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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Amendment of Section 2.106 of the) ET Docket No. 95-18
Commission's Rules to Allocate) RM-7927
Spectrum at 2 GHz for Use) PP-28
by the Mobile-Satellite Service)

FURTHER COMMENTS OF THE MSS COALITION

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FURTHER COMMENTS OF THE MSS COALITION

Celsat America, Inc. ("Celsat"), COMSAT Corporation ("COMSAT"), Hughes Space and Communications International ("Hughes"), ICO Global Communications ("ICO"), and Personal Communications Satellite Corporation ("PCSAT")¹ (collectively, the "MSS Coalition"), by their attorneys submit these comments in response to the Federal Communications Commission's ("FCC" or "Commission") March 14, 1997 Further Notice of Proposed Rulemaking ("Further Notice")² in the above-referenced proceeding.

SUMMARY AND INTRODUCTION

In an order ("Order") released concurrently with the Further Notice, the Commission requires Mobile Satellite Service ("MSS") operators at 2 GHz to pay for Broadcast Auxiliary Service ("BAS") operators currently located in the MSS uplink band at 1990-2025 MHz to

¹ PCSAT is a wholly owned subsidiary of American Mobile Satellite Corporation.

² *Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service*, ET Docket 95-18, FCC No. 97-93 (Mar. 14, 1997) ("Further Notice" or "Order").

relocate into supplemental spectrum at 2110-2130 MHz.³ The Order also requires MSS licensees to pay for Fixed Service (“FS”) operators currently located in the MSS downlink band at 2165-2200 MHz to relocate into frequencies above 5 GHz, to the extent that MSS/FS sharing is not possible.⁴ In the Further Notice, the Commission requests comment on the specific details that it proposes concerning such relocation.

Requiring MSS operators to pay relocation expenses for BAS and FS incumbents that, at a minimum, likely will approach \$1 billion⁵ contravenes the public interest because such a requirement will operate as a significant barrier to entry for prospective MSS operators who wish to operate at 2 GHz in the U.S. market. If these prospective MSS operators are unable to do so, U.S. consumers will be deprived of the many benefits promised by MSS. For this reason, the MSS Coalition has filed a petition for reconsideration (“Petition”) of the following decisions set forth in the Commission’s Order:

- to provide BAS licensees with 105 MHz at 2025-2130 MHz rather than a more spectrally efficient allocation of 85 MHz at 2025-2110 MHz; and
- to require MSS operators to pay incumbent FS and BAS operators’ relocation expenses.

The regulatory framework proposed by the MSS Coalition in its Petition does not contemplate the systematic payment by MSS operators of relocation expenses to either

³ Order at ¶ 33.

⁴ *Id.* at ¶ 43.

⁵ This figure is conservative because it assumes that sharing is possible in the 2180-2200 MHz segment of the MSS downlink band. Of course, if sharing is determined to be impossible across the entire downlink band, then COMSAT’s earlier estimate of \$3 billion is a more reasonable estimate of total relocation costs.

incumbent BAS or FS licensees. The MSS Coalition therefore does not address herein a number of the proposals set forth by the Commission in the Further Notice that follow from a framework mandating such payments. Instead, for the reasons discussed below, we urge the Commission to:

- request information regarding available options for accommodating BAS operations in 85 MHz of spectrum at 2025-2110 MHz;
- reject its relocation proposals and instead rely on private spectrum sharing and frequency coordination processes;⁶
- adopt a sunset date of January 1, 2005, after which FS licensees at 2 GHz must relocate at their own expense if requested by an MSS operator; and
- issue new BAS licenses in the 1990-2025 MHz band subject to a condition requiring relocation as of January 1, 2000 at the BAS licensees' own expense.

