



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, DC 20594

June 15, 2015

AIR TRAFFIC CONTROL SPECIALIST'S REPORT

CEN15LA137

A. AIRCRAFT ACCIDENT

Location: Andrews, Texas
Date: February 5, 2015
Time: 0048 central standard time (CST) / 0648 Coordinated Universal Time (UTC)¹
Aircraft: N29AC, a Raytheon-Beechcraft A36 Bonanza (BE-36)

B. SUMMARY

On February 5, 2015, at 0048 central standard time, a Beech A36 airplane, N29AC, collided with the terrain while landing at the Andrews County Airport (E11), Andrews Texas. The commercial pilot and one passenger received serious injuries. The remaining two passengers were not injured. The airplane was substantially damaged. The aircraft was registered to a private individual and was operated under the provisions of 14 Code of Federal Regulations Part 91, as a personal flight. Instrument meteorological conditions prevailed for the flight, which was operating on an instrument flight plan. The flight originated from the Mid Valley Airpark (E98), Los Lunas, New Mexico, at 2341.

¹All times are expressed in central standard time (CST) unless otherwise noted.

The airplane contacted the terrain about 3,000 feet short of the approach end of runway 16 and traveled about 1,000 feet prior to coming to rest. An initial post-accident examination of the airplane revealed ½ inch of ice was present on the leading edge of the wings, vertical stabilizer, and horizontal stabilizer.

The Aviation Routine Weather Report (METAR) observation for E11 taken on February 4 at 2355 reported wind 020 degrees true at 16 knots gusting to 19 knots, visibility 4 statute miles in mist. Overcast skies at 700 feet above ground level (agl). Temperature minus 1 degree Celsius (C), dew point temperature minus 1 degree C, altimeter 30.37 inches of mercury.

The METAR observation for the Midland International Airport (MAF), Midland, Texas, located 29 nautical miles southeast of Andrews County Airport, taken on February 4 at 2353 reported wind 020 degrees true at 15 knots, visibility 9 statute miles. Overcast skies at 800 feet agl. Temperature 0 degrees C, dew point minus 2 degrees C, altimeter 30.36 inches of mercury. Remarks included peak wind from 020 degrees true at 27 knots at 2317 and a ceiling of 600 feet agl variable 1100 feet agl.

C. DETAILS OF THE INVESTIGATION

The information provided in this report was compiled using the following resources: Federal Aviation Administration radar data from the Odessa, Texas air route surveillance radar (ARSR) located at 32-33-15.12N/102-25-40.09W, air traffic control (ATC) audio recordings from the Fort Worth Air Route Traffic Control Center (ZFW), and interviews and discussion with ZFW air traffic control and center weather service unit (CWSU) management and staff.

1.0 HISTORY OF FLIGHT

On February 5, 2015 at 0013, the pilot of N29AC checked in with ZFW level at 9000 feet. The ZFW controller acknowledged and issued the MAF altimeter setting of 30.36 inches of mercury.

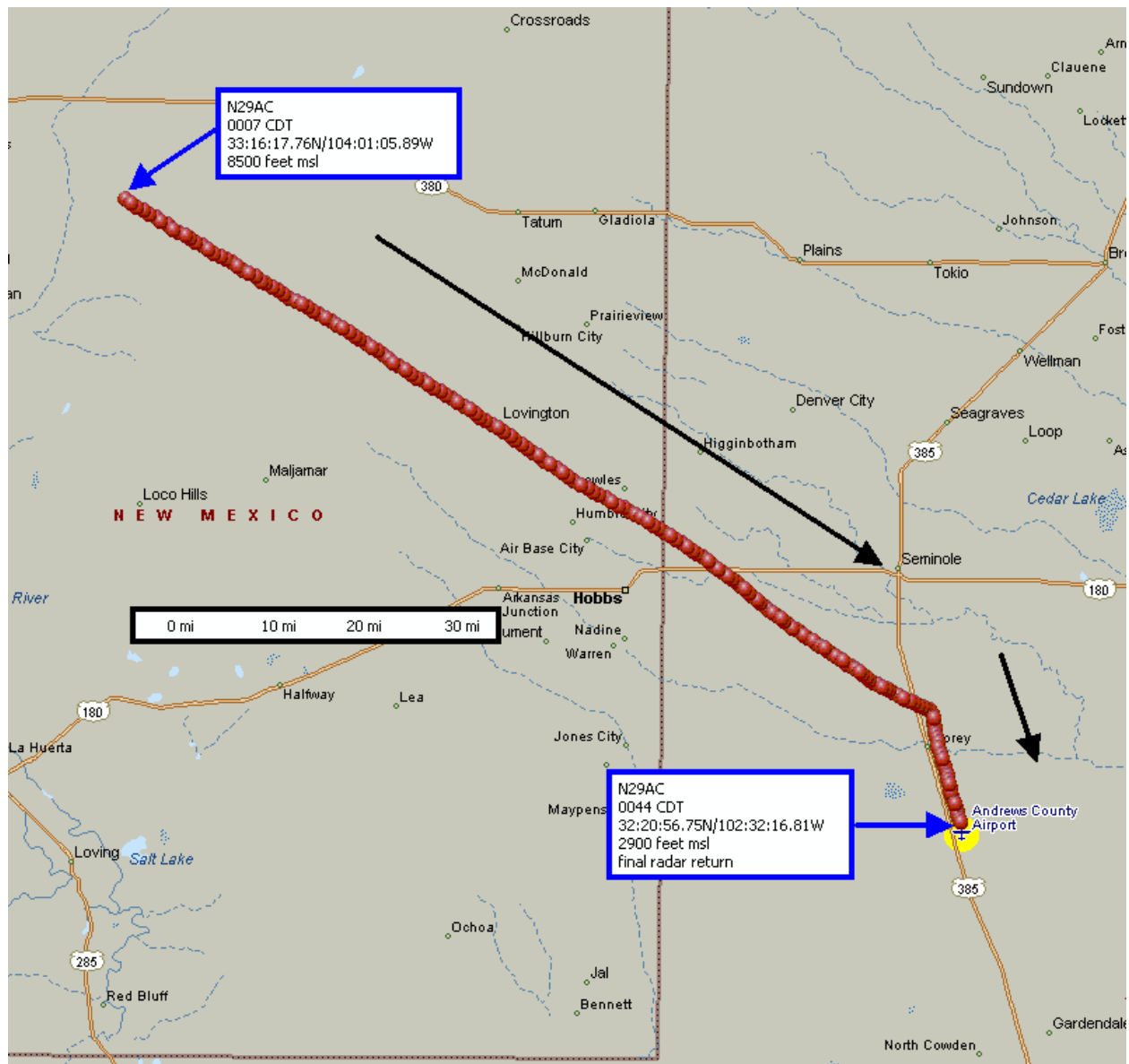


Figure 1 – Radar flight track of N29AC indicated by red dots, direction of flight indicated by black arrows. Andrews County Airport (E11) highlighted in yellow.

