



Center for Strategic and Budgetary Assessments

STUDIES

Advancing Beyond the Beach: Amphibious Operations in an Era of Precision Weapons

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Resources: Future Warfare & Concepts

The U.S. Navy and Marine Corps have been the world's most formidable amphibious force for more than seven decades. They have maintained more than 10 ships and 6,000 Marines continuously deployed since World War II, and conducted dozens of operations against contested beaches, islands, and cities in that time. The competition between amphibious forces and defenders ashore, however, is entering a new, more deadly, phase. Enemy surface-to-air missiles and anti-ship cruise missiles have gained the reach and lethality to protect long areas of coastline and significantly constrain America's options for an amphibious assault. To continue exploiting the maneuver space of the sea for operations ashore, U.S. naval forces require new operating concepts and capabilities to protect ships and aircraft, distribute amphibious forces to dilute enemy attacks, gain access to contested areas and deny it to the enemy.

Bryan Clark and Jesse Sloman's study examines the changing environment for amphibious operations, new operating concepts needed to be effective in the emerging environment, and implications for ships, surface and vertical connectors, naval aviation, unmanned systems, sensors, communications and weapons.