I. THE COMMISSION SHOULD REQUEST INFORMATION REGARDING AVAILABLE OPTIONS FOR ACCOMMODATING BAS OPERATIONS IN 85 MHz OF SPECTRUM AT 2025-2110 MHz

In the Further Notice, the Commission alludes to the possibility that BAS can be accommodated in less than 105 MHz of spectrum. First, the Commission notes the “possibil[ity]” that “in some markets not all of the seven BAS channels will be needed.”⁷ Second, the Commission notes the “possibil[ity]” that “by switching to digital equipment, BAS licensees may be able to operate with narrower channels.”⁸ By acknowledging that, using existing analog technology, seven channels may not be necessary in all markets, and

⁶ Celsat notes, as it has in previous rulemakings before the Commission, that it can operate in the 1990-2025 MHz and 2165-2200 MHz bands without causing harmful interference to BAS or FS facilities.

⁷ Further Notice at ¶ 68.

⁸ *Id.*

that in those markets where seven channels may be required, a conversion to digital systems may permit narrower channels, the Commission recognizes that the 105 MHz allocated to BAS may not be required. Unfortunately, the Commission does not specifically ask for comments regarding the “possibility” that not all markets may need seven channels. Furthermore, although the Commission seeks comment on “likely scenarios for conversion from analog to digital BAS, and the implications such a conversion may have for BAS spectrum requirements,”⁹ the MSS Coalition asserts that more information is necessary. Given the FCC’s acknowledgment that BAS spectrum demand may differ depending upon the size of the market, the Commission immediately should request information on both the current use and projected demand for BAS spectrum in *all* broadcast markets.¹⁰ Moreover, in addition to examining the “likely scenarios” for conversion from analog to digital BAS, the Commission should seek specific information concerning the feasibility -- both technical and financial -- of BAS licensees employing digital technology before MSS service is initiated in markets where BAS demand is heaviest -- presumably the largest television markets.¹¹

In sum, before the Commission can make decisions concerning spectrum allocation and a channelization plan for BAS operations -- decisions that unnecessarily may cost the

⁹ *Id.*

¹⁰ Such a request should be sent to all BAS licensees, as well as to local spectrum coordinators. In addition, the Commission should moderate a meeting between MSS and BAS operators similar to the leadership role assumed by the Commission in overseeing the implementation of 800 number portability.

¹¹ The MSS Coalition submitted with its Petition a white paper demonstrating the availability of digital equipment that can transmit a contribution quality signal in channels of 12 MHz or less. *See* Petition for Partial Reconsideration of the MSS Coalition at Exhibit A (May 20, 1997).

MSS industry as much as \$3 billion -- it must develop a sufficiently detailed record upon which to base such decisions. To develop that record, the Commission must obtain information regarding the spectrum needs of BAS licensees, as well as the feasibility of their employing digital technology where necessary, from the licensees themselves.

II. BECAUSE SHARING IN THE MSS DOWNLINK IS POSSIBLE, THE COMMISSION SHOULD REQUIRE ONLY A SUNSET PROVISION AND THE USE OF PROVEN SPECTRUM SHARING AND FREQUENCY COORDINATION PROCESSES

The Commission should not saddle potential 2 GHz MSS operators with an extensive set of rules governing the payment of relocation costs. Such rules will serve only as a disincentive to MSS/FS sharing and, thus, are directly contrary to the Commission's longstanding policy of "encourag[ing] spectrum sharing between emerging technologies services and incumbent 2 GHz FS operations whenever technically feasible."¹² A decision not to adopt such rules is particularly apt in light of existing mechanisms for negotiating spectrum sharing and frequency coordination between satellite and terrestrial operators. These existing spectrum sharing and frequency coordination processes, coupled with a realistic and practicable sunset for FS relocation, are all that is required to transition FS operators, where necessary, from the MSS downlink band.¹³ These steps will provide MSS

¹² Order at ¶ 42. As the MSS Coalition discussed at length in its Joint Comments, the Commission has long encouraged spectrum sharing in order to facilitate the introduction of new services. Joint Comments of the MSS Coalition at 5-8 (May 17, 1996).

