



MEMORANDUM FOR RECORD

Stephen Stein
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR17LA177
Aircraft Registration & Make/Model: N70LA; Air Tractor AT-802A
Accident Location: Wells, Nevada
Accident Date: July 31, 2017

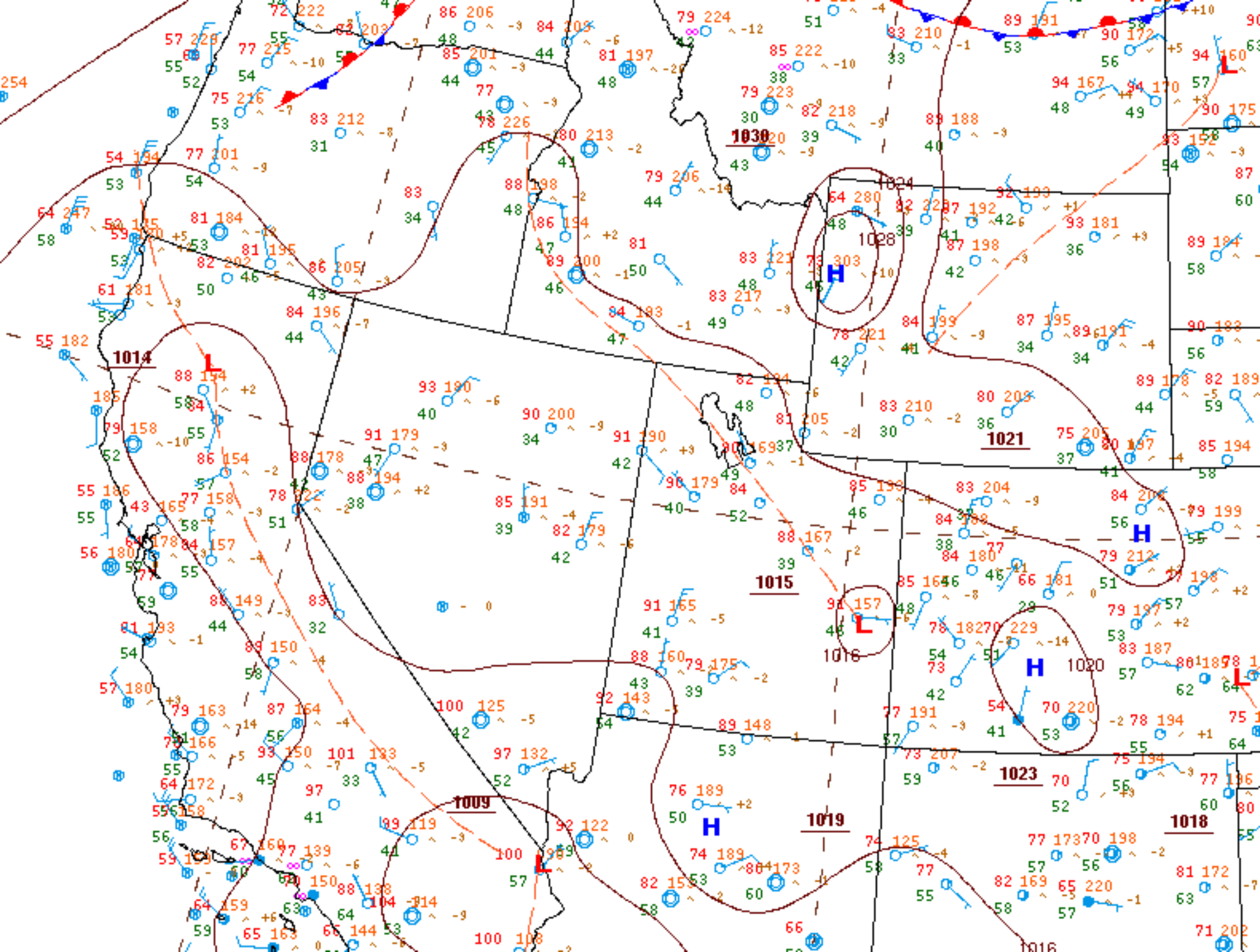
NTSB Weather Study

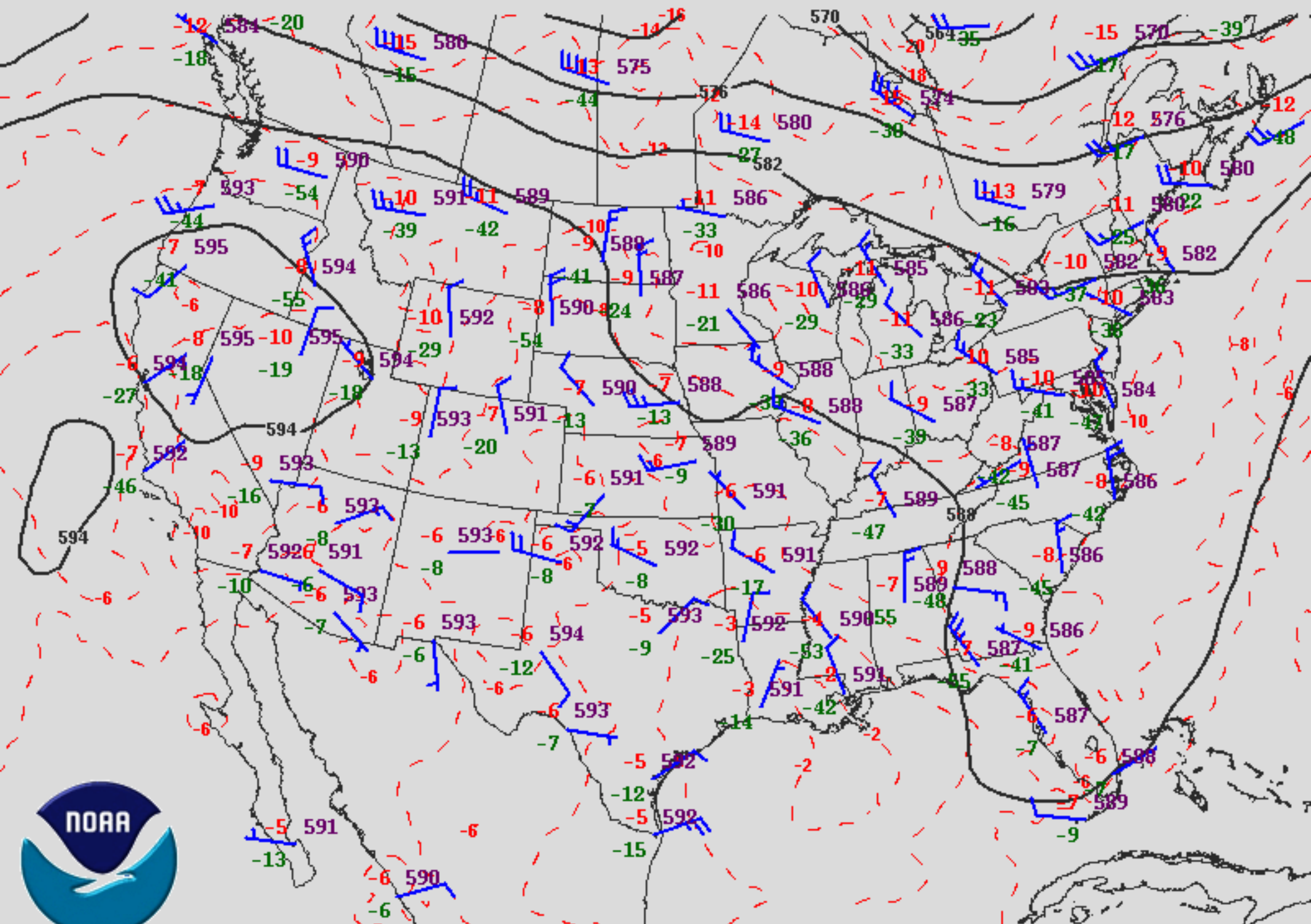
The first attachment shows the surface frontal boundaries and position in the western United States from 1100 PDT, with no surface frontal boundaries near the accident site around the accident time. In addition, the 500-hectopascal (hPa) chart (around 18,000 feet msl, 2nd attachment) showed a large ridge of high pressure over the western United States at 0500 PDT on the accident day. These two charts indicated that with no strong surface, mid-, or upper-level features, that the daily valley/mountain breezes and thermals would be the main weather interactions on the accident day. These daily circulations include variable winds during the morning hours, with a more consistent wind around lunchtime through sunset. The visible imagery from attachments 3 and 4 showed isolated cumulus clouds around the accident site, likely indicating that the thermals were the biggest driver in up and down motions around the terrain of the accident site. The upper air sounding using a weather model for the accident site for 1100 PDT (5th attachment) did not indicate any low-level wind shear or turbulence for below 10,000 feet msl with an east to northeast wind around 5 to 10 knots from the surface through 10,000 feet msl.

