



ICAO

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WORKING PAPER

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Seventh Meeting of the Search and Rescue (SAR) Implementation Task Force of the North American, Central America and Caribbean Working Group (NACC/WG/SAR/TF/7)
Mexico City, Mexico, 3 to 7 August 2026

Agenda Item 2: Regional and Global Search and Rescue (SAR) Affairs
2.3 Monitoring the implementation of the requirements of the Global Aeronautical Distress and Safety System (GADSS)

EFFORT TO REDUCE ELT(DT) FALSE NOTIFICATIONS

(Presented by United States)

EXECUTIVE SUMMARY	
This working paper provides information on the U.S. SARSAT Program's strategy to reduce Emergency Locator Transmitter – Distress Tracking (ELT(DT)) false notifications and provide data sharing with data sent to Mexican SAR officials in MEXTEL and MEXISP.	
Action:	Suggested actions are in Section 3
<i>Strategic Objectives:</i>	• Every Flight is Safe and Secure • Aviation is Environmentally Sustainable • Aviation Delivers Seamless, Accessible, and Reliable Mobility for All • No Country Left Behind • The International Civil Aviation Convention and Other Treaties, Laws and Regulations Address All Challenges
<i>References:</i>	• COSPAS-SARSAT Data Analysis

1. Introduction

1.1 This working paper discusses the U.S. SARSAT Program's analysis of Emergency Locator Transmitter – Distress Tracking (ELT(DT)) non-distress activations. It outlines findings from the initial analysis and the Program's work toward identifying and taking actionable steps to reduce false notifications beginning with ELT(DT)s using geographical and time-based trend analysis tools. Industry partner names are excluded from this document to ensure a positive information sharing environment. A way forward is outlined on reducing ELT(DT) false notifications.

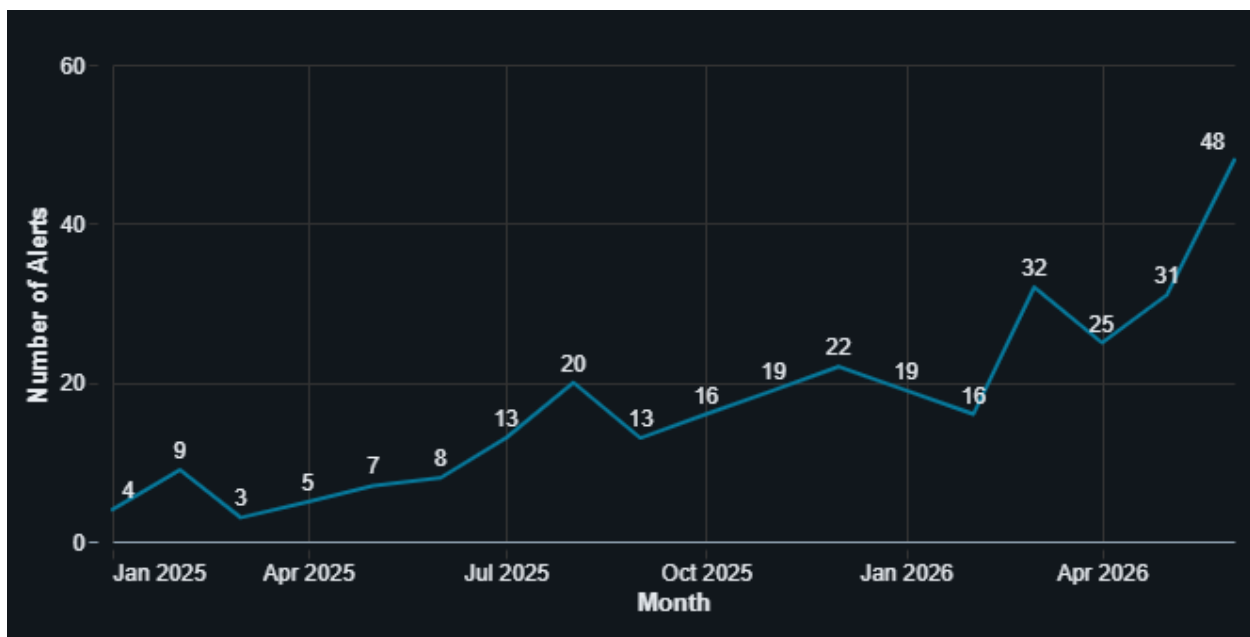
1.2 To demonstrate the ability of the analysis we would like to thank our host nation by using data sent to MEXTEL and MEXISP from the U.S. Mission Command Center (USMCC) to show the ongoing and growing problem with ELT(DT) devices and how steps can be taken to better understand the issue.

