

transition plan, will be permitted to designate specific channels for low-power use. In order to promote flexibility for regions with differing communications requirements, these designations can be varied by specific geographic region. Each coordinating entity will be required to maintain and supply to the public upon request, information on frequencies it designates for low-power use and the areas in which these frequencies are designated for such use.

14. Current licensees of 12.5 kHz offset frequencies, in addition to being subject to the same transition schedule as high-power users, will have several options: 1) they may remain on the frequencies for which they are licensed; or, 2) move to frequencies designated specifically for low-power use. Users who choose to remain on their current frequency may achieve primary status by raising their output power, and by supplying their station coordinates (latitude and longitude) to the Commission through the appropriate frequency coordinator. Users who wish to invoke this option must provide justification for raising their output power. Licensees on the offset frequencies who wish to remain at low-power on their current frequency will be secondary to new high-power operations on these frequencies. Users who choose to move to designated low-power frequencies will be given primary status on those frequencies after submitting their station coordinates to the Commission through the appropriate frequency coordinator.

15. Since the current use of low-power operations offset frequencies has been beneficial to private land mobile operations, the Commission adopts a similar structure consistent with the new narrowband channeling plan. Narrowband low-power offset channels will be available 3.125 kHz removed from most regularly assignable frequencies. These frequencies will be authorized on a secondary, non-interference basis and will be subject to all frequency coordination requirements.

16. Additionally to permit increased channel reuse, the Commission adopts limits in the 150–174 and 450–470 MHz bands on allowable effective radiated power/antenna height combinations for new stations, i.e., one which is not functionally integrated with an earlier-installed system, based on each station's service area. This overall approach will increase channel reuse, reduce the incidence of over-powered systems, reduce background noise, and provide technical flexibility to PLMR licensees. Finally, the transmitter power/antenna

height limits that the Commission is adopting are sufficiently well defined to avoid placing a significant administrative burden on applicants, licensees, frequency coordinators, and the Commission.

17. The level of interference protection provided by the frequency separation between current assignments and new assignments using frequencies resulting from channel splitting may not be sufficient to permit same-area high-power operation. Thus, in order to not degrade communications quality below that presently afforded land mobile licensees in these bands, in some situations it may be necessary to place certain restrictions on the operation of new adjacent channel assignments, such as requiring a geographic separation or operation at substantially reduced power. Specific restrictions will depend on a number of system parameters such as transmitter power, antenna height, and distance between stations, all of which may vary considerably between systems. The Commission believes that there is not a sufficient record in the comments on which to base specific adjacent channel station separation requirements with respect to the new channelization plan. The Commission also believes that the frequency coordinators, with their knowledge of user requirements and local conditions, are in a better position than the Commission to determine separation distances needed in each case. Accordingly, the Commission is not adopting any specific mileage separation requirements at this time. The current separation requirements in 47 CFR § 90.173 will remain in effect until August 18, 1995. After this date the Commission will require the appropriate frequency coordinators to review applications for adjacent channel usage and determine appropriate separation distances based upon the technical characteristics of proposed and existing station(s).

18. The Commission adopts, for equipment designed to operate with a 12.5 kHz channel bandwidth in the 150–174 MHz and 421–512 MHz bands, a mask which incorporates the best attributes of the masks suggested by Ericsson and TIA. This adopted mask has the flat top characteristic of the Ericsson suggested mask, which will permit the use of wideband modulations, such as QPSK, and the roll off characteristic for the skirt region of the TIA suggested mask, which provides acceptable adjacent channel interference. Regarding the narrowband emission mask, there was no opposition to either the proposed mask or one suggested by TIA. The TIA mask is

slightly less restrictive than the proposed mask by incorporating a slightly wider flat top region in order to accommodate a 9600 bps CQPSK modulation signal. Therefore, the Commission adopts the mask suggested by TIA for equipment that operates with a 6.25 kHz bandwidth in the 150–174 MHz and 421–512 MHz bands.

19. Regarding instrumentation and procedures to be used when measuring equipment emissions, general requirements are specified to provide guidance to manufacturers. With the broad range of equipment modulations and system requirements that may be encountered, however, the Commission will permit applicants for equipment type acceptance to utilize alternate procedures provided prior Commission approval is obtained.

20. Additionally, frequency deviation limits, which are applicable only to frequency modulation (FM), will no longer be specified for equipment designed to operate in the refarming bands. The new emission mask requirements make the need for a frequency deviation limit superfluous for FM equipment, and irrelevant for non-FM equipment. Therefore, because no comments opposed this proposal, the Commission is eliminating references to frequency deviation limits for equipment operating in the 150–174 MHz and 421–512 MHz bands.

21. Similar to the emission mask, narrower channel spacing increases the importance of frequency stability to reduce adjacent channel interference. TIA suggested frequency stability requirements for 12.5 kHz equipment are based on the performance of equipment that has been operating for a number of years in Europe and Asia in the same frequency bands. These stability requirements coupled with the emission masks, will provide adequate adjacent channel interference protection. Accordingly, the Commission adopts the frequency stabilities as proposed by TIA for base and mobile stations designed for operation with either a 12.5 kHz or 6.25 kHz bandwidth in the 150–174 MHz and 421–512 MHz bands.

22. Although frequency stability requirements were proposed for the 150–220 MHz band, the decision herein does not include the 216–220 MHz band. Operation in this band is secondary to Federal Government operations, and equipment operating in the 216–220 MHz band is required to comply with Federal Government technical standards. Therefore, the current base and mobile station frequency stabilities in the 220–222 MHz band are being retained.