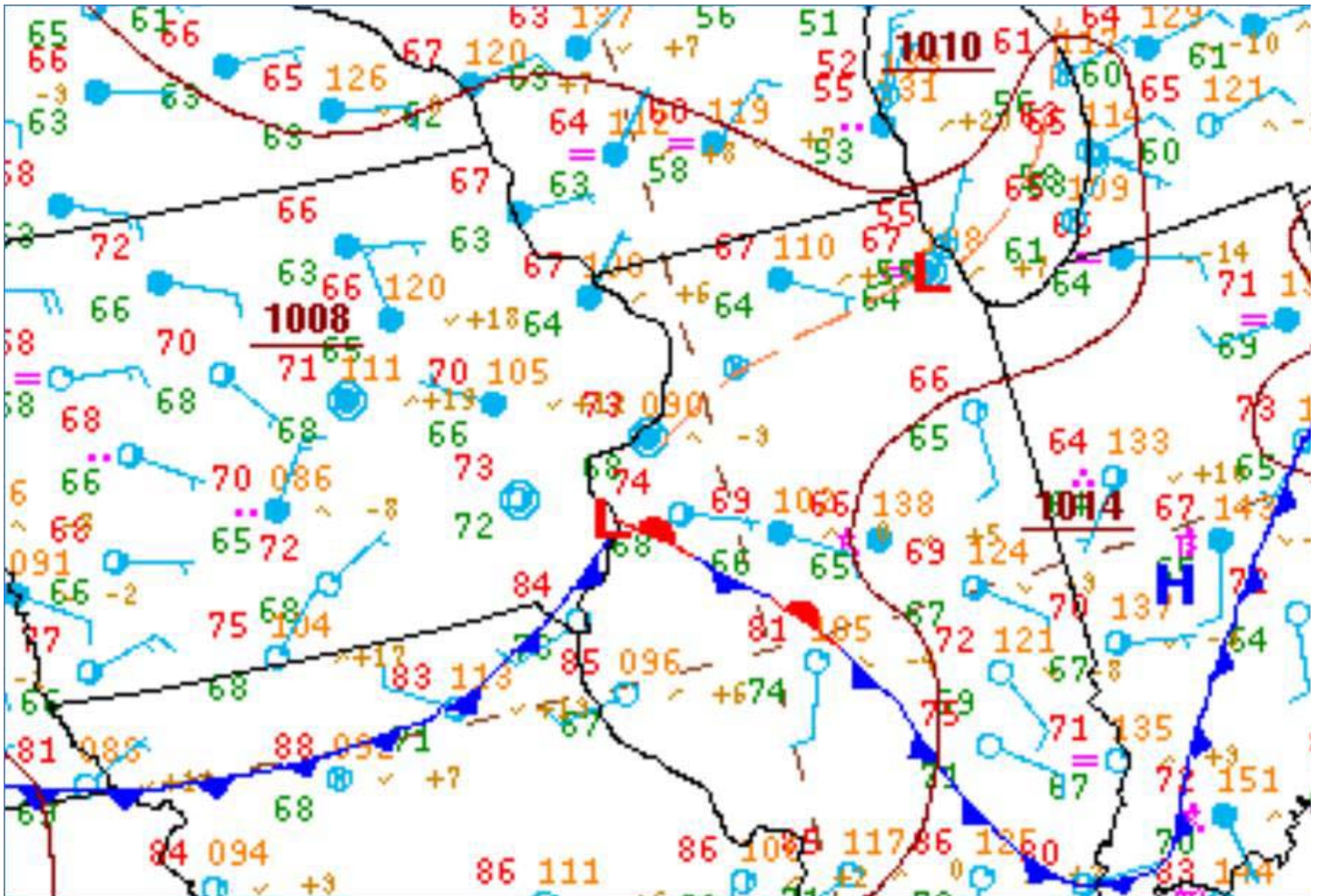


Sorensen Tim

From: Eick Donald
Sent: Monday, June 11, 2018 1:19 PM
To: Sorensen Tim
Cc: Koschig Betty; Helson David
Subject: CEN18FA216 - Monroe, WI Weather

