

ORIGINAL

ANN BAVENDER\*  
ANNE GOODWIN CRUMP  
VINCENT J. CURTIS, JR.  
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HOWARD M. WEISS  
ZHAO XIAOHUA\*

\* NOT ADMITTED IN VIRGINIA

FLETCHER, HEALD & HILDRETH, P.L.C.

ATTORNEYS AT LAW

11th FLOOR, 1300 NORTH 17th STREET

ARLINGTON, VIRGINIA 22209-3801

(703) 812-0400

TELECOPIER

(703) 812-0486

INTERNET

www.fhh-telcomlaw.com

RETIRED MEMBERS  
RICHARD HILDRETH  
GEORGE PETRUTSAS  
CONSULTANT FOR INTERNATIONAL AND  
INTERGOVERNMENTAL AFFAIRS  
SHELDON J. KRYS  
U. S. AMBASSADOR (ret.)

OF COUNSEL  
EDWARD A. CAINE\*  
MITCHELL LAZARUS  
EDWARD S. O'NEILL\*

WRITER'S DIRECT

(703) 812-0480

raish@fhh-telcomlaw.com

March 17, 2000

**VIA HAND DELIVERY**

Magalie Roman Salas, Esquire  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Room TW-A325  
Washington, D.C. 20554

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MAR 17 2000  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: Joint Ex Parte Statement in  
IB Docket No. 98-172

Dear Ms. Salas:

On March 10, 2000, representatives of the GSO FSS Coalition and the Fixed Wireless Communications Coalition met jointly with Ari Fitzgerald of the Chairman's Office to discuss issues raised by the subject Docket. Other FCC Staff members present were Messrs. Richard Engelman, Peter Pappas, and Karl Kensinger, all from the International Bureau. The attached three documents were distributed at the meeting.

Respectfully submitted,

FIXED WIRELESS COMMUNICATIONS  
COALITION

By: Leonard Robert Raish  
Leonard Robert Raish  
Co-Chairman

GSO FSS SATELLITE COALITION

By: John P. Stern  
John P. Stern  
Associate General Counsel  
LORAL Space & Communications Ltd.  
and Member of Coalition

**Attachments**

- (1) Letter Ex Parte Report to FCC Secretary dated March 8, 2000 re IB Docket No. 98-172 on behalf of GSO FSS Companies
- (2) Letter to FCC Secretary dated March 6, 2000 re IB Docket No. 98-172 filed by Blonder-Tongue Laboratories Inc.
- (3) One Page Paper on 18 GHz Issues Prepared by the Fixed Wireless Communications Coalition (FWCC)

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Copy To:

Ari Fitzgerald (Office of Chairman Kennard)  
Mark Schneider (Office of Commissioner Ness)  
Peter Tenhula (Office of Commissioner Powell)  
Adam Krinsky (Office of Commissioner Tristani)  
Bryan Tramont (Office of Commissioner Furchtgott-Roth)  
Peter Pappas (Associate Chief, International Bureau)  
Richard Engelman (International Bureau-Planning and Negotiations Division)  
Julius Knapp (Chief, Policy & Rules Div., Office of Engineering & Technology)  
Ron Netro (Wireless Telecommunications Bureau)

March 8, 2000

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MAR 17 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

*BY HAND DELIVERY*

Ms. Magalie Roman Salas, Secretary  
Federal Communications Commission  
445 12th Street, S.W. TW-A325  
Washington, D.C. 20554

**Re: *Ex Parte* Presentation: Redesignation of the  
17.7-19.7 GHz Frequency Band  
IB Docket No. 98-172**

Dear Ms. Salas:

Enclosed pursuant to 47 C.F.R. § 1.1206(b) are an original and two copies of two proposals regarding issues raised in the above-referenced proceeding. The proposals were developed by a group of Ka-band satellite licensees and applicants<sup>1</sup> and have been discussed with representatives of terrestrial fixed service interests in a series of meetings. We anticipate that there will be further discussion of the proposals at the meeting with Commission staff that is scheduled for this Friday.

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<sup>1</sup> The group includes the following companies: Astrolink International, GE Americom, Hughes, iSky, Lockheed Martin, Loral, Motorola, NetSat 28, and TRW.

Ms. Magalie R. Salas, Secretary  
March 8, 2000  
Page 2

Please address any questions regarding this matter to the undersigned.

Very truly yours,

Karis A. Hastings  
Counsel for GE American  
Communications, Inc.

