

Fox Todd

From: Richards Michael
Sent: Friday, February 27, 2015 10:39 AM
To: Fox Todd
Subject: CEN15FA136 - WX factual email

At approximately 2010 CST, a small cold front (recognized as a "fine line" on weather radar imagery) moved through Denton Municipal Airport (DTO) in Denton, Texas. Following the passage of this line, DTO experienced slightly lower visibilities and ceilings, higher surface winds and slightly lower air temperatures. At 2103 CST, a few minutes prior to the accident, the certified weather observer at DTO issued the following report: *wind from 350° (true) at 17 knots with gusts to 25 knots, visibility 2 statute miles, light rain and mist, ceiling overcast at 900 feet above ground level (agl), temperature of 3°C and dew point temperature of 3°C, altimeter 30.26 inches Hg. Remarks: ceiling variable between 500 feet agl and 1,200 feet agl.*

METAR KDTO 050153Z 35012G18KT 10SM FEW020 OVC028 08/06 A3018 RMK AO2 SLP220 T00830061=

SPECI KDTO 050211Z 34017G28KT 5SM -RA BR SCT009 BKN018 OVC029 06/04 A3020 RMK AO2 PK WND 35028/0207 RAB08 P0000 T00610044=

SPECI KDTO 050217Z 34021G26KT 3SM -RA BR BKN009 BKN012 OVC024 05/04 A3020 RMK AO2 PK WND 35028/0207 RAB08 PRESRR P0000 T00500039=

SPECI KDTO 050219Z 35019G26KT 2 1/2SM -RA BR BKN007 BKN017 OVC022 05/04 A3021 RMK AO2 PK WND 35028/0207 RAB08 P0000 T00500039=

SPECI KDTO 050237Z 35020G28KT 2 1/2SM -RA BR OVC010 04/03 A3023 RMK AO2 PK WND 35028/0230 RAB08 CIG 007V012 PRESRR P0000 T00390028=

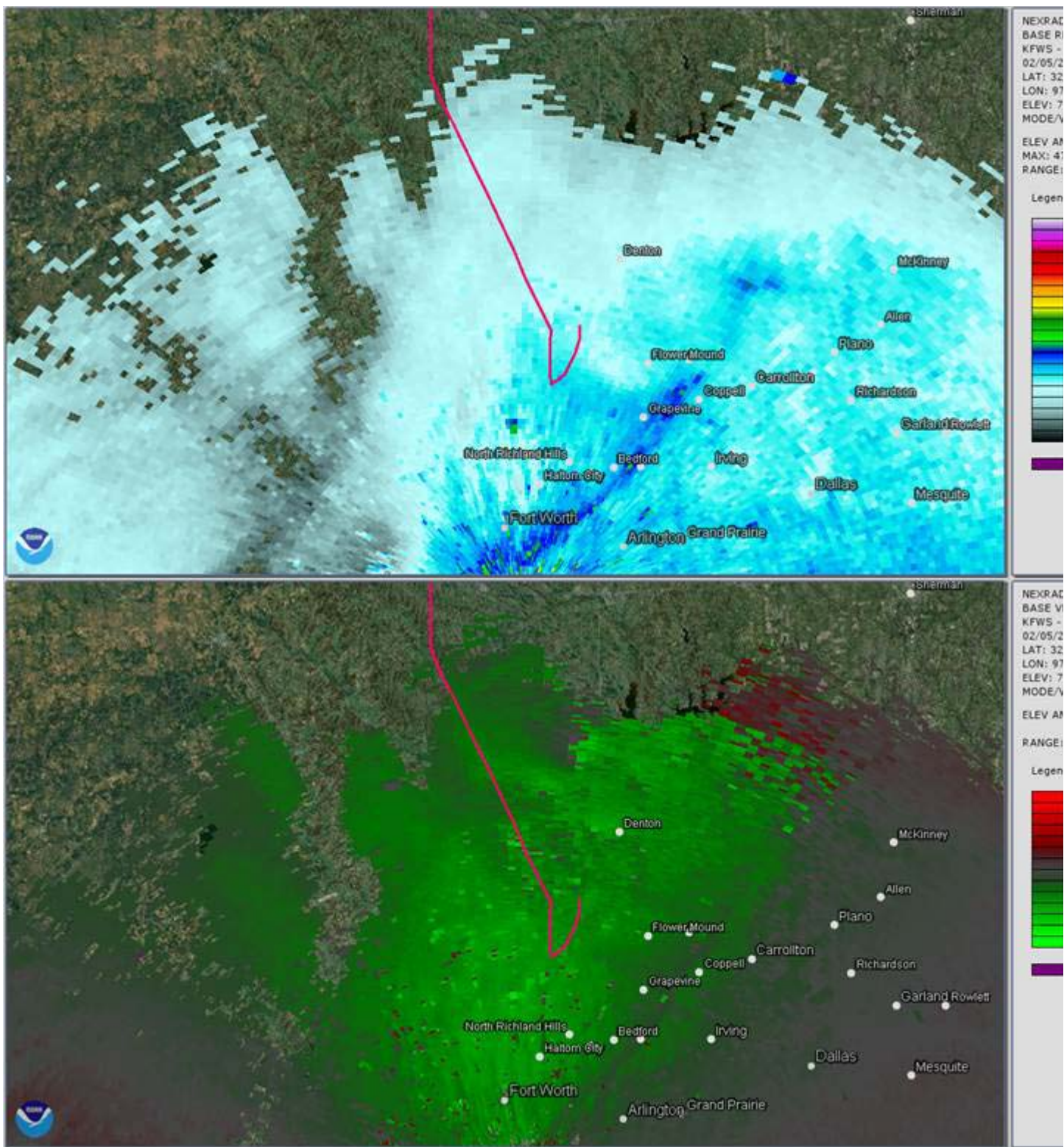
METAR KDTO 050253Z 35018G26KT 2SM -RA BR OVC010 03/03 A3025 RMK AO2 PK WND 35028/0230 RAB08 CIG 006V014 PRESRR SLP243 P0000 60000 T00330028 53046=

