



RHUMB LINES

Straight Lines to Navigate By



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“Speed to Fleet” – Transitioning Naval Science and Technology

“Quick reaction science and technology tools provide our Sailors and Marines a direct line to the Naval Research Enterprise and help accelerate the ‘Speed to Fleet’ process.”

– Rear Adm. Nevin Carr, Chief of Naval Research

The Navy’s investment in science and technology (S&T) has enabled technological advantages for today’s naval forces and will continue to help maintain the Navy’s edge as the high-tech service of the future.

The [Office of Naval Research](#), in partnership with Naval Systems Commands and the Naval Research Enterprise (NRE), funds and administers quick-reaction S&T tools that leverage good ideas to meet emerging technology requirements and quickly deliver new capabilities to the warfighter. Examples of these tools and their prototypes include:

Technology Solutions (TechSolutions) – Enable rapid prototyping and [delivery of technologies](#) to naval forces in response to requests submitted by Sailors and Marines [online](#). TechSolutions works closely with each customer to meet specific requirements that cannot be readily satisfied with commercial-off-the-shelf technologies. Typical turn-around time for a working prototype is 12-18 months.

- [Fast Tint Protective Eyewear](#) – Protects from ballistic impact and UV rays; lenses rapidly transition shade between indoor/outdoor use and eliminate manual lens changing.
- [Catapult Capacity Selector Valve \(CSV\) Calculator](#) – This calculator accurately computes the proper CSV settings for aircraft carrier catapults, eliminating the manual look-up process.
- [Food Service Management Software](#) – Replaces DOS-based system. Optimizes menu planning, inventory management and replenishment planning for afloat and shore food operations.

Technology Insertion Program for Savings (TIPS) – Provides rapid technological capability from any source to Navy programs of record to reduce total ownership costs.

- Sonar Cable and Transducer Connectors – New sonar cables improve reliability and enable faster repair by eliminating the need for dry docking on DDG 51 class ships.
- [Rapid Technology Transition](#) (RTT) – Provides rapid technology transition solutions from any source to Navy programs of record to meet changing requirements and accelerate delivery.
- Joint Stand-Off Weapon (JSOW) – Accelerated the introduction of “target of opportunity” capability for JSOW by two years, providing pilots with target prioritization at a stand-off distance.

SwampWorks – Develops and demonstrates technologies that address emergent operational problems in an accelerated timeframe to include experimentation and testing with the warfighter.

- [Electric Actuator Program](#) – Replaces complex, expensive hydraulic actuators aboard ships and submarines with electric actuators, reducing construction and lifecycle maintenance costs.

Key Messages

- The Naval Research Enterprise provides new capabilities to the Fleet and reduces technology development risk in acquisition.
- Quick-reaction S&T tools are designed to streamline technology development and delivery.
- Sailors and Marines can submit requests for technology support to TechSolutions [online](#).

Facts & Figures

- Quick reaction S&T tools can mature new technologies and deliver working prototypes in 12 to 24 months.
- TechSolutions averages 10 to 12 new projects per year, costing on average \$750 thousand each, and delivers in approximately 12 to 18 months.
- 36 RTT/TIPS requests are currently in progress with 46 completed since 2004.