

**O-2010**  
**USE IN-FLIGHT SERVICES**

**CONDITIONS**

You are a Mission Observer trainee and must discuss and use in-flight services.

**OBJECTIVES**

Discuss and use in-flight services.

**TRAINING AND EVALUATION**

**Training Outline**

1. As a Mission Observer trainee, knowing how to obtain in-flight services is very helpful. Observers may use in-flight services in order to reduce pilot workload, and being able to get this information may be very useful during emergencies.

2. *Flight Service Stations*. Provide assistance for preflight and in-flight briefings, scheduled and unscheduled weather broadcasts, and weather advisories. Selected FSSs provide transcribed weather briefings. Enroute weather information can be obtained from the Enroute Flight Advisory Service ("Flight Watch") by tuning 122.0 MHz into the radio and calling "Flight Watch." It mainly provides actual weather and thunderstorms along your route. Additionally, Flight Watch is the focal point for rapid receipt and dissemination of pilot reports (PIREP'S). Other flight service frequencies are indicated on the sectional charts.

3. *Scheduled Weather Broadcasts*. All flight service stations having voice facilities on radio ranges (VOR) or radio beacons (NDB) broadcast weather reports and Notice to Airmen information at 15 minutes past each hour from reporting points within approximately 150 miles of the broadcast station.

4. *Automatic Terminal Information Service (ATIS)*. At many airports, the FAA dedicates one or more transmitters and frequencies to continuous taped broadcasts of weather observations, special instructions, and NOTAMS that relate to the airport or nearby navigational facilities. Broadcast weather information is about *actual* observations for the smaller, terminal area, *not* forecasts. ATIS information is updated *hourly*, but may be updated sooner if the weather, special instructions or NOTAMS change significantly. Usually, you must listen to ATIS recordings on the communication radio (the frequency for the ATIS transmission is found on the sectional chart near the airport's name, or in a table on the reverse side of the sectional title panel).

A typical ATIS transmission may sound like this: "Atlanta Hartsfield Airport, arrival information 'November'. 2350 Zulu weather -- measured ceiling 800 overcast, 1 1/2 miles in fog and haze. Temperature 61 degrees, dew point 60 degrees, wind calm, altimeter 29.80. ILS approaches in progress to Runways 8 Left and 9 Right. Landing runways 8 Left and 9 Right. Atlanta VOR out of service. Taxiway Mike closed between taxiways Delta and Sierra. Read back all 'hold short' instructions. Advise controller on initial contact you have information 'November'."

5. *Hazardous In-Flight Weather Advisory Service (HIWAS)*. You can also receive advisories of hazardous weather on many VORs. As the HIWAS name implies, this information relates only to hazardous weather such as tornadoes, thunderstorms, or high winds. Navaids having HIWAS broadcast capability are annotated on the sectional chart. When receiving a hazardous weather report, ATC or FSS facilities initiate the taped HIWAS transmissions, and ATC then directs all aircraft to monitor HIWAS.

6. *Automated Weather Observation System (AWOS)*. At many airports, the FAA has installed Automated Weather Observation Systems. Each system consists of sensors, a computer-generated voice capability, and a transmitter. Information provided by AWOS varies depending upon the complexity of the sensors installed. Airports having AWOS are indicated on sectional charts by the letters AWOS adjacent to the airport name.

7. *Automated Surface Observation System (ASOS)*. The primary surface weather observing system in the U.S., the FAA has installed hundreds of ASOS. Each system consists of sensors, a computer-generated voice capability, and a transmitter. Information provided by ASOS varies depending upon the complexity of the sensors installed. ASOS can be heard by telephone, and so is very useful in flight planning. Information includes: wind speed, direction and gusts; visibility and cloud height; temperature and dew point; altimeter setting and density altitude.

8. *Pilot Weather Report (PIREP)*. FAA stations are required to solicit and collect PIREPs whenever ceilings are at or below 5,000 feet above the terrain, visibility is at or less than 5 miles, or thunderstorms, icing, wind shear, or turbulence is either reported or forecast. These are extremely useful reports, and all pilots are encouraged to volunteer reports of cloud tops, upper cloud layers, thunderstorms, ice, turbulence, strong winds, and other significant flight condition information. PIREP's are normally given to Flight Watch. They are then included at the beginning of scheduled weather broadcasts by FAA stations within 150 nautical miles of the area affected by potentially hazardous weather. Pilots are advised of these reports during preflight briefings by FAA and national weather service stations, and by air/ground contacts with FAA stations. PIREP's can help you avoid bad weather and warn you to be ready for potential hazards.

### **Additional Information**

This task may be performed in conjunction with tasks O-2000, O-2001, O-2002. More detailed information on this topic is available in Chapter 4 and Attachment 2 of the MART.

### **Evaluation Preparation**

**Setup:** Provide the student access to a telephone and an aircraft radio.

**Brief Student:** You are an Observer trainee asked to use in-flight services.

### **Evaluation**

<u>Performance measures</u>	<u>Results</u>
1. Demonstrate and discuss how to use the following in-flight services:	
a. Flight Service Stations and scheduled weather broadcasts.	P F
b. Obtain an ATIS report.	P F
c. HIWAS.	P F
d. Obtain an AWOS and/or ASOS report.	P F
e. Give a PIREP report (may be simulated).	P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.