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Sailors aboard a destroyer belonging to one of our allies probably are glad there's more truth than fiction to the title of this article. Otherwise, they might be having nightmares about the people they injured and the property damage they caused in a residential area.

According to an Associated Press (AP) story, the destroyer was anchored when the crew mistakenly fired two live rounds of ammunition during a routine equipment test. The AP story quoted a defense-agency spokesman as saying the shells sailed harmlessly over the residential area and are believed to have landed in mountains six

miles away. He said no injuries or damage were reported—but carefully added that no one has found where the projectiles landed.

How did this happen? According to the AP story, an unidentified 39-year-old officer had placed the two live shells among blanks to be fired during the test. The spokesman said the officer had indicated he didn't know how to dispose of the shells, which were left over from a drill.

Mishaps like this aren't limited to our allied counterparts. I remember a similar U.S. Navy account published in our September-October 1993 issue.

After shooting nine rounds of a scheduled 18-round gunnery exercise, gunner's mates returned



a loaded Mk-75 gun to its stowed position (180 degrees R, 0 degrees elevation). In that position, the gun pointed at the stacks on the 02 level aft. Written procedures require keeping a loaded Mk-75 gun on a safe-fire bearing.

With the gun's hydraulics secured, the gunner's mates left the area. They planned to return after lunch and start downloading. The combat-systems officer would supervise. Unfortunately, a GMG1 and a GMG2 finished lunch before the others and started downloading without permission or a safety observer. The loaded gun still was in the stowed position.

After downloading the screw feeder (five rounds), the GMG1 went to the upper gunhouse to get ready for downloading the loader drum.

This procedure involved cycling the loader drum and slow-ramming a round until it was clear, then extracting it by hand. The GMG1 didn't take written procedures with him to the gunhouse.

Before downloading the loader drum, he didn't remove the empty case from the last round fired. This mistake bypassed an interlock designed to prevent an accidental ramming. As a result, disaster wasn't far away. The GMG1 used the hand lever to extend the cold recoil jacks, which hold back the slide and prevent a fast ram. During this action, however, the loader drum cycled, and a round dropped on the tray. Once the round was rammed, the gun fired.

The round entered the forward side of the 02-level stack (centerline) and traveled through it. Then the round burst into the unrep storeroom in the aft part of the stackhouse, deflected to starboard, and went through the storeroom's aft wall. As the round left the aft wall, it ripped off the upper portion of a hose camel, as well as the starboard door to the stackhouse fire station.

Heat from the round and metal fragments started a small Class A fire in the unrep storeroom. Firefighters put it out within five minutes.

Meanwhile, fragments from the round, the

stackhouse, and the unrep room penetrated the unrep locker aft of the stacks and struck the CIWS mount. Fragments also fell on the flight deck and damaged an SH-60B helicopter. The gun cycled after firing and rammed another round into the

breech. The second round, however, didn't fire. The gunner's mates treated it as a misfire.

Like the earlier incident, this one could have been catastrophic and killed innocent people. It shows why it's so important to follow standard

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Navy photo by PH2 Thomas Lorentzson



*Navy photo by JO2 Craig P. Strawser*

procedures. Sailors taking part in a combined NATO naval exercise weren't as lucky. As reported in our September-November 1994 issue, a mistaken firing killed the CO and four crewmen aboard a NATO ship and injured 13 others.

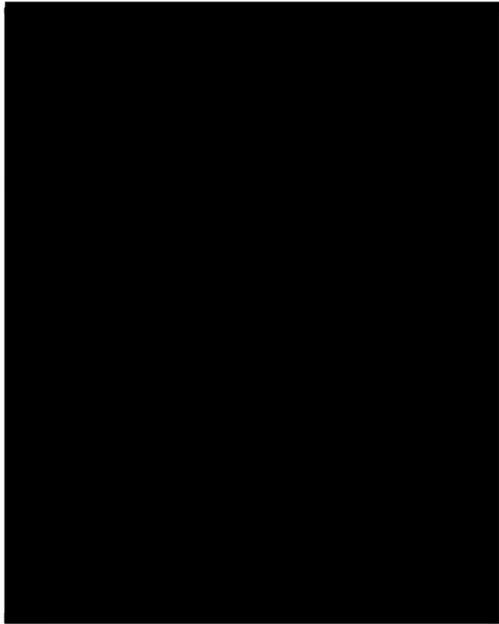
Everyone in the simulated hostile green force and friendly brown force knew the plan included simulated engagement of the hostile force with missiles and guns. No one would arm or release live weapons, though.