¹³ The MSS industry remains confident that MSS/FS sharing is feasible over a transition period. In those limited instances where the spectrum sharing and frequency coordination processes cannot prevent harmful interference to incumbent FS systems, the MSS operators will negotiate with the FS licensee(s) involved using longstanding procedures, in an effort to ensure continued operability.

operators with the optimal opportunity to develop their businesses while simultaneously ensuring that incumbent users of the MSS downlink band are not unfairly burdened.¹⁴

A. The Commission Should Establish A Sunset Period Ending January 1, 2005 After Which FS Licensees Must Relocate At Their Own Expense If Requested To Do So By An MSS Entity At 2 GHz

In order to facilitate the transition of incumbent FS operators from the 2 GHz MSS downlink, the Commission proposes establishing a ten-year sunset period for the relocation of FS incumbents after which “MSS operators would no longer be required to pay the costs of relocating FS incumbents, and would be able to require the incumbents to cease operating or relocate at their own expense upon six months written notice.”¹⁵ The Commission further proposes that the ten-year period begin running from “the beginning of the voluntary negotiation period for relocation.”¹⁶ It is not at all clear when the ten-year period would end, however, given that the Commission has not decided when the voluntary negotiation period would begin running.¹⁷ As noted below, a voluntary negotiation period for MSS logically

¹⁴ The MSS Coalition acknowledges that the Commission may elect to give special consideration to accommodating incumbent public safety fixed microwave operators. For example, the Commission may be able to accommodate public safety operators that must vacate the 2165-2200 MHz band in spectrum that is closer to that band than frequencies above 5 GHz. The Commission is properly considering, for example, allocating for public safety use part of the spectrum currently used for broadcast channels 60-69. *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, MM Docket 87-268, Sixth Report and Order, FCC No. 97-115 at ¶ 80 (April 21, 1997). In addition, spectrum being released by the U.S. Government in the 4.5-5 GHz range should be considered for possible public safety use.

¹⁵ Further Notice at ¶ 77.

¹⁶ *Id.*

¹⁷ *See id.* at ¶ 78.

could not begin until there is harmful interference.¹⁸ Harmful interference likely will not occur until MSS systems are operating and carrying significant levels of traffic. Thus, the sunset period proposed by the Commission likely would not end until well after 2010.

The MSS Coalition urges the Commission to adopt an earlier sunset for FS relocation of January 1, 2005. As explained below, such a sunset better balances the interests of the incumbent FS operators with the emerging MSS operators.

First, incumbent FS operators have had more than ample opportunity to plan for their eventual relocation from the 2 GHz band. Specifically, 2 GHz FS operators have been on notice since 1992 that they would eventually have to vacate the radio spectrum that has been allocated to MSS. In February 1992, the Commission released its initial notice of proposed rulemaking in its Emerging Technologies docket, in which it proposed that portions of the radio spectrum between 1850 and 2200 MHz be allocated to emerging technologies.¹⁹ The Commission also ordered that future applications for new fixed facilities in the proposed emerging technologies bands would be granted on a secondary basis only.²⁰ In October 1992, the Commission allocated 1850-1990 MHz, 2110-2150 MHz and 2160-2200 MHz for

¹⁸ The Commission has decided that it will not require relocation of incumbent FS licensees unless and until the incumbents receive harmful interference from or cause harmful interference to new services. Order at ¶ 42. *See also infra* at note 36.

¹⁹ *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 7 FCC Rcd 1542, 1542 (1992) (“Emerging Technologies NPRM”).

²⁰ *Id.* at 1545. The Commission later clarified that this policy would not apply to applications for certain modifications of existing facilities licensed prior to the Emerging Technologies NPRM. *See* FCC Public Notice, *2 GHz Fixed Microwave Licensing Policy*, 1992 FCC LEXIS 2603 (May 14, 1992).

emerging technologies.²¹ Thus, FS incumbents were aware of the possible need to relocate from the downlink band as early as 1992.

