Innovation and the Evolution of an Idea

Enhancing Safety and Stability on the World’s Seas

Volpe has been in the vanguard of developing and deploying state-of-the-art, low-cost, effective vessel tracking networks that enhance navigational safety, security, and operational efficiency in the world’s major waterways. Volpe is now at the forefront of new technologies in maritime domain awareness. seaways management benefit from:

- AIS-based data network, dramatically improving navigation safety
- Fosters global economic stability
- Contributes to efforts to combat piracy, terrorism, and the smuggling of humans, drugs, and weapons
- Enhances maritime situational awareness by ensuring global traffic flow

Diplomacy would take years and cost tens of billions of dollars. But thanks to the contributions of the Maritime Safety and Security Identification System (AIS) technology, Volpe quickly built and deployed a network that now provides real-time vessel tracking data.

The Maritime Safety and Security Identification System (AIS) now provides valuable, unclassified, and low-cost vessel traffic movement data to organizations in the U.S. and abroad. As of 2010, 70 Nations participate in the International Organization for Standardization’s membership to three Volpe engineers in the Seaways Management Board.

A New Tool for International Diplomacy

- Fosters greater trust and cooperation among nations.
- Promotes greater security and cooperation among nations, thereby contributing to safer waterways around the world.
- Enhances global economic stability by enabling greater global traffic flow.

Saint Lawrence Seaway: A Giant Step Forward

Volpe designed and deployed an Automatic Identification System (AIS) network that dramatically improve navigational safety and traffic management on the Saint Lawrence Seaway. Ships owners and operators now realize real benefits from:

- Enhanced safety through enhanced communications and water management.
- Improved vessel traffic management and coal safety.
- Early warning of potential vessel accidents.
- Fewer delays due to accidents.
- Improved capacity and efficient vessel speeds.
- Improved coordination of ship dispatch.

Central American Ports: Building in Resiliency

When the U.S. Naval Forces Europe (USNAVEUR) identified potential threats to the Panama Canal, Volpe helped develop and deploy a system that now provides real-time vessel tracking data.

The Panama Canal: A Milestone in Navigation History

In support of U.S. Naval Forces Africa (NAVAF) and its African partners, Volpe has:

- Helped build and strengthen maritime partnerships among countries on the North Atlantic seaboard.
- Provided valuable insight for improving the safety and security of commercial shipping throughout the world.
- Assisted in speeding violation enforcement in seasonal right whale migration zones along the Atlantic seaboard.
- Enabled the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service to better manage and enforce marine traffic systems.

Global Disaster Relief Efforts

- Haiti and Japan

In the aftermath of the devastating earthquake and tsunami that struck Haiti and Japan, the Volpe team provided critical assistance to relief operations on the ground. The team also traveled to Japan to provide assistance to the Japanese government. In Japan, the team worked with a group of surviving workers.

Building an African Maritime Domain Awareness

In support of U.S. Naval Forces Europe (USNAVEUR) and its African partners, Volpe has deployed an AIS network that now provides real-time vessel tracking data.

Search and Rescue

In Mexico, the Volpe-developed system was key to:

- Assisting rescued workers from an oil platform affected by Hurricane Newton.
- Helping authorities find and capture offshore drug smugglers.

Saving the Whales in the North Atlantic

Collaboration with vessels is a leading cause of death for the North Atlantic right whale, a unique species developed for the Volpe team.

- The North Atlantic Right Whale
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Valuable Partners: Volpe’s Sponsoring Organizations

- U.S. Agency for International Development
- U.S. Department of Commerce
- National Oceanic and Atmospheric Administration
- U.S. Department of Defense
- National Marine Fisheries Service
- U.S. National Oceanic and Atmospheric Administration
- U.S. Northern Command
- U.S. Department of Transportation
- Maritime Transportation System Development Corporation
- U.S. Pacific Command
- Caribbean Basin Initiative
- Hawaii
- Volpe, Inc.