

# BOAT RIDE INTO BOAT WRECK

By GySgt Brian McGeorge

When a mission commander embarked on a night operation involving two riverine assault craft (RAC) and five rigid raider craft (RRC), he failed to take an important element of the exercise with him – operational risk management (ORM). He returned with three Marines needing hospitalization and an RAC that was nearly destroyed.

This mishap happened as the Marines were heading to a beach to extract another unit and move them to “friendly” territory. During the transit, an unidentified civilian boat, approximately 40 feet long, hit the lead RAC on its starboard side.

The column of seven boats – an RAC in the lead with five RRCs following, and the other RAC at the end-had been doing about 20 knots. No one was using night-vision goggles, and the only visible lighting was chemical lights displayed on the RRC. The RACs had no working radar. The mission commander decided to go tactical and turned off all navigation lights en route to the beach. No wonder the civilian boater didn’t see the column. The commander also used only two ICS helmets on each RAC instead of the four required by SOP.

If the commander had used ORM, here’s how he would have assessed this mission and changed it to ensure success:

- ❑ Identify hazard: No navigation lights are displayed.
- ❑ Assess risks: The likelihood of collision is high; especially considering that waterway traffic is fairly heavy all times.
- ❑ Make risk decisions: Continue with the mission, but turn on navigation lights.
- ❑ Implement controls: Make sure all craft have navigation lights that work and crew members know they are to leave the lights on during the exercise.
- ❑ Supervise: Check to ensure lights are on before and during transit.

Here is another point that should have been considered before starting this mission:

- ❑ Identify hazard: None of the raider craft have working radar.
- ❑ Assess risks: The likelihood of collision is extremely high because the boats have no warning system. Given the planned speed and lack of lights, the reaction time to a hazard is slow. Damage or injury could be severe if boats collide.
- ❑ Make risk decisions: If radar is down, can navigation lights provide adequate warning to other vessels: Perhaps, but speed must be reduced.
- ❑ Implement controls: Place chemical lights on RAC to warn other vessels. Lights on RRC may not be visible because they are so close to the surface. Provide night-vision goggles to crew members to warn the column of approaching vessels or obstructions.
- ❑ Supervisor: Inspect the RAC to ensure chemical lights are visible and designated crew members have night-vision goggles that work.

Just because previous missions have been done without problems is never a valid excuse for blowing off ORM. Use this five-step, problem-solving tool to keep from making the same painful and costly mistakes made by others.

*GySgt. McGeorge is a combat-vehicle analyst in the Shore Safety Programs Directorate at the Naval Safety Center:*

### **Small Craft in Commercial Waterways: A Hazardous Combination**

During training exercises in small boats, the greatest hazards to Marines in CRRCs are the many commercial boats that may be in the area. For example, the cost off Camp Pendleton. California often has fishing boats, tugs and barges en route to Los Angeles and commercial tankers operating around the clock.

The larger an object, the slower it appears to move. For example, a commercial airliner seems to almost float on its approach-actually it is traveling at close to 150 mph.

Large vessels must maintain speed to steer and will not be able to slow down in time to avoid you. Because of their draft, they must stay in the channel; it's the only place deep enough for them to operate.

The pilot in the larger vessel may not be able to see you. His "blind spot" can extend for hundreds of feet in front of deep-draft ships, tugboats, and towboats pushing barges.

A ship's or towboats engine causes a strong undercurrent called "wheel wash," which can result in severe turbulence hundreds of yards behind a large vessel.

A tug without barges in front could be towing a log raft, barge or other objects on a long sub-merged line behind it. This line lies low in the water and is difficult to see. Never pass between the tug and what it is towing.

Finally, have you checked your craft's horn? The rules of the road require vessels to sound their horns when operating craft in fog and the visibility is decreased to such an extent that you cannot see more than a mile around you. Operating in bad weather or conditions with low visibility is extremely dangerous, and if there is no immediate operational commitment, a postponement may be the most practical course of action.