The Final Acts of the 1992 World Administrative Radio Conference (“WARC-92”) further reinforced that incumbent fixed operators would be required to vacate the band by a date certain. In March 1992, WARC-92 allocated 1980-2010 MHz and 2170-2200 MHz to MSS on a worldwide basis beginning in 2005. The United States resolved, however, to permit domestic MSS access to these bands, as well as to the 1970-1980 and 2160-2170 MHz bands, effective January 1, 1996. Lacking detailed engineering studies, some countries perceived that FS/MSS sharing was infeasible. Thus, the only reasonable assumption of the FS operators was that they eventually would have to vacate these bands following U.S. allocation of the bands to MSS. By adopting a sunset date of January 1, 2005, the FCC will have afforded FS incumbents close to 13 years to plan for their eventual relocation.

Second, a January 1, 2005 sunset date would allow FS incumbents to move without incurring costs beyond those that they would incur in the normal course of business. The Commission has recognized that by such time, most of the equipment used by most FS incumbents should be fully amortized or in need of replacement by more efficient digital equipment.²² Consistent with this recognition, in the Emerging Technologies NPRM the Commission proposed “to allow *currently* licensed 2 GHz fixed licensees to continue to

²¹ *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies*, 7 FCC Rcd 6886, 6890 (1992) (“Emerging Technologies 1st R & O”).

²² We believe that most of the 2 GHz FS equipment used by private operational fixed providers was placed in service in the 1970s, if not earlier.

occupy 2 GHz frequencies on a co-primary basis with new services for a fixed period of time, for example ten or fifteen years.”²³ As the Commission explained,

*Ten years could generally be expected to provide for a complete amortization of existing 2 GHz equipment. A fifteen year period would extend the relocation period through the useful life of that equipment.*²⁴

The Commission echoed this conclusion in its Microwave Relocation Order.²⁵ Accordingly, irrespective of FS incumbents’ needs to relocate as a result of MSS downlink band operation, the incumbents likely would need to replace their 2 GHz equipment before 2005. Thus, adoption of a sunset date of January 1, 2005 is a perfectly reasonable option for the Commission.

Finally, the adoption of a sunset will provide MSS operators with the requisite assurances necessary to undertake the enormous costs of launching this competitive MSS service. Absent a sunset, MSS operators cannot assess the relocation requirements of FS incumbents, which in turn could impede the development of MSS. A sunset date is necessary for MSS licensees to be able reasonably to forecast future budgets and costs.

For all of these reasons, a sunset of January 1, 2005 best balances the interests of FS and MSS operators.

²³ Emerging Technologies NPRM, 7 FCC Rcd at 1545 (emphasis supplied).

²⁴ *Id.* (emphasis supplied).

²⁵ *Amendments to the Commission’s Rules Regarding a Plan for Sharing the Costs of Microwave Relocation*, 11 FCC Rcd 8825, 8860 (1996) (“Microwave Relocation Order”) (“by the time the sunset date [January 1, 2005] arrives, much of the microwave equipment operating today at 2 GHz is likely to be either fully amortized or in need of replacement”).

B. In Those Limited Instances Where Sharing Between MSS Operators And Primary FS Licensees Is Not Feasible, Existing Spectrum Sharing And Frequency Coordination Processes Are Fully Adequate To Resolve Interference Concerns

The FS and MSS industries have developed a cooperative relationship and continue to make significant progress in the Joint Working Group (“JWG”) sponsored by Telecommunications Industry Association (“TIA”) and the National Spectrum Managers Association (“NSMA”).²⁶ Therefore, the MSS Coalition expects that there will be no need to relocate the primary FS licensees from the 2165-2200 MHz band prior to MSS systems carrying significant levels of traffic and that potential cases of harmful interference between an MSS operator and a primary FS licensee can be identified using the results of the JWG. Those limited cases can and should be resolved on an individual basis among the parties concerned. The necessary coordination procedures that the parties would apply in practice are expected to be developed and adopted by the NSMA based on the work underway in the Ad Hoc Committee on Procedures of the JWG.²⁷

Although these coordination procedures will be developed to address the specific sharing requirements between MSS operators and primary FS licensees in the MSS downlink band at 2165-2200 MHz, they would provide for a frequency coordination process similar to that utilized successfully over the last 30 years in coordinating the shared use of the 4 and 6

²⁶ The NSMA is a voluntary association of microwave radio, Personal Communications Service (“PCS”) and satellite licensees, as well as frequency coordinators. NSMA provides a forum for discussion and resolution of problems of common interest to the coordination community.

