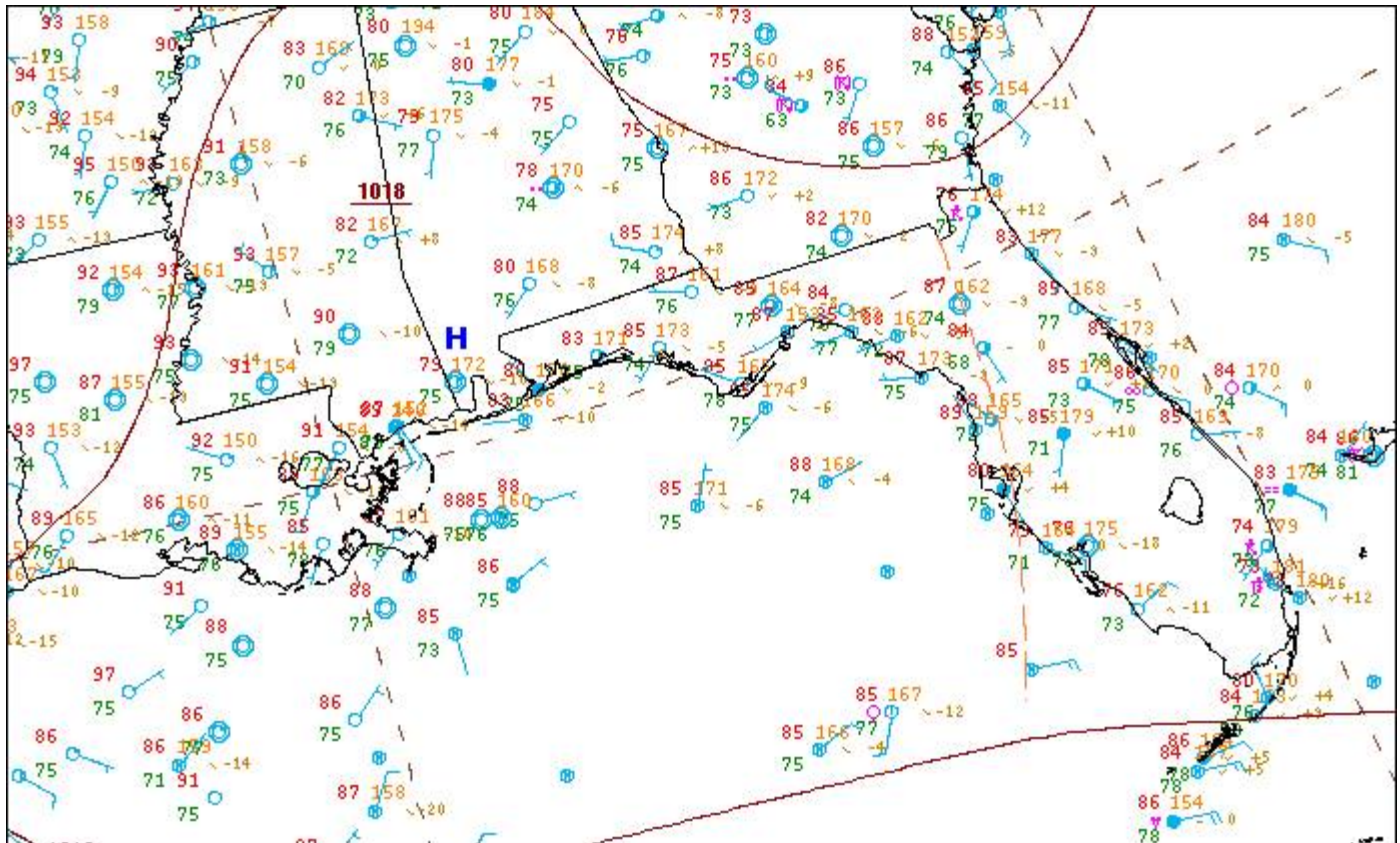


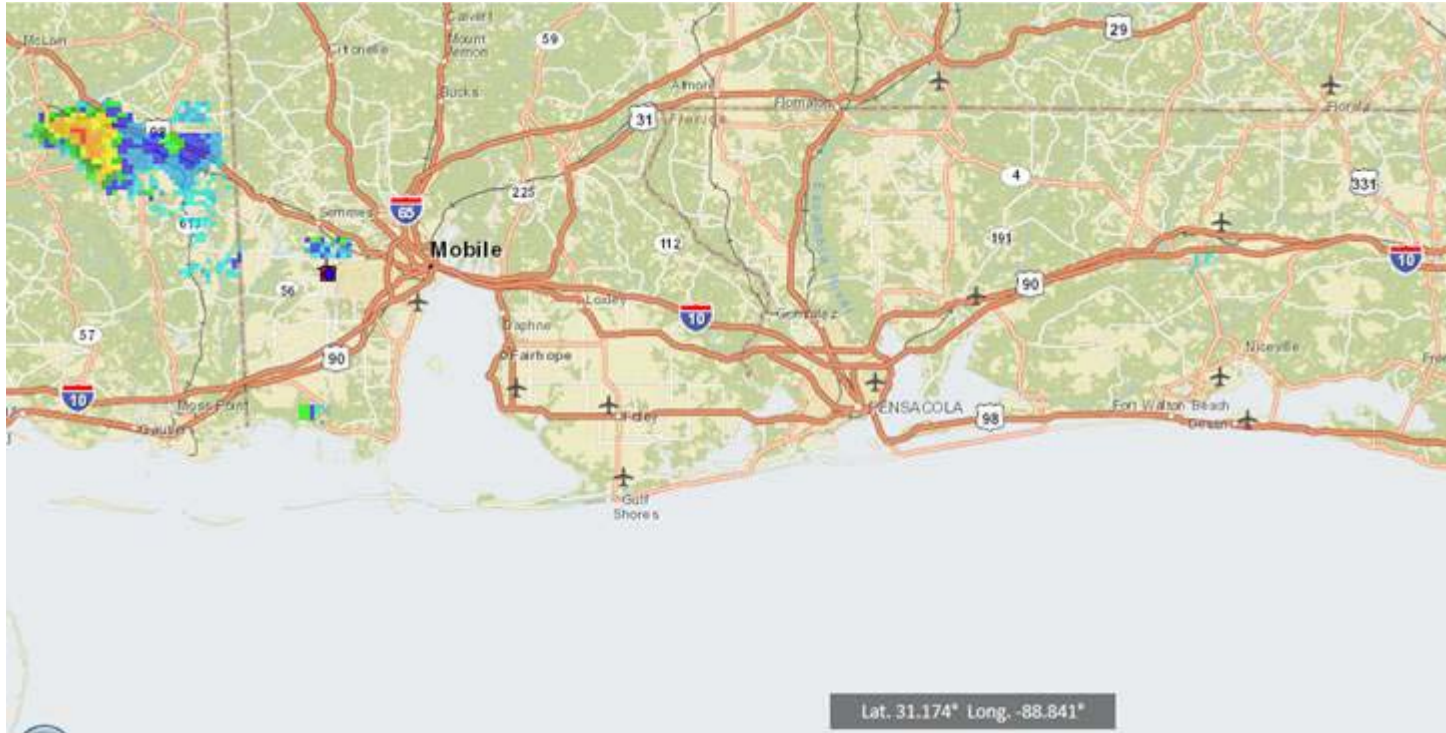
ERA16FA279
Destin, FL
August 2, 2016
NTSB Weather Reports and Records

Weather Conditions on August 2, 2016 in the Florida Panhandle

Synoptic conditions – the southeast section of the NWS Surface Analysis Chart for 1900 CDT (0000Z August 3, 2016) is included below and depicted a high pressure system over southern Alabama at 1018-hectopascals (hPa) with a ridge of high pressure extending eastward across the Florida panhandle. As a result of the high pressure ridge a general light pressure gradient was over the region with light winds from the northwest over the region. The station models over the region depicted general light winds under 10 knots, clear skies, and warm temperatures in the 80's degrees Fahrenheit, with dew point temperatures in the mid and upper 70's.



NWS National Radar Composite for 2030 CDT (0130Z August 3, 2016) is included below and showed no significant meteorological echoes in the vicinity of the departure airport or in the Destin, FL area. A expanded view is also included which shows some strong intensity echoes over southern Mississippi and across southern Alabama and into southern Georgia immediately north of the Florida panhandle.



Observations – the closest weather reporting location to the accident site was from the departure airport of Destin Executive Airport (KDTs), Destin, FL, at an elevation of 22 feet. The airport had an automated surface observation system and reported the following conditions:

The next closest reporting location was located approximately 6 miles northwest of Destin from Elgin Air Force Base – Fort Walton Beach Airport (KVPS), which reported similar conditions:

Terminal Forecast (TAF) – the closest TAF was issued for Elgin Air Force Base located approximately 6 miles northwest of the departure airport.

*TEMPO 0312/0317 30009KT 6000 -TSRA BKN020CB
BECMG 0319/0320 24006KT 9999 NSW SCT025 SCT120 BKN250 QNH2995INS
TX29/0321Z TN24/0312Z=*

