July 28, 1999

Mr. Donald Abelson
Chief of the International Bureau
Federal Communications Commission
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 additional proposals for WRC-2000. These proposals are being forwarded to you for review. Karl Nebbia from my staff will contact Damon Ladson and reconcile any differences.

Enclosed, originated by the federal agencies, are new draft proposals for Agenda Item 1.6.1 (IMT-2000), Agenda Item 1.9 (Uplinks related to MSS sharing at 1559-1567 MHz), Agenda Item 1.13.1 (NGSO FSS sharing with GSO FSS large earth stations) and additional agenda items resulting from Plenipot Resolutions **87** (Role of the Notifying Administration) and **86** (Review and Update of the Advance Publication, Coordination and Notification Procedures).

Enclosed are modifications to your FCC WRC Advisory Committee's (WAC) proposal related to Agenda Item 1.4 (PFD limits 37.5 – 42.5 GHz). We support the WAC proposals for Agenda Items 1.5 (HAPS), 1.8 (Earth stations onboard vessels), and 1.20 (Appendix **S30**) as written. Additionally, we have noted the WAC proposal for "No Change" with respect to Agenda Item 1.10 (generic MSS/AMS(R)S). In that there is concern being expressed by the aviation community in all ITU regions, and the issue has not been clearly resolved, we feel that a proposal is premature.

Sincerely,

Original Signed

William T. Hatch
Acting Associate Administrator
Office of Spectrum Management

Enclosures

United States of America

[DRAFT] PROPOSALS FOR THE WORK OF THE CONFERENCE

Proposals for Agenda Item 1.4

to consider issues concerning allocations and regulatory aspects related to Resolutions **126** (WRC-97), **128** (WRC-97), **129** (WRC-97), **133** (WRC-97), **134** (WRC-97) and **726** (WRC-97)

Background

Requests ITU-R 1 of Resolution **133 (WRC-97)** requested the ITU-R to determine whether the power-flux density limits included in Article S21 of the Radio Regulations adequately protect terrestrial services from FSS networks in the band 37.0-40.0 GHz. Resolution **129 (WRC-97)** requested the ITU-R to undertake studies of appropriate criteria and methodologies for sharing, including power flux-density limits, between the fixed-satellite service and the other services with allocations in the band 40.5-42.5 GHz.

The results of studies conducted in the ITU-R of known and proposed non-GSO FSS systems, and of known and proposed point-to-point (P-P) and point-to-multi-point (P-MP) FS systems, indicate that maximum allowable values of power flux-density of -120/-105 dB(W/m^2-MHz) at the surface of the Earth would be adequate to protect ~~terrestrial services~~systems operating in the Fixed Service from non-GSO FSS networks in the frequency band 37.5 - 40.5 GHz. These results are applicable for protection of the Mobile Service in this band as well.

The results of studies conducted in the ITU-R of known and proposed non-GSO FSS systems, and of known and proposed (P-P) and (P-MP) FS systems, indicate that maximum allowable values of power flux-density of -115/-105 dB(W/m^2·MHz) at the surface of the Earth would be adequate to protect ~~terrestrial services~~systems operating in the Fixed Service from non-GSO FSS networks in the frequency band 40.5 - 42.5 GHz. These results are applicable for the terrestrial Broadcasting Service in this band as well.

In both cases, the studies were deemed valid for non-GSO FSS systems comprised of 99 or fewer satellites, and that independent verification would have to be performed if these levels were to be applied to any non-GSO FSS system with more than 99 satellites in its constellation. The results of the studies are reflected in Draft New Recommendation [4-9S/AH1], Maximum Allowable Values of Power Flux-Density at the Surface of the Earth Produced by Non-Geostationary Satellites in the Fixed-Satellite Service Operating in the 37.5-40.5 GHz and 40.5-42.5 GHz Bands to Protect the Fixed Service.

The results of studies conducted in the ITU-R show that, for a range of non-GSO and GSO fixed-satellite systems, and for a point-to-point and point-to-multipoint fixed service system operating with elevation angles that range from 0° - 40^0, the pfd levels of -115/-105 dB(W/m^2 per MHz) are adequate to protect the fixed service in the band 37.5-42.5 GHz from interference caused by GSO fixed-satellite service systems.

On the basis of these conclusions, the United States makes the following proposals for modifications and additions to Table S21-4 of Article S21 are made, and to suppress Resolutions 133 and 129 (both WRC-97). The United States bases its proposal to suppress Resolution 133 on the completion of the power flux-density studies referenced in Resolves 1 of that Resolution. These power flux density studies were performed relative to the Fixed Service and are assumed to adequately protect the co-primary Mobile Service as well. To the extent that there may be aspects of studies that encompass matters in Resolves 2 of Resolution 133 still ongoing in the ITU-R, particularly on issues of coordination methodology, the United States may make additional proposals (e.g., for a new WRC-2000 Resolution) to enable the completion of any such studies that have not been successfully completed prior to WRC-2000.

PROPOSALS UNDER AGENDA ITEM 1.4 (Resolutions 133 and 129):

USA/A1.4/03 Modifications to Table S21-4

MOD

	Frequency band	Service	Limit in dB(W/m^2) for angle of arrival (*) above the horizontal plane			Reference bandwidth
			0° - 5°	5° - 25°	25° - 90°	
	. . .					
MOD **ADD**	31.0-31.3 GHz 34.7-35.2 GHz (S-E transmissions referred to in No. **S5.550** on the territories of countries listed in No. **S5.549**) 37.0-40.5 GHz	Fixed-Satellite (geo stationary-satellite orbit) Mobile-Satellite Space Research	-115 ~~10~~	-115 + 0.5 (*-5) ~~10~~	-105 ~~10~~	1 MHz
	37.5-40.5 GHz	**Fixed-Satellite (non-geostationary-satellite orbit)**	**-120 10**	**-120 + 0.75 (*-5) 10**	**-105 10**	**1 MHz**
	40.5-4~~2~~1.5 GHz	**Fixed-Satellite**	**-115 10**	**-115 + 0.5 (*-5) 10**	**-105 10**	**1 MHz**

MOD 10 **S21.16.4** The values given in this table shall not apply to emissions of space stations on non-geostationary satellites in networks operating with 100 or more satellites.

