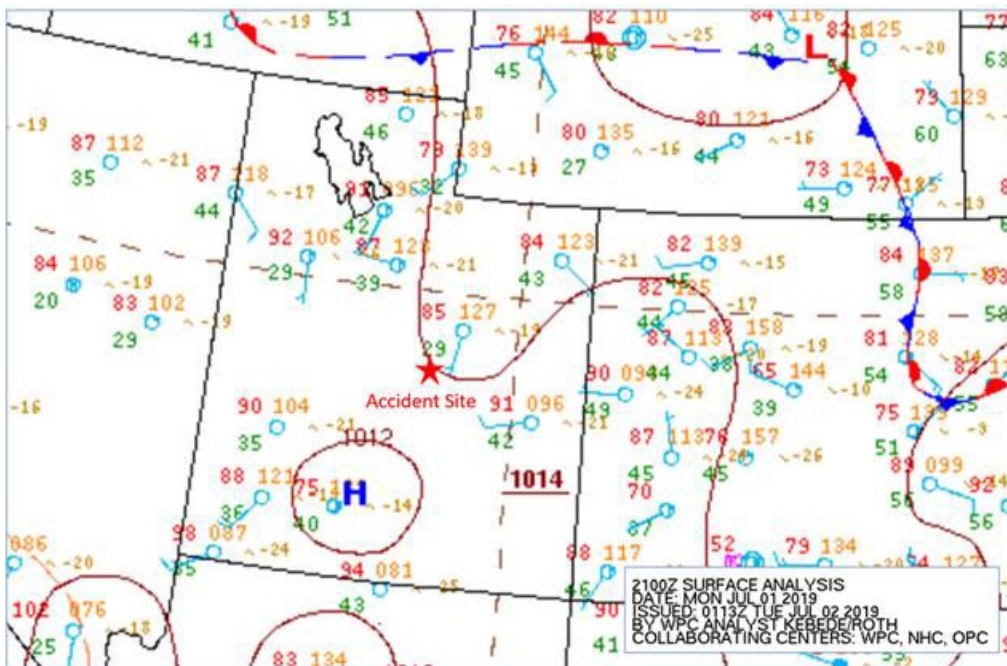


**From:** [Eick Donald](#)  
**To:** [Smith Maja](#)  
**Cc:** [Helson David](#)  
**Subject:** WPR19FA183 - Ephraim, UT Weather  
**Date:** Tuesday, July 16, 2019 8:35:55 AM  
**Attachments:** [image001.png](#)

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## Weather conditions over the Ephraim, UT area on July 1, 2019

**Synoptic Conditions** – The northwest section of the NWS Surface Analysis Chart centered over Utah for 1500 MDT is included below with the approximate accident site noted by a red star. The chart depicted a dissipating stationary front extending west to east over southern Idaho and Wyoming. A high pressure system at 1014-hectopascals (hPa) was located over southern Utah immediately south of the accident site with a general high pressure ridge extending over the state. The station models surrounding the accident site depicted clear skies, light winds of 5 knots, with temperatures in the upper 80's to low 90's degrees Fahrenheit (F).



A review of the NWS National Composite Radar Mosaic indicated no significant echoes associated with precipitation over the area surrounding the period.

**Observations** – The closest weather reporting location to the accident site was from Manti-Ephraim Airport (K41U), Manti, Utah, located approximately 6 miles southwest of the accident site at an elevation of 5,516 ft. The airport had an AWOS and reported the following conditions surrounding the period:

METAR K41U 012035Z AUTO 19011KT 10SM CLR 31/00 A3012 RMK AO1 T03081002

METAR K41U 012055Z AUTO 18009G14KT 10SM CLR 30/00 A3011 RMK AO1 T03040001

*METAR K41U 012115Z AUTO 15003KT 10SM CLR 30/00 A3010 RMK AO1 T03010000*

*METAR K41U 012135Z AUTO 18008KT 150V210 10SM CLR 31/02 A3010 RMK AO1 T03100017*

*METAR K41U 012155Z AUTO 20009KT 10SM CLR 31/02 A3008 RMK AO1 T03100016*

*METAR K41U 012215Z AUTO 19008KT 10SM CLR 31/02 A3008 RMK AO1 T03140021*

*METAR K41U 012235Z AUTO 20003KT 10SM CLR 31/01 A3007 RMK AO1 T03120013*

*METAR K41U 012255Z AUTO 24005KT 10SM CLR 31/02 A3006 RMK AO1 T03110021*

Carbon County Regional Airport/Buck Davis Field (KPUC), Price, Utah, was located approximately 38 miles east-northeast of the accident site on the other side of the mountain range at an elevation of 5,958 ft also had an ASOS and reported the following conditions:

