

RECORD OF EMAIL

Samantha Link Aviation Accident Investigator Western Pacific Region

Date: October 9, 2019 Person Contacted: Mr. Michael Richards (NTSB Meteorologist) NTSB Accident Number: WPR19FA263

Narrative:

Mr. Richards reported the following over email:

The following factual weather information pertains to accident number WPR19FA263, where the accident occurred at about 1720Z (1020 PDT) on 19 September 2019 at coordinates 39.7811, -119.4705 and an elevation of about 8000'.

- 0.483° tilt weather radar imagery from 1020 PDT from an antenna (KRGX) located about 1.5 nm southsoutheast of the accident location at an elevation of about 8300' msl is presented below. Reflectivity within about 1 nm of the antenna is not depicted. The accident aircraft flight track through the accident time is depicted by the white line. This imagery indicates that reflectivity consistent with light precipitation is present in the region. No reflectivity is present at the accident site at the accident time. A loop of KRGX weather radar imagery indicated that the reflectivity was moving generally westnorthwest to east-southeast through the region.

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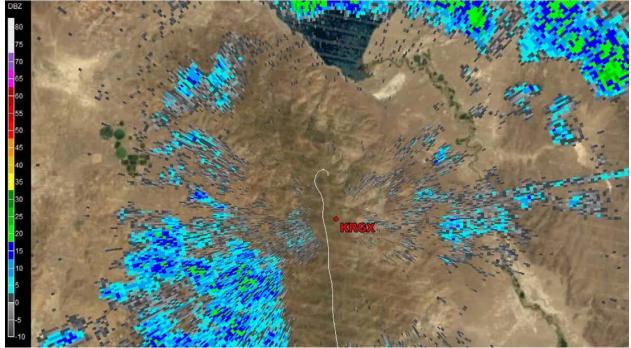


Figure 1: 0.483° tilt weather radar imagery

- Surface observations from RTS (Reno/Stead Airport located 20 nm west-southwest of the accident site at an elevation of about 5000') and RNO (Reno/Tahoe International Airport located 22 nm southwest of the accident site at an elevation of about 4400' are presented below.

METAR KRTS 191655Z AUTO 31012KT 9SM -DZ SCT034 BKN041 07/03 A3002 RMK AO2= **METAR KRTS 191715Z AUTO 31009G14KT 10SM BKN032 OVC040 07/03 A3002 RMK AO2=** METAR KRTS 191735Z AUTO 31012KT 10SM BKN033 BKN040 BKN046 07/03 A3003 RMK AO2=

At 1015 PDT, KRTS reported visibility unlimited, ceiling broken at 3200' agl (8200' msl) and an overcast clouds at 4000' agl (9000' msl).

METAR KRNO 191555Z 00000KT 10SM FEW038 BKN050 BKN090 BKN200 10/03 A2998 RMK AO2 SLP126 ACSL DSNT N AND SE MTN TOPS OBSCD DSNT SW THRU NW T01000028= **METAR KRNO 191655Z 05005KT 10SM FEW035 SCT050 BKN085 BKN200 12/03 A2999 RMK AO2 SLP128 ACSL DSNT E THRU SE MTN TOPS OBSCD DSNT SW THRU NW T01170028=** METAR KRNO 191755Z 32012KT 10SM -RA FEW030 BKN045 BKN075 OVC130 12/05 A3000 RMK AO2 RAB28 SLP135 SH VC SW AND NW MTN TOPS OBSCD SW THRU NW AND DSNT NE P0001 60001 T01170050 10128 20061 53005=

At 0955 PDT, KRNO reported visibility unlimited, few clouds at 3500' agl (7900' MSL), scattered clouds at 5000' agl (9400' msl), ceiling broken at 8500' agl (12900' msl) and broken clouds at 20000' agl (24400' msl). In the remarks it indicated altocumulus standing lenticular clouds to the east through the southeast more than 10 miles away, and indicated the mountain tops were obscured to the southwest thought northwest more than 10 miles away.

At 1055 PDT, the observation from KRNO also remarked that mountain tops to the northeast more than 10 miles away were obscured.

- The below visible weather satellite image from 1016 PDT establishes cloudy conditions over the accident region. A review of the $10.3\mu m$ infrared satellite from about this time revealed cloud brightness

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temperatures over the accident area at this time were about -33°C. When considering the HRRR sounding (discussed below), this corresponded to cloud top heights over the accident site of over 20000' msl.

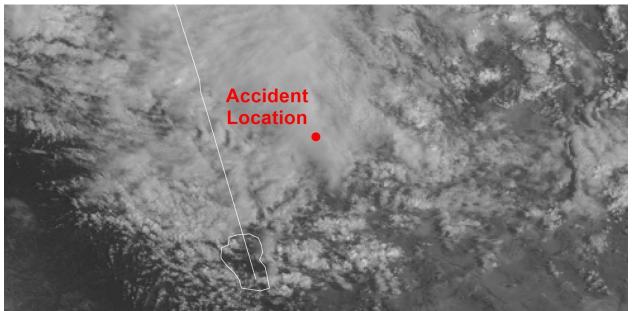


Figure 2: visible weather satellite image

- High-Resolution Rapid Refresh (HRRR) model sounding for the accident site at 1000 PDT was retrieved from the National Oceanic and Atmospheric Administration's Air Resources Laboratory. It suggested near-saturated conditions below about 9000' msl. Below 14000' msl the wind was generally from the west at magnitudes less than 20 knots. There was very little directional shear in this layer.

- With regard to advisories active for IFR or mountain obscuration conditions, there were none active for the accident site at the accident time. However, there was an AIRMET active for mountain obscuration conditions very close to the accident site.

WAUS45 KKCI 191445 WA5S -SLCS WA 191445 AIRMET SIERRA UPDT 2 FOR IFR AND MTN OBSCN VALID UNTIL 192100

AIRMET MTN OBSCN...ID NV WA OR CA FROM 80WSW YXC TO 50S REO TO 40SW FMG TO 60SE RBL TO 20NNE RBL TO FOT TO 70WNW OED TO ONP TO HQM TO TOU TO 80WSW YXC **MTNS OBSC BY CLDS/PCPN/BR**. CONDS CONTG BYD 21Z THRU 03Z.

Mike Richards Aviation Safety Investigator - Senior Meteorologist Operational Factors Division National Transportation Safety Board

END.

Submitted by: Samantha Link

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