



RECORD OF EMAIL

Samantha Link
Aviation Accident Investigator
Western Pacific Region

Date: May 28, 2019
Person Contacted: Mr. Donald Eick (NTSB Senior Meteorologist)
NTSB Accident Number: WPR19LA153

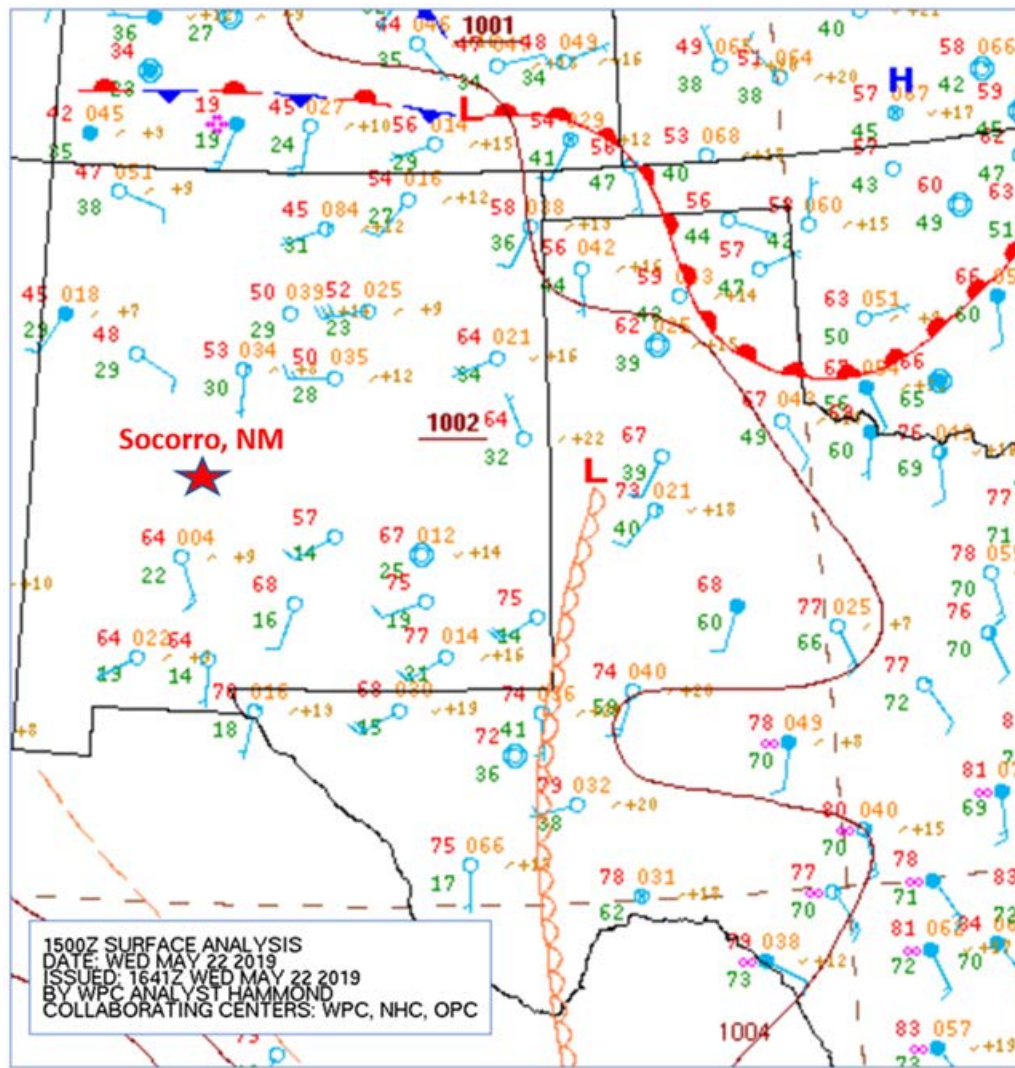
Narrative:

Mr. Eick reported the following over email:

Weather conditions on May 22, 2019 in the vicinity of Socorro, New Mexico

Synoptic Conditions – The NWS Surface Analysis Chart for 1500Z or 0900 MDT over New Mexico is included below, with the Socorro, NM area is enclosed by a red circle. The chart depicted the a thermal low at 1002-hectopascals (hPa) to the east over Texas with a dry line oriented north and south of the low. A weak pressure gradient existed over the area, with intense solar heating expected over the area with generally southerly wind flow over the area. No boundaries were identified over the area in the vicinity of the accident site.

