Rethinking Aircraft Carriers

By

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When Americans think of aircraft carriers, they think of projection of force across the seas, particularly in regions where the United States does not have access to airfields. Many consider having them the mark of a superpower.

There is some debate, however, as to their continued utility in modern times. They are costly to build, at least $13 billion, require a large complement of personnel, require an escort, and are vulnerable to attack from ballistic missiles and now hypersonic weapons. Disabling an American aircraft carrier would be a priority for enemy nations, as it would be a symbolic victory with great propaganda value for them. An aircraft carrier is simply a very attractive target that, depending upon the analyst, is more or less of an easy target. A missile strike that causes even a listing of a few degrees or propulsion damage can prevent them from being used by air assets.

While on paper supercarriers can carry up to 130 aircraft, they typically have about 70 aircraft of varying types at any given time. Some are under maintenance, some allocated to fleet protection, with the rest able to conduct offensive operations. Using rough math and averaging air wings, at any given time a carrier may have an estimated 15 aircraft in the air for offensive operations. Thus, in a large-scale conflict, it would be best for multiple carriers to work in concert, and for the navy to "surge" personnel and aircraft to deployed carriers.

The most dangerous threat to this strategy is the potential for an adversary, like China, to employ nuclear weapons against a carrier strike group. China, for example, could claim American naval assets are violating its sovereign waters, constituting an invasion, and employ nuclear weapons against the carrier strike group, hundreds of miles from land.

Such a scenario is certainly not a high probability but is a reasonable concern with an uncertain outcome. The ability of fleet defenses to prevent such a strike is uncertain. However, this risk does not negate the utility of carriers, in general. In fact, there may be some utility in building at least two supercarriers with even longer flight decks than the Gerald R. Ford class.

There are two areas where carriers have a possible future: carrying large swarms of long-legged drones and serving as mid-point logistical platforms. Such supercarriers could also host anti-satellite weapons and ballistic missile interceptors, changing the boundaries and layers of continental missile defense, as needed.

Ostensibly, a drone-focused carrier can serve as a waystation for land-based drones and even host drone operators. With advancements in remotely operated underwater vehicles (ROUV), it would make sense to redesign a new class of assault ships that can launch them. These can also be built cheaper and crewed by fewer personnel, with the goal of having more. In fact, they can be designed to be mostly unmanned and operate within the protection of a carrier strike group.

For supercarriers, their use behind the main lines of combat, between strike groups and mainland bases, has the potential to make them mobile bases for the purposes described above. Should a peer conflict begin in the Indo-Pacific, their use would be between Japan or Australia, and Hawaii, or as an alternative to American bases in the Pacific should China, for example, strike these bases.

The future use of aircraft carriers may be by American allies, whom, if trained, could deploy their own aircraft from American ships. South Korea and Japan, for example, have airfields in the region but, if struck by North Korea or China, may need an alternative hub to refuel and rearm. If land-based aircraft and airfields are at risk, it makes sense to have alternatives.

Contemplating and integrating the capabilities described is certainly well outside the US Navy's current operational concept. American naval strategy is well established and slow to change, but, if former Indo-PACOM commander Admiral (Ret.) John Aquilino's "hellscape" concept of a future asymmetric battlefield in the Indo-Pacific were to ever become a reality, rethinking the use of aircraft carriers may become a necessity.

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