1. DATE - TIME GROUP 28 Dec53 1155Z/28 Dec	2. LOCATION Marysville, Calif
3. SOURCE Civilian	10. CONCLUSION UNIDENTIFIED Jet with afterburner ruled out since observer too close to obj not to hear sound and have illusion of hovering.
4. NUMBER OF OBJECTS one	
5. LENGTH OF OBSERVATION 1½ minutes	11. BRIEF SUMMARY AND ANALYSIS Saucer shape, size of baseball, brilliant bluish light which did not radiate, observer saw reflection of light from obj on nearby filling station bldg, Est speed 140-190 mph, hovered momentarily, moved north and faded into night. Obj was 300 ft alt before drop to 100-150 ft alt, hovered over airport.
6. TYPE OF OBSERVATION ground vis	
7. COURSE - - -	
8. PHOTOS ☐ Yes XX No	
9. PHYSICAL EVIDENCE ☐ Yes ☐ No	

Copy for Hynek

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

A-1

DEPARTMENT OF THE AIR FORCE
DATA PROCESSING DIVISION, ETAC (MAC)
ASHEVILLE, NORTH CAROLINA 28801

REPLY TO ATTN OF: USAF (ETACOL-1) 27 Aug 1968

SUBJECT: Shipment of Climatological Data

TO: FTD-TDPTR-4 (SSgt Kist)

1. Reference: Ltr 9 July 68, request for Weather Data.

2. We are shipping this date the following climatological data for 28 Dec 53:

a. Copies of WB Form 1130A for 23201 Chico Calif Mun Apt and for 93505 Marysville Calif SAWRS Apt

b. Copies of both WBAN Form 10A and WBAN Form 10B for 23206 Sacramento Calif/Mather AFB.

c. Copies of WB Form 1130A and WB Form 1130B for 23225 Blue Canyon Calif WBAS-Austin.

d. Copies of WB Form 1126A and WB Form 1126B (0300Z and 1500Z obs) for 23230 Oakland Calif WBAS.

3. Surface data is not available for Beale AFB prior to Jul 59 so we have included data for Blue Canyon Calif and Mather AFB, Calif.

FOR THE COMMANDER

JAMES R. DECOSTER
Chief, Data Processing Division

it occurred at a small airport and the duration was one and one-half minutes. Followup should have been made to determine whether there were other potential witnesses. Since it occurred at midnight on December 28, it is possible that there were no other witnesses available. Must be carried as unidentified, single witness.

15. 12 August 1965, Ramona, California.

One witness, duration of sighting only 15 seconds. Witness was a 67 year old lady. Sighting occurred at 9p.m. daylight saving time in the middle of August, and thus the sky should still have been reasonably bright. Witness said sighting occurred at night and sky very blue. Perhaps she thinks that anything after 6 p.m. is night. Must be listed as unknown (meager data, single witness, very short duration).

16. 26 February 1966, Bartlett, New Hampshire

I have in my files for 26 February 1966, Manchester, New Hampshire. I do not seem to find a Bartlett, New Hampshire case. See attached supplemental sheet A.

17. 17 July 1966, Centerville, Ohio.

Temporarily not in file. Will study this case when I visit Dayton.

18. 9 February 1967, Odessa, Delaware.

Since by an admitted breakdown in communications the Dover Air Force Base delayed some five months in investigating this case, all I have is the NICAP report. Evaluation pending my getting a copy of the Air Force investigation of same. Based on NICAP report, the sighting is obviously unidentified.

19. 12 February 1967, Grand Rapids, Michigan.

I have only the card on this case, but judging from it there seems to be a possibility that this one-witness case was caused by low-flying birds reflecting light. The sighting lasted 4 to 10 seconds, and witness mentions a high-pitched chirping noise.

20. 1 April 1967, Wellington or Loco, Texas.

I had a great personal involvement in this case, much of it

W B FORM 1130 A Revised 1-51

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

STATION WBAS, Blue Canyon, Calif. DATE DEC 28 19

TYPE 1	TIME (LST) 2	SKY and CEILING (Hundreds of Feet) 3	VISIBILITY (Miles) 4	WEATHER and OBSTRUCTIONS TO VISION 5	SEA LEVEL PRESS. (mbs.) 6	TEMP (°F) 7	DEW PT. (°F) 8	WIND DIRECTION 9	WIND SPEED (m.p.h.) 10	WIND CHARACTER AND SHIFTS 11	ALTIMETER SET (ins.) 12	REMARKS AND SUPPL
R	0630	0	30		213	43	15	↙	16	+22	021	44839
R	0730	0	30		217	40	10	←	7		021	105 25051
R	0830	0	30		213	44	13	←↙	13		021	
R	0930	0	30		210	51	10	→↘	7		022	KLyt SW
R	1031	0	30		210	54	17	→	9		024	SmKy S-SW
R	1131	0	30		200	57	8	↓	8		021	SmKy SW G
R	1231	0	30		183	60	2	↓↙	9		017	SmKy W Q
R	1331	0	30		169	60	10	↓↙	8		015	SmKy SW Q
												0029 24991
R	1430	220 0	30		176	55	31	→	12		014	SMKY SW
R	1530	220-00	30		180	50	29	→	6		014	SMKY SW
R	1630	220-00	30		181	48	31	↓	8		013	SMKY SW 607
R	1729	220-00	30		183	47	29	↙	7		013	
R	1830	220-00	154		176	48	11	↙	9		013	
R	1931	220-00	154		183	47	11	→	6		012	603 0019
R	2030	0	154		176	46	15	↓↘	6		012	
R	2130	0	154		169	44	15	↙	7		012	

CWS 47057-1

1-51 U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU WBAN 10 A

SURFACE WEATHER OBSERVATIONS

STATION WBAS, Blue Canyon, Calif. DATE DEC 28 1953

Y and CEILING (Hundreds of Feet) 3	VISIBILITY (Miles) 4	WEATHER and OBSTRUCTIONS TO VISION 5	SEA LEVEL PRESS. (mbs.) 6	TEMP (°F) 7	DEW PT. (°F) 8	WIND DIRECTION 9	WIND SPEED (m.p.h.) 10	WIND CHARACTER AND SHIFTS 11	ALTIMETER SET (ins) 12	REMARKS AND SUPPLEMENTAL CODED DATA 13	14A	14B	OBSERVERS INITIALS 15
O	30		213	43	15	↙	16	+22	021	44839			BK
O	30		217	40	10	←	7		021	105 25051			BK
O	30		213	44	13	←↙	13		021				BK
O	30		210	51	10	→↘	7		022	KLyt SW			BK
O	30		210	54	17	→	9		024	SmKy S-SW / 108 38 25071			BK
O	30		200	57	8	↓	8		021	SmKy SW Quad			BK
O	30		183	60	2	↓↙	9		019	SmKy W Quad			BK
O	30		169	60	10	↓↙	8		015	SmKy SW Quad / 924			BK
										0029 24991			
2 O	30		176	55	31	←	12		014	SMKY SW			RJN
2 -00	30		180	50	29	←	6		014	SMKY SW			RJN
2 -00	20		181	48	31	↓	8		013	SMKY SW 607 0467 60 24979			RJN
2 -00	30		183	47	29	↙	7		013				RJN
2 -00	15+		176	48	11	↙	9		013				RJN
2 -00	15+		183	47	11	→	6		012	603 0019 24966			RJN
2 O	15+		176	46	15	↓→	6		012				RJN
O	15+		169	44	15	↙	7		012				RJN

W B FORM 1130 B

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

STATION WBAS, Blue Canyon, Calif. DATE DEC 28 19

TIME (LST) 16	STATION PRESSURE (ins.) 17	DRY BULB (°F) 18	WET BULB (°F) 19	REL HUMIDITY (%) 20	TOTAL SKY COVER 21	CLOUDS AND OBSCURING PHENOMENA: LOWEST LAYER AMT. 22	LOWEST LAYER TYPE & DIR 23	LOWEST LAYER HEIGHT 24	SECOND LAYER AMT 25	SECOND LAYER TYPE & DIR 26	SECOND LAYER HEIGHT 27	SUMMATION TOTAL 28	THIRD LAYER AMT. 29	THIRD LAYER TYPE & DIR 30	THIRD LAYER HEIGHT 31	SUMMATION TOTAL 32	FOURTH LAYER AMT 33	FOURTH LAYER TYPE & DIR 34	FOURTH LAYER HEIGHT 35
00		44																	
01	24.835	44																	
02		42																	
03		43																	
04	24.870	42																	
05		41																	
0630	24.885	42.7	32.4	32	0	0			0			0	0			0	0		
0730	24.885	37.8	29.7	29	0	0			0			0	0			0	0		
0829	24.890	44.3	33.0	28	0	0			0			0	0			0	0		
0930	24.900	51.2	36.0	19	0	0	K	20	0			0	0			0	0		
1031	24.910	54.2	39.0	23	0	0	K	—	0			0	0			0	0		
1131	24.890	56.6	38.5	14	0	0	K	—	0	Ci	250	0	0			0	0		
1231	24.865	59.7	37.2	10	0	0	K	—	0	Ci	250	0	0			0	0		
1331	24.840	60.2	40.6	14	0	0	K	—	0	Ci	220	0	0			0	0		
1430	24.830	55.0	43.3	40	4	0	K	—	4	Ci	220	4	0			4	0		
1530	24.830	47.8	40.0	73	7	0	K	—	0	AC	130	0	7	Ci	220	7	0		
1630	24.820	47.9	39.9	51	9	0	K	—	0	AC	120	0	9	Ci	220	9	0		
1729	24.815	47.3	38.8	42	8	0	AC	130	8	Ci	220	8	0			8	0		
1830	24.815	48.3	34.6	21	5	0	AC	130	5	Ci	220	5	0			5	0		
1931	24.810	46.8	33.8	23	2	2	Ci	220	0			2	0			2	0		
2031	24.810	46.0	34.4	29	0	0	Ci	220	0			0	0			0	0		
2130	24.805	44.3	33.4	30	0	0			0			0	0			0	0		
2200	24.795	45.1																	
23		43																	

SYNOPTIC OBSERVATIONS

TIME (GCT) 41	TIME (LST) 42	NO. 43	PRECIP. (ins) 44	SNOW FALL (ins) 45	SNOW DEPTH (ins) 46	MAX TEMP. (°F) 47	MIN. TEMP. (°F) 48	HGT. 850 MB. SURFACE 49	STATE OF GRND 50	SEA STATE & DIR. 51	SWELL HGT. & DIR. 52	SWELL PERIOD 53	SURF H_S H_S M_S P_S D_S 54	WATER TEMP. 55	SOIL TEMP 56	57	58	59 TIME (LST)	60 ATT THER	61 OBSRVD BA	62 TOTAL COR	63 STA PRESS	64 BAROGRAPH	65 BAR CORR
	MID TO 0400	X	0	0	X	44	42	X	X	X	X	X	X	X	X									
	0400	1	0	0	0	44	41	5030	1															
	1020	2	0	0	0	54	38	5070	1															
	1620	3	0	0	0	60	47	4970	1															
	2200	4	0	0	0	49	43	4950	1															
	MID	X	0	0	0	46	42	X	X	X	X	X	X	X	X									

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

24-HR MAX TEMP (°F) 66	24-HR MIN TEMP (°F) 67	24-HR PRECIP. (WATER EQUIV (ins) 68	24-HR SNOWFALL UNMLTD. (ins) 69	SNOW DEPTH (ins) 70	PEAK GUST SPEED (m.p.h.) 71	PEAK GUST DIRECTION 72	PEAK GUST TIME (LST) 73	THICKNESS OF ICE ON WATER (ins) 74	FROZEN GRND LAYER (ins) TOP 75	FROZEN GRND LAYER (ins) BASE 76	RIVER GAGE 77	78	79	80	81
60	38	0	0	0							1				

