

ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

**Agenda Item 5 Review of the outcome of the ITU World Radio Conference (2003)
: (WRC-2003) and its impact on aeronautical electromagnetic spectrum
utilization**

FUTURE SPECTRUM NEEDS AND PROPOSED WRC-2007 ACTIONS

(Presented by the United States)

SUMMARY

The International Telecommunication Union (ITU) 2003 World Radiocommunication Conference (WRC-2003) developed the draft agenda for the WRC to be held in 2007 (WRC-2007). This paper includes the areas of critical concern to civil aviation and provides a general framework for future work to prepare for WRC-2007.

Action by the conference is in paragraph 3.

1. BACKGROUND

1.1 The International Telecommunication Union (ITU) World Radiocommunication Conference (WRC)-2003 developed the draft agenda for the WRC-2007. Areas of critical concern to aviation on this agenda are identified in this paper. For various agenda items relevant to international civil aviation, the ITU Radiocommunication Bureau has been requested by the WRC-2003 to undertake specific studies for WRC-2007.

2. DISCUSSION

2.1 WRC-2007 agenda items relevant to international civil aviation include:

2.1.1 Agenda Item 1.1 requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required. Among other things, deletion of footnotes such as footnote RR 5.362B which limit global navigation satellite service (GNSS) implementation in some countries are encouraged by ICAO.

2.1.2 Agenda Item 1.2 considers allocations and regulatory issues related to the earth exploration-satellite (passive) service, space research (passive) service and the meteorological satellite service. Civil aviation will need to ensure that such allocations do not limit current aeronautical usage or future enhancements to aviation systems.

2.1.3 Agenda Item 1.3 considers the upgrade of the radiolocation service to a primary allocation in the bands 9 000 - 9 200 MHz and 9 300 - 9 500 MHz, and considers the extension of the existing primary allocations to the Earth exploration-satellite service (active) and the space research service (active) from 9 500 - 9 800 MHz by up to 200 MHz. The band 9 000 - 9 200 MHz is also allocated to the aeronautical radionavigation service and is used in some countries for maritime radionavigation service for shore-based radars. The band 9 300 - 9 500 MHz is also allocated to the aeronautical radionavigation service and is used in some countries for maritime radionavigation service, ground-based radar beacons, and ground-based meteorological radars. International civil aviation will need to insure that this upgrade is made in such a manner that current and future aeronautical operations are fully protected.

2.1.4 Agenda Item 1.6 considers additional allocations for the aeronautical mobile (R) service in parts of the bands between 108 MHz and 6 GHz, and to study current satellite frequency allocations that will support the modernization of civil aviation telecommunication systems. Among other things, this agenda item will be used to study the spectrum needs of the universal access transceiver (UAT), the potential for airport network and location equipment, aeronautical fixed links in the 5 091 - 5 150 MHz band, and allocations for new technologies to support aeronautical mobile communications requirements.

2.1.5 Agenda Item 7.2 incorporated a proposal from Kenya and Uganda that considers some developing countries still lack an appropriate communication infrastructure that meets the evolving requirements of modern civil aviation, and the cost of providing and maintaining such an infrastructure, in particular a terrestrial infrastructure, is increasingly expensive, particularly in remote regions. The proposal also noted that Resolution **20 (Rev.WRC-2000)** resolves to instruct the Secretary-General “to encourage ICAO to continue its assistance to developing countries which are endeavouring to improve their aeronautical telecommunications.” And finally, resolved to study as a matter of urgency, the current satellite frequency allocations that could meet aeronautical requirements to support the modernization of civil aviation telecommunication systems, especially those in developing countries, and to study in particular those radio frequencies that could be used to support both ICAO CNS/ATM systems and other non-aeronautical telecommunication services.

3. ACTION BY THE CONFERENCE

3.1 The conference is invited to agree on the following:

**Recommendation 5/xx — Future spectrum needs and proposed
WRC-2007 actions**

That ICAO:

- a) recommend that all ICAO Contracting States participate, as possible, in the development of the ICAO position for WRC-2007;
- b) take into account the information in this paper to prepare for WRC-2007; and
- c) consider funding available under Resolution 20 to allow ICAO regional representatives to support each ACP Working Group F meeting, which progresses the ICAO position for WRC-2007.

— END —