

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR26LA048

METEOROLOGY

Environmental Conditions

March 17, 2026

A. ACCIDENT

Location: Evanston, Wyoming
Date: October 4, 2026
Time: 1734 mountain daylight time (MDT)
2334 coordinated universal time (UTC)
Aircraft: Aviat Aircraft Inc A-1C-200; Registration: N96WJ

B. METEOROLOGY INVESTIGATOR

Donald Eick
Senior Meteorologist
National Transportation Safety Board
Washington, DC

C. DETAILS OF THE INVESTIGATION

The National Transportation Safety Board's (NTSB) Senior Meteorologist was not on scene for this investigation and conducted the meteorology phase of the investigation remotely, collecting data from official National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) sources including the Weather Prediction Center (WPC) and the National Center for Environmental Information (NCEI). All times are mountain daylight time (MDT) based upon the 24-hour clock, local time is -6 hours to UTC, and UTC is also referred to as Zulu. Directions are referenced to true north and distances in nautical miles. Heights are in feet (ft) above mean sea level (msl) unless otherwise noted as above ground level (agl). Visibility is in statute miles.

The accident site coordinates used in this investigation were based at latitude 41.34927°N and longitude 110.89137°W at an elevation of approximately 7,922 ft agl and was about 0.5 miles east of the summit of Medicine Butte at 8,614 ft.

D. WEATHER CONDITIONS

1.0 Synoptic Conditions

The synoptic or large-scale migratory weather systems influencing the area were documented using standard NWS charts issued by the National Center for Environmental Prediction (NCEP) and the WPC located in College Park, Maryland. These are the base products used in describing weather features and in the creation of forecasts and warnings. Reference to these charts and other products can be found

in the Federal Aviation Administration (FAA) "Aviation Weather Handbook", FAA-H-8083-28A¹.

1.1 Surface Analysis Chart

The NWS Surface Analysis Chart for 1500 MDT centered over the region is included as figure 1, with the approximate accident site marked by the red star and the departure, destination, and closest reporting sites by yellow stars and a circle. The chart depicted a low-pressure system at 999-hectopascals (hPa)² over South Dakota with a stationary front extending southwestward into western Nebraska to another low-pressure system at 997-hPa. The stationary front then extended from that low to another low over southern Wyoming at 1002-hPa with the front extending southward into Colorado. This developing low-pressure system and frontal wave was expected to intensify and move northeastward across the Rockies. A trough³ extended from the low in southern Wyoming northwestward into eastern Idaho. The accident airplane's general route of flight was north of the stationary front which was characterized by overcast clouds and rain, with unknown precipitation and a temperature of 38° Fahrenheit reported near the accident site.

¹ <https://www.faa.gov/regulationspolicies/handbooksmanuals/aviation/faa-h-8083-28-aviation-weather-handbook>

² Hectopascal (hPa) is the standard unit for reporting pressure and is interchangeable with the former term millibar (mb). The International Standard Atmosphere (ISA) is based on a sea-level pressure of 1013.25-hPa at 59° Fahrenheit (F) or 15° Celsius (C), in which aircraft performance is based.

³ Trough also abbreviated as "TROF" on charts is defined as an elongated area of low-pressure and is often associated with a convergence zone, a wind shift, and with sufficient moisture clouds and precipitation.

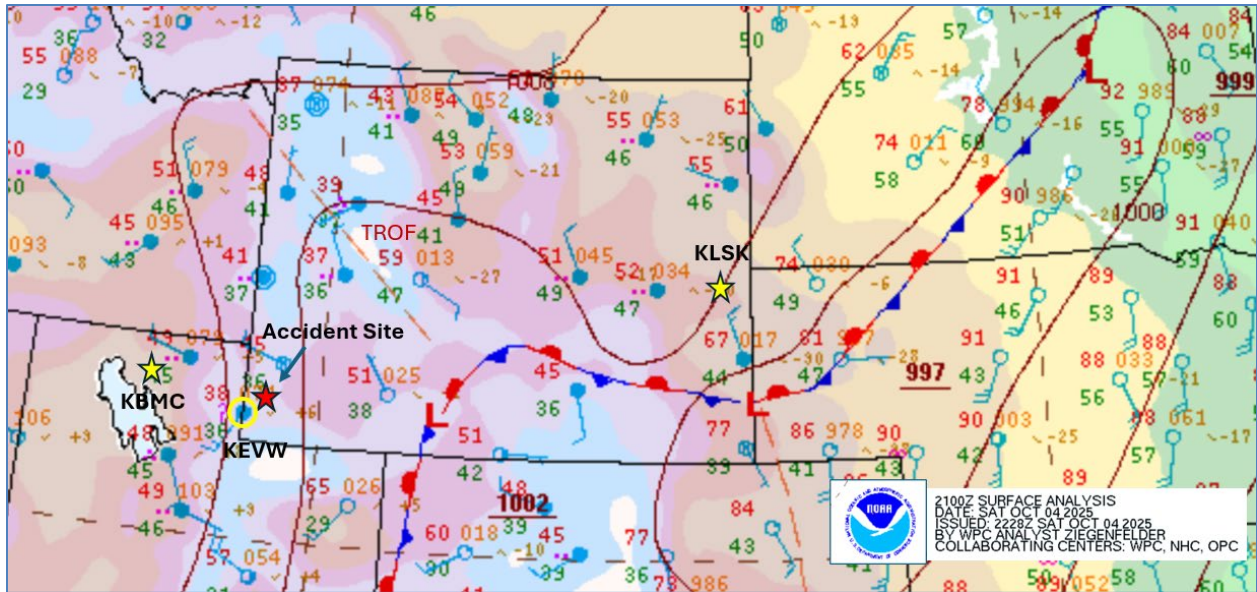


Figure 1 - NWS Surface Analysis Chart for 1500 MDT with the approximate accident site location.

1.2 Regional Composite Radar Mosaic

The NWS Regional Composite Radar Mosaic for 1735 MDT is included as figure 2 with the approximate accident site marked by the red star. The image depicted an area of very light intensity echoes less than 15 dBZ over the accident site with several bands east and west of the accident site near 30 dBZ. It should be noted the NWS radar network coverage below 10,000 ft is limited in the vicinity of the accident site, so echoes may be stronger or accurately depicted.

