

TITAN Submersible Search and Rescue After Action Report

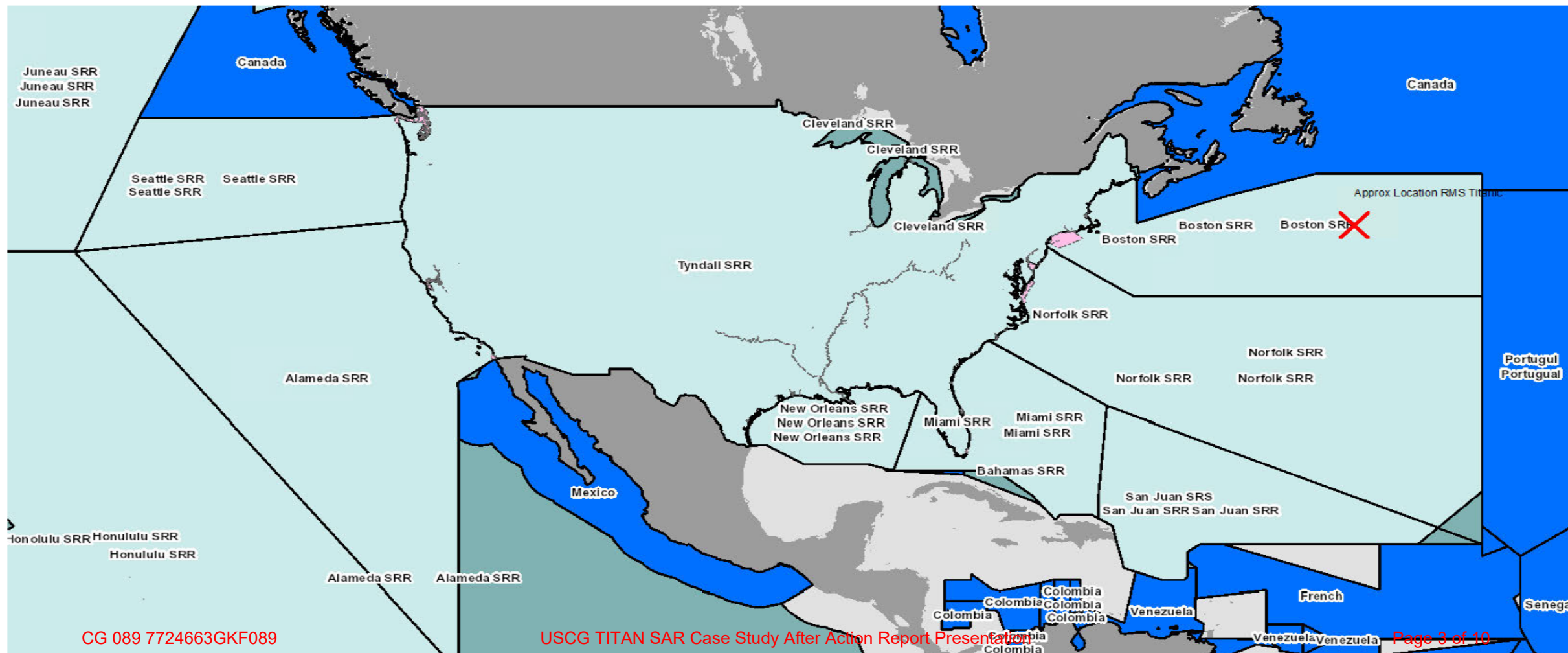


***Eighth Coast Guard District SAR Specialist
Titan Search and Rescue (SAR)
AAR Board Chair***

USCG SAR Authority & Jurisdiction

- **The statutory authority for the U. S. Coast Guard to conduct SAR missions is contained in Title 14, Sections 102, 521, and 701 of the U.S. Code.**
- *The code states that the Coast Guard shall develop, establish, maintain and operate SAR facilities and may render aid to distressed individuals and protect and save property on and under the high seas and waters subject to the jurisdiction of the United States.*

U.S. Search and Rescue Regions



Titan SAR Analysis Board

- **Convened on September 8th, 2023 by CG SAR 1**
- **Board consisted of 5 members**
- **Board directed to:**
 - **Analyze the SAR response and attempt to apply Human Factor Analysis to the findings.**
 - **Tasked to provide a report capturing lessons learned and best practices for the SAR Response.**
 - **Provide information relevant to the SAR System improvements for Sub surface incidents**
 - **Provide input to the interplay between the SAR System and the Incident Command System**
 - **Analyze coordination between the Coast Guard and U.S. Navy**
 - **Analyze the limitations and challenges of the Coast Guards interactions involving subsurface rescue efforts**

Titan SAR Analysis Board Anticipated Findings

- **AAR Board found recommendations in four main categories**

1. Critical Incident Communication was delayed nearly 18 hours. Quick Response Cards were not completed fully, and it was evident the SAR System was overwhelmed early in the incident.

