2. Correction for 1ST	
3. Time (1ST) Algebraic [illegible] of (1) and (2)	
4. Difference in elevation (3) [illegible]	
5. Elevation angle of sun	
6. Elapsed time from 200 mb to terminating [illegible]	
7. Correction rate	

CONSTANT PRESSURE DATA

21651	2540	
04	022	
2[illegible]4	561	
04	304	
3[illegible]9	0[illegible]2	2660
04	[illegible]	[illegible]
3[illegible]9	0[illegible]	2[illegible]
2[illegible]4	4[illegible]6	
04	021	
[illegible]4	0[illegible]	
04	021	
[illegible]4	[illegible]6	
04	021	
[illegible]4	0[illegible]	
04	021	
[illegible]4	[illegible]6


-10°
6 Km
-20°
7 Km
-30°
8 Km
-40°
9 Km
SAN ANTONIO TEXAS



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

ENGINE CHECK READINGS

Time G.C.T.	TEMPERATURE Outside	Dew	Wet	RELATIVE HUMIDITY Outside	Rel.	Corr.	Psychrometer
1437	7.1°C	-2.6	-1.6 °C	81%	69	+3	Water 7.5

U.S. DEPARTMENT OF COMMERCE WEATHER BUR

ADIABATIC CHART

WBAN-31A

9 Km. 8 Km. 7 Km. 6 Km. 5 Km.

Mb. −40° −30° −20° −10° 0° (C.)

400 450 500 550 600 650 700 750 800 850 900 950 1000 1050

WEATHER BUREAU

CHART

A

DATA BLOCK A

Significant Levels	Standard Levels	PRESSURE: Height above station (geopotential meters)	PRESSURE: mb.	TEMPERATURE: Observed (°C)	TEMPERATURE: Adiabat (°C)	RELATIVE HUMIDITY: Observed (%)	RELATIVE HUMIDITY: Including Correction (%)	DEW POINT: °C	WIND (Direction and Speed)