Upper Air Sounding – the closest sounding was from Tallahassee, FL located approximately 110 miles east at an elevation of 59 feet. The 1900 sounding on August 2, 2016 (0000Z Aug.3) was as follows. The sounding depicted a surface wind from 215° at 4 knots, a temperature of 29.4° C (85° F), a dew point of 23.4° C (74° F), and a relative humidity of 70%, and a density altitude of 2,097 feet. The estimated cloud bases or LCL was at 2,500 feet agl, with the freezing level was observed at 15,450 feet. The sounding was unstable with a Lifted index of -5.0, with a K-Index of 31.5 which indicated an approximately 60% probability of thunderstorm development. The mean winds were from 310° at 8 knots. The wind profile indicated winds veering to the west and northwest with height. No strong vertical wind shear was noted or any low-level wind shear (LLWS).

Satellite Imagery – the GOES-13 infrared image at 2030 CDT (0130Z) is included below with a MB temperature enhancement curve applied to highlight the higher and colder cloud tops associated with convection and high cirriform clouds. The accident site is marked by a red square and is over an area of scattered low to mid-level stratiform clouds. The radiative cloud top temperature was observed as 293° Kelvin or 19.84° Celsius (C), which corresponded to cloud tops near 5,000 feet.

VALID 040000Z FOR USE 2000-0300Z. TEMPS NEG ABV 24000

FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
PFN	2605	3510+17	3615+12	3513+06	3512-05	3507-14	361029	021540	031652
MOB	9900	0110+19	3619+12	0117+07	3412-05	0105-14	990029	990040	990052

Astronomical Conditions – the U.S. Naval Observatory provided the following astronomical conditions for Destin, Okaloosa County, Florida on August 2, 2016; sunset 1939 CDT, with the end of civil twilight at 2005 CDT. At the time of the accident the sun was -10.9° below the horizon at an azimuth of 298°. The moon set at 1931 CDT and was more than 15° below the horizon with no illumination. Therefore dark nighttime conditions prevailed at the time of the accident with no illumination from the sun or the moon.