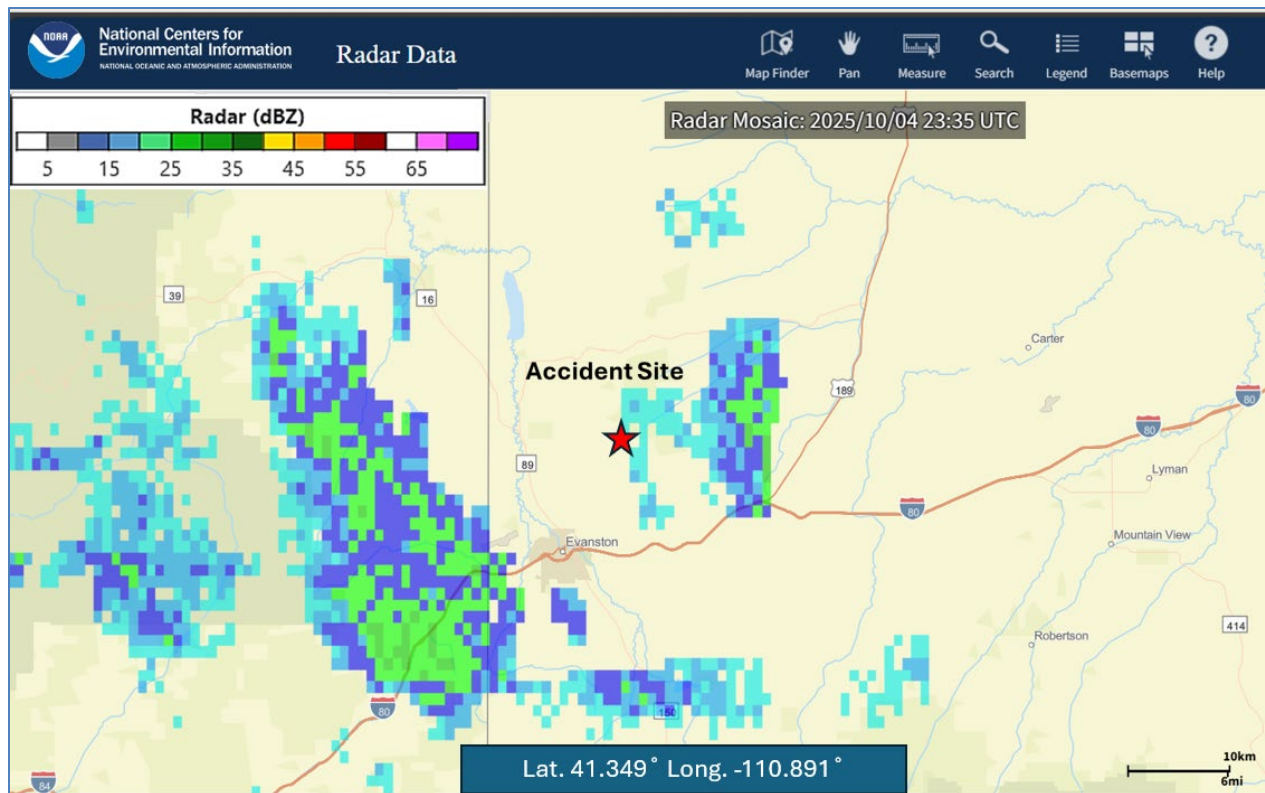
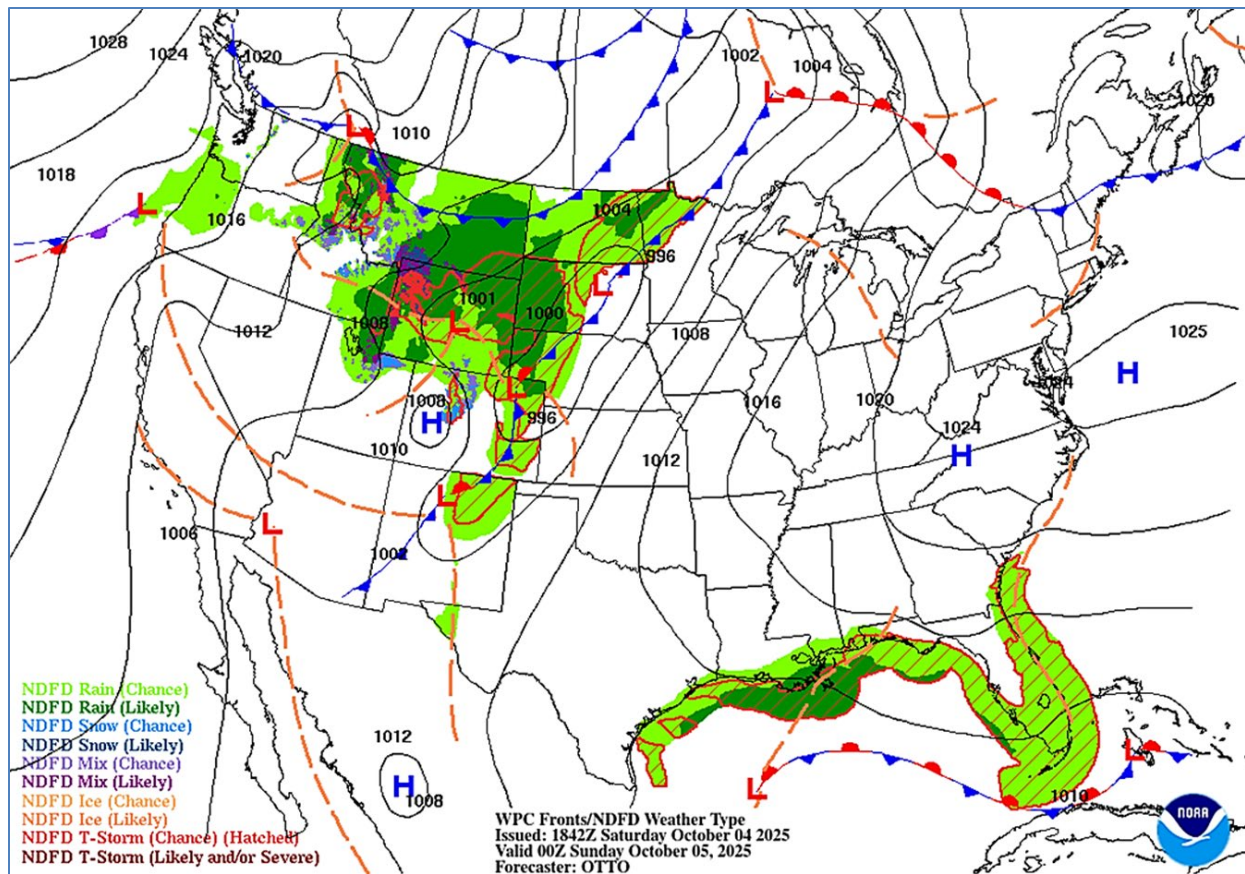


Figure 2 - NWS Regional Composite Radar Mosaic for 1735 MDT with the accident site marked by red star.

1.3 Surface Prognostic Chart

The NWS Weather Prediction Center's 6-hour Surface Prognostic Chart valid for 1800 MDT is included as figure 3. The chart showed the low-pressure systems associated with the frontal system that stretched from South Dakota southwestward across Nebraska, Colorado into New Mexico, with a secondary low-pressure system over central Wyoming. A large area of rain showers and thunderstorms were depicted over northern Utah, Wyoming, Montana, into western South Dakota and Nebraska associated with the system. The chart depicted rain likely over the planned destination and in the vicinity of the accident site with snow expected in the higher elevations of Utah, Wyoming, and Montana.



Special weather observation for KEVW at 1716 MDT, automated, wind from 220° at 18 knots gusting to 26 knots, visibility 10 miles in light rain, ceiling broken at 500 ft agl, overcast clouds at 1,300 ft, temperature 3°C, dew point temperature 3°C, altimeter setting 29.89 inches of mercury (inHg). Remarks: automated station with a precipitation discriminator, peak wind from 220° at 26 knots occurred at 1712 MDT, hourly precipitation 0.01 of an inch, temperature 3.3°C, dew point temperature 2.8°C.

Special weather observation for KEVW at 1743 MDT, automated, wind from 230° at 19 knots, visibility 9 miles in light rain, ceiling broken at 600 ft agl, overcast clouds at 1,200 ft, temperature 3°C, dew point temperature 3°C, altimeter setting 29.90 inHg. Remarks: automated station with a precipitation discriminator, peak wind from 220° at 26 knots occurred at 1712 MDT, hourly precipitation 0.02 of an inch, temperature 3.3°C, dew point temperature 2.8°C.

The general flight categories⁴ and raw observations surrounding the period from 1253 through 1800 MDT were as follows with the approximate time of the departure and the accident are included in bold italic type. The reports were as follows:

VFR METAR KEVW 041853Z AUTO 24022G30KT 10SM -RA FEW013 BKN060 OVC070 06/03 A2984
RMK AO2 PK WND 24030/1853 RAB53 SLP057 P0000 T00560028=

VFR SPECI KEVW 041926Z AUTO 23018G33KT 10SM -RA FEW009 BKN036 OVC044 04/03 A2984
RMK AO2 PK WND 23033/1917 P0001 T00390028=

Departure from KLSK at approximately 1930Z

MVFR SPECI KEVW 041944Z AUTO 23019G28KT 7SM -RA SCT007 BKN030 OVC044 03/02 A2985 RMK
AO2 PK WND 23033/1917 P0002 T00330022=

MVFR METAR KEVW 041953Z AUTO 22020G31KT 4SM -RA BR SCT008 BKN024 OVC040 03/02
A2985 RMK AO2 PK WND 23033/1917 SLP070 P0003 T00280022=

IFR SPECI KEVW 042022Z AUTO 22020G27KT 7SM BKN005 BKN034 OVC041 03/02 A2985 RMK
AO2 PK WND 23027/2022 RAE1958UPB1958E22 P0000 T00280017=

IFR SPECI KEVW 042042Z AUTO 22019G26KT 10SM UP BKN005 OVC036 03/02 A2986 RMK AO2
PK WND 23032/2024 RAE1958UPB1958E22B24 P0001 T00280022=

⁴ As defined by the NWS and the FAA Aeronautical Information Manual (AIM) section 7-1-7 defines the following general flight categories:

- Low Instrument Flight Rules (LIFR*) - ceiling less than 500 ft agl and/or visibility less than 1 mile.
- Instrument Flight Rules (IFR) - ceiling 500 to less than 1,000 feet agl and/or visibility 1 to less than 3 miles.
- Marginal Visual Flight Rules (MVFR**) - ceiling from 1,000 to 3,000 ft agl and/or visibility 3 to 5 miles.
- Visual Flight Rules (VFR) - ceiling greater than 3,000 ft agl and visibility greater than 5 miles.

