

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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In the Matter of	)	
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	)	
Recommendations of Advisory Committee and	)	IB Docket No. 04-286
Draft Proposals of NTIA for the 2015 World	)	
Radiocommunication Conference	)	

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**COMMENTS OF IRIDIUM COMMUNICATIONS INC.**

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June 11, 2015

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**INTRODUCTION**

Since WRCs convene only about every four years, shaping the agenda for a future WRC is critical and must reflect and anticipate advancements in the international radiocommunications environment, while also taking account of incumbent spectrum users.

On May 21<sup>st</sup>, the Commission issued a Public Notice seeking comment on U.S. positions for WRC-15 as recommended by the Commission’s WRC-15 Advisory Committee, including the U.S. position on WRC-15 agenda item 10, which focuses on the WRC-19 agenda.<sup>1</sup> Looking ahead to WRC-19, the Advisory Committee successfully adopted several consensus proposals, but could not reach consensus on others. In its document WAC/111, the Advisory Committee recommended by consensus that the U.S. advocate for a WRC-19 agenda item supporting modernization of the Global Maritime Distress and Safety System (GMDSS) and recognition of new service providers in the GMDSS. The United States has been a leader at the International Maritime Organization (IMO) on modernizing and updating GMDSS to take account of new technologies and services and should ensure that the benefits of these US initiatives at IMO can

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<sup>1</sup> FCC Seeks Comment on Recommendations Approved by the Advisory Committee for the 2015 World Radiocommunication Conference, Public Notice, DA 15-604, IB Docket No. 04-286 (rel. May 21, 2015), available at [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2015/db0521/DA-15-604A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db0521/DA-15-604A1.pdf).

be enjoyed by the maritime community as soon as possible, and not un-necessarily delayed until 2023 or beyond. Thus Iridium, who has supported US efforts at the IMO for years, urges the Commission to support the recommendations in WAC/111.

In document WAC/117, the Advisory Committee recommended by consensus to study broadband delivery via High Altitude Platform Stations (HAPS), but did not agree on the range of bands to study or the description of the studies to be undertaken. The Committee, thus, forwarded to the Commission two differing views on how best to include HAPS-based broadband on the WRC-19 agenda. View A recommends that the International Telecommunication Union Radiocommunication Sector (“ITU-R”) study HAPS delivery in the bands of interest to potential providers while proponents of View B suggest alternate bands, including one that Iridium uses for its inter-satellite links. If the FCC decides to support View B, the band 22.55- 23.55 GHz should be eliminated from the list of frequency bands.

#### **I. The Commission Should Support the Recommendations in WAC/111**

The GMDSS is a system of diverse maritime radiocommunications systems and procedures devised to increase maritime safety. The International Maritime Organization (“IMO”), is the specialized agency of the United Nations responsible for maritime safety. Since the GMDSS has been established there have been a number of advances in maritime communications. In order to ensure the GMDSS incorporates advanced satellite and terrestrial technologies, to streamline requirements and procedures, and to enhance maritime safety, the IMO and its technical working groups have taken several steps including establishing a process for recognizing new satellite

service providers in the GMDSS and working to review and modernize GMDSS.<sup>2</sup> The United States has been a leader at the IMO in both setting the process for new satellite providers to be recognized for GMDSS and in advancing GMDSS Modernization, and Iridium has been an active participant in helping shape this work.

Consistent with its objectives of improving GMDSS, in 2014, the United States sponsored Iridium's application to the IMO to be a new satellite service provider of GMDSS. With its constellation of 66 low-earth orbit satellites, Iridium's network can provide reliable coverage on a global scale – including in Polar regions that cannot be reached by the only currently recognized GMDSS satellite service provider. Polar regions are becoming increasingly navigable as ice recedes toward the poles, encouraging tankers to push further into the Arctic on their northern shipping routes, inviting tourism, and supporting economic development, including through oil and gas exploration in locations valued by the U.S. energy sector.

