Appendix A: Structure and Proceedings of WARC-92[1]

The supreme body of WARC-92 was the plenary, in which all countries participated. The plenary was chaired by the Honorable Jose Barrionuevo Peña, member of the Spanish Parliment.[2] WARC-92 delegates selected five vice-chairs to assist him, including Ambassador Jan Baran, the head of the U.S. delegation.[3] Agreements were Finalized at the plenary sessions, most of which took place in the last several days of the conference.

■ Structure of the Conference

The work of WARC-92 was functionally divided among seven committees, With the exception of Committee 1, each of the committees had a single chair and vice-chair.

> *Committee 1:* The Steering Committee was composed of the chair and vice-chair of the conference and the chair and vice-chair of the other committees listed below. It coordinated the meetings and other activities of WARC-92.
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> *Committee 2:* The Credentials Committee was charged with verifying the diplomatic credentials of the delegations present at WARC-92.
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> *Committee 3:* The Budget Control Committee had two purposes, overseeing conference expendi-

tures and identifying the financial implications of WARC-92 decisions.

> *Committee 4:* The Frequency Allocations Committee was the focus of much of the work at WARC-92. All of the decisions on how to allocate the spectrum were made during the deliberations of this committee and its subcommittees. Committee 4 divided its work into three subcommittees: working groups A, B, and C. Working Group 4A considered allocation issues in the frequencies below 137 MHz, specifically high-frequency broadcasting. Working Group 4B considered allocations for services between 137 MHz and 3 GHz. Among the topics included in 4B discussion were most of the ''hot' issues—mobile satellite services, including big and little low-Earth orbiting satellites (LEOS), Future Public Land Mobile Telecommunication Systems (FPLMTS), Broadcasting-Satellite Service-Sound (BSS-Sound), and some of the space services. Working Group 4C considered allocations above 3 GHz, including space services, high-definition television (HDTV), and general satellite service. In addition to these working groups, Committee 4 also assigned specific tasks

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[1] The following section is based on International Telecommunication Union, "Inauguration of WARC-92," *Telecommunication Journal,* vol. 59, No. 3, 1992, and U.S. Department of State, *United States Delegation Report,'* **1992** *World Administrative Radio Conference,* publication 9988, July 1992, Annex F.

[2] When ITU conferences are not held in Geneva, the headquarters of ITU, the chairman of a WARC is traditionally provided by the country hosting the conference.

[3] The other vice-chairs were from the Russian Federation, Cote d'Ivoire, China, and Norway.

to a number of other smaller groups, some of which are described below.

Committee 5: The Regulatory Committee was the other most important committee at WARC-92. It considered the regulatory changes and procedures resulting from the decisions made in Committee 4, and debated definitions for new services. The committee also split its work into working groups—5A, 5B, and 5C- and a number of subworking groups to address specific regulatory issues.

Committee 6: The Editorial Committee "aligned" the texts developed in the Allocations and Regulatory Committees-ensuring that the texts contained the same meanings in the official languages of the International Telecommunication Union (ITU)--French, English, and Spanish. This was an important committee because countries could try to "align" the texts to their best advantage-sometimes trying to make changes that altered the substance of the agreements, especially if they had earlier "lost" on an issue in committees 4 and 5.

A Technical Working Group to the Plenary was also established in order to consider complex technical issues that required in-depth analysis or study and that could not be resolved in the work of Committees 4 and/or 5. In addition to providing technical advice to the conference, the Working Group to the Plenary also had its own set of issues to consider, including making recommendations for future conferences to address meteorological and Earth-exploration satellite services, new space services in bands above 20 GHz, and meteorological aids services in bands below 1 GHz.

With so many different groups covering so many different topics, overlapping meetings were unavoidable. In many cases, the deliberations of Committees 4 and 5 went on simultaneously. For the United States, with 71 delegates and support staff, covering all important meetings was not all that difficult. For smaller nations, however, who sent only one or two delegates to the conference, attendance at all relevant meetings was impossible. These countries tended to split their time between the various working, ad hoc, and drafting groups of Committees 4 and 5.

▌ Negotiation and Decisionmaking

The work of the conference was hierarchically structured. In Committee 4, allocations issues were divided among the appropriate working groups (listed above). Once these groups started their discussions, some issues were decided relatively easily and early in the conference. Other issues, however, were more difficult. The most contentious issues, includingMobile-Satellite Service (MSS), Broadcasting-Satellite Service-Sound (BSS-Sound), and FPLMTS, were handed down to smaller working groups, which usually consisted only of the major parties involved in the debate. Often the membership in these subgroups was balanced to ensure fair geographic representation among the ITU's three regions.

