

UNITED STATES OF AMERICA
DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item GFT: *“to instruct WRC-15, pursuant to No. 119 of the ITU Convention, and to include in its agenda, as a matter of urgency, the consideration of global flight tracking, including, if appropriate, and consistent with ITU practices, various aspects of the matter, taking into account ITU-R studies”*

Background Information: The International Telecommunications Union (ITU) 2014 Plenipotentiary Conference (PP-14) adopted Resolution 185 (Busan, 2014) on global flight tracking (GFT) for civil aviation. The Resolution resolved: “to instruct WRC-15, pursuant to No. 119 of the ITU Convention, and to include in its agenda, as a matter of urgency, the consideration of global flight tracking, including, if appropriate, and consistent with ITU practices, various aspects of the matter, taking into account ITU-R studies”. PP-14 further instructed the Director of the Radiocommunication Bureau to complete a Report on GFT for consideration by WRC-15.

The International Civil Aviation Organization (ICAO) Member States and the international air transport industry sector have reached consensus on the near-term priority to track airline flights, no matter their global location or destination. They concluded that global flight tracking should be pursued as a matter of urgency and two groups were formed: an ICAO ad hoc Working Group to develop a concept of operations to support future development of a Global Aeronautical Distress and Safety System (GADSS), and an industry led group under the ICAO framework called the Aircraft Tracking Task Force (ATTF) to identify near term capabilities for normal flight tracking using existing technologies. The ATTF has provided a report containing a set of performance-based criteria that could be used to establish a baseline level of aircraft tracking capability. The Report also identified future technologies that could support flight tracking in oceanic and remote airspace such as satellite-based reception of Automatic Dependent Surveillance – broadcasts (ADS-B) from aircraft.

The United States believes that ultimately the characteristics of GFT are the responsibility of ICAO. Furthermore the United States concurs with the ATTF Report that GFT will likely be a performance-based requirement that is not system specific, and in the end, may be addressed through integration of a number of different aviation systems. Given the complexity of the issue, the United States also believes that full understanding of the GFT requirements will not be available in order to be completely addressed at WRC-15. The United States therefore proposes to address the new WRC-15 agenda item on GFT with a two-pronged approach: (1) the addition of a primary aeronautical mobile-satellite (R) service (AMS(R)S) allocation in the frequency range 1 087.7-1 092.3 MHz to facilitate satellite reception of ADS-B; and (2) the addition of an item to the 2019 WRC agenda to address other requirements which may come out of the ongoing ITU-R studies and consultations with ICAO. The former is addressed in this proposal, the latter will be included in a proposal addressed to WRC-15 agenda item 10.

The proposed AMS(R)S allocation would allow reception at the satellite of already transmitted messages. Since there would be no new emissions, it would be impossible for systems operating under the new allocation to interfere with incumbent systems. There is concern however, that the emissions from current systems operating in other services, which are compatible today with terrestrial incumbents, may cause interference to the satellites due to their increased field of view. ITU-R studies have shown that this is not the case. However, to ensure the operations of the existing systems are not constrained – and in particular the non-ICAO systems – this

proposal stipulates that satellites operating under the AMS(R)S allocation “shall not claim protection from systems operating in the aeronautical radionavigation service”. While there are also aeronautical mobile (R) service systems operating in the band, those are limited to ICAO-standard systems, so compatibility will be ensured in the ICAO standardization process.

Proposals:

MOD USA/AI GFT/1

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations

(See No. 2.1)

890-1 300 MHz

Allocation to services		
Region 1	Region 2	Region 3
...		
960-1 164	AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 <u>5.XXX</u>	
...		

Reasons: Add a primary allocation to the aeronautical mobile-satellite (R) service in the frequency range 1 087.7-1 092.3 MHz to enable satellite reception of automatic dependent surveillance-broadcast (ADS-B) messages transmitted in accordance with ICAO standards.

ADD USA/AI GFT/2

5.XXX: The frequency range 1 087.7-1 092.3 MHz is also allocated to the aeronautical mobile-satellite (R) service (Earth-to-space) on a primary basis limited to space station reception of aeronautical mobile (R) service emissions from aircraft stations in support of aircraft surveillance in accordance with recognised international aeronautical standards. Space stations performing such reception shall not claim protection from systems operating in the aeronautical radionavigation service in that frequency range.

Reasons: Add a primary allocation to the aeronautical mobile-satellite (R) service in the frequency range 1 087.7-1 092.3 MHz to enable satellite reception of automatic dependent surveillance-broadcast (ADS-B) messages transmitted in accordance with ICAO standards. In addition, consistent with study results indicating compatibility, space stations would need to be able to accommodate continuing use of that frequency range by the aeronautical radionavigation service.