Iridium's application for GMDSS certification has progressed substantially at the IMO and is expected to conclude during 2016. Further, IMO's GMDSS Modernization plans are expected to be completed in 2018.

While the IMO is the organization responsible to approve Iridium's application as a GMDSS provider and which is conducting a GMDSS Modernization exercise, the ITU has a separate but equally important role in management of the frequency spectrum, including those spectrum resources and regulatory procedures that enable maritime services and the operation of the GMDSS. The Radio Regulations also include specific operational procedures for maritime services, and for distress and safety communications, including the GMDSS. An example of this is Appendix 15, which lists the frequencies commonly used for distress and safety

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<sup>2</sup> See, e.g., Meeting Summary of the 17th Session of the Sub-Committee on Radiocommunications and Search and Rescue, International Maritime Organization (Jan. 25, 2013), available at <http://www.imo.org/MediaCentre/MeetingSummaries/NAV/Pages/COMSAR-17th-session.aspx>.

communications, and so IMO may recommend to ITU a need to amend this list of frequencies upon the addition of any new satellite service providers, although other changes could be identified. While the ITU role is separate from the IMO's recognition process, a WRC agenda item will allow the ITU to progress its own GMDSS related studies, under its mandate, based on IMO's activities and requirements. Without an item on the WRC-19 agenda, it is likely that the United States priorities at the IMO for GMDSS update and modernization would be delayed until 2023. This is especially pertinent in the case of new satellite providers as this is the first time the IMO is considering an application and there are no precedents for how either IMO or ITU will act. Failure to consider promptly these regulatory responses risks creating confusion for administrations, or even delaying the inclusion of advanced GMDSS systems, including Iridium's, at a severe cost to maritime users and the U.S. industries they support, as well as undermining and prolonging two key U.S. initiatives.

## **II. The Commission Should Eliminate the Band 22.55-23.55 from View B of WAC/117**

During the WAC process, potential providers of broadband via HAPS have indicated that their services will require significant regulatory accommodations by the ITU, including the identification of additional fixed service allocations for HAPS use.<sup>3</sup> The Advisory Committee recommended two versions of a U.S. proposal inviting WRC-19 to consider action on this issue. Both versions support interim feasibility studies on bands identified by potential HAPS providers, but they propose different bands and different approaches for undertaking the studies.

Among the bands identified in View B is the 22.55 to 23.55 GHz band in which Iridium's

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<sup>3</sup> *Id.*

inter-satellite links (“ISLs”) operate. As the Commission knows, Iridium’s ISLs are absolutely critical to the space-based backhaul that allows its network to provide service where terrestrial systems are unavailable or overburdened, as they were in areas affected by Hurricanes Sandy and Katrina, and the recent earthquakes in Nepal, Haiti, Chile, and Japan, when Iridium stepped in.<sup>4</sup> It would make no sense to identify and put at risk spectrum consistently used as the last line of communication in times of disaster for new, high-altitude, systems also intended for emergency use, particularly in light of the low orbit of Iridium’s constellation. That is all the more true where, as here, supporters of the new HAPS systems have evinced no interest in the band. If the FCC decides to support View B, the band 22.55- 23.55 GHz should be eliminated from the list of View B frequency bands.

#### CONCLUSION

The Commission should support the recommendations in WAC/111. It should also modify the list of frequencies contained within View B of WAC/117 to remove the 22.55-23.55 GHz band if the U.S. proposes to include an item addressing HAPS-based broadband on the WRC-19 agenda.

Respectfully submitted,  
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<sup>4</sup> See, e.g. ITU and Iridium Enhance Telecommunication Capacity for Emergencies Following Natural Disasters (May 20, 2015), available at [http://www.itu.int/net/pressoffice/press\\_releases/2015/15.aspx](http://www.itu.int/net/pressoffice/press_releases/2015/15.aspx).

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