

CGMS-XXVII-USAWP-15.1

Prepared by USA

Agenda Item: I.2

## **SUMMARY OF THE 1998 SPACE FREQUENCY COORDINATION MEETING**

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### Summary and Purpose of Document

This document summarizes the 1998 Space Frequency Coordination Group Meeting held in Kyoto, Japan, September 9-17, 1998. Discussed are areas that directly affect frequencies used by meteorological satellites.

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Action Proposed: None

## **1998 SPACE FREQUENCY COORDINATION GROUP MEETING**

### Summary:

The eighteenth meeting of the Space Frequency Coordination Group (SFCG) convened in Kyoto, Japan from September 9 - September 17, 1998 under the sponsorship of Japan's National Space Development Agency (NASDA). Delegates from space agencies representing 15 countries met to discuss topics related to the allocation of radio frequencies for space activities. Of primary concern to NOAA and other meteorological satellite (metsat) operators is the use of frequencies for passive remote sensing and for transmission/receipt of telemetry, command and data to/from metsats.

SFCG-18 focused on issues addressed at the 1997 World Radiocommunication Conference (WRC-97) held in Geneva, Switzerland from October 20 through November 21 and on preparation for WRC-00. The WRC-97 agenda contained the following topics of great importance to metsat operators:

- Review of Appendix S7 (formerly Appendix 28): Review of Appendix S7 was postponed until WRC-00 to permit completion of studies that will define coordination distances between satellite ground stations and terrestrial services
- Resolution 710: Primary Service Requirements for the Meteorological-Satellite Service and Earth Exploration-Satellite Services in the Band 401-403 MHz
- Resolution 712 (Rev. WRC-95): Consideration by a Competent WRC of Issues Dealing with Allocations to Space Services
- Existing frequency allocations near 60 GHz and, if necessary, their reallocation with a view to protecting the Earth exploration-satellite (passive) service systems operating in the unique oxygen absorption frequency range from above 50 GHz to about 70 GHz

Allocation of frequency bands above 50 GHz to the Earth exploration satellite (EES) (passive) service. (Note: Meteorological satellites are a sub-category of the EES service). This agenda item was postponed until WRC-00 in order that technical studies related to sharing between passive sensors and both terrestrial systems and inter-satellite links can be completed. The discussion at WRC-00 will consider frequencies above 71 GHz, since WRC-97 realigned the 50-71 GHz region.

(Note: A summary of WRC-97 results was provided as an input to CGMS-XXVI and will not be addressed in this paper. A separate paper entitled "Preparations for WRC-00" submitted to CGMS-XXVII provides an overview of topics of interest for CGMS members.)

Work in the form of technical studies still needs to be concluded prior to WRC-00. In particular, the passive frequency band 55.78-56.26 GHz requires completion of sharing studies between passive sensors and high-density applications of the fixed service.

Other topics of interest to NOAA discussed at the SFCG-18 meeting were:

- Passive sensors around 18.7 GHz (rain rates, ocean ice morphology and ocean surface wind speed)
- Upgrade of passive sensor allocation in the 4.2-4.4 GHz band
- Study of the relative scientific properties of the bands 31.3-31.8 GHz and 36-37 GHz for passive sensing
- Active sensors around 5.3 GHz (terrestrial features)
- Allocations for active sensors above 100 GHz
- P-band (430-440 MHz) synthetic aperture radar

- Wind profiler radars
- Sharing of the Metsat space-to-earth links in 1698-1710 MHz with the Mobile Satellite Service
- Coordination distances for Metsat ground stations

Details of the above topics are found in the attached SFCG-18 Report of Special Working Group 3 (SWG-3).

Attachment: SFCG-18 SWG-3 Report