

#### INTERNATIONAL CIVIL AVIATION ORGANIZATION

# Third Meeting of the APIRG Communications, Navigation and Surveillance Sub-Group (Nairobi, 26-30 April 2010)

# Agenda Item 8: Review of the ICAO position and preparations for ITU WRC-2012

## Deletion of Foot notes 5.362B and 5.362C

(Presented by the Secretariat)

#### **SUMMARY**

This paper highlights the effect of Footnotes 5.362B and 5.362C and the need for States to delete the Footnotes

Action to be taken at paragraph 3

Reference: Doc 9518, ITU Handbook, Report of WRC-07and

ICAO position at WRC-2012

# 1. INTRODUCTION

In the band 1 559 - 1 610 MHz, which is used for elements of the ICAO Global Navigation Satellite System (GNSS), Nos. 5.362B and 5.362C allow the operation of the fixed service in some countries on a primary basis until 1 January 2010 and on a secondary basis until 1 January 2015. This band is allocated, on a worldwide, primary basis, to the aeronautical radio navigation service (ARNS) and to the radio navigation-satellite service (RNSS). The band already supports operation of two prime elements of the global navigation satellite system (GNSS), i.e. Global Navigation Satellite System (GLONASS) and Global Positioning System (GPS), the standards for which have been adopted into ICAO SARPs. SARPs for other RNSS systems, such as the European Galileo system, are under development.

## 2. DISCUSSION

- Studies undertaken in preparation for WRC-2000 indicate that a geographical separation distance exceeding line-of-sight (in the order of 400 km) between aircraft using GNSS and stations of the fixed service is required to ensure safe operation of GNSS. This is a very severe restriction, which can prohibit the safe use of GNSS over wide areas around any fixed service installation. If a fixed service is to be introduced into this, band then harmful interference situations could arise leading to disruption to GNSS, which will affect the safety of aircraft in flight. Thus, the WRC-2000 agreement to terminate all use by the fixed service in this band in 2015 still constitutes a severe and unacceptable constraint on the safe and effective use of GNSS in some areas of the world. It is, therefore, recommended that deletion of these allocations be effected from 2011.
- 2.2 Interference to Aeronautical Radio navigation services will have a significant impact on ADS-B and PBN.

#### 3. ACTION TO BE TAKEN

- 3.1 The following States Benin, Gabon, Guinea-Bissau, Nigeria, Senegal, Swaziland, Tanzania and Uganda shall urge their national and regional administrators, to delete footnote 5.362B in 2012 instead of 2015. This is necessary to:
  - Protect Aeronautical Radio Navigation Services from disabling interference and thus:.
  - Allow the State(s) to proceed with the implementation and application of ADS-B thus improving the efficiency and safety of aircraft operations and;
  - Allow the State(s) to proceed with the implementation of Performance Based Aviation in order to increase the safety and efficiency of aircraft and allow the Air Traffic Service Provider to achieve significant savings through the reduction in the need for costly ground-based facilities.
- 3.2 The following States Chad, Congo, Eritrea, Somalia, Sudan and Togo shall urge their national and regional administrators, to delete footnote 5.362C in 2012 instead of 2015. This is necessary to:
  - Protect Aeronautical Radio Navigation Services from disabling interference and thus;

- Allow the State(s) to proceed with the implementation and application of ADS-B thus improving the efficiency and safety of aircraft operations and;
- Allow the State(s) to proceed with the implementation of Performance Based Aviation in order to increase the safety and efficiency of aircraft and allow the Air Traffic Service Provider to achieve significant savings through the reduction in the need for costly ground-based facilities.

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