



Memorandum For Record

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: 12/6/2023
NTSB Accident Number: ERA23LA299

As part of the investigation, a request was made for weather support from a National Transportation Safety Board (NTSB) weather subject matter expert (SME).

An e-mail from the SME provided the following information:

The closest aviation surface weather report, METAR, was from KFCI an automated weather observing system (AWOS); however, several of the weather instruments on the KFCI AWOS were not functioning at the time including the wind instrumentation:

KFCI 071756Z AUTO 10SM VCTS BKN036 BKN045 OVC065 29/23 RMK AO2 LTG DSNT N-SE TSB31 SLPNO 6//// T02940228 10322 20239 PNO \$

accident 1851 UTC

KFCI 071856Z AUTO 10SM TSRA SCT034 BKN044 OVC060 26/24 RMK AO2 LTG DSNT N-SE RAB37 SLPNO T02560239 PNO \$
KFCI 071956Z AUTO 10SM CLR 28/23 RMK AO2 LTG DSNT ALQDS TSE53RAE13 SLPNO T02780233 PNO \$

The next closest METAR location was KRIC and winds were variable with the storms around and the winds gusted as high as 31 knots.

KRIC 071744Z 23024G29KT 7SM TSRA BKN041 OVC055CB 27/21 A2985 RMK AO2 PK WND 24029/1743 RAB43 TSB28E29B35 OCNL LTGICCC NW AND W AND S TS NW AND W AND S MOV E P0000 T02720211
KRIC 071749Z 24025G31KT 3/4SM R34/6000VP6000FT TSRA BKN041 OVC055CB 26/22 A2987 RMK AO2 PK WND 24031/1746 RAB43 TSB28E29B35 PRESRR OCNL LTGICCC NW AND W AND S TS NW AND W AND S MOV E P0000
KRIC 071814Z 32003KT 1SM R34/5500VP6000FT TSRA SCT024 BKN041CB OVC070 25/21 A2984 RMK AO2 PRESFR OCNL LTGICCC N AND W AND S TS N AND W AND S MOV E P0056 T02500206
KRIC 071825Z 32004KT 3SM -TSRA SCT039CB BKN085 BKN110 26/21 A2984 RMK AO2 OCNL LTGICCC N AND W AND S TS N AND W AND S MOV E P0059 T02610211

accident 1851 UTC

KRIC 071854Z 23008KT 10SM -TSRA SCT039CB BKN085 BKN110 26/23 A2984 RMK AO2 SLP110 OCNL
LTGICCC W AND S TS W AND S MOV E P0060 T02610228
KRIC 071932Z 21007KT 10SM SCT040 BKN110 BKN200 28/23 A2983 RMK AO2 RAE25 TSE31 CB DSNT W AND
S P0000 T02780233
KRIC 071954Z 18009KT 10SM SCT040 BKN110 BKN200 29/23 A2983 RMK AO2 RAE25 TSE31 SLP104 CB DSNT
W AND S P0000 T02890233

Convective SIGMET 21E¹ issued for central VA/including accident site at 1655 UTC until 1855 UTC:

*CONVECTIVE SIGMET 21E
VALID UNTIL 1855Z
VA NC
FROM 10N RIC-30SSE RIC-30E RDU
DVLPG LINE TS 30 NM WIDE MOV LTL. TOPS TO FL420.*

There was a convective SIGMET issued for central VA/including accident site at 1755 UTC until 1955 UTC:

*CONVECTIVE SIGMET 26E
VALID UNTIL 1955Z
VA NC
FROM 10N RIC-30SSE RIC-30E RDU
LINE TS 35 NM WIDE MOV LTL. TOPS TO FL450.*

Weather radar data shows thunderstorms and rain showers all about the area, including right near the accident site/airport. A review of the weather radar near the accident site/airport going back to 1630 UTC, or 1230 EDT, which was about 1 hour 9 minutes before the accident flight departed, revealed thunderstorms and associated weather.

The DRAFT was sent to the SME for review on November 27, 2023. He replied on November 28, 2023, with comments that were incorporated into the digest. The FINAL document will be placed in the NTSB public docket when the investigation is completed.

¹ Convective SIGMETs are issued in the conterminous U.S. if the following conditions are occurring or expected to occur: 1) Line of thunderstorms at least 60 miles long with thunderstorms affecting 40% of its length, 2) an area of thunderstorms covering at least 40% of the area concerned and exhibiting a very strong radar reflectivity or a significant satellite or lightning signature, and 3) embedded or severe thunderstorms expected to occur for more than 30 minutes. Any convective SIGMET implies severe or greater turbulence, severe icing, and low level wind shear. A convective SIGMET may be issued for any convective situation which the forecaster feels is hazardous to all categories of aircraft.