PRECIP & THDRSTM 82	BEGAN 83	ENDED 84	DUR. 85 hrs	min

REMARKS, NOTES AND MISCELLANEOUS PHENOMENA 90

SUNRISE ---------- SUNSET ----------

☆U. S. GOVERNMENT PRINTING OFFICE: 1950 O - 885382

A-14

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU — WBAN 10 B

SURFACE WEATHER OBSERVATIONS

STATION WBAS, Blue Canyon, Calif. DATE DEC 28 1953

WET BULB (°F) 19	REL HUMIDITY (%) 20	TOTAL SKY COVER 21	CLOUDS AND OBSCURING PHENOMENA: LOWEST LAYER AMT. 22	LOWEST LAYER TYPE & DIR 23	LOWEST LAYER HEIGHT 24	SECOND LAYER AMT. 25	SECOND LAYER TYPE & DIR 26	SECOND LAYER HEIGHT 27	SUMMATION TOTAL 28	THIRD LAYER AMT. 29	THIRD LAYER TYPE & DIR 30	THIRD LAYER HEIGHT 31	SUMMATION TOTAL 32	FOURTH LAYER AMT. 33	FOURTH LAYER TYPE & DIR 34	FOURTH LAYER HEIGHT 35	PRESSURE TENDENCY 36	NET 3-HR CHANGE 37	38	39	40
																	5	005	0		
																	1	035			
32.4	32	0	0			0			0	0			0	0					0		
29.7	29	0	0			0			0	0			0	0			1	015	0		
33.0	28	0	0			0			0	0			0	0					0		
36.0	19	0	0	K	20	0			0	0			0	0					0		
39.0	23	0	0	K	—	0			0	0			0	0			1	025	0		
38.5	14	0	0	K	—	0	Ci	250	0	0			0	0					0		
37.2	10	0	0	K	—	0	Ci	250	0	0			0	0					0		
40.6	14	0	0	K	—	0	Ci	220	0	0			0	0			9	070	0		
43.3	40	4	0	K	—	4	Ci	220	4	0			4	0					3		
40.0	43	7	0	K	—	0	AC	130	0	7	Ci	220	7	0					3		
39.9	51	9	0	K	—	0	AC	130	0	9	Ci	220	9	0			6	020	3		
38.8	46	8	0	AC	130	8	Ci	220	8	0			8	0					2		
34.6	21	5	0	AC	130	5	Ci	220	5	0			5	0					2		
33.8	23	2	2	Ci	220	0			2	0			2	0			6	010	1		
31.4	29	0	0	Ci	220	0			0	0			0	0					0		
33.4	30	0	0			0			0	0			0	0					0		
																	9	015			

SYNOPTIC OBSERVATIONS

SNOW FALL (ins) 45	SNOW DEPTH (ins) 46	MAX TEMP (°F) 47	MIN. TEMP (°F) 48	HGT. 850 MB. SURFACE 49	STATE OF GRND 50	SEA STATE & DIR. 51	SWELL HGT. & DIR. 52	SWELL PERIOD 53	SURF H_s H_s M_s P_s D_s 54	WATER TEMP 55	SOIL TEMP 56	57	58
0	X	44	42	X	X	X	X	X	X	X	X		
0	0	44	41	5030	1								
0	0	54	38	5070	1								
.0	0	60	47	4970	1								
0	0	49	43	4950	1								
0	0	46	42	X	X	X	X	X	X	X	X		

STATION PRESSURE COMPUTATIONS

TIME (LST) 59		1025	1625	2200
ATT THERM 60		75.0	72.0	74.0
OBSRVD BAR 61		25.029	24.923	24.912
TOTAL CORR 62		-.120	-.113	-.118
STA PRESS 63		24.909	24.810	24.794
BAROGRAPH 64	24.870	24.875	24.810	24.790
BAR CORR 65		+.015	+.010	+.005

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

4-HR RAINFALL ACCUMULTD. (ins) 69	SNOW DEPTH (ins) 70	PEAK GUST SPEED (m.p.h.) 71	PEAK GUST DIRECTION 72	PEAK GUST TIME (LST) 73	THICKNESS OF ICE ON WATER (ins) 74	FROZEN GRND LAYER (ins) TOP 75	FROZEN GRND LAYER (ins) BASE 76	RIVER GAGE 77	78	79	80	81
0	0							1				

REMARKS, NOTES AND MISCELLANEOUS PHENOMENA 90

SUNSET----------

PRECIP & THDRSTM 82	BEGAN 83	ENDED 84	DUR. 85 hrs	DUR. 85 mins	OBSTR TO VIS 86	BEGAN 87	ENDED 88	DUR. 89 hrs	DUR. 89 mins

☆U. S. GOVERNMENT PRINTING OFFICE: 1950 O - 895398

A-14

W B FORM 1130 A Revised 7-1-48

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

SURFACE WEATHER OBSERVATIONS

STATION Chicago Ohare DATE 12/28/52

TYPE	TIME (LST)	CEILING (Hundreds of Feet)	SKY	VISIBILITY (Miles)	WEATHER and OBSTRUCTIONS TO VISION	SEA LEVEL PRESS. (mbs.)	TEMP (°F)	DEW PT. (°F)	WIND DIRECTION	WIND SPEED (m.p.h.)	WIND CHARACTER AND SHIFTS	ALTIMETER SET. (ins)	REMARKS AND SUPPLEMENTAL
1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	0445		O	15+			40	29		C	E	020	
R	0540		O	15+			39	29		C	E	020	
L	0700		O	55			36	27		C	E	030	
R	0730		O	70			37	26	NW	6E	E	031	
R	0835		O	15+			45	32	NW	5E	E	022	
R	0931		O	10			49	33	NW	5E	E	023	
R	1035		O	6	HK		54	35	NW	5E	E	021	
R	1130		O	7			M	M	NW	6E	E	016	
R	1235		O	7			58	34	NW	5E	E	013	
R	1330		300-O	7			61	38	N	5E	E	011	
R	1429	200 O	300-O	8			62	37	NNW	6E	E	010	
C	1540	250-O		8			58	38	NNW	4E	E	010	
R	1639	300-O	400-O	6	HK		55	38	WNW	7E	E	008	BINOVC
R	1730	300-O	400-O	4	HK		52	36	WNW	7E	E	009	
C	1832	400-O		6	HK		48	36	W	5E	E	008	
R	1925	400-O		10			47	37	WNW	5E	E	009	
												12/29/52	
L	0700		O	10			36	30		C	E	011	THN PATCHES GF
R	0728		O	15+			37	32	S	1E	E	012	
C	0833		O	70			38	30	SSW	3E	E	013	
R	0931	300-O		70			42	32	SSW	5E	E	015	
R	1034	300-O		70			50	32	S	12E	E	014	
R	1141	300-O		70			M	M	SSW	10E	E	011	
R	1232	500-O		170			61	39	SSW	15E	E	009	
R	1329	300-O		70			64	38	SSW	17E	E	007	
R	1433		O	70			62	36	SSW	17E	E	007	
R	1535		O	70			60	39	SSW	15E	E	007	
R	1630		O	70			60	31	SSW	12E	E	007	
R	1735		O	15+			54	34	SSW	7E	E	008	
R	1830		O	15+			49	34	NW	6E	E	011	
R	1928		O	15+			49	36	N	8E	E	013	
													12/30/52
R	0732		O	10			36	32	W	2E	E	035	
R	0840		O	8			35	30	SSW	7E	E	037	
R	0928		O	6	HK		39	32	SSW	7E	E	035	
R	1042		O	5	HK		46	35	SSW	7E	E	038	
R	1135		O	10			50	35	SW	5E	E	036	
R	1239		O	15			55	35	SW	5E	E	033	
R	1329		O	15			58	36	SSW	6E	E	032	
R	M		O	15			M	M	SW	5E	E	030	
R	1540		O	15			60	37	SW	5E	E	030	
R	1628		O	15+			59	37		C	E	031	
R	1716		O	15+			49	37	SSW	2E	E	032	
R	1845		O	15+			43	38		C	E	032	
R	1929		O	15			46	38	W	3E	E	032	

CWS 670537-1

U. S. GOVERNMENT PRINTING OFFICE : 1948 O - 788831

A-15

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU — WBAN 10A

SURFACE WEATHER OBSERVATIONS

STATION Chicago Chime DATE 12/23/53

SKY 4	VISIBILITY (Miles) 5	WEATHER and OBSTRUCTIONS TO VISION 6	SEA LEVEL PRESS. (mbs.) 7	TEMP (°F) 8	DEW PT. (°F) 9	WIND DIRECTION 10	WIND SPEED (m.p.h.) 11	WIND CHARACTER AND SHIFTS 12	ALTIMETER SET. (ins) 13	REMARKS AND SUPPLEMENTAL CODED DATA N	N/A	N/B	OBSERVERS INITIALS 15
O	15+			40	29		C	E	020	O	40.0	35.6	EH
O	15+			39	29		C	E	020	O	38.8	34.4	EH
O	55			36	27		C	E	020	O	36.6	32.5	AT
O	70			37	26	↖	6E	E	021	O	37.0	33.2	AT
O	15+			45	32	↖	5E	E	022	O	45.0	39.2	AT
O	10			49	33	↖	5E	E	022	O	49.0	42.0	AT
O	6	HK		54	35	↖	5E	E	021	O	54.3	45.2	AT
O	7			M	M	↖	6A	E	016	O	M	M	AT
O	7			58	34	↖	5E	E	013	O	58.4	47.1	AT
O	7			61	38	↑	5A	E	011	3	61.0	49.2	AT
O	8			62	37	↑↖	6E	E	010	7	62.0	49.6	AT
O	9			58	38	↖	4E	E	010	10	58.2	48.2	EH
00	6	HK		55	38	←↖	7E	E	008	Binovc	10	55.0	46.8	EH
O	4	HK		52	36	←↖	7E	E	009		9	54.9	44.4	EH
O	6	HK		48	36	←	5E	E	008		7	48.0	42.7	EH
O	10			47	37	←↖	5E	E	009		5	47.1	42.6	EH
							12/24/53						
O	10			36	30		C	E	011	THN PATCHES 6F - SE	O	36.2	32.6	EH
O	15+			37	32	↓	1E	E	012		O	36.8	35.0	EH
O	70			38	30	↓↓	3E	E	013		O	38.0	35.0	EH
O	70			42	32	↓↓	5E	E	015		O	42.6	38.2	EH
O	70			50	32	↓	12E	E	014		1	50.0	42.3	EH
O	70			M	M	↓↓	10E	E	011		6	M	M	EH
O	70			61	39	↓↓	15E	E	009		4	60.8	49.9	EH
O	70			64	38	↓↓	17E	E	007		2	63.9	49.3	EH
O	70			62	36	↓↓	17E	E	007		O	63.3	50.1	EH
O	70			60	38	↓↓	13E	E	007		O	60.2	49.7	AT
O	70			60	31	↓↓	12E	E	007		O	59.5	46.6	AT
O	15+			54	34	↓↓	7E	E	008		O	51.2	43.5	AT
O	15+			49	34	↑↖	6E	E	011		O	49.0	42.4	AT
O	15+			29	36	↑	8E	E	013		O	49.0	43.0	AT
							12/30/53						
O	10			36	32	↓	2E	E	035		O	36.0	34.5	EH
O	8			35	30	↓↓	7E	E	037		O	35.2	33.0	EH
O	6	HK		39	32	↓↓	9E	E	033		O	38.9	36.0	EH
O	5	HK		46	35	↓↓	9E	E	033		O	46.3	41.1	EH
O	10			50	35	↓	5E	E	036		O	50.2	43.3	EH
O	15			55	35	↓	5E	E	033		O	54.9	45.7	EH
O	15			58	36	↓↓	6E	E	032		O	57.5	47.9	EH
O	15			M	M	↓	5E	E	030		O	M	M	EH
O	15			60	37	↓	5E	E	030		O	60.0	48.8	EH
O	15+			59	37		C	E	031		O	59.1	48.6	EH
O	15+			49	37	→↓	2E	E	032		O	49.0	44.3	EH
O	15+			43	38		C	E	032		O	43.0	41.3	EH
O	15			46	38	↙	3E	E	032		O	46.3	42.4	EH

U. S. GOVERNMENT PRINTING OFFICE : 1953 O - 788431

A-15

Time entries on this form are 120 th meridian time

To convert to G C T (add/sub.) 8 hours

Height of Barometer 92 Ft (MSL)

