

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

In the Matter of )  
 ) File N° \_\_\_\_\_  
HISPAMAR SATÉLITES, S.A. )  
 )  
Petition for Declaratory Ruling to Add )  
AMAZONAS-3 Satellite at 61° W L to the )  
Commission's Ka-band )  
Permitted Space Station List )

**To: International Bureau**

**INTRODUCTION**

HISPAMAR SATELITES, S.A., (HISPAMAR SATÉLITES) on April 18, 2012 filed a Petition for Declaratory Ruling to add the AMAZONAS-3 Satellite, to be operated at 61°WL, to the Commission's Permitted Space Station List. However, on August 10, 2012 the application was found defective and therefore dismissed without prejudice to refileing.

HISPAMAR SATÉLITES has revised the filing taking into account those deficiencies, and submits by means of the current writing a new

**PETITION FOR DECLARATORY RULING**

HISPAMAR SATÉLITES, S.A. (hereinafter HISPAMAR SATÉLITES) by representative and pursuant to Sections 25.114 and 25.137 of the Commission's rules as amended and the *DISCO II First Reconsideration Order*, hereby respectfully requests that the Commission add the AMAZONAS-3 satellite<sup>1</sup>, at 61°W.L., to the Permitted Space Station List, for the provision of services to and from the United States covered by the Commission WTO Basic Telecommunications Agreement ("WTO Telecom Agreement")<sup>2</sup>. A FCC Form 312 application, together with exhibits providing the information required under Section 25.114 of the Commission's rules, are attached hereto. HISPAMAR SATÉLITES currently serves U.S. customers from this orbital location via AMAZONAS-1 and AMAZONAS 2 geostationary satellites which are included on the Permitted List. Grant of this petition will serve the public interest by maintaining an existing competitive service option in addition to providing consumers with more alternatives in choosing communications service providers and services, reducing prices and facilitating technological innovation.

---

<sup>1</sup> Amazonas-3 will replace Amazonas-1, licensed by Brazil, using same frequencies that Amazonas-1, plus Ka band as described in Attachment hereto. See Anatel Website <http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=259036&assuntoPublicacao=null&caminhoRel=nul1&filtro=1&documentoPath=259036.pdf>

<sup>2</sup> The WTO came into being on January 1, 1995, pursuant to the Marrakesh Agreement Establishing the World Trade Organization (The Marrakesh Agreement), 33 I.L.M. 1125 (1994). The Marrakesh Agreement includes multilateral agreements on trade in goods, services, intellectual property and dispute settlement. The General Agreement on Trade in Services (GATS) is Annex 1B of the Marrakesh Agreement, 33 I.L.M. 1167 (1994). The WTO Telecom Agreement was incorporated into the GATS by the Fourth Protocol to the GATS (April 30, 1996), 36 I.L.M. 354 (1997).

AMAZONAS-3 also is a replacement of AMAZONAS-1 in the C and Ku bands and adds extra capacity in the Ka band. It is foreseen to be launched in the 4th Quarter 2012 and will be operated at the 61° W.L. orbital location where AMAZONAS-1 is presently operated. The C-band (4/6 GHz) and Ku-band (12/14) GHz frequencies and associated technical characteristics on AMAZONAS-3 are identical to those on AMAZONAS-1 which was previously approved for the Permitted List. This Petition for AMAZONAS-3 includes the necessary information and technical characteristics for all the frequencies on this satellite network as the basis for putting them on the Permitted List. It should also be noted that a Petition for the Permitted List for C and Ku FSS bands as well as for Direct to the Home (DTH) service for AMAZONAS-1<sup>1</sup> was also previously granted and is also to be provided by AMAZONAS –3 as part of the replacement of AMAZONAS-1.

Grant of this petition will permit all U.S. C-band, Ku-band and Ka-band earth stations with an "ALSAT" designation to enjoy services available from AMAZONAS-3.

Such grant will also permit HISPAMAR SATÉLITES to offer its capacity to provide service to the US market from the 61 W.L. orbital location. As demonstrated in this petition and the accompanying attachments, AMAZONAS-3 satisfies all legal and technical requirements for US service.

