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July 15, 1994

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Federal Communications Commission
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JUL 15 1994

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: WRC-95 (IC Dkt. No. 94-31)

Dear Sir:

Transmitted herewith, on behalf of Motorola Satellite Communications, Inc. and Iridium, Inc., are an original and four copies of their joint comments in response to the Commission's May 5, 1994 Notice of Inquiry in IC Docket No. 94-31, In the Matter of Preparation for International Telecommunications Union World Radiocommunications Conferences.

Should there be any questions concerning this matter, please contact the undersigned.

Very truly yours,

James G. Ennis
Director, Licensing Affairs

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
Preparation for International)	IC Docket No. 94-31
Telecommunications Union)	
World Radiocommunication)	
Conferences)	

Comments of Motorola Satellite
Communications, Inc. and Iridium, Inc.

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**Attorneys for Motorola Satellite
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Dated: July 15, 1994

Summary

Although Motorola believes that in general, the VGE recommendations will result in an improved set of radio regulations, the changes proposed should not be allowed to alter the procedures included in the current Res. 46 for coordination of MSS systems. In addition, full protection must be afforded a system that is coordinated into the Master Frequency Register. The concept of "international recognition" needs to be clarified in this regard.

With respect to the Mobile Satellite Service, Motorola supports creating new MSS for both regional and global MSS systems but believes these different types of MSS systems should be assigned different bands. Bands that can be freed globally will be most difficult to find and should be reserved for global MSS systems, while bands that can only be made available regionally should be used by regional MSS systems.

Motorola supports removal of impediments on MSS spectrum, both regional and global, and supports the identification and allocation of spectrum which is restricted to use for feeder links for non-GSO MSS systems and for GSO systems. Where feeder link spectrum must be shared by GSO and non-GSO systems, it must be shared on an equal basis between GSO and non-GSO systems.

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**Comments of Motorola Satellite
Communications, Inc. and Iridium, Inc.**

Motorola Satellite Communications, Inc. ("Motorola") and Iridium, Inc. ("Iridium") (hereafter jointly referred to as "Motorola") hereby offer their comments in response to the Federal Communications Commission's ("Commission's") Notice of Inquiry ("NOI") released May 5, 1994 in the above-captioned proceeding.

In its NOI, the Commission seeks information to assist it in developing U.S. proposals relating to substantive issues on the WRC'95 agenda, modifying the recommended agenda for WRC'97, and developing a preliminary agenda for WRC'99.

Motorola is an applicant before the Commission for authorization to construct, launch, and operate a low-earth-orbit ("LEO") satellite system known as IRIDIUM® to provide global mobile-satellite service ("MSS") using MSS spectrum in the 1610-

1626.5 MHz band, and FSS spectrum in the 29.0-29.5 and 19.2-19.7 GHz bands for its feeder links. Motorola will operate the system for the benefit of Iridium, Inc., a U.S. corporation with investors worldwide. Consequently, these two companies have a substantial interest in those issues that are on the agenda for WRC'95, '97, or '99 that concern current or future MSS spectrum and associated feeder link allocations.

I. VGE Report

One of the two major subjects on the WRC'95 agenda is the report of the Voluntary Group of Experts ("VGE"). This report recommends simplifications to the ITU's Radio Regulations ("RR"). Thus, pursuant to Agenda Item No. 1, WRC'95 is "to review the final report of the VGE, and to consider related proposals from administrations, in order to undertake, as appropriate, a revision of the Radio Regulations and to provide a timetable for the implementation of outstanding recommended actions."

In this connection, Motorola opposes any changes to the Radio Regulations that would alter the unique procedures that were adopted at WARC'92 and that are embodied in Resolution 46 (Res. 46) for identifying those administrations with which MSS systems must be coordinated. More specifically, the U.S. should oppose any of the changes proposed in Article S9 of the VGE

recommendations that would alter the language in Res. 46 that establishes strict time limits within which administrations must notify other administrations that are proposing new MSS systems of the need for coordination. Coordination of global MSS systems is potentially more difficult than coordination of national or regional radio facilities, and strict time requirements are necessary in order to permit the MSS coordination process to be completed in a reasonable period. Res. 46 was designed to address the unique problems associated with coordinating global MSS systems.