2. Background

2.1 The Cospas-Sarsat System suffers from an inordinately high number of false alerts, generally reported at 98% across all beacon types of the emergency locator transmitter (ELT). False alerts impede the ability of rescue coordination centers (RCCs) and other SAR authorities to respond to genuine emergencies and place an unnecessary data load on the U.S. Mission Command Center (USMCC). In response to the growing number of false notifications from the ELT(DT) device, data analysis has been used to attempt to determine “root causes” and provide targeted mitigation measures working with aircraft operators (airlines), maintenance facilities, aircraft manufacturers and beacon manufacturers.

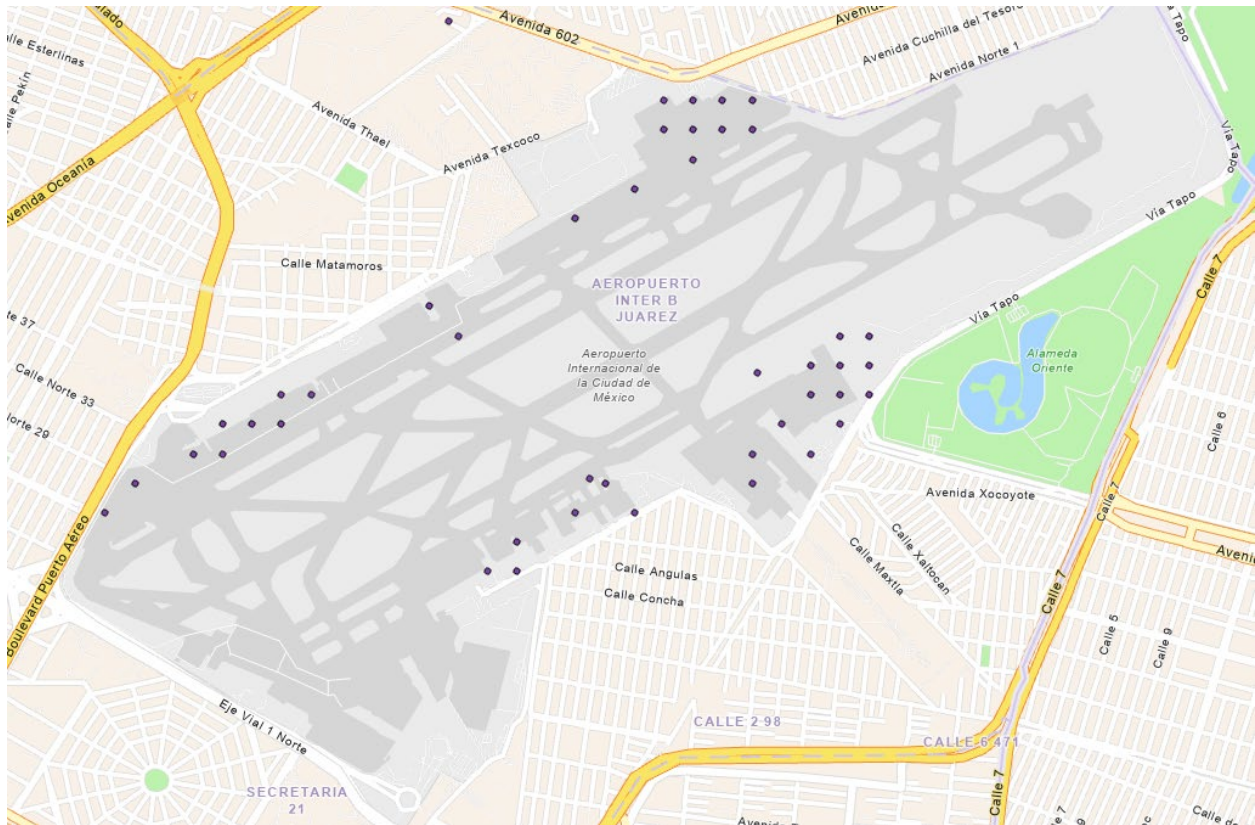
2.2 The United States Search and Rescue Satellite (SARSAT) Project Management Office (PMO) investigated ELT(DT)s due to a large number of false notifications. The PMO reviewed historical SARSAT ELT(DT) notifications data provided by the USMCC, with a goal of identifying false notification trends to inform targeted interventions with airline industry partners. From January 1st, 2025 to June 30th 2026, the USMCC received a total of 6,054 ELT(DT) notifications.