Quick review of weather conditions on June 10, 2018 over Wisconsin

Synoptic Conditions – The NWS Surface Analysis Chart for 1000 CDT (1500Z) depicted a low pressure system at 1010-hectopascals (hPa) over northeast Illinois with a trough of low pressure extending west-southwest across the state and immediately south of the route of flight. Another frontal wave was located over central Illinois with a corresponding cold and warm front. The station model over southern Wisconsin depicted northeasterly winds at 5 to 15 knots, rain and fog, overcast clouds, with temperatures in the 50's degrees Fahrenheit (F) near Lake Michigan, and in the 60's F over Monroe area, with dew point temperatures a few degrees lower.



Observation – Monroe Municipal Airport (KEFT), Monroe, WI, had an Automated Weather Observation System (AWOS) and listed an elevation of 1,086 ft and a magnetic variation of 2 W. The following conditions were reported at the time of the accident:

KEFT routine observation at 1155 CDT, automated, wind from 020 at 11 knots, visibility 1 3/4 mile, (cause of visibility restriction missing), ceiling overcast at 200 ft agl, temperature and dew point 16 Celsius (C), altimeter 29.90 inches of mercury. Remarks: automated observation system with the PWINO=

The raw observations and general flight category surrounding the period from 0955 through 1255 CDT were as follows:

LIFR METAR KEFT 101455Z AUTO 02006KT 7SM OVC002 17/17 A2986 RMK AO2 PWINO=
LIFR METAR KEFT 101515Z AUTO 02010KT 10SM OVC002 17/17 A2986 RMK AO2 LTG DSNT S PWINO=
LIFR METAR KEFT 101535Z AUTO 02008KT 7SM OVC002 17/16 A2987 RMK AO2 PWINO=
LIFR METAR KEFT 101555Z AUTO 01010KT 5SM OVC002 17/16 A2988 RMK AO2 PWINO=
LIFR METAR KEFT 101615Z AUTO 01008KT 5SM OVC002 16/16 A2989 RMK AO2 PWINO=
LIFR METAR KEFT 101635Z AUTO 01010G16KT 2 1/2SM OVC002 16/16 A2990 RMK AO2 PWINO=
LIFR METAR KEFT 101655Z AUTO 02011KT 1 3/4SM OVC002 16/16 A2990 RMK AO2 PWINO=

Accident 1705Z

LIFR METAR KEFT 101715Z AUTO 01007KT 2 1/2SM OVC002 16/16 A2990 RMK AO2 PWINO=
LIFR METAR KEFT 101735Z AUTO 01006KT 5SM OVC002 16/16 A2990 RMK AO2 PWINO=
LIFR METAR KEFT 101755Z AUTO 02005KT 7SM OVC002 16/16 A2990 RMK AO2 PWINO=

A review of the observations for the day indicated that LIFR conditions prevailed from 0500 through 1555 CDT due to ceiling below 500 ft agl. MVFR conditions were reported at 1855 CDT.

No Terminal Aerodrome Forecasts (TAFs) are issued for KEFT.

Kenosha Regional Airport (KENW) located approximately 75 miles east of the accident site reported the following conditions at the time of departure and during the period:

METAR KENW 101453Z 09005KT 2SM RA BR BKN003 BKN010 OVC060 16/14 A2989 RMK AO2 SLP121 P0027 60030 T01560144 50006=
SPECI KENW 101523Z 07006KT 1SM +RA BR OVC003 16/14 A2989 RMK AO2 CIG 002V006 P0006 T01560144=
METAR KENW 101553Z 04007KT 1 3/4SM RA BR OVC004 16/14 A2989 RMK AO2 CIG 002V007 SLP123 P0015 T01560144=
SPECI KENW 101602Z 04008KT 2SM RA BR OVC004 15/14 A2989 RMK AO2 CIG 002V007 P0002 T01500144=
SPECI KENW 101615Z 04006KT 3SM -RA BR OVC005 15/14 A2990 RMK AO2 CIG 002V007 P0003 T01500139=
SPECI KENW 101622Z 04007KT 3SM -RA BR OVC003 15/14 A2990 RMK AO2 P0003 T01500139=
METAR KENW 101653Z 05008KT 2 1/2SM RA BR OVC003 16/14 A2989 RMK AO2 CIG 003V007 SLP123 P0006 T01560144=
SPECI KENW 101710Z 03007KT 4SM -RA BR OVC003 15/14 A2990 RMK AO2 P0001 T01500139=
METAR KENW 101753Z 03009KT 6SM -RA BR OVC004 15/14 A2989 RMK AO2 SLP123 P0002 60053 T01500139 10161 20150 51002=
METAR KENW 101853Z 04010KT 1SM -RA BR OVC003 15/14 A2989 RMK AO2 SLP121 P0000 T01500139=

AMD TAF KENW 101337Z 1014/1112 07008KT 1 1/2SM RA BR OVC004
FM102300 07010KT 3SM SHRA BR OVC008
FM110300 07011KT 3SM BR VCSH OVC010
FM110600 07009KT 4SM BR OVC008=

The NWS Aviation Weather Center (AWC) display of the METARs for 1200 CDT or 1700Z with a radar overlaid is included below. No significant weather echoes were identified over the accident site. No defined thunderstorms were identified along the immediate route of flight.

JVL UA /OV JVL/TM 1132/FL170/TP E170/TB NEG
ARR UA /OV KARR/TM 1329/FL015/TP LJ60/SK OVC011-TOP022/RM DURGC
MWC UA /OV BAE200015/TM 1335/FL140/TP E75/TB NEG/IC NEG/RM SMOOTH
ARR UA /OV KARR270001/TM 1348/FL011/TP COL4/SK OVC011-TOPUNKN/RM DURGD KARR ILS 9
ORD UA /OV ORD270025/TM 1536/FL070/TP B763/SK TOP039/TB SMOOTH

