

# SARSAT and NOAA's Cooperative Data and Rescue Services (CDARS) Program

NOAA's Search and Rescue Satellite-Aided Tracking (SARSAT) System is employed to detect and locate mariners, aviators, and recreational enthusiasts in distress almost anywhere in the world at any time in almost any condition.

SARSAT uses NOAA satellites in low-Earth and geostationary orbits to detect and locate users in distress who will relay signals from emergency beacons to a network of ground stations and ultimately to U.S. Mission Control Center (USMCC). USMCC processes the distress signal and alerts the appropriate search and rescue authorities to who is in distress and, more importantly, where they are located.

Since 1982, SARSAT is credited with saving over 39,000 people worldwide, including a total of 7,749 people in the U.S. Over 40 countries in addition to the United States currently rely on the SARSAT system for their search and rescue needs. The instruments that are currently meeting the requirements for SARSAT are onboard satellites (e.g. MetOP-A, NOAA-15, 18 and 19) that are operating well past their design lives and run the risk of expiring before NOAA transitions SARSAT to the MEOSAR (GPS-based) system. It is critical that NOAA facilitate a launch of replacement SARSAT instruments as soon as possible to cover this potential gap in coverage.

NOAA's Cooperative Data and Rescue Services (CDARS) program is the agency's 5-year plan to facilitate a launch of updated SARSAT space-based instruments to space by early 2021.

CDARS is critical to ensure continuity of the services these satellites provide. If NOAA is unable to deliver these replacement instruments to space before a gap in service occurs, there will be an increase in wait times of (possibly up to 300 minutes!) for SARSAT which puts mariners and other users around the world at risk.

CDARS is the last SARSAT mission that will fly in low-earth orbit before NOAA transitions to the MEOSAR system. Although NOAA is working hard to bring MEOSAR online (likely 2024 or later), CDARS is the bridge to ensure proper, lifesaving coverage until MEOSAR.

Support for CDARS in Fiscal Year 2018 has enabled NOAA and the U.S. Air Force to begin plans to launch the CDARS bridge payload. With the additional \$37.9 million in FY19 funding recommended by the Senate Appropriations Committee, CDARS will be on track for a launch in early 2021.