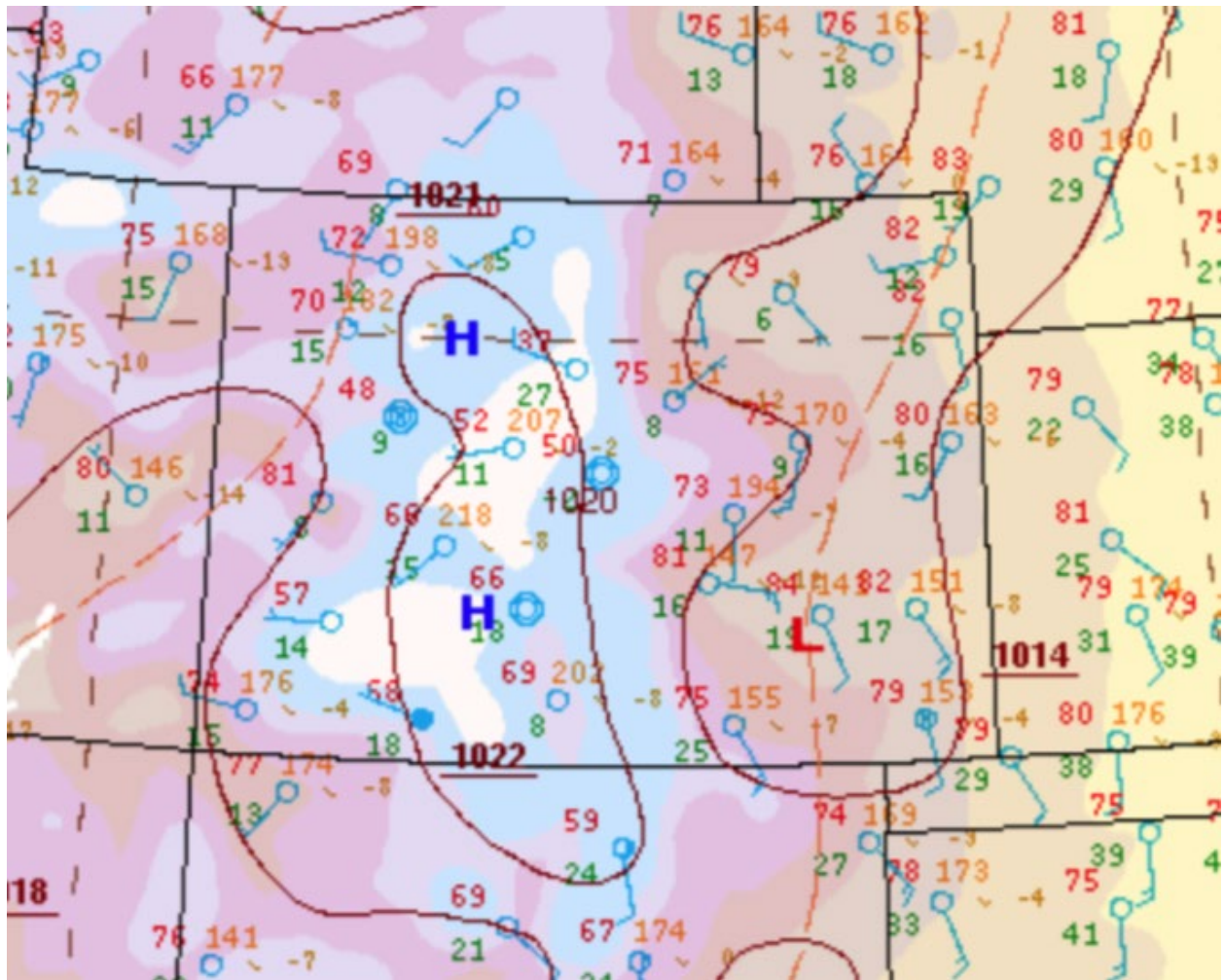


CEN21FA177 – Conifer, CO
April 3, 2021 @ 1735 MDT (2335Z)

Synoptic Conditions



The NWS Surface Analysis Chart for 1800 MDT (0000Z April 4, 2021) depicted two high pressure systems at 1021- and 1022-hectopascals (hPa) over central Colorado over the Rocky Mountains, with a low pressure center at 1014-hPa over southeastern Colorado with a trough of low pressure extending north to south from the low. The station model for Denver depicted a wind from the ENE at 10 knots, visibility unrestricted at 10SM, a few clouds, and a temperature in the mid to upper 70's Fahrenheit °(F), with dew point near 10° F, with no significant weather depicted over the state.

METARs

Wilkerson Pass (K4BM) had an Automated Surface Observation System (ASOS) and issued observations every 20-minutes and reported the following conditions surrounding the period:

Wilkerson Pass weather at 1735 MDT, automated, wind from 180 at 8 knots, visibility 10 statute miles or more, sky clear below 12,000 ft, temperature 10° Celsius (C), dew point temperature -17° C, altimeter 30.50 inches of mercury.