At 0016 the ZFW controller asked the pilot of N29AC if he was going to request the RNAV GPS Runway 16 approach at E11². The pilot responded with “affirmative via HWSER” (HWSER was initial approach fix) See figure 2. The controller cleared N29AC to proceed direct to HWSER and the pilot acknowledged.

² Approach control services for E11 were provided by MAF until the facility closed at 0000 local time after which ZFW assumed responsibility for ATC services within MAF’s delegated airspace.

ANDREWS, TEXAS

AL-6451 (FAA)

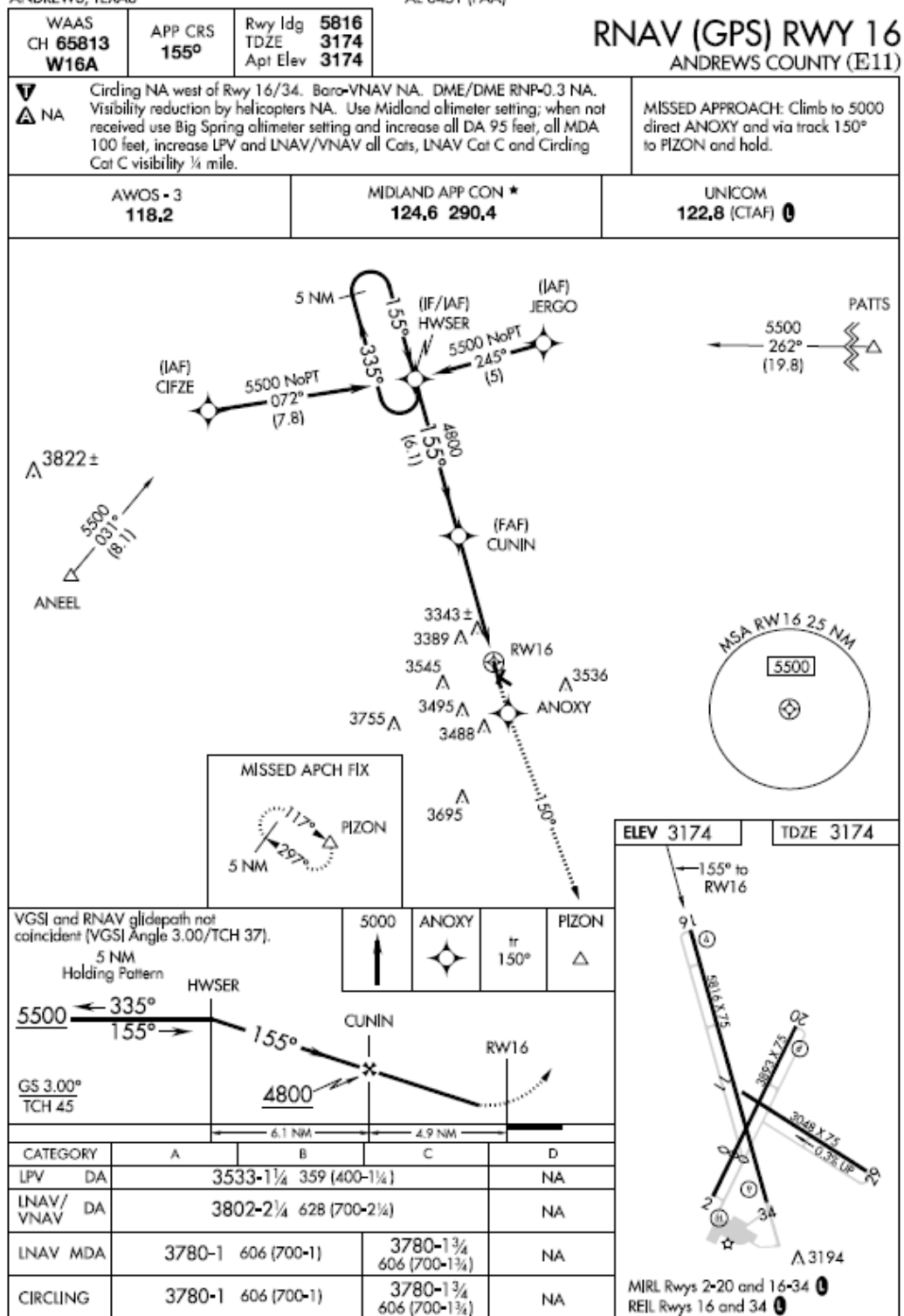


Figure 2 – RNAV (GPS RWY 16 approach procedure to E11

At 0017, the pilot of N29AC asked for and was issued the 0553 UTC weather observation for MAF. The controller did not include the remarks of peak wind from 020 degrees true at 27 knots at 2317 or a ceiling of 600 feet agl variable 1100 feet agl.

Because a preceding aircraft, N889DT, a Raytheon Premier 1 (PRM1), was on approach to E11, the ZFW controller advised the pilot of N29AC that he could expect a lower altitude and an approach clearance shortly. The pilot acknowledged.

At 0018 the ZFW controller directed the pilot of N29AC to descend at pilot's discretion and maintain 7000 feet. The pilot acknowledged.

At 0019 the ZFW controller received information from a flight service station (FSS) that the previous E11 arrival, N889DT, had cancelled his IFR flight plan. The ZFW controller advised the pilot of N29AC that the previous arrival has cancelled his IFR flight plan and directed N29AC to descend at pilot's discretion and maintain 6000 feet. The pilot acknowledged.

At 0021 the ZFW controller cleared N29AC to cross HWSER at or above 6000 feet and cleared the aircraft for the RNAV GPS runway 16 approach to E11. After the pilot acknowledged the clearance, the controller directed him to report HWSER. The pilot acknowledged.