Reasons: The PFD-review objectives of Resolutions **133 (WRC-97)** and **129 (WRC-97)** have been met. The values stated above for non-geostationary satellite orbit FSS systems in the bands 37.5-40.5 GHz and 40.5-42.5 GHz respectively are included in a draft new recommendation approved by

the ITU-R. See Draft New Recommendation [4-9S/AH1], Maximum Allowable Values of Power Flux-Density at the Surface of the Earth Produced by Non-Geostationary Satellites in the Fixed-Satellite Service Operating in the 37.5-40.5 GHz and 40.5-42.5 GHz Bands to Protect the Fixed Service. The studies under Resolution 129 were done with respect to the Fixed Service but are assumed to be adequate for protecting the co-primary terrestrial Broadcasting Service as well. In addition, studies have demonstrated the suitability for application to geostationary satellite-orbit FSS systems of the current pfd limits in the 37.5-40 GHz band and the application of the same limits to the fixed-satellite service in the 40.5-42.5 GHz band. However, protecting the Radio Astronomy Service to the levels in existing ITU-R recommendations has proven to be commercially impractical so that pfd levels for the FSS in the 41.5-42.5 GHz band, an allocation the U.S. proposes to delete in a separate proposal, would be unnecessary (see Section 6.1.4.2.3 of the CPM Report).

USA/A1.4/04
SUP

~~**Resolution 133 (WRC-97)**~~

~~**Sharing Between the Fixed Service and Other Services in the Band 37-40 GHz**~~

Reasons: Consequential

USA/A1.4/05

SUP

~~**Resolution 129 (WRC-97)**~~

~~**Criteria and Methodologies for Sharing Between the Fixed-Satellite Service and Other Services with Allocations in the Band 40.5-42.5 GHz**~~

Reasons: Consequential

United States of America

[DRAFT] PROPOSALS FOR THE WORK OF THE CONFERENCE

Proposals for Agenda Item 1.5

to consider regulatory provisions and possible additional frequency allocations for services using high altitude platform stations, taking into account the results of ITU-R studies conducted in response to Resolution **122 (WRC-97)**; (WAC/105(24.06.99))

Background Information: Resolution 122 (WRC-97), "Use of the bands 47.2 – 47.5 GHz and 47.9 – 48.2 GHz by high altitude platform stations in the fixed service and by other services", instructs the Director of the Radiocommunication Bureau, that from 22 November 1997, to accept notices in the 47.2 – 47.5 and 47.9 – 48.2 GHz only for high altitude platform stations in the fixed service and for feeder links for the broadcasting-satellite services pending review of sharing studies between co-primary services in the band. On the basis of studies conducted in the ITU-R, it is appropriate to modify Resolution **122** (WRC-97). A draft new Recommendation [4-9S/AAX] has been developed that establishes the performance parameters for FSS antennas that can share with the HAPS system.

On the basis of these conclusions, the following proposal is made:

USA/1.5/XX MOD Resolution 122 (WRC-97)

RESOLUTION 122 (WRC-97)

Use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz by high altitude platform stations in the fixed service and by other services

The World Radiocommunication Conference (~~Geneva, 1997~~Istanbul, 2000),

considering

a) that the band 47.2-50.2 GHz is allocated to the fixed, mobile and fixed-satellite services on a co-primary basis;

b) that ~~this Conference has~~WRC-97 made provision for operation of high altitude platform stations, also known as stratospheric repeaters, within the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;

c) that ITU has among its purposes "to promote the extension of the benefit of the new telecommunication technologies to all the world's inhabitants" (No. 6 of the Constitution of the ITU (Geneva, 1992));

d) that systems based on new technologies using high altitude platforms in the bands 47.2-47.5 and 47.9-48.2 GHz will be able to provide high-capacity, competitive services to urban and rural areas;

e) that high altitude platform systems are in an advanced stage of development and some countries have notified such systems to ITU;

f) that WRC-97 adopted a new definition of high altitude platform stations in Article **S1**, modified No. **S11.24** and added No. **S11.26** in the Radio Regulations providing for notices relating to assignments for high altitude platform stations in the bands 47.2-47.5 GHz and 47.9-48.2 GHz~~Board issued a provisional rule of procedure concerning notification periods in No. **S11.24/1228** in February 1997~~;

g) that ~~in spite of the urgency attached to the development of such systems, technical, sharing and regulatory issues should be studied in order to achieve the most efficient use of the spectrum available for these systems since WRC-97~~ the ITU-R has ~~concluded~~ confirmed that sharing is feasible between high altitude platform stations and the FSS;

h) that technical studies are still required in order to ascertain the extent to which sharing of the bands 47.2-47.5 GHz and 47.9-48.2 GHz is feasible between systems using high altitude platforms in the fixed service and systems in the fixed~~, fixed-satellite~~ and mobile services, and to ascertain the requirements to protect radio astronomy services in adjacent bands from spurious emissions;

i) that the radio astronomy service has primary allocations in the bands 42.5-43.5 GHz and 48.94-49.04 GHz;

~~*j)* that ITU-R studies are already under way on the preferred characteristics of systems using high altitude platforms and the feasibility of sharing between these systems and systems of other services and between these systems and other systems in the fixed service (Questions ITU-R 212/9, ITU-R 218/9 and ITU-R 251/4);~~

~~*k)* that No. **S5.552** urges administrations to reserve fixed-satellite service use of the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service, and that preliminary ITU-R studies indicate that high altitude platform stations in the fixed service may share with broadcasting-satellite feeder links;~~

~~*l)* that the development of services using high altitude platform stations in these bands requires major investment and that manufacturers and operators should be given the confidence to make the necessary investment in these applications,~~

resolves

1 to urge administrations to facilitate coordination between high altitude platform stations in the fixed service operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz and other co-primary services in their territory and adjacent territories;

2 that, on a provisional basis, the procedures of Article **S9** shall be used for coordination between satellite systems and high altitude platform systems;

3 to request ITU-R to carry out urgently studies on the appropriate technical sharing criteria for the situations referred to in *considering h)*, with priority given to the sharing with other systems in the fixed ~~and fixed-satellite~~ service~~s, in particular the determination of the appropriate geographical separation from feeder links in the broadcasting-satellite service;~~

4 that WRC-~~99~~03 should review the results of these studies and consider refinement of the regulatory provisions for ~~that might facilitate a broader application of these~~ high altitude platform technologies,

instructs the Director of the Radiocommunication Bureau

1 that notices concerning high altitude platform stations that were received by the Bureau prior to 22 November 1997, and provisionally recorded in the Master International Frequency Register in accordance with the provisional rule of procedure issued by the Board, shall be maintained;

2 that ~~from 22 November 1997, and~~ pending review of the sharing studies in *considering h)* ~~and review of the notification process by WRC-99~~, the Bureau shall accept notices in the bands 47.2-47.5 GHz and 47.9-48.2 GHz only for high altitude platform stations in the fixed service and for the fixed-satellite service, including feeder links for the broadcasting-satellite service.~~, shall continue to process notices for fixed-satellite service networks (except for feeder links for the broadcasting-satellite service) for which complete information for advance publication has been received prior to 27 October 1997, and shall inform the notifying administrations accordingly.~~

