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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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

In the Matter of 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, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite Service Use	)	IB Docket No. 98-172 RM - 9005 RM - 9118

To: The Commission

REPLY COMMENTS OF BP COMMUNICATIONS ALASKA, INC.

BP Communications Alaska, Inc. ("BP"), by its attorneys, hereby submits its reply comments regarding the *Notice of Proposed Rulemaking* ("NPRM"), DA 98-2231, released September 18, 1998, concerning the Federal Communications Commission ("Commission") proposal to redesignate the 17.7-19.7 GHz frequency band, implement blanket licensing of satellite earth stations in the 17.7-20.2 GHz, and allocate additional spectrum in the 17.3-17.8 GHz frequency bands for broadcast satellite service use.

Introduction

Upon review of the record in this proceeding, BP remains opposed to the Commission proposal, and believes it would not be in the public's interest to implement this plan as proposed. However, BP has reviewed the comments submitted by the Fixed Wireless Communications Coalition ("FWCC"), discussing an

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alternative proposal by Telecommunications Industry Association ("TIA"), and has decided to support TIA's proposed plan; however, such support is subject to the Commission's adoption of the FWCC/TIA proposals for more effective grandfathering and relocation rights for incumbent licensees such as BP, and the retention of spectrum for future growth by these licensees.

BP uses its assigned 18 GHz channels in a point-to-point terrestrial microwave communication system to provide vital communication links between 19 oil well pads in Alaska that are used by BP in the production of oil in the Prudhoe Bay area. BP relies exclusively upon these communication links to perform daily functions of oil production, leak detection and alarm reporting to reduce the risks of any environmental disaster. Moreover, the safety of BP's employees depends in large part on these communication links. Because of their location in the Western Operating Area of Prudhoe Bay, the oil well pads have no other means via landline to communicate with each other, or the outside world, especially if faced with the possibility of a hazard situation. These circumstances require that any reallocation proposal not increase the potential for a significant increase in electromagnetic interference within the 18 GHz band, because it would consequently decrease the availability of spectrum for BP to successfully operate the field and deal with emergency situations.

A. BP's Situation in the North Slope

The scope of interest for BP is the North Slope of Alaska, providing communications for BP Exploration Alaska oil production. The difficulty of this environment is unique to the North Slope and unlike anything existing in the domestic rural, industrial, urban or metropolitan areas of the 48 states. The North Slope is an environmentally fragile and sensitive area that does not easily accommodate construction of conventional communications infrastructure. Any disruption of the tundra typically results in the thawing of the underlying permafrost and settling, producing ruts and erosion. The effects of buried facilities can only be mitigated with restoration of the vegetation over a period of several years and significant expense.

Roads are constructed by placing a significant amount of gravel as a road foundation, to replace the insulating value of the tundra and protect the underlying permafrost. There is substantial costs in the effort required to maintain these roads. Placement of buried communications in the road prism does not provide a stable situation for the cable and is problematic and unreliable.

Overhead line construction is also very difficult on the North Slope. Power lines with relatively few poles are used to distribute centrally generated power to all of the Central North

Slope production area. These lines are specially designed to survive the 100+ MPH winds and icing that routinely occurs in the spring and fall, as well as other times when storms pass through. Placement of overhead communications facilities would require placing more poles to split the spans, and associated rebuilding of the electric lines before telephone cables could even be placed. Later developments on the slope use power generated on site rather than extending the overhead distribution lines. This is purely an economic decision, and demonstrates the high cost of placing overhead lines even when compared to expense of separate generators with associated maintenance.

The local telephone exchange carrier facility in the Prudhoe Bay area has very limited capabilities. It does not even extend to the main camps of BP and ARCO, which the operators of the field. All of the camps, production facilities and well pads are connected by microwave radio systems, built by the production operators. Recently, a design study was produced to estimate the cost of extending fiber throughout the Prudhoe Bay area facilities, and this study demonstrated that the cost of fiber could not compete with the microwave radio delivery costs, even when using the innovative method of attaching the fiber to existing pipelines. A reallocation of 18 GHz frequencies will hinder vital production of oil on the North Slope.