## **I AMAZONAS-3 Meets the Requirements for Inclusion on the Permitted Space Stations List.**

In the *DISCO II first Reconsideration Order*, the Commission stated that it will grant a declaratory ruling request by a foreign satellite operator regarding provision of C-band and Ku-band service in the United States -and include operator's satellite on the Permitted Space Stations List- where the request is accompanied by information demonstrating compliance with Section 25.137 of the Commission's rules. In that Order, the Commission

conclude[d] that US earth stations with ALSAT licenses should be permitted to communicate with any non-US satellite just as easily as they communicate with any US licensed satellite, provided that those communications do not cause harmful interference to or require protection from adjacent satellite operations, and otherwise comply with DISCO II.

In Declaratory Order of January 21, 2010, released on January 25, 2010, the Commission indicated that it will add non-U.S.-licensed Ka-band satellites to the Ka-band Permitted List upon request, once the Commission authorizes that satellite to provide service in the United States. In this regard, the Commission ordered that satellite operators may request access to the United States to provide fixed-satellite services in the conventional Ka-band by submitting a Petition for Declaratory Ruling accompanied by the information required in Sections 25.114 and 25.137 of the Commission's rules, 47 C.F.R. §§25.114 and 25.137, for the non-U.S. satellite.

The AMAZONAS-3 satellite fully complies with the requirements applicable to US satellites and will not "cause harmful interference to or require protection from adjacent satellite

---

<sup>1</sup> See File Nos. AMAZONAS-1 Grant SAT-PPL-20040402-00073 (June 15, 2004) and SAT-MOD-20040628-00124 (August 26, 2004)

operations". In addition, this petition includes and it is incorporated throughout all the information required under Section 25.114 and other relevant parts of the Commission's rules as amended. Accordingly, HISPAMAR SATÉLITES urges the Commission to grant the instant petition and include AMAZONAS-3 on the Permitted Space Stations List.

Sections 25.210(a) and (b) of the Commission's rules requires all space stations in the Fixed-Satellite Service (FSS) in the C and Ka-bands using orthogonal linear polarization to be capable of switching polarization sense upon ground command. Taking into account that Hispamar cannot reverse such polarization from the ground because Amazonas-3 uses both senses of orthogonal polarization, employing state-of-the-art full frequency reuse through the use of orthogonal polarizations within the same beam and through the use of spatially independent beams for the Ka band, fulfilling sections 25.210(d) and (f), Hispamar respectfully requests by means of this petition a waiver to the sections 25.210(a) and (b).

Section 25.210(i) also requires FSS space station antennas to provide a cross-polarization isolation such that the ratio of the on axis co-polar gain to the co-polar gain to the crosspolar gain of the antenna in the assigned frequency band is at least 30 dB within its primary coverage area. Amazonas-3's cross-polarisation isolation for the Ka-band antennas will be 26 dB . Such cross-polarisation isolation performance level will have a negligible impact<sup>2</sup> on adjacent satellites as can be shown in the link budgets attached to this Petition. Therefore, Hispamar also respectfully requests a waiver of this rule.

Section 25.114(a). Section 25.114(a) requires that petitioners seeking space station authorization must submit a comprehensive proposal for each proposed space station on FCC Form 312, Main form and associated Schedule S, together with attached exhibits as described in paragraph (d) of this Section. These are attached to this Petition.

Technical information for AMAZONAS-3, as required under Section 25.114 and 25.140(b) of the Commission's rules, is attached herewith as Attachment to Form 312. It is the technical description for the C, Ku and Ka-bands and includes the Schedule S pursuant to the Third Report and Order in IB Docket No. 02-34 and Third Report and Order in IB Docket No. 00-248. Considering the size of the Schedule S database, it has been divided into two, one for the C and Ku bands and another one for the Ka band.

The interference analysis to demonstrate that AMAZONAS-3 will be compatible with the Commission's two degree orbital spacing requirements is provided in the attached section 25.114(d)(7) attached to this Petition. This fulfills the requirements of section 25.140(b)(2).

The space station antenna gain contours for each transmit and receive antenna beams are provided in .gxt format with the latest GIMS software application (version 8.5, June-2012), as required in section 25.114(d)(3). Moreover, the footprints are also provided in three Annexes attached to the technical information in section 25.114(d).