²⁷ The MSS Coalition submits that it would be premature for the Commission to issue a further order concerning relocation before the TIA and NSMA have completed developing FS/MSS spectrum sharing and frequency coordination procedures.

GHz bands between the Fixed Satellite Service (“FSS”) and the FS operators. There the satellite and terrestrial microwave groups developed interference criteria and coordination procedures at national and international levels that have been applied successfully over many years.

The longstanding coordination procedures used in the 4 GHz and 6 GHz bands operate as follows: When the application of agreed upon interference criteria predict a potential interference problem, the parties concerned exchange information and work cooperatively to find solutions. For example, if an FS station within the coordination contour of an FSS earth station is expected to receive harmful interference, the two affected operators can decide upon any number of solutions, including extra site shielding, reorientation of antennas, or agreement to avoid particular carrier frequencies, azimuths or elevation angles. The concerned FS and satellite operators then agree on how to implement these solutions.

MSS and FS sharing in the 2 GHz band presents its own unique issues, but the FSS/FS history of successful coordination and the long experience of FS licensees sharing bands with each other strongly suggests that similarly successful coordination procedures can be developed to allow MSS/FS sharing in the 2165-2200 MHz band over a reasonable transition period. It is expected that the JWG will produce a Technical Bulletin on certain interference criteria to be used in the case of MSS/FS sharing. In addition, the NSMA will develop coordination procedures that provide the operators with the steps necessary to coordinate and resolve potential interference problems.

In sum, the operators themselves, not the regulators, should determine the solutions on a case-by-case basis. No other arrangements are necessary to share the band and address

individual interference cases. It is, of course, not the same as in cases like PCS, where the affected parties know before the commencement of the new service that harmful interference will occur and, therefore, that relocation of most incumbents must be undertaken. In the case of the MSS downlink band at 2165-2200 MHz, we expect that MSS operators and primary FS licensees will be able to share over a reasonable transition period and that the work of the JWG and NSMA will be successful.²⁸

III. THE PCS RELOCATION RULES ARE UNWORKABLE FOR THE MSS BANDS

The Commission proposes to follow generally its Emerging Technologies policies to facilitate BAS and FS relocation from the MSS uplink and downlink.²⁹ These policies were first applied to PCS relocation of microwave incumbents in the PCS bands. The PCS relocation model will not work for the 2 GHz MSS bands because of fundamental differences between the circumstances faced by MSS operators as compared to PCS operators. Comparisons between the two systems for purposes of adopting parallel relocation schemes are thus wholly unwarranted.

First, the PCS relocation rules assumed that PCS operators and existing incumbents could not share spectrum. As a result, an elaborate relocation policy scheme involving

²⁸ The MSS Coalition strongly opposes any suggestion that an MSS operator that has been sharing with incumbent primary FS and BAS operators be required to bear any of the costs of relocating such FS and BAS operators when entry by another MSS operator causes harmful interference. *See Further Notice* at ¶ 80. MSS systems that are capable of sharing with incumbent primary licensees should not be penalized by the entry of MSS systems that are incapable of sharing.

²⁹ *Further Notice* at ¶¶ 65, 74.

voluntary and involuntary negotiation periods and cost sharing plans was required. Unlike PCS and FS operators, however, MSS and FS operators in the 2165-2200 MHz downlink band likely will be able to share for a reasonable transition period in most areas.³⁰ Thus, the Commission properly decides that it will permit and, indeed, will encourage MSS sharing with FS incumbents in the 2165-2200 MHz band.³¹ In addition, the Commission encourages the MSS, FS (and BAS) industries to propose complete or partial solutions to sharing problems.³² However, as explained below, the decision to impose FS relocation expenses on MSS operators in the FS paired links at 2110-2130 and 2160-2180 MHz in order to relocate BAS undermines the Commission's decision to permit FS/MSS sharing where feasible in the MSS downlink at 2165-2200 MHz.