B. The Commission's Proposals Does Not Serve the Public Interest

Any attempt to relocate BP to another band would be costly, because it would require the replacement of all communications equipment used on the oil well pads. BP's current communications system utilizes at least 43 facilities that operate in a range from 18.585 GHz to 19.135 GHz. However, the Commission's plan proposes the reallocation of the 18.8 GHz to 19.3 GHz band as primary for Non-Geostationary Orbit ("NGSO")/Fixed Satellite Service ("FSS") licensees, and recategorizes FS licensees as secondary. Unfortunately, all of the alternative plans submitted during the comment period also propose to recategorize FS licensees as secondary in the 18.585 GHz to 19.135 GHz band.[1] Since BP currently operates efficiently as a primary licensee on 17 frequencies within this portion of the band, it strictly opposes any reallocation plan that does not provide maximum protection for incumbent licensees. Even if BP were to operate grandfathered systems, it may not be able to continue utilizing its FS terrestrial microwave licenses within the 18.585 GHz to 19.135 GHz, due to the impossibility of sharing this band with ubiquitous satellite services.

Although BP does not concur with the Commission's proposal,

[1] See Pegasus Development Comments at p. 5; TRW Inc. Comments at p. 3; Telecommunications Industry Association proposal discussed in the Fixed Wireless Communications Coalition Comments at p. 5; Comsearch Comments at p. 4.

BP has decided to support the FWCC/TIA proposed plan.[2] This decision is premised on FWCC/TIA's proposal to effectively grandfather the incumbent licensees, such as BP, as primary in the 18.58 to 18.82 and 18.92 to 19.16 GHz allocations; if the satellite services find interference into their systems from grandfathered narrowband FS transmitters is unacceptable, they will be required to sponsor the relocation of the grandfathered narrowband FS systems at their expense, including BP's Well Pad links.

BP recognizes the potential value of emerging satellite services and concurs in the FWCC/TIA compromise proposal, with the expectation that its ability to continue operate the existing 18 GHz systems on the North Slope will not be jeopardized by the rules promulgated by the Commission. BP cannot support the Commission's original proposal, because it overlooks the fact that FS terrestrial microwave systems and satellite systems cannot share spectrum. The introduction of numerous earth stations will cause significant interference within the 18 GHz band. In addition, any grandfathering provisions adopted by the Commission must go further to protect incumbent FS terrestrial microwave licensees in the 18 GHz band.

For the foregoing reasons, BP believes the Commission should modify its proposal so as to follow the FWCC/TIA reallocation plan, in order to reduce the overall harmful impact of the

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[2] See Telecommunications Industry Association proposal discussed in the Fixed Wireless Communications Coalition Comments at p. 5

reallocation plan. In BP's situation, modification of the Commission's proposal may allow BP to continue its normal production activities and prevention of environmental disasters, ensuring public safety in connection with oil production activities.

C. Ensuring Environmental Safety is in the Public Interest

BP's continued use of its 18 GHz communication system is critical to the Prudhoe Bay environment, and the safety of BP's workers; it also allows for efficient operation and control of its oil production facilities, which is critical to minimizing United States reliance on foreign oil production. BP's use of its communication system is thus on a level equal to that of public safety entities. It utilizes its terrestrial microwave system as an infrastructure for linking command and control centers on the oil well pads, located in widely dispersed locations, to perform critical functions such as production control, environmental protection and alarm monitoring. The system is also used for all daily communications regarding logistics and other administrative matters.

Should an environmental disaster or other type of emergency occur, BP's microwave communication system remains the primary means for its personnel to initiate a rapid response. In extreme situations, all oil well pads are currently able to coordinate actions to facilitate a quick and effective resolution of any crises.

The ability of BP to prevent an environmental disaster is very much in the public interest. The Exxon Valdez incident demonstrated how costly an oil-related industrial accident can be. And the OPEC oil embargoes of the 1970's demonstrates how important it is to develop the production of oil from domestic wells.