* By definition, IFR is a ceiling less than 1,000 ft agl and/or visibility less than 3 miles while LIFR is a sub-category of IFR. ** MVFR is a subset of VFR.

IFR METAR KEVW 042053Z AUTO 21015KT 10SM UP FEW005 BKN008 OVC036 03/02 A2986 RMK AO2 PK WND 23032/2024 RAE1958UPB1958E22B24 SLP074 P0001 60004 T00330022 53006=

IFR SPECI KEVW 042128Z AUTO 22014KT 8SM UP BKN007 BKN013 OVC032 03/02 A2987 RMK AO2 PK WND 20027/2059 UPE00B21 P0000 T00280022=

IFR METAR KEVW 042153Z AUTO 22017KT 8SM -RA BKN007 OVC030 03/02 A2987 RMK AO2 PK WND 20027/2059 UPE00B21E50RAB31 SLP081 P0001 T00280017=

IFR SPECI KEVW 042208Z AUTO 22013G22KT 10SM UP BKN007 OVC027 03/02 A2987 RMK AO2 RAE00UPB00 P0001 T00280022=

IFR SPECI KEVW 042216Z AUTO 22014KT 7SM -RA BKN007 OVC024 03/03 A2988 RMK AO2 RAE00B16UPB00E16 P0002 T00330028=

IFR SPECI KEVW 042228Z AUTO 22016G23KT 9SM -RA BKN005 BKN009 OVC021 03/03 A2988 RMK AO2 RAE00B16UPB00E16 P0002 T00330028=

IFR SPECI KEVW 042239Z AUTO 23016KT 10SM -RA BKN005 OVC009 03/03 A2988 RMK AO2 RAE00B16UPB00E16 P0002 T00330028=

IFR METAR KEVW 042253Z AUTO 22017KT 10SM -RA BKN005 OVC011 03/03 A2988 RMK AO2 RAE00B16UPB00E16 CIG 003V008 SLP081 P0003 T00330028=

IFR SPECI KEVW 042300Z AUTO 22017KT 9SM -RA BKN005 OVC011 03/03 A2988 RMK AO2 CIG 003V007 P0000 T00330028=

***IFR* SPECI KEVW 042316Z AUTO 22018G26KT 10SM -RA BKN005 OVC013 03/03 A2989 RMK AO2 PK WND 22026/2312 P0001 T00330028=**

Accident 2334Z

***IFR* SPECI KEVW 042343Z AUTO 23019KT 9SM -RA BKN006 OVC012 03/03 A2990 RMK AO2 PK WND 22026/2312 P0002 T00330028=**

IFR METAR KEVW 042353Z AUTO 23015G25KT 8SM -RA OVC006 03/03 A2990 RMK AO2 PK WND 22026/2312 SLP096 P0003 60011 T00330028 10078 20028 53010=

The observations indicated southwest winds from 20 to 30 knots surrounding the period with multiple periods of light rain and unknown precipitation (UP), with VFR conditions rapidly deteriorating to IFR conditions immediately after the accident airplane departed KLSK with ceilings as low as 300 ft to 500 ft agl immediately surrounding the time of the accident with light rain.

2.2 Fort Bridger, Wyoming

The next closest station to the accident site was from Fort Bridger Airport (KFBR) located 22 miles east of the accident site at an elevation of 7,038 ft. The airport had an

Automated Weather Observation System (AWOS) and broadcasted on 118.8 VHF and disseminated observation every 20 minutes. At the time of the accident the following conditions were reported.

Weather observation for KFBR at 1735 MDT, automated, wind from 250° at 24 knots gusting to 33 knots, visibility 10 miles in light drizzle, scattered clouds at 1,600 ft agl, ceiling broken at 3,500 ft, overcast at 7,000 ft, temperature 6°C, dew point temperature 2°C, altimeter setting 29.89 inHg. Remarks: automated observation station with a precipitation discriminator, temperature 5.9°C, dew point temperature 1.7°C.

The general flight categories and raw observations surrounding the period were as follows:

MVFR METAR KFBR 042155Z AUTO 24023G32KT 10SM BKN020 BKN033 BKN100 09/02 A2986 RMK AO2 T00860020=

VFR METAR KFBR 042215Z AUTO 24028G35KT 10SM SCT018 SCT023 SCT060 08/01 A2987 RMK AO2 LTG DSNT SE T00790013=

VFR METAR KFBR 042235Z AUTO 25023G32KT 10SM SCT018 SCT100 08/01 A2988 RMK AO2 LTG DSNT E T00820014=

VFR METAR KFBR 042255Z AUTO 25022G32KT 10SM SCT016 SCT033 BKN085 07/01 A2988 RMK AO2 T00730011=

MVFR METAR KFBR 042315Z AUTO 25022G32KT 10SM -DZ SCT016 BKN029 OVC070 06/02 A2988 RMK AO2 T00610016=

Accident 2334Z

VFR **METAR KFBR 042335Z AUTO 25024G33KT 10SM -DZ SCT016 BKN035 OVC070 06/02 A2989 RMK AO2 T00590017=**

MVFR METAR KFBR 042355Z AUTO 25020G27KT 10SM DZ SCT014 BKN029 OVC036 06/03 A2990 RMK AO2 T00550030 10145 20055=

General VFR to MVFR conditions prevailed surrounding the period with west-southwesterly winds gusting to 35 knots, light drizzle, with lightning being reported in the distance or within 10 to 30 miles east to southeast of the station between 1615 and 1635 MDT.

2.3 Rock Springs, WY

Southwest Wyoming Regional Airport (KRKS), Rock Springs, Wyoming was located about 90 miles east of the accident site at an elevation of 6,765 ft. The airport

had an AWOS and broadcasted on 118.375 VHF and disseminated observations every 20 minutes. At the time of the accident KRKS reported the following conditions.

Special weather observation for KRKS at 1720 MDT, automated, wind from 230° at 12 knots, visibility 10 miles or more in light rain, ceiling broken at 3,200 ft agl, overcast clouds at 4,200 ft, temperature 6°C, dew point temperature 3°C, altimeter setting 29.85 inHg. Remarks: automated observation with a precipitation discriminator, lightning distant north, hourly precipitation 0.01 inches, temperature 5.6°C, dew point temperature 3.3°C.