23206

WBAN FORM 10A

SURFACE

TYPE 1	TIME (LST) 2	CEILING (hundreds of feet) AND SKY 3	VISIBILITY (Miles) 4	WEATHER AND OBSTRUCTIONS TO VISION 5	SEA LEVEL PRESS (mbs) 6	TEMP (°F) 7	DEW PT (°F) 8	WIND DIRECTION 9	WIND SPEED (Knots) 10A	WIND SPEED (mph) 10B	WIND CHARACTER AND SHIFTS 11	ALTIMETER SET (ins) 12	REMARKS AND SUPPLEMENTAL CODED DATA 13
EK R	0029	250 OVC	15+		197	43	29	← ↙	10	12		011	DOK
EK R	0131	OVC	15		20-	42	33	↖	10	12		013	317
EK R	0223	250 OVC	10		218	41	34	← ↖	8	6		017	1/19/
EK R	0326	250 OVC	10		219	40	35	↖	5	6		017	
EK R	0429	OVC	8		217	39	34	→ ↗	5	6		017	012 39
EK R	0530	OVC	8		219	39	33	↖	4	5		018	0/963
EK R	0629	OVC	10		219	40	33	←	9	10		018	
EK R	0727	OVC	6	H	218	40	31	←	9	10		018	103
EK R	0825	OVC	6	H	220	40	32		C	C		017	01933
EK R	0927	OVC	6	H	230	43	35		C	C		021	
EK R	1028	OVC	6	H	233	48	36		5	C		022	VSBY SW 2½ 314 39
EK R	1127	OVC	6	H	224	55	35		C	C		019	01933
EK R	1326	OVC	6	H	213	58	35		C	C		016	
EK R	1328	OVC	6	H	199	59	36	↑↑	7	8		012	832
EK R	1427	OVC	6	H	192	60	35	↑	8	9		010	11191
EK R	1529	250 OVC	6	H	192	60	35	↑	7	8		010	
EK R	1627	250 OVC	6	H	189	59	37		C	C		009	812 0049 60
EK R	1729	250 OVC	6	H	184	53	41		C	C		008	11191
EK R	1828	250 OVC	6	H	183	47	38	↖	9	10		008	
EK R	1929	250 OVC	6	H	180	45	38	←↖	10	12		007	905 0019
EK R	2029	250 OVC	6	H	180	45	35	←↖	14	16		007	11191
EK R	2130	250 OVC	7		180	44	37	←↖	12	14		007	
EK R	2229	250 OVC	7		184	43	36	←↖	7	8		008	407 0019 60
EK R	2330	250 OVC	7		185	43	37	←↙	9	10		008	11191

SC FORM 1 JUN 51 414 REPLACES SC FORM 446, 1 NOV 49, WHICH MAY BE USED

SIC STOCK NO. 00446

23206

SURFACE WEATHER OBSERVATIONS

WBAN FORM 10B

REMARKS AND SUPPLEMENTAL CODED DATA 13	14A	14B	OBSERVERS INITIALS 15	TIME (LST) 16	STATION PRESSURE (ins) 17	DRY BULB (°F) 18	WET BULB (°F) 19	REL HUMIDITY (%) 20	TOTAL SKY COVER 21	CLOUDS AND OBSCURING PHENOMENA: LOWEST LAYER AMT 22	LOWEST LAYER TYPE AND DIR 23	LOWEST LAYER HEIGHT 24	SECOND LAYER AMT 25	SECOND LAYER TYPE AND DIR 26	SECOND LAYER HEIGHT 27	SUMMATION TOTAL 28	THIRD LAYER AMT 29	THIRD LAYER TYPE AND DIR 30	THIRD LAYER HEIGHT 31	SUMMATION TOTAL 32	FOURTH LAYER AMT 33
OK																					
517																					
29																					
012 39																					
0963																					
103																					
01933																					
VSBY SW 2½ 314 39																					
01933																					
832																					
11191																					
812 0049 60																					
11191																					
905 0019																					
11191																					
402 0019 60																					
11191																					

SYNOPTIC OBSERVATIONS

TIME (G.C.T.) 41	TIME (L.S.T.) 42	NO 43	PRECIP (ins) 44	SNOWFALL (ins) 45	SNOW DEPTH (ins) 46	MAX TEMP (°F) 47	MIN TEMP (°F) 48	HEIGHT 850 MB SURFACE 49	STATE OF GRND 50	SEA STATE AND DIR 51	SWELL HEIGHT AND DIR 52	SWELL PERIOD 53	SURFACE Ma Pa Da 54	WATER TEMP 55	SOIL TEMP 56	57
0000	MID TO 0300	X	0	0	X	51	39	X	X	X	X	X	X	X	X	
	0600	1	0	0	0	54	39		1							
	1015	2	0	0	0	48	39		1							
	1615	3	0	0	0	60	48		1							
	2245	4	0	0	0	59	43		1							
0000	MID	X	0	0	0	42	42	X	X	X	X	X	X	X	X	

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

24-HR MAX TEMP (°F) 66	24-HR MIN. TEMP (°F) 67	24-HR PRECIP. WATER EQUIV. (ins) 68	24-HR SNOWFALL UNMLTD. (ins) 69	SNOW DEPTH (ins) 70	PEAK GUST SPEED (mph) 71	PEAK GUST DIRECTION 72	PEAK GUST TIME (L.S.T.) 73	THICKNESS OF ICE ON WATER (ins) 74	FROZEN GRND LAYER (ins) TEMP 75	FROZEN GRND LAYER (ins) BASE 76	RIVER GAGE 77	24 HR MAX R. H. (%) 78	24 HR MIN R. H. (%) 79	80	81
60	39	0	0	0	25	W	0002	—	—	—	—	71	39		

PRECIP AND THDRSTM 82

BEGAN 83

REMARKS, NOTES AND MISCELLANEOUS PHENOMENA

90

SUNRISE..... SUNSET.....

SID C STOCK NO 00441

A-16

23206

SERVATIONS

WBAN FORM 108

STATION Mather AFB Calif.
MONTH Dec DAY 28 YEAR 1955
LAT. 38°34'N LONG 121° 18' W

TIME (LST) 16	STATION PRESSURE (ins) 17	DRY BULB (°F) 18	WET BULB (°F) 19	REL HUMIDITY (%) 20	TOTAL SKY COVER 21	CLOUDS AND OBSCURING PHENOMENA: LOWEST LAYER AMT 22	LOWEST LAYER TYPE AND SML 23	LOWEST LAYER HEIGHT 24	SECOND LAYER AMT 25	SECOND LAYER TYPE AND SML 26	SECOND LAYER HEIGHT 27	SUMMATION TOTAL 28	THIRD LAYER AMT 29	THIRD LAYER TYPE AND SML 30	THIRD LAYER HEIGHT 31	SUMMATION TOTAL 32	FOURTH LAYER AMT 33	FOURTH LAYER TYPE AND SML 34	FOURTH LAYER HEIGHT 35	TOTAL OPAQUE SKY COVER 36	PRES TNDCY 37	NET 3-HR CHANGE 38	39	40	
00	30.01	40.4	37.4	86	4	4	Cs	250	0			4	0			4	0			4						B.B
01	30.08	42.2	38.2	69	0	0			0			0	0			0	0			0	5	.05				
02	30.06	40.6	39.0	77	3	3	Cs	150	0			3	0			3	0			3						
03	30.070	40.4	37.9	79	2	2	Cs	250	0			2	0			2	0			2						
04	30.065	38.8	36.6	81	0	0			0			0	0			0	0			0	0	.035				
05	30.075	38.6	36.2	79	0	0			0			0	0			0	0			0						
06	30.075	40.0	37.0	75	0	0			0			0	0			0	0			0						
07	30.075	39.6	36.0	70	0	0			0			0	0			0	0			0	1	.010				
08	30.071	39.7	36.4	74	0	0			0			0	0			0	0			0						9x7
09	30.105	42.6	39.1	73	0	0			0			0	0			0	0			0						9x7
28	30.115	47.8	42.4	63	0	0			0			0	0			0	0			0	3	.040				9x7
27	30.090	54.1	45.6	47	0	0			0			0	0			0	0			0						9x7
26	30.055	58.1	47.2	43	0	0			0			0	0			0	0			0						9x7
25	30.020	59.2	48.1	42	0	0			0			0	0			0	0			0	8	.095				9x7
24	30.000	60.3	48.2	38	0	0			0			0	0			0	0			0						9x7
23	29.945	59.9	46.1	39	2	2	Cu	250	0			2	0			2	0			2						9x7
22	29.965	58.6	48.2	44	5	5	Cu	250	0			5	0			5	0			3	8	.035				9x7
21	29.995	52.8	47.0	64	5	5	Cu	250	0			5	0			5	0			4						mx8
20	29.995	47.2	42.8	70	4	4	Cu	250	0			4	0			4	0			4						7x8
19	29.975	46.4	42.0	75	4	4	Cu	250	0			4	0			4	0			4	9	.015				7x4
18	29.970	46.2	41.5	74	3	3	Cu	250	0			3	0			3	0			3						7x5
17	29.970	43.8	40.8	88	1	1	Cu	250	0			1	0			1	0			1						7x8
16	29.975	43.2	40.2	87	1	1	Cu	250	0			1	0			1	0			1	4	.005				mx8
15	29.975	42.8	40.0	89	1	1	Cu	250	0			1	0			1	0			1						mx8

SYNOPTIC OBSERVATIONS

TIME (G.C.T.) 41	TIME (L.S.T.) 42	NO 43	PRECIP (ins) 44	SNOWFALL (ins) 45	SNOW DEPTH (ins) 46	MAX TEMP (°F) 47	MIN TEMP (°F) 48	HEIGHT 850 MB SURFACE 49	STATE OF GRND 50	SEA STATE AND DIR 51	SWELL HEIGHT AND DIR 52	SWELL PERIOD 53	SURFACE Ms Ms Ms Ps Ds 54	WATER TEMP 55	SOIL TEMP 56	57	58
		X	0	0	X	51	39	X	X	X	X	X	X	X	X		
		-1	0	0	0	54	39		1								
	1015	2	0	0	0	48	39		1								
	1645	3	0	0	0	60	48		1								
	2215	4	0	0	0	59	43		1								
	0400	X	0	0	0	42	40	X	X	X	X	X	X	X	X		

STATION PRESSURE COMPUTATION

TIME (L.S.T.) 59	0400	1020	1620	2219
ATT. THERM. 60	72.0	76.0	71.5	76.5
OBSERVD. BAR. 61	30.224	30.27	30.130	30.136
TOTAL CORR. 62	-.164	-.159	-.146	-.160
STA. PRESS. 63	30.060	30.113	29.984	29.976
BAROGRAPH 64	30.053	30.094	29.970	29.970
BAR. CORR. 65	+.007	+.020	+.015	+.015

SUMMARY OF DAY (MIDNIGHT TO MIDNIGHT)

24-HR MAX TEMP (°F) 66	24-HR MIN TEMP (°F) 67	24-HR PRECIP. WATER EQUIV. (ins) 68	24-HR SNOWFALL UNMLTD. (ins) 69	SNOW DEPTH (ins) 70	PEAK GUST SPEED (mph) 71	PEAK GUST DIRECTION 72	PEAK GUST TIME (L.S.T.) 73	THICKNESS OF ICE ON WATER (ins) 74	FROZEN GRND LAYER (ins) TOP 75	FROZEN GRND LAYER (ins) BASE 76	RIVER GAGE 77	24 HR MAX R. H. (%) 78	24 HR MIN R. H. (%) 79	80	81
	37	0	0	0	26	W	0002	—	—	—	—	71	37		

PRECIP AND THDRSTM 82	BEGAN 83	ENDED 84	DUR 85 hrs	DUR 85 mins	OBSTR TO VIS 86	BEGAN 87	ENDED 88	DUR 89 hrs	DUR 89 mins
					H	0757	1132		

REMARKS, NOTES AND MISCELLANEOUS PHENOMENA

90

SUNRISE ..... SUNSET .....