At 0039 the ZFW controller confirmed that N29AC was at HWSER fix and advised the pilot that radar services were terminated, he could change to advisory frequency and to cancel his IFR flight plan on the ground or with FSS. There were no further communications between ZFW and N29AC.

2.0 Air Traffic Control

At the time of the accident, staffing at ZFW included 3 certified professional controllers in the Glen Rose sector, which included MAF and E11. ZFW was supervised by a front line manager acting in the role of operations manager in charge. The CWSU operated part time and was not staffed during midnight shifts.

2.1 Approach Information

ZFW had assumed approach control responsibilities services from MAF TRACON at 2400, February 4. With the assumption of approach control responsibilities came the requirement to provide approach information for aircraft destined to airports for which they provide approach control services. Specifically, ZFW was required to provide approach control services for N29AC destined to E11.

FAA Order 7110.65, Air Traffic Control, paragraph 4-7-10, Approach Information, states in part:

a. en route and terminal approach control sectors must provide current approach information to aircraft destined to airports for which they provide approach control services. This information must be provided on initial contact or as soon as possible thereafter. Approach information contained in the ATIS broadcast may be omitted if the pilot states the appropriate ATIS code. For

pilots destined to an airport without ATIS, items 3–5 below may be omitted after the pilot advises receipt of the automated weather; otherwise, issue approach information by including the following:

- 1. Approach clearance or type approach to be expected if two or more approaches are published and the clearance limit does not indicate which will be used.*
 - 2. Runway if different from that to which the instrument approach is made.*
 - 3. Surface wind.*
 - 4. Ceiling and visibility if the reported ceiling at the airport of intended landing is below 1,000 feet or below the highest circling minimum, whichever is greater, or the visibility is less than 3 miles.*
 - 5. Altimeter setting for the airport of intended landing.*
- b. Upon pilot request, controllers must inform pilots of the frequency where automated weather data may be obtained and, if appropriate, that airport weather is not available.*

PHRASEOLOGY–

(Airport) AWOS/ASOS³ WEATHER AVAILABLE ON (frequency).

- 1. ASOS/AWOS must be set to provide one minute weather at uncontrolled airports that are without ground-to-air weather broadcast capability by a CWO, NWS or FSS observer.*
- 2. Controllers will consider the long-line disseminated weather from an automated weather system at an uncontrolled airport as trend information only and must rely on the pilot for the current weather information for that airport.*
- 3. Controllers must issue the last long-line disseminated weather to the pilot if the pilot is unable to receive the ASOS/AWOS broadcast.*

NOTE–

Aircraft destined to uncontrolled airports, which have automated weather data with broadcast capability, should monitor the ASOS/AWOS frequency to ascertain the current weather at the airport. The pilot should advise the controller when he/she has received the broadcast weather and state his/her intentions.

The ZFW controller providing approach control services to N29AC did not ensure that he pilot had current weather information for E11.

³ AWOS/ASOS – Surface Weather Observation Stations - Automated Weather Observing Systems(AWOS)/ Automated Surface Observing System (ASOS) -

The controller stated that he understood that since the approach procedure for the RNAV GPS runway 16 to E11 directs that the MAF altimeter be used that the MAF weather was also to be used.

While ASOS and AWOS systems are operational at many airports and other locations, the METARs produced are not always directly available to controllers through their automation systems. En route controllers obtain METAR reports via the en route automation modernization (ERAM) system, which contains a list of “adapted” METAR sources representing a subset of all those available. To access the current weather for one of these sources, controllers request the current weather via a series of keystrokes at their control positions. E11 was not in the set of adapted METAR sources available to ZFW controllers. Three of the four controllers interviewed during the investigation (including the controller handling N29AC) said it was their understanding that the pilot was responsible for obtaining METAR information from non-adapted reporting stations.

According to the ZFW support manager for training, random training scenarios used in controller training included approaches to airports that were not included in the list of adapted METAR sources. Specifically training included the radar and/or radar associate controller accessing the appropriate approach procedure for the airport at the controller position, determine the AWOS/ASOS frequency, direct the pilot to get the current weather on that frequency and report the information to the controller, after which the aircraft would be cleared for the approach. He also emphasized that training included pilot report (PIREP) procedures. The training support manager could not explain why controllers were not issuing approach information when required and promised to review the issue.

2.2 Pilot Report (PIREP)

FAA Order 7110.65, Air Traffic Control, paragraph 2-6-2, PIREP INFORMATION states in part:

Significant PIREP information includes reports of strong frontal activity, squall lines, thunderstorms, light to severe icing, wind shear and turbulence (including clear air turbulence) of moderate or greater intensity, volcanic eruptions and volcanic ash clouds, detection of sulfur gases (SO₂ or H₂S) in the cabin, and other conditions pertinent to flight safety.

a. *Solicit PIREPs when requested or when one of the following conditions exists or is forecast for your area of jurisdiction:*

1. *Ceilings at or below 5,000 feet. These PIREPs must include cloud base/top reports when feasible.*

TERMINAL. Ensure that at least one descent/climb- out PIREP, including cloud base/s, top/s, and other related phenomena, is obtained each hour.

EN ROUTE. When providing approach control services, the requirements stated in TERMINAL above apply.

2. Visibility (surface or aloft) at or less than 5 miles.
3. Thunderstorms and related phenomena.
4. Turbulence of moderate degree or greater.
5. Icing of light degree or greater.
6. Wind shear.
7. Volcanic ash clouds.

NOTE—

Pilots may forward PIREPs regarding volcanic activity using the format described in the Volcanic Activity Reporting Form (VAR) as depicted in the AIM, Appendix 2.

8. Detection of sulfur gases (SO₂ or H₂S), associated with volcanic activity, in the cabin.

NOTE—

The smell of sulfur gases in the cockpit may indicate volcanic activity that has not yet been detected or reported and/or possible entry into an ash-bearing cloud. SO₂ is identifiable as the sharp, acrid odor of a freshly struck match. H₂S has the odor of rotten eggs.

9. **TERMINAL.** Braking Action Advisories are in effect.

b. Record with the PIREPs:

1. Time.
2. Aircraft position.
3. Type aircraft.
4. Altitude.
5. When the PIREP involves icing include:
 - (a) Icing type and intensity.
 - (b) Air temperature in which icing is occurring.

c Obtain PIREPs directly from the pilot, or if the PIREP has been requested by another facility, you may instruct the pilot to deliver it directly to that facility.

