
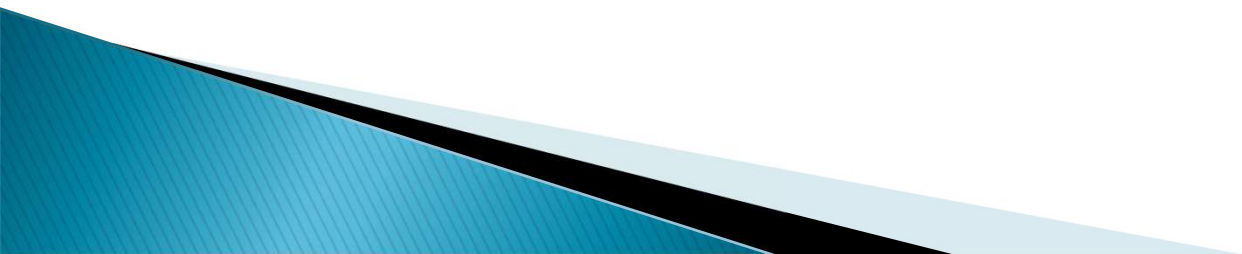


Weather Sources for Pilots

Sources of Pilot Weather Information

- Pre-flight Weather Sources
 - Approved FAA Weather Sources
 - In-Flight Weather Sources
 - Enroute Flight Advisory Service (EFAS)
 - Weather Radar Services
 - Automated Weather Reporting Systems
 - Weather-related Accident Stats and Data
- 

Preflight Weather Sources



WX Briefing – Make it Official and “Recorded”

- Weather briefing sources vary but only three are official FAA “recorded” sources to include **Flight Service Stations** (1-800-WXBRIEF number), **Leidos 1800wxbrief.com** (website) **Aviation Weather Center (AWC)** (website), Foreflight WX (EFB)
- A FSS Standard Briefing includes:
 - Adverse Weather
 - Synopsis
 - Current Conditions
 - Enroute Forecast
 - Destination Forecast
 - Alternate Planning
 - Winds Aloft
 - Notice to Airmen
- It is highly recommended to use all sources of weather information to supplement the official information you receive from FSS or Leidos.
- Note 14 CFR 91.103(a) preflight action


Types of WX Briefings

- Standard Briefing
- Outlook Briefing
- Abbreviated Briefing

Preliminary Flight Planning - Getting the Big Picture

- **Media sources include the following:**
 - Newspaper weather maps
 - TV and radio weather reports, such as The Weather Channel
 - The Internet, Weather App on smartphone
- **Obtain an “Official” Standard Briefing**
- **Recorded or electronic weather sources include the following:**
 - Leidos FSS website: www.1800wxbrief.com
 - AWC – <https://aviationweather.gov>
 - EFB - Foreflight pulls WX data from approved FAA source
 - Telephone or electronic means include the following:
 - FSS (800) WX-BRIEF