A-16

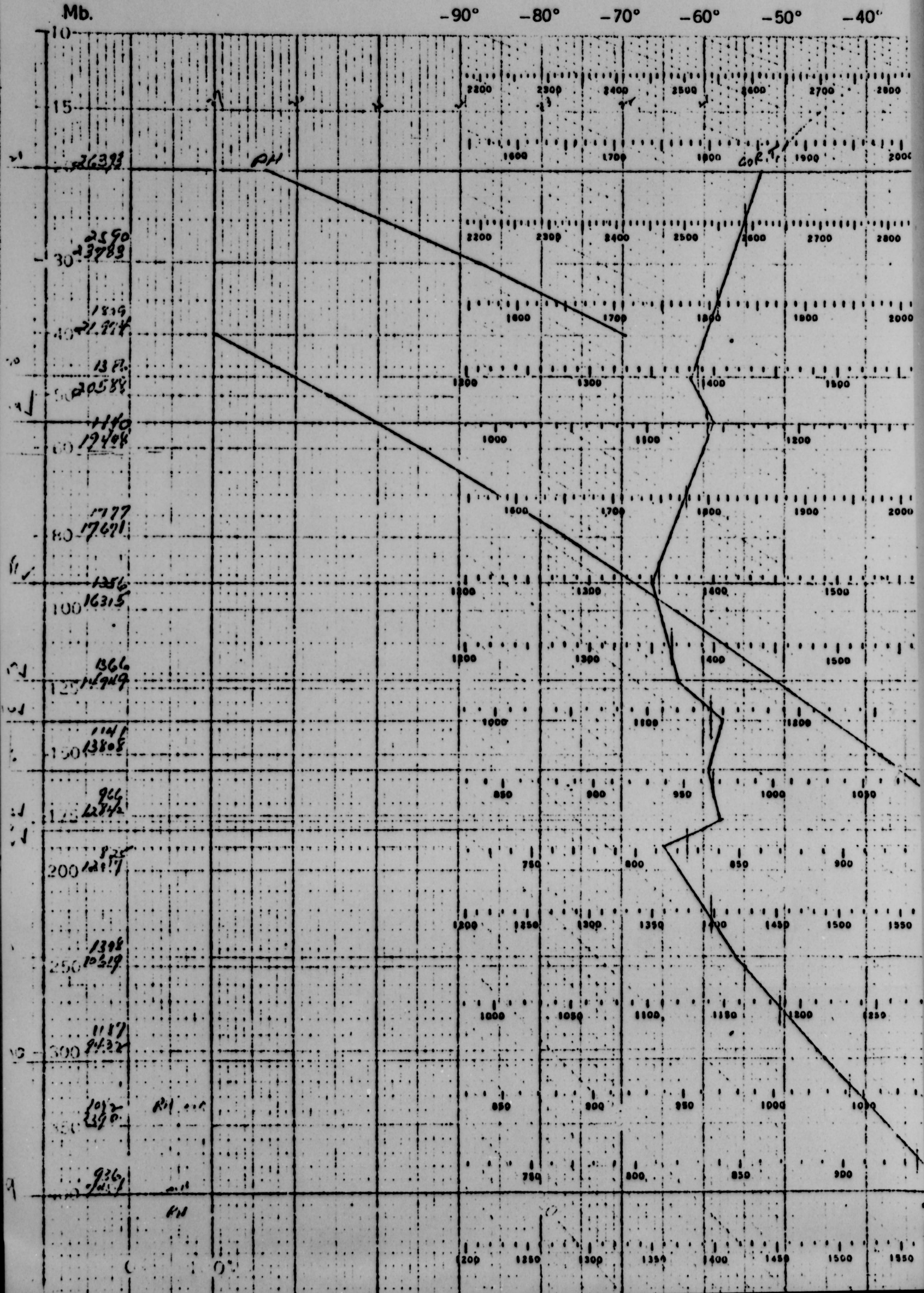
SAMANA-Date 52-187 5-30

W. B. Form 1126 B (Revised 8-1-51)

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

ADIABATIC CHART

WBAN-31B



T OF COMMERCE, WEATHER BUREAU

ABATIC CHART

WBAN-31B

DATA BLOCK B

Code Check	Level No.	PRESSURE		TEMPERATURE				RELATIVE HUMIDITY	
		Sig. Contact	mb.	Ordinate	Ascent (°C)	Correction	Corrected	Ordinate	% Including Correction of -2 %
		SIGNIFICANT LEVELS							
	10	102.0	306	27.3	-44.5	-0.7	-45.2		
	11	113.0	274	19.7	-56.3	-0.3	-56.6		
77	12	121.0	1.1	14.6	[illegible]	-0.4	-64.6		
	13	125.0	151	17.2	-53.7	0.4	-53.3		
85	14	121.0	77	15.6	-51.5	-0.4	-51.9		
	15	122.0	[illegible]	17.8	-[illegible]	0.4	-54.2		
99	16	135.0	[illegible]	18.8	-[illegible]	-0.4	-[illegible]		
00	17	137.4	[illegible]	15.6	-62.6	-0.4	-63.0		
11	18	142.0	[illegible]	14.0	-65.6	-0.5	-66.1		
22	19	145.0	[illegible]	15.4	-57.1	-0.5	-57.6		
	20	149.2	47	16.9	-63.4	-1.0	-64.4		
	21	153.1	20	22.7	-51.1	-1.5	-52.6		

CODED MESSAGE FOR TRANSMISSION

4925	30305	95990	20142
15530	31909	10353	15913
10994	61[illegible]	12915	19[illegible]
12213	09216	0[illegible]7	

SOLAR RADIATION
RAOB TEM

1. Time, LST, at 200 mb at termination, if bet 400 mb. and 200 mb
2. Correction for TST.
3. Time, TST, Algebra sum of (1) and (2).
4. Differences betwee and solar noon.
5. Elevation angle of s
6. Elapsed time from 2 mb. to terminating
7. Ascensional rate

DATA BLOCK B

Code Check	Level No.	PRESSURE		TEMPERATURE				RELATIVE HUMIDITY		DEW POINT	REMARKS
		Sig. Contact	mb.	Ordinate	Ascent (°C)	Correction	Corrected	Ordinate %	Including Correction of -1/2 %	°C	
		SIGNIFICANT LEVELS									
	10	102.0	306	27.3	-44.6	-0.7	-45.3				
	11	113.0	282	19.7	-56.0	-0.3	-56.1				12760
77	12	130.0	1.4	16.6	[illegible]	-0.4	-64.9				12840
	13	125.0	151	19.2	-38.7	0.4	-61.1				
88	14	121.0	77	15.6	59.5	-0.4	59.1				12800
	15	122.0	[illegible]	17.8	[illegible]	-0.4	59.2				
99	16	135.0	[illegible]	18.8	-57.1	-0.4	-57.5				
00	17	137.0	[illegible]	15.6	-62.6	-0.4	-63.0				
11	18	142.0	[illegible]	14.0	-65.6	-0.5	-66.1				16340
22	19	145.0	[illegible]	13.1	-57.7	-0.5	-58.2				
	20	149.2	417	16.9	-60.4	-1.0	-61.4				
	21	153.1	20	22.7	-51.1	-1.8	-52.9				26370

CODED MESSAGE FOR TRANSMISSION

49205	20305	95990	20462	12000
15520	00009	10352	15993	05765
10991	62[illegible]	12915	19000	12708
12213	09216	05[illegible]9		

SOLAR RADIATION CORRECTIONS FOR RAOB TEMPERATURE

1. Time, LST, at 200 mb. or at termination, if between 400 mb. and 200 mb.	0741
2. Correction for TST.	-10
3. Time, TST, Algebraic sum of (1) and (2).	0731
4. Difference between (3) and solar noon.	4.5
5. Elevation angle of sun.	0°
6. Elapsed time from 200 mb. to terminating level.	[illegible].5 [illegible].1
7. Ascensional rate	30[illegible].1 35[illegible]

CONSTANT PRESSURE DATA

PUNCHED CARD No. 8

6273	-52.9

PUNCHED CARD No. 7

3783	-56.7

1974	-57.5

08 75	0583	[illegible].4
1999..	X	X
0		

9448	-60.0

PUNCHED CARD No. 6

7[illegible]1	-64.1

10 58	6[illegible]15	-65.3
15 [illegible]93	X	X
0		

4[illegible]40	-62.[illegible]

PUNCHED CARD No. 5

15530	3[illegible]5	-5[illegible].9
5997	X	X
0		

[illegible]42	-57.1

2094	-2[illegible]17	-62.0
13992	[illegible]	[illegible]
0		

0619	-55.2	
[illegible]	X	

PUNCHED CARD No. 4

30 95	9432	-[illegible].5
16490	[illegible]	[illegible]
0		

5390	-37.5	
1221	X	
15	0[illegible]37	

24 Km.	23 Km.	22 Km.	21 Km.	20 Km.	−90° 19 Km.	−80° 18 Km.	−70° 17 Km.	−60° 16 Km.	−50° 15 Km.	−40° 14 Km.

Station: Oakland Airport, Oakland, Calif

Lat. 37° 44' N. Long 122° 12' W.

DATA AS TRANSMITTED	D. P. TO 0.1°C OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00$_{hhh}$	H (gpm)	T
TTT$_d$T$_d$T$_d$	°RH	°D.P.
Ddff	D (16 pts.) Wind	S (m.p.s.)

°Omitted above 200 mbs.

A-11

PH—Pressure-height

T—Temperature °C

RH—Relative Humidity

Height scale in geopotential meters

77	12	130.0	1.1	10.6	
	13	123.0	15.1	10.2	-5
83	14	121.0	22	15.6	3
	15	122.0		17.8	
99	16	135.0		18.8	
	17	134.4		15.6	-6
	18	142.0		14.0	-6
	19	145.0		13.1	-5
	20	149.2	27	16.9	-6
	21	152.1	20	22.7	

492.5
1553.0
1099.1
1221.3

Col. T

DATA AS TRANSMITTED	D. P. TO 0.1°C OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00bbb	H (gpm)	T
$TTT_DT_DT_D$	°RH	°D.P.
0dddff	D (16 pts.) Wind	S (m.p.s.)

*Omitted above 200 mbs.

A-11

PH—Pressure-height

T—Temperature °C

RH—Relative Humidity

Height scale in geopotential meters

Drawn by E. M. VOESTE

Verified by M R McDONOUGH

Inspected by

	13	1230	17.1	10.2	-3.17	0.4	-6.1					
88	14	1210	22.	15.6	31.5	-.4	5.1				12900	
	15	1220	1[illegible]	17.8	-[illegible]	.4	-5.2					
99	16	1250	[illegible]	18.8	-5.1	-.4	.15					
00	17	1311	[illegible]	15.6	-62.6	-.4	-6.3					
11	12	1430	[illegible]	14.0	-65.6	-0.3	-6.1				16340	
22	19	1450	[illegible]	13.1	-57.1	-.06	-.59					
	20	1492	27.	16.9	-6.4	-.10	-.14					
	21	1521	20.	22.7	-5.1	-1.8	-.51				26370	

CODED MESSAGE FOR TRANSMISSION

49235	20305	95990	20442	12400
15520	31009	10353	15993	05765
10994	66[illegible]	12915	19700	13708
12213	09216	05[illegible]9		

SOLAR RADIATION CORRECTIONS FOR RAOB TEMPERATURE

1. Time, LST, at 200 mb. or at termination, if between 400 mb. and 200 mb.	1741
2. Correction for TST.	-10
3. Time, TST, Algebraic sum of (1) and (2).	1731
4. Difference between (3) and solar noon.	4.5
5. Elevation angle of sun.	0°
6. Elapsed time from 200 mb. to terminating level.	[illegible].5 25.1
7. Ascensional rate	30[illegible].1 35[illegible]

PUNCHED CARD No. 7

6173	-52.9	
3783	-56.7	
1974	-59.8	
0583	-.04	
1099	X	X
0		
9448	-60.0	

PUNCHED CARD No. 6

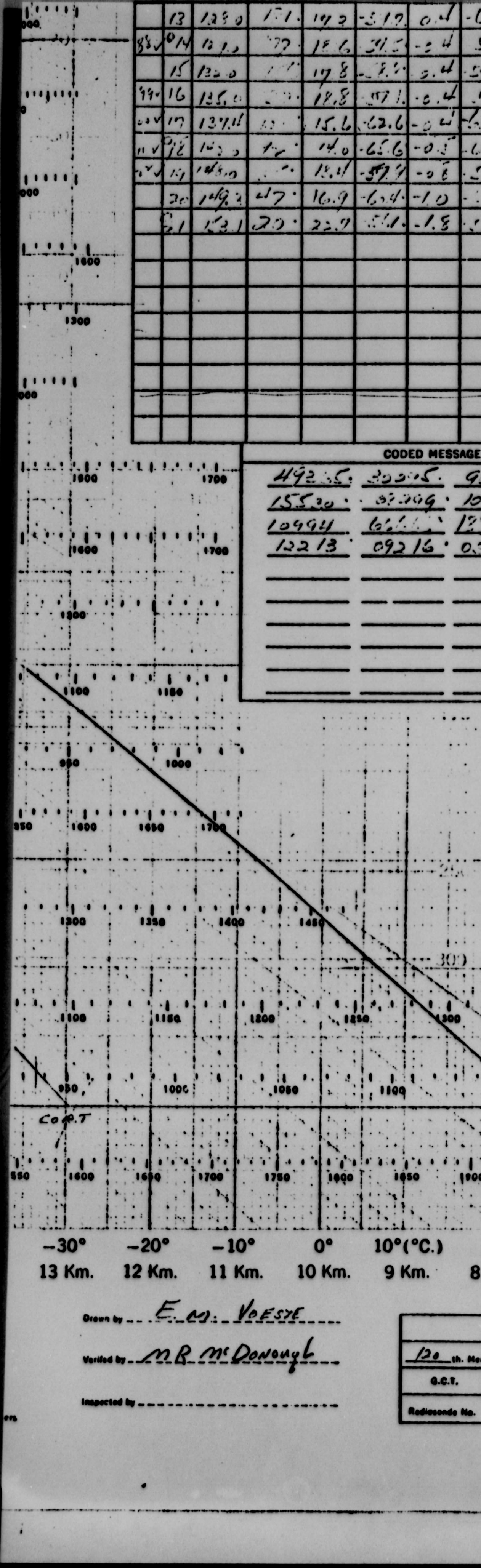
7[illegible]1	-64.1	

PUNCHED CARD No. 5

10[illegible]3	6[illegible]15	-6.53
13[illegible]3	X	X
0		
[illegible]5[illegible]0	6.2[illegible]	

PUNCHED CARD No. 4

16530	3[illegible]5	-5.[illegible]
[illegible]799	X	X
0		
[illegible]2[illegible]42	-5[illegible]1	
20943	-2[illegible]17	-[illegible]2.0
13992[illegible]	[illegible]	[illegible]
0		
0619	-55.2	
[illegible]	X	
20[illegible]95	9[illegible]33	-[illegible]6.5
16490	[illegible]	[illegible]
0		
5390	-37.5	
[illegible]221	X	
15	[illegible]33	



Drawn by E. A. VOEGTE

Verified by M R McDONOUGH

Inspected by

DATE AND RELEASE TIME

	Year	Month	Day	Time
120 th. Mer.	1953	Dec	25	0700
G.C.T.	1953	Dec	25	1500

Radiosonde No. 352937 Ascension No. 703

W. B. Form 1128 A (Revised 8-1

BASELINE CHECK READINGS

Time G. C. T.	TEMPERATURE			RELATIVE HUMIDITY			
	Ordinate	Dry	Wet	Ordinate	Raob	Cor.	Psychrometer
		'	°F		%	%	Ice / Water
1452	69.8	18.0	14.4°C	73.6	71	-3	28

U. S. DEPARTMENT OF COMMERCE, WEATHER

ADIABATIC CHART

WBAN-31A

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

Mb. 40° -30° -20° -10° 0°(C.)

