

*(focus on education)*



When seconds count: Resolve instructor showing how to quickly assemble a box patch to slow down water coming from simulated broken raw water pipe.

## As Real As It Gets

### High-stress and high-stakes emergency response training

BY LANA FARRELL

**R**esolve Maritime Academy was born from the real-world needs of our parent company, Resolve Marine, a maritime emergency response provider. The academy, of which I'm the executive director, has unique access to global emergency response activities, and that ensures that students learn shipboard firefighting tactics, realistic damage control procedures, and safety and security skills that exceed industry standards.

Imagine yourself onboard a vessel, slicing through the vast expanse of the open sea. The air is crisp, and the rhythmic hum of the engines instills a sense of tranquility. Suddenly, a massive jolt shatters the peacefulness and the vessel shudders. Panic grips the air as the crew realizes that disaster has struck—a breach in

the hull has unleashed a torrent of water into the once secure compartments, and chaos ensues. Amid the turmoil, a crucial question echoes through the corridors: What do you do?

In these heart-pounding moments, the significance of effective damage control takes center stage. It is a race against time to confront the rising water, to stabilize the vessel, and to save the lives of those onboard. The vessel, once a symbol of strength and resilience, is now in a battle for survival against the unforgiving force of the sea.

#### Experts on staff

Located in the heart of Fort Lauderdale, FL since 1994, Resolve Maritime Academy draws thousands of students each year from around the globe for “as real as it

gets” maritime emergency response training. Established in 1984, Resolve Marine specializes in maritime emergency response, environmental remediation, salvage, and wreck removal operations throughout the world. The company has offices in nine countries, including the U.S., Chile, the Netherlands, Greece, the U.K., Gibraltar, India, Singapore, and China. As an emergency response provider, the company realized early on the need to have response experts on staff as well as teams readily available and trained for any maritime emergency, and so created its own school, Resolve Maritime Academy.

Although initially created to ensure our own teams and response providers were trained and ready to respond to any maritime emergency, the academy soon began training other clients, external organizations, and emergency responders on how to protect themselves and their crew, their vessels, and the environment when catastrophe strikes. Our intensive maritime training courses and simulations are taught by career mariners (both civilian and military), and firefighting and first response professionals, giving students access to real-life experiences in the situations in which they are trained. This, in combination with our facilities, technology, and core expertise in actual maritime emergency responses, makes our training as realistic as it comes.

Whether someone requires certification in Standards of Training and Certification for Watchkeepers (STCW), which is a convention of the International Maritime Organization; in United States Coast Guard (USCG) or Maritime and Coast Guard Agency (MCA), the governing body for shipboard certifications for the U.K.; in inland/maritime-based fire and safety; in damage control; or in crisis management, our fire and flood simulators prepare our students to mitigate emergencies while saving life and property. Our courses can be customized for specific industries and attendees where firefighting, safety, and crisis skill training can be aligned with the team’s onboard and/or on-land situations, policies, and procedures.

### Damage control training

Now back to our scenario. What can you do to help prepare yourself and your team for

an emergency flood event onboard? When a vessel has struck a submerged object, has a major mechanical failure in a system that uses raw water from the sea, or is taking on heavy seas that are inundating interior compartments, time and efficiency are crucial. This is where damage control training and competence will make the difference in whether the vessel stays afloat, or sinks to the ocean floor, leaving the crew stranded at sea, hopefully situated in a liferaft.

What is damage control? The textbook definition of damage control is action taken to limit the damaging effects of an accident or error. In the maritime environment, this includes using the proper tools to contain and control flooding and provide structural reinforcement to bulkheads, decks, and overheads.

At the academy, we prepare our students to respond effectively to a flooding emergency at sea through our comprehensive damage control training program. This program includes both theory and practical training elements that are designed to put the student in a real-world flooding incident and

evaluate the student’s response, both individually as well as part of a ship’s crew. Initially, students are introduced to the basic concept of damage control and explore the tools that will be onboard a vessel to facilitate proper damage control efforts. As part of the theory, students learn basic stability terminology, which includes identifying how the weight of water can affect the stability of the vessel they are on, and how long it could be before the vessel capsizes.

After completing the theory portion of the class, the practical application starts. This is where, in a controlled and safe environment, the core of the training truly begins. Each student is provided with the proper safety gear and led into our shipboard flooding simulator, known as the damage control solutions trainer. This unique facility is designed to be flooded up to chest high at a flooding rate of 400 gpm, and is outfitted with various pipes, stoppers, pumps, hatches, and simulated flooding hazards, replicating what a student would experience on a ship. While the water is being pumped into the facility, students are a part of a team that must communicate,

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As Real As It Gets *continued*



A local fire department uses teamwork and training to structurally reinforce a bulkhead to stop progressive flooding on a ship.



