

# Tech Review

SPECIAL REPORT BY TONY BESSINGER

## Crew Overboard: Four Recovery Methods

WHILE RACING SAILORS USUALLY SPEND MORE time practicing man-overboard drills than casual sailors and cruisers, it doesn't make them immune to being lost overboard. Two sailors I knew drowned off raceboats in the past three years—one in Long Island Sound in 2002 and one off the coast of New Jersey last fall—so I was thinking well beyond the hypothetical already when I headed to San Francisco Bay last August to participate in the Crew Overboard Retrieval Symposium, an event sponsored by West Marine and Modern Sailing Academy, with support from Cruising Club of America, BoatUS Foundation for Boating Safety and Clean Water, Sailing Foundation of Seattle, Garmin, North Sails, and Landfall Navigation.

Last held in 1996, the Symposium included 120 volunteers from different disciplines in the sport as well as industry reps and a handful of boating writers. The plan was to test lifesaving gear introduced since 1996 and to determine which recovery methods worked best. From the opening day, it was obvious we'd be spending a significant amount of time on the water. Each morning, volunteer crews were given a list of specific tasks to perform on racing and cruising sailboats, ranging from 24 to 56 feet. A designated skipper was in charge of each boat and one of the crew, equipped with a Garmin handheld GPS and a notebook, sailed as a record keeper.

The rest of the crew would take turns steering, trimming sails, and trying to retrieve either Styrofoam heads, a 150-pound dummy, or volunteer divers. At the end of the day, each GPS's track would be

**ALL RECOVERY METHODS** showed the challenge of getting the victim aboard.



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**RECOVERING THE VICTIM** to leeward was generally preferred during this test event.

downloaded and matched with its respective record-keeper's written record. The skipper of each boat provided a videotaped debrief. Through all of this, event organizers hoped that after four days of observation, a large amount of valuable data would be in hand and ready to be distilled into a report.

I sailed one day and, to get a better overall picture, spent the rest of the event riding a Vessel Assist rescue RIB. We stood by as boats put "victims" in the water and tried four different methods of returning to the victim, many different techniques of getting the victim aboard, some tried-and-true and new pieces of recovery gear. Details and official observations from the Symposium

will be compiled into a report and released before the end of the year, but in the following pages, I'll share my observations.

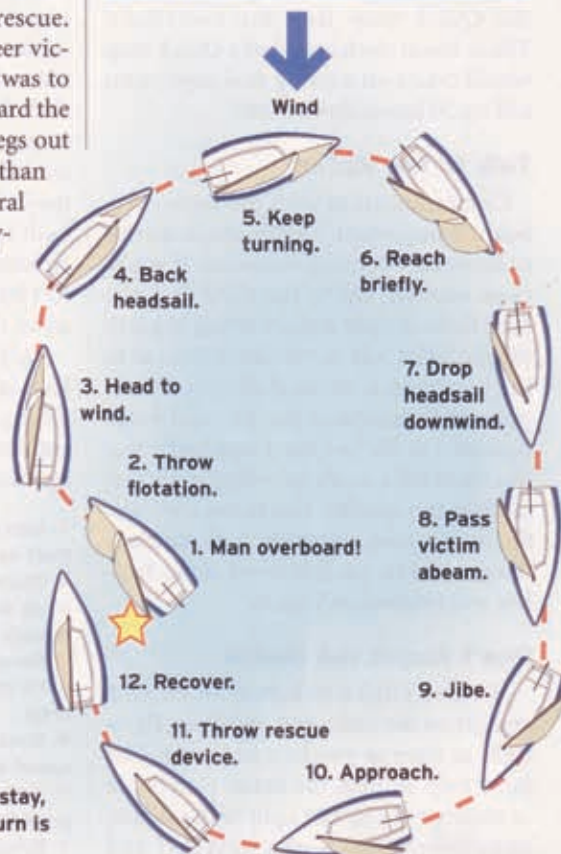
### Watch your speed

On the first day in particular we saw poor technique, which included approaching the victim at terrifying speeds. On many occasions, once the COB was attached in some way to a retrieval device, the boat was moving at a rate of knots that could potentially drown the very person they were trying to rescue. One valuable tip from our volunteer victims to potential crew overboard was to turn around (back of the head toward the boat) and spread your arms and legs out so your body would plane rather than plow. It was also suggested by several of the volunteer victims that every-

