

Embraer Selects SKYTRAC and ACR Electronics to Provide GADSS Solution



Kelowna, BC, October 11, 2021 – SKYTRAC Systems Ltd. (SKYTRAC) and ACR Electronics, Inc. (ACR Electronics) have signed an agreement with Embraer, the world's third-largest commercial aircraft manufacturer, to provide novel Autonomous Distress Tracking (ADT) and Emergency Locator Transmitter with Distress Tracking (ELT-DT) technology to satisfy the European operational requirements and ICAO recommendations relating to Global Aeronautical Distress and Safety System (GADSS), that begin in January 2023. SKYTRAC and ACR Electronics are both brands of the ACR Group and represent the only company with a full end-to-end GADSS solution for airframe manufacturers and airline operators.

The recommendations, in response to the loss of flights Malaysia Airlines 370 (MH370) and Air France 447 (AF447), provide Rescue Coordination Centers (RCC) and airline Operational Control Centers (OCC) with advanced warning as well as an aircraft's precise location if a distress scenario is detected. Embraer will install the system on E2 jets as a line-fit, factory-installed solution before delivery to airlines. Embraer will utilize innovative technology from both SKYTRAC and ACR Electronics making it possible to track and locate aircraft in distress, ensuring compliance with GADSS recommendations set forth by the International Civil Aviation Organization (ICAO).

An industry leader in GADSS development since 2014, SKYTRAC was requested to participate in a special Multidisciplinary Meeting on Global Flight Tracking (MMGFT) which convened at the International Civil Aviation Organization's (ICAO) headquarters in Montreal, Canada. Since then, SKYTRAC and ACR Electronics have participated in numerous committees, advisory groups, and general sessions, ultimately leading to a compliant ADT and ELT-DT system with novel technology.

"Our innovative solution is the work of years of collaboration between leading regulatory bodies, ICAO, various working groups, and our sister companies," stated Malachi Nordine, President, SKYTRAC. "Everything from the Distress Triggering logic, ELT-DT, redundant hardware design, and the required Aircraft System interfaces were developed in-house by SKYTRAC and ACR Electronics. We are very pleased to see Embraer select our GADSS solution for adoption into the market."

SKYTRAC's ADT 5000 captures aircraft parameters such as position, altitude, and other critical system data and runs it through Distress Detection Logic. The ADT 5000's high reliability, dual redundancy system ensures that both data acquisition devices within the unit detect a Distress Condition before generating a triggering command in the event of a distress scenario.

The ADT 5000 solution is capable of interfacing with a variety of Emergency Locator Transmitters (ELT)s, including ACR Electronics' ARTEX ELT 5000(DT), to initiate a Distress Tracking transmission relaying high-resolution 4D positions of the aircraft in real-time.

ACR Electronics brings the next generation of ELT technology as part of the GADSS solution with the new ARTEX ELT 5000(DT), which can be activated by an Autonomous Distress Tracking triggered like the SKYTRAC ADT 5000.

Triggered by a potential distress condition from independent aircraft monitoring, the 406 MHz ARTEX ELT 5000 (DT) intelligently activates and will automatically begin transmitting 406 MHz distress messages with the current location in real time while the aircraft is in-flight. The distress tracking, which meets FAA TSO-C126C and EASA ETSO-C126C for aircraft Emergency Locator Transmitters, provides the aircraft's precise location to assist relevant monitoring bodies to respond to the alert quickly and effectively using the COSPAS-SARSAT satellite network. Pilots can also trigger the ELT manually from inside the cockpit if necessary.

"SKYTRAC has demonstrated superior technical expertise and the commitment to quality and execution necessary to meet, well in advance, the January 1, 2023, GADSS requirements," said Fernando Antônio Oliveira, Vice President Programs, Embraer Commercial Aviation. "Embraer is pleased to have SKYTRAC and ACR Electronics provide this important capability, as we deliver our market-leading jets to airlines across the world."

Together, the joint solution alerts airline stakeholders and Search and Rescue or Accident Investigation Authorities in cases of distress through a Distress Report to relay 4D positions to the ICAO Location of Aircraft in Distress Repository (LADR). With this Autonomous Distress Tracking (ADT) solution, aircraft manufacturers will solve three of the key GADSS Concept of Operations (CONOPs) objectives. These objectives include addressing late notification of Search and Rescue (SAR) services when aircraft are in distress, identifying the location of an end of flight aircraft position, ensuring efficient and effective SAR operations, and assisting with Timely Recovery of Flight Data (TRFD) by providing an accurate report of the aircraft's final position.

The technology will enable Embraer to meet the upcoming January 1, 2023 deadline for Autonomous Distress Tracking, meeting ICAO Annex 6 (Part 1) Section 6.18 and Eurocae ED-237 Minimum Aviation System Performance (MASP) specifications.

For more information on SKYTRAC's products and services, please contact sales@skytrac.ca to speak with a technical expert.

About SKYTRAC Systems Ltd.

SKYTRAC is aviation's full-service, data-driven solutions provider serving the fixed-wing, rotorcraft, and unmanned aviation markets. Since 1986, SKYTRAC has pioneered the development, evolution and commercialization of flight following, flight data and communications technology. Today, with systems certified on over 900 airframes and an online data management portal that is the go-to tool for over 7,500 global users, SKYTRAC is truly the partner of choice for data-guided business insights. From performance trending and operations reporting to real-time asset tracking and situational awareness – SKYTRAC offers a one-stop response to meeting more of your company's needs. For more information, visit www.SKYTRAC.ca.

About ACR Electronics Inc.

As a world leader in safety and survival technologies for over 65 years, ACR Electronics, Inc., manufactures and supports cutting-edge rescue beacons and survival equipment for the aviation, marine, outdoor and military markets. It is the foremost development center for emergency beacons that are designed with one purpose: to save lives. Its leading aviation brand, ARTEX, designs and manufactures a wide array of Emergency Locator Transmitters (ELTs), as well as battery packs and ELT accessories, for general, business, commercial and military aviation applications. ARTEX products are selected by the world's largest airframe manufacturers, airlines and governments, as well as private pilots, and are suitable for every type of fixed wing and rotorcraft aircraft.

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SKYTRAC and ARTEX are brands of the ACR Group which includes ACR Electronics, Bivy, Flight Data Systems, FreeFlight Systems, Latitude Technologies, NAL Research, United Moulders Ltd., and Ocean Signal. For more information about ARTEX, please visit www.ARTEX.com.

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