The general flight categories and raw observations surrounding the period were as follows:

VFR METAR KRKS 041954Z AUTO 05007KT 10SM FEW029 BKN070 OVC100 09/06 A2977 RMK AO2 PK WND 26035/1919 WSHFT 1902 LTG DSNT N RAB10E42 SLP026 P0002 T00890056=

VFR SPECI KRKS 042050Z AUTO 33005KT 10SM VCTS CLR 11/03 A2978 RMK AO2 LTG DSNT SW AND W=

VFR METAR KRKS 042054Z AUTO 33006KT 10SM VCTS CLR 11/03 A2977 RMK AO2 LTG DSNT SW AND W SLP025 60002 T01060033 56001=

VFR SPECI KRKS 042105Z AUTO 32006KT 10SM CLR 11/04 A2977 RMK AO2 LTG DSNT SW AND W T01110039=

VFR SPECI KRKS 042122Z AUTO 32009KT 10SM VCTS BKN085 13/02 A2977 RMK AO2 LTG DSNT ALQDS T01280022=

VFR METAR KRKS 042154Z AUTO 27022G28KT 10SM VCTS FEW034 SCT049 BKN085 08/01 A2979 RMK AO2 PK WND 27034/2139 LTG DSNT S-NW SLP042 T00780011=

VFR SPECI KRKS 042223Z AUTO 26020G24KT 9SM -RA SCT044 BKN070 OVC110 07/03 A2982 RMK AO2 PK WND 26032/2206 LTG DSNT ALQDS RAB11 P0000 T00670033=

VFR SPECI KRKS 042231Z AUTO 27020G31KT 6SM VCTS -RA BR BKN032 BKN050 OVC110 06/04 A2983 RMK AO2 PK WND 26032/2206 LTG DSNT N AND SE AND NW RAB11 PRESRR P0001 T00610039=

MVFR SPECI KRKS 042246Z AUTO 26021G30KT 4SM RA BR FEW023 OVC028 06/04 A2985 RMK AO2 PK WND 26032/2206 LTG DSNT N AND NE RAB11 P0004 T00560039=

MVFR METAR KRKS 042254Z AUTO 26016G30KT 5SM RA BR OVC026 06/03 A2985 RMK AO2 PK WND 26032/2206 LTG DSNT NE RAB11 SLP067 P0006 T00560033=

VFR SPECI KRKS 042320Z AUTO 23012KT 10SM -RA BKN032 OVC042 06/03 A2985 RMK AO2 LTG DSNT N P0001 T00560033=

Accident 2334Z

VFR METAR KRKS 042354Z AUTO 26015KT 10SM -RA BKN043 OVC060 06/03 A2984 RMK AO2
SLP065 P0002 60010 T00610033 10128 20056 50019=

2.4 Kemmerer, Wyoming

The next closest airport to the accident site was located 32 miles north-northeast of the accident site at Kemmerer Municipal Airport (KEMM), Kemmerer, Wyoming, at an elevation of 7,289 ft. The airport also had an AWOS which broadcasted on 119.675 VHF and disseminated observations every 20 minutes. During the period, the KEMM AWOS's present weather and ceilometer was not functioning for unknown reasons. The observation current at the time of the accident was as follows.

Weather observation for KEMM at 1735 MDT, automated, wind from 270° at 14 knots gusting to 19 knots, visibility 7 miles, present weather clouds missing, temperature 3°C, dew point temperature 2°C, altimeter setting 29.87 inHg.

The raw observations surrounding the period were as follows:

METAR KEMM 042135Z AUTO 26019G23KT 7SM 05/02 A2983 RMK AO2 LTG DSNT E=

IFR METAR KEMM 042155Z AUTO 26017G24KT 2 1/2SM 05/03 A2984 RMK AO2=

METAR KEMM 042215Z AUTO 26016G24KT 10SM 03/02 A2985 RMK AO2 LTG DSNT SE=

METAR KEMM 042235Z AUTO 27013G18KT 10SM 04/02 A2985 RMK AO2 LTG DSNT NE AND
SE=

METAR KEMM 042255Z AUTO 27014G18KT 10SM 03/02 A2985 RMK AO2 LTG DSNT NE=

METAR KEMM 042315Z AUTO 27016G24KT 10SM 03/02 A2985 RMK AO2=

Accident 2334Z

METAR KEMM 042335Z AUTO 27014G19KT 7SM 03/02 A2987 RMK AO2=

METAR KEMM 042355Z AUTO 27017G20KT 7SM 03/02 A2987 RMK AO2=

While the present weather and cloud coverage and heights were not reported during the period, strong weatherly winds gusting to 24 knots and lightning was reported in the distant northeast through the southeast of the station was reported between 1515 through 1655 MDT. The temperature and dew point spread during the period was noted less than 3°C surrounding the period suggesting the potential for low clouds.

2.5 Brigham, Utah

The planned destination of Brigham City Regional Airport (KBMG), Brigham City, Utah, was located about 49 miles east of the accident site at an elevation of 4,230

ft. The airport had an Automated Weather Observation System (AWOS) and issued observations on 135.075 VHF and broadcasted observations every 20 minutes longline. At the approximate time the aircraft passed the airport the following conditions were reported.

Weather observation for KBMC at 1715 MDT, automated, wind from 250° at 5 knots, visibility 3 miles in light rain and mist, ceiling broken at 900 ft agl, broken at 1,200 ft, and overcast at 2,400 ft, temperature 10°C, dewpoint temperature 8°C, altimeter 29.90 inHg. Remarks: automated station with a precipitation discriminator, visibility 2 ½ variable 5 miles.

The general flight categories and raw observations reported surrounding the period were as follows:

VFR METAR KBMC 041955Z AUTO 33004KT 10SM SCT034 BKN044 OVC050 10/07 A2984 RMK AO2 P0001=

VFR METAR KBMC 042015Z AUTO 31006KT 10SM -RA FEW012 BKN035 BKN050 10/07 A2985 RMK AO2=

VFR METAR KBMC 042035Z AUTO 32006KT 10SM -RA FEW012 SCT027 OVC033 10/08 A2985 RMK AO2=

MVFR METAR KBMC 042055Z AUTO 32007KT 9SM -RA FEW010 BKN027 BKN033 10/08 A2986 RMK AO2=

MVFR METAR KBMC 042115Z AUTO 30007KT 4SM -RA BR FEW013 SCT024 BKN033 10/08 A2987 RMK AO2=

VFR METAR KBMC 042135Z AUTO VRB05KT 4SM -RA BR FEW009 SCT027 SCT033 09/08 A2987 RMK AO2=

MVFR METAR KBMC 042155Z AUTO VRB01KT 4SM -RA BR SCT022 SCT036 BKN042 09/08 A2987 RMK AO2 P0001=

MVFR METAR KBMC 042215Z AUTO 00000KT 10SM -DZ SCT009 BKN026 OVC043 10/09 A2988 RMK AO2=

IFR METAR KBMC 042235Z AUTO VRB04KT 10SM -DZ BKN009 OVC014 10/08 A2988 RMK AO2=

MVFR METAR KBMC 042255Z AUTO 23005KT 10SM SCT011 SCT015 OVC023 10/08 A2989 RMK AO2 P0001=

IFR METAR KBMC 042315Z AUTO 25005KT 3SM -DZ BR BKN009 BKN012 OVC024 10/08 A2990 RMK AO2 VIS 2 1/2V5=
Accident 2334Z

MVFR METAR KBMC 042335Z AUTO 23006KT 3SM -RA BR SCT009 SCT013 BKN020 09/09 A2990 RMK AO2=

3.0 Atmospheric Sounding

A High-Resolution Rapid-Refresh (HRRR)⁵ numerical model sounding data were obtained from the NOAA Air Resource Laboratory website for the closest grid point to the accident site. The data were then plotted on a standard Skew T/log P diagram⁶ from the surface to 500-hPa or about 10,000 ft for 1700 MDT using the RAOB Analysis software⁷ program and is included as figure 5.