~~EDITORIAL NOTE: A majority of the participants in IWG-7 concur in this document. However, one member, representing Sky Station International, has expressed a preference (1) to maintain and expand considering (j); (2) that the only modification to the resolves should be to postpone the reviewing conference from WRC-99/00 to WRC-2003; and (3) to extend for a minimum of three more years (i.e., until the next~~

~~conference) the freeze on FSS notices that is contained in "instructs the Director of the Radiocommunication Bureau" No. 2.~~

Proposal for Agenda Item 1.6.1

(review of spectrum and regulatory issues for advanced mobile application in the context of IMT-2000, noting that there is an urgent need to provide more spectrum for the terrestrial component of such applications and that priority should be given to terrestrial mobile spectrum needs, and adjustments to the table of frequency allocations as necessary)

Background Information: The United States proposes NOC for the bands 2 700-2 900 MHz and 2 900- 3 100 MHz. These two bands are used extensively throughout the world for the meteorological radars and other radionavigation and radiolocation systems. The impact of an allocation for mobile service use by IMT-2000, on these critical radar operations has not been studied by the ITU-R.

The 2700-2900 MHz band is used for aeronautical radionavigation radars providing essential safety-of-life related terminal approach guidance for commercial aircraft. The band 2900-3100 MHz is used extensively by radars and radar beacons operating in the maritime radionavigation service, including vessel traffic services, harbor - harbor entrance navigation and collision avoidance. Marine radars using this band provide an essential navigation capability in poor weather; for example, providing a factor of ten improvement in radar target detection during a snowstorm to that of shipborne radars operating in the 3cm band. The NEXRAD weather radar system, operating at 2900-3100 MHz, also provides weather location and prediction information critical for public safety. Studies made during the implementation of NEXRAD has shown that air traffic control and weather radar cannot operate in the same band and in the same vicinity of marine radars and racons without causing interference.

Working Party 8B, in a liaison statement to Task Group 8/1, expressed serious concerns that TG8/1 was recommending critical radionavigation, radiolocation, meteorological aids and telemetry bands via CPM text to WRC-2000 for possible reallocation to the Mobile Service exclusively without consulting the responsible working party.

The CPM text concludes that, given the technical characteristics of the radionavigation, radiolocation and meteorological radars, (e.i.r.p. in the order of 1 GW in some systems and the trend towards high duty cycles), and the need to operate in accordance with the protection criteria contained in ITU-R recommendations, sharing with IMT-2000 systems is considered to be feasible only when explicitly confirmed by ITU-R sharing studies.

Proposal:

2 700-3 100 MHz

	Allocation to services		
	Region 1	**Region 2**	**Region 3**
USA/1.6/1 **NOC**	**2 700-2 900**	AERONAUTICAL RADIONAVIGATION S5.337 Radiolocation S5.423 S5.424	
USA/1.6/2 **NOC**	**2 900-3 100**	RADIONAVIGATION S5.426 Radiolocation S5.425 S5.427	

Reasons: ITU-R studies have not been conducted to support an allocation to the mobile service for use by the IMT-2000.

Proposal for Agenda Item 1.8

(to consider regulatory and technical provisions to enable earth stations located on board vessels to operate in the fixed-satellite service (FSS) networks in the bands 3 700 - 4 200 MHz and 5 925 - 6 425 MHz, including their coordination with other services allocated in these bands)

Background Information: This item concerns provision of communications by earth stations on board vessels using frequencies allocated to the fixed-satellite service and used by existing space segment in the fixed-satellite service. These stations operate in three distinct modes: at sea; while stationary in or near port; and in motion approaching or departing from port.

Operations at sea (beyond a certain distance for near-shore coordination) by earth stations on board vessels in the fixed-satellite service do not present a potential for interference to stations in the fixed service operating in accordance with the 6 GHz FS allocation, and therefore need not be coordinated. Operations while these earth stations are stationary at pre-determined points can be coordinated bilaterally with fixed service systems. Technical and regulatory issues concern the potential for interference between in-motion operations by these ESV earth stations operating close to shore and stations in the fixed service both on and offshore.

Attached is regulatory text that provides the framework for the authorization of earth stations on board vessels in the three different situations of operation; and through the application of constraints provides for the continued growth of terrestrial fixed services operating in accordance with the Radio Regulations.

There are a number of references to the distance [XXX] in the following proposal for Agenda Item 1.8. Determination of the [XXX] value or values must be accomplished before any regulatory/procedural proposals could be implemented.

Proposal:

3 700 - 4 200 MHz

	Allocation to services		
	Region 1	Region 2	Region 3
USA/1.8/01 **MOD**	3700-4200 FIXED FIXED-SATELLITE **ADD S5.ESV** Mobile	3700-4200 FIXED FIXED-SATELLITE (space-to-Earth) **ADD S5.ESV** MOBILE except aeronautical mobile	

Reasons: To establish regulatory and technical provisions for operations of ESV earth stations on board vessels in the fixed-satellite service.

5 925 - 6 425 MHz

	Allocation to services		
	Region 1	Region 2	Region 3
USA/1.8/02 **MOD**	5925-6425	FIXED FIXED-SATELLITE (Earth-to-space) **ADD S5.ESV** S5.149 S5.440 S5.458	

Reasons: To establish regulatory and technical provisions for operations of earth stations on board vessels in the fixed-satellite service

USA/1.8/03

ADD **S5.ESV** Earth stations located on board vessels may use frequencies in this band and shall operate in the fixed-satellite service in accordance with Resolution **ZZZ (WRC-2000).**

Reasons: To establish regulatory and technical provisions for operations of earth stations on board vessels in the fixed-satellite service.

USA/1.8/04

ADD

Resolution ZZZ (WRC-2000)

Provisions to Enable Earth Stations Located on board Vessels to Operate in Fixed-Satellite Service Networks in the Bands 3 700-4 200 MHz and 5 925-6 425 MHz

The World Radiocommunication Conference (Istanbul, 2000),

considering

a) that the technology exists that would permit the use of FSS networks by earth stations on board vessels (ESV) in the bands 3 700-4 200 MHz (space-to-Earth) and 5925-6425 MHz (Earth-to-space);

b) that ESVs have the potential to cause unacceptable interference to fixed service systems in the band 5 925-6 425 MHz;

c) that some administrations have been operating ESVs for several years under Radio Regulation S4.4;

d) that ESV operations require considerably less than the full bandwidth in this FSS allocation and only a portion of the visible geostationary arc;

e) that in order to ensure the protection and future growth of the FS, the ESV must operate with certain operational constraints;

f) that the territory of an administration includes any off-shore structures or platforms with stations authorized by that administration;

g) that a minimum distance from the territory of an administration can be calculated beyond which the ESV will not cause unacceptable interference to the fixed service in this band.

