

Region 2 Administrative MF Broadcasting Conference

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The Region 2 Conference held in Buenos Aires, Argentina, which ended March 28, 1980, was extremely important for existing AM broadcasting stations and for potential new stations. During a 3-week period, 117 delegates representing 21 countries developed proposed technical criteria for all stations which operate in our hemisphere. These criteria included power limitations, classification of channels, interference criteria, and a large number of technical operational matters. They also considered using 9kHz channel spacing.

The conference was convened under the auspices of the International Telecommunication Union (ITU). The union has a unique and vital role in harmonizing the actions of administrations in the utilization of telecommunications in the interests of mankind. In June 1979, the ITU Administrative Council provided for the convening of the Region 2 Conference, the first session of which was to establish the basis for the preparation by the second session (scheduled for November 1981) of a Frequency Assignment Plan.

The Inter-American Telecommunications Conference (CITEL) initiated preparation for the Conference in 1975. A preparatory working group met six times and developed the proposed technical basis for the first session of the conference. The US took an active role in the working group, and, in many cases, the technical criteria proposed and adopted are similar to those in use in the US.

As stated in the adopted Report to the Second Session of the conference, "The plan shall be based on the principle of equal rights for all countries large or small. It should also make provision for the requirements of administrations as defined in Chapter 7 of this Report and ensure satisfactory reception conditions for all countries, allowing for the different situations which arise in the countries of Region 2".

The US delegation was comprised of 19 members from the US government and industry. The chief of the delegation was Commissioner Robert E. Lee.

The priority item for the US delegation was to seek consideration

spacing for AM broadcast channels in lieu of the existing 10kHz spacing. This would provide for 12 additional channels in the band 540kHz to 1600kHz. It is also the channel spacing presently in use in the other two regions of the world. It was not possible to reach a consensus during the first session so the Conference decided to delay the decision to the second session pending further study by the International Frequency Registration Board (IFRB).

Following is a summary of various technical criteria adopted:

a. Three noise zones were identified for the Region. The 50 contiguous US states are in Zone 1. Puerto Rico and the Virgin Islands are in Zone 2. The field strength for contours to be protected from interference differ for each zone, but in Zone 1 are essentially the same as presently used in the US.

b. Maximum transmitter powers are as follows:

Class A: 100kW day, 50kW night

Class B: 50kW day and night

Class C: 1kW night for all zones

1kW day for Zone 1

5kW day for Zone 2

10kW day for Zone 3

c. Protection ratios adopted were 26dB for co-channel and -29.5dB (1:30 ratio) for 2nd adjacent channel. 25uv/m contour overlap for stations separated by three channels is prohibited. Protection ratios for first adjacent channels will be determined when a decision is made on either 9kHz or 10kHz channel spacing, with -5dB for 9kHz separation and 0dB for 10kHz separation under consideration.

d. The US, Mexico, Canada, Greenland, and the French Departments of St. Pierre and Miquelon will use the 10% of the time interfering skywave signals, while all other countries will use the 50% of the time interfering signals in computing nighttime interference.

e. Class A (I-A and I-B in US) stations will be protected to their 0.5-50% nighttime skywave signals. Border protection will no longer be provided, but in special cases protection beyond the 0.5-50% contour will be possible on the basis of agreement with other administrations.

f. Groundwave propagation curves are similar to the present curves used in the US but they have been drawn in a metric format.

presently used in the US, will continue to be used over mixed ground paths.

h. Skywave signals will be computed using a method that extends the present FCC skywave propagation curves.

i. Frequency tolerance will be plus or minus 10Hz.

j. AM stereophonic transmissions will be permitted provided the energy level outside the necessary bandwidth does not exceed that expected in A3 type emission and is receivable by conventional receivers.

k. 10kHz will be the necessary bandwidth recognized in the plan. However, bandwidth of 20kHz will be permitted on the basis that countries adversely affected may require modification of the interfering stations emissions.

l. There will be two station inventories to be used in developing the assignment plan. The basic inventory will include existing stations and future station assignments through December 31, 1982. May 31, 1980, is the final submission date for the basic inventory. A 5-year period from January 1, 1983 through December 31, 1987, will be contained in a second inventory with the final date of May 31, 1981, as the submission date.

m. The IFRB will use the inventories supplied by all of the administrations to determine incompatibilities between assignments submitted by administrations and to develop a reassignment plan for stations with 9kHz channel spacing.

The Report to the Second Session of the Conference contains a great deal of technical data and instructions that should help administrations comply with the requirements of the final agreement. For instance, there are instructions on computing field strengths at given distances for different types of paths; detailed instructions for calculating directional antenna patterns, including a computer program for hand-held calculators; and instructions for making frequency searches for new assignments and determining permissible radiation.

A limited number of copies of the report of the first session were available at the commission. If interested in obtaining a copy, contact: Charles H. Breig in Room 8002, 2025 "M" Street N.W., Wash-