**ONE CREWMAN HOISTS** the victim aboard with a block-and-tackle system attached to a halyard.

one who sails should carry a knife because, if a victim is being towed too fast, he or she can cut themselves free. Once you've lost somebody overboard, reduce your sailplan. When jib sheets are cast off in more than 15 knots of breeze, they become thrashing tentacles that can injure

### 1. THE QUICKSTOP RECOVERY



### QUICKSTOP

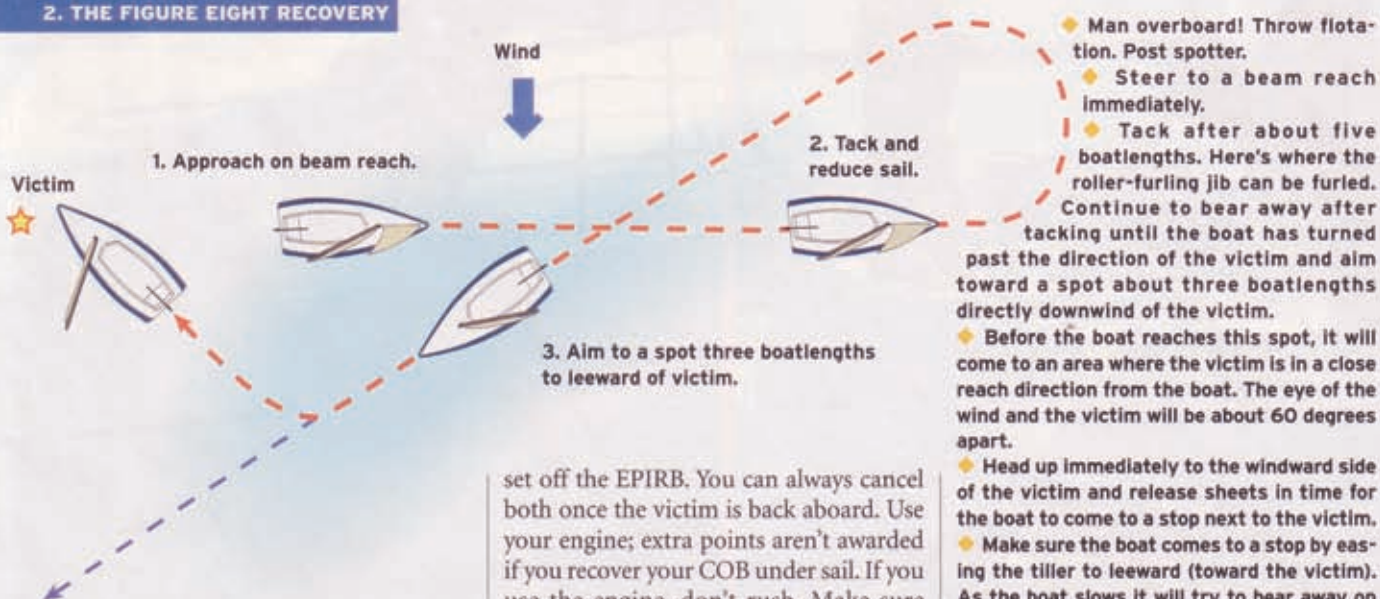
- ◆ Man overboard! Throw flotation. Post spotter.
- ◆ Bring boat head-to-wind and beyond.
- ◆ Allow headsail to back and further slow the boat.
- ◆ Keep turning with headsail backed until wind is abaft the beam.
- ◆ Head on beam to broad-reach course for two or three lengths, then go to nearly dead downwind.
- ◆ Drop the headsail while keeping the mainsail centered (or nearly so). The jib sheets are not slacked, even during the dousing maneuver, to keep them inside the lifelines.
- ◆ Hold the downward course until victim is abaft the beam.
- ◆ Jibe.
- ◆ Approach the victim on a course of approximately 45 to 60 degrees off the wind.
- ◆ Establish contact with the victim with heaving line or other device.
- ◆ Effect victim recovery from the windward side.