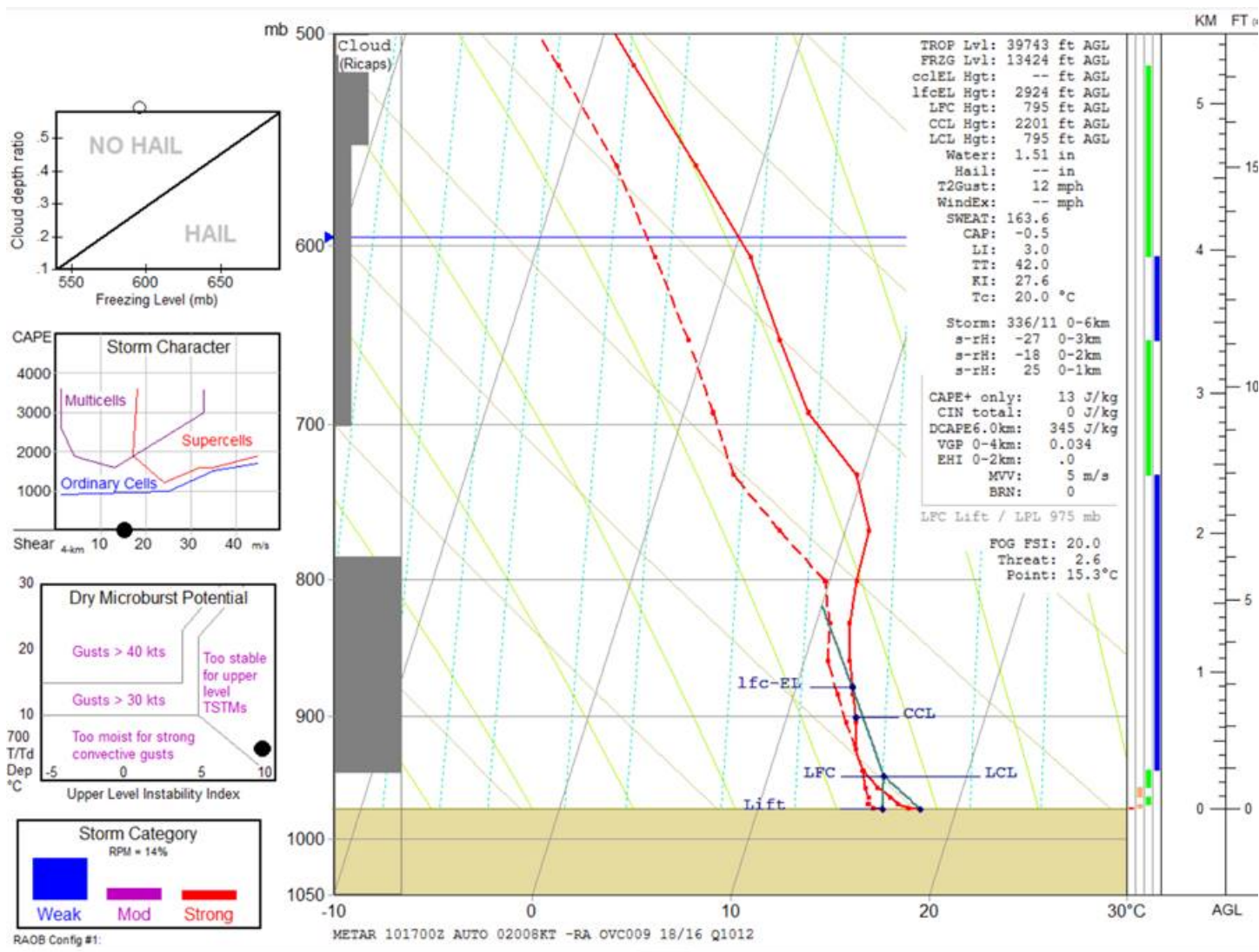
WAUS43 KKCI 101445
WA35
-CHIS WA 101445
AIRMET SIERRA UPDT 2 FOR IER VALID UNTIL 102100