In addition, in the current Regulations the status of frequency assignments recorded in the Master International Frequency Register (MIFR) is not clear. It is unfortunate that the new text of Article S8 does not clarify this matter. In particular, by defining the status of "international protection" for frequency assignments made in accordance with a frequency allotment plan in Article S8, para 2.2, the text raises the possibility that a frequency assignment with the status of "international recognition" defined in Article S8, para 2.3 is not protected. It is essential that Article S8, para 2.3, be revised to clarify the degree of protection afforded to those frequency assignments that are in the MIFR with the status of

"international recognition." Specifically, the current text in para. 2.3 of Article S8 that "administrations shall take it into account," is ambiguous and does not necessarily lead to protection.

Except for these two concerns, after a preliminary examination of Parts A and B, Motorola favors those elements of the VGE Report which generally clarify the notification and coordination procedures. Motorola believes these changes will result in more consistent decisions by the Radio Regulatory Board which administrations can use as guidance in preparing subsequent submissions.

Also, the new provisions "to incorporate by reference" the recommendations of the ITU-R and the Rules of Procedure, which relate to the actions of the Bureau, together will provide a dynamic mechanism for the regulations to remain abreast of technological development. Administrations, by participating in the ITU-R Study Groups and being involved in the two-pronged approval process for the Rules of Procedure, can ensure that these regulatory provisions accommodate their interests.

With appropriate revisions such as the two described above, and subject to the resolution of any other particular issues which arise during a detailed examination of Part C of the VGE

Report, it now appears that the U.S. should support an early implementation of the VGE Simplified Regulations.

II. Mobile Satellite Service

The second major subject on the WRC'95 agenda is the mobile-satellite service (MSS). The issues under consideration include (1) changes to existing MSS allocations (including conditions imposed on these allocations), (2) adoption of additional new MSS allocations, and (3) allocations of spectrum for feeder links to support MSS.

A. Changes to existing MSS allocations. Technical constraints on several bands that have been allocated for MSS use should be removed or modified at WRC'95. These include the following:

(1) 1610-1626.5 MHz. Current footnote RR731E states, inter alia, that mobile earth stations operating in either of the services in this band shall not produce an e.i.r.p. density in excess of -3 dBW/4 kHz in frequencies where satellite aids to navigation (i.e., GLONASS) are not coordinated (i.e., in frequencies above 1617 MHz). As indicated by the term "shall not produce," -3 dBW/4kHz is a peak value. At WRC'95, this -3 dBW/4 kHz value should be redefined as an averaged value over a 100 millisecond period. An average value is more representative than

a peak value of a potentially interfering signal.

(2) 1980-2010 MHz/2170-2200 MHz and 1970-1980 MHz/2160-2170 MHz. The eighty MHz in these bands (hereafter referred to as the "2 GHz" bands) were allocated at WARC'92 for MSS. The thirty MHz from 1980-2010 MHz and the thirty MHz from 2170-2200 MHz were allocated globally for MSS. The ten MHz from 1970-1980 MHz and the ten MHz from 2160-2170 MHz were allocated for MSS in Region 2 only.

Pursuant to Agenda Item 2.1(b), WRC'95 is to review the date of entry into force of the global 2 GHz MSS allocations.

Pursuant to RR 746C, these bands could be used in the U.S. for MSS after January 1, 1996. Elsewhere in the world, pursuant to RR 746B, these bands could not be used for MSS until January 1, 2005.

At present, Motorola does not believe the U.S. should support any proposal to advance the 2005 date, because advancing the date would be inconsistent with the use of these bands for FPLMTS-compatible satellite systems. RR 746A states that all these bands are "intended for use, on a worldwide basis, by administrations wishing to implement Future Public Land Mobile Telecommunication Systems (FPLMTS)." However, under the current schedule, FPLMTS standards will not be available until at least

1998.¹

Given the time necessary to design and construct a satellite system, the earliest date after the FPLMTS standards are adopted that a satellite system that is compatible with these standards could be operational is 2005. If a system were to be constructed before the FPLMTS standards are established, it would either not be FPLMTS-compatible or would establish a de facto standard for FPLMTS, in derogation of the international process which has been undertaken to define FPLMTS.