resolves

1. that an earth station on board a vessel (ESV) may be considered a station in the fixed-satellite service while receiving in the 3 700 - 4 200 MHz band and transmitting in the 5 925 - 6 425 MHz band;

2. that operation of ESVs that are at least [XXX] km from the territory of an administration in which stations in the fixed service operating in accordance with the Radio Regulations require no coordination or agreement;

3. that an ESV may be operated, either at a stationary position or while in motion, within [XXX] km from the territory of an administration with any fixed service station operating in accordance with the Radio Regulations using the bands 3 700 - 4 200 MHz (space-to-Earth) and 5 925 - 6 425 (Earth-to-space) of the fixed-satellite service, subject to the following:

   (a) the authority for operating on radio frequencies within [XXX] km of territory on which such stations in the fixed service are operating belongs with the Administration responsible for that territory; however, the responsibility for the ESV lies with the Administration that authorized the use of the ESV,

   (b) The administration that authorizes the use of the ESV in these bands shall ensure that such stations do not cause unacceptable interference to stations in the fixed service which themselves are established and operated in accordance with the Radio Regulations;

   (c) Before ESVs operate in the fixed-satellite service in these bands:

      (i) a set of frequencies will be established in each area of intended operation for such use that have been coordinated with all other potentially affected users;

      (ii) this set of frequencies will include only the necessary spectrum per vessel in these bands (maximum necessary bandwidth per ESV is 2.346 MHz);

      (iii) coordination will be accomplished between the Administration(s) with authority over the potentially affected fixed service stations operating in these bands and the Administration that authorizes the ESV to operate while stationary in these bands; in accordance with the S9.17 provisions of the Radio Regulations;

      (iv) upon completion of such coordination, the ESV will be authorized to operate in the fixed-satellite service subject to appropriate operational constraints in these bands;

   (a) a list of the ESVs authorized to operate within [XXX] km of territory on which stations in the fixed service are operating in accordance with the Radio Regulations, the frequencies used and associated operational conditions that have been coordinated shall be established and maintained by the Administration responsible for the territory in which the fixed service stations

are located; such list shall include a point of contact for obtaining this information;

(b) ESV operators must comply with the conditions established by the authorizing Administration(s); ESV use will be limited to the areas specified in the authorization with all of the constraints including minimum speeds.

1. that coordination of in-motion ESVs within [XXX] km of all stations in the fixed service operating in accordance with the Radio Regulations shall be accomplished using the provisions of the Annex to this Resolution.

2. that every ESV operating under this provision shall be equipped with an automatic mechanism for continuously determining the location of the vessel and disabling operations in the event the vessel is within [XXX] km of the territory of an administration with stations in the fixed service operating in accordance with the Radio Regulations or that the ESV is outside any geographic area where its operation has been coordinated. The ESV shall also incorporate an automatic mechanism to terminate transmissions (a) when the antenna subsystem loses lock on the satellite and/or the ability to maintain tracking accuracy; or (b) when the antenna elevation drops below the ten degree required minimum elevation angle or (c) or when any operating parameter fails to meet the constraints established in the terms of the coordination agreement.

3. that Administrations that authorize the use of the ESV shall ensure that personnel of vessels with ESVs are adequately qualified and certificated in accordance with the requirements of those Administrations to ensure the proper operation of the ESVs in accordance with the provisions of this Resolution.

4. that the operator of the ESV shall, as appropriate, provide evidence of the basis for the authority under which the station is operating (e.g. license or certification). When such authority cannot be produced or when manifest irregularities are observed, Administrations in whose territory vessels equipped with ESVs are visiting may inspect the ESV installations in order to satisfy themselves that the ESVs conform to the conditions imposed by this resolution, including the capability indicated in section 5.

5. that Administrations which authorize the use of the ESV shall ensure that the ESV shall be capable of operating in compliance with the requirements of this Resolution.

Annex

USE OF ESVS WHILE IN MOTION WITHIN THE DISTANCE [XXX] km IN THE BANDS 3700-4200 MHz AND 5925-6425 MHz

1. Unless otherwise provided in a bilateral coordination agreement, the minimum constraints on ESVs shall include:

   a. minimum diameter of the ESV antenna must be at least 2.4 m;

   b. minimum antenna elevation angle must be at least 10 degrees;

   c. maximum necessary bandwidth/vessel: 2.346 MHz;

   d. maximum necessary bandwidth in a single operating area: 36 MHz;

   e. maximum ESV transmitter power spectral density 17 dB(W/MHz) (at input to the antenna);

   f. minimum satellite tracking accuracy of 0.2 degrees;

   g. maximum half-power antenna beamwidth of 1.5 degrees

1. The ESV transmissions from vessels within [XXX] km of stations in the fixed service operating in accordance with the Radio Regulations shall be based on agreements between the administrations concerned.

2. In order not to inhibit the growth of the fixed service, authorizations and agreements for the use of these frequencies by ESVs in accordance with the conditions of the coordinations shall extend for a fixed period of time (e.g. 1-3 years), but may be renewed;

3. ESVs will not claim protection while in motion from fixed service station transmissions.

4. Methods for establishing the basis for ESV use of frequencies in this band should be based on the most recent Recommendations of the ITU-R applicable to sharing between the fixed service and ESV use of the band.

Reasons: To establish regulatory and technical provisions for operations of earth stations on board vessels in the fixed-satellite service.

United States of America

(DRAFT) PROPOSALS FOR THE WORK OF THE CONFERENCE

Proposals for Agenda Item 1.9

To Take Into Account the Results of ITU-R Studies in Evaluating the Feasibility of an Allocation in the Space-to-Earth Direction to the Mobile-Satellite Service (MSS) in a Portion of the 1 559 - 1 567 MHz Frequency Range, in Response to Resolutions **213 (WRC-97)** and **220 (WRC-97)**;

Background Information: Under the general examination of spectrum for the Mobile-Satellite Service in the 1 to 3 GHz frequency range, it is appropriate to review the situation with some of the existing MSS allocations that have not been brought into use. Allocations to the mobile satellite services in the band 1 492 - 1 525 and 1 675 - 1 710 MHz bands were made at WARC-92 for Region 2. Since that time it has been found that it is not possible to implement MSS in these bands because of their use by terrestrial, meteorological, and meteorological satellite services. This has been documented in studies undertaken by the ITU-R for WRC-95, WRC-97 and, specifically for the 1 675 - 1 710 MHz band, in the CPM-2000 report. It has been shown conclusively as a result of studies called for by Resolution **213** that these mobile-satellite service allocations are not able to be used, therefore they should be removed from the Table of Allocations.

Proposal:

Section IV – Table of Frequency Allocations

1 350-1 525 MHz

USA/1.9/ 1 MOD

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

Reasons: Other uses of the 1 492 - 1525 MHz band preclude its use by the mobile-satellite service.

