

## Annex N

# Special Considerations for Federal Travelers Information Stations Operating on 1610 kHz

### N.1 FEDERAL TRAVELERS INFORMATION STATIONS (TIS) OPERATING ON 1610 kHz

1. This annex provides regulations and guidance concerning existing and future assignment and protection of Federal Travelers Information Stations (TIS) operating on 1610 kHz. The information contained herein has been extracted from the FCC Memorandum Opinion and Order, FCC 95-385, "Reconsideration of Implementation of the AM Expanded Band Allotment Plan," adopted September 1, 1995, as agreed upon by the NTIA and FCC.

2. Three international agreements (Region 2, Canadian, and Mexican) affect the allotment of expanded band stations. FCC Rules (see 47 CFR) state that the Commission will not make any assignment that does not conform to international requirements and restrictions on spectrum use. Therefore, in the United States-Canadian and United States-Mexican border areas, the 1610 kHz frequency may not be available for Federal TIS operations in order to fulfill the United States' obligations pursuant to agreements with Canada and Mexico. In South Florida, Puerto Rico and the U.S. Virgin Islands, frequency allotments are restricted to those specified in the Region 2 treaty covering the expanded AM Band and stations in those regions will only be assigned on the frequencies permitted by the treaty.

3. Existing federal travelers information stations operating on 1610 kHz have co-primary status with expanded band allotments. Therefore, federal travelers information stations authorized as of August 4, 1994, preclude subsequent assignment for conflicting allotments.

4. The following federal travelers information station criteria, which were agreed upon between the Commission and NTIA, will be used:

a. All projections are based on the daytime operation of the expanded band station assuming Model I facilities. FCC Rules (see 47 CFR) define Model I facilities as a ninety electrical degree (90E) antenna height and ground system and an antenna input power of ten kilowatts daytime and one kilowatt night-time. Daytime, a Model I facility will produce an unattenuated inverse distance field of 971 mV/m at 1 kilometer.

b. Soil conductivities will be taken from Figure M3 of the Commission's Rules notwithstanding the fact that FCC Rules elsewhere specify the use of the measured 0.5 mV/m contour in determining the minimum spacing for a federal travelers information station from a broadcast facility. This is consistent with all other computations made in the allotment process and follows the procedures illustrated in the calculation of the sample allotment plan. Furthermore, this ground conductivity data base produces the needed certainty in the allotment plan and can be used to immediately implement the expanded band.

c. Federal travelers information station protection will be defined by the distance between the expanded band and federal travelers information station transmitter. For co-channel and first adjacent channel projections, we will use the following distances: distance to the expanded band station's 0.5 mV/m contour plus 130 km for co-channel; distance to the 0.5 mV/m contour +15 km for first adjacent channel.

d. Because FCC Rules (see 47CFR) discuss second and third adjacent channel protection of broadcast stations by federal travelers information stations, but does not establish standards, standard broadcast engineering procedure will be followed which specifies that second adjacent channels may have no overlap of the 5 mV/m contours and third adjacent channels may have no overlap of the 25 mV/m contours. Since federal travelers information stations are low power with the 25 mV/m and 5 mV/m contours being close to the federal travelers information station site, we will not permit the proposed expanded band 5 mV/m contour to encompass the federal travelers information station site for second adjacent channel allotments (1630 kHz). Third adjacent channel protection (1640 kHz) is provided if the expanded band station's 25 mV/m contour will not encompass the federal travelers information station site.

5. Existing stations operating on 810, 820, 830, 840 and 850 kHz have the potential to cause interference to stations operating at twice their carrier frequencies, i.e., 1620, 1640, 1660, 1680 and 1700 kHz. Under FCC Rules (see 47CFR) two stations, one with a frequency twice of the other should not be assigned in the same groundwave service area unless special precautions are taken to avoid interference from the second harmonic of the station operating on the lower frequency. The service area of a station is that area protected from interference, and is defined as the 0.5 mV/m for rural areas in Section 73.182(d) of the rules. An expanded band allotment will be precluded if the service area of an existing station operating on 810 to 850 kHz would overlap the service area of a potential expanded band station operating with Model I facilities as defined in FCC Rules (see 47 CFR). In accordance with prior procedures in this proceeding, the service area will be calculated using conductivities taken from Figure M3 of the FCC Rules (see 47 CFR).

6. Allotments will not be proposed that do not maintain co-channel, first and second adjacent channel spacing in accordance with the minimum spacing requirements from existing station operations on 1580, 1590, and 1600 kHz.

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