

nomadic WAVDs could not likely share spectrum with land mobile operations. We also adopt the proposal to require WAVDs to maintain at least 6 megahertz frequency separation from such land mobile channels when operating within these areas. This frequency and geographic separation is necessary to protect public safety land mobile use, which in the 470–512 MHz private land mobile bands could occur on any of the channels allocated in a given area. Therefore, all TV channels listed in § 90.303 are excluded from WAVD use at the locations listed. As discussed in

the *NPRM*, the band 482–488 MHz (TV channel 16) will also be excluded from WAVD use in the New York City area to protect New York City public safety entities which are using that spectrum under a waiver. Similarly, the band 476–494 MHz (TV channels 15–17) will be excluded from WAVD in areas near the Gulf of Mexico to protect the PLMRS and communication links in the ORS under part 22 of our rules. Communications with mobile stations under these rules are generally limited to stations within the Gulf (e.g., stations on boats or aircraft) or to stations on the

shore. Finally, WAVDs will be excluded from the band 488–494 MHz (TV channel 17) in areas near Hawaii to protect common carrier control and repeater stations for point-to-point inter-island communications.

50. The frequencies on which we will exclude WAVD use are summarized in the following table. We reiterate that these exclusions will not prevent WAVDs from operating on channels listed in the table when WAVDs are a sufficient distance from the cities listed in the following table.

Area	Excluded frequencies (MHz)	Excluded channels
Boston, MA	470–494	14–17
Chicago, IL	470–488	14–16
Cleveland, OH (WAVDs may operate until further order from the Commission)	470–494	14–17
Dallas/Fort Worth, TX	476–494	15–17
Detroit, MI (WAVDs may operate until further order from the Commission)	470–494	14–17
Hawaii	488–494	17
Houston, TX	482–500	16–18
Los Angeles, CA	470–494, 500–518	14–17, 19–21
Miami, FL	470–482	14–15
New York/ N.E. New Jersey	470–494	14–17
Philadelphia, PA	494–518	18–21
Pittsburgh, PA	470–482, 488–506	14–15, 17–19
San Francisco/Oakland, CA	476–500	15–18
Washington DC/MD/VA	482–506	16–19

51. Finally, as proposed in the *NPRM*, we will exclude WAVDs from operating in the 608–614 MHz band (TV channel 37) to protect radio astronomy operations in that band. This exclusion is consistent with the Table of Allocations in part 2 of our rules, which specifies that no stations will be authorized to transmit in that band. We also note we have recently authorized the use of medical telemetry in the 608–614 MHz band, and this exclusion will also protect those operations. Finally, WAVDs will not be allowed to use channels above 698 MHz (channel 51) in the UHF–TV band due to a recent spectrum reallocation of those channels to uses other than broadcasting. We find that these exclusions are justified to protect existing operations in these bands.

Technical and Operational Requirements

52. The *NPRM* proposed conservative technical and operational requirements to allow WAVDs to operate without harming other operations. Specifically, the *NPRM* proposed: (1) To limit the ERP of WAVDs to 250 milliwatts (mW); (2) to require that the transmitting devices use a permanently attached antenna; (3) to allow WAVDs bandwidths of up to 6 megahertz, limited to transmitting on a single TV

channel (i.e., WAVD transmissions may not overlap the TV channel edge); (4) to use the same emission limitations being proposed for other TV BAS transmitters in this proceeding; (5) to authorize WAVD transmitters under the certification procedures of part 2 of our rules; (6) to require WAVDs to maintain a 129 km separation distance from TV broadcasting stations operating on the same frequency and a 200 km separation distance from cities where land mobile operations are authorized; (7) to require WAVD operators to achieve prior notification, rather than coordination, with the local broadcast coordinator or any adjacent channel TV station within 161 km of each intended WAVD operation at least 10 business days in advance of operation; (8) that WAVD licensees be subject to the station identification requirements of § 74.882; and (9) that manufacturers include certain information in the product literature that is included with WAVDs to indicate the requirements for using these devices.

53. The various technical and operational requirement proposals for WAVDs set forth in the *NPRM* were designed to protect other users of the TV bands without unnecessarily hindering WAVD operations. Most of these were unopposed, and we will adopt them as proposed. Specifically, we have adopted

the ERP limit of 250 mW, the bandwidth limit of 6 megahertz on a single TV channel, the requirement to meet the same emissions limitations as other part 74 transmitters, part 2 certification procedures for WAVD transmitters, the proposed separation distances from TV and land mobile stations, the requirement that WAVD licensees follow the station identification requirements of § 74.882; and the requirement that manufacturers include certain information in their product literature.

54. With respect to the antenna issue raised by commenters, we agree with SBE that the use of unintended antennas should be avoided because they could increase the interference potential. We also agree with AMPTP that a permanently attached antenna may result in increased repair costs. We believe that a reasonable compromise between these positions exists. We note that our part 15 rules contain a provision allowing either permanently attached antennas or devices with unique couplings to permit antennas to be more easily repaired. This has worked well in the preventing unintended antennas from being attached to low power unlicensed devices and we believe a similar requirement would work here. Accordingly, we have adopted a