



International Civil Aviation Organization

**The Sixth Meeting of the APANPIRG ATM Sub-Group
(ATM/SG/6)**

Hong Kong, China, 30 July – 03 August 2018

Agenda Item 6: AOP, MET, AIM, SAR

GADSS AIRCRAFT TRACKING REQUIREMENTS

(Presented by the United States)

SUMMARY

This paper presents concerns for the new Global Aeronautical Distress and Safety System (GADSS) aircraft tracking requirements. National SAR services will need to adapt current practices and procedures to manage these new capabilities for flight tracking and their benefit for SAR services.

1. INTRODUCTION

1.1 The Global Aeronautical Distress and Safety System (GADSS) is a system of systems and procedures intended to apply to commercial air transport operation (ICAO Annex 6 Part I applicability). New requirements are established for aircraft tracking. One provision becomes applicable on 08 November 2018 and the other key provision becomes applicable on 01 January 2021.

2. DISCUSSION

2.1 ICAO Annex 6 Part I, section 3.5 titled ‘Aircraft Tracking’, becomes applicable on 08 November 2018. This requires the operator to establish an aircraft tracking capability to track aeroplanes throughout its area of operations. For certain aircraft, the operator is required to track the position of an aeroplane through automated reporting at least every 15 minutes for the portion(s) of the in-flight operations that is planned in an oceanic area(s) where an ATS unit obtains aeroplane position information at greater than 15 minute intervals. If it is confirmed that an ATS unit obtains an aircraft position at 15-minute intervals or less, an aircraft operator does not need to track the aircraft.

2.2 Another requirement is for autonomous distress tracking (ADT). This new capability becomes applicable for certain aircraft as of 01 January 2021. ADT is to provide distress alerting and identification of the location of an aircraft in distress. The aircraft position information will be transmitted, without the need for flight crew action, at least once every minute when an aircraft is in a distress condition.

2.3 Both of these tracking capabilities were discussed at the Third Meeting of the Asia/Pacific Regional Search and Rescue Working Group (APSAR/WG/3) held 21-23 May 2018 in Bangkok, Thailand. Also discussed during this meeting was the amendment for the 2019 edition of the International Aeronautical and Maritime SAR (IAMSAR) Manual to include GADSS. The new IAMSAR Manual text will include the statement:

“The sharing of GADSS alerting information requires global coverage and a global interoperable systems approach. Aircraft tracking and ADT alert information for aircraft emergency conditions needs to be made rapidly available to the aircraft operator, the appropriate ATS unit, rescue coordination center, and other designated recipients/stakeholders. Effective sharing of this information to the responsible stakeholders requires well defined, accurate and readily accessible global FIR and SAR region data, plus reliable emergency 24-hour contact details for the aircraft operators, ATS units and RCC.”

2.4 The APSAR/WG/3 report provides further discussion on GADSS aircraft tracking. Many national SAR services may need to implement or revise current practices, processes and procedures, nationally and internationally (with neighboring States and regions). It is understood that such changes take time. However, working towards the 08 November 2018 requirement for aircraft tracking begins building momentum for the 01 January 2021 requirement for autonomous distress tracking.

2.5 Discussion within the APANPIRG ATM Sub-Group could lead to creative solutions including short-term solutions, enhanced local arrangements, support for the intent of the associated draft conclusion in the APSAR/WG/3 report, etc. The intent of GADSS is to support SAR response but it does require the sharing of information and trust among States.

3. ACTION BY THE MEETINGS

3.1 The meeting is invited to:

- a) note the information contained in this paper regarding aircraft tracking and the International Aeronautical and Maritime SAR Manual; and
- b) discuss possible beginning steps to ensure aircraft tracking and ADT alert information for aircraft emergency conditions is rapidly available to the aircraft operator, the appropriate ATS unit, and rescue coordination center.

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