3

.....
 WAUS43 KKI 101445
 WA3T
 -CHIT WA 101445
 AIRMET TANGO UPDT 3 FOR TURB AND LLWS VALID UNTIL 102100

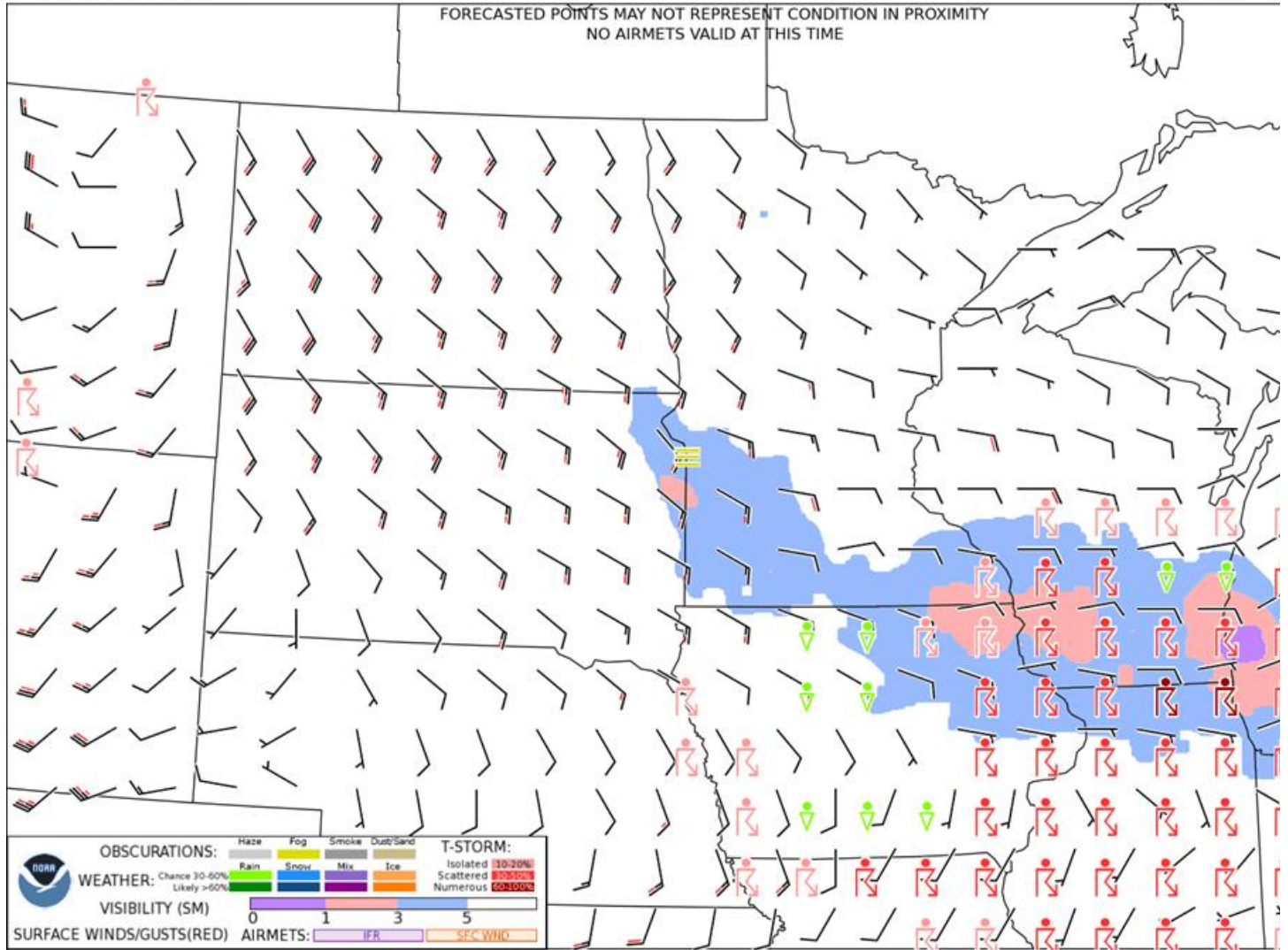
AIRMET TURB...MN IA WI LM LS MI LH IL IN
 FROM 80WSW YQT TO 50NNW SAW TO SSM TO YVV TO 30SE ECK TO FWA TO
 BDF TO 20E MSP TO 20N DLH TO 80WSW YQT
 MOD TURB BLW 100. CONDS CONTG BYD 21Z THRU 03Z.

Sounding – A High Resolution Rapid Refresh (HRRR) numerical model sounding was run over the accident site for 1200 CDT or 1700Z(based on 1200Z data) and is included below, The sounding indicated cloud bases near 800 ft agl overcast with tops near 6,000 ft. The sounding was stable and did not reflect any strong low-level wind shear or any significant turbulence below 3,000 ft while the aircraft was descending into the area with winds less than 10 knots.