USA/1.9/ 2 SUP

S5.348

Reasons: The suppression of this footnote is consequential to the removal of the Region 2 allocation for the MSS.

1 660-1 710 MHz

	Allocation to services		
	Region 1	**Region 2**	**Region 3**
USA/1.9/ 3 MOD	**1 675-1 690** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.341	**1 675-1 690** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile ~~MOBILE-SATELLITE (Earth-to-space)~~ S5.341 ~~S5.377~~	**1 675-1 690** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.341
USA/1.9/ 4 MOD	**1 690-1 700** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile S5.289 S5.341 S5.382	**1 690-1 700** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) ~~MOBILE-SATELLITE (Earth-to-space)~~ S5.289 S5.341 ~~S5.377~~ S5.381	**1 690-1 700** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) S5.289 S5.341 S5.381
USA/1.9/ 5 MOD	**1 700-1 710** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.289 S5.341	**1 700-1 710** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile ~~MOBILE-SATELLITE (Earth-to-space)~~ S5.289 S5.341 ~~S5.377~~	**1 700-1 710** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile S5.289 S5.341 S5.384

Reasons: Other uses of the 1 675 - 1 710 MHz band preclude its use by the mobile-satellite (Earth-to-space) in Region 2.

USA/1.9/ 6 SUP

S5.377

Reasons: The suppression of this footnote is consequential to its removal from the allocation tables.

USA/1.9/ 7
SUP

~~RESOLUTION 213 (Rev.WRC-95)~~

~~Sharing studies concerning possible use of the band 1 675-1 710 MHz by the mobile-satellite service~~

Reasons: The studies called for by this resolution have been completed, so this resolution can now be suppressed.

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Proposal for Agenda Item 1.13.1[1]

1.13: on the basis of results of the studies in accordance with Resolutions 130(WRC-97), 131(WRC-97), and 538(WRC-97):

> **1.13.1:** *to review and, if appropriate, revise the power limits appearing in Articles **S21** and **S22** in relation to the sharing conditions among non-GSO FSS, GSO FSS, GSO broadcasting-satellite service (BSS), space sciences and terrestrial services, to ensure the feasibility of these power limits and that these limits do not impose undue constraints on the development of these systems and services;*
>
> **1.13.2:** *to consider the inclusion in other frequency bands of similar limits in Articles **S21** and **S22**, or other regulatory approaches to be applied in relation to sharing situations;*

Background Information: WRC-97 adopted provisional power flux density limits in certain frequency bands which would apply to non-GSO FSS systems to protect GSO FSS networks, and GSO BSS networks. Resolution 130 (WRC-97), *Use of Non-Geostationary Systems in the Fixed-Satellite Service in Certain Frequency Bands*, and Article **S22** of the Radio Regulations contain limits corresponding to an interference level caused by one non-GSO system in the frequency bands 10.7-12.75 GHz, 17.8-18.6 GHz, and 19.7-20.2 GHz. Studies demonstrate that neither the WRC-97 provisional $EPFD_{down}$ limits and associated percentages of time nor the proposed modifications agreed during ITU-R studies adequately protect existing GSO FSS networks with very large earth station antennas. Section 3.1.2 of the draft CPM report for WRC-2000 concludes that transmissions to earth stations with very large antennas need to be protected and that an additional regulatory procedure would be necessary. Coordination triggers and example regulatory and procedural text were also agreed. Building on the draft CPM report text, this proposal includes additions and/or modifications to Articles **S9** and **S22** and Appendices **S4** and **S5** to require coordination between non-GSO FSS transmitting space stations and GSO receive earth stations with very large earth station antennas.

[1] There are additional U.S. proposals for Agenda Item 1.13.1. Note for information: These U.S. proposals include references to very large earth station antenna coordination provisions (e.g., footnotes to proposed revisions to EPFD tables in Article S22) and reference bandwidth requirements that may require editorial modifications.

Proposal:

ARTICLE S9

Sub-Section IIA – Requirement and request for coordination

ADD S9.7A a1) [12] for a specific earth station within a geostationary-satellite network in the fixed-satellite service in certain frequency bands in respect of a non-geostationary satellite system in the fixed-satellite service;

ADD S9.7B a2) [12] for a non-geostationary-satellite system in the fixed-satellite service in certain frequency bands in respect of a specific earth station within a geostationary satellite network in the fixed-satellite service;

MOD

[12] **S9.7A.1** and **S9.7B.1** Coordination information relating to a specific earth station received by the Bureau prior to 1 August 2000 is considered as complete **S9.7A** and **S9.7B** information from the date of receipt of complete information of the associated satellite network under S9.7 provided that the characteristics of the specific earth stations are within the parameters of any typical earth station included in the GSO FSS network coordination request. ~~**S9.8.1** and **S9.9.1** Application of this provision with respect to Articles 6 and 7 of Appendices **S30** and **S30A** is suspended pending a decision of WRC-99 on the revision of these two Appendices.~~

MOD

~~[12]~~[13] **S9.8.1** and **S9.9.1** Application of this provision with respect to Articles 6 and 7 of Appendices **S30** and **S30A** is suspended pending a decision of WRC-99 on the revision of these two Appendices.

Reasons: GSO FSS earth stations with very large antennas are not adequately protected by the $EPFD_{down}$ limits contained in Table **MOD S22-1** and case-by-case coordination of systems operating co-frequency, co-directional links in the space-to-Earth direction is needed. The proposed **ADD S9.7A** and **ADD S9.7B** would require coordination between non-GSO FSS transmit satellites and GSO FSS receive earth stations with very large antennas. By referring to coordination provisions under **S9.7A** and **S9.7B**, the request for coordination would be sent by the requesting administration to the Bureau under **S9.30**. The Bureau would act under **S9.34** to identify administrations with which coordination may need to be effected and publish the information in the Weekly Circular. Since coordination between administrations operating non-geostationary (non-GSO) satellite systems in the fixed-satellite service (FSS) and administrations operating GSO FSS space networks with specific very large earth station antennas is a new type of coordination that does not currently exist in Article **S9**, it is necessary to add two new entry points in Article **S9:**

- One entry point to enable the administration operating the non-GSO satellite space stations to request coordination with administrations operating GSO FSS space networks with specific very large earth station antennas.
- Another entry point to enable the reciprocal coordination to take place, i.e. the possibility for an administration operating a GSO FSS space network with specific very large earth station antenna to request coordination with administrations having non-GSO FSS transmit space stations.

Article S22

Section II – Control of interference to geostationary-satellite systems

ADD

TABLE **S22-1**[1]

Limits to the $EPFD_{down}$ radiated by non-GSO FSS systems in certain frequency bands

ADD

[1] For certain receive earth stations, see also **ADD S9.7A** and **ADD S9.7B**.

