Before the	)	
FEDERAL COMMUNICATIONS COMMISSION	)	
Washington, DC 20554	)	
In the Matter of	)	IB Docket No. 04-286
Recommendations Approved by the	)	
Advisory Committee for the	)	
2015 World Radiocommunication Conference	)	

To: The Commission

THURAYA Telecommunications Company's comments on recommendations approved by the Advisory Committee for the 2105 World Radio-communications Conference

References:
IB Docket No. 04-286
Document WAC/099(17.12.14) WRC-15 Agenda Item 1.1.
PUBLIC NOTICE referenced DA 14-1845 dated Dec. 18, 2014

Thuraya Telecommunications Company "Thuraya" wishes to thank the FCC for the opportunity to provide comments on recommendations approved by the Advisory Committee for the 2015 World Radio-communication Conference.

Thuraya is a leading mobile satellite communications company based in the United Arab Emirates that empowers people with the communication tools to bring the organizations and communities closer. We serve a wide variety of sectors including energy, media, marine, government, NGOs, etc. Our superior network enables clear communications and uninterrupted coverage across two thirds of the world (Europe, Africa, Asia, Australia and parts of Pacific) via satellite and across the globe through our unique GSM roaming capabilities.

Thuraya currently operates two satellites; Thuraya 2 and Thuraya 3. The Thuraya 2 satellite was launched in 2003 whereas the Thuraya 3 satellite was launched in 2008.

The Thuraya satellites are operational in the L-band and C-band, where C-band provides feeder-link for the MSS. A number of sharing studies have been carried out in the ITU-R that show high incompatibility between the IMT and satellite services. The separation distances between the FSS and IMT stations needs to be of the order of hundreds of KMs, which makes its practically impossible to be implemented in the similar or close by regions/territories. Also it is well known fact that the C-band Earth stations are already scattered around the world in all countries providing critical services (including safety) to the humanity. It is therefore requested that the C-band be excluded from the possibility of identification for the IMT since ubiquitous operations of both IMT and FSS are not feasible.

It is to be noted that there are a number of diverse applications and services provided by various satellite operators (more than 170 geostationary satellites currently operates in C-band and increasing day by day wherever there is a feasible GEO slot available for C-band operations). These include the following services and applications:

- The financial and banking industry uses C-band communications to service the far apart and
  distant regions and improve rural connectivity throughout the country.
- Very small aperture terminal (VSAT) networks.
- Internet services, point-to-point links.
- Satellite news gathering, TV and data broadcasting to satellite.
- Satellite direct-to-home (DTH) receivers
- Feeder links for the mobile satellite service (e.g. Thuraya, Inmarsat etc).
- Satellites operating in this band have been extensively used for safety and disaster relief operations.
- Civil aviation uses channels in the 3 600-3 800 MHz band.
- The 3 400-4 200 MHz band is also utilized for tracking, telemetry and command (TT&C) purposes, (which is the case for Thuraya satellites) under the FSS allocation.

Furthermore, the Agenda item 9.1.5 of the WRC-15 deals with the consideration of technical and regulatory actions in order to support existing and future operation of fixed-satellite service earth stations within the band 3 400-4 200 MHz, as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1. Global Identification of IMT under agenda item 1.1 may contradict supporting existing and future operation of FSS in these bands for safety operation of air crafts, as sharing between IMT and FSS is technically not possible in the band 3 400-4 200 MHz.

It worth noting that cases of interference have been reported in many countries which have authorized WiMax or IMT in parts of the C-band shared with or adjacent to parts of the C-band used for Fixed-Satellite Services. Public reports of interference have been recorded in Bolivia, Fiji and Indonesia, and field trials in Hong Kong have confirmed this interference. These facts support the theoretical study and practical field tests that have come to the conclusion that both services cannot be operated together.

At the beginning of 2012, the British Broadcasting Corporation (BBC) confirmed that FSS earth stations operating in the C-band and used for their international satellite distribution network of radio and TV content had been affected by harmful interference in the following countries: D.R. of the Congo, Gabon, Guinea, Morocco, Nigeria, Tanzania, Uganda, Burkina Faso, Burundi, Rwanda, Pakistan, Cambodia, Trinidad, South Sudan and Jamaica.

There have been proposals under discussion by various IMT supporting groups that articulate that the satellite services can be moved to another frequency band like Ku or Ka or higher frequency bands. However, please note that the C-band satellite services cannot be replicated in other satellite bands or via terrestrial means due to the following:

- Geographic reach: C-band easily covers large coverage areas and offers an economically viable
  solution of providing and meeting critical connectivity;
- Resistance to rain Resistance to rain-fade: C-band is less susceptible to signal interruptions from heavy rain fades than higher bands (Ku, Ka), making it better suited for tropical or high-rain areas at higher availability.
- The 3 400-4 200 MHz band has been used by the FSS for many decades. The technology is mature and offers equipment at lower cost by 20-100 percent of the Ku equivalent equipment. Therefore, it is easier and more feasible to be deployed in developing countries where cost is an important element.
- The huge number of satellites represents about $42-51 billion of in-orbit investment, not including the investments in ground infrastructure.

For all of the above reasons, Thuraya support View A as reflected in document WAC/099(17.12.14) and respectfully suggests that there be no changes for these bands under agenda item 1.1.

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