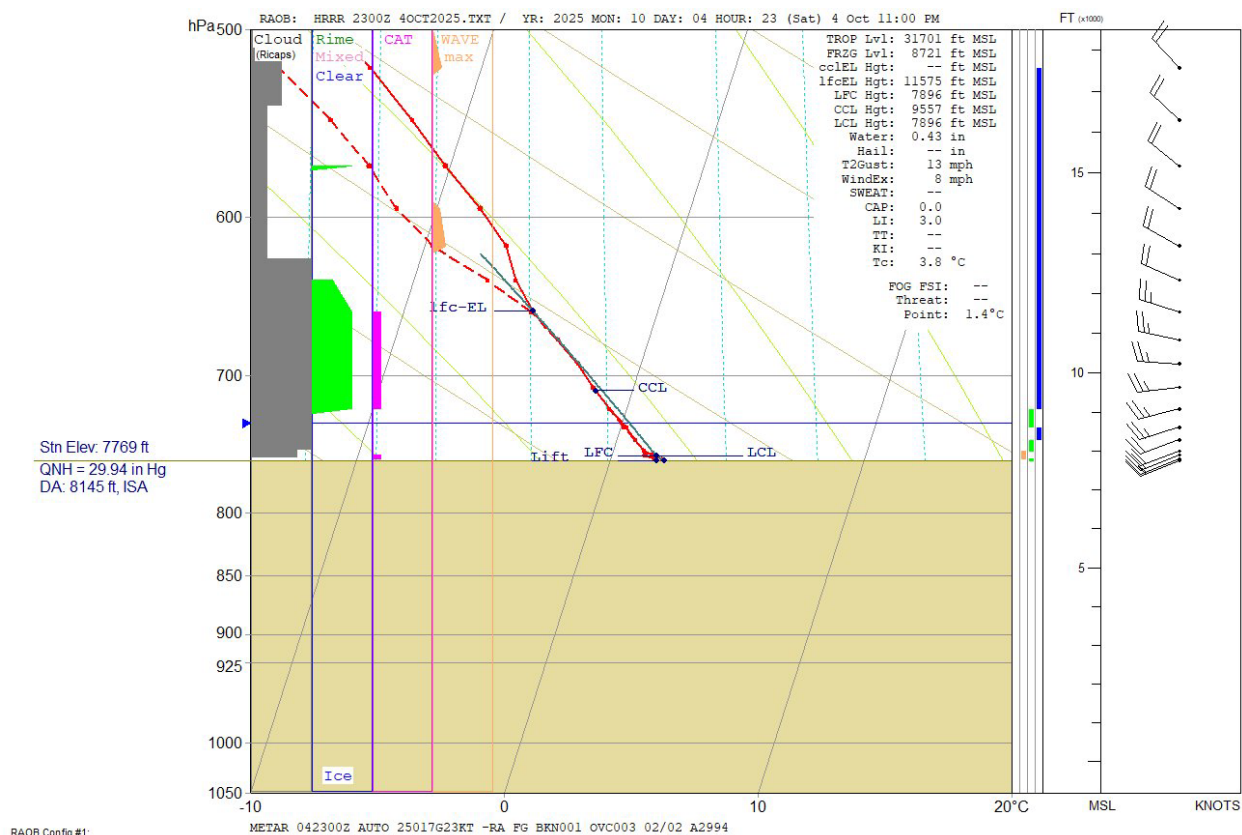


Figure 5 - HRRR numerical model sounding for 1700 MDT depicting the vertical structure of the atmosphere over the closest grid point to the accident site.

The 1700 MDT sounding depicted an elevation of 7,769 ft over the grid point with a near surface temperature of 2.1°C (36°F), a dew point temperature of 1.8°C (35°F), and a relative humidity of 98%, an altimeter setting of 1013.9-hPa, with a resulting

⁵ The HRRR is a NOAA real-time 3-kilometer (km) resolution, hourly-updated, cloud-resolving, convection-allowing atmospheric model, initialized by 3 km grids with 3 km radar assimilation. Radar data is assimilated in the HRRR every 15 minutes over a 1-hour period.

⁶ Skew T log P diagram - is a standard meteorological plot or thermodynamic diagram using temperature and the logarithmic of pressure as coordinates, used to display winds, temperature, dew point, and various indices used to define the vertical structure of the atmosphere.

⁷ The Universal RAWinsonde OBservation (RAOB) program software - is an interactive sounding analysis program developed by Eosonde Research Services (ERS) previously known as Environmental Research Services, The Villages, Florida.

density altitude of 8,145 ft. The precipitable water content was 0.43 inches with the lifted condensation level (LCL) and level of free convection (LFC) at 127 ft agl, and the convective condensation level (CCL) at 1,788 ft agl. The Lifted Index was 3.0 with no positive Convective Available Potential Energy (CAPE) values and indicated a general stable atmosphere. The RAOB Analysis program supported mountain obscuration conditions existing at the time of the accident with broken to overcast nimbostratus type clouds with bases between 100 and 300 ft agl, with tops near 5,100 ft agl or 12,900 ft msl, with support for another broken layer of altocumulus type clouds between 20,100 ft to 24,600 ft msl. The freezing level was depicted within 1,000 ft of the surface at 8,721 ft msl (blue line) with the potential for rime type icing in clouds and precipitation above that level. The sounding also supported light rain and fog over the area at the time of the accident.

The wind profile indicated a surface wind from 250° at 16 knots with winds veering to the northwest through height. A low-level wind maximum from 275° at 25 knots was depicted at 10,233 ft. The thermal and wind profiles support a weak mountain wave activity above 13,200 ft with a wavelength near 2.62 miles and an amplitude of 456 ft, with a maximum vertical velocity of 382 ft per minute (fpm). There were no strong vertical wind shears below 12,000 ft to support anything than light turbulence. Based on the terrain and the general wind profile, a slight downdraft component likely existed over the accident site. Combined with the relatively high density altitude likely limited the aircraft's climb performance in trying to clear the ridge.

The sounding parameters of height, pressure (PRE), temperature (T), dew point temperature (Td), relative humidity (RH), wind direction and speed, and Clear Air Turbulence (CAT), LLWS and Icing potential from the surface through 10,000 ft were as follows:

Height (ft msl)	PRE (hPa)	T (°C)	Td (°C)	RH (%)	Wind (dir/kt)	CAT (FAA)	LLWS (FAA0)	Icing (AFGWC)
7769	760	2.1	1.8	98	246/ 17			
7804	759	2.0	1.7	98	246/ 16	LGT	LIGHT	
7909	756	1.6	1.3	98	246/ 19		LIGHT	
8014	753	1.2	1.2	100	247/ 21			
8296	745	0.7	0.7	100	248/ 22			
8617	736	0.2	0.1	99	251/ 23			
9086	723	-0.7	-0.7	100	255/ 24	LGT		LGT Rime
9636	708	-1.6	-1.6	100	263/ 24	LGT		LGT Rime
10233	692	-2.5	-2.5	100	274/ 25	LGT		LGT Rime

4.0 Satellite Imagery

The NOAA Geostationary Operational Environmental Satellite number 18 (GOES-18) infrared and visible imagery were obtained from the Space Science and

Engineering Center (SSEC) at the University of Wisconsin-Madison in Madison, Wisconsin, and processed using the Man-Computer Interactive Data Access System (McIDAS) software. The infrared band 13 imagery at a wavelength of 10.3 microns (μm) and provided a resolution of 2 kilometers (km) or about 1 nautical mile (nm). While the visible band 2 imagery at a wavelength of 0.64 μm provided a resolution of 1 km or 0.5 nm. Figures 6 and 7 are the GOES-18 infrared and visible images for 1731 MDT at 4X and 2X magnification respectively. The infrared image depicted radiative cloud temperature of 253 kelvin or -20.16°C directly over the accident site which corresponded to cloud tops near 20,000 ft based on the HRRR sounding. A lower band of clouds with a radiative cloud top temperature near 261 Kelvin or -12.16°C were depicted over KFBR, KEMM, and likely over the accident site which represent cloud tops near 16,300 ft msl.