Motorola would support moving the January 1, 1996 date for the U.S. back to 2005 to make this operational constraint consistent worldwide. It is now widely acknowledged that a single country allocation for mobile satellite service is inherently unrealistic.

(3) 1626.5-1631.5 MHz. This band is currently allocated in Regions 2 and 3 to generic MSS. However, in Region 1 the band is only allocated to the maritime mobile satellite service (MMSS) on a primary basis and to the land-mobile satellite service (LMSS)

¹ Appended hereto as Attachment 1 is a discussion of the problem that may result from advancing to the year 2000 the date of entry into force of the 2 GHz MSS spectrum, given the timing of the introduction of FPLMTS and other third generation mobile systems.

on a secondary basis. Consistent with the VGE Report's recommendations to create generic allocations and to make allocations consistent in all regions to the extent possible, the Region 1 allocation should be changed to a primary MSS allocation. As a matter of consistency, this same change should be carried through with respect to the paired MSS downlink at 1525-1530 MHz.

In addition, the requirement for provision of GMDSS in this 5 MHz of spectrum (1626.5-1631.5 MHz) should be eliminated. There is no GMDSS requirement associated with the paired MSS downlink at 1525-1530 MHz. The 1626.5-1631.5 MHz band is currently not being used to provide GMDSS. After the GMDSS requirement is deleted from this 5 MHz, ample spectrum -- 15 MHz immediately above this band -- would remain available to satisfy the GMDSS requirement.

B. New MSS Allocations. As a preliminary matter, Motorola believes that sufficient spectrum ought to be allocated for regional and for global MSS systems but that these allocations should be in different bands. Global allocations, which are more difficult to obtain, should be reserved for non-GSO MSS systems, which are inherently global. Regional MSS systems should be assigned MSS spectrum that cannot be allocated in all regions

because of incompatible uses of the bands in some regions.

There is currently an extreme shortage of usable global MSS spectrum. As the Commission is well aware, the initial spectrum requirements identified by U.S. "Big LEO" applicants in the 1610-1626.5/2483.5-2500 MHz band considerably exceed the capacity of that band. In addition, it appears that because of the Commission's recent decision on reconsideration in the PCS proceeding², 20 MHz of MSS spectrum allocated at WARC'92 cannot be used for global MSS. It is critically important, therefore, that WRC'95 identify and allocate new bands for global MSS. Given the elapsed time between allocating spectrum at a world radio conference and launching a full constellation of MSS satellites to use that spectrum, it is clearly not too early for WRC'95 to allocate new spectrum for MSS.

Motorola believes the following bands should be considered for new allocations to meet this demand:

1. Revised 2 GHz allocation. The Commission's recent PCS Reconsideration Order removed any possibility of using 10 MHz of

² Memorandum Opinion and Order in Gen. Dkt. No. 90-314, In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services, FCC 94-144 (released June 13, 1994) (hereafter "PCS Reconsideration Order").

Region 2 uplink spectrum at 1970-1980 MHz and 10 MHz of global uplink spectrum at 1980-1990 MHz for MSS in the U.S. This leaves 20 MHz of global uplink MSS spectrum (1990-2010 MHz) potentially available for MSS systems. None of the global downlink MSS spectrum (2170-2200 MHz) was directly affected by this decision, although 10 MHz of it is now unpaired.

This remaining amount of global spectrum (20 + 30 MHz) is insufficient to meet the anticipated future U.S. demand for global MSS. Recognizing this, the Commission stated in its PCS Reconsideration Order that it would pursue additional international allocations for MSS at WRC'95.³

To meet the future demand for MSS, Motorola proposes that a global MSS allocation of (35 + 35) MHz be created from 1990-2025 MHz (Earth-to-space) and 2165-2200 MHz (space-to-Earth). To make it easier to obtain this allocation, the U.S. could propose to delete the 20 MHz MSS allocation in the bands 1970-1990 MHz

³ PCS Reconsideration Order, *supra*, n. 1 at ¶97. In the U.S., the band 1990-2010 MHz is currently utilized by the auxiliary broadcast service, which may still render the global MSS band unusable for MSS in the U.S. However, the Commission has committed to initiate a proceeding to investigate the possibility of finding replacement spectrum for the broadcast auxiliary service. One possibility is to relocate the first two channels in the broadcast auxiliary service from their current location at 1990-2025 MHz up to 2110-2145 MHz. Motorola supports such a plan.

(which is no longer usable in the U.S.) from the Table of Allocations.

2. Metsat/Metaids Band. The band 1675-1710 MHz is currently allocated to MSS (Earth-to-space), but only in Region 2. Consistent with the VGE Report recommendations, the U.S. should propose that the band from 1675-1710 MHz be allocated for a global MSS uplink (i.e., MSS allocations should be added in Regions 1 and 3).

Motorola has been investigating methods of sharing the band 1675-1710 MHz between MSS systems and the Metsat and Metaids services since WARC'92. Its analyses show that it is feasible for MSS uplinks to share the 1675-1710 MHz band with the Metsat/Metaids services. In its comments in connection with the FCC's proceeding on the federal set-aside spectrum, AMSC recently supported Motorola's conclusion that MSS uplinks could share the 1675-1710 MHz band with the Metsat/Metaids systems that currently occupy the band.

The results of Motorola's increasingly more detailed analyses were first presented in a technical appendix to a petition filed by Motorola in 1992⁴, and more recently in the

⁴ Petition for Expedited Action, File Nos. 9-OSS-1-91(87), et al. (June 9, 1992).

WRC'95 preparations of U.S. Task Group 8/3 and U.S. Working Party 7C. The techniques described in the most recent Motorola papers for interference avoidance between MSS and LEO and GEO Metsat systems (equally applicable to U.S. and foreign Metsats) have met general agreement in the U.S. ITU-R preparatory groups.

Interference avoidance and mitigation techniques in regard to Metaid (radiosonde) systems were also described in the above-mentioned papers of the U.S. ITU-R preparatory groups.

Consultations with NWS on interference avoidance and mitigation techniques as applied to all phases of radiosonde operations should be completed before U.S. positions for WRC'95 are finalized.

3. The GPS/GLONASS "Gap" (1585.65-1594.0775 MHz). The U.S. and Russian governments are currently discussing a plan whereby the GLONASS system would, over time, relocate to use the frequencies below those it currently occupies. Even after this downward shift, there will be a gap between the highest GPS frequency (at 1585.65 MHz) and the lowest GLONASS frequency (at 1594.0775 MHz). Motorola believes that with suitable guardbands and out-of-band emission limits, this "gap" spectrum could be used for MSS space-to-Earth transmissions. Before proposing such an allocation, the U.S. should test the potential interference

resulting from such an allocation. Motorola proposes that this allocation be considered at WRC'95.

4. "Federal Set Aside" Bands. A number of the bands that the federal government has recently announced would be released for commercial use over the next few years may possibly be suitable for MSS use.

(a) 2390-2420 MHz. The Commission has asked specifically whether the U.S. should again pursue an international MSS allocation in the 2390-2420 MHz band, which it did (unsuccessfully) at WARC'92 for GSO/MSS systems. In its recent preliminary spectrum reallocation report, NTIA identified this spectrum as being available immediately for non-Government use.

Motorola's initial reaction is that these particular bands would be extremely difficult to use for MSS service because of the interference that MSS systems operating in these bands would receive from ISM operations in the overlapping band from 2400-2500 MHz (including, with respect to the band 2390-2400, out-of-band ISM interference).

(b) There are a number of other bands that the federal government has set aside which should be considered for MSS. These include the following bands:

- 1670-1675 MHz and 1710-1755 MHz;

- 2300-2310 MHz; and
- 1390-1400 MHz and 3650-3700 MHz.

Further study is needed before it can be determined whether these bands are, in fact, usable for MSS.

C. Feeder link Allocations for MSS. WRC'95 agenda item 2.1(c) addresses allocations and regulatory limitations on the use of feeder links to support MSS service. Spectrum needs to be allocated at WRC'95 for feeder links to support MSS services. In addition, RR 2613 must be clarified in a manner that is equitable to non-GSO operators.

1. Feeder link spectrum. Motorola supports the conclusions of ITU TG 4/5, which determined that first generation MSS systems will need 500 MHz of spectrum in each direction at Ka-band, assuming that Loral Qualcomm's, Ellipsat's and Constellation's systems' feeder links are not in this band. Another 200 MHz in the C-band and 200 MHz at the Ku-band are needed for feeder links for these systems.

Motorola believes that the federal set-aside bands 4635-4660 and 4660-4685 MHz could be used in the reverse direction for MSS feeder links. At Ku-band, use of the 12.75-13.25 GHz band in a reverse direction for feeder links for MSS also appears to have merit.

2. RR 2613. Motorola supports the approach taken recently in TG 4/5 to assign specific FSS bands to either GSO or non-GSO MSS use, or to both uses. In the latter case, where both GSO and non-GSO systems share FSS bands, they must have equal status.

The output report of the recent meeting of ITU-R Task Group 4/5 reflects the fact that RR 2613 is fundamentally flawed. It provides no assured protection for either GSO or non-GSO-MSS feeder link networks, operating in the same FSS allocation. To correct this situation, Motorola endorses the approach being taken by TG 4/5 to modify RR 2613.

Under the proposed TG 4/5 approach, certain FSS allocations (A) would be designated for preferred use by GSO networks; certain FSS allocations (B) would be designated for preferred use by non-GSO FSS feeder links, and certain FSS allocations (C) would be designated to have co-equal status between GSO and non-GSO feeder links.

Under this arrangement, Motorola recommends that the U.S. submit proposals to the WRC'95 in which the following allocations have the indicated preferences:

Downlink

18.4-19.2 GHz - B
19.2-19.7 GHz - C

Uplink

27.5-28.5 GHz - TBD
28.5-29.0 GHz - B
29.5-30.0 GHz - C

Conclusion. Although Motorola believes that in general, the VGE recommendations will result in an improved set of radio regulations, the changes proposed in the VGE Report should not be allowed to alter the procedures included in the current Res. 46 for coordination of MSS systems. In addition, full protection must be afforded a system that is coordinated into the Master International Frequency Register. In this regard, the concept of "international recognition" needs to be clarified.

With respect to the Mobile Satellite Service, Motorola supports creating new MSS allocations for both regional and global MSS systems but believes these different types of MSS systems should be assigned to different MSS bands. Bands that can be freed globally will be most difficult to find and should be reserved for global MSS systems, while bands that can only be made available regionally should be used by regional MSS systems.

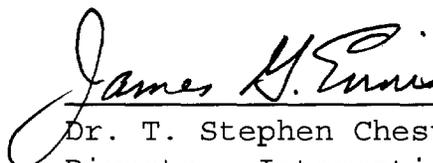
Motorola supports removal of impediments on MSS allocations, both regional and global, and supports the identification and allocation of spectrum for use for feeder links either for non-

GSO MSS systems or for GSO systems. Where feeder link spectrum must be shared by GSO and non-GSO systems, it must be shared on an equal basis between the two.

Respectfully submitted,

IRIDIUM, INC.

**MOTOROLA SATELLITE
COMMUNICATIONS, INC.**



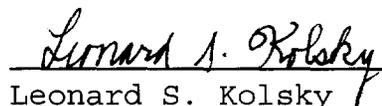
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**Attorneys for Motorola Satellite
Communications, Inc.**

Dated: July 15, 1994

Attachment 1
Motorola Satellite
Communications, Inc.
and Iridium, Inc.
July 15, 1994

Modification of the Date of Entry
into Force of the 2 GHz MSS Allocations

Document IWG-3/

WRC-95 Advisory Committee
IWG-3 MSS Above 1 GHz

SUBJECT: Modification of the Date of Entry into Force of the 2 GHz MSS
Allocations

FROM: Christine M. Di Lapi
Motorola Satellite Communications
INTERNET ADDRESS: di_lapi-P25543@email.mot.com

PURPOSE: This document is a discussion of the problem that may result from advancing to year 2000 the date of entry into force of the 2 GHz MSS spectrum, given the timing of the introduction of FPLMTS and other third generation mobile systems.

1.0 Introduction

Agenda item 2.1.b) of WRC-95 is to review the date of entry into force of MSS allocations in the bands 1980-2010 MHz and 2170-2200 MHz in Regions 1 and 3 and the bands 1970-2010 MHz and 2160-2200 MHz in Region 2 (referred to hereinafter as the 2 GHz MSS allocations.) These allocations were made at WARC-92. RR 746B states that the use of these bands "...shall not commence before 1 January 2005..." An exception to this date of entry exists in RR 746C - it states that in the USA use of the Region 2 allocation can commence after 1 January 1996. RR 746A identifies the bands 1885-2025 MHz and 2110-2200 MHz for those administrations wishing to implement FPLMTS. FPLMTS (Future Public Land Mobile Telecommunications Systems) is to be a worldwide third generation digital mobile personal communications standard. There is to be a terrestrial component of FPLMTS, which will use the MS allocations in the 2 GHz band (the satellite component will use the 2 GHz MSS allocations.) Implementation of terrestrial FPLMTS is expected to commence in the year 2000 (WARC-92 Res. 212.)

2.0 Discussion

Proposals may be made at WRC-95 recommending that the date of entry into force be changed from year 2005 to 2000 for the 2 GHz MSS allocations in Regions 1 and 3 and rest of Region 2. The argument for doing this will be that there exists no such requirement on the MS allocations, and for those Administrations wishing to implement FPLMTS, the start dates for both the satellite and terrestrial components would otherwise not be the same. However, if the implementation of FPLMTS is the principle rationale, there is a problem with advancing the date from 2005 to 2000 from the point of view of the timing of the introduction of FPLMTS, and as a consequence the USA should consider whether such a date change is desirable at WRC-95.

2.1 The Timing of the Introduction of FPLMTS

ITU-R TG 8/1 is currently developing Recommendations (Recs.) to define the FPLMTS standard. ITU-R TG 8/1 produced a temporary document (Doc. 8-1/TEMP/174) at its October 1993 meeting, entitled "Program for Introduction of FPLMTS." This document lists the Recs. required to define the FPLMTS standard, and their proposed completion date. There is also a chart in the document that lists the milestones for the overall definition of FPLMTS. At the last meeting of TG 8/1, in April 1994, a temporary document was produced (Doc. 8-1/TEMP/51) that contained a modified FPLMTS work plan. Doc. 8-1/TEMP/51 states that several important FPLMTS Recs. will not be complete until 12/97, including those that will contain air interface protocols and descriptions. These Recs. are critical for the implementation of FPLMTS. According to Doc. 8-1/TEMP/51, a Rec. whose subject is the satellite link (service link) description will not be available until 9/97. Note that this FPLMTS work plan is subject to revision, and, given that TG 8/1 only meets twice a year, this schedule may even be optimistic. If critical FPLMTS Recs. are not finished until the end of 1997, the question must be asked how can US MSS systems designed to the FPLMTS standard be operational in the year 2000? It is not common practice to design, obtain a license, develop, and launch an MSS system in 2 years. For example, PCSAT's application before the FCC indicates that both satellites of its system will not be fully operational until 49 months after award of license, and in Motorola Satellite Communications' minor amendment to its filing for IRIDIUM^{TM/SM}, it is indicated that there is a five year span between start of satellite construction and provision of service. While neither of these MSS systems plan to operate to the FPLMTS standard, their schedules reflect those typical of the deployment of US MSS systems.

Figure 1 represents a time-line that illustrates the problem with the timing of the introduction of FPLMTS. If a US entity was to apply for a license to operate a FPLMTS MSS system in 1994, the license would not be awarded until 1999, given the current US MSS system licensing process. As the FPLMTS Recs. were being completed in 1997, preliminary design of a FPLMTS MSS system could take place, with system design commencing after the completion of the last FPLMTS Recs. Once a FCC license is awarded to an MSS system, it is typically not operable until five years later. Realistically, a US MSS FPLMTS system would not be operation until the start of year 2005.

3.0 Proposed US WRC-95 Position

Several administrations will propose at WRC-95 that the date of entry be moved to the year 2000 so both the satellite and terrestrial components of FPLMTS can begin providing service at the same time. *However, the above discussion demonstrates that it will not be feasible for US MSS systems to be operational to the FPLMTS standard in the year 2000.* Under RR 746A, administrations can implement FPLMTS if they so desire, FPLMTS is not an radio service

allocation. Another point is that spectrum for FPLMTS should not be identified in such a way that it favors or precludes any particular MSS system type or orbit. Hence the argument that the date of entry into force of the 2 GHz MSS spectrum should be advanced to facilitate MSS systems so they can operate to the FPLMTS standard is not a compelling one, and is also disadvantageous to US industry.

If the date of entry into force were advanced to the year 2000 on the premise of facilitating the implementation of FPLMTS, an unintentional effect that there may be little spectrum available on a worldwide basis to proposed MSS FPLMTS systems when they are ready to provide service. Since it is not feasible to have FPLMTS MSS systems operational by the year 2000, any 2 GHz MSS spectrum available in year 2000 may be used around the world for applications different from FPLMTS and other third generation technologies. Therefore, the US position should be to not change RR 746B to advance the date of entry into force of the 2 GHz MSS spectrum to the year 2000, to ensure that spectrum is available for US MSS FPLMTS or other third generation US MSS systems when they are ready for deployment.

MSS SCHEDULE (ASSUMING A US LICENSE)

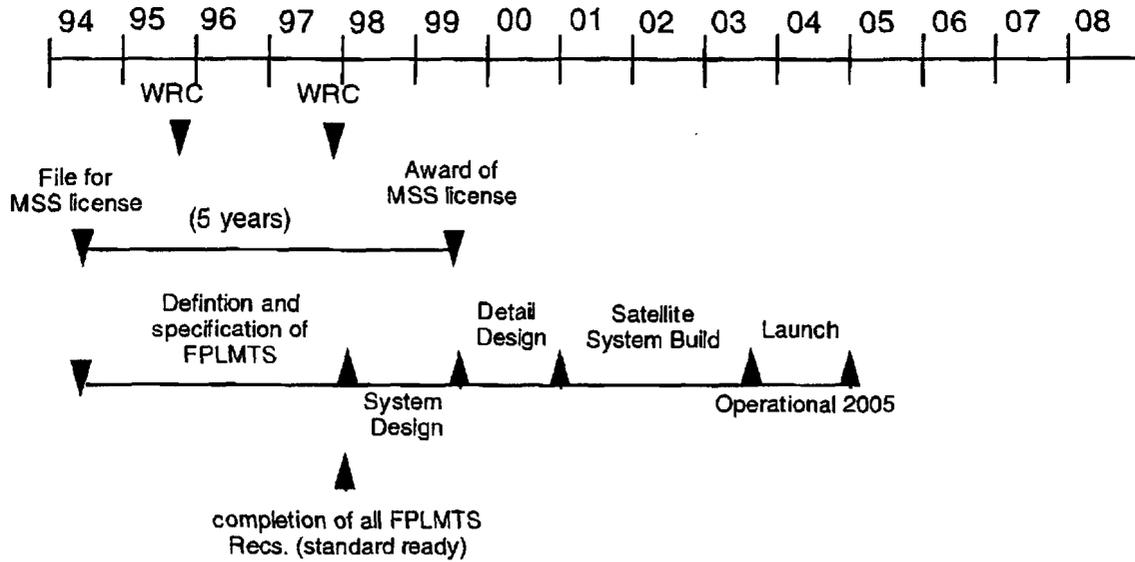


Figure 1. Time-line illustrating time required to deploy US MSS systems operational to the FPLMTS standard.