PHRASEOLOGY—

REQUEST/SAY FLIGHT CONDITIONS. Or if appropriate,
REQUEST/SAY (specific conditions; i.e., ride, cloud, visibility, etc.)
CONDITIONS.

If necessary, OVER (fix),

or

ALONG PRESENT ROUTE,

or

BETWEEN (fix) AND (fix).

d. Handle PIREPs as follows:

1. Relay pertinent PIREP information to concerned aircraft in a timely manner.

2. *EN ROUTE*. Relay all operationally significant PIREPs to the facility weather coordinator.

3. *TERMINAL*. Relay all operationally significant PIREPs to:

(a) The appropriate intrafacility positions.

(b) The FSS serving the area in which the report was obtained.

According to the meteorologist in charge (MIC) of the ZFW CWSU, a weather briefing was provided twice daily during standup and to the midnight shift operations manager prior to the CWSU closing. On the evening of February 4/5 the following graphic data (with corresponding textual descriptive data) was provided and available to the controller work force via the supervisor consoles at each sector/area in the center.

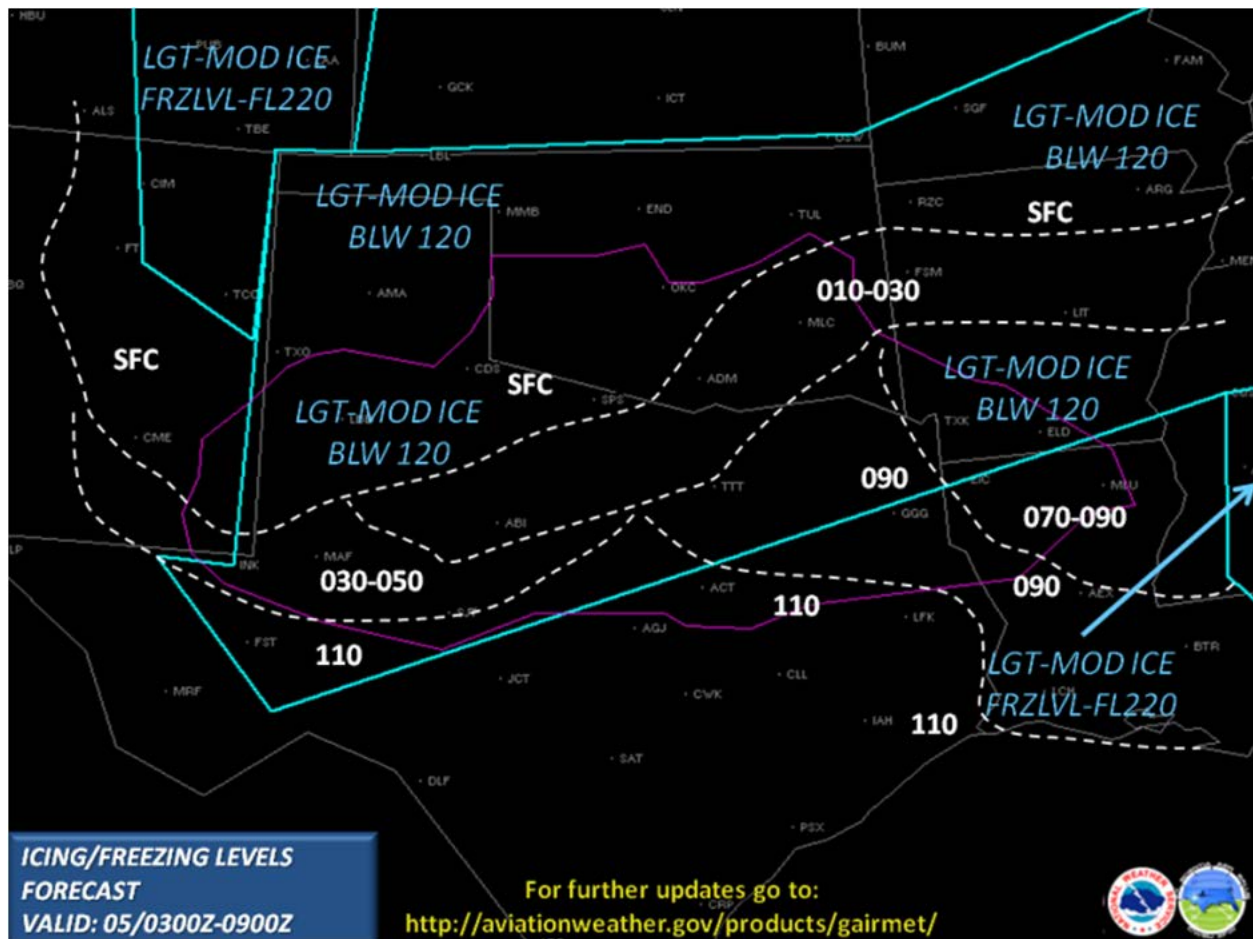


Figure 3 – Icing/Freezing Levels forecast for ZFW airspace from 0300 to 0900 UTC February 5, 2015/2100 CST February 4 to 0300 CST February 5, 2015.

