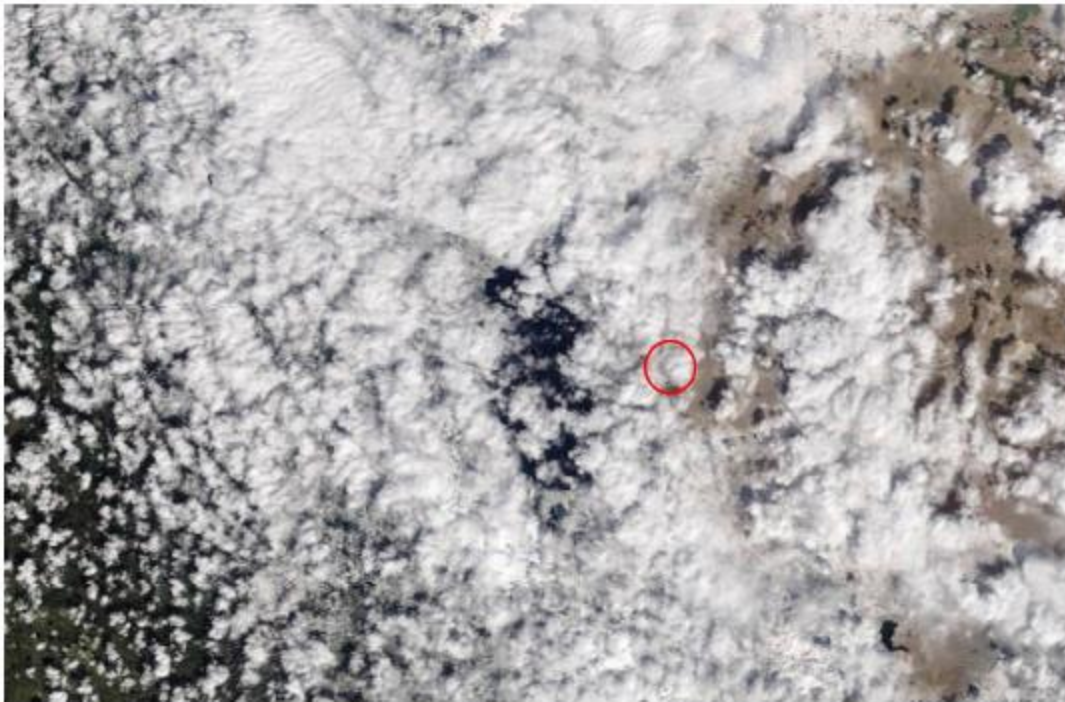


From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: WFOUSFA051 weather
Date: Monday, February 26, 2018 11:10:49 AM

Hi Andrew,

There were a lot of clouds over the accident area at the accident time. The best image I could grab to illustrate this came from a polar orbiting satellite about 30 minute prior to accident time. The image below shows that there was extensive cloud coverage over the region (accident site marked with red circle) but also significant breaks in the cloud cover where you can see the ground (you can see some of Lake Tahoe to the west of the accident site). Since this image was 30 minutes prior, it doesn't mean the "final turn" area was covered in cloud, we don't have a good high-res image to depict that time, but this should illustrate generally the cloud cover across the region at the accident time pretty well.

As far as tops go, from infrared satellite data, and a regional PIREP, I am estimating tops to be at 12,000'-13,000' msl. Bases of the top cloud layer I'd put somewhere around 10,000' msl, but layered below that for 1,000' or more. Seriously bases are really tough here as they are not uniform in space and time. A PIREP about 10 miles to the east of the accident site about 30 minutes after the accident put clouds between 9,500' and 13,000' msl.



There were snow showers moving through the area. The following wx radar picture shows some of this around the time of the accident. The bright colors to the south and north of the accident location are cities of south shore and Reno, respectively.

I would expect some light icing in the clouds.



As far as wind goes, the best estimate I can give on this one is from high-res model data. This is not observed, it's estimated and slightly smoothed out. Here is some data:

<u>Alt(ft)</u>	<u>WindDir(true)</u>	<u>WindMag(kts)</u>
16,220	340°	27
14,612	341°	24
13,176	338°	19
11,906	332°	16
10,749	322°	13
9,758	314°	13
8,853	311°	13
8,059	312°	12

So overall, there was most definitely opportunity for the aircraft to descend through cloud between about 12,000-13,000' feet and 9,000-10,000' feet, however there was also certainly clear areas he could have gotten through. If in IMC, light ice accretion would have been possible. Probably a few bumps but I do not see anything that supports significant turb in this layer. He certainly would have had a tail wind in the turn to the east and south.

I hope this helps. Please let me know if you have any questions.

Mike

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

[REDACTED]
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