T 24 CT. RH PH

1900 1850 1800 1750 1700 1650 1600 1550 1500 1450 1400 1350 1300 1250 1200

950 900 850 800 750 700 650 600 550 500 450

1649
5814

1405
4391

1244
3755

1113
2942

807
1535

474
1061

849
181

166

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

T

RH

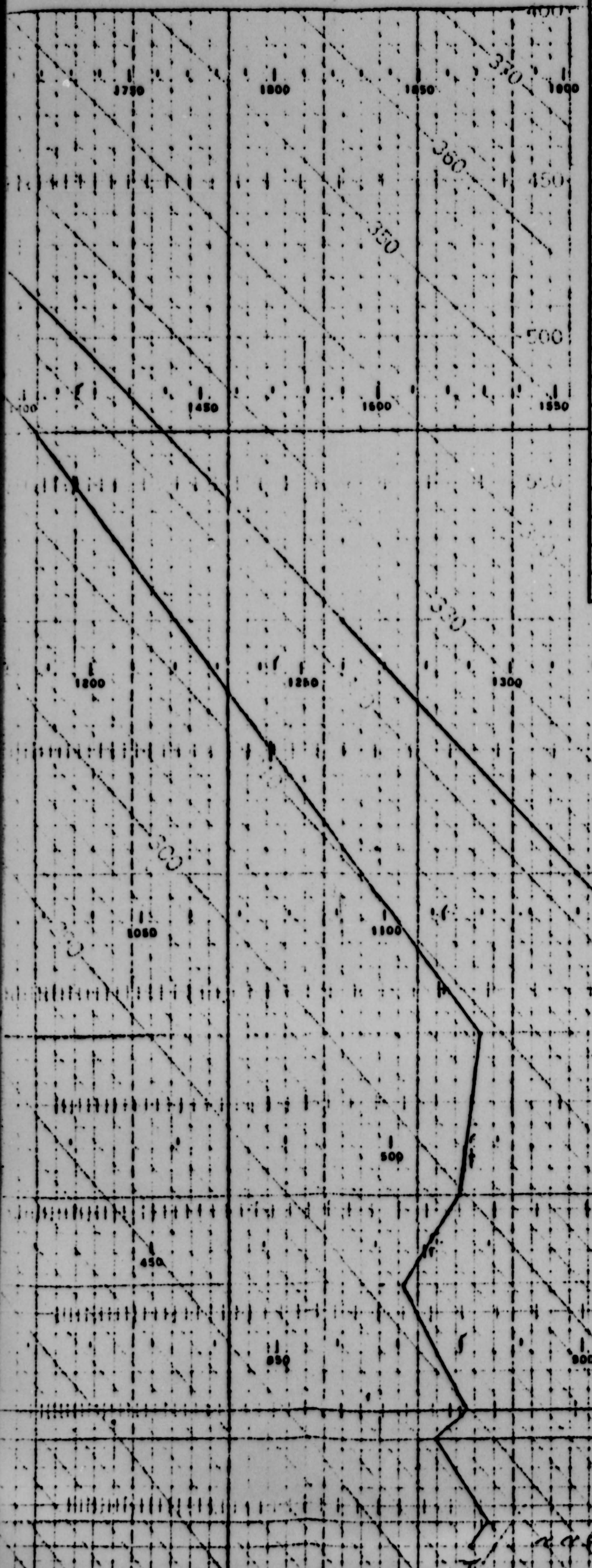
mb

U S. DEPARTMENT OF COMMERCE. WEATHER BUREAU

ADIABATIC CHART

WBAN-31A

6 Km. −10° 5 Km. 0°(C.) 4 Km. 10°



DATA BLOCK A

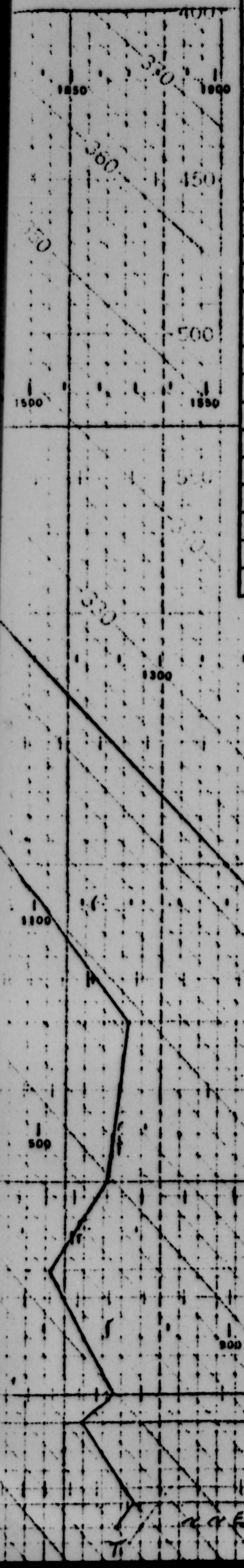
Code Check	Level No.	PRESSURE: Contact or semi-Contact	PRESSURE: mb.	TEMPERATURE: Ordinate	TEMPERATURE: Ascent (°C)	RELATIVE HUMIDITY: Ordinate	RELATIVE HUMIDITY: % Including Correction of −5%	DEW POINT: °C	REMARKS
	SIGNIFICANT LEVELS								
	1 1		1021.		12.2°		38.	-1.2°	0000
11	2 2	7.0	1008	57.3	13.6°	29.0	33.	-2.5°	0012
22	3 3	12.0	965.	65.8	10.9°	24.0	38.	-3.0°	0044
33	4 4	14.0	950	66.7	12.5°	27.0	32.	-3.8°	0060
44	5 5	22.0	886	65.0	9.2°	19.0	28.	-8.5°	0120
55	6 6	28.0	843.	66.5	12.2°	5.0	15.	-13.7°	
66	7 7	38.0	769.	67.1	13.3	M3	M3.	M3.	0231
	8 8	72.0	532	53.1	-10.1°	M8	M8.	M8.	0522
	9	92.7	400.	38.5	-27.6°	M8	M8.	M8	
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								

CODED MESSAGE FOR TRANSMISSION

47315.	02112.	51714.	00209	00059
13522.	00315.	85504.	11626.	00228.
20035	07990	00137	50908	04994.
03534	43446	79992.	03542	55551.
11001.	13525.	22965.	12557.	33750
12536.	40150.	09522.	55845.	12633.
66666.	76913.	12.		

R BUREAU

4 Km.
10°



DATA BLOCK A

Code Check	Level No.	PRESSURE: Contact or semi-Contact	PRESSURE: mb.	TEMPERATURE: Ordinate	TEMPERATURE: Ascent (°C)	RELATIVE HUMIDITY: Ordinate	RELATIVE HUMIDITY: % Including Correction of —3 %	DEW POINT °C	REMARKS
			SIGNIFICANT LEVELS						
	1 1		1021.		12.2		38	-1.2	00006
11	1-2	70	1008	57.3	13.6	29.0	33	-2.5	00120
22	1 3	12.0	965.	65.8	10.9	39.0	38	-3.0	00490
33	2 4	14.0	950	56.7	12.5	27.0	32	-3.8	00610
44	1 5	22.0	826	65.0	9.2	19.0	28	-8.5	01200
55	1 6	28.0	843	66.5	12.2	5.0	15	-13.7	
66	3 7	38.0	769	67.1	13.3	m3	m0	m3	02340
	0 8	72.0	532	53.1	-10.1	m8	m3	m3	05350
	9	92.7	400	38.6	-27.6	m8	m8	m3	
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								

CODED MESSAGE FOR TRANSMISSION

47315	02112	51714	00209	00069
13522	00315	85504	11628	00228
20035	07990	00137	50908	64995
03534	40446	79992	03542	55551
11001	13525	22965	12559	23750
12530	40150	09522	55845	12633
66666	76913	12		

CONSTANT PRESSURE DATA

PUNCHED CARD No. 4

40446	7454	-298
79992	(20)	013
03542	15	032

6600	-219	
(18)		X
15	032	

PUNCHED CARD No. 3

50908	5814	-1455
64995	(16)	013
03534	16	008

012

5090	-081	
(15)		X
16	017	

4399	-029	
(14)		X
16	018	

3770	0082	
(14)		X
16	021	

PUNCHED CARD No. 2

70035	3155	0370
07993	(13)	013
00137	16	020

2600	0116	
(12)		X
16	015	

2002	0129	
(18)		X
16	015	

85504	1535	0117
11628	17	-126
00228	01	014

1061	10.0	
22		X
01	013	

0613	0125	
22		X
01	012	

PUNCHED CARD No. 1

8054	0101	0121
18522	34	-2.5
00385	01	0098

02112	Pressure	0098

Station	Oakland Airport, Oakland, Calif
Lat. 37° 44' N.	Long 122° 13' W

DATA AS TRANSMITTED	D. P. TO 0.1°C. OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00 bbb	H (gpm)	T
$TTT_dT_dT_d$	RH	D.P.
Oddff	D (16 pts.)	Wind S (m.p.s.)

A-10

PH – Pressure-height

T – Temperature °C

RH – Relative Humidity

Height scale in Geopotential

	1	1	
	2	2	7.0
	3	3	12.0
	4	4	14.0
	5	5	22.0
	6	6	28.0
	7	7	38.0
	8	8	72.0
	9	9	92.7
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		

DATA AS TRANSMITTED	D. P. TO 0.1°C. OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00 aaa	H (gpm)	T
$TTT_dT_dV_a$	RH	D.P.
Oddff	D (16 pts.) Wind	S (m.p.s.)

A-10

PM-- Pressure-height

T-- Temperature °C

RH-- Relative Humidity

Height scale in geopotential meters

Drawn by M.P.A. Doe

Verified by E. M. V.

Inspected by

−30° 8 Km. | −20° 7 Km. | −10° 6 Km. | 0°(C.) 5 Km. | 10° 4 Km. | 20° 3 Km.

