



December 13, 2011

**FILED ELECTRONICALLY VIA IBFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, NW  
Washington, DC 20554

Re: **Written Ex Parte Presentation**

**Application for Authority to Provide Aeronautical Mobile-Satellite (Route) Service Over the IRIDIUM System, File Nos. SAT-MOD-19961204-00139, SAT-AMD-20050816-00160 and SAT-AMD-20051118-00236**

Dear Ms. Dortch,

Iridium files this letter, pursuant to Section 1.1206 of the Commission's rules, to supplement its above-referenced application to provide Aeronautical Mobile Satellite (Route) Service ("AMS(R)S") in the Big LEO Mobile Satellite Service ("MSS") band.<sup>1</sup> The Commission has refrained from final processing of Iridium's application pending adoption by aviation organizations of the standards described in this letter. Now these standards have been approved. Domestic and international standards bodies have determined that Iridium is capable of providing AMS(R)S. Iridium, the Federal Aviation Administration ("FAA"), other civil aviation authorities and the airlines have devoted substantial amounts of time and resources in support of these determinations. Further, numerous airlines have tested and equipped their fleets with equipment capable of providing Iridium AMS(R)S communications. In light of these significant accomplishments, Iridium respectfully requests prompt grant of its application to provide AMS(R)S.

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<sup>1</sup> The Commission has designated Iridium's application to provide AMS(R)S as "permit-but-disclose" for purposes of the Commission's rules governing *ex parte* communications. *Policy Branch Information, Actions Taken*, Report No. SAT-00717, DA 10-1631 (Aug. 27, 2010) (Public Notice).



**ICAO:** The International Civil Aviation Organization (“ICAO”) updated its AMS(R)S Standards and Recommended Practices (“SARP”) to be generic and allow MSS service providers, including Iridium, to provide AMS(R)S upon preparation and completion of the technical manual and validation report to demonstrate that the generic SARP was met.

- September 2005: The ICAO Working Group on Iridium AMS(R)S was formed under the Aeronautical Communications Panel (“ACP”) Working Group Maintenance. Eight meetings of the Working Group were held.
- May 2007: The ACP reviewed and approved the Iridium Technical Manual and validation report.
- November 2007: The updated generic AMS(R)S SARP and Iridium support materials were published by ICAO. The updated SARP is part of Amendment 82 of Annex 10 to the Convention on International Civil Aviation, Volume III, Part 1, Chapter 4.

**RCTA:** The Radio Technical Commission for Aeronautics (“RTCA”), which is the U.S. Federal Advisory Committee for technical aviation issues, developed and approved Iridium’s hardware and network performance technical specifications for AMS(R)S.

- February 2007: With the support of the Federal Aviation Administration (“FAA”), Iridium requested RTCA to establish a committee to develop technical materials in support of Iridium AMS(R)S.
- March 2007: RTCA established committee group SC-215, which was open to the public and had its meetings announced in the Federal Register.
- May 2007 - February 2009: SC-215 held 12 meetings. A total of 63 government and industry representatives participated in these meetings.
- December 2008: Following a 30-day final review and comment process, RTCA approved and published DO-262A *Minimum Operational Performance Standards (MOPS) for Avionics Supporting Next Generation Satellite Systems* and the Iridium Normative Appendix.
- April 2009: Following a 30-day final review and comment process, RTCA approved and published Change 1 to DO-270 *Minimum Aviation System Performance Standards for the Aeronautical Mobile-Satellite (R) Service as Used in Aeronautical Data Links – System Specific Attachment for Iridium Satellite*.

**FAA:** The FAA has adopted performance standards to accommodate the provision of AMS(R)S services via Iridium's satellite system. The FAA Technical Standard Order ("TSO") C-159 provides guidance for avionics manufacturers on minimum performance standards required for approval and certification. The TSO's standards apply to avionics equipment intended to provide AMS(R)S by means of satellite communications between aircraft earth stations, corresponding satellites, and ground earth stations.

- April 2010: FAA held a 30-day public consultation on the draft TSO c159a which includes references to Iridium Satellite AMS(R)S and RTCA DO-262A.
- June 2010: FAA updated the TSO C159a to apply to Iridium Satellite equipment and to include reference to DO-262A and the Iridium Satellite Appendix.

**AMS(R)S Testing:** The FAA, in conjunction with several commercial air carriers, recently completed the evaluation to determine that Iridium's operational performance successfully could provide AMS(R)S in U.S. airspace. The evaluation ran for approximately twelve months and took more than two years to coordinate. The FAA ultimately decided to approve the use of Iridium equipment for AMS(R)S operations in U.S. oceanic airspace.

- 2008: Continental Airlines (now a part of United Continental Holdings) began equipping Boeing 737 aircraft with Iridium equipment.
- October 2009: Continental received FAA Future Air Navigation Service ("FANS") authorization, which included AMS(R)S capabilities.
- September 2010: An operational evaluation of FANS over Iridium equipment conducted by Continental and the FAA concludes.
- June 2011: Based on the findings and data collected during the testing process, the FAA announced that it would authorize aircraft for FANS (including AMS(R)S) operation in U.S. oceanic airspace using Iridium.

**U.S. Airline Industry:** The airline industry has demonstrated great interest in utilizing Iridium for AMS(R)S services, particularly in aircraft that fly routes over the polar regions. In addition to Continental's use of Iridium for FANS in the U.S., United, Delta, Hawaiian, and Southwest airlines currently have multiple aircraft equipped with Iridium equipment. All of these airlines are positioned to utilize Iridium's AMS(R)S services once the Commission approves Iridium's application.

Grant of Iridium's application would serve the public interest in promoting robust, global AMS(R)S. Iridium is the only mobile satellite communications provider capable of providing service to all parts of the globe, making it uniquely qualified to provide critical AMS(R)S services for airlines and government aircraft which operate polar or near polar routes. Iridium's unique network architecture provides inherent advantages in both performance and reliability as compared to other MSS operators and allows Iridium to provide service to remote areas – including Alaska, Hawaii, and the Polar Regions – that other MSS operators are unable to reach. In addition, Iridium's robust MSS network has played a critical role during national emergencies, such as Hurricanes Katrina and Rita, as well as international emergencies, such as the recent earthquakes in Haiti, Chile, and Japan.

Iridium also provides vital services to the Department of Defense and many U.S. Federal bureaus, agencies and departments, including serving the critical and secure needs of U.S. and Coalition Forces at home and abroad. Clearly, it is in the public interest for Iridium to bring the capabilities of its global MSS network, which has already proven essential and reliable in other mission critical areas, to the provision of AMS(R)S services.

Iridium has spent the past several years updating and ensuring compliance with all applicable domestic and international rules and regulations governing the provision of AMS(R)S. Given this, Iridium's above-referenced application is now ready for approval. Therefore, Iridium respectfully requests prompt grant of its application to provide AMS(R)S.

Respectfully submitted,

*/s/ Donna Bethea Murphy*

Ms. Donna Bethea Murphy  
Vice President Regulatory Engineering

cc: Mindel De La Torre  
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