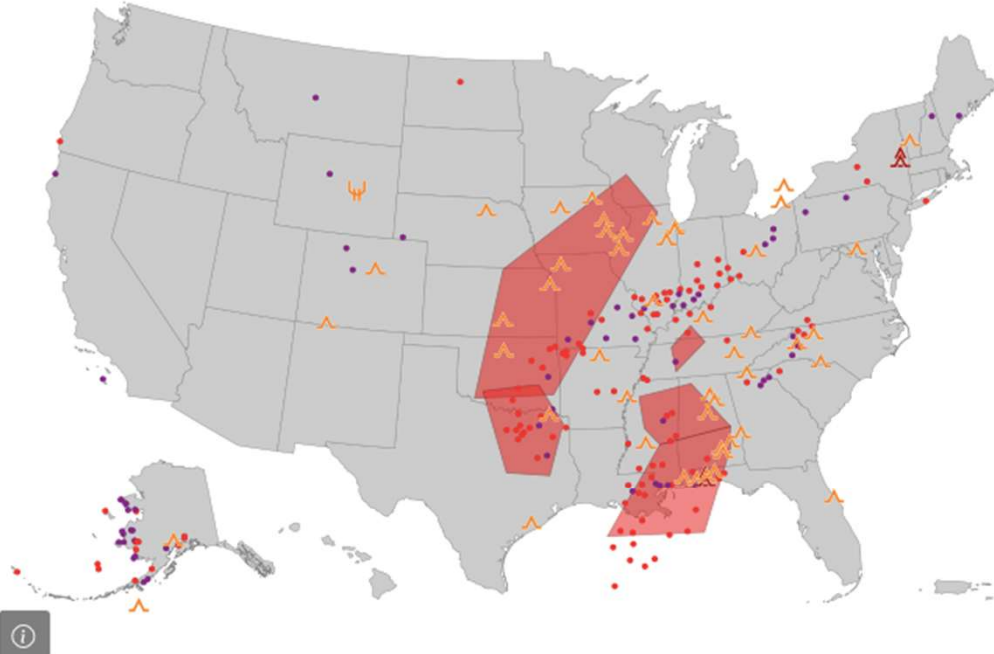
Aviation Weather Center (AWC)




Aviation Weather Center Weather Products Tools Connect

Where to Find Things
Check out the [help pages](#) for more on how everything is organized.

Current Conditions

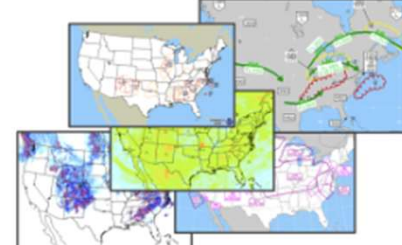


Graphical Forecasts for Aviation



Interactive maps of aviation forecasts and observations

Decision Support Imagery



Static DSS images to embed in briefing material

Station data

IDs:

Raw Decoded Remember

Where is...?

- Fully integrated GFA maps – accessed through the Weather menu
- HEMS Tool is now [GFA-LA](#) – all of the same features and more
- Radar, satellite, METARs, and other current data on the [observation map](#)

Pilot and Aviation Weather Apps

AT&T 10:51 AM 40%

Stations (26) Edit

Bedford, Hanscom Field KBED
 ▼ 350° 8 kts 30.9°F VFR
 59%
 10.0 miles 30.70 inHg
 overcast clouds at 3700 feet 55 min

Boston, Logan International Ai... KBOS
 ▼ 010° 11 kts 34.0°F VFR
 55%
 10.0 miles 30.71 inHg
 overcast clouds at 3600 feet 57 min

Fitchburg, Fitchburg Municipal... KFIT
 ▼ 010° 7 kts 30.9°F VFR
 50%
 10.0 miles 30.72 inHg
 overcast clouds at 3600 feet 59 min

Nashua, Boire Field Airport KASH
 ▼ 360° 4 kts 29.1°F VFR
 50%
 10.0 miles 30.74 inHg
 broken clouds at 3700 feet 60 min

Lawrence, Lawrence Municipa... KLWM

Updated 12/2/14, 10:50 AM

AT&T 10:51 AM 40%

Stations (26) **BED-KBED**

Bedford, Hanscom Field
 MA, UNITED STATES 6:23 AM → 6:55 AM
 Local Time: 10:51 AM (2.) 4:13 PM → 4:44 PM
 UTC: 15:51 (2.) All times local

METAR at: 09:56 AM LT (2.) VFR
 55 minutes old AUTO

Wind: 350° (N) at 8 knots
 Visibility: 10.0 miles
 Clouds: overcast clouds at 3700 feet
 Temp.: 30.9°F, Dewpoint 17.1°F, RH 59%
 Pressure: 30.70 inHg
 Remarks: AO2 SLP413 T10061083 51016 TSNO

Station elevation 134 ft
 Pressure altitude -587 ft
 Density altitude -2639 ft
 Freezing level (ISA) n/a