	1		1021.		12.2.		38.	-1.2	00006
11	2	7.0	1008	67.3	13.6.	29.0	33.	-2.5.	00120
22	3	12.0	965.	65.8	10.9.	28.0	38.	-3.0.	00490
33	4	14.0	950	66.7	12.5.	27.0	32.	-3.8.	00610
44	5	22.0	826	65.0	9.2.	19.0	28.	-8.5.	01202
55	6	28.0	843.	66.8	12.2.	5.0	15.	-13.7.	
66	7	38.0	769.	67.1	13.3	m13	m0.	m3.	02342
	8	72.0	532	53.1	-10.1.	m8	m3.	m8.	05355
	9	92.7	400.	38.6	-27.6	m8	m8.	m3	
	10								
	11								
	12								
	13								
	14								
	15								
	16								
	17								
	18								
	19								
	20								

PUNCHED CARD No. 1

6600	-219	
(18)		
15	320	

00908	5X14	-145
64995	(16)	m8
03534	16	008

12

5090	-081	
(15)		
16	017	

64995	-029	
(14)		
16	018	

3770	002.2	
(14)		
16	021	

10035	3155	0370
07990	(13)	m13
00137	16	020

2600	0116	
(12)		
16	015	

2442	012.9	
(12)		
16	015	

85504	0535	0117
11628	17	-12.6
00228	01	014

1061	010.0	
22		
01	015	

0610	012.5	
22		
01	012	

0254	0141	0131
18522	34	-2.5
03385	01	006

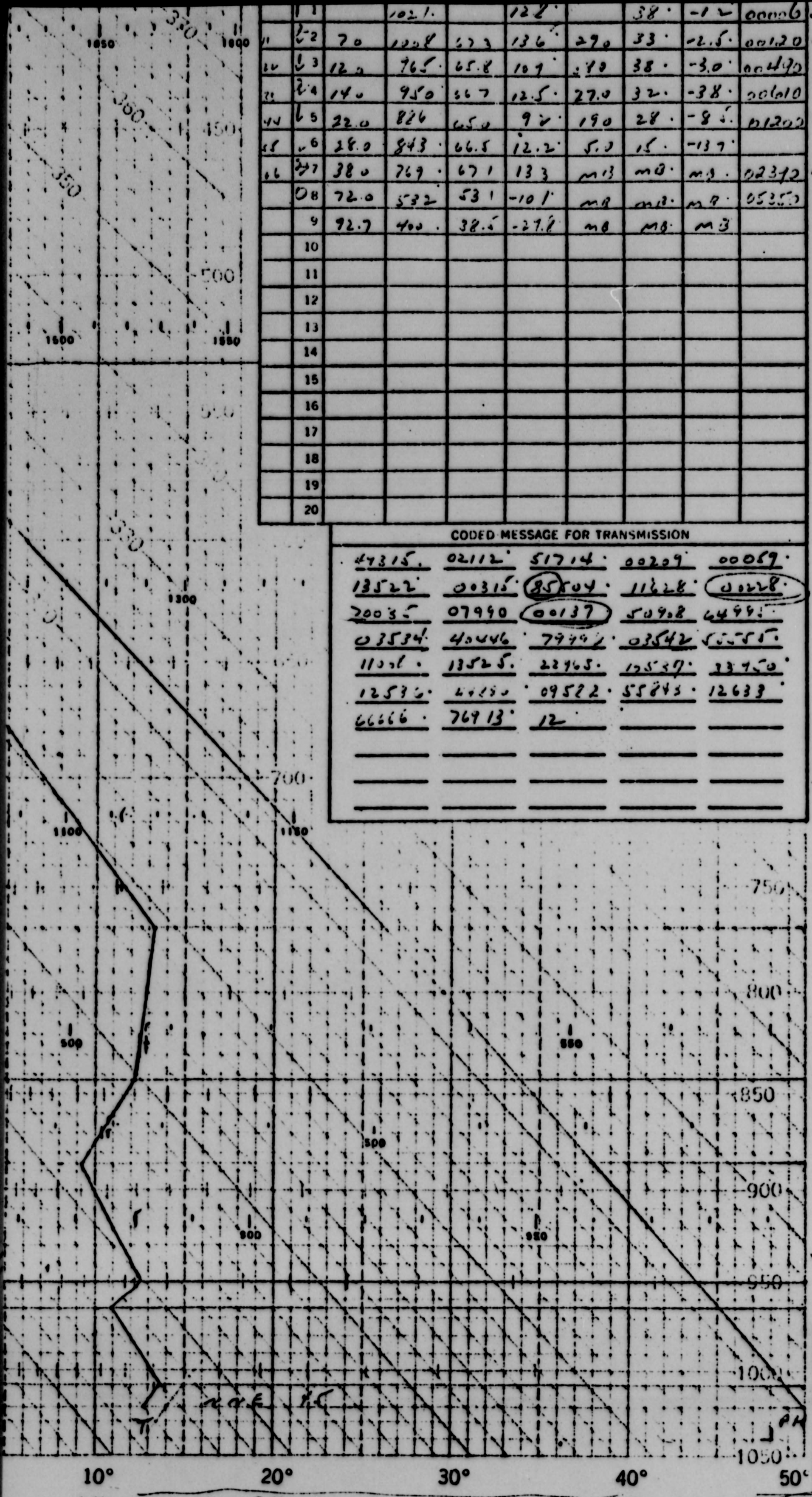
02112	Pressure 1021	012.8
51714	38	-1.2
00209	01	014

PUNCHED CARD No. 2

PUNCHED CARD No. 3

CODED MESSAGE FOR TRANSMISSION

47315	02112	51714	00209	00069
13522	00315	85504	11628	00228
20035	07990	00137	50908	64995
03534	40446	79992	03542	55551
11061	13525	22965	12537	23750
12530	44150	09522	55845	12633
66666	76913	12		



Drawn by Mrs. Dorothy

Verified by E. M. Voeste

Inspected by

DATE AND RELEASE TIME

	Year	Month	Day	Time
120 th. Mer	1953	Nov.	26	0700
G.C.T.	1953	Nov	26	1500

Radiosonde No. 352427 Ascension No. 723

W. B. Form 1126B (Revised 8-1-51)

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

ADIABATIC CHART

WBAN-31B

Mb. −90° −80° −70° −60° −50° −40°

10
15
20
30
40
50
60
70
80
90
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000

MB — RH

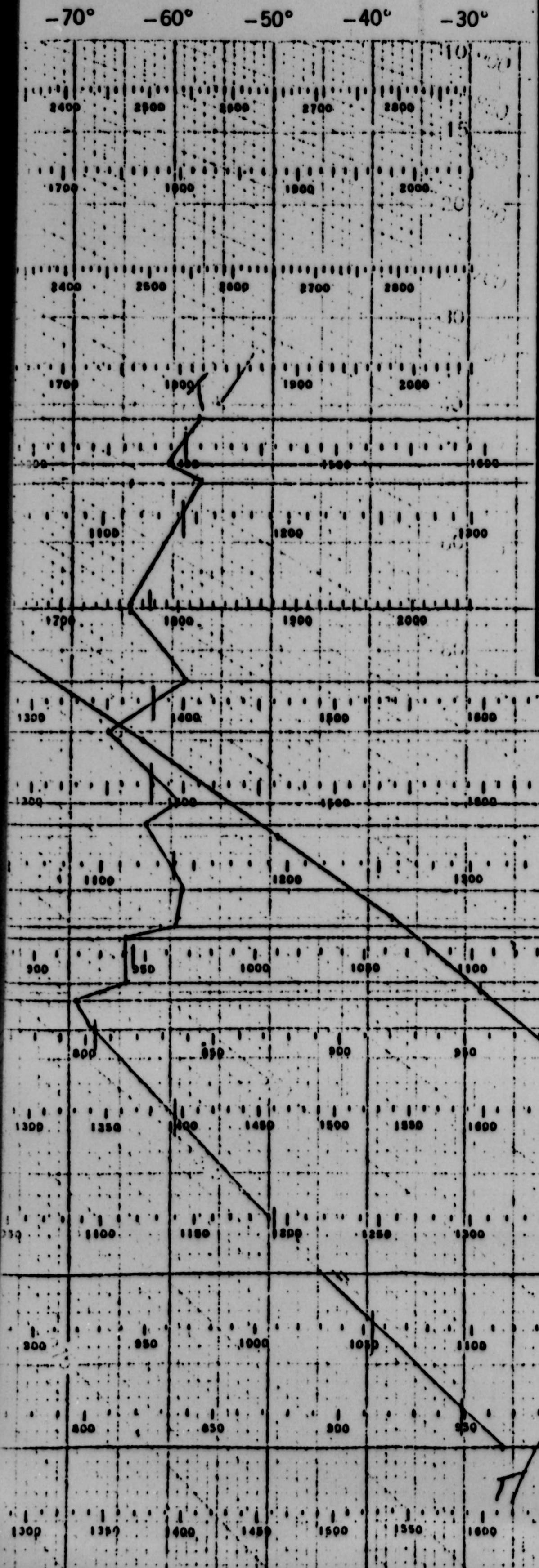
RH

100%

OF COMMERCE, WEATHER BUREAU

ABATIC CHART

WBAN-31B



DATA BLOCK B

Code Check	Level No.	PRESSURE: Context	PRESSURE: mb.	TEMPERATURE: Ordinate	TEMPERATURE: Ascent (°C)	TEMPERATURE: Correction	TEMPERATURE: Corrected	RELATIVE HUMIDITY: Ordinate	RELATIVE HUMIDITY: % Including Correction of %	D P
		SIGNIFICANT LEVELS								
	Pg	107.0	300	27.1	-44.8					
	.0	125.0	199	13.0	-67.6					
33	51	127.0	178	12.2	-69.3					
44	12	127.9	172	14.7	-61.2					
55	13	130.0	159	14.7	-61.2					
	.4	131.0	153	17.3	-59.6					
	15	133.0	141	17.8	-58.8					
66	16	135.9	122	15.7	-61.4					
77	17	137.1	116	17.3	-59.6					
	09	140.0	98	13.7	-66.2					
88	2.4	141.6	87	17.8	-58.8					
99	3.0	144.0	72	14.8	-61.1					
.	21	142.5	51	15.8	-57.2					
	27	145.0	41	16.9	-60.5					
	32	149.1	92	18.6	-57.4					

CODED MESSAGE FOR TRANSMISSION

49353	30096	94998	20945
15519	09992	10345	16994
07995	11116	17819	17214
12212	11610	08709	07214

SOLAR RADIATION C
RAOB TEMPE

1. Time, LST, at 200 mb. at termination, if betwe 400 mb. and 200 mb.
2. Correction for TST.
3. Time, TST, Algebraic sum of (1) and (2).
4. Differences between (and solar noon.
5. Elevation angle of sun
6. Elapsed time from 20 mb. to terminating le
7. Ascensional rate

DATA BLOCK B

Code Check	Level No.	PRESSURE: Context	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											
	PG	107.0	300	27.1	-44.8						09435
	10	125.0	199	13.0	-67.6						
33	11	127.0	178	12.2	-1,9.3						12720
44	12	127.9	172	14.7	-61.2						
55	13	130.0	159	14.7	-61.2						
	14	131.0	153	17.3	-59.6						
	15	133.0	141	17.8	-58.8						14150
66	16	135.9	122	15.7	-61.4						
77	17	137.1	116	17.3	-59.6						
	18	140.0	98	13.7	-66.2						16410
88	19	141.6	87	17.8	-58.8						17180
99	20	144.0	72	14.8	-61.1						18310
	21	142.5	51	15.8	-57.3						
	22	145.0	41	16.9	-60.2						
	23	149.1	92	18.6	-57.9						1681

CODED MESSAGE FOR TRANSMISSION

49353	30096	94998	20945	14999
15519	09992	10345	16994	05755
07995	11666	17719	17214	15914
12212	11610	08709	01214	

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. Differences between (3) and solar noon.	
5. Elevation angle of sun.	
6. Elapsed time from 200 mb. to terminating level.	
7. Ascensional rate	

