

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24FA040

METEOROLOGY

Specialist's Factual Report

December 6, 2023

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A. ACCIDENT

Location: Mertzon, Texas

Date: 25 November 2023

Time: 1835 central standard time 0035 UTC¹ on 26 November 2023)

Aircraft: Type - Piper PA-28-180; Registration - N7763W

B. METEOROLOGY INVESTIGATOR

Mike Richards

Senior Meteorologist

Office of Aviation Safety

Operational Factors Division (AS-30)

National Transportation Safety Board

C. DETAILS OF THE INVESTIGATION

The National Transportation Safety Board's (NTSB) meteorological specialist did not travel in support of this accident investigation and gathered all weather data remotely. Unless otherwise noted, all times are in central standard time for 25 November 2023 (based upon the 24-hour clock), directions are referenced to true north, distances are in nautical miles and, except where noted, heights are above mean sea level (msl). The accident site was located at: 31.379833° north latitude; 101.00151° west longitude at an elevation of about 2,230 feet.

This report provides surface observations and information on ceiling and visibility in the greater accident region.

D. WEATHER INFORMATION

1.0 Surface Observations

An Automated Weather Observing Station (AWOS) was located at Las Cruces International Airport (LRU²), in Las Cruces, New Mexico, which was located about 300

¹ UTC - abbreviation for Coordinated Universal Time

² This report uses the 3-digit International Air Transport Association format for airport identification, which does not use the geographic designating digit (e.g., "K" for stations in the continental U.S. and "P" for U.S. stations in Alaska and the Pacific region) as found in the 4-digit International Civil Aviation Organization (ICAO) identifier format. Weather observations from airports in this report are referenced by their reporting station's identifier (using ICAO format that includes the geographic designating digit), not by the airport at which the reporting station is located.

miles west of the accident site at an elevation of about 4,450 feet. It had a magnetic variation of about 8°. Automated longline³ reports from the LRU AWOS on the accident day are presented here.

[0915] KLRU 251515Z AUTO 15006KT 10SM BKN046 OVC055 07/00 A3000
RMK AO2 T00741001

[0935] KLRU 251535Z AUTO 15008KT 10SM BKN046 BKN050 08/00 A3001
RMK AO2 T00800000

[0955] KLRU 251555Z AUTO 14007KT 10SM BKN044 09/00 A3001 RMK AO2
T00900000

[1015] KLRU 251615Z AUTO 14006KT 10SM BKN044 10/00 A3002 RMK AO2
T01000001

[1035] KLRU 251635Z AUTO 17005KT 10SM SCT048 10/00 A3002 RMK AO2
T01010002

[1055] KLRU 251655Z AUTO 17006KT 10SM BKN050 11/01 A3002 RMK AO2
T01130005

[1115] KLRU 251715Z AUTO 23012G16KT 10SM BKN050 13/00 A3003 RMK
AO2 T01270002

[1135] KLRU 251735Z AUTO 24019G24KT 10SM SCT050 13/M01 A3002 RMK
AO2 T01301011

[1155] KLRU 251755Z AUTO 25018G26KT 10SM CLR 14/M02 A3001 RMK AO2
T01411016 10141 20051

[1215] KLRU 251815Z AUTO 24024G33KT 10SM CLR 14/M03 A3000 RMK AO2
T01421028

[1235] KLRU 251835Z AUTO 25021G27KT 10SM CLR 15/M03 A2999 RMK AO2
T01451029

[1255] KLRU 251855Z AUTO 24022G28KT 10SM CLR 15/M04 A2999 RMK AO2
T01501042

[1315] KLRU 251915Z AUTO 25016G28KT 10SM CLR 15/M04 A2998 RMK AO2
T01521043

[1335] KLRU 251935Z AUTO 27018G26KT 10SM CLR 15/M05 A2997 RMK AO2
T01531046

³ "Longline" refers to the dissemination of weather observations with the intent that they are available in near-real time to national databases (effectively, the whole world) and accessible to the general global public from a large number of vendors. This does not include public accessibility to observations from a reporting station's Very High Frequency (VHF; line-of-site) or telephone broadcast, where applicable. Longline-dissemination of weather observations is the primary vehicle through which the general global public has access to surface weather observations, particularly outside of the aviation community.

[1355] KLRU 251955Z AUTO 27022G31KT 10SM CLR 16/M04 A2997 RMK AO2 T01551043

[1415] KLRU 252015Z AUTO 26017G27KT 10SM SCT070 16/M04 A2996 RMK AO2 T01571040

[1435] KLRU 252035Z AUTO 25022G30KT 10SM BKN070 16/M04 A2996 RMK AO2 T01581042

[1455] KLRU 252055Z AUTO 26021G29KT 10SM BKN070 16/M04 A2996 RMK AO2 T01561040

[1515] KLRU 252115Z AUTO 27024G30KT 10SM BKN070 15/M04 A2996 RMK AO2 T01521037

[1535] KLRU 252135Z AUTO 26020G27KT 10SM SCT070 15/M04 A2996 RMK AO2 T01511041

[1555] KLRU 252155Z AUTO 28021G28KT 10SM CLR 15/M02 A2996 RMK AO2 T01501020

[1615] KLRU 252215Z AUTO 30012G23KT 10SM CLR 15/M01 A2997 RMK AO2 T01481015

[1635] KLRU 252235Z AUTO 29015G23KT 10SM CLR 14/M02 A2998 RMK AO2 T01431017

[1655] KLRU 252255Z AUTO 27016G23KT 10SM CLR 14/M01 A2999 RMK AO2 T01381015

[1715] KLRU 252315Z AUTO 28011G21KT 10SM CLR 13/M01 A2999 RMK AO2 T01341015

[1735] KLRU 252335Z AUTO 29012G19KT 10SM CLR 13/M01 A2999 RMK AO2 T01261015

[1755] KLRU 252355Z AUTO 29012G15KT 10SM CLR 12/M01 A3000 RMK AO2 T01201012 10160 20120

[1815] KLRU 260015Z AUTO 30007KT 10SM CLR 11/M01 A3000 RMK AO2 T01121014

[1835] KLRU 260035Z AUTO 31008KT 10SM CLR 11/M02 A3001 RMK AO2 T01061016

[1855] KLRU 260055Z AUTO 30008KT 10SM CLR 10/M02 A3002 RMK AO2 T01041016

An Automated Surface Observing Station (ASOS) was located at Fort Stockton-Pecos County Airport (FST), in Fort Stockton, Texas, which was located about 100 miles west-southwest of the accident site at an elevation of about 3,010 feet. It had a magnetic

variation of about 6°. Automated longline reports from the FST ASOS on the accident day are presented here.

[0853] KFST 251453Z AUTO 00000KT 10SM OVC019 09/04 A3005 RMK AO2
SLP157 T00890044 50003

[0953] KFST 251553Z AUTO 00000KT 10SM OVC016 10/05 A3004 RMK AO2
SLP152 T01000050

[1053] KFST 251653Z AUTO VRB03KT 10SM OVC020 12/07 A3003 RMK AO2
SLP145 T01170067

[1129] KFST 251729Z AUTO 13008KT 10SM SCT023 14/08 A3000 RMK AO2
T01390078

[1153] KFST 251753Z AUTO 13006KT 10SM CLR 16/08 A2999 RMK AO2 SLP129
T01560083 10156 20078 58018

[1253] KFST 251853Z AUTO 00000KT 10SM CLR 17/07 A2995 RMK AO2 SLP114
T01720072

[1353] KFST 251953Z AUTO VRB04KT 10SM CLR 18/07 A2992 RMK AO2
SLP102 T01780072

[1453] KFST 252053Z AUTO 35005KT 10SM CLR 18/08 A2990 RMK AO2 SLP094
T01830078 56030

[1553] KFST 252153Z AUTO 01005KT 10SM CLR 19/08 A2989 RMK AO2 SLP092
T01890078

[1653] KFST 252253Z AUTO 03011KT 10SM FEW085 18/09 A2990 RMK AO2
SLP097 T01780089

[1753] KFST 252353Z AUTO 03008KT 10SM SCT090 16/09 A2992 RMK AO2
SLP106 T01560089 10194 20156 53008

[1853] KFST 260053Z AUTO 03012KT 10SM BKN080 13/09 A2996 RMK AO2
SLP120 T01330089

An AWOS was located at Ozona Municipal Airport (OZA) in Ozona, Texas, which was located about 40 miles south-southwest of the accident site at an elevation of about 2,375 feet. It had a magnetic variation of about 5°. Automated longline reports from the OZA AWOS on the accident day are presented here.