D. Fixed Service and Fixed Satellite Service Licensees Cannot Share Spectrum

BP agrees with AirTouch Communications, Inc. that since sharing in bands between FS and GSO/FSS, NGSO/FSS and MSS/FL licensees is not possible, the Commission's proposal "would deal a serious blow to important terrestrial FS operations in the 18 GHz band, requiring rechannelizing all of the FS operations to take into account loss of the mid-part of the CARS point-to-multi point spectrum and over half of the narrowband point-to-point spectrum."[3] BP would be forced to relocate most if not all of the 18 GHz channels it currently uses for communications between the oil pads.

Should the Commission establish a blanket license approach for the purchase and use of ubiquitous personal earth stations within the 18 GHz band, FS terrestrial microwave licensees such as BP would ultimately be prevented from conducting any operations within this band, due to the resulting high levels of interference. A proposal which causes such a negative affect on BP's use of its communications system, for leak detection and

[3] AirTouch Communications, Inc. Comments at 3.

production control, cannot possibly be in the public interest. Therefore, if channel sharing is to be implemented under the Commission's proposal, personal earth stations must be regulated by the Commission in a manner that would prevent a significant increase of interference to FS terrestrial microwave licensees operating in the 18 GHz spectrum

E. Grandfathering Provisions Must Better Protect Existing Fixed Service Licensees

BP supports the idea of further protecting incumbent FS terrestrial microwave licensees in the 18 GHz band. Although BP is opposed to a plan that forces relocation, should the Commission decide to adopt a reallocation plan that ultimately forces the relocation of any existing FS terrestrial microwave system, BP agrees that it must be pursuant to ET Docket 92-9 (dealing with 2 GHz bands), ensuring that any costs associated with the relocation must be borne by the new licensee, and the relocation of the FS terrestrial microwave licensee must be to comparable frequencies.[4]

BP agrees with the American Petroleum Institute that any grandfathering provision must not "prohibit 'grandfathered terrestrial fixed service licensees . . . to expand or change their current operations in any of the bands in which grandfathering applies in any manner that might increase interference to satellite earth stations.'"[5] In order for a

[4] The County of Los Angeles Comments at 3; APCO Comments at 4.
[5] American Petroleum Institute Comments at 12.

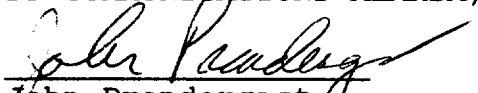
grandfathering provision to be implemented without significant consequences to licenses like BP, the Commission must continue to accept modifications to existing FS systems, to allow for the viability of BP's network. BP believes that the grandfathering provisions of the FWCC/TIA proposal satisfy their criterion.

Conclusion

In light of the foregoing, it is respectfully requested that the Commission modify its proposal as described above.

Respectfully submitted,

BP COMMUNICATIONS ALAKSA, INC.

By 

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December 21, 1998

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In the Matter of	)	
	)	
Redesignation of the 17.7-19.7 GHz Frequency	)	IB Docket No. 98-172
Band, Blanket Licensing of Satellite	)	RM-9005
Earth Stations in the 17.7-20.2 GHz and	)	RM-9118
27.5-30.0 GHz Frequency Bands,	)	
and the Allocation of Additional Spectrum	)	
in the 17.3-17.8 GHz and 24.75-25.25 GHz	)	
Frequency Bands for Broadcast	)	
Satellite-Service Use	)	

REPLY COMMENTS OF PEGASUS DEVELOPMENT CORPORATION

Pegasus Development Corporation ("Pegasus") hereby replies to comments filed in response to the Commission's Notice of Proposed Rulemaking ("NPRM") in the above-captioned rulemaking.[1/] With this reply, Pegasus continues to urge the Commission to (i) increase the amount of spectrum that can support a ubiquitously available, consumer-oriented multimedia Ka-band service, (ii) subject grandfathered FS systems operating in certain FSS bands to a clear sunset provision, (iii) rely on coordination between adjacent satellite operators to achieve GSO FSS intra-service sharing and blanket licensing, rather than establishing rigid technical standards, and (iv) proceed expeditiously with the allocation and rulemaking processes for the proposed 17.3-17.8 /24.75-25.25 GHz BSS frequency bands.