Reason: The $EPFD_{down}$ limits contained in **Table S22-1** do not adequately protect earth stations in geostationary satellite networks in the fixed-satellite service with very large antennas. The proposed **ADD S9.7A** and **ADD S9.7B** require case-by-case coordination.

ADD

TABLE **S22-4**[1, 3]

Operational Limits to the $EPFD_{down}$ radiated by non-GSO FSS systems in certain frequency bands

ADD

[3] For certain receive earth stations, see also **ADD S9.7A** and **ADD S9.7B**.

Reason: The Operational $EPFD_{down}$ limits contained in **Table S22-4** do not adequately protect earth stations in geostationary satellite networks in the fixed-satellite service with very large antennas. The proposed ADD S9.7A and ADD S9.7B require case-by-case coordination.

APPENDIX S4
ANNEX 2B (to Appendix S4)

Table of characteristics to be submitt1ed for space and radio astronomy services

C – Characteristics to be provided for each group of frequency assignments for a satellite antenna beam or an earth station antenna

(The modifications shown below need to be incorporated into the full table.)

MOD

Items in Appendix	Notification or coordination of a GSO network (including Appendix S30B)
C.1	
C.2.a	X
C.2.b	
C.3.a	X
C.3.b	
C.4	X
C.5a	X
C.5.b	
C.5.c	
C.6	X
C.7.a	X[9]
C.7.b	C[9]
C.7.c	C[9]
C.7.d	C
C.8.a	X[7]
C.8.b	X[7]
C.8.c	X[6]
C.8.d	X[2]
C.8.e	X[6]
C.8.f	
C.8.g	C[4]
C.8.h	
C.8.i	
C.8.j	
C.9.a	C
C.9.b	
C.9.c	
C.10.a	X[9]
C.10.b	X[9]
C.10.c.1	X[9]
C.10.c.2	X[9]
C.10.c.3	X
C.10.c.4	X
C.10.c.5	X[9]
C.10.c.6	
C.11.a	X
C.11.b	
C.11.c	

C.11.d	
C.12	
C.13	
C.14	

X Mandatory information O Optional information C This information need only be furnished when it has been used as a basis to effect coordination with another administration.

[9] Information mandatory for coordination under No. **ADD S9.7A**.

D – Overall link characteristics

(The modifications shown below need to be incorporated into the full table.)

MOD

Items in Appendix	**Notification or coordination of a GSO network (including Appendix S30B)**
D.1	X
D.2.a	X[9]
D.2.b	X

X Mandatory information O Optional information C This information need only be furnished when it has been used as a basis to effect coordination with another administration.

[9] Information mandatory for coordination under No. **ADD S9.7A**.

Reasons: This is consequential to **ADD S9.7A** and **ADD S9.7B**. Administrations will need to submit specific information for earth stations associated with geostationary-satellite networks in the fixed-satellite service meeting the conditions in the proposed addition to Appendix **S5**. Since there is no requirement to give the specific locations of earth stations today, there may need to be a resolution written to have typical earth stations associated with GSO FSS networks, already in coordination or notified, that meet the criteria to be brought in as specific earth stations. In this resolution, there will have to be some guidance on priorities. In keeping with ITU principles concerning coordination of satellite networks operating in the same direction, the coordination will be between the administrations responsible for the satellite networks. Modifications in column two for 'Notification or coordination of a GSO network (including Appendix **S30B**)" will be required. Additional guidance will need to be added to the *Instructions for Filling Out the Form of Notice ApS4/II and ApS4/III Relating to Space Radiocommunication Stations* distributed by CR/65.

APPENDIX S5

Identification of administrations with which coordination is to be effected or agreement sought under the provisions of Article S9

Table S5-1

Technical conditions for coordination

(see Article **S9**)

ADD

Reference of Article S9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. **S9.7A** GSO earth station/ non-GSO system	A specific earth station in a geostationary satellite network in the fixed-satellite service in respect of a non-geostationary-satellite system in the fixed- satellite service.	The following frequency bands: 10.7 - 11.7 GHz (space-to-Earth), 11.7 - 12.2 GHz (space-to-Earth) in Region 2, 12.2 - 12.75 GHz (space-to-Earth) in Region 3, 12.5 - 12.75 GHz (space-to-Earth) in Region 1, 17.8 - 18.6 GHz (space-to-Earth), and 19.7 - 20.2 GHz (space-to-Earth)	Conditions: i) the frequency bands overlap and ii) the satellite network using the geostationary-satellite orbit has specific receive earth stations and meets all of the following conditions: a) Earth station antenna maximum isotropic gain greater than or equal to 64 dBi for the frequency bands 10.7 - 12.75 GHz or 68 dBi for the frequency bands 17.8 - 18.6 GHz and 19.7 - 20.2 GHz; b) G/T of 44 dB/K or higher; c) space station emission bandwidth of 250 MHz or higher for the frequency bands 10.7 - 12.75 GHz or 800 MHz or higher for the frequency bands 17.8 - 18.6 GHz and 19.7 - 20.2 GHz;	i) compare frequency bands, ii) use the maximum antenna gain of the specific receive earth station (Appendix S4 C.10.c.2), lowest total receiving system noise temperature or equivalent satellite link noise temperature (Appendix S4 C.10.c.5 or D.2.a, as appropriate), and the space station emission bandwidth (Appendix S4 C.7.a) in the geostationary-satellite network as given in Appendix **S4** data.	The thresholds/ conditions for coordination do not apply to typical receive earth stations operating in satellite networks using the geostationary-satellite orbit.

No. **S9.7B** non-GSO system/ GSO earth station/	A non-geostationary-satellite system in the fixed-satellite service in respect of a specific earth station in a geostationary satellite network in the fixed satellite service.	The following frequency bands**:** 10.7 - 11.7 GHz (space-to-Earth), 11.7 - 12.2 GHz (space-to-Earth) in Region 2, 12.2 - 12.75 GHz (space-to-Earth) in Region 3, 12.5 - 12.75 GHz (space-to-Earth) in Region 1, 17.8 - 18.6 GHz (space-to-Earth), and 19.7 - 20.2 GHz (space-to-Earth)	Conditions: i) the frequency bands overlap and ii) the satellite network using the geostationary-satellite orbit has specific receive earth stations and meets all of the following conditions: a) Earth station antenna maximum isotropic gain greater than or equal to 64 dBi for the frequency bands 10.7 - 12.75 GHz or 68 dBi for the frequency bands 17.8 - 18.6 GHz and 19.7 - 20.2 GHz b) G/T of 44 dB/K or higher; c) Space station emission bandwidth of 250 MHz or higher for the frequency bands 10.7 - 12.75 GHz or 800 MHz or higher for the frequency bands 17.8 - 18.6 GHz and 19.7 - 20.2 GHz.	i) compare frequency bands, ii) use the maximum antenna gain of the specific receive earth station (Appendix S4 C.10.c.2), lowest total receiving system noise temperature or equivalent satellite link noise temperature (Appendix S4 C.10.c.5 or D.2.a, as appropriate), and the space station emission bandwidth (Appendix S4 C.7.a) in the geostationary-satellite network as given in Appendix **S4** data.	The thresholds/ conditions for coordination do not apply to typical receive earth stations operating in satellite networks using the geostationary-satellite orbit.