Enclosures

cc: Ari Fitzgerald, Legal Advisor to Chairman Kennard  
Mark Schneider, Senior Legal Advisor to Commissioner Ness  
Bryan Tramont, Legal Advisor to Commissioner Furchtgott-Roth  
Peter A. Tenhula, Senior Legal Advisor to Commissioner Powell  
Adam Krinsky, Legal Advisor to Commissioner Tristani  
Peter Pappas, Associate Chief, International Bureau  
Rick Engelman, Chief, Planning & Negotiations Div., International Bureau  
Julius Knapp, Chief, Policy & Rules Div., Office of Engineering & Technology

## FSS COMPROMISE PROPOSAL (2/25/00)

- Provide 250 MHz of unshared GSO FSS spectrum at 18.3 - 18.8 GHz
- Swap exclusive GSO FSS primary band from 18.3-18.55 GHz to 18.55-18.8 GHz
- Raise existing PFD limit in the 18.6-18.8 GHz band
- Make 12 GHz available for PCO operations – full advocacy support by FSS Coalition
- One-way analog licensing of FS at 18.55-18.58 GHz continues until sunset date (no FS digital or two-way)
- FS operations in the 30 MHz become secondary on the later of (i) 2004 or (ii) 6 months from the successful launch of a GSO FSS satellite using those frequencies in the US
- FS operations cease in the 30 MHz by 2007
- Per NPRM, co-primary satellite earth station licensing (18.3 - 18.55 GHz) should proceed pursuant to Section 25.203

# FSS COMPROMISE PROPOSAL #2 (3/2/00)

## A GSO FSS Requirements

- 250 MHz of unshared GSO FSS spectrum and 250 MHz of co-primary GSO FSS spectrum between 18.3 - 18.8 GHz
  - GSO FSS unshared band at 18.55 - 18.8 GHz
  - GSO FSS co-primary band at 18.3 - 18.55 GHz
- Raise existing PFD limit in the 18.6-18.8 GHz band
- Per NPRM, co-primary satellite earth station licensing (18.3 - 18.55 GHz) should proceed pursuant to Section 25.203

## B 40 MHz Frequency Shift for PCOs to Maintain 440 MHz Band

- **Introduction:** We understand from the FCC that 19.26 - 19.3 GHz will likely be unavailable for FS use (other than grandfathered systems) after the release of the R&O. This creates an “orphaned” 40 MHz band at 17.7 - 17.74, which may provide an opportunity for the PCOs to be accommodated and to expand in the 18.10 - 18.55 MHz band.

# FSS COMPROMISE PROPOSAL #2 (CON'T)

## **B 40 MHz Frequency Shift for PCOs to Maintain 440 MHz Band (con't)**

### **Specifics:**

- Rechannelize 17.7 - 18.10 and 19.3 - 19.7 GHz bands for fixed point-to-point systems
  - Already required due to primary designation of NGSO at 19.26 - 19.3 GHz
  - Rechannelization was proposed by TIA Fixed Section in NPRM Comments
- New and modified point-to-point systems must use new channelization upon issuance of R&O; grandfathered systems may continue to use old channelization until sunset in R&O
- PCOs can use 18.10 - 18.55 GHz upon issuance of R&O if coordinable (either technically or as a business matter) with grandfathered point-to-point users in 18.10 - 18.14 GHz
  - Additional 10 MHz of spectrum available for PCOs
  - However, PCOs can't use both 18.10 - 18.14 GHz and 18.55 - 18.58 GHz
- FSS reaches mutual agreements for retuning on a case by case basis as FSS operators deploy in 18.55 - 18.58 GHz
  - Agreements with PCOs for 40 MHz shift
  - Agreements with affected FS point-to-point operators in 18.10 - 18.14 GHz



One Jake Brown Road  
 Old Bridge, NJ 08857-1000  
 (732) 679-4000 Fax (732) 679-4353  
 www.blondertongue.com

Ms. Magalie R. Salas  
 Office of the Secretary  
 Federal Communications Commission  
 445 Twelfth Street, S.W.  
 Twelfth Street Lobby, TW-A325  
 Washington, DC 20554

RECEIVED

MAR 17 2000

FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

March 6, 2000

**RE: Docket No. IB 98-172 - Redesignation of the 17.7—19.7 GHz  
 Frequency Band, Blanket Licensing of Satellite Earth Stations in the  
 17.7-20.2 GHz and 27.5—30.0 GHz Frequency Bands.**

Dear Ms. Salas:

On March 3, 2000, the undersigned and Cliff Fox of Blonder Tongue Laboratories communicated by telephone with Mr. Rick Engleman and Mr. John Wong of the FCC. The following is a summary of the points Mr. Fox and I communicated:

***Situational Overview:***

It has been proposed that the Private Cable Operator (PCO) use of 18 GHz point-to-point microwave transmission be co-primary with the satellite down link in the 18.142—18.58 GHz band. The satellite community is especially concerned about co-primary status with PCOs in the 18.55—18.58 GHz band. The PCOs are very concerned about being co-primary with satellite because without special FCC rules that protect growth, the result will be catastrophic to the PCO industry.