[0910] KOZA 251510Z AUTO 14009KT 10SM OVC009 11/08 A3010 RMK AO2

[0930] KOZA 251530Z AUTO 16010KT 10SM OVC011 11/08 A3010 RMK AO2

[0950] KOZA 251550Z AUTO 16012G17KT 10SM OVC011 11/08 A3010 RMK
AO2

[1010] KOZA 251610Z AUTO 16012KT 10SM OVC009 11/08 A3010 RMK AO2
[1030] KOZA 251630Z AUTO 17011G15KT 10SM OVC011 12/08 A3010 RMK
AO2
[1050] KOZA 251650Z AUTO 16012G16KT 10SM OVC011 12/08 A3009 RMK
AO2
[1110] KOZA 251710Z AUTO 17009KT 10SM OVC011 12/08 A3009 RMK AO2
[1130] KOZA 251730Z AUTO 17009G15KT 10SM OVC011 12/08 A3008 RMK
AO2
[1150] KOZA 251750Z AUTO 16011KT 10SM OVC011 12/08 A3007 RMK AO2
[1210] KOZA 251810Z AUTO 17010KT 10SM OVC011 12/08 A3006 RMK AO2
[1230] KOZA 251830Z AUTO 17014KT 10SM OVC011 12/08 A3004 RMK AO2
[1250] KOZA 251850Z AUTO 17011KT 10SM OVC011 12/08 A3002 RMK AO2
[1310] KOZA 251910Z AUTO 17011KT 10SM OVC011 12/09 A3002 RMK AO2
[1330] KOZA 251930Z AUTO 18010G15KT 7SM OVC011 13/09 A3001 RMK
AO2
[1350] KOZA 251950Z AUTO 18012G17KT 10SM OVC011 13/10 A3000 RMK
AO2
[1410] KOZA 252010Z AUTO 18010G15KT 10SM OVC011 13/10 A2999 RMK
AO2
[1430] KOZA 252030Z AUTO 18010G14KT 10SM OVC011 13/10 A2998 RMK
AO2
[1450] KOZA 252050Z AUTO 18012G15KT 10SM OVC011 13/10 A2998 RMK
AO2
[1510] KOZA 252110Z AUTO 18010KT 10SM OVC009 12/10 A2998 RMK AO2
[1530] KOZA 252130Z AUTO 18011KT 10SM OVC009 12/10 A2998 RMK AO2
[1550] KOZA 252150Z AUTO 18012KT 10SM OVC009 12/10 A2998 RMK AO2
[1610] KOZA 252210Z AUTO 16009KT 10SM OVC009 12/10 A2998 RMK AO2
[1630] KOZA 252230Z AUTO 19011KT 10SM OVC009 12/10 A2998 RMK AO2
[1650] KOZA 252250Z AUTO 18011KT 10SM OVC009 12/10 A2998 RMK AO2
[1710] KOZA 252310Z AUTO 17008KT 10SM OVC009 12/10 A2998 RMK AO2
[1730] KOZA 252330Z AUTO 14005KT 10SM OVC009 12/10 A2998 RMK AO2
[1750] KOZA 252350Z AUTO 15005KT 10SM OVC009 12/10 A2998 RMK AO2
[1810] KOZA 260010Z AUTO 16008KT 5SM BR BKN007 OVC011 12/11 A2999
RMK AO2

[1830] KOZA 260030Z AUTO 18008KT 7SM OVC005 12/11 A3000 RMK AO2
[1850] KOZA 260050Z AUTO 17007KT 10SM OVC005 12/11 A3000 RMK AO2

An ASOS was located at San Angelo Regional Airport (Mathis Field; SJT) in San Angelo, Texas, which was located about 26 miles east of the accident site at an elevation of about 1,920 feet. It had a magnetic variation of about 5°. Automated longline reports from the SJT ASOS on the accident day are presented here.

[0851] KSJT 251451Z 14004KT 10SM FEW021 OVC043 11/06 A3010 RMK AO2
SLP188 T01060061 53005
[0933] KSJT 251533Z 12006KT 10SM FEW021 BKN026 OVC033 11/07 A3010
RMK AO2 RAB16E25 P0000 T01060067
[0951] KSJT 251551Z 14007KT 10SM OVC022 11/07 A3010 RMK AO2
RAB16E25 SLP188 P0000 T01110067
[1051] KSJT 251651Z 14007KT 10SM BKN019 OVC027 12/07 A3009 RMK AO2
SLP183 T01170067
[1151] KSJT 251751Z 14011KT 10SM OVC019 12/08 A3006 RMK AO2 SLP175
60000 T01220078 10122 20089 58013
[1251] KSJT 251851Z 14009KT 10SM OVC016 12/08 A3002 RMK AO2 SLP163
T01220083
[1301] KSJT 251901Z 14007KT 10SM OVC014 12/08 A3001 RMK AO2
T01170083
[1351] KSJT 251951Z 16007KT 10SM OVC013 12/09 A2999 RMK AO2 SLP152
T01170089
[1451] KSJT 252051Z 16006KT 10SM OVC013 12/09 A2997 RMK AO2 SLP147
T01220089 56028
[1551] KSJT 252151Z 18006KT 10SM OVC012 12/09 A2997 RMK AO2 SLP145
T01220094
[1651] KSJT 252251Z 00000KT 10SM OVC014 12/09 A2997 RMK AO2 SLP145
T01220094
[1706] KSJT 252306Z 16003KT 10SM OVC015 12/09 A2996 RMK AO2
T01220094
[1753] KSJT 252351Z 00000KT 10SM OVC016 12/09 A2997 RMK AO2 SLP145
T01220094 10122 20117 56001
[1851] KSJT 260051Z 00000KT 10SM OVC016 12/09 A2999 RMK AO2 SLP151
T01220094

2.0 AWC Ceiling and Visibility Analyses

Figures 1-22 present model-derived ceiling and visibility analyses available from the Aviation Weather Center (AWC) website between 0900 and 1900 on the accident day.

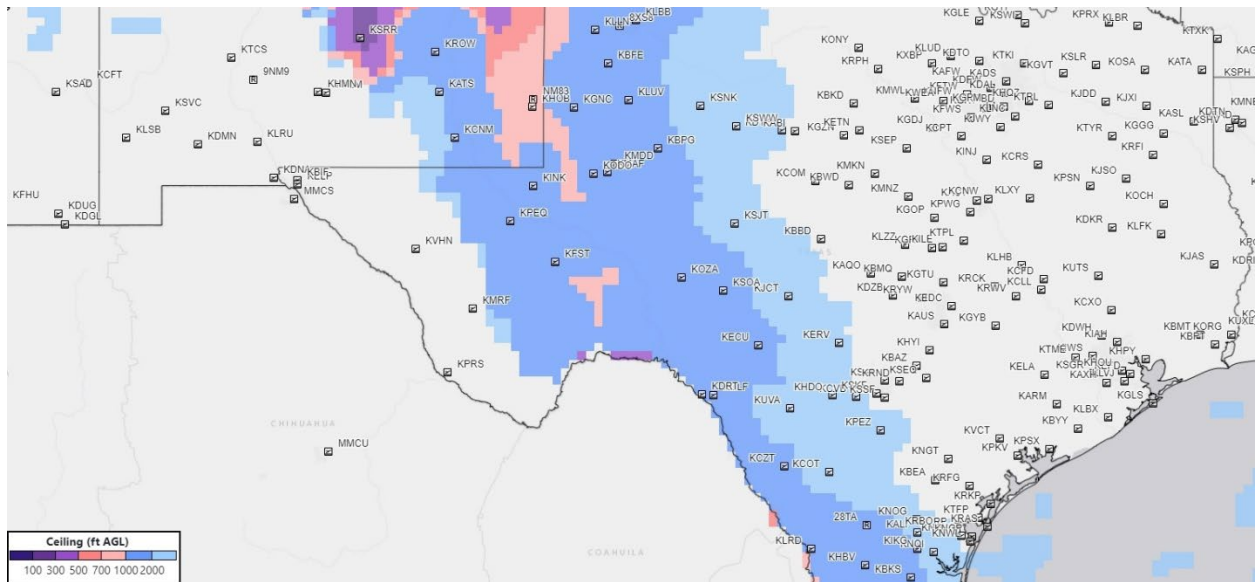


Figure 1 - Ceiling analysis from the AWC website valid at 0900.

