regarding the use of auctions to award global satellite system licenses. Foreign nations may use auctions to retaliate against U.S. trade practices and strict regulatory measures in other areas. See, e.g., Comments of Teledesic at 14. Implementing auctions in the U.S. may jeopardize U.S. success at WRC-95 and may undermine the objectives of the Administration's global information infrastructure policy. See id.; Comments of COMSAT at 30-31. Finally, COMSAT noted that the ITU may adopt auctions for international spectrum allocations, or even for orbital assignments.

In addition to these arguments, there are real equitable and public interest concerns which mitigate against the use of auctions for global MSS licenses at 2 GHz. As COMSAT noted in its Comments, it would be an unfair burden for 2 GHz MSS systems to have to buy U.S. spectrum rights at auction when other "Big LEO" MSS licensees have received their U.S. spectrum licenses without going to auction (or paying domestic relocation expenses). Comments of COMSAT at 29-30. In the final analysis, however, if 2 GHz spectrum becomes too costly and the barriers to entry become too high, the U.S. public will fail to realize the competitive, economic and technological benefits which MSS allocations at 2 GHz will provide.

VI. CONSIDERATION OF OTHER TECHNICAL ISSUES

COMSAT believes that it is appropriate for the Commission to begin considering service and technical rules in the instant proceeding. Although Loral is correct in stating that there is uncertainty surrounding the specific bands which would be available

for MSS, the Commission will make its allocation decision in the instant proceeding and, as part of that decision, it should be possible to identify certain broad service and technical parameters which could be explored in greater detail in a subsequent rule making. See Comments of Loral at 20-21. Certainly, it may be necessary to refine any initial decision made in the instant proceeding depending on the outcome of WRC-95. Nonetheless, in the interest of expediting the award of licenses for global MSS systems at 2 GHz, we believe it is advantageous to consider the technical issues identified in the NPRM.

As a basic premise, COMSAT believes that the Commission should let the market decide ultimately which types of MSS systems succeed and which do not. For that reason we urged the Commission to refrain from limiting the 2 GHz MSS bands to a particular orbital configuration or access methodology. Comments of COMSAT at 32-34; see also Comments of the Ericsson Corporation at 1-4. Consequently, we do not support those MSS proponents which seek, in their own self interest, to limit the 2 GHz band to either geostationary or non-geostationary satellites, or to impose CDMA versus TDMA access technology.[22] As PCSAT noted, there are over 30 MSS systems which have advanced published for operation in the 2 GHz bands, proposing a variety of technical designs. See Comments of PCSAT at 5.

Two areas where it will be necessary to await the outcome of WRC-95 before the Commission can adopt technical requirements involve the

---

[22]See, e.g., Comments of Celsat at 11-18; Comments of TRW at 24-25.

determination of appropriate power limits for MSS downlinks and the selection of MSS feeder link spectrum. As we noted in our Comments, both issues are under consideration by the ITU and should be decided at WRC-95. See Comments of COMSAT at 35-37. Since filing our initial Comments in this proceeding, the Commission has released its Final Report in the docket preparing for WRC-95. We believe that the WRC-95 Final Report sets the appropriate agenda for the United States and will help to foster the implementation of global mobile satellite services by identifying new MSS service and feeder link bands and making these bands usable for global MSS. Consequently, we urge the Commission to initiate any further proceedings promptly after WRC-95 which may be necessary to resolve any remaining issues pertaining to the implementation of global MSS systems at 2 GHz.

VII. CONCLUSION

For the foregoing reasons, COMSAT requests that the Commission adopt the proposals and recommendations advanced in COMSAT's Comments on the NPRM to allocate spectrum at 2 GHz to MSS and those contained in the instant Reply.

Respectfully Submitted,

COMSAT CORPORATION

By: Nancy J. Thompson

John S. Hannon
Nancy J. Thompson

COMSAT Mobile Communications
22300 COMSAT Drive
Clarksburg, MD 20871
(301)428-2268

Its Attorneys

June 21, 1995

COMSAT LABS
FURTHER EVALUATION OF REDUCED BAS CHANNEL BANDWIDTH

TABLE I

Video Performance

Video Parameter	20 MHz Filter 4.0 MHz Δf	20 MHz Filter 3.5 MHz Δf	15 MHz Filter 4.0 MHz Δf	15 MHz Filter 3.5 MHz Δf	15 MHz Filter 3.0 MHz Δf
Amplitude Response	<1.8 IRE p-p	<1.4 IRE p-p	<1.3 IRE p-p	<1.9 IRE p-p	<1.9 IRE p-p
Chrominance/ Luminance Gain	101.2%	101.3%	96.9%	97.4%	98%
Chrominance/ Luminance Delay	8.2 nS	9.3 nS	9.1 nS	9.4 nS	7.9 nS
Field Time Distortion	2.1%	2.1%	2.4%	2.2%	2.4%
Line Time Distortion	2.1%	2.1%	1.6%	2.0%	2.1%
Short Time Distortion	0.9%	1.0%	1.1%	0.9%	0.9%
Luminance Non-Linearity	0.45%	0.74%	0.27%	0.65%	0.6%
Differential Gain	1.05%	0.86%	1.06%	1.23%	2.14%
Differential Phase	0.48°	0.39°	0.82°	0.53°	0.84°
Chrominance/Luminance Intermodulation	0.1 IRE	0.1 IRE	0.1 IRE	0.1 IRE	0.1 IRE
Chrominance Non-Linear Gain	0+0.1 IRE	0 IRE	-0.2-1.5 IRE	+0.1-1.0 IRE	--
Chrominance Non-Linear Phase	0.3°	0.3°	0.3°	0.1°	0.2°

