



Federal Communications Commission  
Washington, D.C. 20554

September 26, 2006

Jennifer D. Hindin  
Counsel for Iridium Satellite LLC and Iridium Carrier Services LLC  
Wiley Rein & Fielding LLP  
1776 K Street, NW  
Washington, DC 20006

Re: Call Sign: E960132  
File No. SES-MOD-20050927-01329  
File No. SES-AMD-20051222-01791

Call Sign: E960622  
File No. SES-MOD-20050927-01330  
File No. SES-AMD-20051222-01792

Dear Ms. Hindin:

This letter pertains to the above-captioned applications filed on September 27, 2005, and amended on December 22, 2005, in which Iridium Satellite LLC and Iridium Carrier Services LLC (Iridium) request modification of the blanket licenses for Iridium mobile earth stations to add authority for operation of "Iridium Eagle Broadband" ground repeater stations. According to the applications, the repeaters are designed to be installed in buildings or vehicles to overcome structural attenuation by amplifying and retransmitting signals received from Iridium satellites and mobile Earth stations.

It is not clear from the applications that interference generated from Iridium Eagle Broadband repeaters will be limited to the levels specified in the technical analysis submitted with the application. We need the following additional information in order to determine whether grant of the referenced applications would serve the public interest.

1) Please demonstrate that the proposed operation of ground repeaters will not cause harmful interference with operation of the Globalstar MSS system in the 1610-1621.35 MHz band to a greater extent than permitted by an existing coordination agreement.

2) A statement in Amended Exhibit 4 of the applications implies that an Iridium Eagle Broadband repeater will retransmit no more than three FDMA carriers at the same time. Could additional FDMA carriers aggregate at the antenna input and cause the repeater to respond? If so, what mechanism would prevent the repeater from being overloaded? If not, how would the repeater block the additional carriers? The same exhibit states that the power at the uplink antenna flange would be distributed equally to the number of carriers being retransmitted in the same time slot. Given our understanding that the repeater is simply a linear amplifier, how is the handset power controlled to assure that each handset provides equal input to the amplifier?

**Federal Communications Commission**

---

- 3) The applications indicate that the repeaters are designed to be capable of operating across the 1616-1626.5 MHz band, although authority is requested only for operation in frequencies above 1618.25 MHz. What prevents the repeater from causing unwanted emissions by retransmitting Globalstar MET transmissions received in frequencies above 1616 MHz? What would prevent the repeaters from being driven into overload and creating interfering intermodulation products within Globalstar's bandwidth?
- 4) Please explain why a promotional announcement in the Iridium Eagle Broadband website specifies a 10.5 MHz signal bandwidth and a frequency range of 1616.0-1626.5 MHz.
- 5) In an opposition pleading filed on December 22, 2005, the applicants assert that the repeaters will not generate mean EIRP density greater than the -3 dBW/4kHz limit specified in Allocation Table Footnote 5.364. This assertion seems inconsistent with other specifications in the applications. Please recheck your calculations and amend the applications as necessary to correct any error in this regard.
- 6) The applications indicate that the antenna for retransmitting downlink signals will be installed inside buildings or other structures. According to a press release displayed in the Eagle Broadband web site, however, the repeaters "enable multiple callers to use Iridium-based satellite telephones in both outdoor and indoor settings." If customers can use the downlink re-transmitter outdoors, what additional interference impact would result from such operation?
- 7) Please provide a block diagram of the repeater, an enlarged frequency response plot for the cavity filter, and cascade analysis for gain, noise figure, and third-order intercept point.
- 8) What steps have been taken to inform customers that the repeaters are currently authorized only on a temporary basis?

The referenced applications will be subject to dismissal pursuant to Section 25.112(c) of the Commission's rules, 47 CFR §25.112(c), if a response to this inquiry is not filed by October 26, 2006.

Sincerely,



Scott A. Kotler  
Chief, Systems Analysis Branch  
Satellite Division  
International Bureau

cc: William T. Lake  
Counsel for Globalstar LLC  
Wilmer Cutler Pickering Hale and Dorr LLP  
2445 M Street, NW  
Washington, DC 20037