Raw METARs surrounding the period:

METAR K4BM 032215Z AUTO 20006KT 10SM CLR 10/M18 A3051 RMK AO2
METAR K4BM 032235Z AUTO 24003KT 10SM CLR 11/M19 A3051 RMK AO2
METAR K4BM 032255Z AUTO 21005KT 10SM CLR 11/M18 A3050 RMK AO2
METAR K4BM 032315Z AUTO 22003KT 10SM CLR 11/M18 A3051 RMK AO2
METAR K4BM 032335Z AUTO 18008KT 10SM CLR 10/M17 A3050 RMK AO2
METAR K4BM 032355Z AUTO 00000KT 10SM CLR 10/M19 A3051 RMK AO2
METAR K4BM 040015Z AUTO 18006KT 10SM CLR 10/M18 A3051 RMK AO2
METAR K4BM 040035Z AUTO 21003KT 10SM CLR 09/M18 A3051 RMK AO2
METAR K4BM 040055Z AUTO 20004KT 10SM CLR 09/M17 A3051 RMK AO2
METAR K4BM 040115Z AUTO 18005KT 10SM SCT095 08/M17 A3051 RMK AO2
METAR K4BM 040135Z AUTO 17005KT 10SM SCT095 08/M16 A3051 RMK AO2

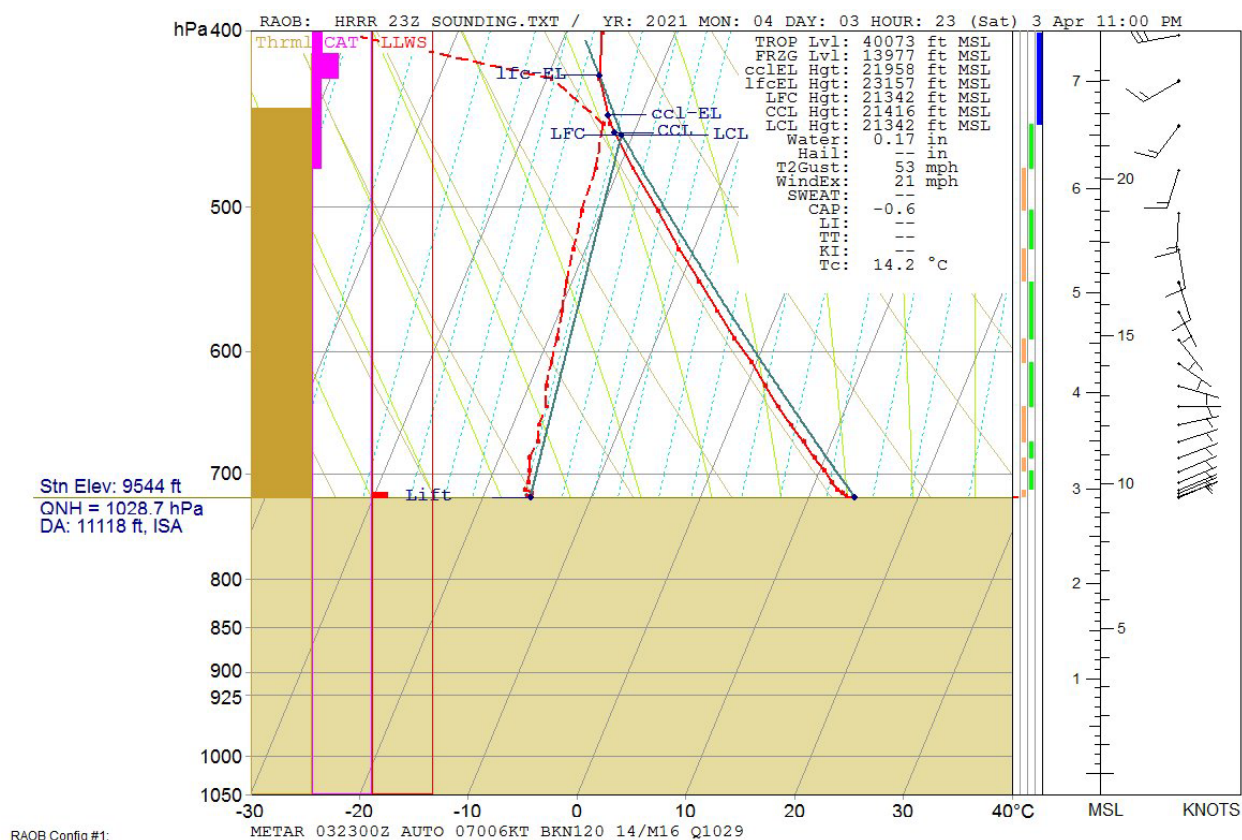
METAR display at the time of the accident from the NWS Aviation Weather Center's Helicopter Emergency Medical Service (HEMS) Weather Tool with topography and the official weather observations over the region. Depicting the accident site south of Buffalo Peak and north of Wigwam Creek.

FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
DEN			9900+12	2406+03	2618-15	2721-27	263543	273853	273463
PUB			1708+12	2008+04	2814-15	2713-26	271343	282452	292662

ALS 9900+04 2406-14 2508-26 281442 282352 292661
 GJT 9900+11 2505+03 2417-15 2623-27 263443 263752 273961

Sounding HRRR

A High Resolution Rapid Refresh (HRRR) numerical model sounding was obtained from the NOAA Air Resource Laboratory archive over the accident site coordinates for 1700 MDT and is included below plotted on a standard Skew T log P diagram.



The sounding depicted an elevation of 9,544 ft, with a temperature of 14° C (57° F), a dew point temperature of -16° C (3° F), with a relative humidity of 11%, which resulted in a density altitude of 11,118 ft. The sounding depicted a dry low-level environment with the lifted condensation level (LCL) and level of free convection (LFC) at 21,342 ft msl, which supported a scattered to broken cloud layer near 12,000 ft agl. The sounding was characterized as conditionally unstable below 22,000 ft and supported strong thermals. The precipitable water content was 0.17 inches.

The HRRR wind profile indicated a near surface wind from 070° at 6 knots with little variation in wind through 13,000 ft and then veered or changed clockwise to the southwest and west through height. The wind profile did not depict any strong vertical or horizontal wind shears to suggest anything other than light turbulence. The HRRR wind profile indicated a low-level easterly wind flow channeling the wind below Buffalo Peak.