Sorensen Tim

From: Richards Michael

Sent: Monday, July 29, 2019 3:03 PM

To: Sorensen Tim
Cc: Richards Michael
Subject: CEN19FA177 wx

Mr. Sorensen, here is factual information regarding weather for your investigation CEN19FA177.

- Observations during the times surrounding the accident time, from the three surface observing stations closest to the accident location able to retrieve ceiling and visibility measurements, are provided here. All three reported IFR conditions during the period

Lima Allen County Airport (OAH) was located about 10 miles south-southeast of the accident location at an elevation of about 1,000 feet. KOAH reported IFR ceilings and rain during the time period. Wind gusts were between 20-28 knots from the west-southwest.

SPECI KAOH 201911Z AUTO 25020G26KT 3SM -RA BR BKN007 BKN015 OVC024 20/19 A2956 RMK AO2 PK WND 25026/1911 P0009 T02000189=

METAR KAOH 201953Z AUTO 25018G28KT 6SM BR OVC008 19/18 A2958 RMK AO2 PK WND 27030/1921 RAE22 SLP010 P0010 T01940178=

SPECI KAOH 202044Z AUTO 26011G20KT 2 1/2SM RA BR OVC007 19/18 A2958 RMK AO2 PK WND 24026/1954 RAB16 CIG 005V012 P0005 T01940183=

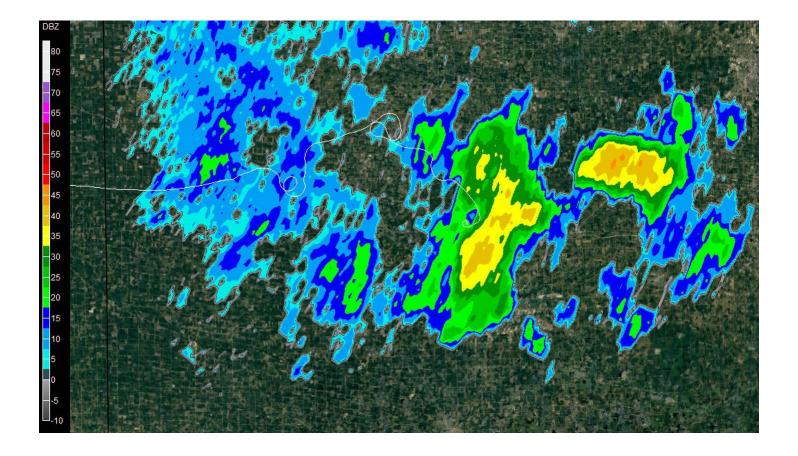
Putnam County Airport (OWX) was located about 14 miles north-northeast of the accident location at an elevation of about 800 feet. KOWX reported IFR ceilings during the time period but was not equipped to determine precipitation.

METAR KOWX 201935Z AUTO 03008KT 5SM BKN008 BKN017 OVC023 19/18 A2957 RMK AO1=
METAR KOWX 201955Z AUTO 03007KT 5SM SCT006 BKN017 OVC027 18/18 A2957 RMK AO1=
METAR KOWX 202019Z AUTO 36016KT 7SM BKN008 OVC025 18/17 A2959 RMK AO1=
METAR KOWX 202037Z AUTO 36015KT 4SM BKN006 OVC012 17/16 A2961 RMK AO1=

Van Wert County Airport (VNW) was located about 20 miles west of the accident location at an elevation of about 800 feet. KVNW reported IFR ceilings and rain during the time period. Wind gusts were about 20 knots from the northnorthwest.

