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ones could not be incorporated. For the convenience of the user of the added text is set forth as follows:

§ 87.475 Frequencies.

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(b) * * *

(11) 5030-5150 MHz: This band is to be used for the operation of the international standard system (microwave landing system).

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(14) 24,450-24,650 MHz and 32,300-33,400 MHz: In these bands, land-based radionavigation aids are permitted where they operate with airborne radionavigation devices.

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§ 87.477 Condition of grant for radionavigation land stations.

Radionavigation land stations may be designated by the FAA as part of the National Airspace System. Stations so designated will be required to serve the public under IFT conditions. This condition of grant is applicable to all radionavigation land stations.

§ 87.479 Harmful interference to radionavigation land stations.

(a) Military or other Government stations have been authorized to establish wide-band systems using frequency-hopping spread spectrum techniques in the 960-1215 MHz band. Authorization for a Joint Tactical Information Distribution Systems (JTIDS) has been permitted on the basis of non-interference to the established aeronautical radionavigation service in this band. In order to accommodate the requirements for the system within the band, restrictions are imposed. Transmissions will be automatically prevented if:

- (1) The frequency-hopping mode fails to distribute the JTIDS spectrum uniformly across the band;
- (2) The radiated pulse varies from the specified width of 6.4 microseconds $\pm 5\%$;
- (3) The energy radiated within ± 7 MHz of 1030 and 1090 MHz exceeds a level of 60 dB below the peak of the JTIDS spectrum as measured in a 300 kHz bandwidth. The JTIDS will be prohibited from transmitting if the time

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slot duty factor exceeds a 20 percent duty factor for any single user and a 40 percent composite duty factor for all JTIDS emitters in a geographic area.

(b) If radionavigation systems operating in the 960-1215 MHz band experience interference or unexplained loss of equipment performance, the situation must be reported immediately to the nearest office of the FAA, the National Telecommunications and Information Administration, Washington, DC 20504, or the nearest Federal Communications Commission field office. The following information must be provided to the extent available:

- (1) Name, call sign and category of station experiencing the interference;
- (2) Date and time of occurrence;
- (3) Geographical location at time of occurrence;
- (4) Frequency interfered with;
- (5) Nature of interference; and
- (6) Other particulars.

§ 87.481 Unattended operation of domestic radiobeacon stations.

(a) Radiobeacons may be licensed for unattended operation. An applicant must comply with the following:

- (1) The transmitter is crystal controlled and specifically designed for radiobeacon service and capable of transmitting by self-actuating means;
- (2) The emissions of the transmitter must be continuously monitored by a licensed operator, or by a direct positive automatic monitor, supplemented by aural monitoring at suitable intervals;
- (3) If as a result of aural monitoring it is determined that a deviation from the terms of the station license has occurred, the transmitters must be disabled immediately by a properly authorized person. If automatic monitoring is used, the monitor must insure that the operation of the transmitter meets the license terms or is disabled;
- (4) A properly authorized person must be able to reach the transmitter and disable it in a reasonable amount of time, so as not to adversely affect life or property in the air;
- (5) The equipment must be inspected at least every 180 days. Results of inspections must be kept in the station maintenance records;

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(6) The transmitter is not operable by or accessible to, other than authorized persons;

(7) The transmitter is in a remote location.

(b) Authority for unattended operation must be expressly stated in the station license.

[53 FR 28940, Aug. 1, 1988, as amended at 63 FR 68958, Dec. 14, 1998]

§ 87.483 Audio visual warning systems.

An audio visual warning system (AVWS) is a radar-based obstacle avoidance system. AVWS activates obstruction lighting and transmits VHF audible warnings to alert pilots of potential collisions with land-based obstructions. The AVWS operations are limited to locations where natural and man-made obstructions exist. The continuously operating radar calculates the location, direction and groundspeed of nearby aircraft that enter one of two warning zones reasonably established by the licensee. As aircraft enter the first warning zone, the AVWS activates obstruction lighting. If the aircraft continues toward the obstacle and enters the second warning zone, the VHF radio transmits an audible warning describing the obstacle.

(a) Radiodetermination (radar) frequencies. Frequencies authorized under § 87.475(b)(8) of this chapter are available for use by an AVWS. The frequency coordination requirements in § 87.475(a) of this chapter apply.

(b) VHF audible warning frequencies. Frequencies authorized under § 87.187(j), § 87.217(a), § 87.241(b), and § 87.323(b) (excluding 121.950 MHz) of this chapter are available for use by an AVWS. Multiple frequencies may be authorized for an individual station, depending on need and the use of frequencies assigned in the vicinity of a proposed AVWS facility. Use of these frequencies is subject to the following limitations:

(1) The output power shall not exceed -3 dBm watts for each frequency authorized.

(2) The antenna used in transmitting the audible warnings must be omnidirectional with a maximum gain equal to or lower than a half-wave centerfed dipole above 30 degrees elevation, and a maximum gain of + 5 dBi

from horizontal up to 30 degrees elevation.

(3) The audible warning shall not exceed two seconds in duration. No more than six audible warnings may be transmitted in a single transmit cycle, which shall not exceed 12 seconds in duration. An interval of at least twenty seconds must occur between transmit cycles.

[78 FR 61207, Oct. 3, 2013]

Subpart R [Reserved]

Subpart S—Automatic Weather Stations (AWOS/ASOS)

§ 87.525 Scope of service.

Automatic weather observation stations (AWOS) and automatic surface observation stations (ASOS) must provide up-to-date weather information including the time of the latest weather sequence, altimeter setting, wind speed and direction, dew point, temperature, visibility and other pertinent data needed at airports having neither a full-time control tower nor a full-time FAA Flight Service Station. When a licensee has entered into an agreement with the FAA, an AWOS or an ASOS may also operate as an automatic terminal information station (ATIS) during the control tower's operating hours.

[64 FR 27476, May 20, 1999]

§ 87.527 Supplemental eligibility.

(a) Licenses will be granted only upon FAA approval.

(b) Eligibility for an AWOS, an ASOS, or an ATIS is limited to the owner or operator of an airport or to a person who has entered into a written agreement with the owner or operator for exclusive rights to operate and maintain the station. Where applicable a copy of the agreement between the applicant and owner or operator of the airport must be submitted with an application.

(c) Only one AWOS, ASOS, or ATIS will be licensed at an airport.

[53 FR 28940, Aug. 1, 1988, as amended at 64 FR 27476, May 20, 1999]