### QUICKSTOP UNDER SPINNAKER

- ◆ The same procedure is used to accommodate a spinnaker. Follow the preceding instructions. As the boat comes head-to-wind and the pole is eased to the head stay, the spinnaker halyard is lowered and the sail is gathered on the fore deck. The turn is continued through the tack and the approach phase commences.



## 2. THE FIGURE EIGHT RECOVERY



- ◆ Man overboard! Throw flotation. Post spotter.
- ◆ Steer to a beam reach immediately.
- ◆ Tack after about five boatlengths. Here's where the roller-furling jib can be furled. Continue to bear away after tacking until the boat has turned past the direction of the victim and aim toward a spot about three boatlengths directly downwind of the victim.
- ◆ Before the boat reaches this spot, it will come to an area where the victim is in a close reach direction from the boat. The eye of the wind and the victim will be about 60 degrees apart.
- ◆ Head up immediately to the windward side of the victim and release sheets in time for the boat to come to a stop next to the victim.
- ◆ Make sure the boat comes to a stop by easing the tiller to leeward (toward the victim). As the boat slows it will try to bear away on its own. When it comes to a stop, you can have the tiller 45 degrees to leeward and the boat won't head up due to loss of steerageway. At this point, the boat is stabilized and you can get the victim aboard without the boat trying to sail away.

or remove crewmembers from the deck. If the boat is equipped with a roller-furling headsail, it should be rolled; it will be just as easy to roll it out should steerage or boatspeed be required.

You need steerage way and boatspeed to get to your victim, but if you stay close enough to the COB you take away the intricate challenge of trying to balance speed and steerageway that a long approach requires. The Quick Stop (see diagram) can keep you close enough to the COB to use throwing devices, but the Quick Stop isn't for everybody. Think about the havoc that a Quick Stop would create on a swing-keel supermaxi sailing 30 knots downwind.

### Talk to the victim

Communication with the crew overboard is important. Victims are desperate to know they're being recovered. If you're close enough, yell to the COB that you have them in sight and are trying to get to them ASAP. Once the victim is secured to the boat with a retrieval device, it's important to continue the eye and voice contact. On the last day I watched a victim try to tell a boat's crew they were towing him too quickly. The entire crew was facing forward, occupied with sailhandling, as the victim was towed along, hapless and helpless, at 5 knots.

### Don't forget the basics

Hit the COB/MOB button on the GPS and get on the radio and broadcast PAN-PAN as soon as you lose someone. The more help around, the better the chance of recovery. If you lose sight of the victim, immediately broadcast a MAYDAY and

set off the EPIRB. You can always cancel both once the victim is back aboard. Use your engine; extra points aren't awarded if you recover your COB under sail. If you use the engine, don't rush. Make sure every line is accounted for and none are trailing from the boat ready to wrap around your prop.

Try to recover the COB to leeward; there will be less wind and wave action than a windward recovery, and the breeze will blow you toward the victim rather than away. Stern ladders and swim platforms only work when the sea condition is benign. When a boat is pitching in large waves, the stern could easily injure someone trying to board the boat via the transom.

Determine which return technique works best for your type of boat. The Corsair 24 trimaran's crew quickly figured out that the Quick Stop technique stopped the boat so quickly they couldn't reach the victim. When they tried the Figure 8, the speed built too quickly. In the end, no technique was accepted as perfect for the speedy tri; it depends upon the conditions.

We'll discuss gear in the following pages (Best Recovery Gear, p. 42), but from our observations, the LifeSling—developed as a result of an earlier COB

- ◆ Man overboard! Throw flotation. Post spotter.
- ◆ Place helm to weather, steer to deep beam reach (except when already running).
- ◆ Reverse helm at two boatlengths until steering just to weather of crew.
- ◆ Cast off all sheets and control speed with mainsheet.
- ◆ Lay vessel alongside crew providing a lee for person.
- ◆ Bring crew aboard.

seminar—works extremely well, as does its descendant, the inflatable LifeSling. MOM units, while expensive, are well worth the price. They are as complete a rescue package as can be delivered to a