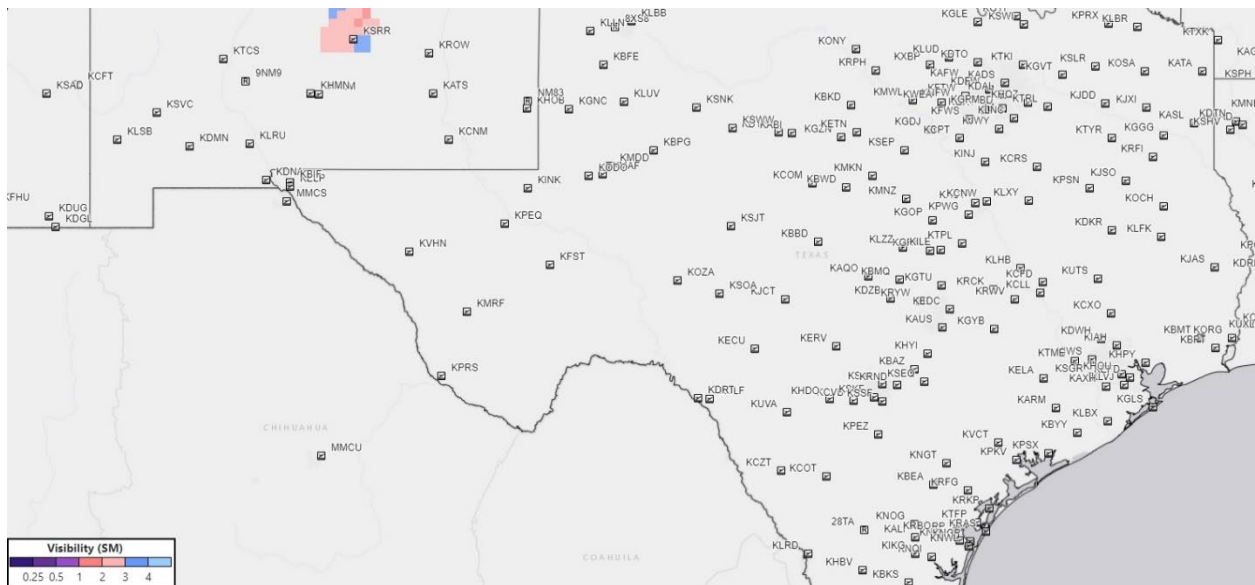


Figure 2 - Visibility analysis from the AWC website valid at 0900.

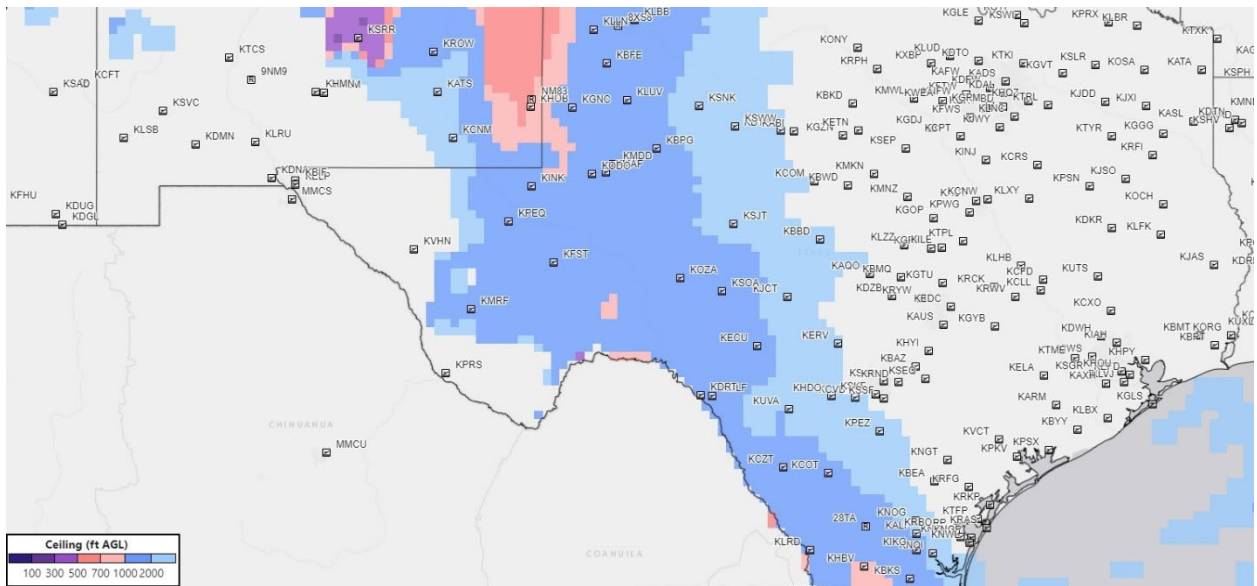


Figure 3 - Ceiling analysis from the AWC website valid at 1000.

