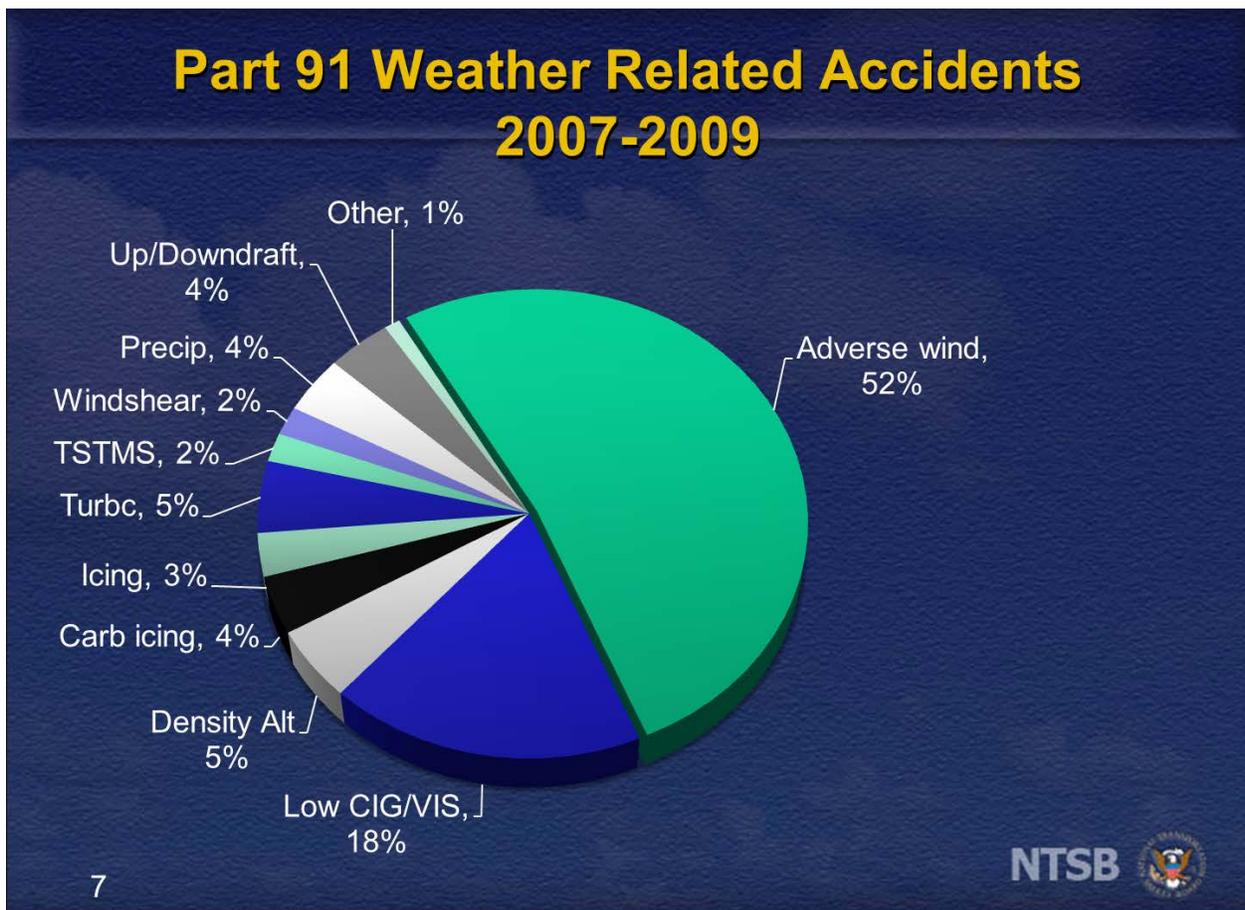


NTSB Weather-Wise Course Review

During a 3 year period, 2007 – 2009, the U.S. Civil Aviation community experienced 4,958 accidents with 1,641 fatalities. Weather was cited as a cause or factor in over 20% of these accidents.

NTSB now uses CAST definitions for causal factors so some weather related causal factors may not appear to be weather related i.e., Loss of Control in flight /ground (LOC) or Abnormal runway contact.

A breakdown of the weather related causal factors may look something like this:



May causal factor “Adverse Winds” where most of the accidents do not end with a fatality.

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.

So before each flight make sure you get a complete preflight weather briefing. Use this information to complete your other preflight preparation such as fuel requirements, weight & balance, and route of flight.

Low Ceilings and Visibility is not a violent or dynamic weather event like a thunderstorm. However, they are the most common cause of part 91 weather related fatalities. Often we hear the term “VFR in IMC conditions” associated with this type of accident. This weather phenomenon is also the number one cause of ATC delays and is a common factor in runway incursions.