CONSTANT PRESSURE DATA

PUNCHED CARD No. 8

PUNCHED CARD No. 7

07355	0579	-57.9
07995		
9747	-608	

PUNCHED CARD No. 6

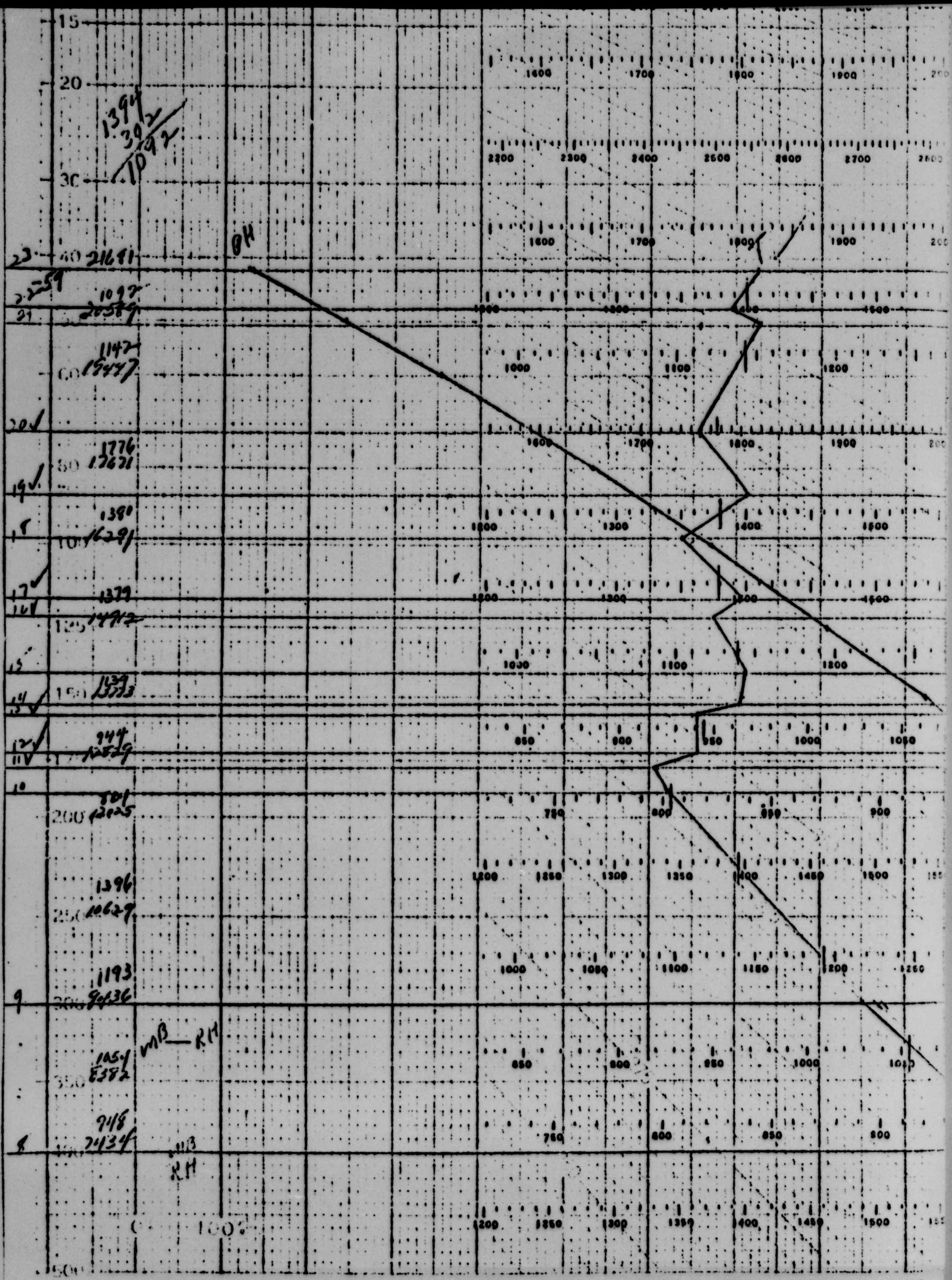
10345	6291	-65.4
16994		
0		
4912	-61.9	

PUNCHED CARD No. 5

15519	3773	-59.2
09992		
0		
2829	-67.3	
20949	2025	-649
14994		
0		
0425	-592	

PUNCHED CARD No. 4

30096	6436	-61.5
11666		
0		



24 Km. | 23 Km. | 22 Km. | 21 Km. | 20 Km. | −90° 19 Km. | −80° 18 Km. | −70° 17 Km. | −60° 16 Km. | −50° 15 Km. | −40° 14 Km.

Station: Oakland Airport, Oakland, Calif

Lat. 37° 44' N. Long 122° 12' W.

DATA AS TRANSMITTED	D. P. TO 0.1°C OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00bbb	H (gpm)	T
$TTT_dT_dT_d$	°RH	°D.P.
Oddff	D (16 pts.) Wind	S (m.p.s.)

°Omitted above 200 mbs.

A-9

PH—Pressure-height

T—Temperature °C

RH—Relative Humidity

Height scale in geopotential meters

	.0	126.0	[illegible]	13.0	-6
33	51	127.0	178	12.2	-6
44	12	127.9	172	14.7	-6
55	13	1300	159	14.7	-6
	.4	131.0	153	17.3	-5
	.5	133.0	141	17.8	-5
66	16	135.9	132	15.7	-6
77	17	137.1	116	17.3	-5
	0?	140.0	98	13.7	-66
88	.4	141.6	87	17.8	-5
99	.0	144.0	72	14.8	-6
	.1	147.5	51	15.8	-5
	.2	148.6	41	16.4	-6
	.3	149.1	42	18.6	-5

49353
15519
07995
12-2-12

DATA AS TRANSMITTED	D. P. TO 0.1°C OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00aaa	H (gpm)	T
$TTT_dT_dT_a$	°RH	°D.P.
Oddff	D (16 pts.) Wind	S (m.p.s.)

*Omitted above 200 mbs.

A-9

PH—Pressure-height

T—Temperature °C

RH—Relative Humidity

Height scale in geopotential meters

Drawn by D E LUCAS

Verified by G. MANNISN

Inspected by

33	51	127.0	178	12.2	-1.9						1272.0		
44	12	127.9	172	14.7	-6.1								
55	13	130.0	159	14.7	-6.9								
	14	131.0	152	17.3	-59.6								
	15	133.0	141	17.8	-58.9						14150		
66	16	135.9	127	15.7	-61.4								
77	17	137.1	116	17.3	-51.6								
	18	140.0	98	13.7	-66.2						16410		
88	19	141.6	87	17.8	-58.3						17150		
99	20	144.0	72	14.8	-61.1						18340		
	21	142.5	51	18.8	-57.3								
	22	145.0	41	16.9	-61.5								
	23	149.1	92	18.6	-57.1						1681		

PUNCHED CARD No. 7

08735	0589	-57.5
07995		
0		

9447	-608

PUNCHED CARD No. 6

7671	-668

CODED MESSAGE FOR TRANSMISSION

49353	30096	94998	20415	14999
15519	09992	10345	16994	05755
07995	11116	17819	17214	15914
12-2-12	11610	08709	01214	

10345	6291	-63.4
16994		
0		

4912	-619

PUNCHED CARD No. 5

16519	3773	-57.2
09992		
0		

2829	-67.2	

20942	2025	-64.9
14999		
0		

6329	-54.2

PUNCHED CARD No. 4

20096	5436	-60.5
71995		
0		

5[illegible]	-[illegible]6
(2)	

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	

−30° −20° −10° 0° 10°(°C.)

13 Km. 12 Km. 11 Km. 10 Km. 9 Km. 8 Km. 7 Km. 6 Km. 5 Km.

Drawn by K E Lucas

Verified by G. MANNION

Inspected by

DATE AND RELEASE TIME

	Year	Month	Day	Time
120 th. Mer.	1953	DEC	28	0900
G.C.T.	1953	DEC	28	0300
Radiosonde No. 1196 75			Ascension No.	722

W. B. Form 1128 A (Revised 6-[illegible])

BASELINE CHECK READINGS

Time G.C.T.	TEMPERATURE Ordinate	Dry °F	Wet °F	RELATIVE HUMIDITY Ordinate	Raob %	Cor. %	Psychrometer Ice / Water
0229	71.0	21.7	18.0 °C	78.3	68	72	70

U. S. DEPARTMENT OF COMMERCE, WEA

ADIABATIC CHAR

WBAN-31A

9 Km. −40° | 8 Km. −30° | 7 Km. −20° | 6 Km. −10° | 5 Km. 0° (C.)

8 Mb. 7434 RH MC T PH

1900 1850 1800 1750 1700 1650 1600 1550 1500 450

7 MB

1656 5778

500 1300 1250 1200 1350 1400 1450

6 MB

1411 4367

50 1050 1100 1150 1200 1250

5 MB

1235 3152

700 900 950 1000 1050 750

1102 2030

400 450

509 1521

350

1 400 MB

485 1036

900 750 800 850

3

950

994 142

2 136

(Est) 18

0 100

127 RH

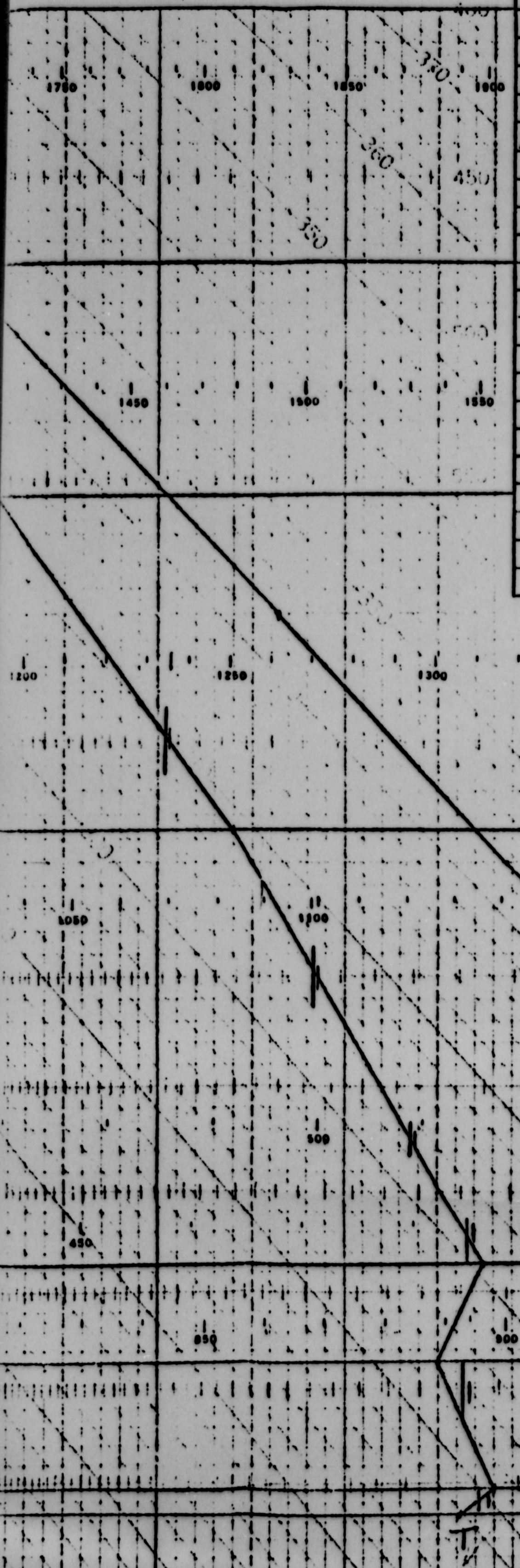
DEPARTMENT OF COMMERCE, WEATHER BUREAU

ADIABATIC CHART

WBAN-31A

5 Km. 0°(C.)

4 Km. 10°



DATA BLOCK A

Code Check	Level No.	PRESSURE: Correct or semi-Correct	PRESSURE: mb.	TEMPERATURE: Ordinate	TEMPERATURE: Ascent (°C)	RELATIVE HUMIDITY: Ordinate	RELATIVE HUMIDITY: % Including Correction of 1 2 %	DEW POINT °C	REMARKS
			SIGNIFICANT LEVELS						
	11		1016.		16.1		35.	0.4	[illegible]
	12	80	1003	693	180	80	21	-47	00156
11	13	16.0	935	679	150	5.0	19	-85	00700
22	14	22.0	886.	690	173	ME	ME	MS	01189
	15	48.0	686.	620	4.0	MG	MG	MG	
	16	67.0	556	540	-86	MB	MG	MG	
	17	79.0	477	489	-159	MG	MG	MG	
	18	90.8	400	41.3	-261	MB	MG	MB	00434
	19								
	20								

CODED MESSAGE FOR TRANSMISSION

49303	01616	00214	03208	00047
17558	03412	85499	15491	09440
70928	05990	00441	50896	63998
40439	76991	55556	11935	15582
66666	88617			

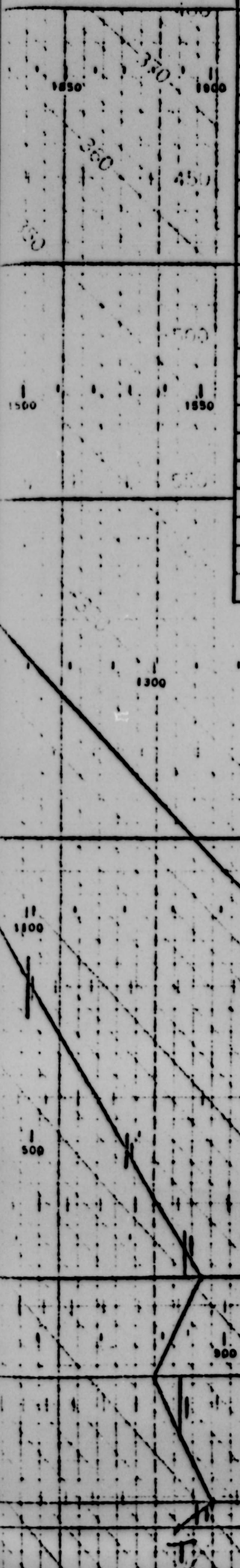
NW - 40 MPH

T

P

ER BUREAU

4 Km.
10°



DATA BLOCK A

Code Check	Level No.	PRESSURE: Contact or semi-Contact	PRESSURE: mb.	TEMPERATURE: Ordinate	TEMPERATURE: Ascent (°C)	RELATIVE HUMIDITY: Ordinate	RELATIVE HUMIDITY: % Including Correction of 1 2 %	DEW POINT: °C	REMARKS
			SIGNIFICANT LEVELS						
	11		1016.		16.1		35.	0.4	
	12	80	1003	693	180	80	21	-47	00150
11	13	160	935	679	150	5.0	19	-85	00730
22	14	22.0	886.	690	173	MB	MB	MB	01185
	15	480	686.	620	40	MB	MB	MB	
	16	670	556	540	-86	MB	MB	MB	
	17	790	477	489	-159	MB	MB	MB	
	18	908	400	413	-261	MB	MB	MB	00434
	19								
	20								

