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Via Electronic Filing

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th St., S.W.
Washington, DC 20554

Re: *Ex parte* filing
Applications of Iridium Satellite LLC and Iridium Carrier Services LLC for
Modification of Blanket Earth Station Licenses to Permit AMS(R)S
Communications
File Nos. SES-MOD-20130416-00322 and SES-MOD-20130416-00323

Dear Ms. Dortch:

In the above-referenced applications (the "Applications"), Iridium Satellite LLC and Iridium Carrier Services LLC (collectively, "Iridium") are seeking license modifications that would authorize using Iridium's blanket-licensed earth stations on aircraft to provide AMS(R)S in oceanic, polar, and remote regions. Inmarsat Inc. ("Inmarsat") asked that the Commission refrain from processing the Applications until Iridium provides additional information that, in Inmarsat's view, should have been included with the Applications.¹ Iridium opposed Inmarsat's Request,² and Inmarsat filed a reply.³

Inmarsat made new arguments in its Reply. Inmarsat argued for the first time that interference from aircraft to aircraft could be a concern, and it suggested that the Commission require Iridium to provide warning statements concerning the possibility of interference.

¹ See Inmarsat's Request to Hold in Abeyance ("Request"), filed December 19, 2014.

² See Iridium's Opposition to Request to Hold in Abeyance ("Opposition"), filed Jan. 9, 2015.

³ See Reply of Inmarsat to Iridium Opposition ("Reply"), filed Jan. 22, 2015.

This is the first opportunity Iridium has had to respond to these new arguments. Iridium, by its undersigned counsel, demonstrates in this filing that: (1) interference from aircraft to aircraft is a non-issue; (2) additional warning statements are unnecessary; and (3) Inmarsat's position relating to warning statements moots its arguments concerning whether Iridium has provided sufficient technical information.

1. Aircraft separation distances resolve any aircraft-to-aircraft interference concerns

Prior to its Reply, Inmarsat's interference arguments focused on "the potential for interference when Iridium and Inmarsat aeronautical earth station ('AES') terminals are installed on the same aircraft."⁴ Inmarsat's position before this proceeding began had been that any such interference issues "could be left up to the marketplace for resolution."⁵ In keeping with that position, Inmarsat stated in its Request that it is seeking additional technical information from Iridium only so it could "confirm that the market-based solutions that Inmarsat previously had envisioned still would be a reasonable solution" when Inmarsat's terminals and Iridium's terminals are installed on the same aircraft.⁶

In its Reply, Inmarsat for the first time raised concerns about the potential for interference when Inmarsat's and Iridium's aeronautical terminals operate on different aircraft.⁷ Inmarsat acknowledged it is "possible" that in oceanic airspace the separation distances between aircraft would resolve these concerns.⁸ Inmarsat claimed, however, that maintaining the necessary separation distances in remote regions "appears more challenging."⁹

The potential for separate-aircraft interference in oceanic airspace has already been addressed in the civil aviation approval process. The Federal Aviation Administration has jurisdiction over this approval process with respect to U.S. airspace.¹⁰

In a working paper that was presented to ICAO's Aeronautical Communications Panel ("ACP"), it was determined that harmful interference to Iridium's aeronautical

⁴ Inmarsat Request at 4.

⁵ Inmarsat Request at 4.

⁶ Inmarsat Request at 6.

⁷ See Inmarsat Reply at 6.

⁸ Inmarsat Reply at 6.

⁹ *Id.*

¹⁰ The civil aviation approval process for AMS(R)S involves the International Civil Aviation Organization ("ICAO") internationally and the Radio Technical Commission for Aeronautics ("RTCA") and the FAA domestically. ICAO develops Standards and Recommended Practices ("SARPs") for MSS service providers, including Iridium, to provide AMS(R)S. The SARPs are binding upon ICAO contracting states, including the United States. RTCA is a Federal Advisory Committee sponsored by the FAA that develops and approves MSS hardware and network performance technical specifications for AMS(R)S. Based on the guidelines developed by RTCA, the FAA adopts performance standards to accommodate the provision of AMS(R)S services; conducts AMS(R)S equipment testing in conjunction with commercial airlines; and approves use of MSS equipment for AMS(R)S in U.S. airspace.

terminals is improbable and is within levels that Inmarsat considers “acceptable.”¹¹ The analysis was based on “the on-going volumetric analysis by Honeywell and Inmarsat towards ensuring the RF compatibility of Inmarsat/MTSAT and Iridium services.”¹² Because the findings were “still being checked for accuracy,” the ACP asked that Honeywell provide a further briefing at a follow-up meeting. Honeywell reaffirmed the prior findings at that meeting.¹³ There is no need to relitigate these issues before the Commission.

