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**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C.**

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| In the Matter of | ) | |
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| Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band and the 1.6/2.4 GHz Band | ) | IB Docket No. 01-185 |
| In the Matter of | ) | |
| | ) | ET Docket No. 00-258 |
| Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems | ) | |

**CONSOLIDATED COMMENTS OF CELSAT AMERICA, INC.**

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Dated October 19, 2001

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## TABLE OF CONTENTS

**SUMMARY** ..... i

I. THE COMMISSION SHOULD REMAIN COMMITTED TO THE IMPLEMENTATION OF ITS ORIGINAL VISION OF IMT-2000, WHICH HAS ALWAYS INCLUDED A SATELLITE COMPONENT FOR 3G SERVICES ..... 2

- A. IMT-2000 Contemplates a Satellite Component ..... 3
- B. IMT-2000 Sets Forth Features and Goals Supporting Terrestrial Reuse ..... 4
- C. The Celsat 2 GHz MSS System is an IMT-2000 System ..... 5

II. PERMITTING THE FLEXIBLE USE OF MOBILE SATELLITE SERVICE SPECTRUM IS CONSISTENT BOTH WITH THE COMMISSION'S RULES AND POLICIES AS WELL AS THE ORIGINAL VISION OF IMT-2000 ..... 7

- A. Terrestrial Reuse is Consistent with International Agreements ..... 9
- B. Terrestrial Reuse will Otherwise Serve the Public Interest ..... 10

III. THE COMMISSION SHOULD ENCOURAGE AND NOT ABANDON THE MOBILE SATELLITE SERVICE INDUSTRY AT THIS IMPORTANT STAGE IN ITS EVOLUTION ..... 15

IV. CONCLUSION ..... 18

EXHIBIT A ..... Declaration of David D. Otten

## SUMMARY

The International Telecommunications Union ("ITU") and the Commission have consistently envisioned that International Mobile Telecommunications ("IMT-2000") would provide a wide range of telecommunications services to mobile users. This shared vision includes the satellite component in the 2 GHz MSS band and also provides solid support for terrestrial reuse of that band. Celsat urges the Commission to remain committed to this vision of advanced wireless services by refusing to reallocate any portion of the 2 GHz MSS band for strictly terrestrial uses and by permitting all mobile satellite service providers to terrestrially reuse their satellite spectrum.

Permitting the flexible reuse of mobile satellite service spectrum is also consistent with the Commission's rules and policies. While Celsat has formulated its business plan without reliance on terrestrial reuse of satellite spectrum, Celsat enthusiastically endorses the concept of terrestrial reuse for all mobile satellite service providers. Terrestrial reuse will permit Celsat to achieve remarkable gains in the efficient reuse of the 2 GHz MSS band, furthering the goal of the Commission and the ITU to promote efficient use of spectrum, and, ultimately, greatly benefiting consumers. Terrestrial reuse is fully consistent with both the Commission's flexible reuse policy and international agreements. The Commission's prior orders also make clear that terrestrial reuse will serve the public interest and encourage investment in the 2 GHz MSS band.

Finally, the Commission should encourage and not abandon the mobile satellite service industry at this important stage in its evolution. Some interested parties no doubt will continue to argue that the Commission should declare the MSS industry dead and ask the Commission to reallocate as much of the 2 GHz MSS band for terrestrial uses as possible. Reallocating any portion of the 2 GHz MSS band, however, would contravene Commission precedent demonstrating that the Commission does not and should not waiver from its mandate to foster services that will serve the public interest. Throughout its history, the Commission's support of new technologies and services has positively contributed to the evolution of many new industries that serve the public today.

In sum, the Commission should retain the entire 2 GHz MSS allocation intact and permit terrestrial reuse of satellite spectrum by all mobile satellite service licensees.

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## CONSOLIDATED COMMENTS OF CELSAT AMERICA, INC.

Celsat America, Inc. ("Celsat"), by undersigned counsel, hereby submits the following consolidated comments on two recent Commission releases that are intimately related to one another: (i) a Notice of Proposed Rulemaking concerning flexible use of satellite spectrum in the 2 GHz MSS band (the "Flexible Use NPRM")[1] and (ii) a Further Notice of Proposed Rulemaking concerning the allocation of spectrum below 3 GHz for advanced wireless services (the "3G FNPRM").[2] In the Flexible Use NPRM, the Commission

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1 In the Matter of Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Band, Notice of Proposed Rulemaking, FCC 01-225 (2001).

2 In the Matter of Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, FCC 01-224 (2001).

seeks comment on proposals by two mobile satellite service licensees (New ICO and Motient) to use frequencies below 3 GHz in a flexible manner, namely, by the addition of an ancillary terrestrial component that would reuse terrestrially the satellite spectrum. In the 3G FNPRM, the Commission seeks comment on the possible reallocation of a portion of the 2 GHz MSS band – where New ICO, Celsat and six other companies were awarded licenses for the provision of MSS in July of this year – for strictly terrestrial uses. As the Commission recognizes, the two proceedings are so closely related that the resolution of one could determine the outcome of certain aspects of the other.[3] Accordingly, Celsat offers its comments on both proceedings in a single pleading.

## I. THE COMMISSION SHOULD REMAIN COMMITTED TO THE IMPLEMENTATION OF ITS ORIGINAL VISION OF IMT-2000, WHICH HAS ALWAYS INCLUDED A SATELLITE COMPONENT FOR 3G SERVICES

Over ten years ago, the International Telecommunications Union ("ITU") and the Commission laid the groundwork for what was then called International Mobile Telecommunications-2000 ("IMT-2000") and today often is referred to as Third Generation ("3G" or "advanced wireless") services. As noted in the ITU's statement of objectives concerning IMT-2000, it aims to "make available to users who are on the move or whose location may change...irrespective of their location...a wide range of telecommunications services...allowing communication between mobile users and other mobile users, users of the fixed public networks...or other telecommunications networks as appropriate."[4] The

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3 See Flexible Use NPRM at para. 37 (certain proposals are "subject to findings we make from our companion [3G FNPRM] on advanced wireless services").

4 Rec. ITU-R M.687-2, International Mobile Telecommunications-2000, p.2 ("IMT-2000").

Commission notes that "[k]ey features of 3G systems are a high degree of commonality of design worldwide, compatibility of services, use of small pocket terminals with worldwide roaming capability Internet, and other multimedia applications, and a wide range of services and terminals."[5]

A. IMT-2000 Contemplates a Satellite Component

The ITU and the Commission have consistently envisioned that these IMT-2000 services would include a satellite component. The ITU Radiocommunication Assembly, for example, recognized that "in order for IMT-2000 to be available to users anywhere . . . a satellite component of IMT-2000 will be required" and "satellite operation within IMT-2000 will enhance the overall coverage and attractiveness of the services."[6] Likewise, during the preparations for the 2000 World Radiocommunication Conference (WRC-2000), the Commission reaffirmed its position that satellites are an integral part of IMT-2000: "[t]he United States recognizes that the inherent global coverage of satellites makes them a key element of worldwide IMT-2000 and other advanced communications applications."[7]

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5 See http://www.fcc.gov/3G/ (visited October 19, 2001).

6 Rec. ITU-R M.818-1, Satellite Operation within International Mobile Telecommunications-2000, p. 1 ("IMT-2000 Satellite Component").

7 United States Proposals for the Work of the Conference, Proposal for Terrestrial and Satellite Components of IMT-2000, Document 12-E, Agenda item 1.6.1 (April 17, 2000).

B. IMT-2000 Sets Forth Features and Goals Supporting Terrestrial Reuse

IMT-2000 also contemplates a number of features and goals that provide solid support for the concept of terrestrial reuse of satellite spectrum, including the following:

- To accommodate the use of repeaters for covering long distances between terminals and base stations (Technical Objective 1.2.7);
- The need for a flexible system structure able to match investment to revenue growth, to adapt readily to environmental factors and to respond to new developments without restricting innovation (IMT-2000 Satellite Component, p.1);
- To provide service flexibility which permits the optional integration of services such as mobile telephone, dispatch, paging and data communications (Technical Objective 1.2.4);
- The use of spectrum [which] could enable a single equipment to use both terrestrial mobile and mobile satellite communications (Frequency Band Consideration 3.3.2); and
- To provide for adequate coverage to include portable units outdoors and in buildings (Technical Characteristic 4.2.1.6).

In short, the vision of IMT-2000 advanced by the Commission and the ITU – and as reaffirmed at WRC-2000[8] – includes a satellite component and provides solid support for terrestrial reuse of the 2 GHz MSS band. As discussed in greater detail below, Celsat urges the Commission to remain committed to this vision of advanced wireless services by (i) refusing to reallocate any portion of the 2 GHz MSS band for strictly terrestrial uses as

[8] See Resolution 176 (Rev. WRC-2000), p. 571 ("that to facilitate the introduction and future use of the 2 GHz bands by the MSS…administrations are urged to ensure that frequency assignments to new fixed service systems, to be brought into operation after 1 January 2000, do not overlap with the [2 GHz MSS bands]").

proposed in the 3G FNPRM and (ii) permitting all mobile satellite service providers to reuse terrestrially their satellite spectrum provided such use is technically feasible.

C. The Celsat 2 GHz MSS System is an IMT-2000 System

In 1992, not long after IMT-2000 was introduced, Celsat filed a petition for rulemaking with the Commission proposing "to reallocate spectrum for a nationwide hybrid geostationary satellite and ground-cellular network for mobile communication services."[9] At the request of the Commission, Celsat later submitted its "Master System Application for a GEO Satellite-Based MSS Space/Ground Hybrid Personal Communications Service."[10] As reflected in the Celsat Application, the Celsat 2 GHz MSS system would implement the IMT-2000 vision of advanced wireless services in many respects, including the use of a handset as small as the smallest PCS-sized handheld phone on the market today, extremely affordable rates, extraordinarily high efficiency gains in the reuse of spectrum both in space and through ground towers, roaming capabilities that will make the handset truly global, and extremely fast data rates.[11]

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9 Petition for Rulemaking and Request for Pioneer's Preference Filed, Public Notice, 1992 FCC Lexis 1241 (1992).

10 See FCC File Nos. 26/27/28-DSS-P-94 (April 2, 1994) (the "Celsat Application").

11 See generally Celsat Application at Section B; See also Letter to Magalie Roman Salas, Secretary, Federal Communications Commission, from Brian Weimer, Skadden, Arps, Slate, Meagher & Flom, LLP (March 15, 2000). With respect to Celsat's efficiency gains, the Celsat system will further the goal of the Commission as well as the ITU to promote the efficient use of spectrum. See In the Matter of Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, ET Docket No. 00-258, Notice of Proposed Rule Making and Order, 16 FCC Rcd 596, para. 13 (Released January 5, 2001) (the "January 3G NPRM") ("a flexible allocation approach will allow licensees freedom in determining the services to be offered and the technologies to be

(continued)

Following the submission of the Celsat Application, and after many years of effort at the Commission and in the ITU, the Commission in 1997 allocated the 2 GHz band for MSS.[12] In doing so, the Commission found that the domestic allocation would support international plans for MSS in the 2 GHz band and thus "allow the United States to participate in global MSS systems and realize the benefits to consumers of such systems."[13] After the allocation of the spectrum in 1997, the Commission proceeded to craft licensing and service rules and completed the licensing rulemaking in August of 2000.[14] The Commission reaffirmed in the 2 GHz Licensing Decision the unquestioned public interest benefits of 2 GHz MSS: the service "will provide new and expanded regional and global data, voice and messaging services...will enhance competition in mobile satellite and terrestrial communications services, and complement wireless service offerings through expanded global coverage...[and] will thereby promote development of regional and global communication to unserved communities in the United States, its territories and possessions, including rural and

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used in providing these services" and "to make the most efficient use of their assigned frequencies in response to market forces"). The ITU Radiocommunication Assembly notes that one of the primary objectives of IMT-2000 is "to make efficient and economical use of the radio spectrum consistent with providing service at an acceptable cost." IMT-2000 at p.2.

12 See Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, 12 FCC Rcd 7388 (1997) (the "1997 Allocation Order").

13 Id. at para. 14.

14 See Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band, Report and Order, 15 FCC Rcd 16127 (2000) ("2 GHz Licensing Decision").

Native American areas, as well as worldwide."[15] This nearly decade-long process of making the vision of IMT-2000 shared by Celsat, the Commission, and the ITU a reality was completed in July of this year when the Commission issued licenses to Celsat and seven other companies to provide MSS in the 2 GHz band.[16]

Given (i) the recent issuance of 2 GHz MSS licenses to Celsat and others, (ii) the mandate of the Commission and the ITU to promote MSS in the 2 GHz bands, and (iii) the extraordinary amounts of time and effort spent by the Commission, the ITU and industry over nearly a decade to make 2 GHz MSS a reality, the Commission should not reallocate even a single megahertz of spectrum for strictly terrestrial uses at this important juncture in the evolution of MSS in the 2 GHz band and, instead, should permit terrestrial reuse of the band.

## II. PERMITTING THE FLEXIBLE USE OF MOBILE SATELLITE SERVICE SPECTRUM IS CONSISTENT BOTH WITH THE COMMISSION'S RULES AND POLICIES AS WELL AS THE ORIGINAL VISION OF IMT-2000

Although Celsat has formulated its business plan without reliance on terrestrial reuse of satellite spectrum, Celsat enthusiastically endorses the concept of terrestrial reuse for all mobile satellite service providers so long as such terrestrial reuse is technically feasible. With respect to the issue of technical feasibility, the Commission seeks comment in the Flexible Use NPRM on whether it should make "some MSS spectrum available for use by any entity to provide terrestrial service."[17] The mobile satellite service environment is vastly

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15 Id. at para. 1.

16 See FCC International Bureau Authorizes New Mobile Satellite Service Systems in the 2 GHz Band, New Release, 2001 FCC Lexis 3850 (July 17, 2001).

17 Flexible Use NPRM at para. 37.

different than the fixed satellite service environment where the same spectrum has been shared by different licensees on the ground and in space for decades. Coordination and mitigation techniques that permit sharing are easy to implement in a fixed service environment because the location of both the satellite and the terrestrial terminals are known and unchanging. Given the constantly changing location of the terrestrial user in a mobile environment, however, only the satellite licensee can accomplish terrestrial reuse of the spectrum. Otherwise, uncoordinated ground usage would jam the satellite system and render it useless.

As noted by the Commission, Celsat has proposed to rely in part on commercial arrangements with terrestrial wireless carriers to provide service in urban areas.[18] In this regard, the Commission seeks comment in the Flexible Use NPRM on "alternative arrangements with terrestrial CMRS providers that would give MSS operators urban and in-building coverage."[19] Given that Celsat and others cannot be assured that definitive agreements with terrestrial wireless carriers will be reached, the mere possibility that alternative arrangements might be made should have no bearing on the issue of terrestrial reuse of the satellite spectrum. Moreover, even if such alternative arrangements could be made, the 2 GHz MSS band would still remain underutilized absent terrestrial reuse. For example, even if Celsat entered into an arrangement with a terrestrial wireless provider for coverage of urban areas, in mountainous rural areas where the reach of terrestrial networks is limited and the satellite signal could encounter terrain blockage, terrestrial reuse would permit

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[18] Flexible Use NPRM at para. 27.

[19] Id.

Celsat to enhance the signal and provide a more robust service. In short, terrestrial reuse simply provides the satellite service provider with another option to reach the consumer and, without it, the spectrum will lie fallow since only the satellite operator can coordinate terrestrial reuse of the spectrum.

Terrestrial reuse is also fully consistent with the Commission's flexible use policy. Section 303(y) of the Communications Act gives the Commission authority to permit flexible use of spectrum provided:

1. such use is consistent with international agreements to which the United States is a party; and
2. the Commission finds, after notice and opportunity for public comment, that
   (a) such an allocation would be in the public interest;
   (b) such use would not deter investment in communications services and systems, or technology development; and
   (c) such use would not result in harmful interference among users.

A. Terrestrial Reuse is Consistent with International Agreements

Terrestrial reuse is consistent with the vision of IMT-2000 set forth by the ITU and the Commission nearly a decade ago. As noted above, among the more important technical objectives of IMT-2000 are (i) "to provide service flexibility which permits the optional integration of services such as mobile telephone, dispatch, paging and data communication, or any combination thereof" and (ii) "to accommodate the use of repeaters for covering long distances between terminals and base stations."[20] The New ICO and Motient proposals – as well as Celsat's proposal dating back to 1994 – simply request the use of ground towers to enhance the flexibility of their mobile satellite service offerings and,

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[20] IMT-2000 at p. 3.

therefore, will advance these technical objective of IMT-2000. No other international agreements to which the United States is a party preclude terrestrial reuse in the 2 GHz MSS band.

B. Terrestrial Reuse will Otherwise Serve the Public Interest

The best expression of the principles that should guide the Commission's analysis of whether terrestrial reuse will serve the public interest – as required by Section 303(y) – is contained in the Commission's 1999 Policy Statement, "Principles for Reallocating Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium."[21] The Policy Statement proposes to use a "flexible allocation approach for the provision of advanced wireless services."[22] The Commission cited the Policy Statement in the Flexible Use NPRM as support for its commitment to move forward with "consideration of potentially innovative ideas [like terrestrial reuse] that may result in improved quality and availability of services to the public."[23] Likewise, the Commission has stated that "the principles articulated in the Policy Statement will serve as a guidepost" for its deliberations concerning 3G services.[24]

The most recent application of the Policy Statement's "flexible allocation approach" is contained in the Commission's decision of last month reaffirming its denial of a

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21 In the Matter of Principles for Reallocating Spectrum to Encourage the Development of Telecommunications Technologies for the New Millenium, Policy Statement, 14 FCC Rcd 19868 (Released November 22, 1999) (the "Policy Statement").

22 Policy Statement at para. 13.

23 Flexible Use NPRM at para. 2.

24 See January 3G NPRM at para. 2.

petition for rulemaking filed by the Satellite Industry Association (SIA) seeking to reallocate the 2.5 GHz band. SIA filed a petition for rulemaking in April of 2000 asking the Commission to reallocate the 2.5 GHz band to mobile satellite service use "to facilitate the growing demand for MSS-delivered voice, data, and 3G satellite services."[25] The Commission declined to do so in January of this year. On reconsideration, the Commission affirmed its decision to retain the 2.5 GHz band intact and instead – applying its flexible use policy under Section 303(y) – added a mobile allocation to the band.[26] The Commission's disposition of the SIA Petition in the 2.5 GHz Order provides an appropriate precedent for dealing with the Flexible Use NPRM (and, by implication, the 3G FNPRM) in that the 2.5 GHz Order refused to reallocate the spectrum at issue and, instead, permitted flexible use of the band.

In the 2.5 GHz Order, the Commission surmised that "[r]elying generally on market forces rather than making regulatory judgments about the best use of the band, a more flexible allocation would, for example, allow certain portable data applications to be provided under existing service rules...and could provide flexibility for introducing other advanced fixed and mobile applications in the future."[27] As noted in the 2.5 GHz Order, the Commission already has provided flexible use of spectrum in many services, "including PCS,

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25 See January 3G NPRM at para. 70. See also Petition for Rulemaking of Satellite Industry Association, filed April 28, 2000 ("SIA Petition").

26 See In the Matter of Amendment of the U.S. Table of Frequency Allocations to Designate the 2500-2520/2670-2690 MHz Frequency Bands for the Mobile-Satellite Service, First Report and Order and Memorandum Opinion and Order, FCC 01-256, (Released September 24, 2001) (the "2.5 GHz Order").

27 Id. at para. 2.

WCS, and new services operating on television channels 60-69; and [it has] proposed flexibility in other services, including new services operating on television channels 52-29."[28] Rejecting the contention that adding a mobile allocation in the 2.5 GHz band would create a "windfall" for the incumbent licensees, the Commission determined that the incumbents in the band – just like the licensees in the numerous other bands in which the Commission has permitted flexible use – should be permitted broadest possible use of the spectrum and that such use "simply allows incumbent licensees an additional option…"[29] The Commission should follow a similar approach in all MSS bands where terrestrial reuse is technically feasible for the compelling reason that – in the words of the Commission – "the public interest is served because a flexible allocation allows licensees to make efficient use of spectrum, especially if licensees are given greater freedom in determining the specific services to be offered."[30] In short, the 2.5 GHz Order establishes a fully justified presumption under Section 303(y) of the Communications Act that terrestrial reuse will serve the public interest.

The second issue that must be addressed under Section 303(y) is whether permitting terrestrial reuse will deter investment in the band. The Commission's analysis of this same issue in the 2.5 GHz Order is highly instructive: "a flexible allocation will actually encourage investment in and the development of new and innovative technology and services."[31] Even a casual observer would anticipate that authorization of terrestrial reuse in

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28 Id. at para. 20.

29 Id. at para. 27.

30 Id. at para. 24.

31 Id.

the 2 GHz MSS band will create an avalanche of interest in – and an explosion of demand for – mobile satellite services. In short, a Commission decision to permit flexible use of the 2 GHz MSS band will encourage – not deter – investment in communications services and systems as well as technology development in the 2 GHz MSS band, which is fully consistent with the requirements of Section 303(y) of the Communications Act.

Finally, the Commission's Section 303(y) analysis must take into account whether a flexible allocation will result in harmful interference among users. Given the Commission's licensing approach for the 2 GHz band, in which each licensee gets a unique "Selected Assignment" of spectrum,[32] harmful interference will not be difficult to avoid so long as the satellite licensee is the only entity permitted to reuse the satellite signal terrestrially.

In addition to the analysis under Section 303(y) and the precedent from the 2.5 GHz Order, one other recent decision by the Commission is instructive on the issue of terrestrial reuse of satellite spectrum. Last month, the Commission authorized the two digital audio radio service (DARS) satellite licensees to use terrestrial repeaters to enhance their service.[33] The Commission properly concluded that appropriately conditioned authorization of terrestrial repeaters would serve the public interest. The Commission was careful in the DARS proceeding to propose conditions that are designed to ensure the terrestrial repeaters will

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32 See 2 GHz Licensing Decision at para. 16.

33 See In the Matter of XM Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization, DA 01-2172 (Int'l Bur., Sept. 17, 2001); In the Matter of Sirius Satellite Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization, DA 01-2171 (Int'l Bur., Sept. 17, 2001).

remain truly ancillary to the satellite service.[34] In this regard, the Commission in the Flexible Use NPRM seeks comment on "whether [the Commission] should allow an MSS operator to offer ancillary terrestrial service even if some of its authorized satellites are not fully operational."[35] The Commission sets forth its own proposal on this subject which, in Celsat's view, should be implemented: "the MSS operator could initiate operation of terrestrial services as soon as its operational satellites cover 100 percent of the United States 100 percent of the time, even if the operator has not yet launched its entire constellation of satellites."[36] Given that most of the 2 GHz MSS licensees use nongeostationary orbit systems (and, hence, the satellite network is not fully operational until at least one satellite is always visible to the user), full-time coverage of the service area is the best way to ensure that terrestrial reuse of the 2 GHz MSS band is truly ancillary to the satellite service. In short, in much the same way that terrestrial repeaters in DARS would serve as "'gap-fillers', in urban canyons and other areas where it may be difficult to receive DARS signals transmitted by a satellite"[37], terrestrial reuse in the 2 GHz MSS band (with appropriate conditions) would permit a more robust MSS service offering and, therefore, would serve the public interest.

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34 See In the Matter of Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, Report and Order and Further Notice of Proposed Rulemaking, 12 FCC Rcd 5754, paras. 138-142 (1997) ("DARS Order").

35 Flexible Use NPRM at para. 44.

36 Id.

37 DARS Order at para. 138.

## III. THE COMMISSION SHOULD ENCOURAGE AND NOT ABANDON THE MOBILE SATELLITE SERVICE INDUSTRY AT THIS IMPORTANT STAGE IN ITS EVOLUTION

In light of the financial challenges facing a few mobile satellite service providers, some commenters no doubt will continue to argue that the Commission should declare the MSS industry dead and ask the Commission to reallocate as much of the 2 GHz MSS band for strictly terrestrial uses as possible. Reallocating any portion of the 2 GHz MSS band, however, would contravene Commission precedent demonstrating that the Commission does not and should not waiver from its mandate to foster services that will serve the pubic interest. Indeed, if the Commission were to reallocate spectrum every time an industry faces challenges in the marketplace, tens of millions of Americans would be deprived of telecommunications services they enjoy today.

For example, the Commission's positive role in aiding the evolution of new communications technologies is evident in the history of (i) the cellular industry, which had its beginnings in 1949 but did not flourish until decades later,[38] (ii) FM radio, which was first authorized in 1941, continued to struggle into the 1970s, and today enjoys remarkable

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38 While the Commission initially allocated spectrum for a mobile wireless service in 1949, see General Mobile Radio Service, 13 FCC 1190, 1212 (1949), and approved the cellular concept in 1974, see Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz, 46 FCC 2d 752, 756 (1974), the first cellular system was not operational until 1983, see Chicago SMSA Ltd. Partnership, 95 FCC 2d 512 (1982). Broad acceptance of wireless telephone service was not immediate either – 1984 saw only 91,600 subscribers, see Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, 10 FCC Rcd 8844, Table 1 (1995), significantly fewer than the nearly 110 million subscribers last year, FCC Adopts Annual Report on State of Competition in the Wireless Industry, News Release, 2001 FCC Lexis 3355 (June 20, 2001).

success,[39] and (iii) UHF television, which was slow to develop even after the Commission added 70 UHF channels in 1952, continued to struggle into the 1960s, and today is a vibrant component of the broadcasting marketplace.[40] In each case, the Commission did not waiver in its commitment to the industry in question but instead sought to promote a service that it deemed vital to the public.

The Commission now faces a similar question concerning the 2 GHz MSS band: Should the temporary financial challenges of a few companies be construed as the death knell of the industry or should the Commission continue to encourage the industry that it has concluded will "provide another option for mobile communications, and would provide communications to underserved areas, such as rural and remote areas where PCS, cellular, and other mobile services are less feasible."[41] Indeed, the Celsat system, with its uniquely affordable service and small hand-held phone, presents the Commission with the best opportunity yet to make MSS (including advanced wireless services) available to all

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39 After the Commission initially authorized FM broadcasting in 1941, it took until 1988 for FM stations to surpass their AM counterparts in terms of audience share and total revenue, see Amendment of Section 73.3555 of the Commissions Rules, the Broadcast Ownership Rules, 4 FCC Rcd 1723, 1726 (1989). See also Erwin G. Krasnow & Jack N. Goodman, The "Public Interest" Standard: The Search for the Holy Grail, 50 FED. COMM. L.J. 605, 631 (1998) ("FM service began slowly, but ultimately eclipsed AM as the dominant radio service.").

40 Charles D. Ferris & Frank W. Lloyd, Telecommunications Regulation: Cable, Broadcasting, Satellite, and the Internet, ¶ 3.05 (1983). UHF was handicapped from the beginning, however, because over 100 existing VHF stations were already reaching two-thirds of the public, technical problems persisted, and most television sets were equipped to receive only VHF signals. Id. These problems prompted Congress and the Commission to intervene in the 1960's, and UHF began to rebound. Id. By 1980, 95 percent of American homes with televisions were receiving UHF signals. Id.

41 1997 Allocation Decision at para. 13.

Americans, especially those living in rural areas.[42] In this regard, the Commission should not adopt its proposal in the 3G FNPRM to reallocate for terrestrial use the segment of the 2 GHz MSS band reserved for system expansion by those 2 GHz MSS licensees providing service to rural areas.[43] The Commission should continue to do all it can to promote service to rural areas and awarding expansion spectrum to those licensees that actually provide service to rural areas is the best means to achieve that laudable goal. Likewise, the Commission seeks comment in the 3G FNPRM on the use of spectrum that is abandoned by 2 GHz MSS licensees failing to implement their systems.[44] Just as the Commission should continue to promote service to rural areas by retaining the expansion spectrum concept, so too should it adopt its proposal in the 2 GHz Licensing Decision to "designate abandoned spectrum for award to operators meeting our unserved area service criteria."[45] In short, the Commission will serve the public interest best by retaining the entire 2 GHz MSS band intact and continuing to make every single megahertz of it available to the 2 GHz MSS licensees, now and in the future.

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42 Given the failure of many terrestrial wireless systems in New York City to operate immediately following the terrorist attacks against the United States on September 11, the provision of ubiquitous, satellite-delivered mobile services is more important now than ever for the protection and safety of Americans. In this regard, the Commission would advance the goal of safety even further by permitting the use of 2 GHz MSS handsets on airplanes.

43 See 3G FNPRM at para. 22.

44 Id. at para. 28.

45 2 GHz Licensing Decision at para. 18.

## IV. CONCLUSION

For the foregoing reasons, the Commission should retain the entire 2 GHz MSS allocation intact and permit terrestrial reuse of satellite spectrum by all mobile satellite service licensees.

Respectfully submitted,

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Dated October 19, 2001

**EXHIBIT A**

DECLARATION OF DAVID D. OTTEN

**DECLARATION OF DAVID D. OTTEN**

I, David D. Otten, Chairman and Chief Executive Officer of Celsat America, Inc., certify under penalty of perjury that:

I am the technically qualified person with overall responsibility for preparation of the technical information contained in the foregoing Consolidated Comments of Celsat America, Inc. The technical information contained in the Consolidated Comments is true and complete to the best of my knowledge and belief.

David D. Otten

Dated: October 19, 2001

CERTIFICATE OF SERVICE

I, Michael Murphy, hereby certify that on this 22nd day of October, 2001, copies of the foregoing "Consolidated Comments of Celsat America, Inc." were served by courier on the following parties:

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