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Observations - Socorro Municipal Airport (KOMN), Socorro, New Mexico, had an Automated Weather Observation System (AWOS) which was not augmented by any human observers, and listed an elevation of 4,875 ft. The airport lists a magnet variation of 9° E. A search of the AirNav data base indicated that runway 33 had a runway heading of 344° true. At the time of the accident the following conditions were reported:

KONM weather observation at 0915 MDT (1515Z), automated, wind from 180° true at 9 knots, visibility 10 miles or more, sky clear below 12,000 ft, temperature 17° Celsius (C), dew point temperature of -6° C, altimeter 29.75 inches of mercury (Hg). Remarks: automated station with a precipitation discriminator, temperature 16.9° C, dew point -6.2° C.

Based on the observation the calculated density altitude was 6,470 ft. The reported wind indicated a 3 knots crosswind and an 8 knot tailwind for landing on runway 33, based on the 2-min average wind reported in the METAR.

The conditions surrounding the time of the accident were as follows:

METAR KONM 221355Z AUTO 0000KT 10SM CLR 12/M04 A2976 RMK AO2 T01241043=
 METAR KONM 221415Z AUTO 0000KT 10SM CLR 13/M06 A2977 RMK AO2 T01271059=
 METAR KONM 221435Z AUTO 0000KT 10SM CLR 14/M06 A2976 RMK AO2 T01391064=
 METAR KONM 221455Z AUTO 18003KT 10SM CLR 15/M06 A2976 RMK AO2 T01471062=

