



ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

INFORMATION PAPER

ADS-B/IMP — IP/06  
23/04/15

**Automatic dependent surveillance – broadcast (ADS-B) Implementation Meeting (ADS-B/IMP)**  
Mexico City, Mexico, 27-29 April 2015

**Agenda Item 2: Review and Update on ADS-B Activities by States**  
**2.1 Implementation status and Regional ADS-B Plan**

**GLOBAL FLIGHT TRACKING**

(Presented by the ICAO)

**EXECUTIVE SUMMARY**

This paper presents the ICAO Global Flight Tracking initiative, which involves the use of different technologies and particularly the space-based ADS-B application. Also the papers informs on the efforts made for including the discussion of the frequency matters for making Space-based ADS-B operative.

*Strategic Objectives:*

- Safety
- Air Navigation Capacity and Efficiency
- Environmental Protection

**1. Introduction**

1.1 The recent loss of Flight MH370 has spurred worldwide discussions on how to rapidly provide an appropriate response to facilitate global surveillance and tracking of aircraft. Speaking at the opening of the ITU World Telecommunication Development Conference, the Malaysian Minister for Communications and Multimedia called upon the ITU to develop leading edge standards to facilitate the transmission of flight data in real time.

1.2 The International Civil Aviation Organization (ICAO) held a Special Multi-disciplinary Meeting of Global Flight Tracking with States, Industry, Chairs and co-chairs of several panels, and related specialists, in Montreal, Canada from 12-13 May 2014. The Meeting was attended with 207 participants from 44 Member States, 19 International Organizations, 5 Industry representatives and 8 Panel chairs



**2. Discussion**

2.1 The Global Flight Tracking Meeting resulted in the following outcomes:

- Consensus that aviation’s near-term priority is to track airline flights, no matter the location or destination
- IATA to initiate global tracking on a voluntary basis, and establish an Aircraft Tracking Task Force (ATTF) to provide recommendations on best practices
- 6 Conclusions, 10 Recommendations

2.2 This Meeting outlined vulnerabilities on:

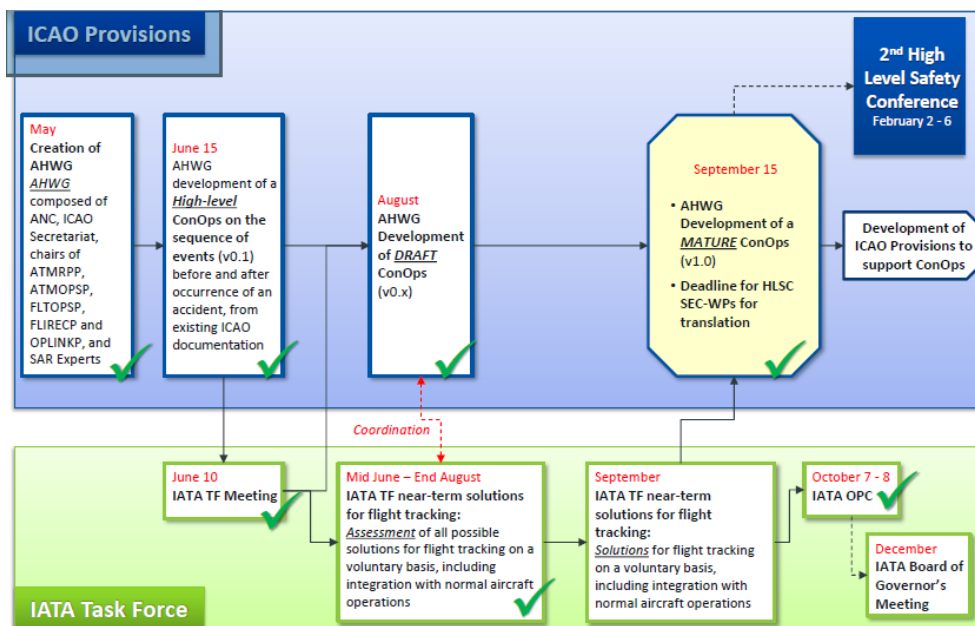
- Timely identification and location of aircraft in distress
- Availability and sharing of valuable information

2.3 Some recommendation from the Global Flight Tracking Meeting:

- Skill sets are perishable
- Encourage States to regularly run practice exercises involving airlines operation centres, air navigation service providers (ANSPs) and rescue coordination centres (RCCs)
- Test and verify their ability to respond and coordinate together in an integrated manner to abnormal flight behaviour scenarios

2.4 The activities on this global flight tracking matter continue with:

- IATA Aircraft Tracking Task Force (ATTF)
  - Industry initiative on addressing the short-term response for aircraft tracking
- ICAO Ad-hoc Working Group
  - Concept of Operations, including outcomes of the IATA ATTF
- Concept and concrete plan for medium/long term



2.5 In this regard, the AHWG will develop a draft concept of operations on flight tracking that includes a clear definition of the objectives of flight tracking that ensures that information is provided in a timely fashion to the right people to support search and rescue, recovery and accident investigation activities, as well as, the roles and responsibilities of all stakeholders. This will be denoted the GADSS (Global Aeronautical Distress and Safety System) Concept of Operations

2.6 The results of this meeting were submitted to ITU Council by the Secretary General for information. One of the Recommendations from this meeting concluded that:

*ICAO should encourage States and International Telecommunication Union (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 radio services used for safety of life aviation services. ICAO encourages ITU to place this on the Agenda for the upcoming ITU World Radio Conference 2015.*

2.7 Satellite reception of ADS-B is an application to be used for global surveillance and tracking of aircraft to the advantage of air traffic management and airlines. Global surveillance and tracking of aircraft requires a receive-only allocation to the aeronautical mobile satellite (route) service. This can be achieved as a near-term solution at WRC-15 that will enhance air traffic management and search and rescue efforts.

2.8 Several activities at the ITU events, have been performed to request to allocate frequency for the monitoring of flight data. The matter would probably be raised at ITU PluriPotential/14 Meeting, with a view to adding an item to the agenda of WRC-15. Regional WRC preparation meetings such as CITEL, APT, ATU, and CEPT have also engaged in discussions of global surveillance and flight tracking over the past several months and are preparing positions on the subject. From the last CITEL Meeting (Medellin, Colombia- February 2015), this matter has been supported for requesting that WRC-15 consider spectrum requirements relating to global flight tracking, 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.

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