

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 AVIATION RADIO SPECTRUM NEEDS

(Presented by the International Air Transport Association (IATA))

SUMMARY

IATA considers that the outcome of the ITU World Radio Conference (2003) (WRC-2003) meets the expectations of the air transport industry. This success is clearly reflected in the advanced agenda that has been drafted for WRC-2007, which includes an assessment of the need for additional spectrum allocations for aviation.

Lack of adequate access to radio spectrum could significantly diminish the safety and economic benefits that are expected from investment in the new CNS/ATM technologies. This paper highlights the urgency for the aviation community to define longer-term aviation radio spectrum needs and to support aviation strategy for WRC-2007.

Action by the conference is in paragraph 4.

1. INTRODUCTION

1.1 The ITU WRC-03 was successful for aviation as all key expectations were met. This success is owed to defining at an early state the ICAO position for the conference, and in gaining wide support for this position from States and Organizations. But now more than ever, aviation must be vigilant in the radio spectrum allocation process, and must rally to protect present and future investment in aeronautical radio equipment.

1.2 This paper addresses two important issues concerning preparation for WRC-2007: strategy and aeronautical mobile (R) allocation.

2. WRC-2007 STRATEGY

2.1 Aviation reliance on adequate radio spectrum increases exponentially with the increase in air traffic. The industry invests yearly approximately 2.5 billion dollars in radio equipment. This investment will lead to full potential benefits only if access to adequate radio spectrum is guaranteed. To reduce investment risk, a strong commitment from all parties is essential. Noting the resources that other industries bring to bear to protect their interest in the spectrum allocation process, aviation needs to generate a synergy throughout the global aviation industry in order to protect its investments.

2.2 The strategy followed for WRC-2003 preparations should be continued. An early ICAO WRC position, combined with regional workshops has proven successful. To further minimise risk, other aspects need attention:

- a) Lobbying for support of the aviation position on the economic and political level should be given more consideration;
- b) States and Organizations developing their own position should be urged to pursue one common global aviation position;
- c) It should be noted that the ICAO position is developed with the aviation interest in mind and should not be influenced through States' need to balance the various industry interests at Regional and National Level; and
- d) Aviation inputs to ITU and Regional WRC preparation meetings should be coordinated through ICAO.

3. ADDITIONAL AERONAUTICAL MOBILE ALLOCATION

3.1 WRC-2003 drafted the following Agenda Item for WRC-2007: "to consider additional allocations for the aeronautical mobile (R) service in parts of the bands between 108 MHz and 6 GHz, in accordance with Resolution [COM7/6] (WRC-03) and, to study current satellite frequency allocations, that will support the modernization of civil aviation telecommunication systems, taking into account Resolution [COM7/7] (WRC-03)".

3.2 This Agenda Item is crucial to aviation as a unique opportunity to secure access to radio spectrum for the longer term. However, to justify the additional allocations, aviation must take a firm decision on specific elements of the ATM-CNS roadmap effecting radio spectrum. In particular the following aspects need attention:

- a) **Transition time frame:** The systems transition phase must be carefully defined to protect investment in present and new systems. In view of spectrum congestion, radio administrations will not be amenable to allocating multiple bands for extended time to accommodate systems that provide equivalent services;

- b) ***The operational concept:*** The introduction of data communications will have a significant impact on future operations. Spectrum requirements must be studied taking due consideration the transition from traditional services to data communications, additional services and the traffic growth; and
- c) ***Global allocations:*** Although aviation spectrum requirements are not evenly spread over the globe, it is essential to aviation safety and efficiency that global allocation is maintained.

4. ACTION BY THE CONFERENCE

4.1 The conference is invited to:

- a) recommend that States and Organizations actively support the development of the ICAO position for WRC-2007;
- b) encourage States and Organizations to support and promote the aviation position in national, regional and global fora in preparation for WRC-2007; and
- c) recommend that States and Organizations contribute to the ICAO study on future spectrum requirements in preparation for WRC-2007.

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