TAF issued at: 06:20 AM LT (2.)
 Forecast from 07:00 AM (2.) to 07:00 AM (3.):
 020° (NNE) at 5 knots

Raw Decoded

AT&T 10:53 AM 40%

Close **Results** Archive

DTC QUAT Transaction 0304068 12/03/2014 15002

All Reports: FA AC WW YH WS WST CWA
 WA METAR UA SD TAF PD TFR
 NOTAM FDC FDCG ATC

Standard Route Briefing Depart:BED Arrive:ASH
 Route:DIRECT
 ADVERSE CONDITIONS

SYNOPSIS AND VFR CLOUDS/WEATHER FORECASTS

BOSC FA 021159 COR
 SYNOPSIS AND VFR CLDS/WX
 SYNOPSIS VALID UNTIL 030400
 CLDS/WX VALID UNTIL 022200...OTLK VALID 022200-030400
 ME NH VT MA RI CT NY LD NJ PA OH LE WV MD DC DE VA AND CSTL WTRS
 SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
 TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
 NON HSL HOTS DENOTED BY AGL OR CIG.

SYNOPSIS...CDFNT ALG INTL WTRS BNDRY-NERN NC FCST BECMG MRMFNT
 02-04Z ALG SWRN VA-NRN NC-NJ WTRS LN. HIGH PRES THRUT NEW ENG
 FCST 04Z SRN ME-WRN MA-WRN NY.

NH VT...SCT040 BKN060 TOP 140. ISOL -SHSN. 15Z SCT060-070.
 OTLK...VFR 02Z MVFR CIG 5R.
 S HLF...BKN050 TOP 140 BKN CI. BECMG 1315 SCT130-150. 20Z SCT035
 BKN060 TOP 150. BKN CI. OTLK...VFR 02Z MVFR 5N CIG.

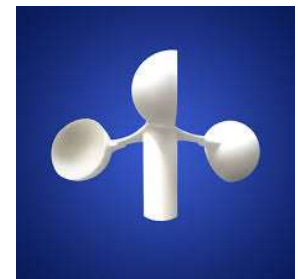
MA RI CT
 CAPE COD...SCT025 OVC080 LYRD FL250. WDLY SCT -SHRA. BECMG 1315
 BKN020-030. OTLK...MVFR CIG SHRA.
 RI-RMNOR E HLF MA...BKN130 LYRD FL250. BECMG 1517 BKN030.
 OTLK...MVFR CIG SHRASN.
 CT-W HLF MA...BKN150 LYRD FL250. BECMG 1921 BKN035. OTLK...MVFR
 CIG PCPN.

CSTL WTRS
 N OF ACK...SCT040-050 BKN CI. 14Z SCT-BKN120 LYRD FL250. BECMG
 1820 OVC025. OCNL -RA. OTLK...MVFR CIG RASH BR.
 ACK 540...BKN025 OVC040 TOP FL250. OCNL VIS 3-5SM -RA BR.
 OTLK...MVFR CIG RA BR.