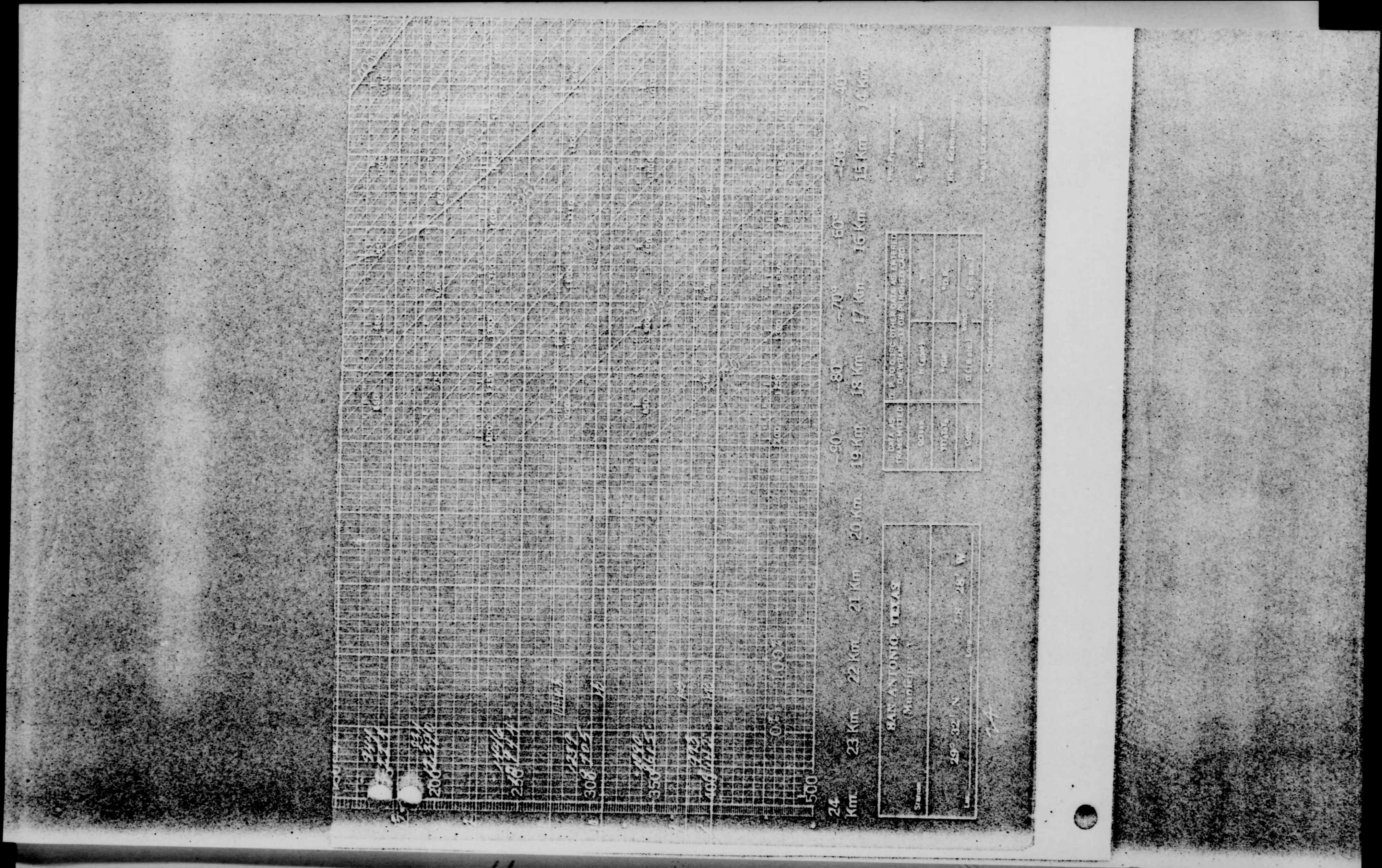
CONSTANT PRESSURE DATA

CODED MESSAGE FOR TRANSMISSION

PRINTED IN U.S.A.

10° 20° 30° 40° 50°

4 Km 3 Km 2 Km 1 Km M.S.L.



Station SAN ANTO[illegible]

Lat. 29° 32' N Long. 98° 28' W

U.S. DEPARTMENT OF COMMERCE — W[illegible]