Reasons: This adds the technical conditions for coordination between non-GSO FSS transmitting space stations and GSO receive earth stations with very large earth station antennas and is consequential to **ADD S9.7A** and **ADD S9.7B**.

United States of America

[DRAFT] PROPOSALS FOR THE WORK OF THE CONFERENCE

Proposals for Agenda Item 1.20

to consider the issues related to the application of Nos. **S9.8, S9.9** and **S9.17** and the corresponding parts of Appendix **S5** with respect to Appendices **S30** and **S30A**, with a view to possible deletion of Articles **6** and **7** of Appendices **S30** and **S30A**, also taking into consideration Recommendation **35 (WRC-95)**;(WAC085)

Background Information: Annex 1 to Appendix **S30** of the Radio Regulations specifies limits for determining whether a service is affected by a proposed modification to the BSS Plan or when it is necessary to seek the agreement of any other administration. Section 5 of Annex 1 specifies limits to the change in the PFD to protect the terrestrial services of administrations in Regions 1 and 3 from modifications to the Region 2 Plan.

Section 5c specifies the PFD limits for administrations in Region 1 east of longitude 30°E. This PFD limit is very tight at low angles of elevation. In order to meet this PFD limit the Region 2 BSS spacecraft EIRP towards Alaska must be significantly lower compared to the continental United States. As a result the provision of BSS service to Alaska, from U.S. orbital assignments at 101W, 110W and 119W, requires larger BSS receive dishes, in some cases as large as 1.8 m. This will also be the case for Region 2 administrations that propose to modify their assignments to provide service to the United States. The U.S. Administration requires provision of service to Alaska when technically feasible.

A relaxation in the PFD limit in Section 5c of Annex 1 of Appendix **S30**, as proposed below, would allow the use of 60 cm BSS receive dishes in Alaska for BSS service from the 101W, 110W and 119W orbital locations.

It is noted that a Joint Rapporteur Group between JWP 10/11S and WP 9D has been established to evaluate the power flux density limits specified in Section 5c and perhaps other terrestrial power flux density limits in Annex 1 of Appendix **S30**.

Proposal:

APPENDIX S30

ANNEX 1

"…..5. Limits to the change in the power flux-density to protect the terrestrial services of administrations in Regions 1 and 3[16]

USA/1.20/01

MOD

c) in the frequency band 12.2-12.7 GHz for territories of administrations in Region 1[17], east of longitude 30° E:

– ~~134~~ 121.8 dB(W/m^2/5 MHz) for $\gamma \leq$ ~~0~~1.85°;

~~– 134 + 4.6975 γ^2 dB(W/m^2/5 MHz) for 0° < $\gamma \leq$ 0.8°;~~

– 128.5 + 25 log γ dB(W/m^2/5 MHz) for $\gamma >$ ~~0.8~~1.85°;

Reasons: To allow the provision of BSS service to all of Alaska using 60 cm receive dishes, from the U.S. BSS assignments at 101W, 110W and 119W and from other Administration's orbital locations who plan to provide BSS service to the United States.

_____

16 See § 3.18 of Annex 5.

17 In the band 12.5-12.7 GHz in Region 1, these limits are applicable only to the territory of administrations mentioned in Nos. **S5.494** and **S5.496**.

UNITED STATES OF AMERICA

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

ROLE OF THE NOTIFYING ADMINISTRATION WHEN ACTING AS THE NOTIFYING ADMINISTRATION ON BEHALF OF A NAMED GROUP OF ADMINISTRATIONS

RESOLUTION 87 (MINNEAPOLIS, 1998)

The Administration of the United States, in particular as the notifying administration for INTELSAT, has considered any possible modifications to the Radio Regulations under Resolution 87. This Administration has not experienced any difficulties either with other administrations acting as the notifying administration for a group of named administrations or acting as the notifying administration for INTELSAT. The Administration of the United States believes that the Radio Regulations are now adequate in this area and require no changes regarding the responsibilities of the notifying administration. The notifying administration and the intergovernmental organizations should retain the flexibility of making their own arrangements for interfaces with the ITU. Members of an intergovernmental organization responsible for satellite networks can best determine how it needs to comply with the Radio Regulations.

United States of America

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

REVIEW AND UPDATE OF THE ADVANCE PUBLICATION, COORDINATION AND NOTIFICATION PROCEDURES

Resolution 86 (Minneapolis, 1998)

Background

1. Resolution **86** (Minneapolis, 1998) resolves to request WRC-2000 and subsequent WRCs to continually review and update the advance publication, coordination and notification procedures, including the associated technical characteristics, and the related Appendices of the Radio Regulations, so as to ensure that they reflect the latest technologies, as well as to achieve additional simplification and cost savings for the Radiocommunication Bureau and administrations.

Discussion

2. One enabler facilitating coordination and associated resolution of difficulties is timely availability of information to all parties concerned. For this reason, the Radio Regulations have contained a provision (currently No. **S9.38**) calling for the publication of complete coordination information in the Weekly Circular within four months of receipt by the BR. Unfortunately, that timely publication has not been possible; currently, the publication backlog is on the order of twenty months.

3. While we are hopeful that incentives will emerge from review of the process by administrations to promote improvements in the satellite procedures, it seems doubtful that substantial reductions in the backlog and processing delays will be realized without fundamental process changes that must be established in the Radio Regulations by WRCs.

4. One such change centers on the idea that complete examination (by the BR) of coordination requests might occur in parallel with the review undertaken by administrations. This would reduce the actions to be undertaken by the BR *before* it initially publishes a coordination request, and should make the information available to administrations much earlier. This can be the starting point for a series of changes to Article **S9**. It is desired to make the process practical for the BR and meaningful to administrations. The fundamental responsibility of the BR to examine and publish coordination requests is retained, with some revision of the associated time frames.

5. Examples of a two-step coordination publication procedure are given. For the first coordination publication, there would be minimal examination by the Radiocommunication Bureau (completeness of data, conformity with the Table of Allocations and conformity with the bringing into use provisions of the Radio Regulations). The second publication would present the results of the Bureau's technical and coordination examinations that may be subject to a further comment if additional administrations are identified as affected or if technical information in the first publication needed modification to be in compliance with the Regulations.