METAR KVNW 201935Z AUTO 35011KT 2 1/2SM RA BKN006 OVC009 20/18 A2958 RMK AO2 VIS 2V5 P0014=
METAR KVNW 201955Z AUTO 34015G20KT 2SM RA BKN005 OVC010 18/18 A2960 RMK AO2 P0023=
METAR KVNW 202015Z AUTO 33016G20KT 3SM RA BKN005 OVC010 18/17 A2962 RMK AO2 LTG DSNT SE=
METAR KVNW 202035Z AUTO 35015G20KT 3SM DZ BKN007 BKN011 OVC016 18/17 A2963 RMK AO2 P0002=

- Weather radar imagery depicted dBZ values associated with light to heavy intensities of precipitation across the accident region. The following figure depicts the base reflectivity imagery from KIWX (Level-II, 0.483° tilt) from about 1610 EDT, along with the accident aircraft's flight track plotted as a white line. The accident occurred following an approach to an area of dBZ values associated with moderate to heavy precipitation.



- High Resolution Rapid Refresh (HRRR) model data for 1600 EDT on the date of the accident applicable to the accident location identified a saturated environment capable of supporting clouds between about 1,000' and 20,000' msl. There was some wind shear in the lowest 5,000'.
- PIREPs from aircraft at 10,000' or below within 100 miles of the accident location within one hour of the accident time reported cloud bases at or below 3,000 feet msl.

CMH UA /OV DAY/TM 1950/FLDURGD/TP C56X/SK B022 BKN T062
CMH UA /OV I17/TM 2012/FLDURGC/TP TBM7/SK B018 OVC
FWA UA /OV FWA/TM 2025/FL030/TP C310/SK B030
DAY UA /OV DAY/TM 2054/FLDURGC/TP C56X/SK B021 OVC T052
CMH UA /OV CMH090010/TM 2100/FLDURGD/TP B737/SK B029 BKN NO TOPS/WX RA/TB LGT CHOP
OSU UA /OV OSU090008/TM 2105/FL100/TP MU2/SK BKN023/TB LGT/RM DURD MULTI LYRS

- The aviation section of an Area Forecast Discussion issued by the National Weather Service at 1313 EDT for an area that included the accident location stated:

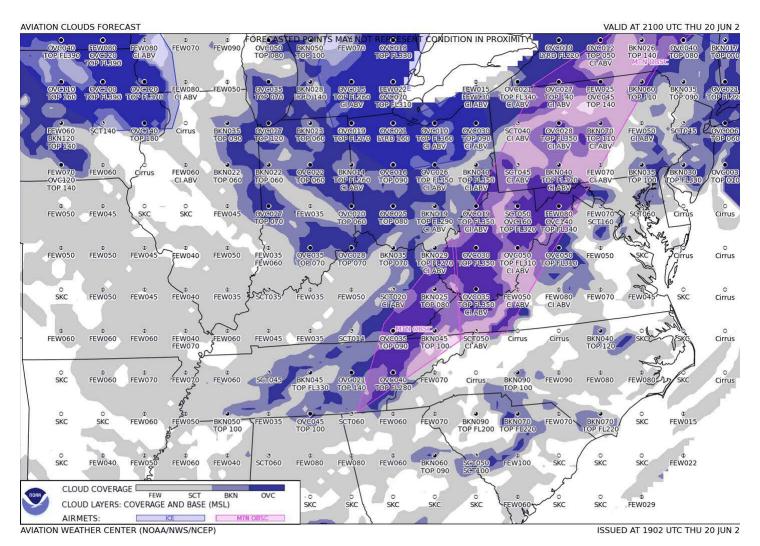
Upper shortwave currently moving across the area is sending convection east of the terminals. KSBN has likely seen the last of