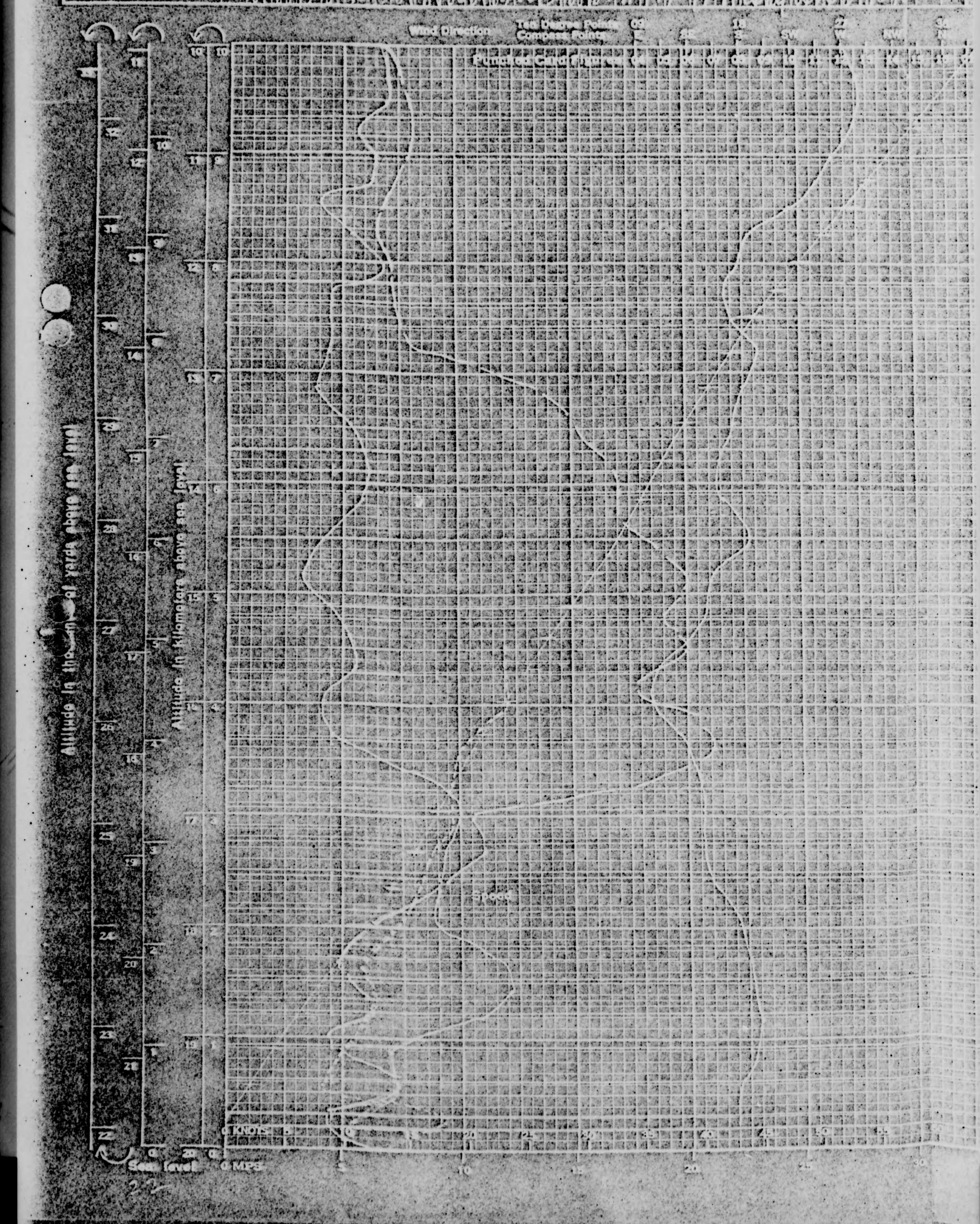
WINDS ALOFT

WBAN-20A

Ascension No. 5[illegible]

STANDARD LEVEL DATA FOR TRANSCRIPTION TO TUB[illegible]

Altitude (Km)	Sfc	0.5	1.0	1.5	2.0	2.5	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Direction (16 Pts.)	27	0	0	0	3	5	8	11	11	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12		
Speed (M. P. S.)	03	04	05	04	06	08	10	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08	08		



LOFT GRAPH

	Release Date and Time			
	Year	Month	Day	Time
30 th Mar.	19 63	Mar.	23	12:00
G.C.T.	1963	Mar.	23	12:00

ADD TO PUNCHED CARDS

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
H																									
O																									
1/2																									

01 E	SE	16 S	SW	27 W	NW	36 N	NE	02 E	SE	16 S
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225
226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275
276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325
326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350
351	352	353	354	355	356	357	358	359	360															

No. of Restart
Date
Time
Reason

Period

Prepared by F. C. Parks Verified by



603	33	78	22 185	14 130	14296			11106		822	1220	78
76	34	79	22 470	14 310								79
81	35	80	22 750	14 490								80
748	36	81	23 040	14 670								81
711	37	82	23 320	14 850								82
634	38	83	23 600	15 030								83
75	39	84	23 880	15 210								84
732	40	85	24 160	15 390								85
724	41	86	24 440	15 570								86
718	42	87	24 730	15 750								87
729	43	88	25 010	15 930								88
658	44	89	25 300	16 110								89
670	45	90	25 580	16 290								90

NOTES

	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	
	17	14		19	14	4	19	22		18	24	6	18	20		17	17							
	10	11	6	15	09	8	18	08	0	16	12	5	17	09	0	27	12							
	28	33	0	02	10	5	13	09	0	08	13	5	07	18	0	09	23							
	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff							

dd—Wind direction in tens of degrees ff—Wind speed in knots

ON TIME-ALTITUDE DATA

	40	45	50	55	60	65	70	75	80	85	90	95	100
	1425		668		600		532		472		400		334
	2700		3600		4447		5300						
	0810		1060		1300		1540						

	145	150	155	160	165	170	175	180	185	190	195	200	205
	1369												
	2620												
	34530												
	6409												

