

COMMITTEE 5 AHG

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English only

Note by the Chairman of Committee 5's Ad hoc Group on Flight Tracking
COMPILATION OF PROPOSALS FOR A NEW RESOLUTION ON FLIGHT TRACKING

Please find attached a compilation of the proposals for a new resolution on flight tracking.

R. WEGNER
Chairman

DRAFT RESOLUTION [COM5/XX] (BUSAN, 2014)

AFCP/69A1/17, IAP/34A1/6

Global flight tracking

EUR/80A1/6

**International standards for real-time global flight tracking for safety
of life aviation applications**

ARB/79A1/10

Flight tracking of civil aircraft by satellite

The Plenipotentiary Conference of the International Telecommunication Union (Busan, 2014),

ARB/79A1/10

recalling

- a) No. 9 in Article 1 of the ITU Constitution, which stipulates that the Union is to promote, at the international level, the adoption of a broader approach to the issues of telecommunications in the global information economy and society, by cooperating with other world and regional intergovernmental organizations and those non-governmental organizations concerned with telecommunications;
- b) No. 17 in Article 1 of the Constitution, which stipulates that the Union is promote the adoption of measures for ensuring the safety of life through the cooperation of telecommunication services;
- c) No. 191 in Article 40 of the Constitution, which stipulates that international telecommunication services must give absolute priority to all telecommunications concerning safety of life at sea, on land, in the air or in outer space, as well as to epidemiological telecommunications of exceptional urgency of the World Health Organization,

AFCP/69A1/17, IAP/34A1/6, EUR/80A1/6

considering

- a) that determination of position of commercial aircraft and reporting this information to air traffic control centres represents an important element of aviation safety and security;

AFCP/69A1/17

- b) that the recent loss of Flight MH370 has spurred worldwide discussions on how to provide rapidly an appropriate response to facilitate global flight tracking and ITU should be responsive to this type of expectations;

IAP/34A1/6

- b) that the recent loss of Flight MH370 has spurred worldwide discussions on global flight tracking, and has generated appropriate responses from many organizations including the ITU within scope of their respective mandates;

EUR/80A1/6

b) that the recent loss of Flight MH370 has spurred worldwide discussions on global flight tracking, demonstrating the complexity of the issue and the need to undertake coordinated actions by various organizations, including the ITU, within the scope of their respective mandates;

b') that the increase in the volume of air traffic expected until the early 2020s, entailing the risk of dangerous situations, due to the greater number of planes in airspace and the narrower distances between them, needs to be properly addressed by the monitoring of flight data;

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c) that the International Civil Aviation Organization (ICAO) has developed Standards and Recommended Practices (SARPs) for systems enabling position determination and tracking of aircraft for air traffic control;

AFCP/69A1/17

d) that one of these systems is in operation using geostationary satellites in the mobile-satellite service in the bands 1 545-1 555 MHz and 1 646.5-1 656.5 MHz and provides coverage globally, except in polar regions;

d') that some other systems are currently in operation using a frequency allocation to the aeronautical mobile (R) service (AM(R)S) in the band 960 – 1 164 MHz, involving transmissions from aircraft and terrestrial stations on the ground within line-of-sight and consequently do not provide flight tracking in polar, oceanic and remote areas;

IAP/34A1/6

d) that some systems are currently in operation using a frequency allocation to the aeronautical mobile (R) service (AM(R)S) in the band 960 – 1 164 MHz, involving transmissions between aircraft and terrestrial stations on the ground within line-of-sight and consequently do not provide flight tracking in polar, oceanic and remote areas;

AFCP/69A1/17

e) that one approach to extending the coverage of such terrestrial systems to provide worldwide coverage would be to use uplinks from aircraft stations to satellites, which would require a frequency allocation to the aeronautical mobile-satellite (R) service (AMS(R)S) in the Earth-to-space direction of transmission;

IAP/34A1/6

e) that one approach to extending the coverage of an existing terrestrial system to provide worldwide coverage would be to allow satellites to receive transmissions from an existing system, which would require a frequency allocation to the aeronautical mobile-satellite (Route) service (AMS(R)S) in the Earth-to-space direction of transmission;

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f) that such operations would not require changes in existing aircraft equipment and parameters, thus minimizing impact on incumbent users;

IAP/34A1/6

f) that such an approach would not require changes in existing aircraft equipment and parameters, thus minimizing impact on incumbent users;

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g) that during the World Radiocommunication Conference 2012 the requirement for consideration of an allocation to a satellite service for this purpose was not anticipated, and therefore no agenda item was pursued to have this matter considered at the World Radiocommunication Conference 2015;

AFCP/69A1/17, IAP/34A1/6

h) that ICAO, in its special meeting on global flight tracking, Montréal, 12-13 May 2014, encouraged the ITU to take action, at the earliest opportunity, to provide the necessary spectrum allocations as emerging aviation needs are identified. This includes spectrum for satellite and other radiocommunication services used for safety of life aviation applications;

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h) that ICAO, in its special meeting on global flight tracking, Montréal, 12-13 May 2014, encouraged the ITU to take action, at the earliest opportunity, to provide the necessary spectrum allocations as emerging aviation needs are identified;

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i) that ICAO further encouraged ITU to place this on the Agenda for the upcoming ITU World Radiocommunication Conference 2015;

j) that the Expert Dialogue on real-time monitoring of flight data, Kuala Lumpur, 26-27 May 2014, encouraged ITU to continue to study and address current and future spectrum requirements for flight tracking and real-time flight data monitoring and make appropriate allocations at upcoming world radiocommunication conferences, including the conference in 2015;