Although the findings presented to the ACP focused on oceanic airspace, they are applicable to polar and remote regions, too, because the separation standards for aircraft operating in polar and remote regions, outside of radar coverage, are consistent with the regulations for operation in oceanic airspace. Inmarsat’s suggestion that the interference environment in remote areas could be more challenging, therefore, is unwarranted.

It is worth emphasizing that the only interference issue raised by Inmarsat concerns the possibility that Iridium’s aeronautical terminals would receive interference from Inmarsat’s aeronautical terminals.¹⁴ Inmarsat does not dispute that its aeronautical receivers will be adequately protected.

2. Duplicating the warning statements already called for by RTCA is unnecessary

If an aircraft operator elects to install Iridium and Inmarsat terminals on the same aircraft, it has an obligation to demonstrate to the FAA the proper operation of the Iridium system if it is intended to be used for AMS(R)S communications. Inmarsat concedes in its Reply that in the case of Inmarsat and Iridium terminals that are installed on the same aircraft, market forces can work “if consumers are adequately apprised of the risk before they subscribe to Iridium’s service.”¹⁵ Inmarsat then suggested for the first time that the Commission require the provision of the same warning statement that is recommended by RTCA.¹⁶ This warning statement alerts aircraft owners that simultaneous operation of Inmarsat and Iridium AES equipment on the same aircraft has the potential to cause interference to Iridium’s terminals, and hence measures must be taken in order to ensure proper operation of the Iridium AES equipment if it is to be used for AMS(R)S communications.

¹¹ Aeronautical Communications Panel, First Meeting of the Working Group of the Whole, Montreal, Canada 21 – 25 April 2008, ACP-WGW2/WP-12 (Apr. 21, 2008).

¹² *Id.*

¹³ E.F.C. LaBerge, “Updated Analysis of Inmarsat and Iridium Aeronautical Services in the Same Oceanic Airspace,” released to ICAO ACP WGM (June 18, 2008), based on work “jointly supported by Inmarsat and Honeywell” (*id.* at 4).

¹⁴ Iridium acknowledged this possibility in its Applications and agreed to a condition under which Iridium would not, absent an interoperator arrangement, have “additional [interference] protection ... for AMS(R)S operations” vis-à-vis Inmarsat’s previously authorized MSS operations in adjacent frequency bands. Iridium Opposition at 5.

¹⁵ Inmarsat Reply at 7.

¹⁶ *Id.*

A Commission requirement for a warning statement is unnecessary. Iridium routinely provides the RTCA-recommended warning statement to aircraft owners, and the content of the warning statement is well known in the aviation industry. Given these circumstances, a Commission requirement would be duplicative.

3. Inmarsat's arguments relating to the sufficiency of Iridium's technical information have become moot

Inmarsat's concession as to warning statements moots its arguments concerning whether Iridium has provided sufficient technical information.

Inmarsat previously stated it is seeking technical information from Iridium so it can confirm that market-based solutions remain a reasonable approach for terminals installed on the same aircraft.¹⁷ Now Inmarsat is conceding, however, that market forces can work – without regard to the content of Iridium's technical showing - if aircraft owners receive adequate warning of the possibility of interference to Iridium terminals that are installed on the same aircraft as Inmarsat terminals.¹⁸ And by Inmarsat's own admission, the RTCA-approved statements that Iridium is using provide adequate warning.¹⁹ Inmarsat's basis for seeking additional technical information from Iridium, therefore, has become moot.²⁰

¹⁷ See Inmarsat Request at 6.

¹⁸ See Inmarsat Reply at 7.

¹⁹ See Inmarsat Reply at 7-8.

²⁰ Although it is not directly relevant to the issues addressed in this filing, Iridium notes it will be updating the appendix to DO-262B to remove the AES3-7 and AES3-8 class of antennas that have an active (powered) antenna such as IGA switched or IGA/HGA phased steering array.

Conclusion

For the reasons stated herein and in Iridium's Applications and Opposition, the Applications should be granted.

Please direct any questions regarding this filing to the undersigned.

Respectfully submitted,

/s/ Joseph A. Godles

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