

ATTACHMENT

1. General

This attachment provides additional technical information regarding the pending modification application to repoint the ECHOSTAR-15 satellite (IBFS File No. SAT-MOD-20131030-00126), including the results of an updated analysis with respect to section 25.114(d)(13)(ii) of the FCC's rules.

Any Part 25 requirements regarding operation of the ECHOSTAR-15 satellite that are not included in this Attachment have been previously provided to the Commission and have not changed.

2. Antenna Beam Relative Gain Isoline Contours

EchoStar is providing the Commission with relative gain isoline contours for each of the ECHOSTAR-15 satellite's uplink and downlink beams in GXT format. These contours encompass the potential repointing positions of the various beams of the satellite.

3. Analyses with respect to the limits in Annex 1 to Appendices 30 and 30A.

The analyses with respect to the limits in Annex 1 to Appendices 30 and 30A have previously been provided to the Commission and have not changed, except with respect to section 2 of Annex 1 of Appendix 30 (i.e., MSPACE analysis).

Using the relative gain isoline contours of the ECHOSTAR-15 satellite network and the satellite's associated transmission parameters, an MSPACE analysis was performed using the Region 2 BSS Plan as contained in IFIC 2761. The results of the analysis are provided in Table 1 below. As shown, there are four affected networks that were filed on behalf of France, Holland

and Russia. These networks are modifications to the Region 2 BSS Plan. Each of these networks is discussed below:

- France's CD-SAT BSS 123.1W network at 123.1° W.L. is deemed to be affected. We can find no evidence that this network is under construction or scheduled for launch although it is expected that coordination could be achieved given the very large orbital between 123.1° W.L. and 45.1° W.L. Further, France's network is required to be coordinated with Brazil's networks at the nominal 45° W.L. location.
- Holland's NSS-BSS 58W network at 58° W.L. is deemed to be affected. We can find no evidence that either network is under construction or scheduled for launch although it is expected that coordination could be achieved given the large orbital separation between the networks and the low OEPM degradation into Holland's network. Further, Holland's network is required to be coordinated with Brazil's Plan networks at the nominal 45° W.L. location.
- Holland's NSS-BSS 47.5W network at 47.5°W.L. is deemed to be affected. We can find no evidence that this network is under construction or scheduled for launch. Further, Holland's network is required to be coordinated with Brazil's Plan networks at the nominal 45° W.L. location.
- Russia's INTERSPUTNIK-47.5W-B network at 47.5°W.L. is deemed to be affected. We can find no evidence that this network is under construction or scheduled for launch. Further, the Russian network is required to be coordinated with Brazil's Plan networks at the nominal 45° W.L. location.

Based on the preceding, EchoStar concludes that the ECHOSTAR-15 satellite network can be operated at 45.1° W.L., as proposed herein, without causing unacceptable interference to any Region 2 Plan network or to any operational BSS network.

Table 1. ECHOSTAR-15 MSPACE Results

Adm. Symbol	Orbital Position (°W)	Network	Maximum OEPM Degradation (dB)
F	123.10	CD-SAT BSS 123.1W	1.019
HOL	58.00	NSS-BSS 58W	0.291
HOL	47.50	NSS-BSS 47.5W	13.221
RUS	47.50	INTERSPUTNIK-47.5W-B	6.448

**CERTIFICATION OF PERSON RESPONSIBLE FOR PREPARING
ENGINEERING INFORMATION**

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this application, that I am familiar with Part 25 of the Commission's rules, that I have either prepared or reviewed the engineering information submitted in this application, and that it is complete and accurate to the best of my knowledge and belief.

/s/ Stephen D. McNeil _____
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