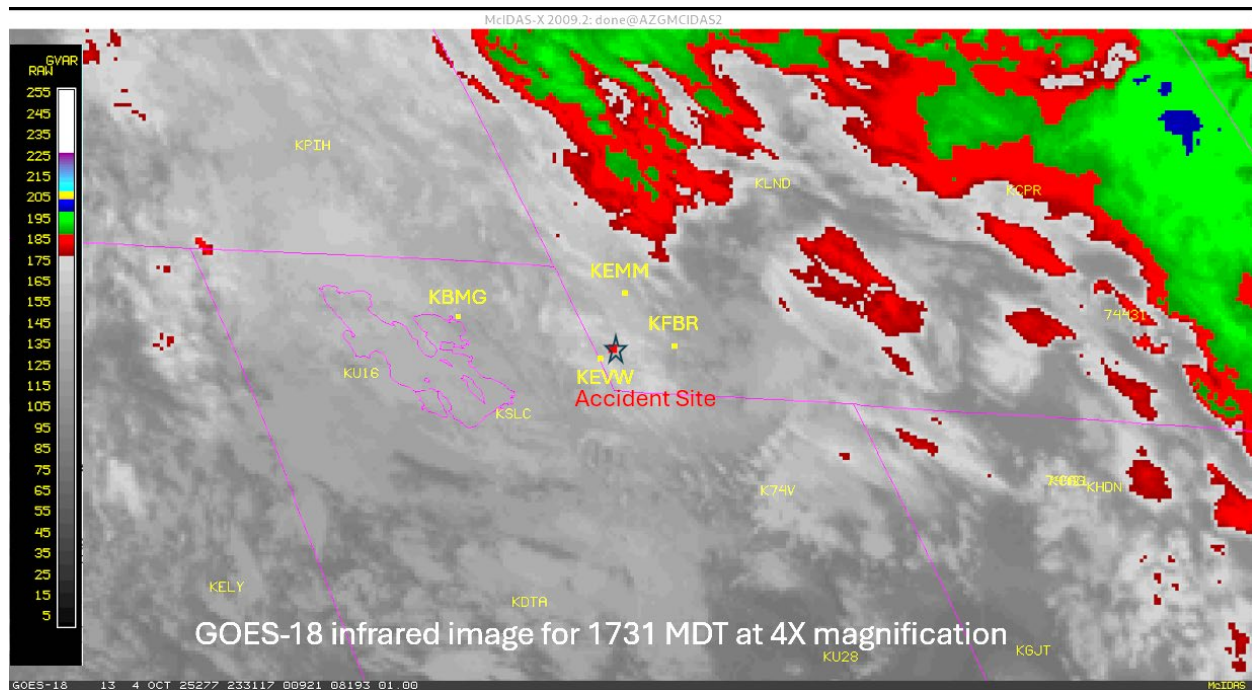


Figure 6 - GOES-18 infrared image for 1731 MDT at 4X magnification with accident site.

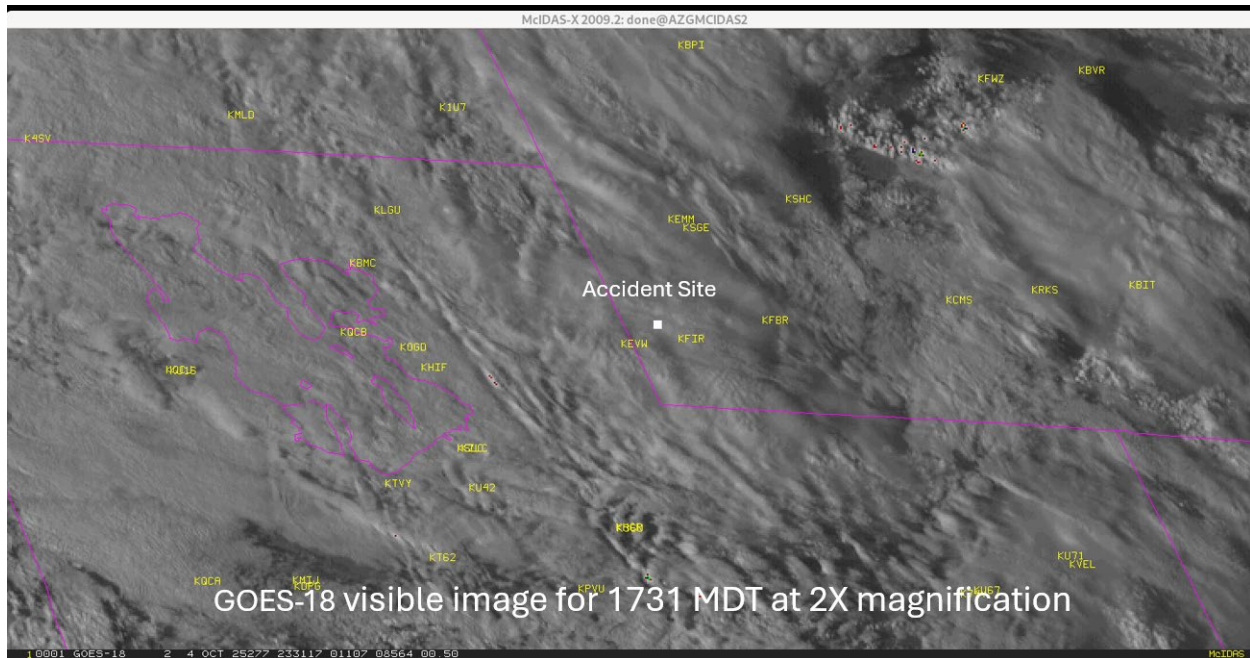


Figure 7 - GOES-18 visible image for 1731 MDT at 2X magnification with accident site.

5.0 Pilot Weather Reports

The following pilot weather reports or PIREPs were reported longline within 120 miles and within 3 hours prior to and after the accident. The reports are in standard code and abbreviations with time referenced to UTC.

LGU UA /OV LHO350015/TM 2004/FL160/TP A321/TA M14/IC MOD RIME 160-185 /ZLC

SLC UA /OV TCH040010/TM 2009/FL170/TP A320/TA M18/IC LGT RIME /RM DURC /ZLC

SLC UA /OV TCH130001/TM 2020/FL050/TP A339/SK OVC 050/RM BASES 050 DURD

SLC UA /OV TCH325035/TM 2050/FL150/TP E75L/TA M2/TB MOD TURB/IC LGT RIME

SLC UA /OV TCH270009/TM 2051/FL080/TP B737/TA M04/TB LGT CHOP/IC LGT RIME/RM DURC

SLC UA /OV FFU090010/TM 2057/FL120/TP E75L/TA M09/TB LGT CHOP/IC LGT-MOD 197-130/RM DURD

VEL UA /OV MTU/TM 2121/FL300/TP A319/TB OCNL MOD /ZLC

SLC UA /OV TCH031001/TM 2215/FL053/TP A321/WX BROKE OUT AT 1000FT AGL/RM RWY 17

SLC UA /OV OGD300020/TM 2218/FL130/TP E75L/TA M7/IC LIGHT MIXED

SLC UA /OV TCH210001/TM 2221/FL049/TP A321/SK BASES 049/WV TAILWIND UNTIL 700FT AGL/RM RWY 16R

EVW UA /OV EVW132035/TM 2308/FL320/TP B738/TB CONS LGT CHOP /ZLC

SLC UA /OV TCH19006/TM 0008/FL063/TP E75L/SK BASES 063

VEL UUA /OV MTU062017/TM 0024/FL330/TP A321/RM MTN WAVE +1700FT/-300FT +/- 10KT /ZLC

VEL UUA /OV MTU010038/TM 0030/FL330/TP A319/RM MTN WAVE +1600FT /-200FT /ZLC

JAC UA /OV DNW192041/TM 0112/FL200/TP B190/RM SMOOTH /ZLC

The PIREPs confirmed icing conditions above the freezing level and the existence of mountain wave conditions near 33,000 ft.

6.0 NWS Forecasts and Advisories

Due to limitations in the NWS Aviation Weather Center's archive capability, the Graphic Forecasts for Aviation (GFA) could not be reproduced for this report.

6.1 Inflight Weather Advisories

Inflight Aviation Weather Advisories are forecasts that advise en route aircraft of the development of potentially hazardous weather. They are issued by the NWS AWC, as well as from the Center Weather Service Units (CWSU) at the various Air Route Traffic Control Centers (ARTCCs). There are four basic types of inflight aviation weather advisories: the Significant Meteorological Information (SIGMET), the Convective SIGMET, the G-AIRMET, and the Center Weather Advisory (CWA). Inflight advisories serve to notify en-route pilots of the possibility of encountering hazardous flying conditions that may not have been forecast at the time of the preflight briefing. Whether or not the condition described is potentially hazardous to a particular flight is for the pilot to evaluate based on experience and the operational limits of the aircraft.

Under FAA Order 7110.65AA effective September 2024, Hazardous Inflight Weather Advisories, under section 2-6-6, air traffic controllers must advise pilots of hazardous weather that may impact operations within 150 nm of their sector or area of jurisdiction. One exception is that AIRMETs are not required to be provided by controllers over the CONUS.