SPECI KDTO 050303Z 35017G25KT 2SM -RA BR OVC009 03/03 A3026 RMK AO2 CIG 005V012 P0000 T00330028=

SPECI KDTO 050320Z 36017G28KT 2 1/2SM -RA BR BKN007 OVC012 03/02 A3026 RMK AO2 PK WND 36028/0312 CIG 005V011 P0000 T00330022=

A North American Mesoscale Model (NAM) sounding for the accident time at 2100 CST, as well as thermodynamic profiles retrieved from commercial aircraft arriving/departing airports within the Dallas/Fort Worth metroplex during times surrounding the accident time, indicated air temperatures were above freezing below 10,000 feet above mean sea level (msl).

Weather radar imagery from a WSR-88d Doppler weather radar located about 31 miles from the accident site depicted very low, but positive reflectivity in the vicinity of the accident site at the accident time. Doppler velocity data identified 25-30 knots wind magnitudes within several thousand feet of the surface. Considering the 0.50° tilt of the weather radar for the imagery presented here, the radar would have seen altitudes between about 1,000 feet and 4,600 feet above msl above the accident site.



Considering geostationary infrared ($10.7\mu\text{m}$) weather satellite data and the aforementioned NAM sounding, cloud tops in the accident region were estimated to be at approximately 10,000 feet above msl.

Publicly disseminated pilot reports (PIREPs) in the accident region are presented below. No PIREPs were publically disseminated within about 40 minutes prior to the accident time.

FTW UUA /OV KDFW315020/TM 0050/FL120/TP E145/TB EXTRM/RM FROM DFW TRACON AWC-WEB:KZFW=

DTO UUA /OV DFW330020 /TM 0052 /FL120 /TP E145 /TB EXTRM=

DTO UUA /OV DFW330020 /TM 0052 /FL120 /TP C120 /TB EXTRM=

DFW UA /OV FUZ/TM 0110/FL360/TP B738/WV 330060KT/TB LGT/RM OCNL LGT TURB..WBND AWC-WEB:KZFW=

AFW UA /OV AFW210003 /TM 0125 /FLUNKN /TP BE36 /SK OVC016 /RM CIG RGD OVC016-019 3 MILE FA RWY 3R=

FTW UA /OV FTW /TM 0126 /FLUNKN /TP UNKN /RM 31/2 MILE FA RWY34 OVC026 2 MILE FA OVC 017=

KADM UA /OV KADM130001/TM 0230/FLDRGD/TP BE9L/SK OVC017-TOPUNKN/RM FNL RWY 31 =

An Area Forecast issued at 2042 CST by the Aviation Weather Center called for overcast bases between 2,000 feet and 2,500 feet above msl with tops to 6,000 feet through 8,000 feet above msl and a surface wind from the north at 20 knots with gusts to 30 knots at the accident time. The Area Forecast issued at 1037 CDT (the one likely to be active for a preflight weather briefing prior to departure) indicated that after 1900 CDT the accident area would be “MVFR” with “ceilings” and “wind.”

There were AIRMET advisories active for moderate ice below 12,000 feet above msl, moderate turbulence below 10,000 feet above msl, and IFR conditions, at the accident site at the accident time.

No CWAs or SIGMET advisories were active for accident site at the accident time.

There is no evidence of an Lockheed Martin Flight Service-provided preflight weather briefing for this aircraft.

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