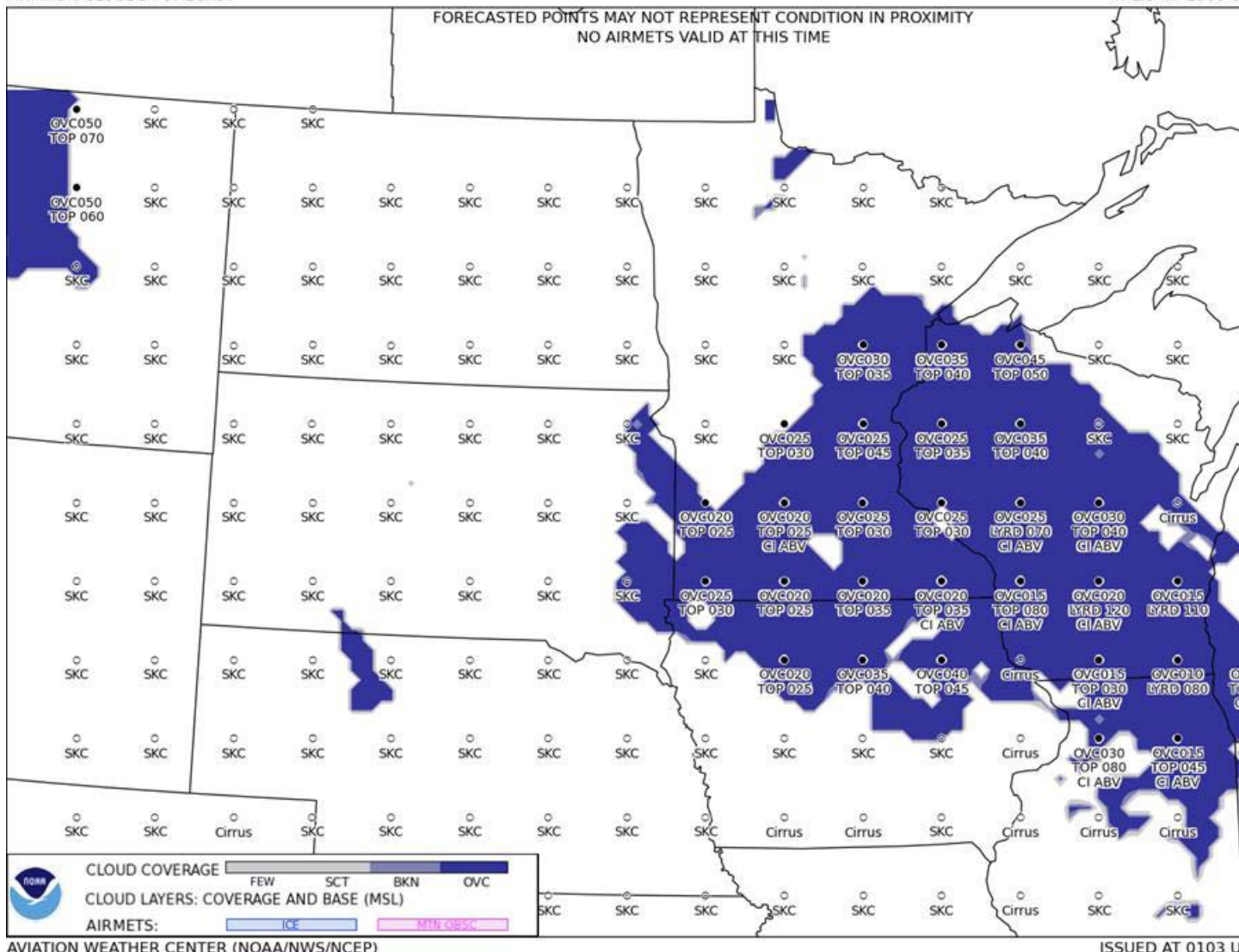
Graphic Aviation Forecast (GFA) for clouds and weather for 1000 CDT (1500Z) and 1300 CDT (1800Z) were as follows:
 The 1000 CDT (1500Z) wind forecast expected easterly winds 5 to 10 knots with MVFR to IFR conditions, the cloud cover expected overcast clouds at 1,000 to 1,500 ft msl layered to 3,000 to 8,000 ft with cirrus clouds above.

