

## Federal Communications Commission

## § 87.5

### Subpart S—Automatic Weather Stations (AWOS/ASOS)

- 87.525 Scope of service.  
87.527 Supplemental eligibility.  
87.529 Frequencies.

AUTHORITY: 47 U.S.C. 154, 303 and 307(e), unless otherwise noted.

SOURCE: 53 FR 28940, Aug. 1, 1988, unless otherwise noted.

### Subpart A—General Information

#### § 87.1 Basis and purpose.

This section contains the statutory basis and provides the purpose for which this part is issued.

(a) *Basis.* The rules for the aviation services in this part are promulgated under the provisions of the Communications Act of 1934, as amended, which vests authority in the Federal Communications Commission (Commission) to regulate radio transmission and to issue licenses for radio stations. These rules conform with applicable statutes and international treaties, agreements and recommendations to which the United States is a party. The most significant of these documents are listed with the short title appearing in parentheses:

- (1) Communications Act of 1934, as amended—(Communications Act).
- (2) International Telecommunication Union Radio Regulations, in force for the United States—(Radio Regulations).
- (3) The Convention on International Civil Aviation—(ICAO Convention).

(b) *Purpose.* This part states the conditions under which radio stations may be licensed and used in the aviation services. These rules do not govern U.S. Government radio stations.

#### § 87.3 Other applicable rule parts.

Other applicable CFR title 47 parts include:

(a) Part 0 contains the Commission's organizations and delegations of authority. Part 0 also lists Commission publications, standards and procedures for access to Commission records and location of Commission monitoring stations.

(b) Part 1 contains rules of practice and procedure for license applications, adjudicatory proceedings, rule making

proceedings, procedures for reconsideration and review of the Commission's actions, provisions concerning violation notices and forfeiture proceedings, and the requirements for environmental impact statements.

(c) Part 2 contains the Table of Frequency Allocations and special requirements in international regulations, recommendations, agreements, and treaties. This part also contains standards and procedures concerning marketing of radio frequency devices, and for obtaining equipment authorization.

(d) Part 13 contains information and rules for the licensing of commercial radio operators.

(e) Part 17 contains requirements for construction, marking and lighting of antenna towers.

(f) Part 80 contains rules for the maritime services. Certain maritime frequencies are available for use by aircraft stations for distress and safety, public correspondence and operational communications.

#### § 87.5 Definitions.

*Aeronautical advisory station (unicom).* An aeronautical station used for advisory and civil defense communications primarily with private aircraft stations.

*Aeronautical enroute station.* An aeronautical station which communicates with aircraft stations in flight status or with other aeronautical enroute stations.

*Aeronautical fixed service.* A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport. A station in this service is an aeronautical fixed station.

*Aeronautical Mobile Off-Route (OR) Service.* An aeronautical mobile service intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.(RR)

*Aeronautical Mobile Route (R) Service.* An aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.(RR)

*Aeronautical Mobile-Satellite Off-Route (OR) Service.* An aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.(RR)

*Aeronautical Mobile-Satellite Route (R) Service.* An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.(RR)

*Aeronautical Mobile-Satellite Service.* A mobile-satellite service in which mobile earth stations are located on board aircraft.

*Aeronautical mobile service.* A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may also participate; emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

*Aeronautical multicom station.* An aeronautical station used to provide communications to conduct the activities being performed by, or directed from, private aircraft.

*Aeronautical radionavigation service.* A radionavigation service intended for the benefit and for the safe operation of aircraft.

*Aeronautical search and rescue station.* An aeronautical station for communication with aircraft and other aeronautical search and rescue stations pertaining to search and rescue activities with aircraft.

*Aeronautical station.* A land station in the aeronautical mobile service. In certain instances an aeronautical station may be located, for example, on board ship or on a platform at sea.

*Aeronautical utility mobile station.* A mobile station used on airports for communications relating to vehicular ground traffic.

*Air carrier aircraft station.* A mobile station on board an aircraft which is engaged in, or essential to, the transportation of passengers or cargo for hire.

*Aircraft earth station (AES).* A mobile earth station in the aeronautical mobile-satellite service located on board an aircraft.

*Aircraft station.* A mobile station in the aeronautical mobile service other than a survival craft station, located on board an aircraft.

*Airport.* An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

*Airport control tower (control tower) station.* An aeronautical station providing communication between a control tower and aircraft.

*Automatic dependent surveillance—broadcast (ADS-B) Service.* Broadcast transmissions from aircraft, supporting aircraft-to-aircraft or aircraft-to-ground surveillance applications, including position reports, velocity vector, intent and other relevant information about the aircraft.

*Automatic terminal information service—broadcast (ATIS-B).* The automatic provision of current, routine information to arriving and departing aircraft throughout a 24-hour period or a specified portion thereof.

*Automatic weather observation station (AWOS) or automatic surface observation station (ASOS).* A land station located at an airport and used to automatically transmit weather information to aircraft.

*Aviation service organization.* Any business firm which maintains facilities at an airport for the purposes of one or more of the following general aviation activities: (a) Aircraft fueling; (b) aircraft services (e.g. parking, storage, tie-downs); (c) aircraft maintenance or sales; (d) electronics equipment maintenance or sales; (e) aircraft rental, air taxi service or flight instructions; and (f) baggage and cargo handling, and other passenger or freight services.

*Aviation services.* Radio-communication services for the operation of aircraft. These services include aeronautical fixed service, aeronautical mobile service, aeronautical radio-determination service, and secondarily, the handling of public correspondence on frequencies in the maritime mobile and maritime mobile satellite services to and from aircraft.

*Aviation support station.* An aeronautical station used to coordinate aviation services with aircraft and to

communicate with aircraft engaged in unique or specialized activities. (See subpart K)

*Differential GPS (DGPS).* A system which transmits corrections to the GPS derived position.