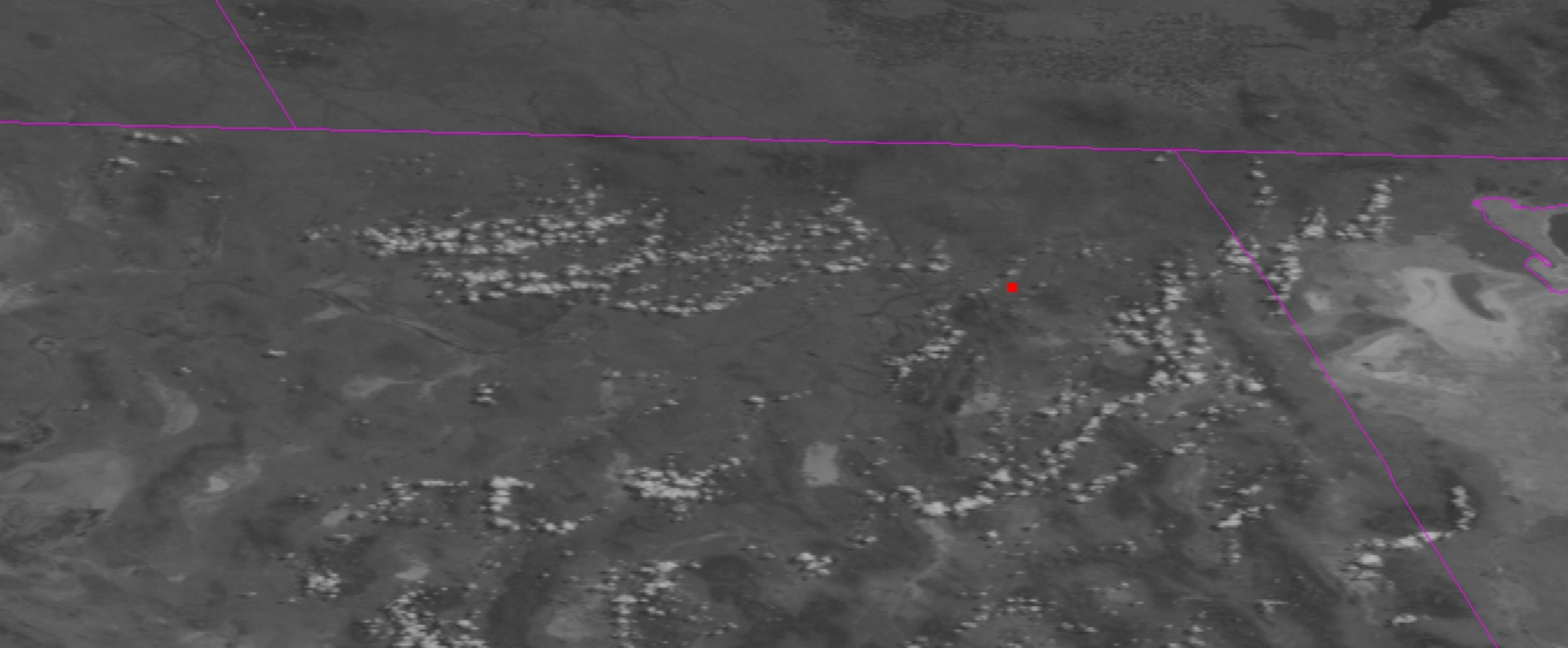
The closest official surface observation site was KEKO near Elko, Nevada with:

8:56 UTC 1156 PDT -> METAR KEKO 311856Z AUTO 05011G18KT 10SM CLR 34/M02
A3030 RMK AO2 SLP192 T03441022=

Weather at 1156 PDT, automated observations, wind from 050 degrees at 11 knots gusts to 18 knots, 10 miles visibility, clear skies below 12,000 feet agl, temperature 34 degrees Celsius, dew point temperature -2 degrees Celsius, altimeter 30.30 inHg. Remarks, station with a precipitation discriminator, sea level pressure 1019.2 hPa, temperature 34.4 degrees C, dew point temperature -2.2 degrees C.



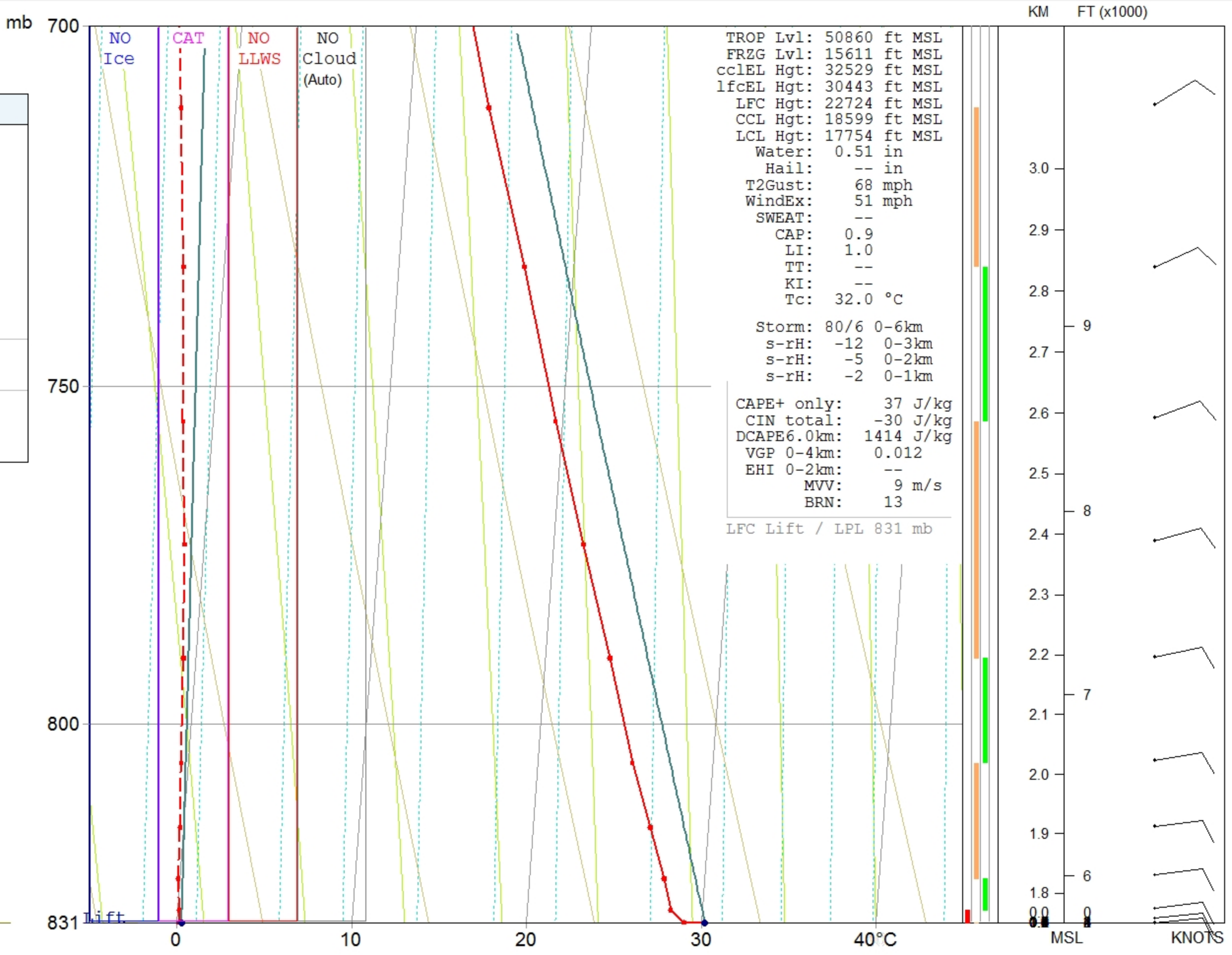






1 0001 G-15 IMG 1 31 JUL 17212 183000 03842 17569 00.50

McIDAS



STATION: WEHN2

STATION NAME: Wells 1SSW

LATITUDE: 41.102404

LONGITUDE: -114.976881

ELEVATION [ft]: 5676

STATE: NV

Station_ID Date_Time air_temp wind_speed volt_set_1 wind_dir precip_acc wind_cardinal_direction_set_1d

		Fahrenheit	Miles/hou	volts	Degrees	Inches	Code
WEHN2	07/31/201	78.01	0	12.8		8.72	
WEHN2	07/31/201	79	2.01	12.8	79	8.72	E
WEHN2	07/31/201	78.01	2.01	12.79	24	8.72	NNE
WEHN2	07/31/201	81	3	12.78	26	8.72	NNE
WEHN2	07/31/201	81	8.99	12.78	72	8.72	ENE
WEHN2	07/31/201	82	11.01	12.78	60	8.72	ENE