FORECASTED POINTS MAY NOT REPRESENT CONDITION IN PROXIMITY
NO AIRMETS VALID AT THIS TIME



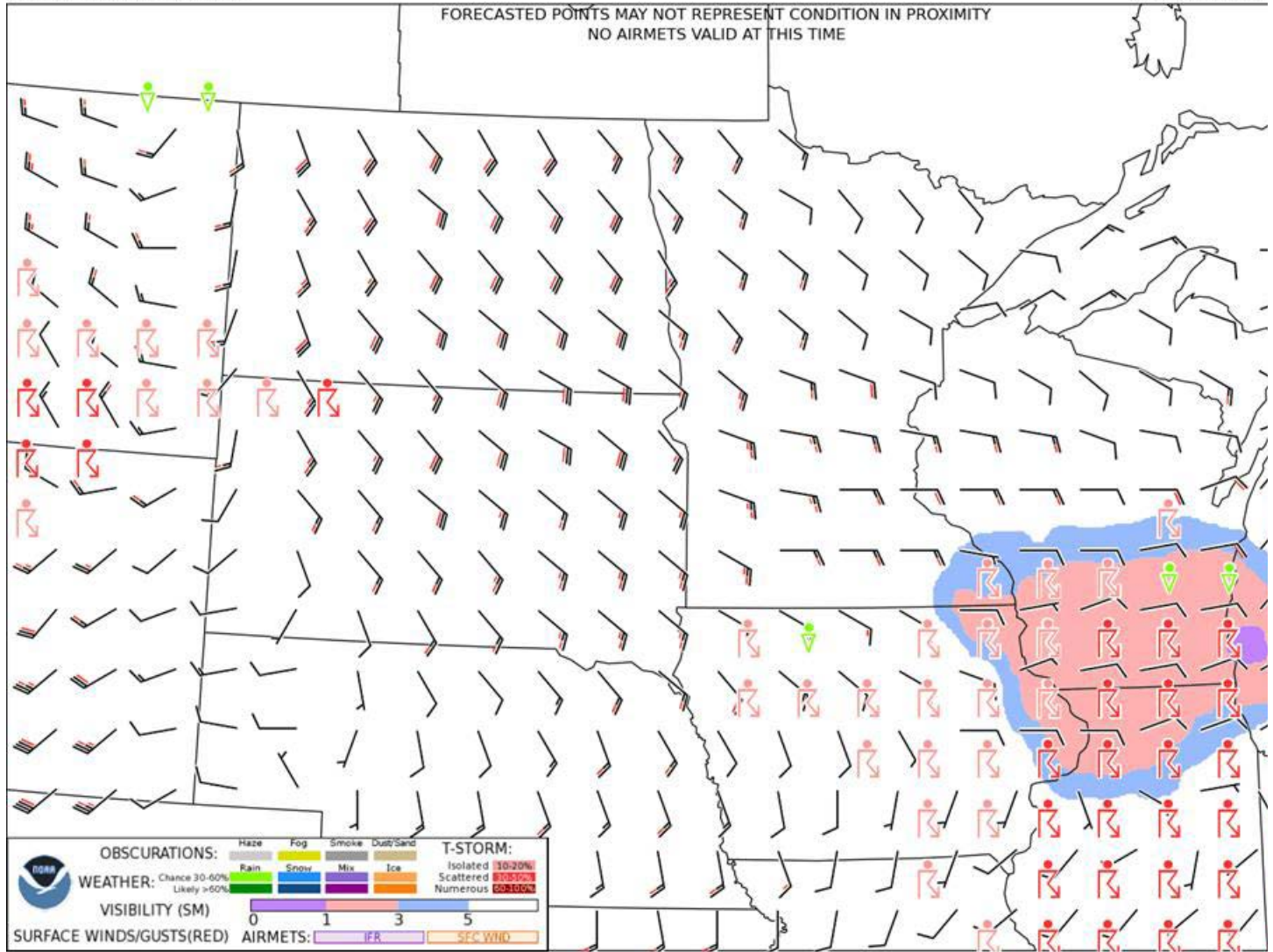
AVIATION WEATHER CENTER (NOAA/NWS/NCEP)