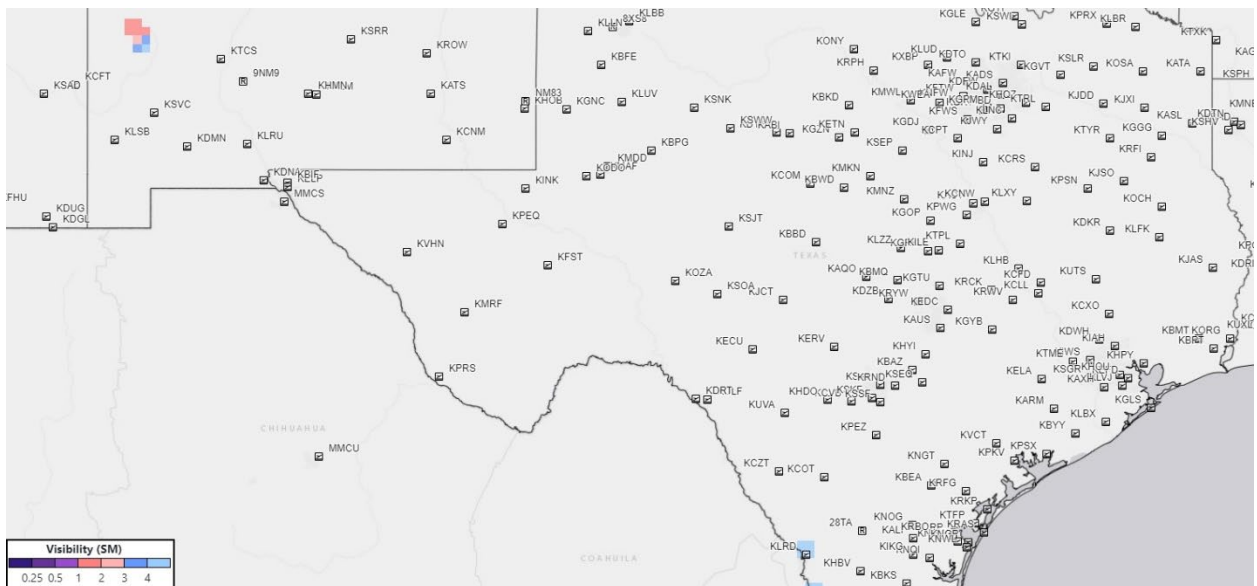
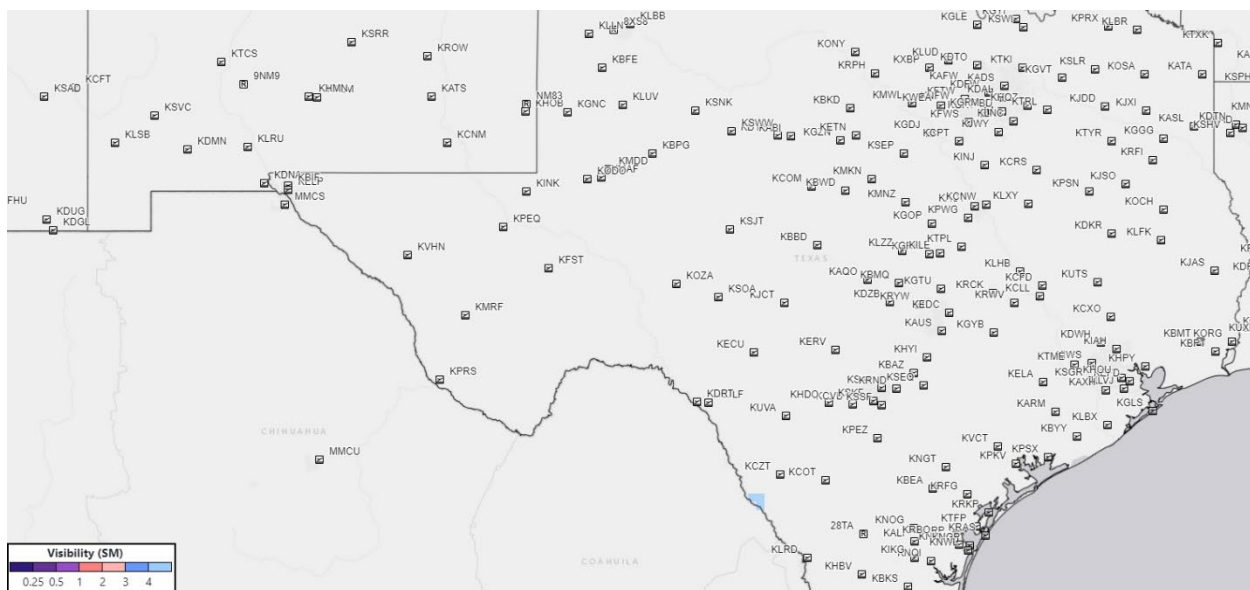
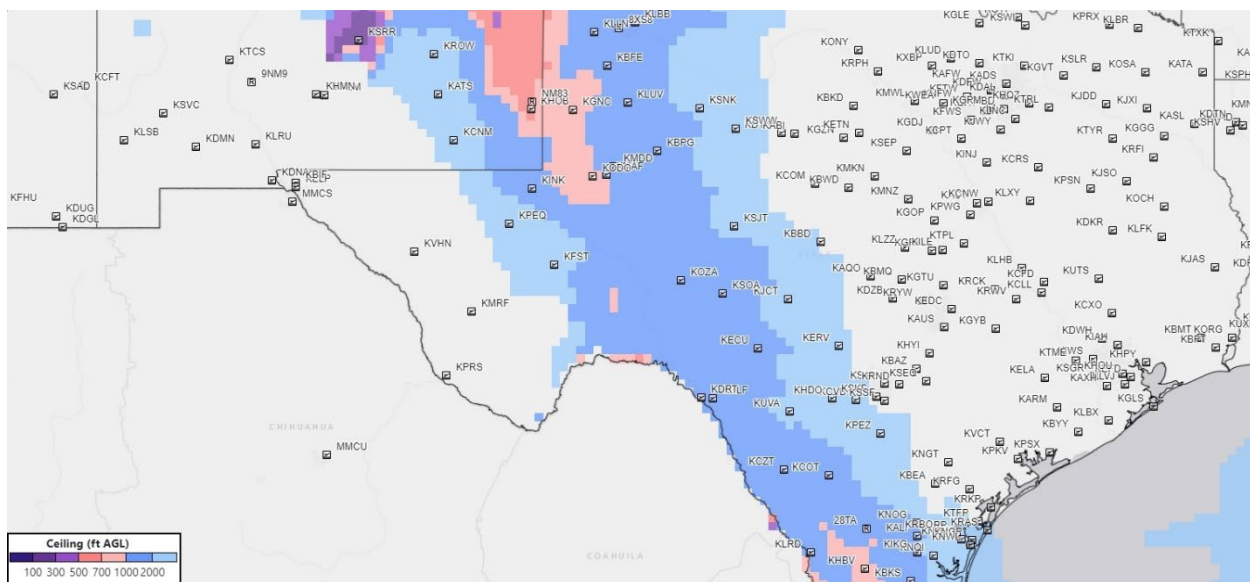
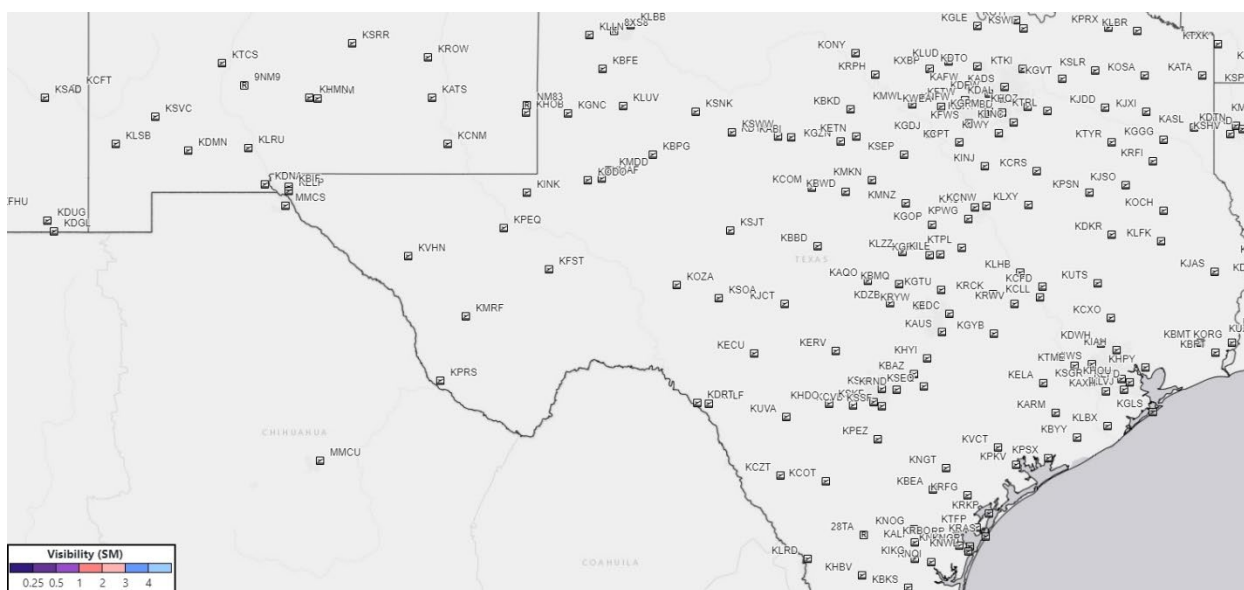
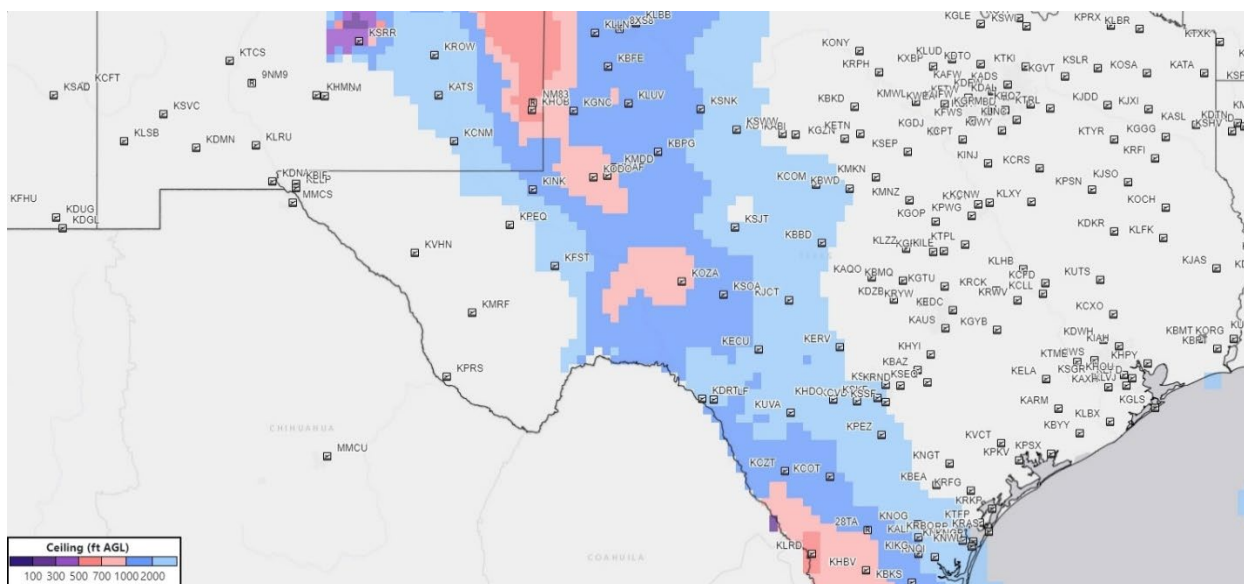


Figure 4 - Visibility analysis from the AWC website valid at 1000.