## 3. THE DEEP BEAM REACH RECOVERY

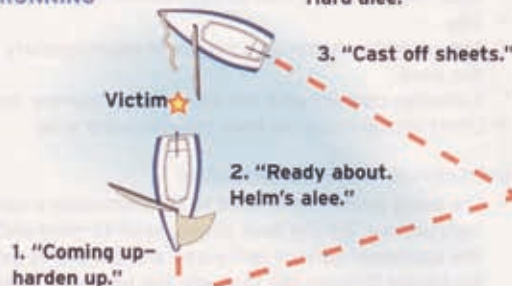
### GOING TO WEATHER



### REACHING

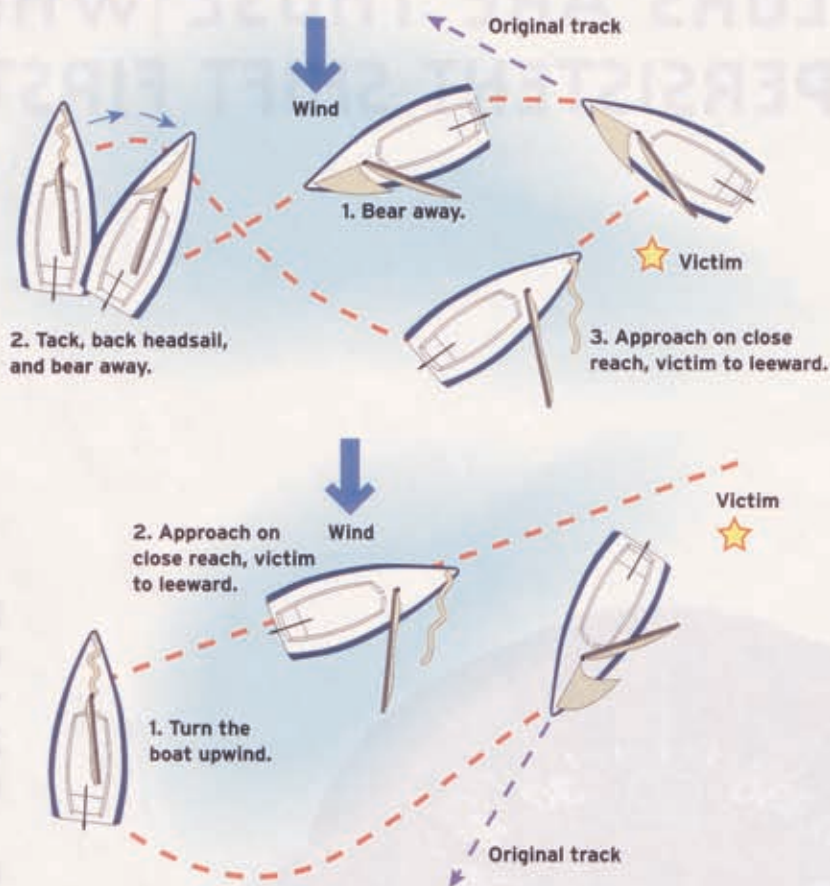


### RUNNING





#### 4. THE FAST-RETURN RECOVERY



#### In all cases

◆ **Man overboard! Throw flotation. Post spotter.**

**If the boat is sailing upwind**

- ◆ Turn the boat downwind,
- ◆ Tack into the wind about 2 to 2.5 boatlengths abeam of the victim.
- ◆ Back the jib, briefly getting below the victim.
- ◆ Approach on a close reach, with the victim on the lee side of the boat.

**If the boat is sailing downwind**

- ◆ Turn the boat upwind.
- ◆ Tack into the wind about 2 to 2.5 boatlengths abeam of the victim.
- ◆ To show a possible variation, here the jib does not need to be backed because the boat is already below the victim
- ◆ Approach on a close reach, with the victim on the leeward side of the boat.

**MOB victim.** A simple heaving line works well if the victim is close and conscious and should be a part of the safety gear on every boat longer than 15 feet.

And finally, the obvious: always wear a PFD and augment it with a harness and jacklines when sailing offshore or alone.

For more information on the Crew Overboard Retrieval Symposium, organized by John Connolly, Chuck Hawley, Karen Prioleau, John Rousmaniere and Ruth Wood, <http://cobevent.com>

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