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**Eleventh Meeting of the ICAO Asia/Pacific Search and Rescue
Workgroup (APSAR/WG/11)**

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Agenda Item 4: Asia/Pacific and Inter-regional SAR Planning, Coordination and Cooperation

**FALSE ALERTS/NON-DISTRESS ALERTS FROM EMERGENCY LOCATOR
TRANSMITTERS**

(Presented by Singapore)

SUMMARY

This paper presents a set of recommendations aimed at assisting aircraft operators and maintenance crew in minimizing false alerts or non-distress alerts deriving from the Emergency Locator Transmitter (ELT) installed on board aircraft.

1. INTRODUCTION

1.1 The International Cospas-Sarsat Programme is a satellite-based search and rescue (SAR) distress alert detection and information distribution system which detect and locate emergency beacons activated by aircraft, ships and hikers in distress. In the aviation domain, the ELT serves as the primary distress beacon, specifically designed and constructed for aircraft operations.

1.2 With the new Medium-altitude Earth Orbit Satellite System (MEOSAR) for Cospas-Sarsat is in operation today, an increase in the number of false alerts can be expected. MEOSAR combines the advantages of both the Low-altitude Earth Orbit Satellite System (LEOSAR) and Geostationary Earth Orbit Satellite System (GEOSAR) while overcoming their respective limitations, by providing transmission of the distress message and independent location of the beacon, with near-real time worldwide coverage. This system has the capability of faster and higher probability of detection even on the first burst from a 406MHz beacon. While these improvements enhance SAR effectiveness, they also present challenges to the Cospas Sarsat community and SAR service providers in managing increased alert volumes.

1.3 It is also important to note that the ELT (Distress Tracking) or ELT(DT) generates a notably higher number of bursts per activation as compared to regular ELTs or other beacon types. With the anticipated increase in aircraft equipped with ELT(DT), activation of these devices are expected to place a considerable additional processing load on Mission Control Centres responsible for handling and validating alerts.

2. DISCUSSION

2.1 The following recommendations are some best practices to reduce false alerts or non-distress alerts deriving from ELT:

- a) Self-test Mode: this is the recommended method for regular checks or maintenance for the ELT to ensure that the internal electronics and battery are working. Activating the self-test function will prevent live distress signal from being sent to the satellites;

- b) Operational/Live Testing: if there is requirement for aircraft maintenance companies to conduct ELT test by activating the equipment on board as part of the maintenance programme, provide details of the test and seek approval from local Rescue Coordination Centre or authority before commencement of the live testing;
- c) Accidental Activation: notify your local Rescue Coordination Centre or authority immediately to cancel the alert. Failure to notify authority can lead to unnecessary deployments of SAR assets;
- d) Proper Disposal: aircraft operators to have proper disposal procedure for old or expired ELTs. ELTs are built to be impact-resistant, often remaining intact even if the aircraft is completely destroyed;
- e) Education Process: conducts briefing to airlines/aircraft operators/aircraft maintenance companies on the correct process for ELT testing and emphasize the impact of a false alert or non-distress alerts on the Cospas-Sarsat system and providers of SAR services; and
- f) Proper Registration: register the ELT with national authority or Rescue Coordination Centre to allow for quick identification and verification.

2.2 Given the high number of false alerts generated by ELTs, reducing such alerts is essential to preserving the overall effectiveness, efficiency, and integrity of the global SAR system.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

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