As the Commission acknowledges MSS and FS industry groups have to date cooperated under the auspices of TIA to resolve differences over interference thresholds and to adopt coordination procedures that would apply in the 2165-2200 MHz band.³³ Unfortunately, if the Commission requires MSS operators to pay FS relocation costs, some incumbents will be encouraged to demand reimbursed relocation rather than continue to cooperate in efforts to share spectrum both in the paired band 2160-2180 MHz and in the

³⁰ Because sharing between FS and MSS generally should be possible, self-relocators should not be eligible for relocation reimbursement. An FS incumbent should not be able to relocate at its own discretion and expect MSS licensees to foot the bill.

³¹ Order at ¶ 42.

³² Further Notice at ¶ 69.

³³ Order at ¶ 42.

remainder of the downlink at 2180-2200 MHz. Such a result runs directly contrary to the Commission's decision that FS and MSS operators share spectrum where possible.

In addition, the viability of MSS/FS sharing differentiates MSS from PCS on another ground as well. Because MSS/FS sharing is possible, the Commission has determined that FS relocation will only be required at such time as "the incumbent[] will receive harmful interference from, or cause harmful interference to, a new technology service."³⁴ Thus, the proposed relocation model of a three-year negotiation period (one year of voluntary negotiations followed by two years of mandatory negotiations)³⁵ would not begin until actual harmful interference was caused, presumably due to increased traffic on MSS systems.³⁶ A minimum three-year negotiation period at that juncture, when the MSS operator needs the spectrum immediately for system growth, however, would cripple MSS expansion or, at the very least, place MSS operators in a highly inequitable bargaining position. Because PCS/FS sharing was not possible, PCS operators had to clear their bands before commencing operations and thus did not face this dilemma. Using the PCS model for relocation negotiation timetables is therefore not workable for MSS systems.

³⁴ *Id.*

³⁵ See Further Notice at ¶ 78. The Commission proposes a five-year negotiation period for public safety FS incumbents encompassing two years of voluntary negotiations followed by three years of mandatory negotiations. *Id.* As noted *supra* note 14, the unique needs of public safety incumbents may require special consideration.

³⁶ The Commission asks whether the voluntary negotiation period should begin when the Commission accepts applications for MSS licenses, or at some later date. *Id.* Because the Commission has concluded that harmful interference is the prerequisite for relocation of FS operators, the voluntary negotiation period logically could not begin when the Commission accepts applications for MSS licensees. Rather, if required -- and we believe it should not be -- any such period must begin once an FS operator has made a showing of actual harmful interference.

Second, unlike PCS, which is inherently local in nature, MSS is a national (and, indeed, international) service. This means that an MSS operator would be required to relocate FS³⁷ and BAS operations throughout the country in order to operate in the uplink band at 1990-2025 MHz by the year 2000.³⁸ In the case of PCS, relocation could be negotiated on a link-by-link basis in very limited geographic areas. MSS operators would be faced with the overwhelming task of negotiating and consummating agreements with the hundreds, perhaps thousands, of existing FS and BAS incumbents prior to commencing service in the year 2000.³⁹ The logistics and expense of simply negotiating for such relocations (above and beyond the enormous cost of the relocation itself), will render the process unworkable.

³⁷ MSS operators only will be required to relocate FS operators at 2110-2130 MHz if the Commission upholds its decision to allocate the full 105 MHz of spectrum to BAS operators. If, on the other hand, the Commission grants the MSS Coalition's Petition and requires BAS licensees to operate solely within the 2025-2110 MHz band, no wholesale FS relocation will be necessary as a result of MSS use of the uplink band at 1990-2025 MHz.