SEVERE WEATHER OUTLOOKS

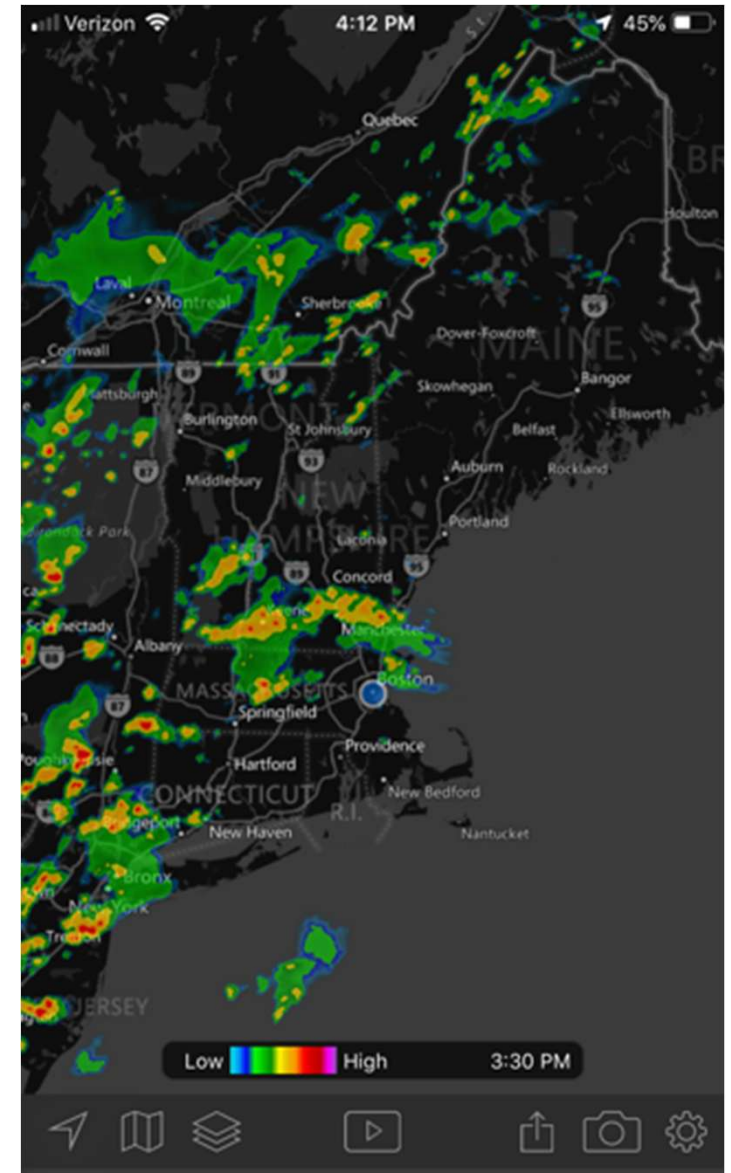
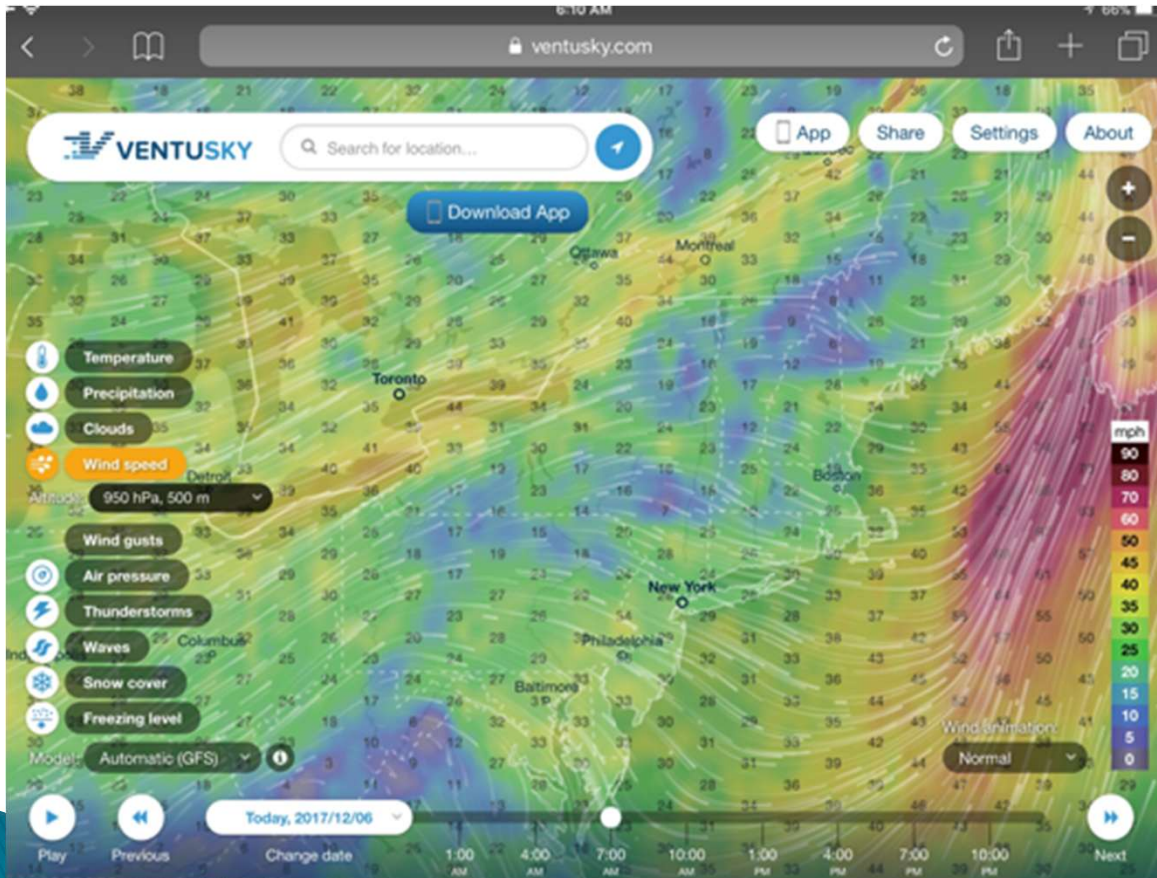
SPC AC 021255