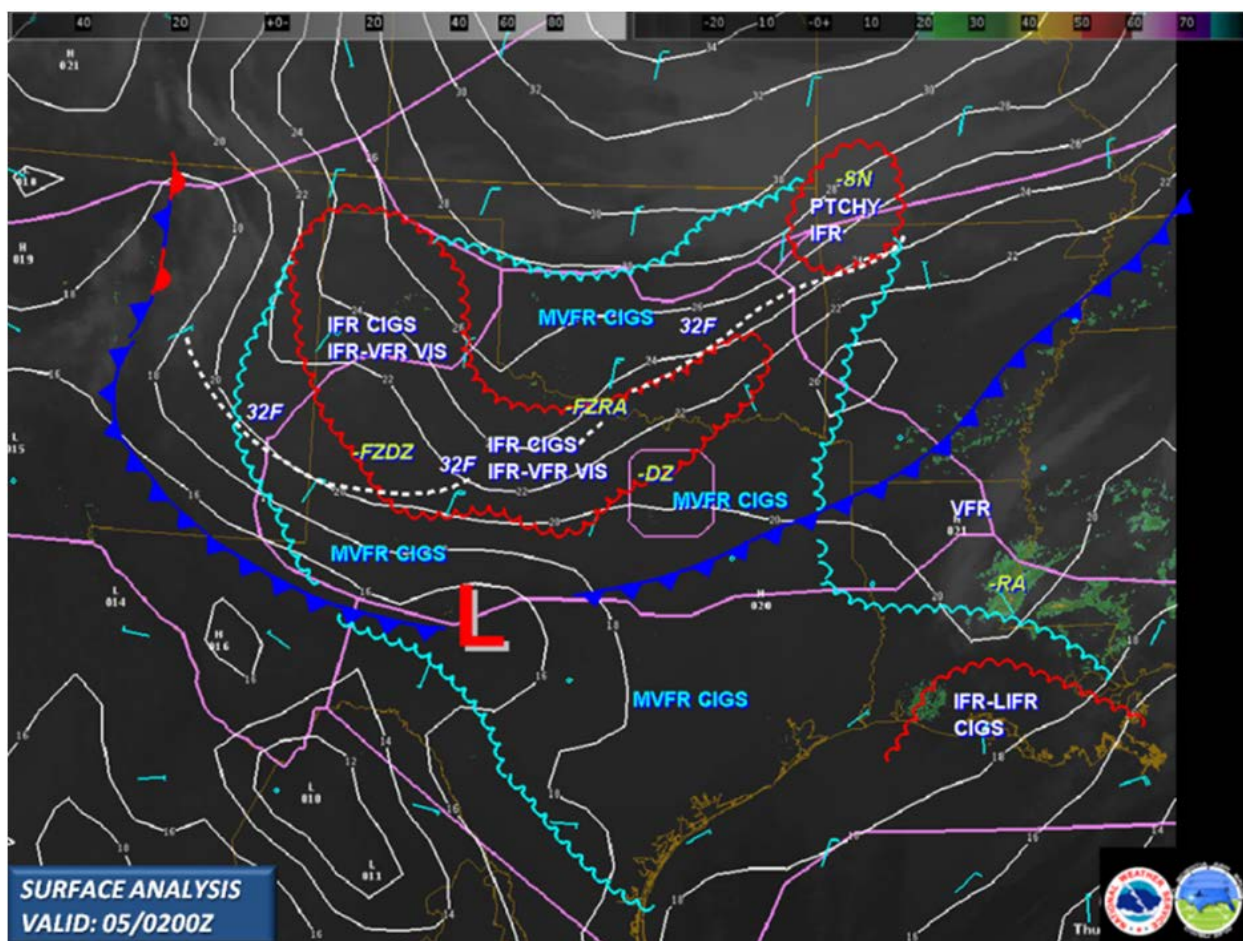


Figure 4 – Surface weather analysis of ZFW airspace for the evening of February 4/5 2015

The weather at MAF and E11 met the criteria for soliciting a PIREP from arriving or departing aircraft. The forecast provided by the CWSU indicated potential for icing and marginal visual flight rules conditions with low ceilings in the vicinity of E11. Although both N889DT and N29AC conducted approaches to E11, no PIREP was solicited from, or provided to, either pilot.

2.3 ERAM Adapted Weather Stations

According to the ZFW Program Operations field manager, who stated that he was the local technical expert regarding ERAM adapted weather stations, ZFW ERAM had the capacity for 500 weather stations but currently had only 142 stations available for access at the air traffic control positions. Of the 142 stations, 102 were associated with an airport and 40 stations were not. He stated that he receives a national database with a list of available AWOS/ASOS reporting stations every 28 days and if directed by the ZFW airspace office, will modify the ZFW ERAM adaptation list as needed. He stated that if a station was not associated with an airport it would be automatically adapted. The field manager stated that there is a national adaptation team located at the FAA Technical Center in Atlantic City.

2.4 Air Traffic Control Interviews

2.4.1 Anthony Rios - Operations Manager in Charge (OMIC)

The ATC group interviewed Mr. Rios on May 27, 2015. Mr. Rios was represented by Mr. Andrew Dilk, FAA General Counsel, AGC-400. In response to questions presented by the group Mr. Rios provided the following information:

His air traffic control experience began in 1991 as a direct hire to Houston Air Route Traffic Control Center and served there until late in 1997, when he accepted a transfer to Fort Worth Air Route Traffic Control Center (ZFW). His operating initials were TR.

His regular work schedule was a rotating shift schedule with regular days off (RDO) on Thursday and Friday. On the day of the accident, he was working a Wednesday night mid-shift for a peer supervisor via a “shift swap” His regular weekly work schedule was Monday and Tuesday from 0630 to 1430, Wednesday from 0600 to 1400, Saturday from 1600 to 2400 and Sunday from 1300 to 2100.

His supervisor was Susan Conley. His Class 2 medical certificate was current with a medical waiver and a requirement to possess corrective lenses while performing air traffic duties. He had glasses in his possession on the morning of February 5.

Mr. Rios, a front line manager (FLM), was the acting OMIC at the time of the accident. He stated the event occurred shortly after reporting for duty at the OMIC position. George Dixon, a controller in the Glen Rose sector, walked to the watch desk and relayed information received from flight service to E11 had crashed on landing. He then issued an ALNOT⁴ for N29AC. Mr. Rios next called the local sheriff’s office and was informed that there were injuries, but no fatalities onboard N29AC. He contacted the previous OMIC to return to the facility to assist with preparing the accident package. The OMIC arrived and the ALNOT was cancelled approximately an hour after it was opened. Mr. Rios and the OMIC reviewed the audio recording via the Digital Audio Legal Recorder (DALR), and the radar replay via the FALCON program. He stated that he did not hear or observe any indicators of a problem regarding N29AC. Mr. Rios then discussed the event with Mr. Dixon after being relieved from position. Mr. Dixon was not restricted from working any positions for the remainder of the night.