³⁸ As the MSS Coalition pointed out in its Petition, the United States is obligated under the International Telecommunication Union Radio Regulations to coordinate internationally the 2 GHz MSS bands regardless of whether any MSS operator, foreign or domestic licensed, chooses to serve the U.S. market. The MSS Coalition asserts that such international coordination can be accomplished only by vacating the uplink band of the 2 GHz MSS allocation. Thus, the FCC would be obligated ultimately to clear the uplink band in any event to accommodate non-U.S. licensed MSS systems that do not choose to serve the U.S. market and that presumably could not be obligated to pay relocation costs for BAS operators.

³⁹ The Commission should clarify that modifications to existing FS facilities will be approved only if they do not increase the FS facilities' susceptibility to harmful interference from MSS or increase the potential to cause harmful interference to MSS. In addition, in order to facilitate the transition of FS licensees, ICO urges the Commission to renew FS licenses in the 2165-2200 MHz band subject to a condition that the licenses convert to secondary status as of January 1, 2000 and that any renewal grants after that date be issued on a secondary basis only.

Third, unlike the FS microwave incumbents in the recently allocated PCS spectrum, BAS incumbents likely will independently incur the costs of replacing their equipment when the broadcast television industry converts to a digital environment on the rapid schedule mandated by the Commission in its DTV Order.⁴⁰ Given this recent and radical change in the pace of conversion to DTV, it makes no sense for the Commission to impose BAS relocation costs on MSS operators when BAS licensees likely will upgrade their existing analog equipment to digital over some period of time regardless of whether or when MSS operations commence.

The Commission should thus refrain from imposing the PCS relocation model on FS and BAS relocation in the 2 GHz MSS spectrum.

IV. THE COMMISSION SHOULD ISSUE NEW BAS LICENSES IN THE 1900-2025 MHz BAND SUBJECT TO A CONDITION REQUIRING RELOCATION AS OF JANUARY 1, 2000 AT THE BAS LICENSEES' OWN EXPENSE

The Commission correctly recognizes that sharing between MSS and BAS operators in the 1990-2025 MHz band likely is not possible.⁴¹ BAS licensees, therefore, will have to vacate this band. In order to facilitate the transition of BAS licensees out of the band, the Commission should issue new BAS licenses in this band subject to a condition requiring relocation as of January 1, 2000 at the BAS licensees' own expense. By issuing new licenses on a conditional basis only, the Commission will ensure an efficient and cost effective transition process.

⁴⁰ BAS conversion to digital is discussed at length in the MSS Coalition's Petition and the attached white paper. The Coalition does not repeat its arguments regarding such conversion here, but refers the Commission to its Petition for further discussion of this issue.

⁴¹ Order at ¶ 30.

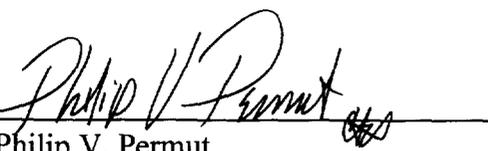
CONCLUSION

For all of the foregoing reasons, the Commission should (1) request information regarding available options for accommodating BAS operations in 85 MHz of spectrum at 2025-2110 MHz; (2) reject the relocation proposals set forth in the Further Notice in favor of private spectrum sharing and frequency coordination processes to be utilized in the limited instances when FS/MSS sharing is not possible; (3) adopt a sunset date of January 1, 2005, after which FS licensees at 2 GHz must relocate at their own expense if requested by an MSS operator; and (4) issue new BAS licenses in the 1990-2025 MHz band subject to a condition requiring relocation as of January 1, 2000 at the BAS licensees' own expense.

Respectfully submitted,

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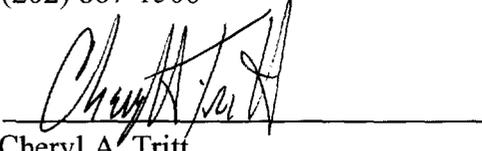
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I, Kathryn M. Stasko, do hereby certify that the foregoing **FURTHER COMMENTS OF THE MSS COALITION** was hand delivered on this 23rd day of June, to the following:

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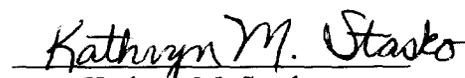
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