COMSAT LABS
FURTHER EVALUATION OF REDUCED BAS CHANNEL BANDWIDTH

TABLE II

Video and Audio Noise Performance

	C/N_O= 102.7dB					
	Rx BW= 20 MHz			RX BW= 15 MHz		
	Audio1= 8.3 MHz	Audio2= 6.8 MHz		Audio1= 6.8 MHz	Audio2= 5.8 MHz	
	Video S/N	Audio S/N	Audio Dist.	Video S/N	Audio S/N	Audio Dist.
Δf=4.0 MHz	56.5 dB	49.4 dB	0.72%	56.5 dB	49.6 dB	0.72%
Δf=3.5 MHz	55.0 dB	48.6 dB	0.74%	55.1 dB	49.7 dB	0.72%
Δf=3.0 MHz	----	----	----	53.9 dB	47.6 dB	0.56%

CERTIFICATE OF SERVICE

I, Pamela L. Sonneville, hereby certify that the foregoing "Reply of COMSAT Corporation" was served by first-class mail, postage prepaid, this 21st day of June, 1995, on the following persons:

David C. Jatlow
Young & Jatlow
2300 N Street, N.W., Suite 600
Washington, D.C. 20037

Terri B. Natoli, Esq.
Fleischman and Walsh, L.L.P.
1400 Sixteenth Street, N.W.
Washington, D.C. 20036

Gary M. Epstein
Latham & Watkins
1001 Pennsylvania Avenue, N.W., Suite 1300
Washington, D.C. 20004

Philip V. Otero
GE American Communications, Inc.
1750 Old Meadow Road
McLean, VA 22101

Gerald E. Oberst, Jr.
Hogan & Hartson L.L.P.
555 13th Street, N.W.
Washington, D.C. 20004

John F. X. Browne
President
Association of Federal Communications
Consulting Engineers
P.O. Box 19333
20th Street Station
Washington, D.C. 20036

Victor Tawil
Vice President
Association for Maximum Service
Television, Inc.
1776 Massachusetts Avenue, N.W., Suite 300
Washington, D.C. 20036

Jonathan D. Blake
Covington & Burling
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044

Christopher D. Imlay
Booth, Freret & Imlay
1233 20th Street, Suite 204
Washington, D.C. 20036

John T. Scott, III
Crowell & Moring
1001 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

Leslie A. Taylor
Leslie Taylor Associates
6800 Carlynn Court
Bethesda, MD 20817

Thomas J. Casey
Skadden, Arps, Slate, Meagher & Flom
1440 New York Avenue, N.W.
Washington, D.C. 20005

Norman P. Leventhal
Leventhal, Senter & Lerman
2000 K Street, N.W., Suite 600
Washington, D.C. 20006

Bruce D. Jacobs
Fisher Wayland Cooper Leader &
  Zaragoza, L.L.P.
2001 Pennsylvania Avenue, N.W., Suite 400
Washington, D.C. 20006

Lon C. Levin
Vice President and Regulatory Counsel
Personal Communications
  Satellite Corporation
10802 Parkridge Boulevard
Reston, Virginia 22091

Michael D. Kennedy
Motorola, Inc.
1350 I Street, N.W.
Washington, D.C. 20005

Philip L. Malet
Steptoe & Johnson
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036

Tom W. Davidson, P.C.
Akin, Gump, Strauss, Hauer & Feld, L.L.P.
1333 New Hampshire Avenue, N.W.
Suite 400
Washington, D.C. 20036

James G. Ennis
Iridium, Inc.
1401 H Street, N.W.
Washington, D.C. 20005

J. R. Woodhull
Logicon, Inc.
3701 Skypark Drive
Torrance, California 90505-4794

Fatih Yurdal*
Chairman
CEPT-JPT ERC/ECTRA MSS
General Directorate of Radiocommunications
Telsiz Genel Mudurlugu
06510 - Emek/Ankara
TURKEY

Robert A. Mazer
Rosenman & Colin
1300 19th Street, N.W., Suite 200
Washington, D.C. 20005

Wayne Watts
Southwestern Bell Mobile Systems, Inc.
17330 Preston Road
Suite 100A
Dallas, TX 75252

William B. Barfield
1155 Peachtree Street, N.E.
Atlanta, Georgia 30309-3610

Charles P. Featherstun
1133 21st Street, N.W., Suite 900
Washington, D.C. 20036

Thomas J. Keller
Verner, Liipfert, Bernhard, McPherson
and Hand, Chartered
901 15th Street, N.W., Suite 700
Washington, D.C. 20005

Jeffrey L. Sheldon
UTC
1140 Connnecticut Avenue, N.W.
Suite 1140
Washington, D.C. 20036

Wayne V. Black
Keller and Heckman
1001 G Street, Suite 500 West
Washington, D.C. 20001

Robert M. Gurss
Wilkes, Artis, Hedrick & Lane, Chartered
1666 K Street, N.W. #1100
Washington, D.C. 20006

Pamela L. Sonneville

Pamela L. Sonneville

*Faxed.