AeroWeather Lite (free app)



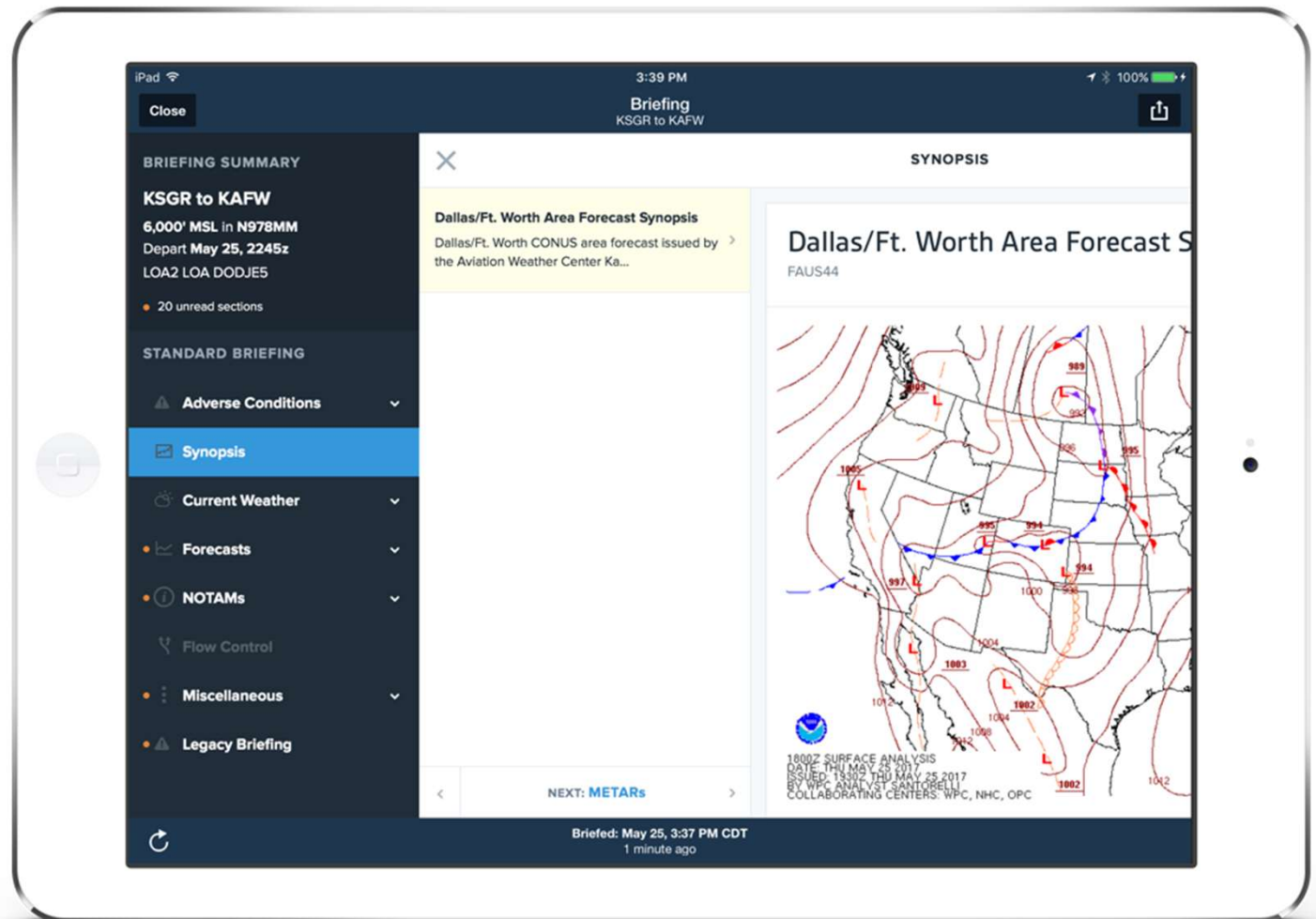
Pilot and Aviation Weather Apps

MyRadar
Ventusky, Windy.com



Pilot and Aviation Weather Apps


ForeFlight Weather



In-flight Weather Sources



Types of Inflight WX Briefings

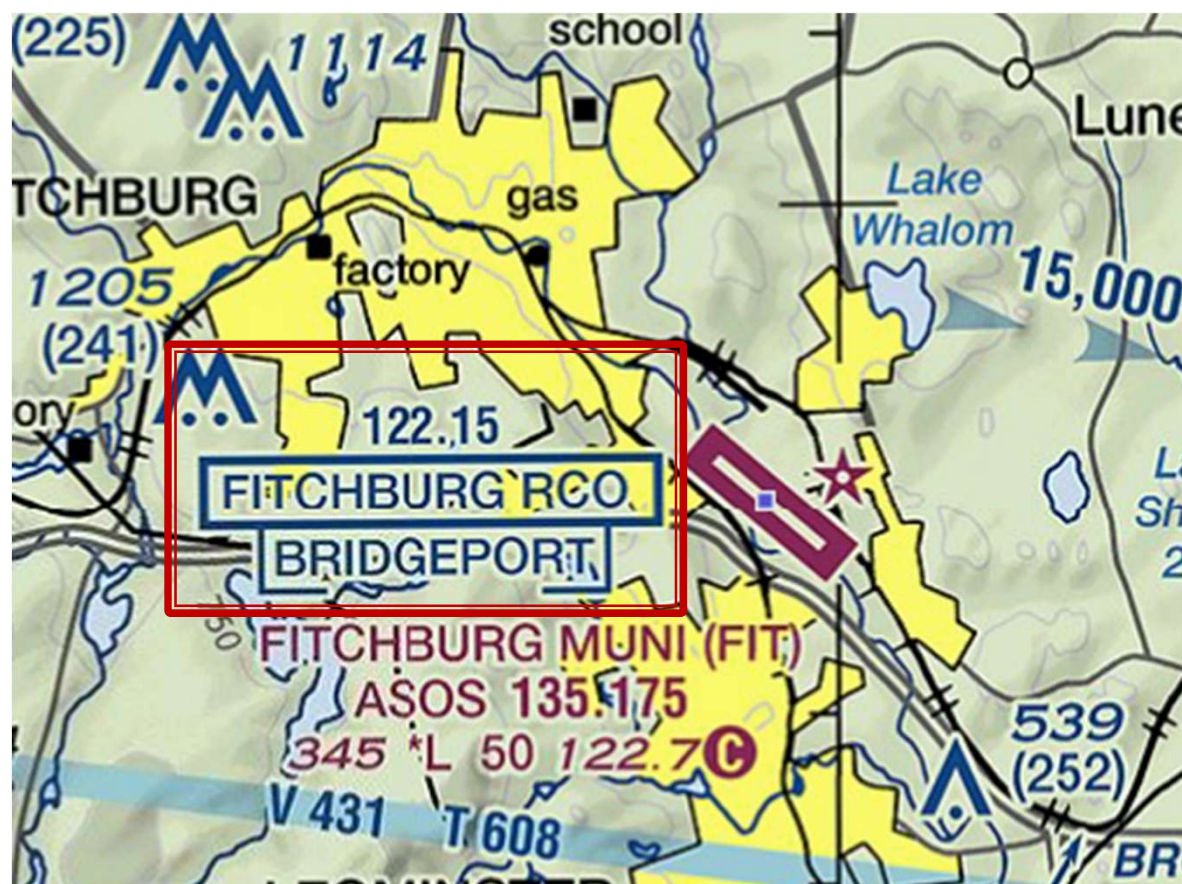
- In-Flight Briefing (FSS)
 - En route Flight Advisory Service (EFAS) 122.2 and charted frequencies (RCO – remote communications outlets) for FSS
 - Note: Flight Watch 122.0 is discontinued
 - Electronic Flight Bags (EFB)
 - Flight Information Services-Broadcast (FIS-B), via ADS-B receiver.
 - ADS-B (Airborne Surveillance-Transponder) weather in the cockpit comes from the Flight Information Service Broadcast (FIS-B). This includes radar, METARs, TAFs, and other weather information.
 - In-Flight DataLink Weather (XM Weather)
- 