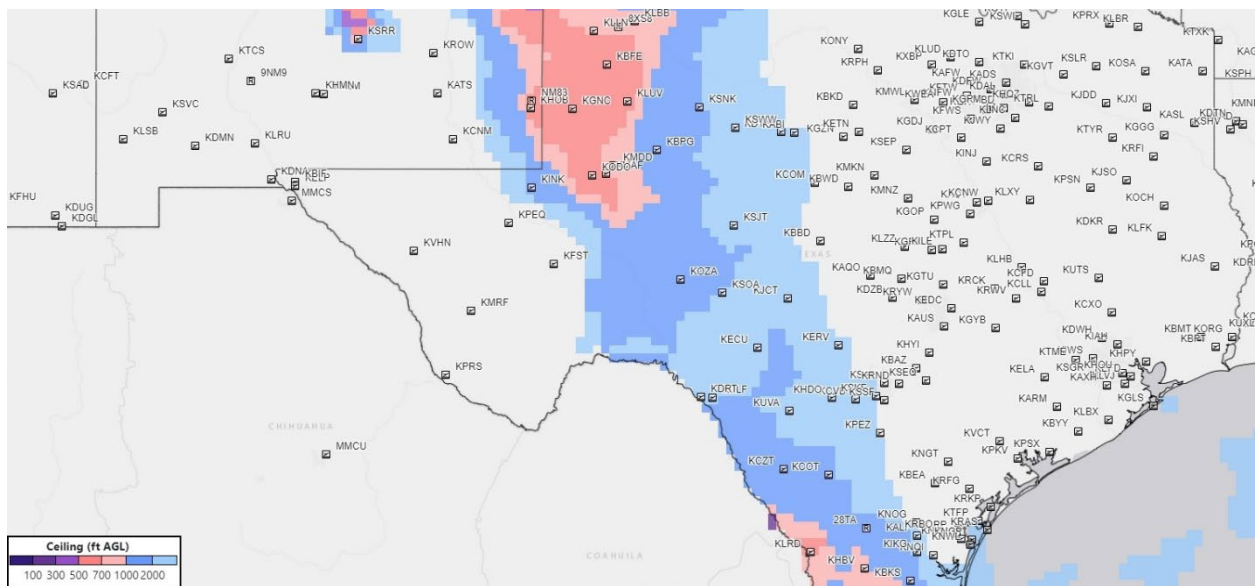


Figure 9 - Ceiling analysis from the AWC website valid at 1300.

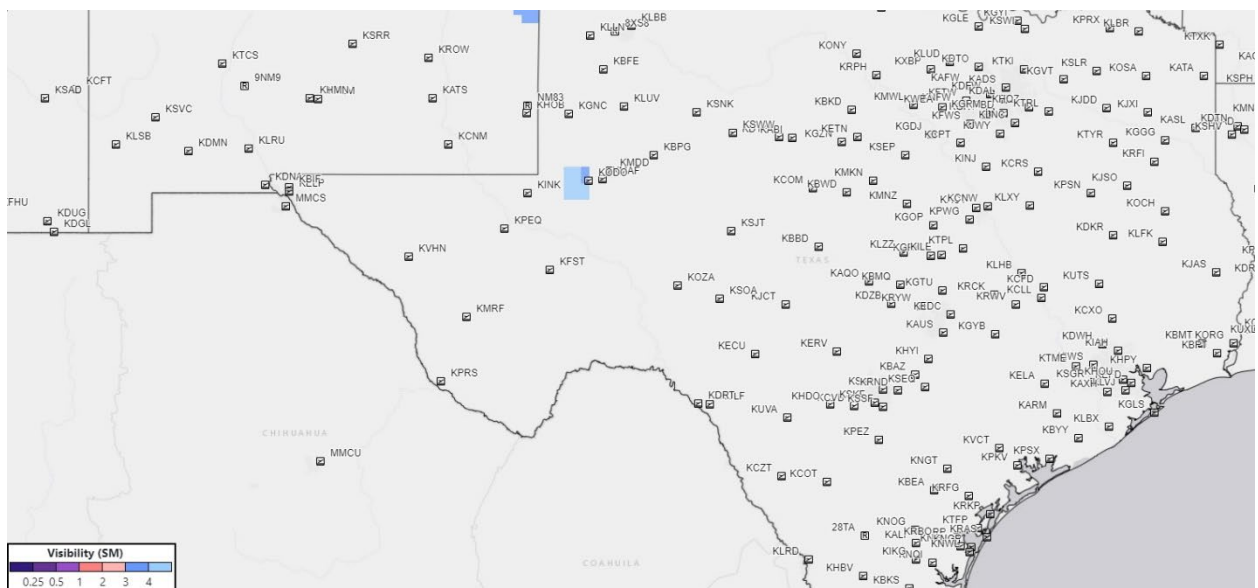


Figure 10 - Visibility analysis from the AWC website valid at 1300.

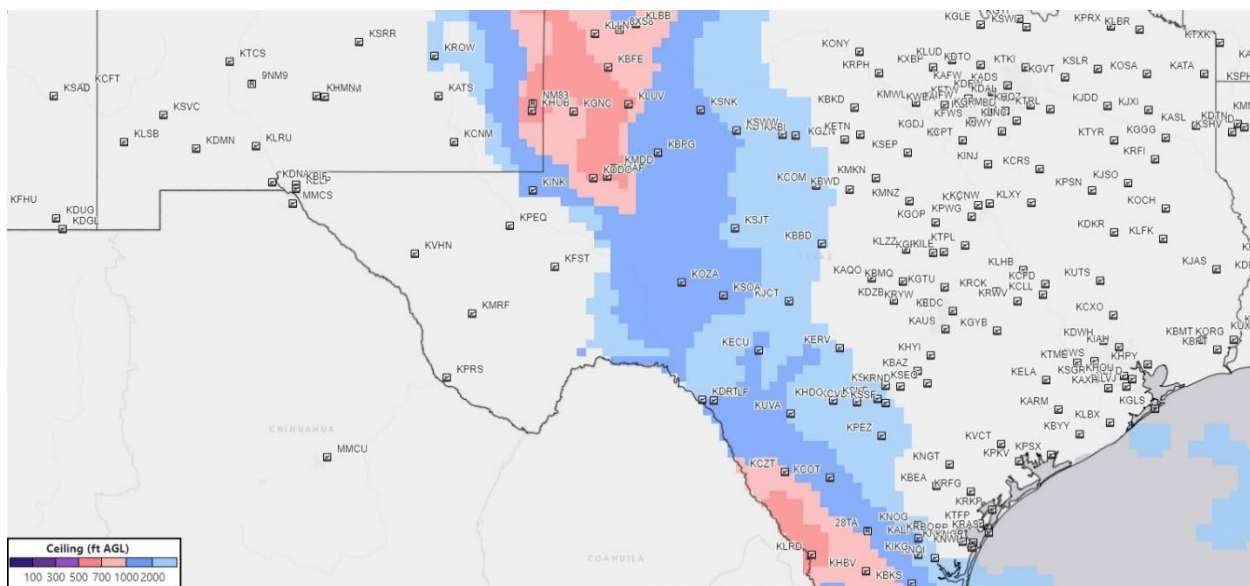


Figure 11 - Ceiling analysis from the AWC website valid at 1400.

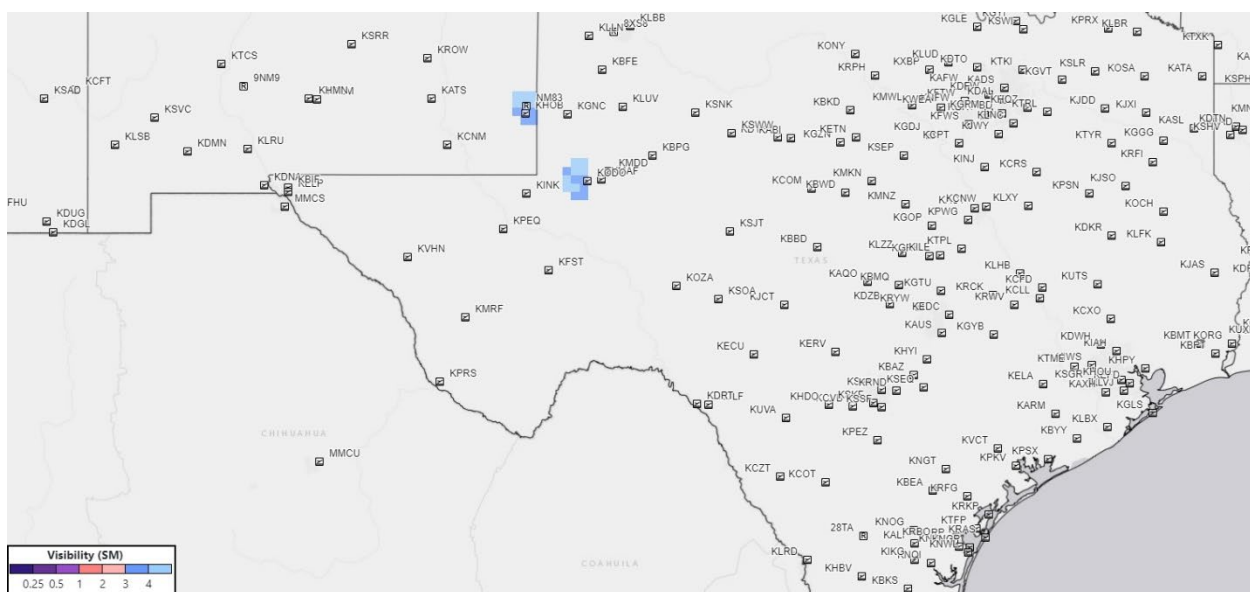


Figure 12 - Visibility analysis from the AWC website valid at 1400.