ARTICLE S9
Procedure for effecting coordination with or
Obtaining agreement of other administrations

NOC **Section II – Procedure for effecting coordination**
Sub-section IIA – Requirement and request for coordination

NOC **S9.34** On receipt of the complete information sent under No. **S9.30** or No. **S9.32** the Bureau shall promptly:

MOD **S9.35** *a)* examine that information with respect to its conformity with the Table of Frequency Allocations and No. **S11.3144;**

SUP **S9.36** *b)* identify in accordance with No. **S9.27** any administration with which coordination may need to be effected;

SUP **S9.36.1.** The list of administrations identified by the Bureau under Nos. **S9.11** to **S9.14** and **S9.21** is only for information purposes, to help administrations comply with this procedure

SUP **S9.37** *c)* include their names in the publication under No. **S9.38**;

Reason: relocating provisions **S9.36** through **S9.37** to after ADD **S9.39**

MOD **S9.38** *bd)* publish, as appropriate, the complete information in the Weekly Circular within four months of receipt. When the Bureau is not in a position to comply with the time limit referred to above, it shall periodically so inform the administrations, giving the reasons therefore.

ADD

S9.38.1 When the coordination information is communicated at the same time as the advance publication information, the effective date of receipt of the coordination information is established pursuant to **S9.1**.

Reason: to establish an initial publication of coordination data upon examination for completeness, making the data available earlier than in the current process, while allowing the BR to continue carrying out the technical review and identification of affected administrations.

(ADD) **S9.38A** If the information is found to be incomplete, the Bureau shall immediately seek from the administration concerned any clarification required and information not provided

Reason: Move of provision from **S9.40A** to maintain sequence of events.

(ADD) **S9.39** Thereafter, with respect to the information referred to in No. **S9.34**, the Bureau shall promptly:

(ADD) **S9.39A** *a)* identify in accordance with No. **S9.27** any administration with which coordination may need to be effected

(ADD) **S9.39A.1** The list of administrations identified by the Bureau under Nos. **S9.11** to **S9.14** and **S9.21** is only for information purposes, to help administrations comply with this procedure.

(ADD) **S9.39B** *b)* complete its examination with respect to other provisions of these regulations referred to in No. **S11.31**.

(ADD) **S9.39C** *c)* publish, as appropriate, the additional information in **S9.39A** and **S9.39B,** including any necessary modifications to the data in the initial publication under **S9.38**.

(ADD) **S9.39C.1** The Bureau may publish the information under No. **S9.39C** concurrent with the relevant publication under No. **S9.38** when such action does not result in a delay of the No. **S9.38** publication beyond the time limit given in No. **S9.38.** In any event, the Bureau shall publish the information under No. **S9.39C** within four months of the publication under No. **S9.38**; when the Bureau is not in a position to comply with this time limit, it shall periodically inform the administrations, giving the reasons therefor.

Reason: S9.39-S9.39C reintroduce provisions formerly at **S9.36**-**S9.38** and to provide BR with the option to publish this information concurrent with the original data if the initial publication under No. S9.38 is not delayed

(MOD) **S9.40** ~~*ed)*~~ inform the administrations concerned of its actions and communicate the results of its calculations, drawing attention to the relevant Weekly Circular.

(SUP) **S9.40A**

Reason: Provision moved to **ADD S9.38A.**

MOD **S9.41** Following receipt of the Weekly Circular published pursuant to No. **S9.39C** and referring to requests for coordination under Nos. **S9.7** to **S9.9**, an administration believing that it should have been included in the request shall, within four months of the date of publication of the relevant Weekly Circular inform the initiating administration and the Bureau, giving its technical reasons for doing so, and shall request that its name be included.

Reason: The revised process provides for the BR to publish its analysis of administrations affected *after* the initial publication under No. **S9.38**. This modification ensures that administrations have at least 4 months to reply after the BR publishes its analysis.

MOD **S9.42** The Bureau shall study ~~this~~ the information from commenting administrations on the basis of Appendix **S5** and shall inform both administrations of its conclusions. Should the Bureau agree to include the administration in the request, it shall publish an addendum to the publication under No. **S9.39C**

Reason: Consequential renumbering, and to clarify provision.

NOC **S9.43** Those administrations not responding under No. **S9.41** within the time limits specified therein shall be regarded as unaffected and the provisions of Nos. **S9.48** and **S9.49** shall apply.

NOC **S9.50** An administration having received a request for coordination under Nos. **S9.7** to **S9.21**, or having been included in the procedure following action under No. **S9.41**, shall promptly examine the matter with regard to interference which may be caused to or, in certain cases, by its own assignments[15], identified in accordance with Appendix **S5**[16] .

NOC [15] **S9.50.1** …

NOC [16] **S9.50.2** …

(MOD) **S9.51** Following its action under No. **S9.50**, the administration with which coordination was sought under Nos. **S9.7** to **S9.9** shall, within four months of the date of publication of the Weekly Circular under No. **S9.~~38~~39C,** either inform the requesting administration and the Bureau of its agreement or act under No. **S9.52**.

NOC **S9.51A** Following its action under No. **S9.50**, the administration with which coordination was sought under Nos. **S9.15** to **S9.19** shall, within four months of the date of dispatch of the coordination data under No. **S9.29**, either inform the requesting administration of its agreement or act under No. **S9.52**.

(MOD) **S9.52** If an administration, following its action under No. **S9.50**, does not agree to the request for coordination, it shall, within four months of the date of publication of the Weekly Circular under No. **S9.~~38~~39C,** or of the date of dispatch of the coordination data under No. **S9.29**, inform the requesting administration of its disagreement and shall provide information concerning its own assignments upon which that disagreement is based. It shall also make such suggestions as it is able to offer with a view to satisfactory resolution of the matter. A copy of that information shall be sent to the Bureau. Where the information relates to terrestrial stations or earth stations operating in the opposite direction of transmission within the coordination area of an earth station, only that information relating to existing radiocommunication stations or to those to be brought into use within the next three months for terrestrial stations, or three years for earth stations, shall be treated as notifications under Nos. **S11.2** or **S11.9**.

NOC **S9.52A** In the case of coordination requested under No. **S9.14**, on receipt of the special section of the Weekly Circular referred to in No. **S9.38**, and within the same four-month period from the publication of that special section, an administration in need of assistance may inform the Bureau that it has existing or planned terrestrial stations which might be affected by the planned satellite network, and may request the Bureau to determine the need for coordination by applying the Appendix **S5** criteria. The Bureau shall inform the administration seeking coordination of this request, indicating the date by which it may be able to provide the results of its analysis. When these results are available, the Bureau shall inform both administrations. This request shall be considered as a disagreement, pending the results of the analysis by the Bureau of the need for coordination.