Mr. Rios was provided a copy of *FAA Order 7110.65V*, “Air Traffic Control,” paragraph 4-7-10, Approach Information, and a copy of the approach procedure for the RNAV (GPS) Runway 16 approach to E11. After reviewing the information Mr. Rios stated that a controller would make sure the pilot has the weather for the closest reporting station, the notice to airmen (NOTAM) information, and any other pertinent information. He stated the E11 airport was not adapted and the MAF METAR information is what would be provided. Mr. Rios stated he would check the AIRNAV website, or send the pilot to FSS, or the E11 AWOS frequency to get additional weather information. This is a technique that he personally teaches, but it is not part of the standard training curriculum. He has never dialed an AWOS/ASOS phone number from position and does not believe that there are any available options for this at ZFW. He described having

⁴ ALNOT (Alert Notice) A request initiated by a flight service station or air route traffic control center for an extensive communication search for overdue, unreported, or missing aircraft.

“numerous” discussions with his employees, and developmentals regarding approach control procedures and PIREP solicitation. He stated each FLM is required to complete one operational skills assessment (OSA) per month on an employee with weather dissemination and PIREP solicitation as a special emphasis item.

Mr. Rios stated the applicable conditions for soliciting PIREPs per the 7110.65V, “*Air Traffic Control*,” paragraph 2-6-3. The process for PIREP dissemination during day shifts was for FLM’s to review the written report for completeness and accuracy and then to take then to the CWSU for long-line distribution. However, he stated the PIREPs described as “Null” containing no significant weather information were not disseminated. During mid-shifts PIREPs were distributed via a general information (GI) message and passed verbally to affected adjacent facilities. Mr. Rios described a good relationship between ATC and the CWSU, and he believed the CWSU hours of operation were 0500-2200 local time. He stated the CWSU provides forecast products, and gathers weather information for dissemination. The CWSU also provides stand-up briefings twice daily to FLM’s as well as an outgoing briefing to the OMIC for mid-shift weather. Mr. Rios stated that some of the specialists in the CWSU are more proactive than others and that is preferable in his opinion. The proactive CWSU specialists will sometimes provide hourly interaction with FLM's to provide weather related support.

Mr. Rios stated that the CWSU provides training twice a year for spring and winter weather conditions a pilot may encounter. He stated he finds the training valuable; however the recent NTSB provided weather training was described as the best he ever received. He also stated he received training on the OMIC position prior to being certified to work the mid-shift operation. He indicated there is a facility adapted web page available at the OMIC and area FLM positions with links to the National Weather Service in Kansas City, Missouri if additional weather support is needed.

2.4.2 George Dixon - Certified Professional Controller (CPC)

The ATC group interviewed Mr. Dixon on May 27, 2015. Mr. Dixon was represented by Mr. Ric Loewen, National Air Traffic Controller Association (NATCA) regional vice president from the Dallas-Fort Worth (DFW) air traffic control tower (ATCT). In response to questions presented by the group Mr. Dixon provided the following information:

Mr. Dixon started his career with the FAA in April of 1989. He has been a controller at ZFW for his entire career with the FAA. He was a CPC qualified on all positions in the Glen Rose area and was certified as a on the job training instructor (OJTI). He had no other FAA certificates. His Class 2 medical certificate was current with a medical waiver. His supervisor for the past several months had been Ray Alford. His operating initials were DX.

Mr. Dixon had reviewed an audio playback of the accident sequence on May 26, 2015.

Mr. Dixon’s typical work schedule consisted of Friday and Saturday as regular days off, Sunday from 1500 to 2300, Monday from 1315 to 2115, Tuesday from 0645 to 1445, Wednesday from 0630 to 1430, and the Wednesday mid-shift from 2230 to 0630 Thursday morning.

On the morning of February 5, Mr Dixon was working a regularly scheduled 2230 to 0630 shift working the Abilene/Midland Low, Wink, Lee and Odessa ultra-high sectors combined. He was one of three CPC's assigned to the area and was the controller providing ATC services to N29AC just prior to the accident. Typically the mid-shift was supervised by a FLM acting as OMIC as was the case on the morning of February 5. Mr. Dixon recalled seeing an additional OMIC in the facility but did not recall who it was.

Mr. Dixon did not recall the overall weather or soliciting any PIREPs on February 5.

Describing the event as he recalled it Mr. Dixon stated that an aircraft, N889DT, had been cleared for an approach to E11 prior to N29AC. N889DT had received approach services from MAF prior to MAF closing and control of the aircraft had been transferred to ZFW. Mr. Dixon did not recall soliciting a PIREP from the pilot of N889DT and he saw no need for one. He was not aware of a PIREP having been solicited or reported by N889DT to MAF. Mr. Dixon provided the MAF weather information to the pilot of N29AC based on the pilots request but did not provide weather for E11 because it was not adapted in the ERAM system and therefore not available to him. According to Mr. Dixon, the approach procedure for the GPS runway 16 to E11 stated that the MAF altimeter was to be issued for the approach. Therefore he considered that the MAF weather was the appropriate weather source for the approach. When issuing the MAF weather to N29AC, Mr. Dixon did not include the pertinent remarks of the MAF METAR AGL.

When asked about the requirement for controllers to provide approach information to pilots destined to airports for which they provide approach control services, as specified in FAA Order 7110.65, Air Traffic Control, Mr. Dixon stated that he would look up the approach on the En Route Information Display System (ERIDS), wait for the pilot to report weather and NOTAMS, clear the aircraft to an altitude and fix, clear the aircraft for approach, have the aircraft report a point in space and report IFR cancellation with him or via the FSS. However, in the case of N29AC, Mr. Dixon considered the MAF weather acceptable for the approach into E11. If a pilot needed weather for a non-adapted airport, it was the pilot's responsibility to get it. Mr. Dixon stated that if the pilot had requested weather for E11, he would have requested assistance to get it. However, he did not consider ensuring that N29AC had E11 weather. There were numerous non-adapted airports in ZFW airspace. Mr. Dixon stated that he expected a FAR 91 pilot to have all required and current charts and publications based on what he would expect of himself.

Mr. Dixon stated that he would solicit urgently needed weather information directly from the CWSU via the voice switching control system (VSCS) when required depending on his workload and would request assistance from the supervisor at other times. He was aware of a direct VSCS line to the CWSU during a day shift but was not sure of the VSCS mapping during the mid-shift. Mr. Dixon had never requested airport weather information from CWSU for non-adapted airports. Mr. Dixon had never dialed an AWOS telephone number nor recalled observing anyone else do it and had never been trained on the procedure.

