



Center for Strategic and Budgetary Assessments

**IN THE NEWS**

## **The Lesson of the USS Fitzgerald Tragedy: U.S. Navy Warships Need More Armor?**

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Related Expert: Bryan Clark

“This is a mission kill on Fitzgerald that will require months and likely more than \$100 million to repair,” Bryan Clark, a former naval officer and senior fellow at the Center for Strategic and Budgetary Assessments told The National Interest. “To cause similar damage with a missile, you would need a large warhead that causes a lot of hull and fire damage or a torpedo that damages the ship below the waterline. A small ASCM [anti-ship cruise missile] may not cause a comparable level of damage as this collision.” “I agree this shows how a modern warship is relatively easy to take out of action,” Clark said. “That is not only a function of having less armor on today’s warships, however. It is also driven by improving threats and the number of fragile, interconnected sensors, computers, and weapons launchers distributed throughout the ship. For example, a DDG hit by a small ASCM that damages the aft VLS [vertical launch system] magazine and helo hangar would not necessarily take a DDG completely out of service, but the loss of weapons capacity and of aft-facing sensors like SLQ-32 may make the ship too vulnerable to operate in a contested environment. If a DDG were struck forward, as in this case, weapons and sensors would be even more likely to end up out of commission.” Clark agreed that there is an argument to be made to adding armor to modern warships. However, there is a trade off, the ship would necessarily have to dedicate more space to carry armor—or it would have to be larger. In either case, added armor might impact the vessels’ stability and maneuverability. “Adding more armor to ships would be helpful, but will add weight and could impact the ability to place sensors, weapons, and other mission systems where they are most effective,” Clark said. “You don’t want armor to get in the way of sensors like radar, and countermeasures like EW [electronic warfare] systems, and of weapons launchers like VLS. Armor in the superstructure is especially problematic because it adds weight high in a ship, which can affect stability.”