Minutes before the enhanced tactical phase of the exercise started, the officer in tactical command (OTC) received a call from the combat direction center officer (CDCO) aboard an aircraft carrier (part of the brown force). The CDCO said he planned to simulate engaging the green force with the NATO Seasparrow Surface Missile System. The OTC hadn't planned to use this system, but he didn't object because he figured the CDCO wanted to do some training. What the

OTC didn't realize was that no one else—not even the antisurface warfare commander—knew the CDCO's plan.

In support of his last-minute plan, the CDCO gave orders to wake up the personnel required to man the missile system and its CDC interface. This action was unusual because the carrier's published policy for Condition III level of readiness was to stand down the target acquisition system (TAS) watch. If the OTC had known about this policy when the CDCO called him, he would have handled the situation differently. Why? Because the OTC's standing battle orders called for manning the TAS 24 hours a day during all in-theater, underway steaming.

With no briefing on what was happening, the carrier personnel started manning their missile system and CDC stations. Once everyone was in place, the CDCO passed an order to bring the system on line. Events were moving quickly now,



especially for people who had been sound asleep just a few moments earlier. The stage was set for an exercise to turn deadly.

At 2352, the TAS operator designated three “unknown assumed enemy” surface tracks to the firing-officer-console (FOC) operator in the missile system. One minute later, he asked permission to “arm and tune” (assign) from the ship’s weapons coordinator (SWC), who passed the request to the TAO. After he got permission, the TAS operator ordered the missile-system watch to “arm and tune.” Unfortunately, the SWC and TAO didn’t have the same understanding of this term as the FOC and TAS-console operators. To the operators, the term meant to activate the missile system, arm the launcher, and assign its missiles.

“Is this the real thing?” asked personnel in the aft missile-system mount.

“This is real world. Arm and tune,” replied the TAS operator, without getting confirmation from the TAO or SWC.

At 2355, the FC3 from the aft missile-system mount went to the launcher and shifted eight arm-inhibit switches to “arm.” He turned both safe-operate plugs to “operate.” At midnight, the FOC operator started assigning the missiles.

During the next few minutes, the CDCO continued simulating engagement of at least one target with two missiles. Officers in the ship’s CDC and fire controlmen manning the missile system and TAS console, however, continued the launch sequence. Neither group was aware of the other’s understanding of the engagement. As a result, at 0004, the FOC operator engaged the “firing authorized button,” selected salvo size 2, and assigned the launcher to director B. Then, he told the TAS operator he was preparing to fire.

As soon as he had an acknowledgement, the FOC operator pushed the fire button for a two-missile salvo. Two NATO Seasparrow missiles then left the aft launcher and hit the bridge of the NATO ship (part of the simulated hostile green force), killing five people and injuring 13 others.

What caused this mishap?

- The CDCO decided too late to simulate a missile-system engagement without a pre-exercise brief.

- The SWC didn’t brief the TAS operator.

- Some people misunderstood the term “arm and tune.”

- The TAS operator didn’t ask the SWC or TAO if the exercise was real-world or simulated.

- No one manned the TAS console until the CDCO decided to use the missile system for a simulated engagement. If the TAS operator had manned the console throughout the exercise, he would have known the exercise involved only a simulated attack.

- People didn’t use standard terminology or a checklist for the missile-system firing sequence.

With operational risk management, none of these incidents would have occurred. We must train our Sailors to evaluate hazards as part of reaching their objectives. We can apply this process to every aspect of our lives. With it, we can maximize results while minimizing risk and the effort required to reach our goals.

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