[FAR Part 91.103 – Preflight Action](#), requires before beginning a flight to become familiar with a number of items, which include, weather.

Weather Briefing Sources vary but only two are official sources, Flight Service Stations and DUATS.

AFSS Standard Briefing:

- 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 office information you receive from FSS or DUATS.

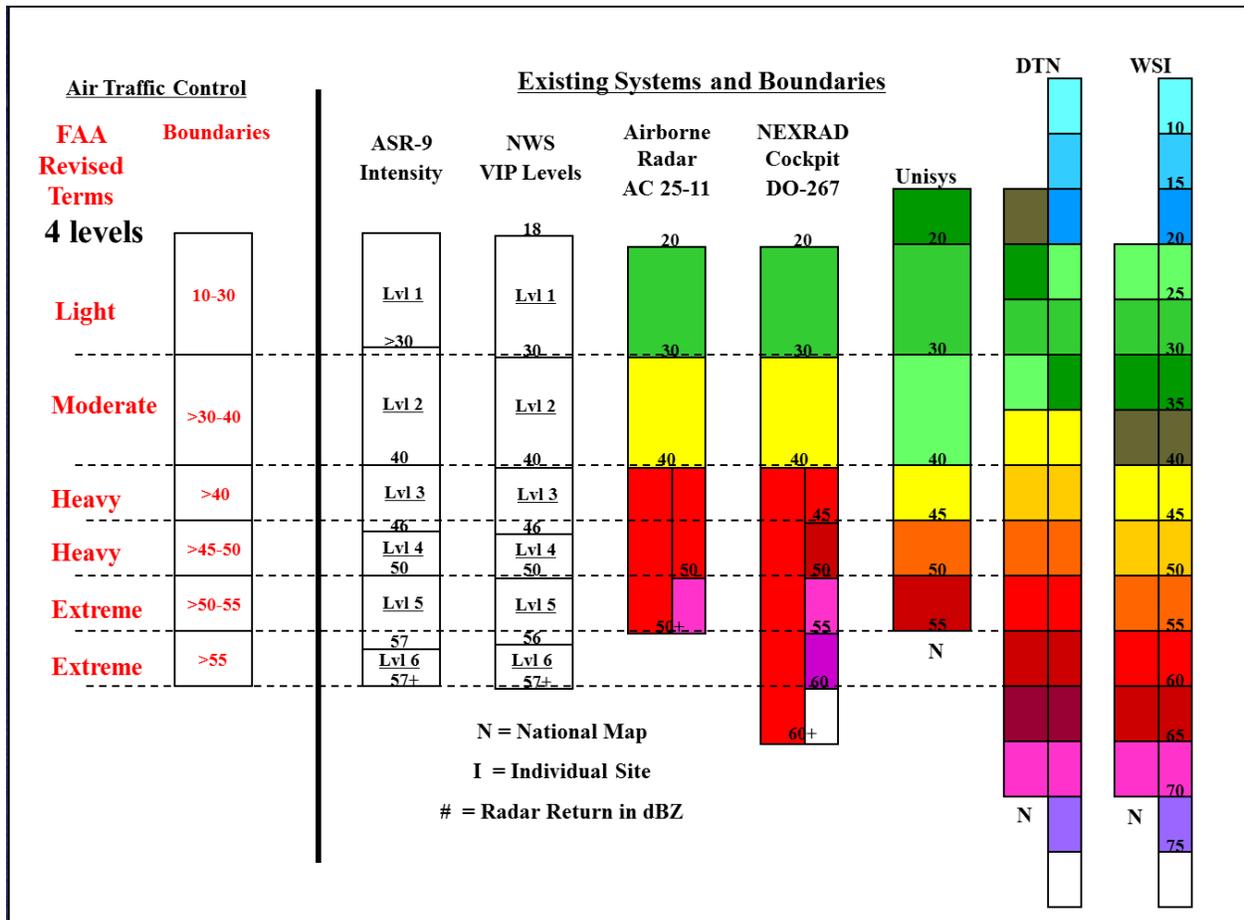
[Thunderstorms AC 00-24B:](#)

Every thunderstorm implies severe and greater turbulence.

Thunderstorm Hazards include:

- Squall Lines
- Tornadoes
- Turbulence
- Icing
- Hail
- Low Ceilings and Visibility

- Altimeter Errors
- Lightning
- Heavy Rain
- Variable Winds & Runway Contamination
- Engine Water Ingestion
- Wind Shear / Microbursts
- Radar Attenuation



Radar levels differ between ATC, NWS, and Airborne Radar. Make sure you know the difference!