During the period immediately surrounding the accident the NWS had a Convective SIGMET current for a portion of the route of flight across Wyoming which is included as figure 8. The NWS also had a series of Graphic-AIRMETs current for mountain obscuration in clouds and precipitation and for occasional moderate icing conditions from the freezing level through 22,000 ft which extended over Idaho, Utah, and western Wyoming and included the accident site, with an AIRMET for moderate turbulence bordering the area to the east is included as figure 9

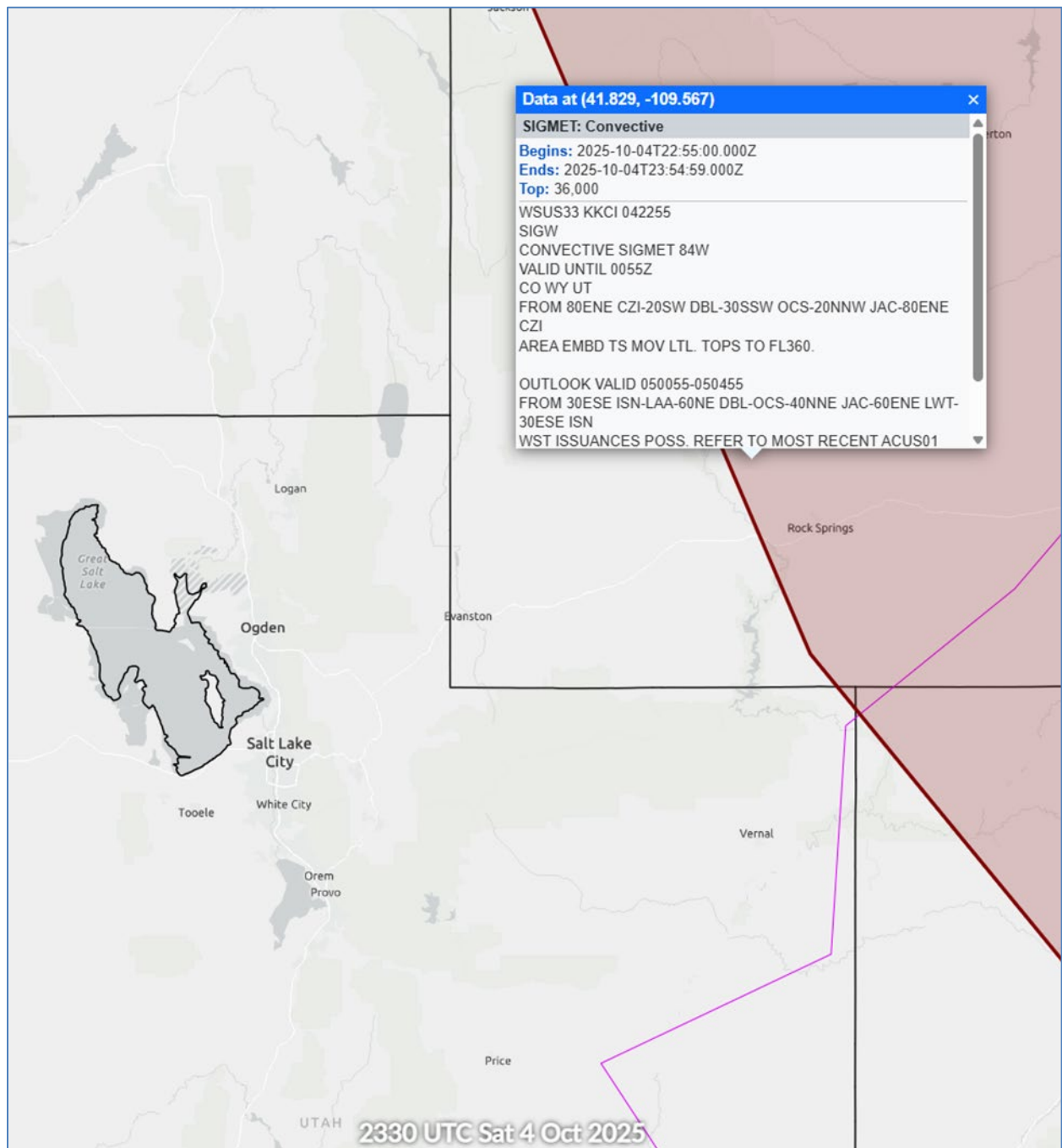


Figure 8 - Display of Convective SIGMET 84W issued at 1755 MDT and current at the time.

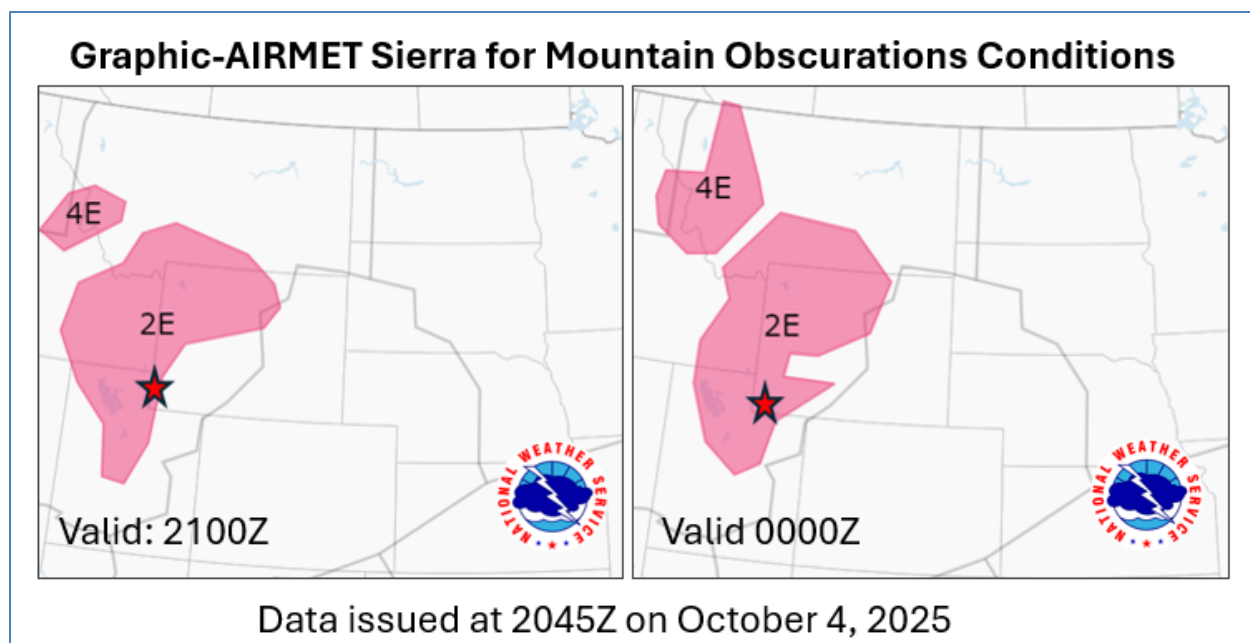


Figure 9 - Graphic-AIRMET for Mountain Obscurations Conditions valid for 1500 MDT (left) and for 1900 MDT (right) with the approximate accident site marked by the red star that were issued at 1445 MDT by the NWS AWC.