Although the term co-primary sounds benign, "even handed" or equal, in this context it is not. As was proven at 4 GHz, co-primary status between terrestrial point-to-point and satellite service effectively kills the growth of the terrestrial service at the point in time when satellite receive sites are deployed. The large number of proposed satellite service receive sites will create large exclusion zones that will terminate the growth opportunities for terrestrial service, including PCOs.

Grandfathering the existing systems is helpful. However, in addition, the PCO community needs to be allowed to grow.

***PCO Proposals:***

Over the course of recent discussions with the satellite industry, the PCO community has offered several ideas and compromise alternatives that have been rejected by the satellite community. The latest proposal, a four point compromise, follows:



1. PCOs accept secondary status in the 18.55—18.58 GHz band, following an appropriate phase out period.

*Effectively, PCOs would abandon the use this 30 MHz of spectrum.*

2. PCOs gain sole primary status in the 18.142—18.55 GHz band and satellite use would be secondary.

*This preserves the ability for the number of PCO links to grow.*

3. PCOs gain access to the 11.7—12.2 GHz band on the same basis as franchise operators.

*To utilize this spectrum space, the PCO implementation costs will be high and the ability to use the spectrum will be difficult, at best. Regardless, access will allow PCOs to recoup a portion of their ability to compete otherwise lost due to the loss of the 30 MHz of spectrum in the 18 GHz band.*

4. PCOs receive relocation costs, or payment in kind, for the use of the 12 GHz band for the recovery of lost spectrum in the 18 GHz band.

#### ***Other Relevant Comments:***

As has already been established in other bands, outright co-primary status for both satellite and terrestrial use kills the growth opportunities for terrestrial point-to-point services.

Although both the satellite and terrestrial representatives have been meeting often, the discussions tend to stall because there has not been an adequate technical dialog. Without a detailed technical dialog it will not be possible to develop a reasonable compromise that will work for both parties. On the other hand, a technical dialog coupled with a workmanlike effort should enable the parties to produce a compromise that will ensure that each industry can accomplish its respective goals and objectives.

The installed base of 18 GHz terrestrial systems establishes a defacto secondary status for any new satellite receiver sites. Therefore, in order to make the 18.142—18.58 GHz spectrum useful for satellite downlinking, the satellite systems<sup>1</sup> must deploy receivers that inherently can co-exist with existing terrestrial point-to-point systems. That being the case, being able to co-exist with any new terrestrial transmit locations should be relatively easy. Frequency and space diversity<sup>2</sup>, combined with database agility as part of the satellite system can easily and seamlessly satisfy this requirement. It is not an unreasonable expectation that the satellite systems employ this capability. We would be surprised if the satellite systems did not already intend to use this or other similar methods for the purpose of traffic throughput optimization and balancing among the respective downlink system beams. Therefore, we are optimistic that a reasonable and workable solution can be formulated that includes secondary status for satellite downlink operation in the 18.142—18.58 GHz band (or co-primary status with special FCC rules that ensure PCO growth in any and all

geographic locations). The scenario in the following paragraphs describes by example why we are so optimistic and, what we mean by frequency and space diversity coupled with database agility.

A prospective satellite subscriber resides where intolerable interference<sup>3</sup> is present and originating from an existing "grandfathered" terrestrial transmitter operating as contemplated in the R & O in the 18.142—18.58 GHz band that makes that particular satellite subscriber's location unusable when the receiver is operated in that band. The presumption cannot be that satellite service will not be available to that prospective subscriber. The only reasonable presumption is that the satellite database control system will ensure that certain receivers such as the one in this example will only be operated on one of the other bands that are not shared with the terrestrial users in the 18.142—18.58 GHz band.

Furthermore, it is a business reality that of the millions of users contemplated, we do not know who the high traffic users will be or where they will be located. Traffic balancing among the downlink beams we presume will not be left to chance. Frequency and space diversity coupled with database agility seem to be the only reasonable methods that address the common data traffic optimization and service reliability challenges. Therefore, if these (or other methods that achieve the same result) are utilized, it should be relatively easy for the satellite systems to seamlessly manage secondary status (defacto or otherwise) for the satellite receivers in the 18.142—18.58 GHz band only.

