MEMORANDUM FOR RECORD

Dennis J. Diaz
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety - Eastern Region

Date: July 13, 2015
Subject: Forecast and Observed Weather Conditions
NTSB Case Number: ERA15FA259AB

An NTSB staff meteorologist provided the following weather products in support of the investigation:

Accident time: 1501 UTC/1101 EDT

Closest surface observation was MKS:

15:35-> METAR KMKS 071535Z AUTO 14005KT 7SM SCT032 31/22 A3015 RMK AO2=

15:15-> METAR KMKS 071515Z AUTO 00000KT 7SM CLR 31/22 A3015 RMK AO2=

14:55-> METAR KMKS 071455Z AUTO 00000KT 10SM SCT026 30/22 A3015 RMK AO2=

14:35-> METAR KMKS 071435Z AUTO 00000KT 10SM CLR 30/22 A3016 RMK AO2=

Closest terminal forecast was CHS:

TAF KCHS 071123Z 0712/0812 VRB04KT P6SM FEW040
FM071700 19009KT P6SM VCTS SCT040CB
FM072100 18008KT P6SM FEW040 SCT150
FM080200 VRB05KT P6SM FEW060=

Area Forecast:

FAUS42 KKCI 070845
FA2W
_MIAC FA 070845
SYNOPSIS AND VFR CLDS/WX
SYNOPSIS VALID UNTIL 080300
CLDS/WX VALID UNTIL 072100...OTLK VALID 072100-080300

NC SC GA FL AND CSTL WTRS E OF 85W
.
SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
NON MSL HGTS DENOTED BY AGL OR CIG.
.
SYNOPSIS...09Z TROF FM S CNTRL VA THRU THE CNTRL CAROLINAS TO IRQ. 03Z TROF ALG AN EMI-20W RDU-CAE-40S IRQ LN.
.
SC
NW THIRD...SCT CI. OCNL VIS 5SM BR. 12Z SCT050-060. OTLK...VFR.
RMNDR...SCT CI. OCNL SCT015 WITH VIS 5SM BR. BECMG 1315
SCT030-040 SCT CI. WDLY SCT -TSRA. CB TOPS FL400. OTLK...VFR.

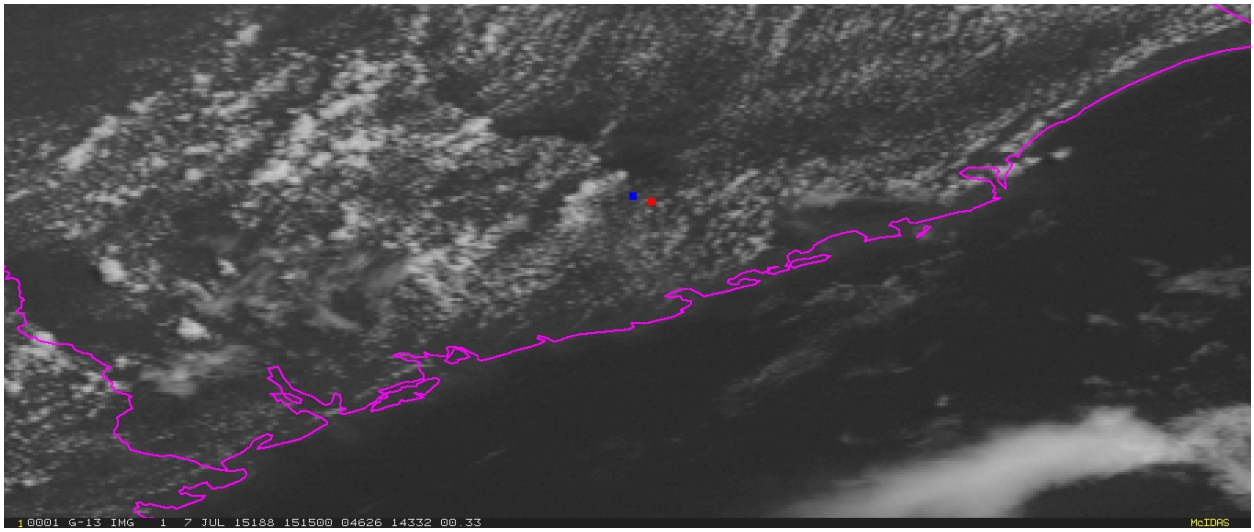

Figure 1 - Visible Satellite Image With Accident Site Superimposed (1115 EDT)