Background

The Commission's NPRM and Comments. In its NPRM, the Commission proposes a new band plan for the Ka-band downlink frequency band at 17.7-19.7 GHz, reducing spectrum

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1/ Pegasus has applied for authority to launch and operate a global Fixed- Satellite Service ("FSS") in the Ka-band. Through this system, Pegasus intends to provide a broad range of multimedia services, consisting primarily of wide-band, high-speed digital transmissions. Pegasus' parent company, Pegasus Communications Corporation ("Pegasus Communications") is a growing communications company that has achieved success in a variety of media industries, including television broadcasting, Broadcast Satellite Service ("BSS"), and cable.

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sharing between FSS and terrestrial Fixed Service ("FS") licensees. The Commission proposes to implement a blanket licensing policy for Ka-band GSO FSS earth stations, and to grandfather terrestrial FS operations in new primary FSS bands. NPRM at paras. 40, 44. To achieve blanket licensing in the GSO FSS environment, the Commission proposes various technical rules for the operation of Ka-band GSO FSS systems, including specific off-axis EIRP density and PFD limits. NPRM at paras. 47-62. Finally, the Commission proposes the allocation of new BSS spectrum, both for downlinks (17.3-17.8 GHz) and feeder links (24.75-25.25 GHz), that would become effective on April 1, 2007. NPRM at paras. 72-74.

Approximately forty parties, including Pegasus, filed comments in response to the Commission's NPRM. The commenters consisted mainly of providers and users of FSS, BSS, and FS. While virtually all of the commenters supported a reduction in spectrum sharing between FSS and FS in the Ka-band downlink band, FSS and FS operators disagreed on the respective services' spectrum needs. Below, Pegasus responds to arguments from commenters on these and other issues addressed in the NPRM.

Discussion

I. Pegasus' Band Proposal Increases the Amount of Spectrum That Can Support Ubiquitous Service Without Requiring Additional Primary GSO FSS Spectrum

Pegasus agrees with other GSO FSS licensees and applicants who believe that for Ka-band Fixed-Satellite Service ("FSS") to develop into a viable multimedia consumer-oriented service, (i) consumers must have access to affordable, easily installed equipment that can be located anywhere and (ii) Ka-band satellite operators must have access to adequate allocated bandwidth for the provision of this ubiquitous service.[2/] In order to achieve these goals,

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2/ See, e.g., Comments of Hughes Electronics, Inc. ("Hughes") at 4-5; Comments of GE American Communications, Inc. ("GE") at 1-3; Comments of Lockheed Martin Corporation ("Lockheed") at 1-2.

numerous GSO FSS commenters argue further that the Commission should increase the amount of FSS spectrum that can support the ubiquitous deployment of end-user earth stations by allocating 1000/1000 MHz of unencumbered, primary downlink/uplink spectrum to GSO FSS.[3/] To achieve this result in the downlink band, some commenters state specifically that they would eliminate the Commission's proposed co-primary Fixed Service ("FS") allocation at 18.55-18.8 GHz, leaving GSO FSS as the sole primary allocation in that sub-band.[4/]

As described in its comments, Pegasus proposes a different approach to increasing the amount of spectrum that can support a ubiquitously available, consumer-oriented multimedia GSO FSS service. With its own alternative band segmentation plan, Pegasus does not pursue an additional 250 MHz exclusive primary allocation for GSO FSS in either the downlink or uplink band. Rather, as explained in its comments, Pegasus seeks to increase the amount of spectrum that can support the ubiquitous deployment of end-user earth stations by eliminating the co-primary allocation for GSO FSS at 18.55-18.8 (shared with FS under the Commission's proposal and therefore not compatible with FSS), and in its place creating a new co-primary allocation at 19.45-19.7 GHz of GSO FSS with Mobile Satellite Service Feeder Link ("MSS/FL").