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k) that the first satellites to support such tracking in the 960 – 1164 MHz band will be launched in 2015;

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k) that the Expert Dialogue on real-time monitoring of flight data, Kuala Lumpur, 26-27 May 2014, stressed the need for international standards, policies and regulations, as well as harmonized spectrum, to ensure worldwide interoperability and compatibility, and to optimize costs through economies of scale;

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l) that the ITU convened an Expert Dialogue in Kuala Lumpur (25-27 May 2014) on flight tracking of civil aircraft and real-time monitoring of flight data, affirming the importance of working with ICAO on this matter;

m) that the Telecommunication Standardization Advisory Group (TSAG) has set up a Focus Group on Aviation Applications of Cloud Computing for Flight Data Monitoring (FG-AC);

n) that Nos. 113 and 115 in Article 7 of the ITU Convention stipulate that the agenda of a WRC may include any other question of a worldwide character within the competence of the conference;

o) that No. 119 in Article 7 of the Convention stipulates that the agenda shall include any question which a plenipotentiary conference has directed to be placed on the agenda,

AFCP/69A1/17

considering further

a) that since WRC-12, some satellite operators have been considering the inclusion of necessary payloads on their new generation satellite systems to enable global flight tracking, using the reception of emissions from aircraft stations;

IAP/34A1/6

a) that since WRC-12, some satellite operators have begun to include necessary payloads on their new generation satellite systems to enable global flight tracking, using the reception of emissions from aircraft stations and the first satellites to support such tracking will be launched in 2015;

AFCP/69A1/17

b) that the relevant ITU-R studies are on-going, in particular on sharing between future AMS(R)S systems and existing systems of other services in the frequency bands under consideration;

IAP/34A1/6

b) that the relevant ITU-R studies on the reception of these emissions via satellite in the frequency band 960 – 1 164 MHz are on-going;

c) that future studies relating to spectrum requirements for real-time flight data monitoring should be encouraged;

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d) that ITU and ICAO signed a memorandum of understanding in 2012 to establish a framework for enhanced cooperation between the parties in matters related to harmful interference to the global navigation satellite system (GNSS) with a potential impact on international civil aviation safety and to step up the joint efforts of the two organizations,

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noting

a) that in accordance with Article 1 of the ITU Constitution, the Union shall in particular promote the adoption of measures for ensuring the safety of life through the cooperation of telecommunication services;

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b) that pursuant to Article 40 of the ITU Constitution, International telecommunication services must give absolute priority to all communications concerning safety of life at sea, on land, in the air and in outer space;

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c) that identifying and tracking the course of civil aircraft flights will contribute indirectly to improving safety practices and systems and aviation safety, possibly reducing aviation accidents, and that, accordingly, special attention should be paid to developing procedures for flight tracking of civil aircraft by satellite;

- d) that the application of an advanced system for tracking the course of civil aircraft flights by satellite will help to improve the capacity to identify aircraft location on a continuous basis and with a high degree of accuracy;
- e) that the International Civil Aviation Organization (ICAO), the leading organization in the field of aircraft tracking, held a Special Meeting on Global Flight Tracking of Aircraft in May 2014, and has encouraged ITU to take action on this topic at the earliest opportunity;
- f) that the importance of flight tracking of civil aircraft was not recognized by the World Radiocommunication Conference (WRC) in 2012, and consequently there is no item on the WRC-15 agenda on this important topic and it has not been studied by the ITU Radiocommunication Sector (ITU-R) and the ITU-R study groups,

AFCP/69A1/17

resolves to request the 2015 World Radiocommunication Conference

to consider the spectrum requirements for global flight tracking and real-time flight data monitoring and take appropriate action, including possible frequency allocations to satellite services used for safety of life aviation applications, limited to systems that operate in accordance with recognised international aeronautical standards,

directs WRC-15

to place this item on its agenda in accordance with CV 119.

IAP/34A1/6

resolves

to direct the 2015 World Radiocommunication Conference in accordance with CV119, to add the following new item to its agenda:

1.19 to consider the spectrum requirements for global flight tracking and take appropriate action, including possible frequency allocations to satellite services used for safety of life aviation applications, taking into account systems that operate in accordance with recognized international aeronautical standards and the relevant ITU-R studies,

instructs the relevant ITU-R Study Groups

to make every effort to complete the sharing studies in support of the above new agenda item in time for the consideration of ITU Member States preparing for the WRC-15,

instructs the Director of the Radiocommunication Bureau

to submit to WRC-15 the results of sharing studies described in the *instructs* above.

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resolves to request the 2015 World Radiocommunication Conference

to consider the issue of real-time global flight tracking for safety of life aviation applications and, if appropriate, take action, taking into account ITU-R studies, recognised international aeronautical standards and a specific report from the Director of the Radiocommunication Bureau,

instructs the Director of the Radiocommunication Bureau

to report to WRC-15 on the issue of real-time global flight tracking including all relevant studies within ITU-R.

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resolves to instruct the World Radiocommunication Conference 2015

to study this topic, giving it top priority, and look into the current frequency spectrum allocations for aviation services relevant to this topic and any other requirements, and to take the necessary measures in this regard, taking into account the relevant provisions of the Constitution and Convention,

instructs the Director of the Radiocommunication Bureau

to transmit all materials, information and studies in the Union's possession on this topic to WRC-15,

instructs the Secretary-General

to take the necessary steps to facilitate the implementation of this resolution, and to cooperate with ICAO in this area.
