



International
Civil Aviation
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Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Bureau Afrique Occidentale et Centrale / Western and Central African Office

Ref: T7/7.9.1 – 0242

22 March 2012

Subject: Final Acts of ITU WRC-12: Resolution COM6/24 (WRC-12)

Action required: Refer to Paragraph 9 hereunder.

Sir / Madam,

I refer to my State Letter N° T7/7.9.1-0795 dated 25 October 2011 that presented the threat by International Mobile Terminals (IMT) on the downlink C- Frequency Band (3.4-4.2 GHz) operated by aeronautical VSAT Networks within tropical Regions and the stake on the aeronautical frequency spectrum protection. I would like to inform your Administration/Organization that the draft resolution developed by the Rapporteur of the AFI Frequency Management Group (ASECNA) in coordination with ICAO Regional Officers CNS (Dakar and Nairobi), ACP Secretariat (ICAO HQs) and the Rapporteur of ACP WG F, was transmitted to African Telecommunication Union (ATU) for submission to ITU WRC-12.

The draft Resolution was endorsed by 15 African Telecommunication Regulation Authorities and presented to WRC-12 specialized Commission 6 for discussion.

I have the pleasure to inform your Administration/Organization that after a lengthy discussion and amendments process this document in its mature stage has been adopted by WRC-12 plenary session and reflected in the Finals Acts of the Conference as **Resolution COM6/24 (WRC-12)** as presented in the attachment to this letter.

Resolution COM6/24 (WRC-12) amongst others things considered that where an adequate terrestrial communication infrastructure is not available, fixed-satellite service (FSS) earth stations are the only viable option to augment the communication infrastructure in order to satisfy the overall communications infrastructure requirements of the International Civil Aviation Organization (ICAO) and to ensure distribution of meteorological information under the auspices of the World Meteorological Organization (WMO).

Therefore Resolution COM6/24 (WRC-12) resolved to invite ITU-R to study possible technical and regulatory measures in some countries in Region 1 to support the existing and future FSS earth stations in the 3 400-4 200 MHz band used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information referred to the above consideration and invited all members of the Radiocommunication Sector, ICAO and WMO to contribute to these studies.

..../

As you know, the LIM/ AFI RAN meeting, Lomé, Togo, 1988 promoted the use of VSAT technology in the C-Band to support the provision of aeronautical fixed service (AFS), aeronautical mobile service (AMS), aeronautical radio navigation service (ARNS) and aeronautical Surveillance data exchange, mainly due to the difficulties encountered to install and/or maintain aeronautical telecommunication facilities in non accessible areas, such as deserts, oceanic areas and deep forests. The C-band remains the most appropriate frequency band for this purpose in the tropical regions due to excessive weather related signal path attenuation in the higher frequency bands mainly used in other regions.

For the same reasons, other ICAO regions like the Caribbean (CAR), South America (SAM) or Middle East (MID) are making an extensive use of VSAT technology in C-Band for civil aviation services.

In these circumstances, the availability of the C-Band for Fixed Satellite Service (FSS) is essential to the safe and efficient provision of air navigation services and flight safety within the regional airspace.

Taking into account the increasing demand from mobile operators (IMT) in the band **3.4-4.2 GHz**, it was essential to bring to the attention of WRC-12, the hazards and serious consequences that new Mobile allocations in the C-band may cause to the safety of air navigation operations and reliable distribution of meteorological information, in addition to existing risks of harmful interferences confirmed by several studies.

The results reached during the Conference were obtained thanks to the collaborative attitude and actions of stakeholders outside and within AFI Region. The delegation of United States of America, IATA and WMO have been strongly supporting the draft Resolution while delegates from AFI States and Organization in particular from Ghana, Algeria, South Africa, ATU and ASECNA played a key role during the debate on the issue. I would like to thank all these Administrations/Organizations for their support to ICAO during this Conference.

In order to participate in the proper and efficient implementation of this Resolution, I would like to invite hereby your Administration/Organization to populate this Resolution within your National Aviation Community and approach the Authority of Regulation of Telecommunication in your State in the aim to ensuring that the request of study is taken into consideration in the future activities framework and to securing their support during the deliberations of IUT-R specialized study Group called upon by **Resolution COM6/24: 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.**

Please accept, Sir/Madam, the assurances of my highest consideration.

Mam Sait Jallow
Regional Director

Enclosure: ITU Resolution COM6/24 (WRC-12)

RESOLUTION COM6/24 (WRC-12)

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.

The World Radiocommunication Conference (Geneva, 2012), considering

- a) that remote and rural areas often still lack a terrestrial communication infrastructure that meets the evolving requirements of modern civil aviation;
- b) that the cost of providing and maintaining such an infrastructure could be expensive, particularly in remote regions;
- c) where an adequate terrestrial communication infrastructure is not available, fixed-satellite service (FSS) earth stations are the only viable option to augment the communication infrastructure in order to satisfy the overall communications infrastructure requirements of the International Civil Aviation Organization (ICAO) and to ensure distribution of meteorological information under the auspices of the World Meteorological Organization (WMO);
- d) that the use of FSS earth stations deployed in some countries in Region 1 for aeronautical communications has the potential to significantly enhance communications between air traffic control centres as well as with remote aeronautical stations, noting
 - a) that the FSS is not a safety service;
 - b) that, by its Resolution **20 (Rev.WRC-03)**, WRC resolved to instruct the Secretary-General "to encourage ICAO to continue its assistance to developing countries which are endeavouring to improve their aeronautical telecommunications ...";
 - c) Recommendation ITU-R SF.1486 on sharing methodology between fixed wireless access systems in the fixed service (FS) and very small aperture terminals (VSATs) in the FSS in the 3 400-3 700 MHz band;
 - d) Report ITU-R S.2199 on studies on compatibility of broadband wireless access systems and FSS networks in the 3 400-4 200 MHz band;
 - e) Report ITU-R M.2109 on sharing studies between International Mobile Telecommunications-Advanced (IMT-Advanced) systems and geostationary-satellite networks in the fixed-satellite service in the 3 400-4 200 MHz and 4 500-4 800 MHz frequency bands,
resolves to invite ITU-R
to study possible technical and regulatory measures in some countries in Region 1 to support the existing and future FSS earth stations in the 3 400-4 200 MHz band used for

satellite communications related to safe operation of aircraft and reliable distribution of meteorological information referred to in *considering c)*,

invites

all members of the Radiocommunication Sector, ICAO and WMO to contribute to these studies,

instructs the Director of the Radiocommunication Bureau

to include the results of these studies in his Report to WRC-15 for the purposes of considering adequate actions in response to *resolves to invite ITU-R* above,

instructs the Secretary-General

to bring this Resolution to the attention of ICAO and WMO.