WEHN2	07/31/201	82.99	15.99	12.77	52	8.72	NE
WEHN2	07/31/201	87.01	4.99	12.78	28	8.72	NNE
WEHN2	07/31/201	87.01	7	12.78	53	8.72	NE
WEHN2	07/31/201	87.01	14.99	12.77	64	8.72	ENE
WEHN2	07/31/201	87.01	7	12.77	32	8.72	NNE
WEHN2	07/31/201	88	5.99	12.76	14	8.72	NNE
WEHN2	07/31/201	88	3	12.76	292	8.72	WNW
WEHN2	07/31/201	86	8.01	12.76	53	8.72	NE
WEHN2	07/31/201	87.01	5.99	12.76	102	8.72	ESE
WEHN2	07/31/201	90	11.01	12.76	335	8.72	NNW
WEHN2	07/31/201	87.01	13	12.76	331	8.72	NNW
WEHN2	07/31/201	88	8.01	12.76	6	8.72	N
WEHN2	07/31/201	88	2.01	12.76	45	8.72	NE
WEHN2	07/31/201	90	3	12.76	39	8.72	NE
WEHN2	07/31/201	89.01	13	12.76	89	8.72	E
WEHN2	07/31/201	90	8.99	12.75	58	8.72	ENE
WEHN2	07/31/201	90	4.99	12.75	60	8.72	ENE
WEHN2	07/31/201	89.01	5.99	12.75	41	8.72	NE
WEHN2	07/31/201	89.01	14	12.75	5	8.72	N
WEHN2	07/31/201	91	7	12.75	16	8.72	NNE
WEHN2	07/31/201	89.01	10	12.75	24	8.72	NNE
WEHN2	07/31/201	91	0	12.76		8.72	
WEHN2	07/31/201	91	11.01	12.75	66	8.72	ENE
WEHN2	07/31/201	90	8.01	12.75	11	8.72	N
WEHN2	07/31/201	89.01	4	12.75	33	8.72	NNE
WEHN2	07/31/201	90	5.99	12.75	38	8.72	NE
WEHN2	07/31/201	89.01	14	12.75	43	8.72	NE