Under Pegasus' proposal, this valuable co-primary GSO FSS band at 19.45-19.7 GHz (and 29.25-29.5 GHz) could be used for two different classes of GSO FSS operations. First, GSO FSS operators could operate a relatively small number of large gateway earth stations that would have no difficulty sharing spectrum with the co-primary MSS/FL operations. Second, GSO FSS systems could operate ubiquitously deployed, small end-user earth stations that would avoid interference to the operation of the MSS/FL users through the mitigation techniques of satellite and frequency diversity. GSO FSS operators providing this ubiquitous service under this co-primary allocation would also agree to rely on satellite and frequency diversity to avoid

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3/ GE Comments at 6-9; Hughes Comments at 4-5; Lockheed Comments at 2-4; Comments of Comments of Loral Space & Communications Ltd. ("Loral") at 2-4.

4/ See, e.g., Lockheed Comments at 4; Loral Comments at 4.

interference from MSS/FL operations; MSS/FL operators would not be required to take any steps to prevent such interference.

In addition, by eliminating the secondary allocations to FS in the 18.8-19.3 GHz band, GSO FSS users could provide a ubiquitous service in the NGSO FSS bands at 18.8-19.3/28.6-29.1 GHz using satellite or frequency diversity. Thus, under Pegasus' proposal, an additional 750 MHz would be available for ubiquitous GSO FSS operations in both the downlink and uplink bands.

Terrestrial FS would also benefit under Pegasus's proposal by gaining a new exclusive primary 250 MHz primary allocation, either at 18.55-18.8 GHz or 18.3-18.55 GHz. This modification would increase the amount of truly useful spectrum in which FS operators could deploy new FS systems or build out existing systems.

Pegasus urges the Commission to adopt whichever band segmentation plan -- Pegasus', or the above-described proposals put forth by other GSO FSS licensees and applicants -- represents the most feasible approach to increasing the amount of spectrum that can support a ubiquitously available, consumer-oriented multimedia GSO FSS service.

II. The Commission's Downlink/Uplink Allocations in the Ka-band Should Be Symmetrical

Pegasus disagrees with TRW's argument that Ka-band GSO FSS systems will require more downlink spectrum than uplink spectrum, due to the use of on-board processing ("OBP") in these systems. Comments of TRW Inc. at 4-6. (OBP implies the satellite operator's use of satellite modems, codecs, and baseband switching.) Pegasus believes that the Commission should allocate equal amounts of downlink and uplink spectrum to GSO FSS, since they are equally critical to the success of the Ka-band GSO FSS multimedia service -- the availability of uplink spectrum is critical to limiting the cost of the earth station HPA, and the availability of downlink spectrum is crucial to minimizing the cost of satellite power. OBP does not necessarily have to result in asymmetric uplink and downlink bands, and the use of transponder type systems

(such as that of Pegasus) requires equal uplink and downlink spectrum. Also, Pegasus believes that OBP provides only a negligible advantage in terms of service flexibility and in the conservation of uplink or downlink thermal noise. Accordingly, Pegasus urges the Commission to include only symmetrical GSO FSS allocations in its band segmentation plan.[5/]

III. Grandfathered FS Systems Should Be Subject to a Sunset Provision

Some commenters appear to assume that grandfathered FS systems will be permitted to operate indefinitely.[6/] As indicated in its own comments, Pegasus believes that the Commission's grandfathering policy should include a clear sunset provision that would require existing terrestrial FS licensees' in the affected bands to shift their operations to alternative frequencies within ten years of a final order in this proceeding. This policy represents an appropriate compromise between GSO FSS and FS interests, and is necessary for consistently high quality reception of Ka-band FSS signals in urban areas and the achievement of a truly national ubiquitous satellite service.

IV. To Achieve Blanket Licensing, the Commission Should Rely on Coordination Between Adjacent Satellite Operators, Not Rigid Technical Standards

In its report to the Commission, filed in this proceeding, the Ka-band GSO Blanket Licensing Industry Working Group ("BL-WG") expresses its support for the power flux density ("PFD") and off-axis eirp density limits proposed by the Commission in the NPRM, designed to promote intra-service sharing among FSS systems.[7/] Pegasus opposes the adoption of such limits on these technical parameters, given the variation in the quantity and coverage of beams to

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5/ While Pegasus in its own Ka-band application has indicated an interest in OBP technology, Pegasus' current system design, with thirty antenna beams, is based on IF switching with symmetric uplink and downlink use.

