

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 not limited to the interior of the aircraft structure. For example, wireless sensors mounted on the wings or engines can communicate with systems located within the aircraft. 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.

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.