CODED MESSAGE FOR TRANSMISSION

49303	01616	00214	03208	00047
17558	03411	85499	15491	00440
70928	05990	00441	50896	63998
40439	76991	55556	11935	15582
66666	88617			

CONSTANT PRESSURE DATA

PUNCHED CARD No. 4

40439	7454	-26.1
76991	(19)	MB
0		

6580.	-19.4	
(17)		

PUNCHED CARD No. 3

50896	5778.	-13.8
63998	(16)	MB
0		

5030	-09.1	
(15)		

4367	-04.2	
(14)		

3720	000.6	
(14)		

PUNCHED CARD No. 2

70028	3132	005.0
05990	(13)	MB
0614	02	03

2590	008.5	
(13)		
02	032	

2030	012.0	
(12)		
02	027	

00499	1521.	015.1
15491	(12)	MB
00413	02	030

1036	016.7	
(12)		
01	030	

PUNCHED CARD No. 1

0600	015.6	
20		
01		

00047	0142	0179
17558	20	-5.5
03411	15	019

01616	1016	0161

7

6

5

4

3

2

1(sfc)

1656
5778

1411
4367

1235
3152

1102
2030

509
1521

485
1036

891
1412
1962

127
196

RH

-40°
9 Km.

-30°
8 Km.

-20°
7 Km.

-10°
6 Km.

0°(C.)
5 Km.

Station Oakland Airport,
Oakland, Calif

Lat. 37° 44' N. Long 122° 12' W.

DATA AS TRANSMITTED	D. P. TO 0.1°C. OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00 aaa	H (gpm)	T
$TTT_dT_dT_d$	RH	D.P.
Oddff	D (16 pts.)	Wind S (m.p.s.)

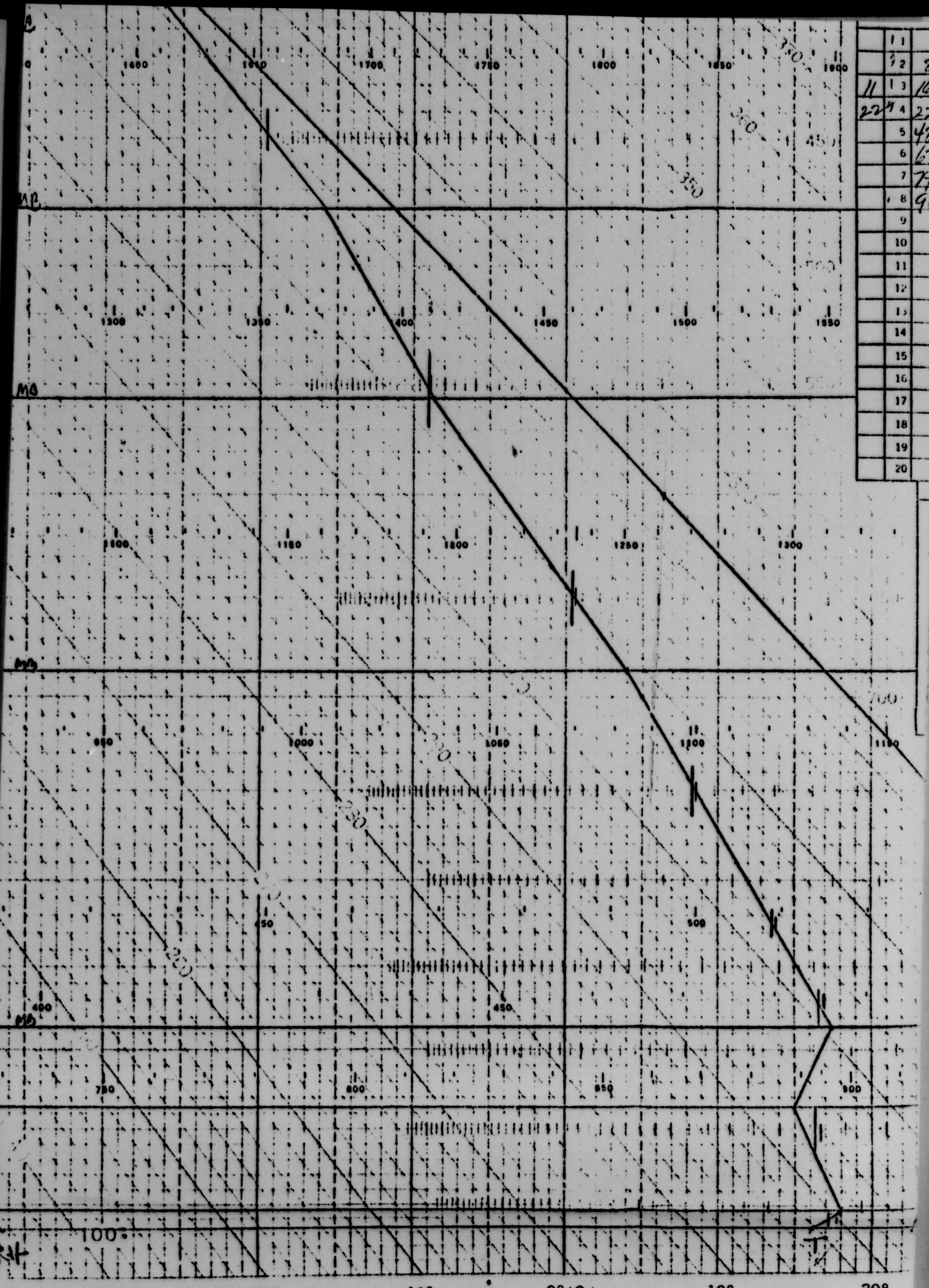
A-8

PH – Pressure-height

T – Temperature °C

RH – Relative Humidity

Height scale in geopotential meters



	11	
	12	8
11	13	16
22	14	22
	5	43
	6	67
	7	79
	8	90
	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
	17	
	18	
	19	
	20	

...rport,
...land, Calif
122° 12' W.

DATA AS TRANSMITTED	D. P. TO 0.1°C. OTHER DATA AS ENTERED ON WBAN—33 OR PUNCHED CARD	
00 aaa	H (gpm)	T
$TTT_dT_dT_d$	RH	D.P.
Oddff	D (16 pts.) Wind	S (m.p.s.)

A-8

PH — Pressure-height

T — Temperature °d

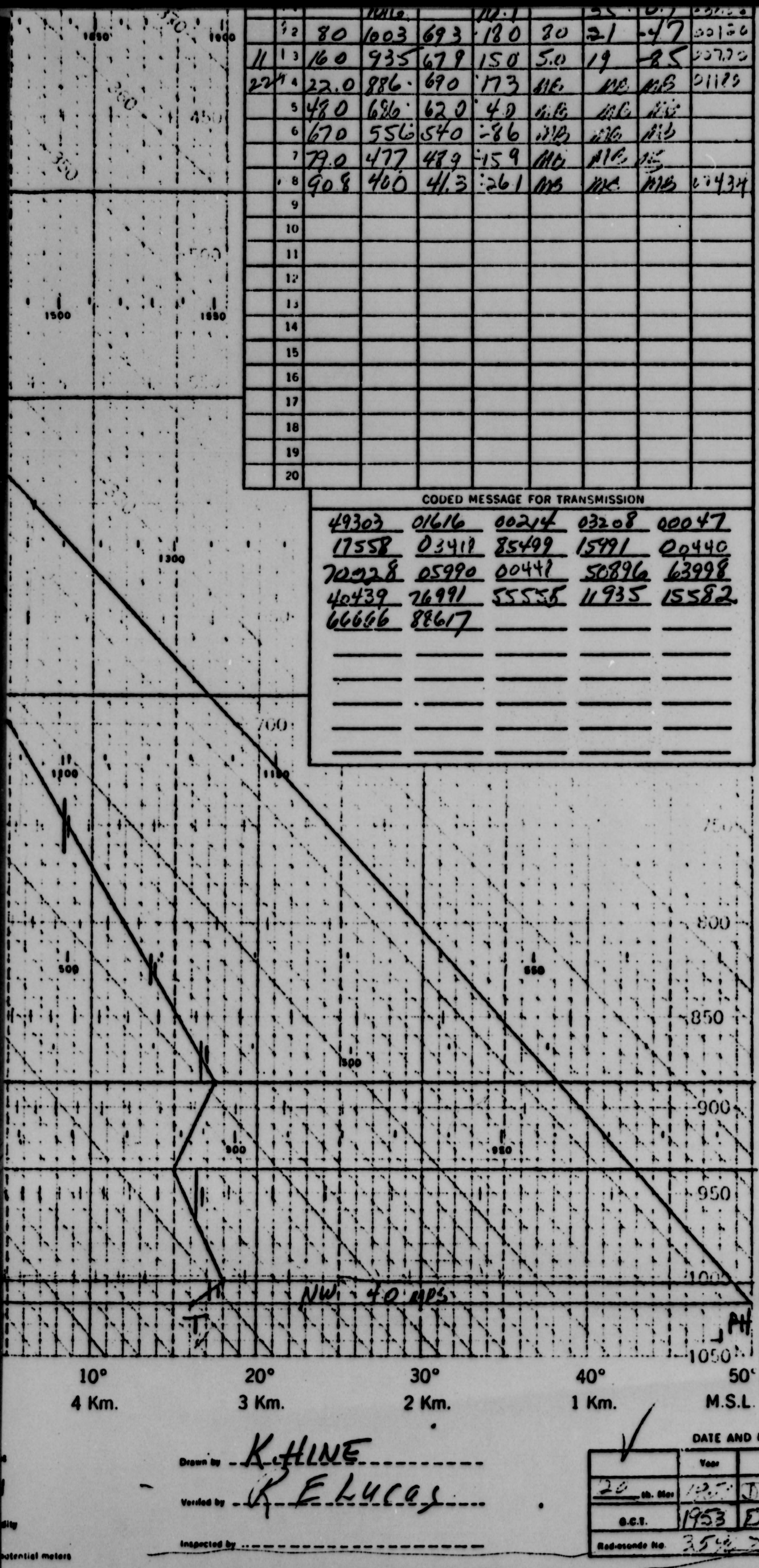
RH — Relative Humidity

Height scale in geopotential meters

Drawn by K-ct.

Verified by

Inspected by



	12	80	1003	693	-180	80	21	-47	00156
11	13	160	935	679	150	5.0	19	-25	00720
22	14	22.0	886	690	173	MB	MB	MB	01125
	15	480	686	620	40	MB	MB	MB	
	16	670	556	540	-86	MB	MB	MB	
	17	79.0	477	489	-159	MB	MB	MB	
	18	908	400	413	-261	MB	MB	MB	00434
	19								
	20								
	21								
	22								
	23								
	24								
	25								
	26								
	27								
	28								
	29								
	30								

CODED MESSAGE FOR TRANSMISSION

49303	01616	00214	03208	00047
17558	03418	85499	15491	00440
70028	05990	00441	50896	63998
40439	76991	55555	11935	15582
66666	88617			

PUNCHED CARD

6580	-19.4	
(17)		

PUNCHED CARD No. 3

50896	5778	-13.8
63998	(16)	MB
0		

5030	-09.1	
(15)		

4367	-04.2	
(14)		

3720	000.6	
(14)		

70028	3132	005.0
05990	(13)	MB
00441	02	02

2590	0085	
(13)		
02	032	

2030	012.0	
(12)		
02	027	

PUNCHED CARD No. 2

50896	1521	015.1
15491	(12)	MB
00441	02	020

1036	016.7	
(12)		
01	030	

0600	015.6	
20		
01		

PUNCHED CARD No. 1

00047	0142	0179
17558	20	-5.5
03418	15	009

01616	1016	0161
00214	35	0.4
03208	14	004

SURFACE

Drawn by K. HINE

Verified by K. ELLIOTT

Inspected by

DATE AND RELEASE TIME

	Year	Month	Day	Time
20 th. Mer.	1953	DEC	27	00
G.C.T.	1953	Dec	28	0300
Radiosonde No. 3548		Ascension No.		