6/ *See, e.g.*, Comments of the Independent Cable & Telecommunication Associations at 4-6, 10-11.

7/ Report of the GSO Ka-band Blanket Licensing Industry Working Group, Conditions for Compatibility with 2° Orbital Spacing, at 6-10 (November 18, 1998).

be transmitted by the licensed and proposed Ka-band satellite systems and the high level of rain attenuation in this band. Pegasus agrees with Hughes that the BL-WG's "one size fits all" approach to earth station licensing is not the appropriate policy in the Ka-band. *See* Hughes Comments at 16-21. Rather, the achievement of an acceptable interference-free environment in this band can be best achieved through fully informed technical consultations with adjacent and nearby satellite operators. Such consultations will be made possible by application of the Commission's existing public notice procedures to blanket license applications from Ka-band GSO FSS operators, which will allow potentially affected GSO FSS operators to access these applications and examine an applicant's proposed technical parameters. The PFD and off-axis EIRP density thresholds proposed by the Commission should serve as only as guidelines.

Reliance on the Commission public notice procedures and coordination between adjacent systems has helped lead to the development of innovative and unanticipated services in the Ku-band, including services utilizing very small antennas; these services include Primestar's Direct-to-Home service, Qualcomm's mobile data service, Sky Radio's audio service to commercial airliners, and VSATs. Pegasus believes that application of these principles in the Ka-band could lead to similar results. Through adjacent system coordination, Ka-band GSO FSS operators could provide DTH video services and such broadband services as multicasting and various mobile services, even though the antennas for these systems may be considerably smaller than .66 meters, considered by some applicants to be the minimum antenna size in the Ka-band.[8/]

V. Coordination Agreements Between Adjacent Satellite Operators Should Not Be Voided by the Replacement of One Operator by a New System

In its Report, the BL-WG relies on a number of general presumptions regarding blanket

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8/ For example, a receive-only earth station with an antenna between 50 to 60 centimeters may be capable of managing any received interference from adjacent satellites, while causing no interference to those adjacent satellites. In its comments, DirecTV states that a PFD of -116 dBW per MHz per square meter is required for DTH, an indication that is consistent with Pegasus' estimate of PFD of -117.1 dBW per MHz for its RO service to 0.5 meter antennas.

licensing for GSO FSS, including the presumption that if a coordination agreement is reached between two satellite operators not in compliance with certain technical standards, that agreement

> remains valid only as long as those operators who are parties to the agreement remain at the particular orbit locations concerned. If the FCC reassigns an orbit location to another licensee, any existing coordination agreement would not remain effective and another coordination agreement must be reached in order for the limits to be exceeded.

BL-WG Report at 4-5.

Like GE and PanAmSat, Pegasus strongly disagrees with this view. *See* GE Comments at 12; PanAmSat Comments at 8. Once a Ka-band GSO FSS operator has coordinated the operation of its system with adjacent satellites, this coordination should not be nullified by the subsequent reassignment of an orbital slot by the Commission. Satellite operators rely on coordination agreements in investing in equipment and designing their services, and without protection for these agreements, these operators might find their systems -- including hundreds of thousands or even millions of end-user earth stations -- rendered inoperative by the operation of these new adjacent satellite systems. Accordingly, a new operator should be required to operate consistent with the original coordination agreement (or as altered by agreement), and its compliance with that requirement should be a precondition to its licensing by the Commission.