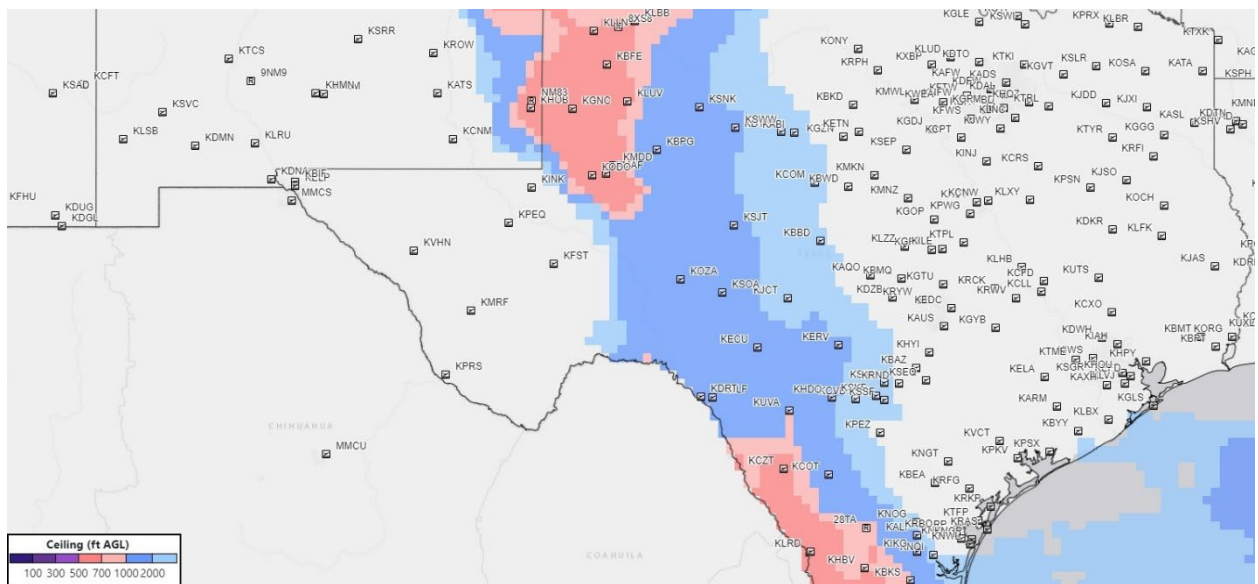


Figure 13 - Ceiling analysis from the AWC website valid at 1500.

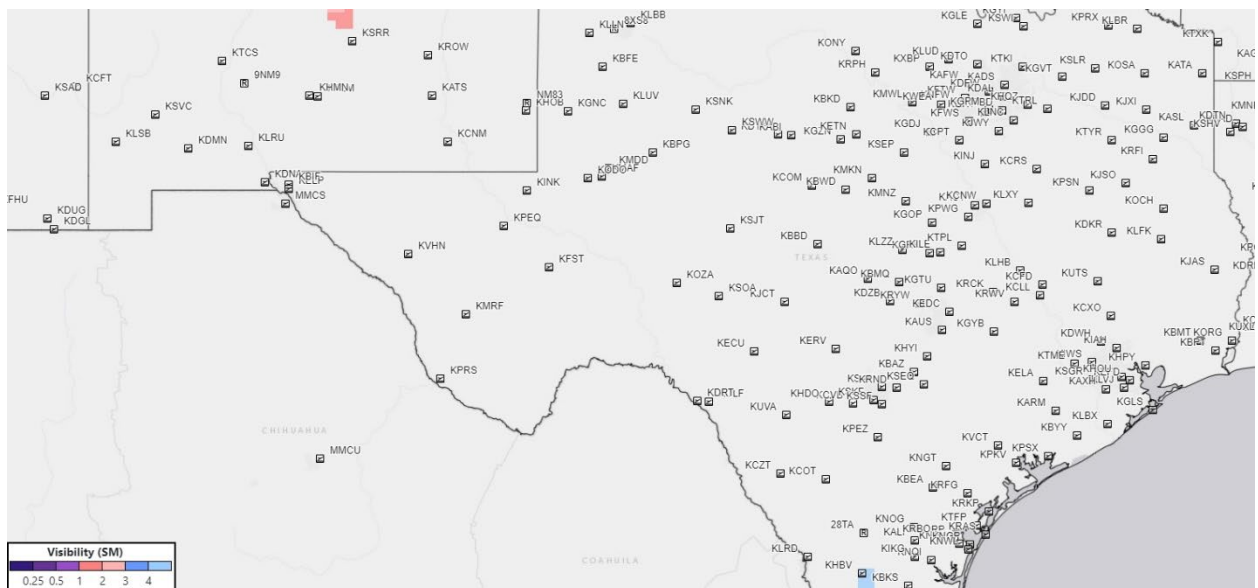


Figure 14 - Visibility analysis from the AWC website valid at 1500.

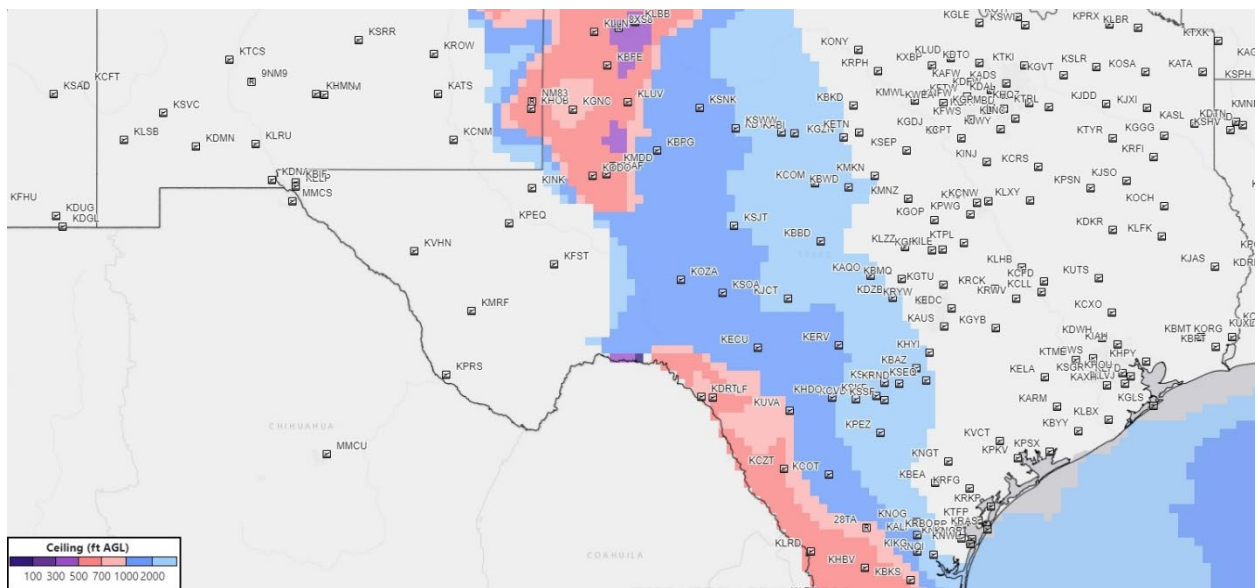


Figure 15 - Ceiling analysis from the AWC website valid at 1600.