Mr Dixon's face to face experience with the CWSU was limited to semi-annual weather briefings. He felt that the CWSU was good at providing weather products that included CWAs, AIRMETs, SIGMETs, and PIREP information available via the User Request Evaluation Tool/En Route Decision Support Tools (URET/EDST). Mr. Dixon was aware that the CWSU

provided three weather briefings a day to supervisors at ZFW and said that information that was relayed to the controllers was appropriate.

Mr. Dixon did not solicit a PIREP from N29AC because the previous arrival (N889DT) did not report conditions on approach to E11. Therefore he assumed there were no hazardous flight conditions. When soliciting PIREPs, Mr. Dixon would fill out a PIREP form and provide it to the supervisor as well as relay PIREP information to aircraft on his frequency. Mr. Dixon stated that he would provide base and tops PIREPs to the supervisor but was not aware of what the supervisor did with the PIREPs. He did not recall ever forwarding a null PIREP.

2.4.3 Bill Gibbs (GB) CPC

The ATC group interviewed Mr. Gibbs on May 27, 2015. Mr. Gibbs was represented by Mr. Ric Loewen, NATCA regional vice president from DFW ATCT. In response to questions presented by the group Mr. Gibbs provided the following information:

Mr. Gibbs started his career with the FAA in March 1982 and had worked at ZFW his entire career. He had no other ATC background. He was certified and current in the Glen Rose area of ZFW and was an OJTI. His work schedule consisted of an 8 hour shift on Sunday from 1600 to 2400, Monday from 1315 to 2115, Tuesday and Wednesday from 0630 to 1430 and Thursday from 0530 to 1330. His RDO's were Friday and Saturday. The last time he recalled working a mid-shift was 4 to 5 months ago. He was on the overtime list to work overtime and had worked overtime approximately 4 times this year.

When asked about requirements for providing approach information, he stated that he must ensure the aircraft has weather and NOTAMS for the destination airport. He stated that his weather source would first be a weather request in ERAM (i.e. wr and airport 3 letter identifier). When questioned about the pilot making a request for a weather report at an adapted adjacent airport, he stated that weather from an airport adjacent to the destination airport would be acceptable and would consider his requirement to ensure the aircraft had the weather to have been satisfied. Since the E11 approach procedure referenced the Midland altimeter, he considered the Midland METAR to also be acceptable since the Andrews airport weather was not adapted in ERAM.

Mr. Gibbs stated he would not typically consider other avenues to obtain weather from non-adapted stations. He stated he was familiar with the 7110.65 requirements regarding approach services and weather, but thought the requirements were open to interpretation since it references what is significant or pertinent. He stated that if a pilot asked for weather at a non adapted station; during the day he would seek help from the FLM, and on the midnight shift he would get help from the OMIC. When asked about using the private automatic branch exchange line (PABX) phone system to dial an ASOS/AWOS, he stated he had never trained or witnessed dialing the PABX at the sector for the local weather. He explained it was not normal to issue approach clearances to E11 during the day because it was in another ATC facility. When asked about the requirements for PIREP solicitation, he responded that PIREPs should be solicited when the weather was less than a 5000 foot ceiling or 3 mile visibility..

Mr. Gibbs recalled annual CWSU thunderstorm briefings, describing them as somewhat meaningful. When questioned about PIREP handling, he said the PIREPs were written on paper and handed to the FLM who then delivered them to the CWSU. He stated that there was some confusion between routine and urgent PIREP information being displayed in URET. He did not recall if his VSCS had a direct access line to the CWSU and noted that direct contact with the CWSU was not a normal part of his job. He did not recall what the hours of the CWSU were. He could not think of any unmet needs from CWSU or think of any ways to improve the CWSU training that is provided to the controllers. Mr. Gibbs explained that when the CWSU identifies areas that will require PIREP solicitation, that information is usually relayed at the stand-up briefing from the CWSU to the FLM, and then to the controllers on the floor. He stated that he did not see the daily CWSU standup briefing. He stated that since there was really not a tracking method for PIREP solicitation requirements, typically controllers would get a METAR from an adapted station to determine if PIREP solicitation was warranted. When questioned about other non-adapted weather stations, he said there are many airports that were not adapted in ERAM.

2.4.4 Glenn Gribble - CPC

The ATC group interviewed Mr. Gribble on May 27, 2015. Mr. Gribble was represented Mr. Ric Loewen, NATCA regional vice president from DFW ATCT. In response to questions presented by the group Mr. Gribble provided the following information:

Mr. Gribble started his career with the FAA in October 2000 as a controller at Abilene, Texas where he worked until 2005. Mr. Gribble had been a controller at ZFW since 2005 and was qualified in the Glen Rose area and was a controller-in-charge (CIC) and an OJTI. His class 2 medical certificate was current with a medical waiver.

His work schedule consisted of regular days off on Sunday and Monday, Tuesday from 1430 to 2230, Wednesday from 1315 to 2115, Thursday from 0630 to 1430, Friday from 0530 to 1330 or 0630 to 1430 and from 2230 to 0630 Saturday morning. His operating initials were GW.

When asked to describe how he would handle an aircraft making an approach to E11 after MAF had closed, Mr. Gribble stated that he would provide advance approach information which included weather and NOTAMS stating the there was no ATIS available for E11 as it was non-adapted. He would ask the pilot if he had current weather for E11 and if not, he would provide him the AWOS frequency and have the pilot report when he had the current information. If a pilot requested weather for a non-adapted airport during a day shift, Mr. Gribble would direct the pilot to the AWOS frequency and if that did not work, would solicit information from the CWSU or the supervisor who could research the information via the internet. The ability to communicate with the CWSU was always available via the PABX line at the position. Mr. Gribble had never telephoned an AWOS/ASOS site for a non-adapted airport.

Mr. Gribble stated that he did not understand why a pilot approaching E11 would request MAF weather unless he was considering MAF as an alternate.

Mr. Gribble stated that some of the controllers at ZFW were not aware of alternate sources of weather beyond the ERAM weather adapted stations. While CWSU provides recurrent training and daily briefs, additional CWSU training about weather sources would be beneficial. He stated

the most beneficial recent weather briefing was given by the NTSB and American Airlines on weather radar.

Mr. Gribble stated that the CWSU closes at 2200 or 2230 and will pass along significant weather in addition to the daily briefs. This information is very helpful.

