

DRAFT

UNITED STATES OF AMERICA

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.17: *to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-12)*

Background Information: The 2012 World Radiocommunication Conference (WRC-12) recognized a need to allocate radio spectrum to support the commercial aviation industry's need to provide safety-related information within and onboard a single aircraft on the agenda for WRC-15.

CPM-15/1 invited Working Party 5B (WP5B) to consider:

- i. frequency bands within existing worldwide aeronautical mobile service, aeronautical mobile (R) service and aeronautical radionavigation service allocations; and
- ii. additional frequency bands above 15.7 GHz for aeronautical services if spectrum requirements cannot be met in frequency bands studied under *invites ITU-R 3 i*)

WRC-12 resolved to invite the ITU-R to consider, based on the results of ITU-R studies, possible regulatory actions, including appropriate aeronautical allocations, to support the implementation of WAIC systems, while taking into account spectrum requirements for WAIC and protection requirements for systems operating in accordance with existing allocations.

Studies submitted to WP5B show that WAIC systems can be accommodated in the band 4200-4400 MHz provided that mitigation techniques for some applications, provided in [Document 5B/TEMP/241] are utilized. If such mitigation techniques cannot be utilized, then some outside WAIC applications might not be compatible with existing aeronautical services.

However, both radio altimeter and WAIC systems are aeronautical applications and regulated by aviation certification authorities as well as ICAO, additional standardization and aircraft certification efforts must occur within the aviation community in order to guarantee the safe operation of WAIC and radio altimeter systems.

Therefore, United States proposes to allocate the Aeronautical Mobile (Route) Service, limited to WAIC systems to the frequency band 4 200-4 400 MHz.

Proposal:

ADD USA/1.17/1

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations

4 200-4 400 MHz

Allocation to services		
Region 1	Region 2	Region 3
4 200-4 400	AERONAUTICAL RADIONAVIGATION <u>MOD 5.438</u> <u>AERONAUTICAL MOBILE (R) ADD 5.XXX</u> 5.439 5.440 <u>ADD 5.YYY</u>	

MOD 5.438 Use of the band 4 200-4 400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. ▼

ADD 5.XXX Use of the frequency band 4 200- 4 400 MHz by the aeronautical mobile (R) service is limited to internationally standardized aeronautical systems for the provision of wireless avionics intra-communications.

ADD 5.YYY Passive sensing in the Earth exploration-satellite and space research services may be authorized in the band 4200-4400 MHz on a secondary basis (no protection is provided by radio altimeters or by wireless avionics intra-communications).

Deleted: However, passive sensing in the Earth exploration-satellite and space research services may be authorized in this band on a secondary basis (no protection is provided by the radio altimeters).