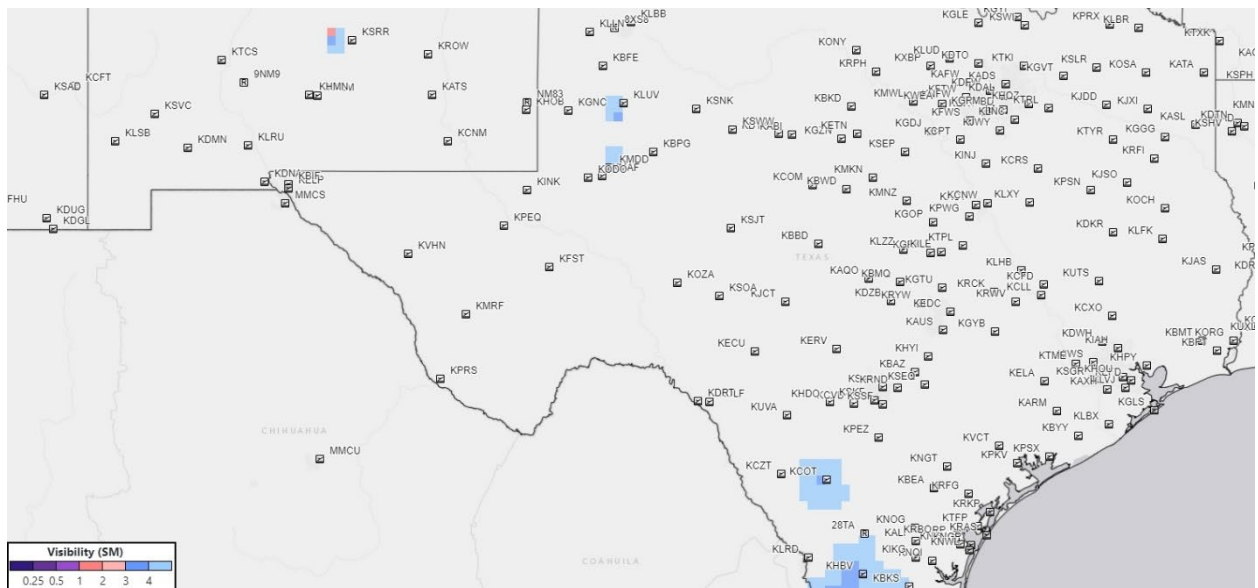


Figure 16 - Visibility analysis from the AWC website valid at 1600.

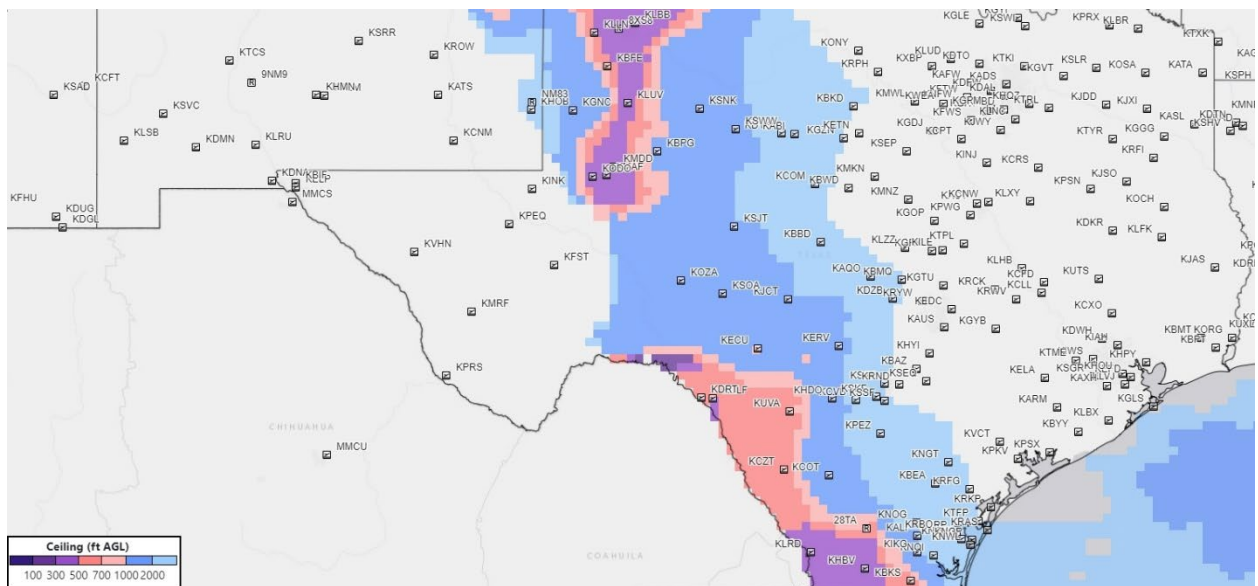


Figure 17 - Ceiling analysis from the AWC website valid at 1700.

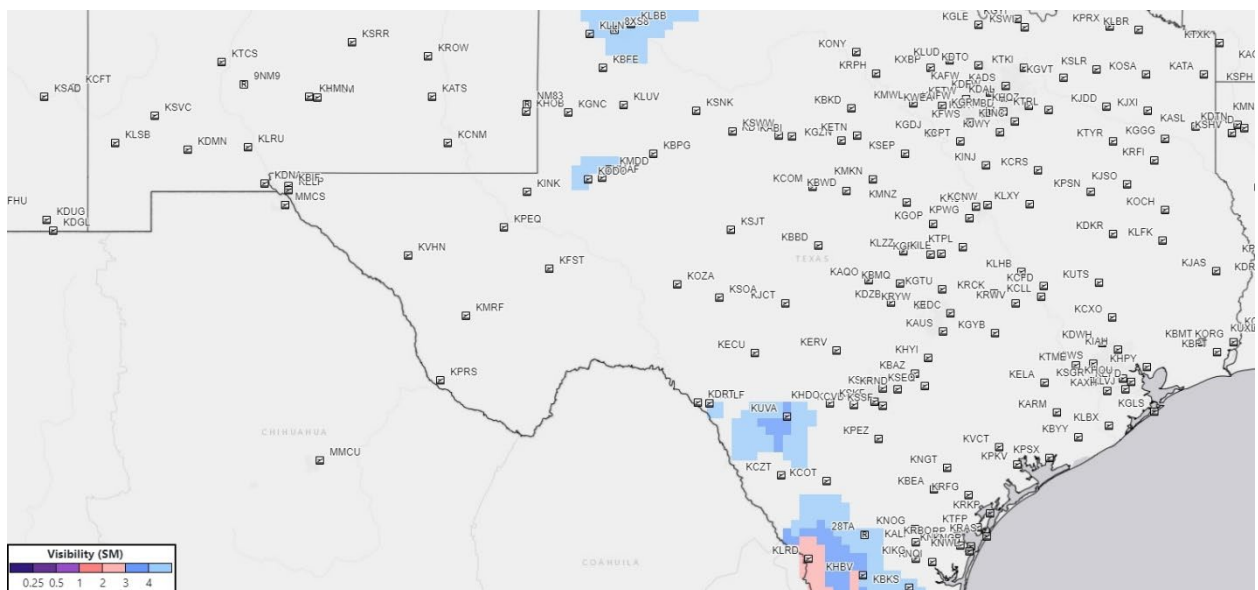


Figure 18 - Visibility analysis from the AWC website valid at 1700.

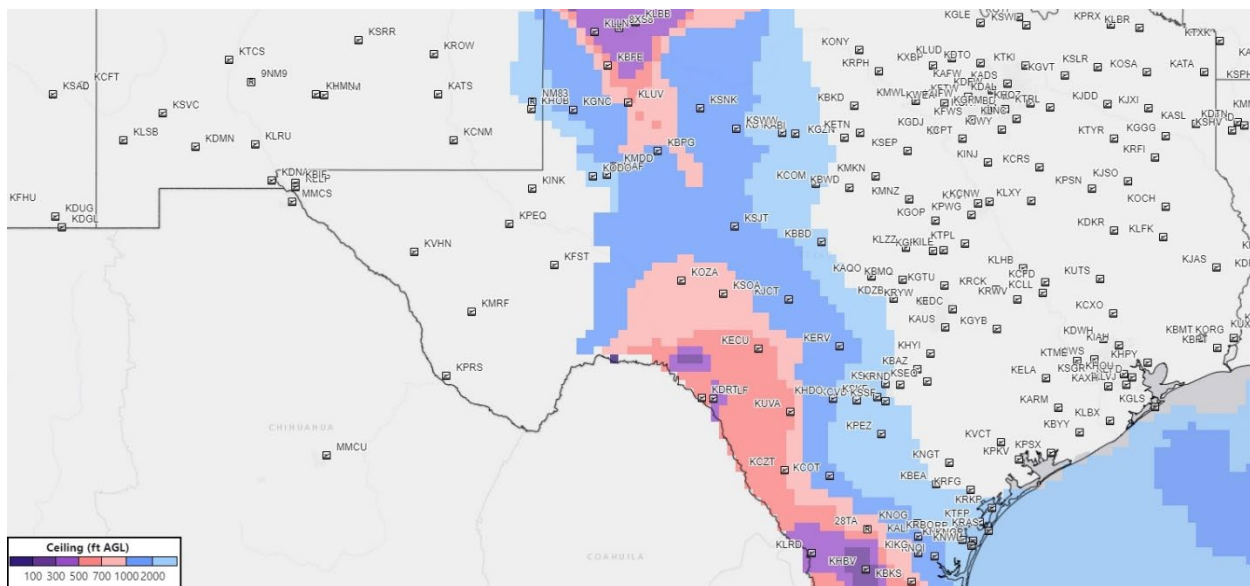


Figure 19 - Ceiling analysis from the AWC website valid at 1800.

