



### BRIDGING THE VALLEY OF DEATH

Many research and technology prototypes that would be operationally useful to the United States Coast Guard (USCG) are developed for basic research and fail to reach the transition and delivery phases. This translational research “valley of death” can decrease USCG readiness, effectiveness, and efficiency. Bridging that valley from basic research prototypes to operational capabilities can help advance and deliver innovative and operationally relevant technologies to USCG operators, enhancing their safety and effectiveness.



To achieve these goals, the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) partnered with the USCG Research and Development Center (RDC) to form the USCG Science & Technology Innovation Center (STIC). This collaboration assists in defining gaps and requirements as well as enabling rapid operational assessment and testing. These capabilities outline necessary technology adaptations and integration needs to ensure successful transition and delivery of developed solutions.

### RAPIDLY ADDRESSING USCG NEEDS

The STIC addresses emergent USCG needs by leveraging, modifying, or adapting technologies with a focus in research, development, test, and evaluation (RDT&E) areas, such as:

- Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance.
- Environment and Waterways.
- Modeling and Simulation.
- Surface Technology.
- Systems and Unmanned Technology (Air, Surface, Subsurface).

RDT&E and technology solutions are obtained through various deliverables and are tailored to the unique functional characteristics of each solution pursued, including:

- Formulation of operational view concepts.
- Development of design drawings or documentation.
- Technology assessments, tests, or demonstrations.

### COLLABORATION IMPACT

This S&T and USCG RDC collaborative project is enhancing the USCG’s operational effectiveness. The goal is to bridge translational research through adaptation, integration, and testing to prepare innovative technologies for transition and delivery. The collaboration ensures effective use of resources as well as increased readiness of USCG operators.

The collaboration focuses on high technology readiness level technologies that require operational testing, assessments, and adaptations necessary for USCG missions and operations. The STIC assumes the role of operational test agent for potential technology solutions and ensuring successful transition and delivery.

Annually, STIC transitions 25 to 30 technologies and evaluation reports to USCG and its partners to be integrated into missions in maritime law enforcement, maritime safety, environmental protection, and defense readiness.

### RECENT TECHNOLOGIES TESTED

- Mobile Tethered Video Systems
- Stabilized Binoculars
- Inland Brush Cutter
- Drone Mapping
- Unmanned Vehicle Sensors
- Window Clarity System
- Laser Corrosion Removal
- LED Safety Lighting
- Counter Narcotics Go-Kits
- 3D Metal Printer
- Diesel Outboards for Small Boats
- Trillium Ball Electro-Optical/Infra-Red Sensor

### PERFORMER/PARTNER

- U.S. Coast Guard Research and Development Center