The altitude selected for a post-mission disposal orbit of a geostationary orbit spacecraft, as well as the calculations that are used in deriving the disposal orbit as required in section

---

<sup>2</sup> See, e.g. *Viasat-1 Satellite Grant File No SAT-LOA-20110722-00132 (March 19, 2008)* and *EchoStar Satellite Operating Corporation, Application for Authority to Operate the EchoStar 9 Satellite in the Lower 500 MHz Portion of the Ka-band Frequencies at the 121° W.L. Orbital Location*, Files Nos. SAT-MOD-2006830-00092, SAT-STA-20050608-00116, Order Authorization, DA 06-2590 ¶¶7-8 (rel. Dec. 22, 2006).

25.114 (d)(14)(iv). This information is attached to this Petition and fulfills the requirement of 25.283 (a).

Regarding AMAZONAS-3 End of Life Disposal Plan, in section 25.114 (d)(14)(ii) attached to this Petition is stated that “*After AMZ3 reaches its final disposal orbit all propellant line valves, located downstream the propellant tanks, will be left open and all pressure vessels will be vented. Once it has been determined that only one propellant is remaining, repressurize the Ox and Fuel tanks to depressurize He from Pressurant tank to lowest practicable pressure. After repressurizing the propellant tanks, the He isolation valve, located upstream the propellant tanks, is closed to preclude any possibility of residual bipropellants from leaching into the pressurant system and causing a hypergolic reaction. Following these operations, the remaining He will be less than 0.01 kg in the pressurant tanks (2 tanks of 65.5 liters and 1 tank of 49.1 liters) and 0 kg in the propellant tanks; the remaining Oxidizer (NTO) and Fuel (MMH) in the corresponding tanks is considered negligible. As indicated before, the propellant line valves downstream the propellant tanks will remain open*”, fulfilling 25.283 (c).

Once Amazonas-3 becomes fully operational, AMAZONAS-1 is planned to be relocated into another orbital slot yet to be decided or utilized as a back-up satellite for Amazonas-3. The definitive plan will be informed to the Commission as soon as the decision is made concerning this matter.

The AMAZONAS-3 satellite is owned by HISPASAT CANARIAS a company owned one hundred per cent by HISPASAT, S.A. and operated by HISPAMAR SATÉLITES, which is based in Brazil. Brazil serves as the notifying administration for purposes of international satellite coordination pursuant to the relevant provisions of the International Telecommunications Union Radio Regulations (ITU-RR). In this context, HISPAMAR SATÉLITES emphasizes that operation at 61°W.L. has been coordinated previously between the United States and Brazil.

In its DISCO II Order, para. 7, the Commission “adopted a presumption that entry by WTO Member satellite systems will promote competition in the U.S. satellite services market”. In this context, HISPAMAR SATÉLITES, an operator licensed by Brazil and a Member of WTO, believes that it will serve the pro-competitive goals of Section 25.137 by being included on the Permitted Space Station list.

## **Financial requirements**

In its *First Space Station Licensing Reform Order*, the Commission eliminated the financial requirements then in place and replaced them with a bond requirement<sup>3</sup>. According to 47 C.F.R 25.165, bond will be posted, if any, in due time.

## **II Access to the US Market for AMAZONAS-3 Will Serve the Public Interest**

Access by all U.S. earth stations with an ALSAT designation to AMAZONAS-3 would produce substantial public interest benefits. The availability of HISPAMAR SATÉLITES space segment to the U.S. Fixed-Satellite Service market will continue to stimulate lower

---

<sup>3</sup> *First Space Licensing Reform Order*, 18 FCC Rcd at 10826 (para. 170)

prices, improve service quality, increase service options and foster technological innovation.

### **III Information required**

HISPAMAR SATÉLITES believes that information is sufficient according to Commission's rules; however, should the Commission conclude that this information is insufficient, HISPAMAR SATÉLITES asks the Commission to request HISPAMAR SATELLITES to provide additional information or supplementary information or explanatory information that the Commission considers appropriate.

### **IV Conclusion**

Therefore, HISPAMAR SATÉLITES responded to all unresolved issues stated in the letter DA 12-1310, dated August 10, 2012 and understands that there are no outstanding actions from our side and respectfully requests that the Commission issue a Declaratory Ruling adding the AMAZONAS-3 satellite to the Permitted Space Station List, operating in C, Ku (including Direct to Home service – DTH in Ku band) and Ka bands.

Respectfully submitted,  
HISPAMAR SATÉLITES, S.A.

By: \_\_\_\_\_

Donald Jansky  
JANSKY/BARMAT TELECOM INC.  
7703 Arrowood Court,  
Bethesda, Md. 20817  
October 2<sup>nd</sup>, 2012