Recorder

STATION SAN ANTONIO, TEXAS

WB

LAT. [illegible] N LONG [illegible] W

WB Form 1110A

UNITED STATES DEPARTMENT OF COMMERCE

WEATHER BUREAU

WINDS ALOFT COMPUTATION SHEET

(LAND STATION FORM)

WBAN-20

Ascension No. 513

Method of observation [illegible]

Minute	Altitude: 100 gram balloon (meters)	Altitude: 50 gram balloon (meters)	Altitude: Other (type) (meters)	Elevation angle °	Azimuth angle °	Distance from observation point (meters)	Slant range SAWIN (yards)	Wind dir (360° = N 090° = E etc.)	Wind speed m.p.h.	Minute	Minute	Altitude: 100 gram balloon (meters)	Altitude: 50 gram balloon (meters)	Altitude: Other (type) (meters)
Sfc.								[illegible]	[illegible]	Sfc.				
1	350	216	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	1	46	18,075	8,570	[illegible]
2	670	414	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	2	47	18,375	8,690	[illegible]
3	980	612	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	3	48	18,670	8,780	[illegible]
4	1,285	801	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	4	49	18,975	8,910	[illegible]
5	1,585	990	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	5	50	19,275	9,080	[illegible]
6	1,880	1,170	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	6	51	19,570	9,270	[illegible]
7	2,170	1,350	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	7	52	19,880	9,450	[illegible]
8	2,465	1,530	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	8	53	20,145	9,630	[illegible]
9	2,740	1,700	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	9	54	20,495	9,810	[illegible]
10	3,020	1,890	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	10	55	20,705	9,990	[illegible]
11	3,300	2,070	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	11	56	20,985	10,170	[illegible]
12	3,580	2,250	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	12	57	21,265	10,350	[illegible]
13	3,855	2,430	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	13	58	21,545	10,530	[illegible]
14	4,130	2,610	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	14	59	21,825	10,710	[illegible]
15	4,405	2,790	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	15	60	22,105	10,890	[illegible]
16	4,675	2,970	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	16	61	22,385	11,070	[illegible]
17	4,945	3,150	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	17	62	22,670	11,250	[illegible]
18	5,205	3,330	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	18	63	22,950	11,430	[illegible]
19	5,485	3,510	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	19	64	23,225	11,610	[illegible]
20	5,755	3,690	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	20	65	23,515	11,790	[illegible]
21	6,025	3,870	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	21	66	23,795	11,970	[illegible]
22	6,295	4,050	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	22	67	24,080	12,150	[illegible]
23	6,565	4,230	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	23	68	24,360	12,330	[illegible]
24	6,835	4,410	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	24	69	24,645	12,510	[illegible]
25	7,105	4,590	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	25	70	24,925	12,690	[illegible]
26	7,375	4,770	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	26	71	25,210	12,870	[illegible]
27	7,645	4,950	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	27	72	25,490	13,050	[illegible]
28	7,915	5,130	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	28	73	25,775	13,230	[illegible]
29	8,185	5,310	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	29	74	26,055	13,410	[illegible]
30	8,455	5,490	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	30	75	26,340	13,590	[illegible]
31	8,730	5,670	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	31	76	26,620	13,770	[illegible]
32	9,005	5,850	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	32	77	26,905	13,950	[illegible]
33	9,285	6,030	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	33	78	27,185	14,130	[illegible]
34	9,565	6,210	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	34	79	27,470	14,310	[illegible]
35	9,850	6,390	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	35	80	27,750	14,490	[illegible]
36	10,135	6,570	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	36	81	28,040	14,670	[illegible]
37	10,420	6,750	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	37	82	28,320	14,850	[illegible]
38	10,710	6,930	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	38	83	28,600	15,030	[illegible]
39	11,005	7,110	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	39	84	28,880	15,210	[illegible]
40	11,300	7,290	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	40	85	29,160	15,390	[illegible]
41	11,595	7,470	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	41	86	29,440	15,570	[illegible]
42	11,890	7,650	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	42	87	29,720	15,750	[illegible]
43	12,185	7,830	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	43	88	30,010	15,930	[illegible]
44	12,480	8,010	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	44	89	30,300	16,110	[illegible]
45	12,775	8,190	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	45	90	30,580	16,290	[illegible]