Mr. Gribble stated that he will solicit PIREPs based on observed precipitation and in accordance with the requirements of FAA Order 7110.65. PIREP solicitation and dissemination worked well at ZFW via position relief briefs and notes at the positions. Significant PIREPs were available via URET/EDST and paper strips from the local printer but he was not sure if they were posted on the tactical situation display (TSD). He kept some PIREPs at the sector when he deemed appropriate. He stated that supervisors rarely asked controllers to solicit PIREPs. He continued with the observation that PIREP solicitation procedures at ZFW may not be done “by the book”.

Regarding METAR remarks, Mr. Gribble did not consider peak winds and variable ceiling pertinent when the current weather was poor.

2.5 CWSU Interview

2.5.1 Thomas Amis – ZFW Meteorologist in Charge (MIC)

The ATC group interviewed Mr. Amis on May 28, 2015.

Mr. Amis has been employed at a National Weather Service (NWS) CWSU for the past 27 years, and has been the MIC at ZFW for approximately the past 15 years.

Mr. Amis stated that normal operating (open) hours for the ZFW CWSU were 0530-2130 local time seven days a week. Current CWSU staffing consisted of three meteorologists and one MIC. The MIC performs meteorologist duties a minimum of 33% of his work time. Mr. Amis stated there is a standing agreement with ZFW air traffic management that allows CWSU staff to stay later than 2130 (or arrive earlier than 0530) should the weather situation dictate a need for additional CWSU support. Mr. Amis stated that weather situations that dictate additional CWSU support included weather impacts to Dallas/Fort Worth International Airport (DFW) and/or DFW Terminal Radar Approach Control (D10). Mr. Amis stated that weather events impacting areas of ZFW airspace well away from DFW would not really dictate additional CWSU support. He estimated that CWSU staff stay late about 10-15 times per year and will arrive early as the situation dictates. Mr. Amis stated that CWSU staff had worked 24-hours periods before.

Mr. Amis stated that CWSU staff will always brief the ZFW Traffic Management Unit (TMU) on icing and turbulence events, and, if warranted, advise individual “areas” within ZFW of significant weather situations. Mr. Amis stated that they stopped issuing the Meteorological Impact Statement (MIS) in 2007 following survey results from the local FAA that yielded “unfavorable” opinions on the MIS. Currently, the ZFW CWSU produces “graphical MISs” that are briefed to FAA management during routine stand-up briefings, are updated every two hours, and are published to the CWSU’s website.

Mr. Amis indicated that the CWSU occasionally received telephone calls directly from controllers on position for weather support, and occasionally received calls from FLM's. He indicated that they receive about 3 aircraft in distress calls per year, on average.

Mr. Amis stated that he was aware that there are surface observing weather stations that are not "adapted" into ERAM.

Mr. Amis indicated that the process for PIREP dissemination during the hours the CWSU is open is as follows: controller receives the PIREP and either they, or a supervisor, delivers that PIREP to the CWSU, the CWSU then disseminates 100% of the PIREPs they receive to the public via the Aviation Weather Center (AWC) website. The CWSU has access to Aeronautical Information System Replacement (AIS-R) as an alternative method for delivering PIREPs to the public, but prefers to use the AWC website because it can catch mistakes that AIS-R does not. Mr. Amis stated that during hours the CWSU is closed, the OMIC will call the FSS to disseminate the PIREP. Mr. Amis stated that the CWSU wants to be part of the local PIREP dissemination process because it offers them situational awareness.

Mr. Amis stated that the role of the CWSU includes promoting the safe flow of aircraft through the national airspace system. In the last 20-30 years the CWSU's role had evolved. As an example, Mr. Amis offered that in 1990, the CWSU were doing much of their work with paper and pencil, whereas now, they have automated capabilities that provide enhanced situational awareness.

According to Mr. Amis, the CWSU provides training to controllers twice per year, for convective weather and winter seasons. Each training presentation is about 20-25 minutes in duration, and includes discussion on PIREPs in the wintertime. Mr. Amis stated that he had not received any feedback on the CWSU training presentations, and that there had not been any specific requests regarding their training. Mr. Amis stated that these presentations were more like "awareness briefings" geared to local climatology, and further indicated that he thinks that weather training provided to controllers should be performed by the FAA.

Mr. Amis stated that most of the ZFW CWSU's interaction occurs with the TMU. However, during stand up briefings to solicit PIREPs, the CWSU provides one graphic devoted to ceilings and visibility concerns, and other graphics dedicated to turbulence and icing concerns to brief conditions where PIREP solicitation would be beneficial. When FLMs and OMICs approached the CWSU for support with the Weather and Radar Processor (WARP) system, the CWSU would provide on-the-spot informal training.

Mr. Amis stated that he was not aware of training available to FAA management on the graphics that the CWSU produces.

Mr. Amis stated that over the past 18 months, the PIREP count at ZFW has "skyrocketed" and is close to record facility levels (close to levels realized near 2007), though Mr. Amis did not know what had caused the increase. He believed that adequate levels of PIREPs on ceilings and visibilities were received, however PIREPs of turbulence and/or icing were lacking. Mr. Amis stated that the CWSU can call FLMs on the VSCS system to solicit PIREPs.

Mr. Amis said that guidance had been developed to advise FAA personnel working midnight shifts that the local NWS Weather Forecast Office could provide backup on any needed weather services.

Mr. Amis did not believe that all CWSU stand up briefing information made it to the controllers on position, and indicated that this was a concern but that there was not much more he could do about it.

Mr. Amis said that until 5 or 6 years ago, the CWSU was doing one-hour briefings with new controllers at the FAA's request, however requests for this service had stopped.

Mr. Amis stated that "null" PIREPs were important for the CWSU's work.

With regard to any historical reasons that the CWSU does not maintain a 24-hour presence at the center facilities, Mr. Amis offered that this was in consideration of the lack of air traffic during overnight hours, however stated an argument could be made to keep Cleveland and Memphis CWSUs open overnight due to freight operations.

Mr. Amis provided a copies of graphical MIS's of the weather forecast for February 5 from 0300 to 0900 Z. These graphics indicated light to moderate icing below 12,000 feet agl over MAF and E11 and marginal VFR ceilings in the area.

Dan Bartlett
Senior Transportation Safety Specialist
AS-30