Accident 1515Z

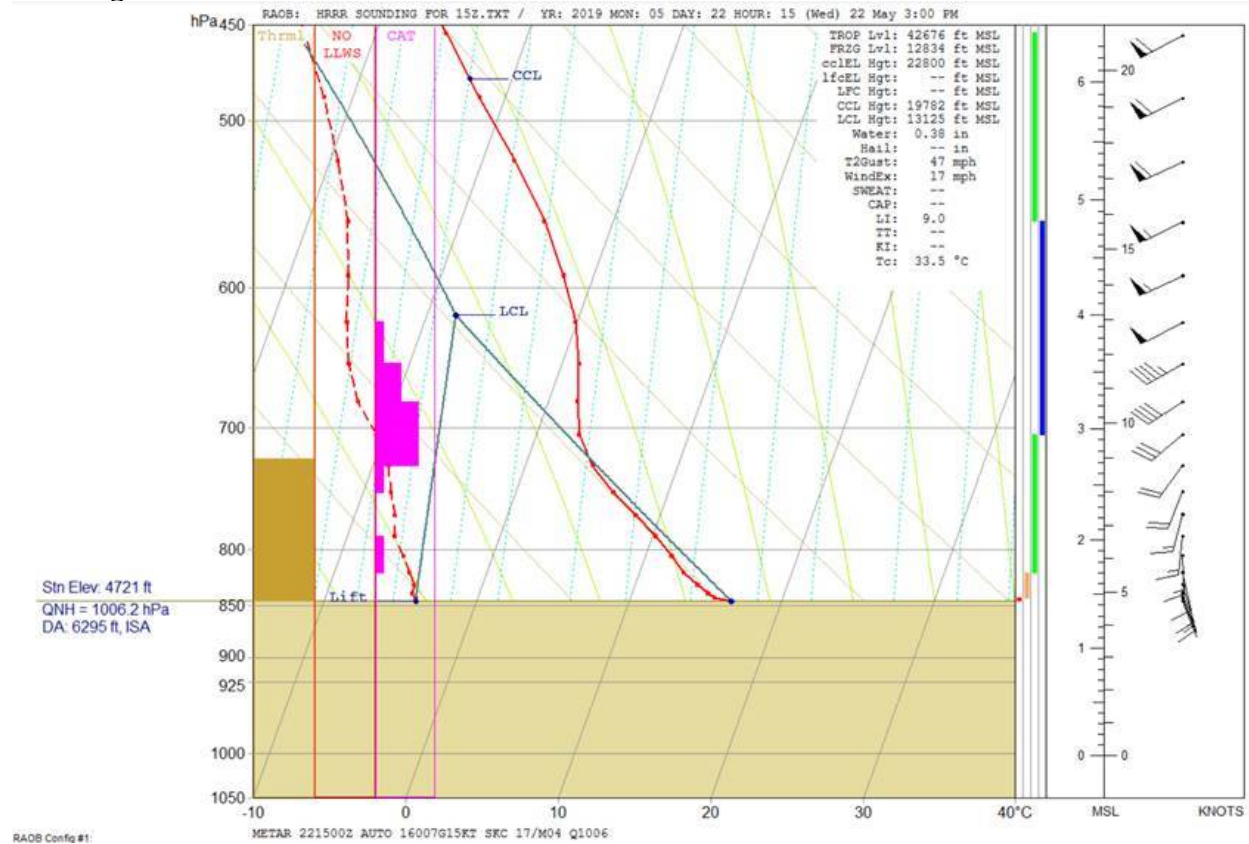
METAR KONM 221515Z AUTO 18009KT 10SM CLR 17/M06 A2975 RMK AO2 T01691062=
METAR KONM 221535Z AUTO 18015G20KT 10SM CLR 18/M05 A2975 RMK AO2 T01801047=
METAR KONM 221555Z AUTO 17018G22KT 10SM CLR 19/M06 A2974 RMK AO2 T01861065=
METAR KONM 221615Z AUTO 19013G20KT 10SM CLR 19/M06 A2974 RMK AO2 T01911064=
METAR KONM 221635Z AUTO 17019G23KT 10SM CLR 20/M07 A2974 RMK AO2 T01991072=
METAR KONM 221655Z AUTO 17016G25KT 10SM CLR 21/M07 A2974 RMK AO2 T02091072=
METAR KONM 221715Z AUTO 19015G25KT 10SM CLR 21/M07 A2974 RMK AO2 T02121075=
METAR KONM 221735Z AUTO 19019G27KT 10SM CLR 21/M07 A2974 RMK AO2 T02121074
METAR KONM 221755Z AUTO 17017G24KT 10SM CLR 22/M08 A2974 RMK AO2 T02201077 10220 20068
METAR KONM 221815Z AUTO 17019G26KT 10SM CLR 22/M08 A2973 RMK AO2 T02241081
METAR KONM 221835Z AUTO 18018G27KT 10SM CLR 23/M08 A2972 RMK AO2 T02301082
METAR KONM 221855Z AUTO 18018G26KT 10SM CLR 24/M08 A2971 RMK AO2 T02391079
METAR KONM 221915Z AUTO 19011G25KT 10SM CLR 24/M08 A2971 RMK AO2 T02421079
METAR KONM 221935Z AUTO 17023G34KT 150V210 10SM CLR 25/M08 A2970 RMK AO2
METAR KONM 221955Z AUTO 20020G28KT 10SM CLR 25/M08 A2970 RMK AO2 T02511077
METAR KONM 222015Z AUTO 18022G30KT 10SM CLR 25/M08 A2969 RMK AO2 T02531078
METAR KONM 222035Z AUTO 16022G29KT 10SM CLR 26/M07 A2968 RMK AO2 T02591073
METAR KONM 222055Z AUTO 17018G31KT 10SM CLR 26/M07 A2968 RMK AO2 T02631073
METAR KONM 222115Z AUTO 20020G31KT 10SM CLR 27/M07 A2968 RMK AO2 T02701075

The observations indicated that wind speeds began to increase over 10 knots after 0935 MDT and continued through the day with the maximum wind gust from the south at 32 knots at 1535 MDT during the period of maximum heating as typically would be expected.

A review of the NWS Aviation Weather Centers (AWC) website display of METAR observations for 0940 MDT is included below and showed southerly winds over the area at 15 knots with gusts to 20 knots over the area at the time, with clear skies and temperature of 64° F over KOMN.



Sounding - A high Resolution Rapid Refresh (HRRR) numerical model was run from archive data from the NWS. The model sounding supported strong thermals through 9,000 ft. the wind profile indicated southerly surface wind that veered to the southwest and increased in speed above 2,000 ft agl of the surface. The sounding did not indicate any low-level wind shear or turbulence below 500 ft agl.



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Submitted by: Samantha Link