WRC-15 Agenda Item 1.7

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ICAO Spectrum Workshop for WRC-15

CAIRO

Feb 16-17, 2015

Overview

* WRC-12 Resolution 114
* Review of ARNS and FSS use of band 5091-5150 MHz
* Footnote 5.444A time limitations on FSS feeder links
* ICAO Position
* Development of draft CPM Text
* Review of Regional positions
* Expected outcome

WRC-12 Resolution 114

* Resolution 114 (WRC-12) calls for Studies on compatibility between new systems of the aeronautical radionavigation service and the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in the frequency band 5 091-5 150 MHz

Reason for Resolution 114

* Resolves 2 states;

  that the allocation to the aeronautical radionavigation service and the FSS in the frequency band 5 091-5 150 MHz should be reviewed at a future competent conference prior to 2018

  This also relates to the two date constraints in 5.444A that place limitations on the FSS. ie;

- after 1 January 2016, no new assignments shall be made to earth stations providing feeder links of non-geostationary mobile-satellite systems;
– after 1 January 2018, the fixed-satellite service will become secondary to the aeronautical radionavigation service. (WRC-07)

  Resolves 3 states;

  that studies be undertaken on compatibility between new systems of the aeronautical radionavigation service and systems of the FSS providing feeder links of the non-GSO systems in the MSS (Earth-to-space), in the band 5 091-5 150 MHz

ICAO POSITION

The ICAO position recognises the benefits of retaining the FSS feeder links as a co-primary sharing service with ARNS in the 5091-5150 MHz band, also gaining flexibility to implement AMRS systems (surface applications) while not exceeding the permitted aggregate interference apportionment into the FSS satellite receivers.

Support the removal of date limitations on the fixed satellite service (FSS) allocation in the frequency band 5091 – 5150 MHz subject to:

- the retention of the aeronautical protections contained in Resolution **114** (WRC-12).

- improving the flexibility for managing the allowed FSS satellite noise temperature increase by the aeronautical mobile (R) and aeronautical radionavigation services operating in the band 5 091-5 150 MHz.

Development of Draft CPM Text Method A

Draft CPM text and a Method have been developed in ITU-R WP 4A

Supports suppression of the date limitations to the FSS feeder links in 5.444A and retention of Res 114

Proposes modification of 5.444A to state that such use shall be in accordance with Resolution 114

Also proposes consequential changes to ITU-R M 1827 and Res 748. (changes will also be made to Res 114 at WRC-15)

Proposes that the allocation to FSS be moved from the footnote to the Table of Allocations

Proposes that Appendix 7 of the RR's be used in cases when coordination may be required between FSS and ARNS

Permits the desired flexibility for implementing AMRS while not exceeding the 6% $\Delta T_s/T_s$ in the absence of ARNS

No other Methods have been proposed

Review of Regional Positions

CITEL: Has a draft IAP Supporting Method A

CEPT: common position supports Method A with further consequential revision of Res 114

APT: preliminary view supports Method A

ASMG: To be provided at this meeting

ATU: common view is no objection to the principle of Method A

ICAO Position supports Method A

There is general consensus amongst the Regional organisations that Method A achieves the desired long term stable operating environment for ARNS and FSS while also providing flexibility for future deployment of AMRS surface applications

Expected Outcome

Retention of Res 114, with consequential changes to bring it up to date, and referenced in the modifications to 5.444A

Removal of the date limitations in 5.444A on the FSS feeder links

Flexibility for implementing future AMRS surface applications while not exceeding the allowable $\Delta T_s/T_s$

Allocation to the FSS moved from footnote to the table of allocations. Reference in 5.444A that Appendix 7 is the appropriate mechanism when coordination is required.

End goal and expectation is the creation of a long term stable operating environment for co-primary services in the band 5091-5150 MHz, ie; ARNS, AMRS, AMS and FSS