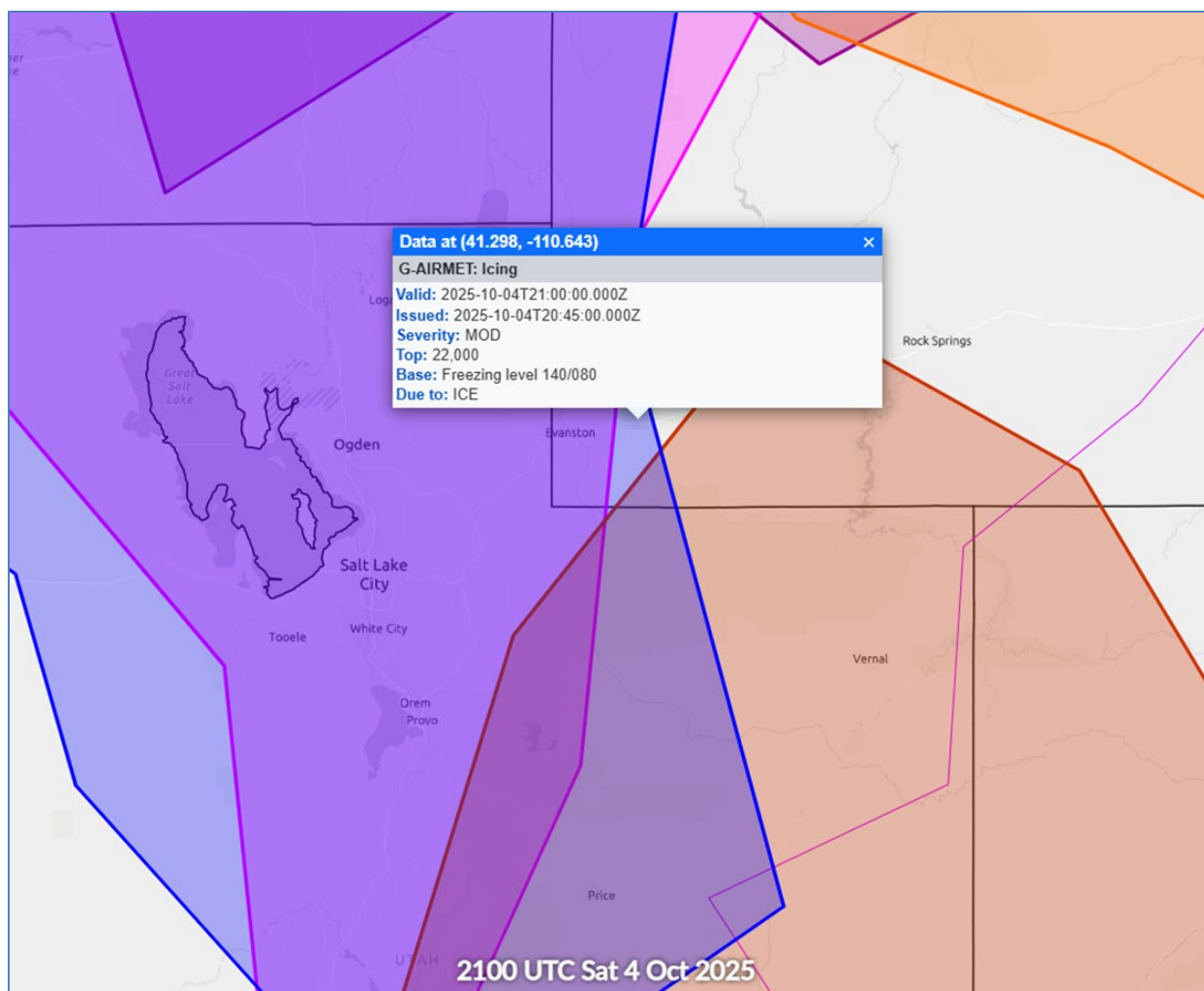


Figure 10 - Graphic-AIRMET for occasionally moderate icing conditions from the freezing level through 22,000 ft and G-AIRMET for turbulence issued at 1500 MDT and valid at the time of the accident.

6.2 Terminal Aerodrome Forecast

A Terminal Aerodrome Forecast (TAF) is a concise statement of the expected meteorological conditions significant to aviation for a time period usually 24 hours within a 5-statute mile radius of the center of the airport's runway complex. Cloud heights are referenced to heights agl. The closest TAF to the accident site was issued for KEVW by the NWS Salt Lake City, Utah Weather Forecast Office and are included below. The general flight categories are included to the left of the forecast time periods.

VFR TAF KEVW 041747Z 0418/0518 24014G24KT P6SM VCSH SCT020 BKN060
VFR FM041900 24016G28KT P6SM -SHRA SCT020 BKN040 OVC060

MVFR PROB30 0420/0424 4SM RA BR BKN020 OVC040
 VFR FM050000 29011KT P6SM -SHRA BKN040 OVC060
 VFR FM050600 24007KT P6SM BKN050=

VFR TAF AMD KEVW 042116Z 0421/0518 23016G28KT P6SM -SHRA SCT020 BKN040 OVC060
 MVFR PROB30 0421/0424 4SM RA BR BKN010 OVC040
 VFR FM050000 29011KT P6SM -SHRA BKN040 OVC060
 VFR FM050600 24007KT P6SM BKN050=

VFR TAF AMD KEVW 042202Z 0422/0518 23016G24KT P6SM -SHRA SCT020 BKN040 OVC060
 IFR TEMPO 0422/0424 4SM RA BR BKN007 OVC040
 VFR FM050000 29011KT P6SM -SHRA BKN040 OVC060
 VFR FM050600 24007KT P6SM BKN050=

MVFR TAF KEVW 042340Z 0500/0524 23016G24KT P6SM -RA SCT005 BKN012
 IFR TEMPO 0500/0502 4SM RA BR BKN005
 MVFR FM050200 29011KT P6SM -SHRA SCT015 BKN025
 MVFR FM050800 24007KT P6SM FEW005 OVC012
 VFR FM051800 26009KT P6SM FEW015 BKN050=

The initial TAF issued for KEVW at 1147 MDT and available to the pilot prior to departure expected VFR conditions winds from 240 at 14 knots gusting to 24 knots with a 30% chance of rain showers and MVFR ceilings broken at 2,000 ft agl and overcast at 4,000 ft. The forecast was amended at 1516 MDT and continued to expect strong west-southwesterly winds gusting to 28 knots and VFR to MVFR conditions with rain showers. At 1602 MDT, the TAF was again amended and expected temporary IFR conditions with moderate rain and mist, with ceilings broken at 700 ft agl, and overcast at 6,000 ft.

6.3 Area Forecast Discussion

The NWS Area Forecast Discussions (AFD) are issued by each WFO to describe the short-term weather conditions within their region with an aviation section that includes the general conditions as they relate to the creation of the TAF. These are useful for additional aviation-related issues that cannot be encoded into the TAF and provide some reasoning behind the forecast. The following AFD was issued by the KSLC WFO at 1520 MDT.

FXUS65 KSLC 042120
 AFDSLC

Area Forecast Discussion
 National Weather Service Salt Lake City UT
 320 PM MDT Sat Oct 4 2025

.SYNOPSIS...The Pacific system will continue to move east through tonight with precipitation chances gradually diminishing throughout the evening tonight and colder air filtering into the

area. The past 24 hours have been quite the gullywasher with widespread precipitation totals along the Wasatch front ranging from 1-2". The highest amounts were observed across the Tooele and Rush Valleys with multiple sites reporting 2.5-3". Chances for rain return as we approach the weekend with tropical moisture advecting north across UT.

.AVIATION...KSLC...Light to moderate rain will continue through around 23-00z before transitioning to more intermittent showers through around 03z. After 03z, there is a 20 percent chance of showers through the night and into Sunday morning. MVFR conditions and mountain top obscurations are likely to continue through 23-00z, with brief IFR conditions possible. This evening and overnight, VFR conditions are expected to prevail, with periodic MVFR conditions possible in heavier showers. Southerly winds are currently expected to switch to northwesterly by 22-23z, but there is a 25% chance that winds will remain southerly.

.REST OF UTAH AND SOUTHWEST WYOMING...Periods of light to moderate rain will continue across northern Utah and southwest Wyoming through around 00z before transitioning to more isolated to widely scattered rain showers for the rest of the night. Areas of MVFR conditions with localized IFR conditions along with mountain top obscurations will continue in these areas through at least 22-00z. This evening and overnight, VFR conditions are expected to prevail, with local MVFR conditions possible in heavier showers. Across southern Utah, expect scattered cloud cover into the early evening hours before skies gradually clear out through the night. Otherwise, winds through this evening will remain generally westerly to northwesterly areawide, locally variable due to showers, before winds decrease and trend more diurnal later tonight.

6.4 Winds and Temperature Aloft

The NWS Winds and Temperature Aloft Forecast current for the area during the period are included below.

FBUS33 KWNO 041358
FD3US3
-DATA BASED ON 041200Z
VALID 050000Z FOR USE 2100-0600Z. TEMPS NEG ABV 24000

FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
-MBW			2622	2434-01	2047-14	1956-28	196341	205944	216248
-RKS			2635	2224-03	2328-17	2828-28	272343	243543	254344
-SLC		2707	2725+01	2828-05	3020-15	3224-27	313741	284647	264447

The forecast for 9,000 ft along the route expected winds from 270° at 22 to 35 knots with temperatures just above freezing.

Submitted by:

Donald Eick
Senior Meteorologist