VI. The U.S. Ka-band Technical Standards Should Not Apply to U.S.-licensed Satellites Located in the International Arc Providing Service to Foreign Countries

The BL-WG also states that the Commission should require any U.S.-licensed satellite operator wishing to serve a foreign country to comply with the U.S. Ka-band licensing parameters. BL-WG Report at 5. Pegasus agrees with PanAmSat that the Commission should reject this view. *See* PanAmSat Comments at 8. Pegasus believes that if a U.S.-licensed satellite system is located in the international arc next to foreign-licensed satellites that are not subject to these constraints, the U.S. system is likely to be placed at a competitive disadvantage in the provision of service to the foreign country at issue. To further the goal of regulatory parity, the

U.S. licensed system should instead be subject to the Ka-band standards imposed by the served country, consistent with ITU guidelines.

VII. The Commission Should Proceed Expeditiously with the Allocation and Rulemaking Processes for the Proposed 17.3-17.8 GHz BSS Frequency Band

In its comments, SkyBridge L.L.C. asserts that it is premature for the Commission to make any decision regarding the long-term use of the 17.3-17.8 GHz band given the rapid evolution of technology and potential sharing difficulties in this band, and it argues that the Commission should postpone consideration of the NPRM's BSS allocation proposal. Comments of SkyBridge L.L.C. at 3. In its filing, SkyBridge indicates that its first-generation NGSO MSS system will operate feederlinks in the 17.3-17.8 GHz frequency band. *Id.* at 1.

The Commission should reject SkyBridge's self-serving arguments, and, as Pegasus urged in its comments, the Commission should explore the possibility of an expedited allocation of the 17.3-17.8 GHz band to BSS. First, SkyBridge itself has reasonable alternatives to the Ka-band for the operation of its feederlinks; it could seek to operate these links, for instance, in the 19.3-19.7 GHz co-primary MSS/FL band or in the lower portion of the 17.3-17.8 GHz band. Second, it is clear that there is an increasing need for additional BSS bandwidth, with the development of such new BSS applications as HDTV, multicasting, and pay-per-view services. With only three full-CONUS orbital slots in the BSS Ku-band, there currently is insufficient capacity to meet the demand for both a greater variety of BSS video programming and a range of new services. The new Ka-band BSS allocation presents a clear opportunity to meet this demand.[9/]

9/ In addition, as Pegasus indicated in its comments, it now appears likely that orbital spacings even smaller than 4.5° will be possible in the new BSS band. Some satellite operators may combine Ka-band FSS and BSS to form one multimedia service, and subscribers to such a service may utilize single antenna, multibeam earth stations. With 2° spacing in the FSS, these antennas will likely be larger than existing BSS antennas, which should permit more narrow spacings in the new BSS allocation. A 2° orbital spacing, for instance, would make approximately twenty new full-CONUS orbital slots

(continued...)

Pegasus agrees with DirecTV that the Commission should proceed expeditiously with a rulemaking addressing the relevant sharing and implementation issues in this band.[10/] The rulemaking and licensing processes for this band, along with the planning, financing, and actual construction of satellite systems, are likely to take many years, and the Commission should initiate this process as soon as possible.

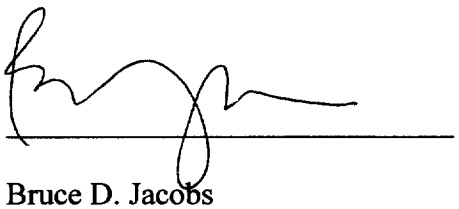
Finally, Pegasus takes this opportunity to make clear its view that any use of this band by FS systems should be on a secondary basis, or on a grandfathered basis with a clear sunset date.

Conclusion

For the aforementioned reasons, Pegasus urges the Commission to adopt policies in this proceeding consistent with the comments provided herein.

Respectfully submitted,

PEGASUS DEVELOPMENT CORP.



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9/ (...continued)
available for Ka-band BSS, in contrast to just three for Ku-band BSS.

10/ Comments of DirecTV Enterprises, Inc. at 12-13.

CERTIFICATE OF SERVICE

I, Elinor W. McCormick, a secretary to the law firm of Fisher Wayland Cooper Leader & Zaragoza L.L.P., hereby certify that on this 21st day of December 1998, served a true copy of the foregoing **"REPLY COMMENTS OF PEGASUS DEVELOPMENT CORPORATION"** by first class United States Mail, postage prepaid, upon the following:

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