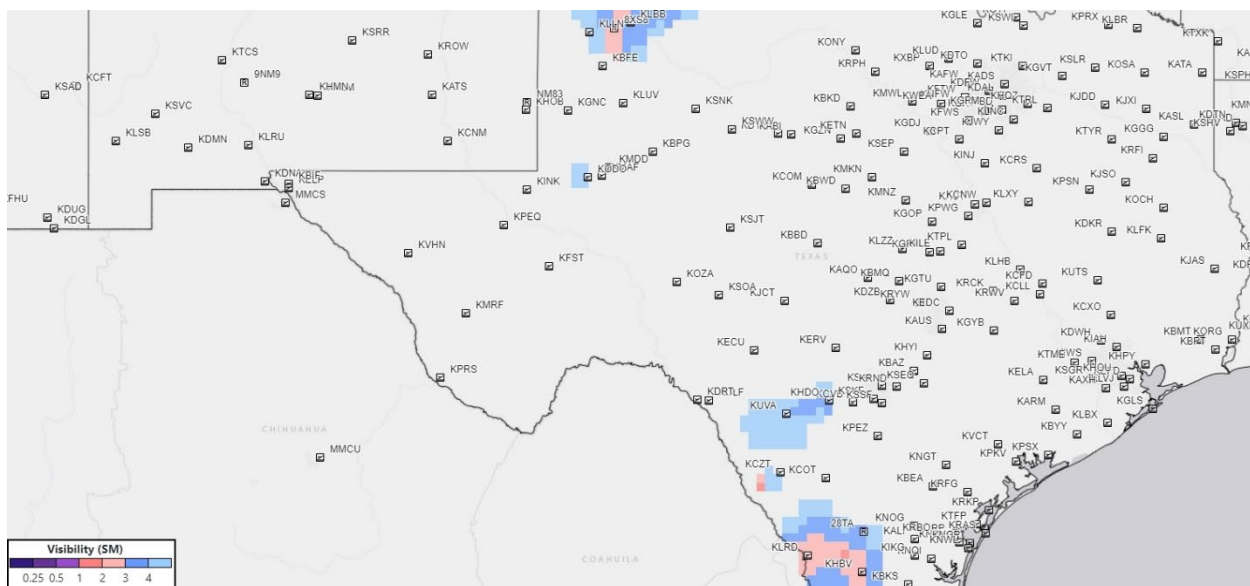


Figure 20 - Visibility analysis from the AWC website valid at 1800.

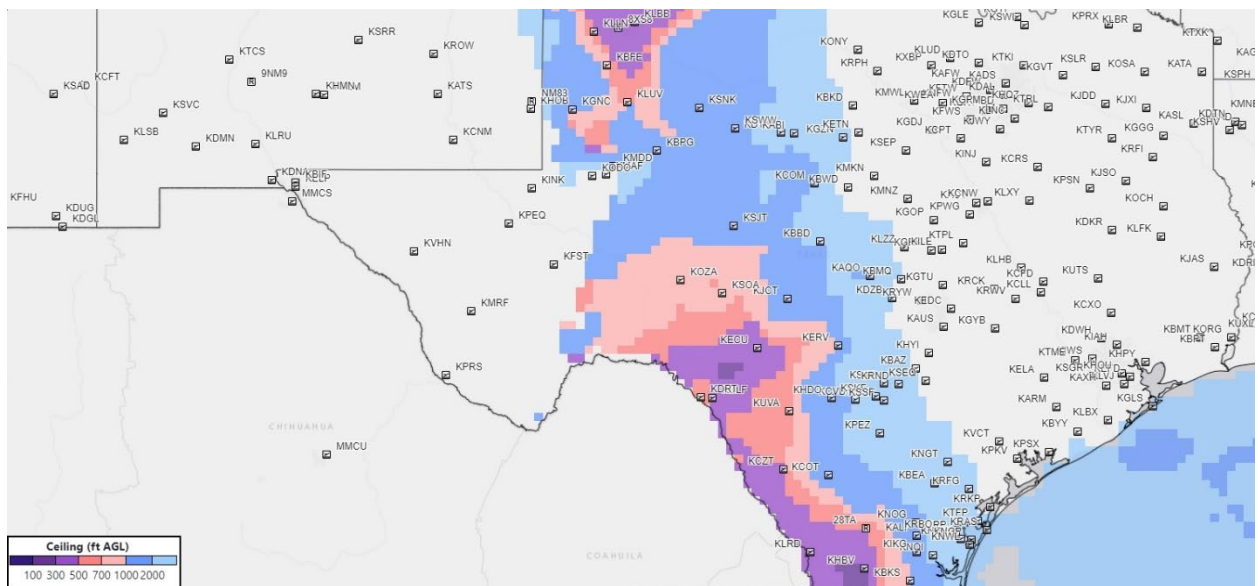


Figure 21 – Ceiling analysis from the AWC website valid at 1900.

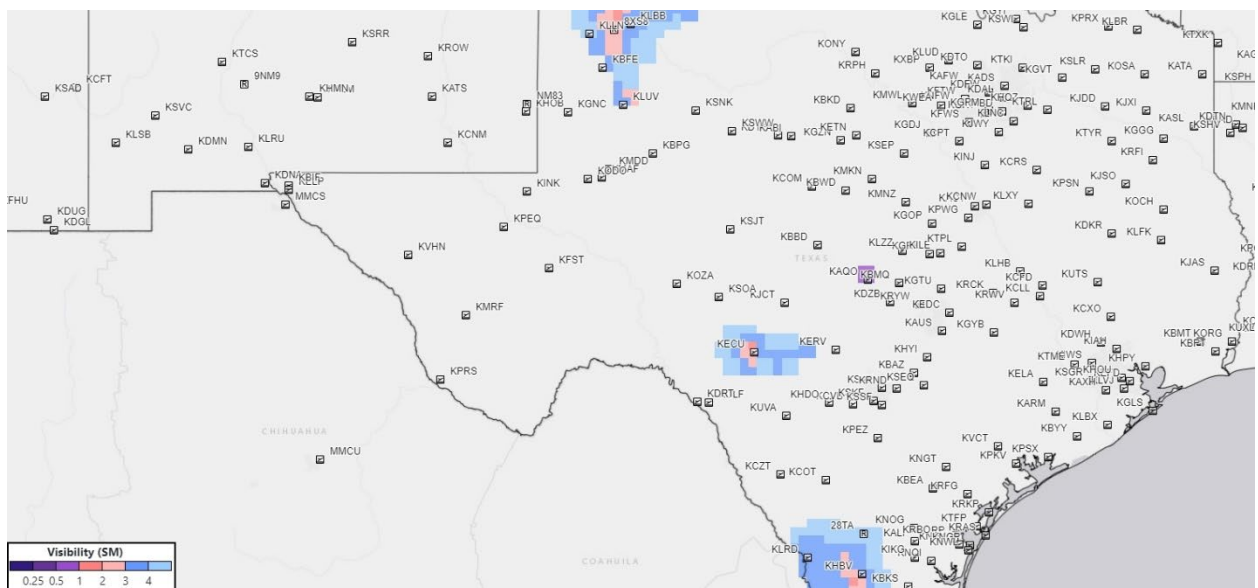


Figure 22 – Visibility analysis from the AWC website valid at 1900.

Submitted by:

Mike Richards
Senior Meteorologist