2. Case Documentation deficits were discovered for a multitude of reasons by the board. The sheer volume of information coming into the JRCC alone exacerbated by the Coast Guards archaic documentation system used for SAR (MISLE) made it near impossible to capture all actions during the incident. Actions carried out outside the JRCC by SMC, IMT, UC also did not make it into the case documentation.

3. SAR System and Incident Command System (ICS) Integration SAR Incidents are prosecuted inside Command Centers and for larger incidents like Titan IMTs are often stood up to support the response. The SAR System and ICS do not integrate well for management of a SAR incident. Due to the sheer number of communications, limitations with equipment, decision making happening within the JRCC and outside in unified command there was a disjointed integration of ICS. This impacted a few key decision makers and did not allow ICS to increase efficiency of the overall prosecution of the incident.

Titan SAR Analysis Board Anticipated Findings

- **AAR Board found recommendations in four main categories (Cont)**
 - 4. On-Scene Presence** The individual sent to serve as a Coast Guard Rep on scene was not properly trained and suited for the role. This likely happened because leadership was too saturated and overwhelmed with case prosecution to recognize the needed qualifications and expertise. The role should have been occupied by someone versed in NOK, public affairs, and knowledge the SAR system and SAR duties. The POLAR PRINCE was designated as On Scene Coordinator a key role in the SAR System until the Canadian Coast Guard arrived on scene and later the CGC SYCAMORE

Search and Rescue Efforts

No part of a report of a marine casualty investigation shall be admissible as evidence in any civil or administrative proceeding, other than an administrative proceeding initiated by the United States. 46 U.S.C. §6308.

- 7600+ Square Nautical Miles Searched
- Aviation Resources Involved in Search
 - USCG HC130s (Multiple Sorties)
 - Canadian P3 Aurora (Multiple Sorties)
 - ANG 106th HC-130 (Multiple Sorties)
 - USCGC SYCAMORE
- Surface Resources Involved
 - USCGC SYCAMORE
 - CCGC KOPIT HOPSON (Canada)
 - CCGC CGC JOHN CABOT (Canada)
 - CCGC TERRY FOX (Canada)
 - POLAR PRINCE
 - RV SCANDIVINLAND (ROV Capable)
 - M/V ATLANTIC MERLIN (ROV CAPABLE)
 - RV DEEP ENERGY
 - RV L'ATALANTE
 - HMCS GLACE BAY (Canada)
 - MV SKANDI VINLAND (Canada OV)
 - MV HORIZON ARCTIC

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USCG TITAN SAR Case Study After Action Report Presentation

Page 7 of 10

Units/Agencies Involved

- USCG First District (JRCC Boston)
- USCG Sector Boston
- USCG Base Boston
- USCG LANTAREA
- USCG Air Station Elizabeth City
- US Air National Guard 106th Rescue Wing
- US Air Force Rescue Coordination Center
- US Navy
- JRCC Halifax
- Royal Canadian Coast Guard
- NAVSEA
- TRANSCOM
- U.S. State Department
- International Submarine Escape and Rescue Liaison Office (ISMERLO)



Coast Guard SAR Efforts

- **Case was unprecedented**
- **Tyranny of distance impeded SAR Response. (Approx 900NMs East Cape Cod)**
- **Initially had to rely on POLAR PRINCE for on scene coordination with next of kin onboard the vessel**
- **Long Range Air Resources conducted majority of searches**
- **Active searching was for the submersible or its 5 crew if the vessel had surfaced**
- **D1 JRCC performed exceptionally often creating innovative solutions to an incident never seen before in the Maritime SAR Community**

Coast Guard SAR Capabilities

No part of a report of a marine casualty investigation shall be admissible as evidence in any civil or administrative proceeding, other than an administrative proceeding initiated by the United States. 46 U.S.C. §6308.

- **U.S. Coast Guard Capabilities are currently limited to surface and air capabilities.**
 - **Small Boats (RBMs)**
 - **Aircraft (Fixed wing, Rotary)**
 - **Cutters**
- **The U.S Coast Guard has no capabilities for sub surface search and rescue.**
 - **Chapter 6 of the Coast Guard Addendum addresses procedures for underwater incidents.**
 - **Chapter 6 clearly states we have no specialized equipment to assist in sub surface incidents.**
 - **Points to the U.S. Navy for their technical expertise in sub-surface incidents.**