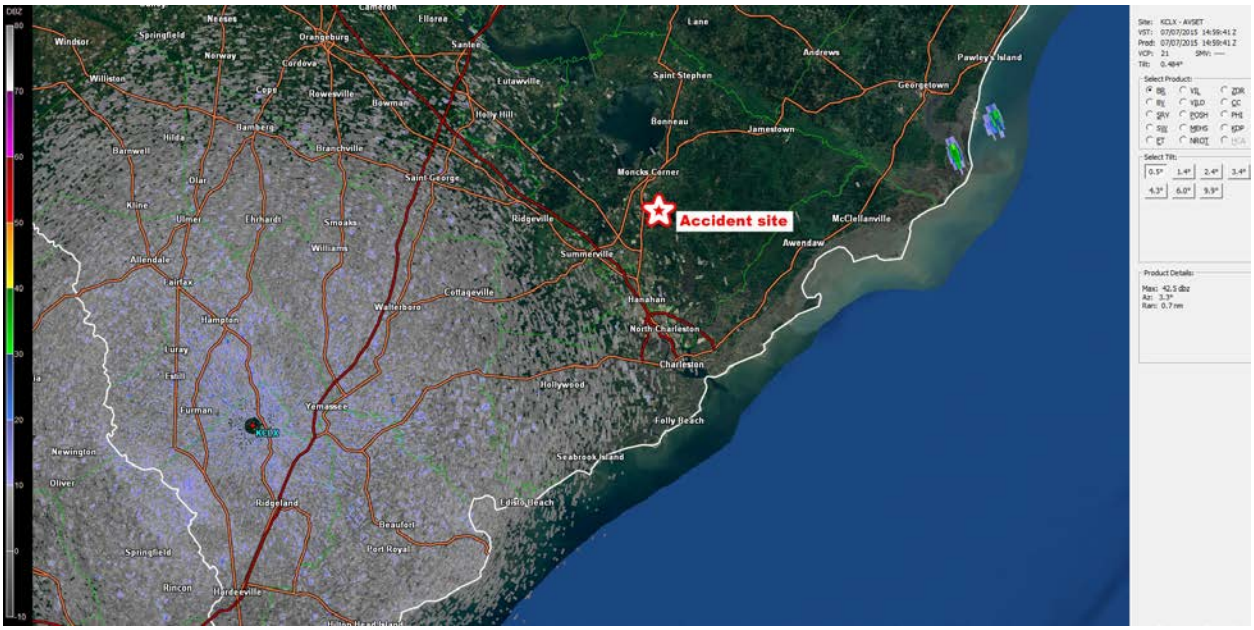

Figure 2 - Weather Radar with Accident Site Superimposed (1100 EDT)

According to the U.S. Naval Observatory, the calculated altitude and azimuth of the sun was:

EDT	Altitude (degrees[1])	Azimuth (degrees east of north[2])
10:50	54.4	97.2
10:55	55.4	98.1
11:00	56.5	99.0
11:05	57.5	100.0

[1] According to the U.S. Naval Observatory, sun altitude is "…the angle up from the horizon. Zero degrees altitude means exactly on your local horizon, and 90 degrees is 'straight up'. Hence, 'directly underfoot' is -90 degrees altitude."

[2] According to the U.S. Naval Observatory, the sun azimuth is "…the angle along the horizon, with zero degrees corresponding to North, and increasing in a clockwise fashion. Thus, 90 degrees is East, 180 degrees is South, and 270 degrees is West. Using these two angles, one can describe the apparent position of an object (such as the Sun at a given time)."