Termination owing to [illegible]

Weight of balloon 500 grams

Weight of lighting device [illegible] grams

Weight of target or transmitter [illegible] grams

Line line [illegible] grams

Total weight [illegible] grams

Color of balloon [illegible]

Type of target or transmitter [illegible]

NOTES

CODED DATA																							
	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd
	12	17	10	12	17	12	12	17	14	12	19	14	12	19									
	15	15	18	15	14	18	15	14	19	15	13	10	15	10	17	15	15	07	15	10			
	18	20	16	18	28	14	18	29	31	18	30	37	18	28	35	18	02	10	18	05			
	21	09	25																				

(1) Standard WBAN notation (2) Wind direction in tens of degrees (3) Wind speed

UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU

WINDS ALOFT COMPUTATION SHEET

(LAND STATION FORM)
WBAN-20

Balloon Data and Time				
	Year	Month	Day	Time
010 M.S.T.	42			
G.C.T.	42			

Place of observation _____ Elevation of observation point above MSL _____ (feet) _____ (meters)

Minute	Wind dir. (360°=N, 090°=E, etc.)	Wind speed m. p. s.	Minute	Minute	Altitude: 100 gram balloon (meters)	Altitude: 50 gram balloon (meters)	Altitude: Other (feet) (meters)	Elevation angle °	Azimuth angle °	Distance from observation point (meters)	Slant range RAWIN (yards)	Wind dir. (360°=N, 090°=E, etc.) °	Wind sp. m. p. s.	Minute
	170	5.4												
	171	7.1	1	46	13,075	8,370	14010	5.1		10300		26	17.0	46
	165	7.3	2	47	13,375	8,550	14350			11750		245	19.7	47
	190	10.9	3	48	13,675	8,730	14690			11450		276	20.5	48
	184	13.1	4	49	13,975	8,910	14990			12250		297	14.6	49
	185	11.3	5	50	14,275	9,090	15290			12500		305	12.2	50
	171	9.0	6	51	14,570	9,270	15570			13100		295	10.2	51
	162	9.1	7	52	14,860	9,450	15860			13450		276	20.7	52
	142	9.3	8	53	15,145	9,630	16150			13500		253	9.0	53
	141	10.0	9	54	15,425	9,810	16440			14200		240	14.6	54
	136	9.0	10	55	15,705	9,990	16730			14700		240	10.5	55
	125	4.0	11	56	15,985	10,170	17010			15000		245	22.0	56
	104	4.2	12	57	16,265	10,350	17290			14050		204	6.5	57
	107	5.8	13	58	16,545	10,530	17570			14100		21	6.3	58
	135	5.3	14	59	16,825	10,710	17850			16200		25	4.1	59
	149	4.5	15	60	17,105	10,890	18130			18000		102	6.0	60
	153	3.2	16	61	17,385	11,070	18410			17350		120	4.4	61
	184	4.3	17	62	17,670	11,250	18690			17250		152	7.2	62
	162	5.9	18	63	17,950	11,430	18970			17000		155	4.4	63
	159	6.0	19	64	18,235	11,610	19260			17100		127	6.2	64
	171	5.2	20	65	18,515	11,790	19540			17150		125	9.2	65
	160	4.0	21	66	18,795	11,970	19820			15150		109	4.2	66
	103	4.4	22	67	19,080	12,150	20100			14900		99	5.3	67
	132	4.5	23	68	19,360	12,330	21050			14450		92	6.9	68
	167	4.6	24	69	19,645	12,510	21350			14050		94	5.3	69
	178	6.6	25	70	19,925	12,690	21650			15150		92	6.2	70
	186	5.4	26	71	20,210	12,870	21950			15400		93	7.7	71
	231	4.0	27	72	20,490	13,050	22250			14750		94	8.6	72
	246	6.3	28	73	20,775	13,230	22540			14150		98	9.6	73
	260	1.5	29	74	21,055	13,410	22840			13400		86	9.5	74
	279	5.7	30	75	21,340	13,590	23130			13100		94	10.1	75
	284	7.0	31	76	21,620	13,770	23430			12500		99	11.9	76
	282	7.0	32	77	21,905	13,950	23720			11850		95	13.0	77
	273	6.2	33	78	22,185	14,130	24020			11100		82	12.0	78
	258	7.6	34	79	22,470	14,310								79
	262	8.1	35	80	22,750	14,490								80
	274	7.8	36	81	23,040	14,670								81
	252	7.1	37	82	23,320	14,850								82
	271	6.3	38	83	23,600	15,030								83
	275	7.5	39	84	23,880	15,210								84
	283	7.3	40	85	24,160	15,390								85
	294	7.1	41	86	24,440	15,570								86
	300	11.2	42	87	24,730	15,750								87
	299	14.9	43	88	25,010	15,930								88
	290	15.8	44	89	25,300	16,110								89
	288	17.0	45	90	25,580	16,290								90