*Emergency locator transmitter (ELT).* A transmitter of an aircraft or a survival craft actuated manually or automatically that is used as an alerting and locating aid for survival purposes.

*Emergency locator transmitter (ELT) test station.* A land station used for testing ELTs or for training in the use of ELTs.

*Expendable Launch Vehicle (ELV).* A booster rocket that can be used only once to launch a payload, such as a missile or space vehicle.

*Flight Information Service-Broadcast (FIS-B).* A broadcast service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

*Flight test aircraft station.* An aircraft station used in the testing of aircraft or their major components.

*Flight test land station.* An aeronautical station used in the testing of aircraft or their major components.

*Glide path station.* A radionavigation land station which provides vertical guidance to aircraft during approach to landing.

*Instrument landing system (ILS).* A radionavigation system which provides aircraft with horizontal and vertical guidance just before and during landing and, at certain fixed points, indicates the distance to the reference point of landing.

*Instrument landing system glide path.* A system of vertical guidance embodied in the instrument landing system which indicates the vertical deviation of the aircraft from its optimum path of descent.

*Instrument landing system localizer.* A system of horizontal guidance embodied in the instrument landing system which indicates the horizontal deviation of the aircraft from its optimum path of descent along the axis of the runway or along some other path when used as an offset.

*Land station.* A station in the mobile service not intended to be used while in motion.

*Localizer station.* A radionavigation land station which provides horizontal guidance to aircraft with respect to a runway center line.

*Marker beacon station.* A radionavigation land station in the aeronautical radionavigation service which employs a marker beacon. A marker beacon is a transmitter which radiates vertically a distinctive pattern for providing position information to aircraft.

*Mean power (of a radio transmitter).* The average power supplied to the antenna transmission line by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions.

*Microwave landing system.* An instrument landing system operating in the microwave spectrum that provides lateral and vertical guidance to aircraft having compatible avionics equipment.

*Mobile service.* A radiocommunication service between mobile and land stations, or between mobile stations. A mobile station is intended to be used while in motion or during halts at unspecified points.

*Operational fixed station.* A fixed station, not open to public correspondence, operated by and for the sole use of persons operating their own radiocommunication facilities in the public safety, industrial, land transportation, marine, or aviation services.

*Peak envelope power (of a radio transmitter).* The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

*Private aircraft station.* A mobile station on board an aircraft not operated as an air carrier. A station on board an air carrier aircraft weighing less than 12,500 pounds maximum certified take-off gross weight may be licensed as a private aircraft station.

*Racon station.* A radionavigation land station which employs a racon. A racon (radar beacon) is a transmitter-receiver associated with a fixed navigational mark, which when triggered by a radar, automatically returns a distinctive signal which can appear on the display of the triggering radar, providing

range, bearing and identification information.

*Radar.* A radiodetermination system based upon the comparison of reference signals with radio signals reflected, or re-transmitted, from the position to be determined.

*Radio altimeter.* Radionavigation equipment, on board an aircraft or spacecraft, used to determine the height of the aircraft or spacecraft above the Earth's surface or another surface.

*Radiobeacon station.* A station in the radionavigation service the emissions of which are intended to enable a mobile station to determine its bearing or direction in relation to the radiobeacon station.

*Radiodetermination service.* A radiocommunication service which uses radiodetermination. Radiodetermination is the determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation of radio waves. A station in this service is called a radiodetermination station.

*Radiolocation service.* A radiodetermination service for the purpose of radiolocation. Radiolocation is the use of radiodetermination for purposes other than those of radionavigation.

*Radionavigation land test stations.* A radionavigation land station which is used to transmit information essential to the testing and calibration of aircraft navigational aids, receiving equipment, and interrogators at predetermined surface locations. The Maintenance Test Facility (MTF) is used primarily to permit maintenance testing by aircraft radio service personnel. The Operational Test Facility (OTF) is used primarily to permit the pilot to check a radionavigation system aboard the aircraft prior to take-off.

*Radionavigation service.* A radiodetermination service for the purpose of radionavigation. Radionavigation is the use of radiodetermination for the purpose of navigation, including obstruction warning.

*Re-usable launch vehicle (RLV).* A booster rocket that can be recovered after launch, refurbished and re-launched.

*Surveillance radar station.* A radionavigation land station in the aeronautical radionavigation service employing radar to display the presence of aircraft within its range.

*Survival craft station.* A mobile station in the maritime or aeronautical mobile service intended solely for survival purposes and located on any lifeboat, life raft or other survival equipment.

*Traffic information services—broadcast (TIS-B).* Traffic information broadcasts derived from ground-based radar systems.

*Universal access transceiver (UAT).* A radio datalink system authorized to operate on the frequency 978 MHz to support Automatic Dependent Surveillance—Broadcast (ADS-B) Service, Traffic Information Services—Broadcast (TIS-B) and Flight Information Service—Broadcast (FIS-B).

*VHF Omni directional range station (VOR).* A radionavigation land station in the aeronautical radionavigation service providing direct indication of the bearing (omni-bearing) of that station from an aircraft.

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## Subpart B—Applications and Licenses

### § 87.17 Scope.

Part 1 of the Commission's rules contains the general rules of practice and procedure applicable to proceedings before the Commission and for the filing of applications for radio station licenses in the aviation services. Specific guidance for each type of radio service license in aviation services is set forth in this part.

[63 FR 68957, Dec. 14, 1998]

### § 87.18 Station license required.

(a) Except as noted in paragraph (b) of this section, stations in the aviation service must be licensed by the FCC either individually or by fleet.

(b) An aircraft station is licensed by rule and does not need an individual license issued by the FCC if the aircraft