### ***Special Co-Primary Rules***

The possibility was raised that we might be able to fashion special FCC rules within the context of co-primary status that will both ensure PCO growth and accommodate satellite downlink use. This alternative may be feasible. However, outright co-primary status for both without adequate special rules is not the answer.

### ***"Gateway" Receiver Based Systems***

It is possible that exclusive, prescribed geographic zones dedicated for gateway satellite receive site operation could be coordinated with the terrestrial users on a co-primary basis if (a) this was the only satellite use of the affected band, and (b) the rules were carefully construed. This presumes that the satellite downlinks would be used for gateway services only and that the total quantity of receive sites would be modest.

<sup>1</sup> Similar to that described in the Hughes Communications Galaxy, Inc application dated September 29, 1995.

<sup>2</sup> The notion of the use of space diversity is substantiated in the Hughes Communications Galaxy, Inc application in figures C-14a & figures C-15a (spot beam laydowns) on pages C-28 & C-30 respectively. Frequency diversity, although not specifically set forth in the text of the application, is strongly inferred and briefly claimed in the body of the application, Item C, System Description, Section 1, paragraph 7 on page 16. The application indicates there will be 33 narrow spot beams served from 2 satellites with 24 beams each (48 total). The inference can be made that the remaining 15 beams will be employed for the purpose of frequency diversity. Furthermore, the planned North American Ka downlink frequencies set forth in the application do not use the 18.142—18.58 band, figure D-1 page 46.

<sup>3</sup> This is where a typical subscriber resides in proximity to an existing 18 GHz transmitter or desires to set up service in an

otherwise geographically adverse location. (e.g.: azimuth of the satellite receive antenna is 180° from the azimuth of an existing 18 GHz transmitter and the satellite receiving station is located north of the 18 GHz transmitter).

I hope this helps. Please do not hesitate to contact me if have any questions.

Sincerely,

Bob Pallé  
Executive Vice President, Chief Operating Officer  
Blonder Tongue Laboratories, Inc.

CC: Rick Engleman, FCC, IB  
John Wong, FCC, CSB Engineering

FIXED WIRELESS COMMUNICATIONS COALITION  
Point Paper on 18 GHz Issue

1. The 18 GHz band is very heavily used in by the FS in the major US metropolitan areas. There are over 4000 digital duplex FS links currently in operation in this band. It is particularly noteworthy that this spectrum is used by wireless competitive local exchange carrier (CLEC) providers to connect hubs and to reach distant customers, providing advanced broadband services such as high speed data and Internet, as well as competitive telephony. The band also is home to private cable operators (PCOs) and common carriers providing back haul services for cellular and PCS.
2. ALL relocation of fixed service (FS) incumbents should follow exactly the "comparable facilities" model adopted by the FCC in the Emerging Technologies (ET Docket No. 92-9) and Cost Sharing (WT Docket No. 95-157) proceedings. Commission precedent and the principle of fair treatment for incumbents requires that nothing less than full replacement cost, based on a "comparable facilities" standard, should be the basis for compensation.
3. Licensed FS incumbents must be provided comparable spectrum. However, no relocation or future growth spectrum has yet been identified. The growth rate for the fixed service demand for spectrum has been 300% over the past couple of years.
4. The question of provision of replacement spectrum for FS should be referred back to the OET and Wireless/International Bureaus for immediate, further study.
5. It is unanimously agreed that the superimposition of fixed satellite systems (FSS) in 18 GHz band creates difficult spectrum sharing problems.
  - (a) Sharing between ubiquitous FS and ubiquitous satellite operations is unrealistic.
  - (b) Some sharing between FS and FSS gateways may be feasible under certain conditions.
6. 18 GHz band must be studied as a single issue; not realistic to deal with 18.14-18.58 GHz CARS band alone due to the "ripple" effect on the FS.
7. Noting foregoing and in the spirit of compromise to accommodate FSS operations, in the course of past "18 GHz" negotiations, FS interests agreed to give up 480 MHz by foregoing any further growth in the 18.58-19.16 GHz band in exchange for no loss of wideband spectrum between 19.26-19.7 GHz and rechannelization of that band in association with the 17.7-18.14 GHz band.
8. Proposal now is to take additional spectrum away from terrestrial FS, specifically
  - 30 MHz from PCOs
  - 80 MHz from FS
9. A loss of 30 MHz will make PCOs non-competitive; a loss of 80 MHz will have a significant negative impact on the usefulness of the 18 GHz band for terrestrial fixed because the necessary pairing would no longer be feasible.

Dated: March 10, 2000