Inflight WX – What's the issue here?



Chartered FSS Frequency Example

In-Flight Briefing with Bridgeport FSS over Fitchburg (KFIT) – call via aircraft radio on 122.15



G1000 with NEXRAD WX



FAA ADS-B In-Flight Cockpit WX and Traffic

- ADS-B (Automatic Dependent Surveillance-Broadcast) weather and traffic information to all aircraft equipped with an ADS-B receiver
- Flight Information Service-Broadcast (FIS-B). FIS-B provides regional and continental NEXRAD radar imagery from the National Weather Service, as well as NOTAMs, METARs, TAFs, PIREPs, winds aloft and other valuable in-flight weather services. FIS-B also includes information on temporary flight restrictions (TFR) and special use airspaces (SUA)



Weather-related Accident Stats and Data



Aircraft Weather-Related Accidents

Hazard	Percentage of weather-related accidents	Percentage of all accidents	Percentage of accidents which are fatal	Percentage of weather-related fatalities	Percentage of all fatalities
Ceiling, visibility and precipitation	26.5	7.0	66.9	70.6	27.5
Temperature, humidity, and pressure*	19.4	5.1	23.1	18.2	7.1
Wind	57.0	15.0	7.8	15.4	6.0
Turbulence	5.2	1.4	47.7	11.0	4.3
Convective weather	2.7	0.7	64.7	7.4	2.9

*High density altitude and icing

1982—2013

Weather was a cause or contributing factor in 35% of fatal general aviation accidents, of which 60% occurred while instrument meteorological conditions were present. Fatal weather-related general aviation accidents occur most frequently between October and April, on weekends, in early morning and evening periods, and along the West Coast, Colorado Rockies, Appalachian Mountains, and the Northeast.

Part 91 Weather Related Accidents

- What are Adverse Winds? They may include:
 - High Winds
 - Crosswinds
 - Tailwinds
 - Gusts
 - Wind Shifts
 - Variable Winds
 - Weather accounts for the highest percentage of fatalities in all GA accidents. Wind may be the only exception to this phenomenon.
- 