A navy damage control team addresses an exterior fire on deck.

work together, and significantly reduce the amount of water coming into the facility. There is a saying in damage control: “We don’t have to stop all of the water, just enough for our pumps to keep up until we can get to port.” Students in the course gain the knowledge and competence of responding to a flood, and they learn communication and

effective collaboration techniques during a high-stress situation.

### Real-world skills

We realized that, to better prepare mariners while onboard vessels at sea, equipping them with real-world skills on how to respond to flooding to save their vessel was imperative,

regardless of if the course was mandated within the industry. Large-scale incidents such as *Titanic* and *Costa Concordia*, where flooding was a major causative factor, made the need for damage control training as very evident. When the academy commenced damage control training, we built a facility in Florida to deliver it. We also hired some of the most highly skilled instructors for the training. Our instructors have served for more than a decade in USCG and have used damage control techniques either on the ships they were stationed on, or during complex search and rescue missions. One of our instructors was an instructor at a USCG training center specializing in teaching USCG responders proper damage control techniques. Our instructors come from a unique background and have “been there, done that” experiences to share with students.

This training doesn’t focus on one part of the industry or another. It encompasses every part of the maritime sector. While many students work in the superyacht community, we also train professionals in the cruise ship, oil and gas, and commercial and cargo industries, as well as first responders. Although students come out of the damage control solutions trainer soaking wet, they often have beaming grins and high remarks on the level of realism and the importance of teamwork and communication in what they just encountered.

Our damage control training can vary between one and three days and often, the length of the training depends on how extensive our clients’ needs are. We typically average 50 to 100 damage control students each year, including crewmembers, engineers, captains, and first responders. Since its inception in 1994, the academy has trained more than 50,000 students.

### Other courses

At the heart of the academy lies our expertise in shipboard firefighting, and we pride ourselves on being the premier maritime shipboard firefighting training facility in south Florida. Our firefighting courses include USCG and MCA Basic Firefighting, aimed at junior or “green” crewmembers seeking to start a career in the maritime industry, along with our USCG and MCA Advanced Firefighting course, tailored to experienced maritime professionals and senior leaders within the industry. These two courses take a student through the beginning

stages of learning about fire and how to extinguish the fire all the way through command and control of fire teams onboard a ship. These certifications last for 5 years, within which and in line with 360 days of sea time, mariners can take our USCG Firefighting Revalidation or MCA Advanced Firefighting Update courses.

We also offer a Marine Firefighting for Land Based Fire Fighters course. This is focused on training shore-based firefighters in the dynamics of fighting a fire onboard a ship. We orient seasoned land-based firefighters to the maritime industry including reviewing vessel layout, construction, and organization. We also provide strategies and tactics for various ship configurations, demonstrating differences and similarities between shipboard and structural firefighting and emphasizing priorities in relation to shipboard responses.

In our STCW Basic Safety Training, instructors present mariners with basic

safety skills and knowledge required to be an effective crewmember. This course provides training and familiarization in the areas of personal survival techniques, fire prevention and firefighting, first aid/CPR, and personal safety and social responsibilities. This course is completed within five days.

We also offer two small boat handling courses, the first being a USCG certified Fast Rescue Boat and the second being a custom boat handling course. The Fast Rescue Boat course is centered around vessels that are required to have a rescue boat for marshalling liferafts in the event of an abandon ship order. This practical training demonstrates and provides hands-on training on how to retrieve a person who has fallen overboard. The course trains small boat drivers and crewmembers in proper boat handling techniques as well as executing search and rescue techniques. While similar to Fast Rescue Boat, the custom boat handling course is directed at the first responder community, specifically fire

departments with fire boats. Beyond teaching basic boat procedures, this course integrates fire monitor training and hazardous material clean-up procedures.

We also offer three levels of vessel security classes, ranging from basic security awareness to vessel and facility security officer. These courses cover all of the requirements of the International Ship and Port Facility Code and the Maritime Transportation Security Act, both policies enacted because of the 9/11 terrorist attacks, and which require vessels to increase their security postures to guard against pirate or terrorist attacks on the vessel or in the port.

We're committed to equipping mariners with essential training, ensuring they're prepared to face emergencies that may arise while traversing the boundless, captivating, and mysterious sea. **MT**

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*Lana Farrell is executive director of Resolve Maritime Academy in Ft. Lauderdale, FL.*

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