NOTES

11	12	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	
		2	17	14		19	14	4	19	22		18	24	6	18	20		17	12				
13	10	7	10	11	6	15	09	8	18	08	8	16	12	5	17	09	6	27	12				
50	37	5	28	33	0	02	10	5	13	09	0	08	13	5	05	18	0	07	23				
		H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff				

33	9,285	6,030	9760	45.7	175.3	9500		272	6.8	33	78	22,185	14,130	[illegible]
34	9,565	6,210	10100	46.7	177.1	9510		255	7.0	34	79	22,470	14,310	
35	9,850	6,390	10450	47.2	181.9	9700		263	8.1	35	80	22,750	14,490	
36	10,135	6,570	10780	47.9	184.8	9760		274	7.8	36	81	23,040	14,670	
37	10,420	6,750	11100	48.8	187.4	9750		282	7.1	37	82	23,320	14,850	
38	10,710	6,930	11470	49.8	189.8	9690		277	6.5	38	83	23,600	15,030	
39	11,005	7,110	11780	50.3	191.9	9740		275	7.2	39	84	23,880	15,210	
40	11,300	7,290	12100	50.7	194.2	9920		282	7.3	40	85	24,160	15,390	
41	11,595	7,470	12430	53.1	195.8	9700		274	7.9	41	86	24,440	15,570	
42	11,890	7,650	12760	53.8	200.1	9690		300	11.0	42	87	24,730	15,750	
43	12,185	7,830	13090	53.8	205.2	9560		299	14.9	43	88	25,010	15,930	
44	12,480	8,010	13440	54.6	211.0	9750		290	15.8	44	89	25,300	16,110	
45	12,775	8,190	13700	54.1	216.3	9900		288	17.0	45	90	25,580	16,290	

Termination owing to [illegible]

Weight of balloon 500 grams

Weight of lighting device ____ grams

Weight of target or transmitter ____ grams

Free lift ____ grams

Total weight ____ grams

Color of balloon ____

Type of target or transmitter ____

NOTES

CODED DATA	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff	H	dd	ff
	[illegible]		15	0	17	10		17	12	2	17	14		19	14		19				
8	15	18		14	18		0	14	19	2	13	10	4	10	11	6	15	09	8	18	
5	26	16	0	28	14	5	29	31	0	30	37	5	28	33	0	02	10	5	13		
1	08	23																			

H = Standard level indicator. dd = Wind direction in tens of degrees. ff = Wind s

RASON TIME ALTITUDE DATA

Contact	* *	5	10	15	20	25	30	35	40	45	50	55	60
Pressure					[illegible]		218		[illegible]		[illegible]		[illegible]
Altitude (m. s. l.) or pressure ratio					[illegible]		[illegible]		[illegible]		[illegible]		[illegible]
Time					02:35		05:25		[illegible]		[illegible]		[illegible]

Contact	105	110	115	120	125	130	135	140	145.9	150	155	160	165
Pressure		[illegible]		[illegible]		[illegible]		[illegible]		[illegible]			
Altitude (m. s. l.) or pressure ratio		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]			
Time		[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]			

*Indicate radio, rabbit or pilot. **Surface. ***Termination.

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Observer [illegible]