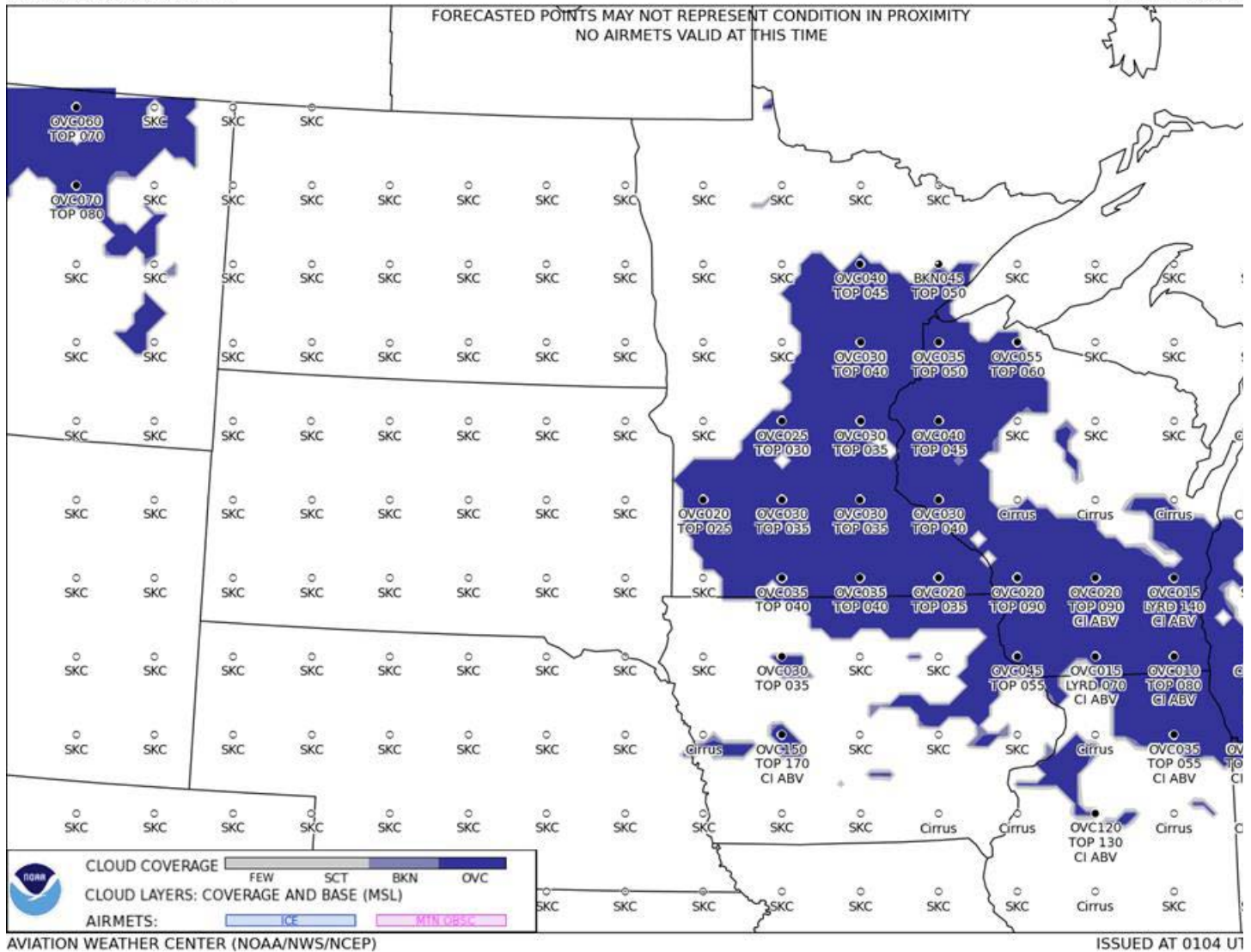
ISSUED AT 0105 UTC



The 1300 CDT (1800Z) products continued to expect easterly winds with rain showers and thunderstorms with an extensive area of IFR conditions over southern Wisconsin. The cloud chart expected overcast clouds at 1,000 to 1,500 ft msl with tops layered to 7,000 to 8,000 ft.

FORECASTED POINTS MAY NOT REPRESENT CONDITION IN PROXIMITY
NO AIRMETS VALID AT THIS TIME





Preflight Action – an initial search has indicated that pilot contacted AFSS provider Leidos for information, which has been requested.

Don Eick
NTSB Senior Meteorologist