The process of formalizing agreements followed this hierarchy in reverse order. Each small drafting or ad hoc group would come to an agreement and then report its findings to its parent group or committee. In cases where agreement was not possible, the topic was "bumped up" to the parent committee for discussion and resolution. In this way, issues worked their way back up the conference structure. After final texts had been agreed to in Committees 4 and 5, these documents were sent to Committee 6 to be aligned. From Committee 6, draft agreements finally reached the plenary level, where the drafts were read through several times for final agreement, each time refining wording further and resolving any remaining issues or questions.

By the end of the conference, most issues had been resolved in the committees or their subcommittees. However several issues—MSS, including big LEOS, BSS-Sound and FPLMTS-had not been resolved. They were brought to the floor of the full Committee 4 and eventually to the plenary for final resolution,

▌ Ad Hoc and Drafting Groups

In addition to the above committees, ad hoc groups and drafting groups were established as needed throughout the conference. Some of the more notable groups are listed below.

COMMITTEE 4

Ad Hoc **Group 1**—To harmonize allocation options for the general-satellite service.

Ad Hoc Group 3-To identify from options resulting from the work of Drafting Group 1 to Working Group 4C a single allocation option to put forward to Committee 4 that meets the requirements of the proposing administrations and addresses the concerns of affected administrations, taking into account the Report of the Chairman of Working Group 4C to the Chairman of Committee 4 (Dec. 207) with respect to the general-satellite service.

Drafting Group 4B1-Space research and operation service 1 GHz, mobile and mobile-satellite service below 1 GHz.

Drafting Group 4B2--Consolidation of all proposals for the mobile-satellite service between 1 and 3 GHz.

Drafting Group 4B3-Consolidation of all proposals for the broadcasting-satellite service (sound).

Drafting Group 4B4---Consolidation of all proposals on regional and worldwide mobile communications including FPLMTS.

Ad Hoc Group 4B5--To harmonize proposals for the space operations, space research, and Earth exploration-satellite services in the bands 2025-2110 MHz and 2200-2290 MHz.

Drafting Group to Ad Hoc 4B5

To harmonize the texts of Resolutions concerning the space research, space operation and Earth exploration-satellite services at 2 GHz.

Drafting Group 4B6--Aeronautical public correspondence.

AD Hoc Group 4B7—Consideration of the mobile-satellite service in the upper and lower L-bands.

Ad Hoc **Group to** 4B-Consideration of new mobile satellite service allocations above 1 GHz and below 3 GHz.

Ad Hoc to Subworking Group 4C2-To consider the issue of feeder links for the broadcasting-satellite service for wide-band HDTV.

Drafting Group 4C1—To consider all proposals for allocations to the space research, Earth exploration-satellite and inter-satellite services above 25.25 GHz.

Ad Hoc Group 4C2-Consideration of proposals for an allocation to the fixed-satellite service in the band 14.5 -14.8 GHz.

Drafting Group-Ad Hoc 4C2

Consideration of conditions under which the fixed-satellite service could operate coprimary with the radiolocation service.

Ad Hoc Group 4C3-To consider proposals for allocations to the general-satellite service.

Drafting Group-To integrate proposals from five administrations to establish frequency bands for use by space-to-Earth 30 GHz Beacon in the fixed-satellite service for purposes of uplink power control.

COMMITTEE 5

Ad Hoc 3 to Committee 5-To monitor progress of work in the working group to the plenary and decisions of Committee 4 and to incorporate such changes in consolidated texts of changes to Articles 27,28 and 29.

Drafting Group 5B-Consideration of possible ways of eliminating the differences of interpretation among the English, French and Spanish texts.

Drafting Group 5C3--Redraft of text from the draft resolution relating to terrestrial digital broadcasting.

TECHNICAL WORKING GROUP OF THE PLENARY

Drafting Group l—To consider new resolutions or recommendations regarding primary allocations for meteorological-satellite and Earth exploration-satellite services in the 401-403 MHz band.

Drafting Group 4-To consider proposals concerning modification to Resolution 703.

Drafting Group 5-To consider technical issues relating to proposals concerning modification of the definition of 'geostationary-satellite orbit."

Ad Hoc 6-To examine the necessary technical parameters required to protect service allocations made by Committee 4, particularly with respect to Articles 27,28,29.