*METAR KPUC 011853Z AUTO 24007KT 10SM CLR 27/03 A3019 RMK AO2 SLP144 T02720028*

*METAR KPUC 011953Z AUTO 16009KT 130V200 10SM CLR 29/01 A3016 RMK AO2 SLP133 T02890011*

*METAR KPUC 012053Z AUTO 19005KT 10SM CLR 29/M02 A3014 RMK AO2 SLP127 T02941017 58019*

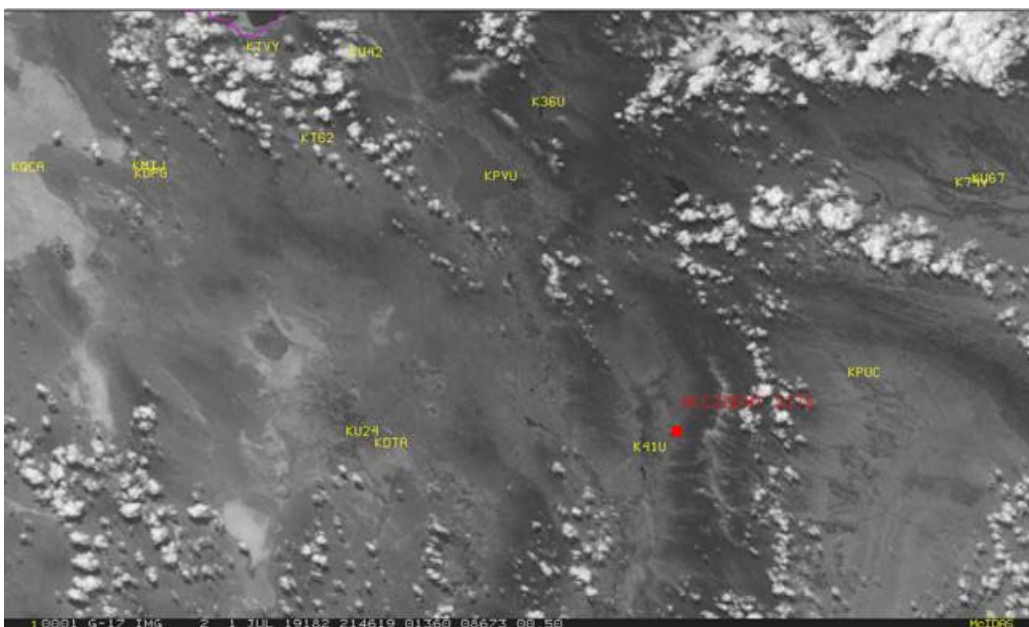
*METAR KPUC 012153Z AUTO VRB04KT 10SM CLR 29/M01 A3011 RMK AO2 SLP118 T02941011*

*METAR KPUC 012253Z AUTO VRB04KT 10SM CLR 29/00 A3009 RMK AO2 SLP107 T02940000*

*METAR KPUC 012353Z AUTO 16004KT 10SM CLR 29/01 A3007 RMK AO2 SLP107 T02940006 10306 20256 56020*

**Sounding** – A High Resolution Rapid Refresh (HRRR) numerical model sounding was obtained from the NOAA Air Resource Laboratory archive data over the approximate accident site at 1600 MDT and was plotted on a Skew T Log P diagram. The numerical model depicted an elevation of 7,431 ft, a surface temperature of 25.5° C (78° F), a dew point temperature of -3.0° C (27° F), a relative humidity of 15%, with a density elevation of approximately 10,016 ft. The sounding indicated support for strong thermal activity from the surface through 17,500 ft. The lifted condensation level (LCL) was identified at 11,425 ft agl (18,856 ft msl) with the convective condensation level above that at 12,961 ft agl. The precipitable water content was 0.31 inches. The sounding was too dry for cloud formation and none were indicated. The lifted index (LI) was 1.0 and indicated a conditional unstable atmosphere.





**Pilot Reports** – only a single pilot report or PIREP over the region during the period:

*SLC UA /OV FFU 270010/TM 2139/FL160/TP B757/TB MOD TURBC 160/RM DURD DETA5 ARR KSLC*

**Winds Aloft Forecast (FD)** – winds current over the region during the period were as follows.

*WINDS ALOFT FORECAST  
DATA BASED ON 011800Z  
VALID 020000Z FOR USE 2000-0300Z. TEMPS NEG ABV 24000  
FT 3000 6000 9000 12000 18000 24000 30000  
SLC 9900 9900+17 2211+09 2325-08 2424-21 253338  
BCE 2610+11 2411-07 2417-20 243036*

**Inflight Weather Advisories** – None. No SIGMETs, Convective SIGMETs, AIRMETs, or CWA's over the area during the period.

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