2.3 The USMCC found that 310 unique site IDs (henceforth referred to as “sites”) have been sent to Mexican Search and Rescue officials generating 183,000 solutions that were received/processed with 48,540 messages being sent. Further analysis, examining the amount of notifications by ICAO designator, shows that four airlines make up 69% of sites. The data was also filtered based on the activation type and found that 70% of the notifications were manually activated from the cockpit and 26% from automated activations via avionics. Time-based trends show a drastically increasing trend line with 8 notifications a year ago to 48 notifications in the last month, an eight-fold increase. To further demonstrate the rate of increase in the first four months of 2025 the average was 5.25, in the past four months the average has increased to 34 sites a month demonstrating exponential growth without intervention (Figure 1).



(Figure 1)

2.4 After initial investigation, the U.S. SARSAT PMO conducted a geospatial analysis to provide insight into the summary statistics. It was determined that a large proportion of sites open at the gate of airport terminals. An example of Aeropuerto Internacional de la Ciudad de Mexico is provided below, which sources about 60% of sites almost all originating from one airline that makes up 40% of all notifications in Mexico (Figure 2). This airport was selected as an example due to the large amount of clustering, but the same analysis can be conducted for other airports, manufacturing and maintenance locations throughout the country.



(Figure 2)

2.5 The U.S. SARSAT PMO has engaged with two aircraft manufacturers to ensure that they are aware of the high false notification rate and to identify appropriate interventions, with follow on information sharing. The United States Federal Aviation Administration also made use of this analysis to work with airlines to identify the reasons behind the high false notification rates at airports. Effort on reducing the rate of false notifications will be a continuous cycle of data analysis, targeted mitigation and corrective actions, and performance measurement. Results derived from work conducted by the U.S. SARSAT PMO's Data Analytics Specialist will continue to identify root causes of false notifications. Based on these findings, specific mitigation plans will be developed, tailored, and implemented, followed by deliberate assessment of interventions.

2.6 While the RCCs receive large numbers of Cospas-Sarsat messages for each false activation of the ELT(DT), the aircraft operator and the relevant air traffic services unit (ATSU) receive only one email from the Location of an Aircraft in Distress Repository. The operational units, the RCC and the ATSU, can be viewed as victims of the high rate of false ELT(DT) false notifications. However, if the relevant civil

aviation authority (CAA) is provided specific information on the ELT(DT) device then it could be expected that the CAA can reduce the false notification rate by working with aircraft operators (airlines), maintenance facilities, aircraft manufacturers and beacon manufacturers. Needed information from the ELT(DT) Cospas-Sarsat message would include time and position of the notification, information in paragraph 3 of the message, and the ability to decode the “HEX ID”.

2.7 The U.S. SARSAT PMO looks forward to working with other countries to conduct a similar analysis or discuss further the steps that are being taken to decrease ELT(DT) false notifications.

3. Suggested Actions

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) consider encouraging RCCs to provide relevant ELT(DT) information from the Cospas-Sarsat message to their national civil aviation authority to address the ELT(DT) false activation problem with aircraft operators (airlines), maintenance facilities, aircraft manufacturers and beacon manufacturers.

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