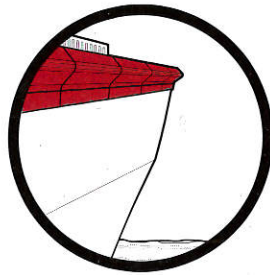**Meanwhile, in Ship Antipiracy**

By Jeremy Hsu

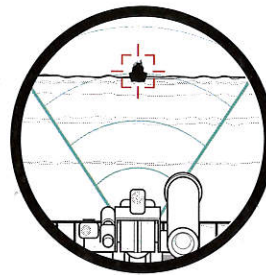# New Hands-Free, High-Seas Defenses

LOW TECH

The Guardian is a series of bright-orange plastic barriers that fit onto ships' safety rails to thwart potential hijackers. Designed by a British couple, the system uses a bullet-resistant, high-density compound to form a slippery, 3-foot-wide overhang that renders ropes, hooks, and ladders ineffective—they simply can't attach. Guardian barriers are custom-made, and crews can install them more safely than they can barbed wire. In May 2013 a container ship fitted with the barriers successfully fended off an attack by Nigerian pirates.

HIGH TECH

WatchStander uses patented software algorithms developed for the U.S. Navy along with off-the-shelf hardware parts to track and deter pirates. The system's radar can spot small boats from up to 2 miles away. If suspicious vessels approach, a tracking spotlight becomes a dizzying strobe light. Manufacturers are also working on getting other nonlethal defenses, such as blinding lasers, chemical sprays, and water cannons, deployed later this year. Earlier in 2014 WatchStander staved off a swarm of 12 Iranian wooden skiffs in the Strait of Hormuz during a pilot test. **PopMech**