



October 4, 2021

VIA IBFS

Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Subject: additional information on Amazonas-2

On June 3, 2021, Hisparmar Satélites filed a request seeking to update certain frequencies in the AMAZONAS-2 satellite to include the frequency bands 12.75 – 13.75 / 10.7 – 10.95, 11.2 – 11.45 GHz. We hereby present to the Commission some additional information:

1-. Regarding footnote NG52, and the waiver request for domestic U.S. operations in the 12.75-13.25 GHz band (E-s):

- a) At this point in time, Hisparmar Satélites deems highly probable that Amazonas-2 will utilize earth stations that are gateways in the United States. However, please note that this will depend on our potential clients and their services.

- b) The number of earth stations to be utilized in the United States (gateway or other) will depend on Hisparmar Satélite's future customers and the services they will target. At present, the number is unknown to us.

- c) Hisparmar will coordinate its operations with authorized systems:
 - 1. With respect to satellite systems, Hisparmar has already coordinated with all the satellite networks identified in the ITU the satellite network under which Amazonas-2 operates (F-SAT-E-30B-61W). The only authorized satellite in these frequency bands at $\pm 10^\circ$ of orbital separation from 61° W.L. is EUTELSAT 65 WEST A. The coordination with respect to this satellite was successfully concluded and AMAZONAS-2 will operate in accordance to this agreement.

 - 2-. With respect to fixed service systems:
 - a) AMAZONAS-2's transmissions in the 10.7-10.95, 11.2-11.45 GHz (space-to-Earth) and the 12.75-13.25 GHz (Earth-to-space) frequency bands that provide domestic service will be operated under unprotected, non-harmful interference basis relative to fixed



stations. As such, AMAZONAS-2 will not cause harmful interference to, or claim protection from, fixed stations to which frequencies in the 10.7 – 10.95, 11.2-11.45 GHz (space-to-Earth) and the 12.75-13.25 GHz (Earth-to-space) frequency bands have either been already assigned, or to which frequencies in the 10.95, 11.2-11.45 GHz (space-to-Earth) and the 12.75-13.25 GHz (Earth-to-space) frequency bands may be assigned at a later date.

- b) HISPAMAR will inform its customers, in writing, including end-users receiving service from resellers accessing capacity on the AMAZONAS-2 space station, that the service in the 10.7 – 10.95, 11.2-11.45 GHz (space-to-Earth) and the 12.75-13.25 GHz (Earth-to-space) frequency bands with regard to domestic service is being provided on an unprotected basis, and that the potential exists that future licensed fixed stations may cause harmful interference to these earth stations.

- c) HISPAMAR will terminate operations in the 12.75-13.25 GHz (Earth-to-space) frequency bands upon notification that its operations are causing interference to fixed stations operating in this band, and will immediately inform the Commission, in writing, of such an event.

2-. With respect to the waiver request for section 25.210(f):

- a) Hisparamar is requesting authorization to operate the following frequency bands:
 - 12.75 – 13.25 GHz (Horizontal Polarization)
 - 12.75 – 13.00 GHz (Vertical Polarization)
 - 10.70 – 10.95 GHz and 11.2 – 11.45 GHz (Vertical Polarization)
 - 10.70 – 10.95 GHz (Horizontal Polarization)

Please note that in the sub-band 13.00 – 13.25 GHz only the Horizontal Polarization is operated. Also, please note that in the sub-band 11.20 – 11.45 GHz only the Vertical Polarization is operated. Since we request a waiver exclusively for these two sub-bands where only one polarization is operated, we have referred to it as “partial” waiver.

- b) Therefore, the following sub-bands would not be compliant with section 25.210(f):
 - 13.00 – 13.25 GHz only the Horizontal Polarization is operated.
 - 11.20 – 11.45 GHz only the Vertical Polarization is operated.



c) Amazonas-2 is expected to be in operation until Q2-2027

d) Amazonas-2 has sub-bands that can be commuted between two different beams, North America beam and South America beam. The sub-bands in the opposite polarization for which authorization has not been requested (13.00 – 13.25 GHz in Vertical Polarization and 11.2 – 11.45 GHz in Horizontal polarization) cannot be operated in the North America beam and are limited to the South America beam. These are the design constrains that limit the frequency reuse ability of Amazonas 2.

We remain at your disposal should you need any additional information regarding Hisppamar Satélite's request.

Sincerely,

A handwritten signature in blue ink, appearing to be "CGM", written in a cursive style.

Cristina García de Miguel
Orbit-Spectrum & Regulatory Affairs Manager