

Ground Lesson 12 -- FAA weather and weather services for cross-country flights.

(This advanced weather lesson is optional)

Objective:

For the student to have an understanding of the FAA weather services. This is especially important for the cross-country pilot traveling long distances and needing to get en route weather information and get reports of specific weather at other airports and en route.

Content:

Weather reports (can be found on the FAA Internet site <http://aviationweather.gov/>)

- ___ ASOS (Automated Surface Observing System)
- ___ METAR (Aviation Routine Weather Report)
- ___ Weather Depiction Chart – surface conditions observations
- ___ Surface Analysis Chart – depicts current surface weather
- ___ Radar Summary Chart – displays large areas and types of precipitation
- ___ PIREPs (Pilot weather reports)

Weather forecasts (can be found on the FAA Internet site <http://aviationweather.gov/>)

- ___ Winds and temperature aloft forecast (FD) ___ Terminal Aerodrome forecast (TAF)
- ___ Significant weather prognostic charts (surface analysis predictions)
- ___ Aviation Area forecast (FA) – forecast over a large area with a number of states
- ___ Convective Outlook ___ Severe weather outlook charts (AC)

Pre-Flight Briefing

- ___ Standard ___ Abbreviated ___ Outlook

Staying informed in the air

(broadcast from VORs, NAVAIDs, FSS's or airports – see sectional for frequencies unless shown below)

- ___ EFAS (En route Flight Advisory Service), frequency 122.00 "Flight Watch"
- ___ PIREPs (Pilot weather reports)
- ___ ATIS (Automatic Terminal Information Systems) larger airports
- ___ AWOS (Automated Weather Reporting Stations) smaller airports plus telephone
- ___ TWEB (Transcribed Weather Broadcast)
- ___ HIWAS (Hazardous In-Flight Weather Advisory Service) reports summary (new service)
 - ___ In-flight specific Aviation Weather Advisories
 - ___ AIRMET (WA) (Airman's Meteorological Information)
 - ___ SIGMET (WS) (Significant Meteorological Information) non-convective weather
 - ___ Convective SIGMET

Completion Standards:

This module is complete when the student understands what weather reports, forecasts, charts, and en route services are applicable to anticipated operations by the student and appropriate to the aircraft.

Assignment for this lesson:

- Read *Pilot's Handbook of Aeronautical Knowledge*, Chapters 10 and 11 as specified in "HPTS Sport Pilot Guide of What to Study," in this book, and
- AIM, Chapter 7, Section 1, as specified in <http://www.asa2fly.com/files/docs/CheckrideStudyGuide.pdf>
- Find the above frequencies for your airport and a cross-country flight.

Lesson Results:

Date of completion _____ Instructor Signature/ID _____

Student Signature _____ Time flown _____

Instructor remarks: