Donald Abelson
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Dear Mr. Abelson:

The National Telecommunications and Information Administration on behalf of the Executive Branch Agencies, has approved the release of an additional Draft Executive Branch (NTIA) proposal considering federal agency inputs toward the development of U.S. Proposals for WRC-03.

The attached proposal addresses agenda item 1.31, which is concerned with additional allocations for mobile-satellite service in the 1.3 GHz band. This proposal is forwarded for review by your WRC-03 Advisory Committee. Karl Nebbia from my staff will contact Julie Garcia and reconcile any differences.

Sincerely,

*(Signed October 23, 2001)*
William T. Hatch
Associate Administrator
Office of Spectrum Management

Enclosure

**United States of America**

**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.31**: to consider the additional allocations to the mobile-satellite service in the 1-3 GHz band, in accordance with Resolutions **226 (WRC-2000)** and **227 (WRC-2000);**

**BACKGROUND**: WRC-2000 considered proposals for an allocation to the mobile-satellite service (MSS) (space-to-Earth) in Regions 1 and 3 in the frequency band 1 518-1 525 MHz. This band is adjacent to the 1 525-1 559 MHz band in use by GSO MSS operators. An earlier proposal, using the 1 559-1 567 MHz band considered in response to Resolution **220 (WRC-97)**, was dismissed by WRC-2000 and this band will not be considered further for MSS use.

WRC-2000 concluded in Resolution **226** that the proposed allocation to the MSS (space-to-Earth) at 1 518-1 525 MHz due to their potentially widespread emissions upon the Earth from either geostationary or non-geostationary systems, could have an impact on the terrestrial mobile service, including aeronautical mobile and aeronautical mobile telemetry, in all three Regions. Resolution **226** also states there is a need to review the pfd values in Appendix **S5** in order to ensure that they are adequate to protect new point-to-multipoint systems operating in the fixed service in the band, as well as, a need to study sharing between the MSS and aeronautical mobile telemetry in all the Regions in the band.

Recommendation ITU-R M.1459 gives the values needed for protection of the aeronautical mobile service for telemetry systems in the 1 452-1 525 MHz band from geostationary satellites operating in the MSS. The required separation distances between co-frequency telemetry and MSS operations are very large, making the feasibility use of the 1 518-1 525 MHz band by MSS anywhere in the world questionable.

There has been no MSS implemented in the 1 492-1 525 MHz band due to the incompatibility between aeronautical telemetry and MSS systems.

WRC-2000 also considered proposals for worldwide allocation of the band 1 683-1 690 MHz to the MSS (Earth-to-space) in response to Resolution **213 (WRC-95)**. The frequency band 1 675-1 710 MHz is allocated to the MSS (Earth-to-space) in Region 2 on a co-primary basis. However, the 1 683-1 690 MHz is mainly used by the meteorological-satellite (MetSat) and meteorological aids (MetAids) services. While there are only a limited number of main MetSat earth stations operating in this band in all three Regions, there are a large number of MetSat earth stations operating in Regions 2 and 3, and the locations of many of these stations are unknown. Sharing between MetSat and MSS in the band 1 675-1 690 MHz is feasible only if appropriate separation distances are maintained.

Sharing between MetSat and MSS may not be feasible in those countries where a large number of MetSat stations are deployed. Recommendation ITU-R **SA.1158-2** indicates that additional studies are required in order to determine the criteria for coordination between MSS and the MetSat service for GVAR/S-VISSR stations operated in the band 1 683-1 690 MHz in Regions 2 and 3.

Other spectrum identified in Resolution **213** included 1 690-1 710 MHz, however, it has been concluded in the ITU-R that co-channel sharing between MSS and MetAids is not feasible and that co-frequency sharing between MetAids and MetSat services is not feasible. Therefore, the WMO has identified future spectrum requirements for MetAids operations as limited to the 1 675-1 683 MHz portion of the 1 675-1 700 MHz band, but some administrations will continue to require spectrum in the range 1 683-1 690 MHz for MetAids operations.

The existing Region 2 allocation includes the provision that MSS operation should not constrain current and future development of the MetSat service, as specified in No. **S5.377**. No MSS services have been implemented under the Region 2 allocation in this band.

**Proposal:**

**USA/ /1**
**MOD**

**1 492-1 525 MHz**

| **Allocation to services** | | |
|---|---|---|
| **Region 1** | **Region 2** | **Region 3** |
| **1 492-1 525** | **1 492-1 525** | **1 492-1 525** |
| FIXED | FIXED | FIXED |
| MOBILE except aeronautical mobile | MOBILE S5.343<br>~~MOBILE-SATELLITE (space-to-Earth) S5.348A~~ | MOBILE |
| S5.341 S5.342 | S5.341 S5.344 ~~S5.348~~ | S5.341 ~~S5.348A~~ |

**USA/ /2**
SUP

~~**S5.348**~~

**Reasons:** There are no requirements for MSS systems in Region 2.

**USA/ /3**
SUP

~~**S5.348A**~~

**Reasons:** There are no MSS systems operating in this band, none are currently planned. This allocation has not proven to be useful since it was established in 1992. Also, there are no demonstrated spectrum requirements for MSS systems, which necessitate the continuance of an MSS allocation to Region 2 in this band.

**USA/ /4**
MOD

**1 675-1 710 MHz**

| Allocation to services | | |
|---|---|---|
| **Region 1** | **Region 2** | **Region 3** |
| **1 675-1 690**<br>METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br><br>S5.341 | **1 675-1 690**<br>METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>~~MOBILE-SATELLITE (Earth-to-space)~~<br>S5.341 ~~S5.377~~ | **1 675-1 690**<br>METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br><br>S5.341 |
| **1 690-1 700**<br>METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>Fixed<br>Mobile except aeronautical mobile<br>S5.289 S5.341 S5.382 | **1 690-1 700**<br>METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>~~MOBILE-SATELLITE (Earth-to-space)~~<br>S5.289 S5.341 ~~S5.377~~ S5.381 | **1 690-1 700**<br>METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br><br><br>S5.289 S5.341 S5.381 |
| **1 700-1 710**<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br><br>S5.289 S5.341 | **1 700-1 710**<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>~~MOBILE-SATELLITE (Earth-to-space)~~<br>S5.289 S5.341 ~~S5.377~~ | **1 700-1 710**<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br><br>S5.289 S5.341 S5.384 |

**USA/ /5**
SUP

~~**S5.377**~~

**Reasons:** There are no MSS systems operating in this band, none are currently planned. This allocation has not proven to be useful since it was established in 1992. Also, there are no demonstrated spectrum requirements for MSS systems, which necessitate the continuance of an MSS allocation to Region 2 in this band.

## Appendix S5

## ANNEX 1

**USA/ /6**
MOD

**TABLE S5-2**

| **Frequency band (MHz)** | **Terrestrial service to be protected** | **Coordination threshold values** | | | | |
|---|---|---|---|---|---|---|
| | | **GSO space stations** | | **Non-GSO space stations** | | |
| | | **pfd (per space station) calculation factors (NOTE 2)** | | **pfd (per space station) calculation factors (NOTE 2)** | | **% FDP (in 1 MHz) (NOTE 1)** |
| | | ***P*** | ***r* dB/ degrees** | ***P*** | ***r* dB/ degrees** | |
| ~~1 492-1 525~~ | ~~Analogue FS telephony (NOTE 5)~~ | ~~–146 dB(W/m$^2$) in 4 kHz and –128 dB(W/m$^2$) in 1 MHz~~ | ~~0.5~~ | ~~–146 dB(W/m$^2$) in 4 kHz and –128 dB(W/m$^2$) in 1 MHz~~ | ~~0.5~~ | |
| | ~~All other cases (NOTE 4)~~ | ~~–128 dB(W/m$^2$) in 1 MHz~~ | ~~0.5~~ | ~~–128 dB(W/m$^2$) in 1 MHz~~ | ~~0.5~~ | ~~25~~ |

~~NOTE 4 – Exceptions for the band 1 492-1 525 MHz are as follows:~~

~~4.1 For the land mobile service on the territory of Japan (No. **S5.348A**): –150 dB(W/m$^2$) in 4 kHz at all angles of arrival is applicable to all satellite space-to-Earth emissions.~~

~~4.2 For the aeronautical mobile service for telemetry (No. **S5.343**), the requirement for coordination is determined by frequency overlap (No. **S5.348**).~~

**Reasons:** Consequential changes due to the deletion of the MSS service from the band 1 492- 1 525 MHz.