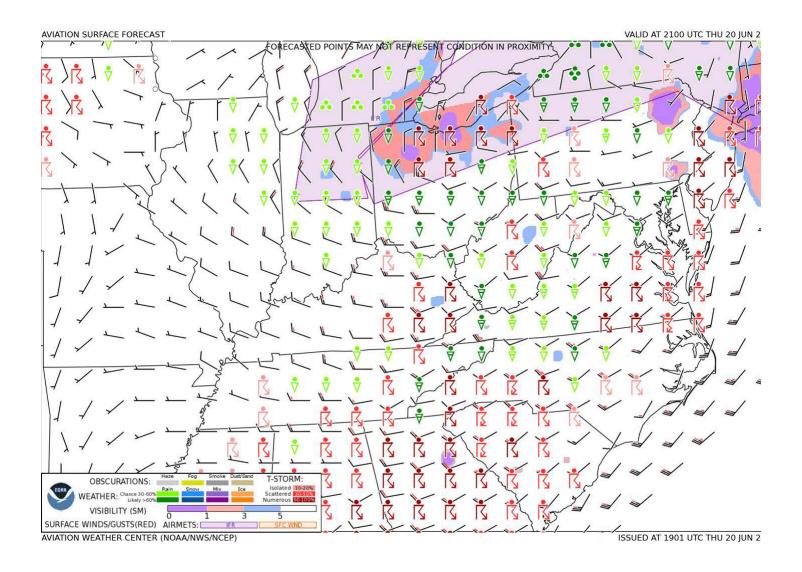
convection while an isolated storm is possible for KFWA for the first couple of hours of this TAF cycle. Once convection leaves

the terminals, MVFR to IFR ceilings will remain as the backside of the system moves east into the overnight hours. Late tonight

skies should clear, but this could lead to fog development towards daybreak given the ample supply of low level moisture. This

- Graphical Forecast for Aviation (GFA) forecast products issued at about 1500 EDT and valid for 1700 EDT forecasted cloud bases between of 1,900', 1,600' and 1,400' feet and light rain at the closest data points to the accident location, as well as MVFR or IFR conditions and an AIRMET for IFR conditions at the accident location.





- At 0619 EDT, the Cleveland ARTCC (ZOB) CWSU issued the following Meteorological Impact Statement to air traffic control valid until 1800 EDT which advised of areas of IFR conditions throughout the airspace (the accident location was on the border of ZOB airspace)

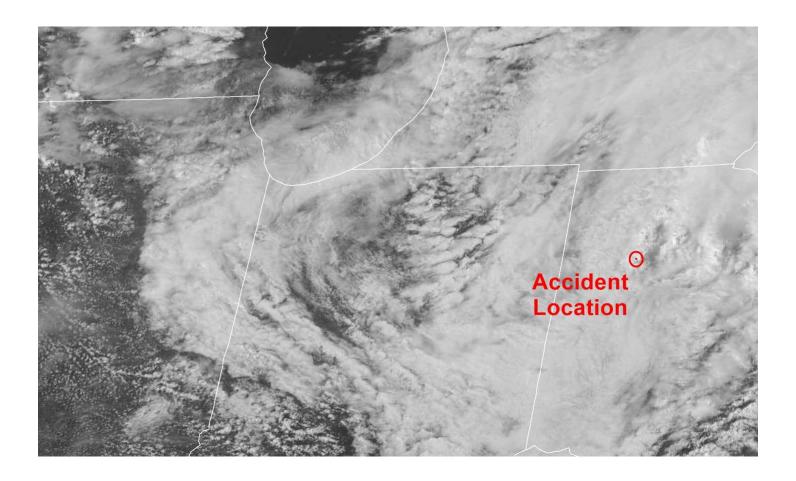
FAUS20 KZOB 201019

ZOB MIS 01 VALID 201019-202200

...FOR ATC PLANNING PURPOSES ONLY...

SE 3/4.. ISOL-PTCHY MOD TURB FL220-420. THRUT.. PTCHY LGT-ISOL MOD ICE 120-FL220. **THRUT.. AREAS IFR.** E 1/2.. SCT TS DVLPG.. MAINLY AFT 16Z. MOV FROM SW 25-35KTS. TOPS TO FL380. W 1/2.. WDLY SCT TS. MOV FM SW 25-35KTS. TOPS TO FL340.

- There was an AIRMET for IFR conditions active for the accident location at the accident time.
- Satellite weather imagery depicted cloudy conditions across the region that stretched eastward toward the departure location. Around the accident location, overcast conditions prevailed with tops above about 10,000 feet, with the highest tops close the accident location at about 30,000 feet. Layering is unknown.



Mike

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