

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS FOR WRC-15

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: The aerospace industry is developing the future generation of commercial aircraft to provide airlines and the flying public more cost-efficient, safe, and reliable aircraft. Wireless capabilities will reduce aircraft weight, provide multiple and redundant methods to transmit safety-related information, and provide environmental benefits and cost savings to manufacturers and operators.

WAIC systems consist of multiple radiocommunication devices between two or more transmitters and receivers on a single aircraft and provide safety-related aircraft applications. WAIC system transmissions are located both inside and outside the aircraft with the majority being interior to the aircraft structure. ~~WAIC communication traffic will be between transmitters and receivers on the same aircraft as part of a closed, exclusive network required for aircraft operation. WAIC systems will not provide air-to-ground, air-to-air or air-to-satellite communications.~~

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Deleted: For example, wireless sensors mounted on the wings or engines can communicate with systems located within the aircraft.

Report ITU-R M. 2197 provides findings on the technical characteristics and operational requirements of WAIC systems.

Although Resolution **423 (WRC-12)** does not provide a specific frequency range in the “*Resolves*” section, the “*Invites ITU-R*” section, point (3), indicates studies should 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*)

U.S. VIEW: The United States supports regulatory actions, including appropriate allocations to the AM(R)S limited to WAIC systems, if the results of ITU-R studies show compatibility with existing services in accordance with Resolution **423 (WRC-12)**. Those studies should consider frequency bands above 15.7 GHz only if spectrum requirements cannot be met in existing worldwide AMS, AM(R)S and/or ARNS allocations below 15.7 GHz.