Missiles Go to Sea

By HANSON W. BALDWIN

The nuclear age has gone to sea. Last week's news from the Pentagon that the Navy is studying a ship-based anti-ballistic missile system emphasizes once again —in modern context—Alfred Thayer Mahan's "influence of sea power upon history."

In mobility and in weapons, the marriage of the "Nuke" and the ship has transformed the two-dimensional navy with control of the seas as its objective to a three-dimensional navy with the added objective of attack against, and defense of, the great continental land masses of the world.

Strategically and tactically the role of the Navy has been transformed by the nuclear age; the depths of the sea, the space above the atmosphere and every part of every land mass on earth are now accessible to modern naval power.

Today, the single most important nuclear contribution of the Navy is its fleet of 41 missile-firing submarines, each equipped with 16 missiles, each capable of destroying with its megaton nuclear warhead any city on earth.

Nuclear-powered engines—which require no air—enable these submarines to remain completely submerged for indefinite periods and their mobility and invisibility give them unequaled defensive invulnerability.

Plans for Poseidon

The submarine-launched ballistic missile has, moreover, another major asset; it draws the lightning of enemy nuclear attack toward the seas rather than—as land-based missiles do—toward the the populated land.

In the next few years the Polaris family of missiles will be succeeded by the fourth-generation Poseidon, a missile with greater power, capable—alternatively—of carrying a larger warhead for a longer distance or several warheads, as well as various devices known as penetration aids to help the missile break through the enemy's defenses.

This submarine missile force, which is an important part of the nation's strategic nuclear offensive capability, may become even more important in the next step of the arms race. If the Russians develop MIRV—Multiple Individually guided Reentry Vehicles—or several warheads for each missile, each capable of maneuvering along a different trajectory to its target, the threat of destruction to a fixed missile launcher ashore may become so great that the defensive answer may have to be to put more missiles at sea.

In addition to the Navy's ballistic missile bombardment force, the Navy's planes, flown from carrier decks, have a definite role in nuclear war. However, the nuclear role of naval aviation is now more "tactical" than "strategic"; the targets of naval aircraft are primarily near the periphery of the enemy's territory—submarine bases, airfields, radar and missile sites—rather than targets deep in the interior.

Nuclear Depth Charge

The Navy, like the other services, has developed so-called tactical, or smaller, nuclear weapons for specific purposes. A nuclear depth charge, which can be projected from plane or surface ship, is designed for use against enemy submarines. Small atomic bombs for taking out point targets—such as a strongpoint on a beach, are available. As far as is known, the Navy has no nuclear shells, but its short-range missiles—fired from surface ships or from planes—can carry nuclear warheads. Development of a naval model of the Army's 175 mm. gun is under way, and a whole "family" of new naval guns, some with rocket-assisted shells, others with devices to multiply present ranges many times, are under study. Any or all of these could utilize nuclear shells or warheads.

The Navy has also pioneered in the use of nuclear power for surface ships; the nuclear-powered aircraft carrier Enterprise has chalked up records in combat off Vietnam. Nuclear power for surface ships provides virtually unlimited high-speed cruising range, frees the ship of dependence upon oilers, eliminates stack gases and provides so many other advantages that despite Secretary McNamara's reluctance (based on greater costs) a nuclear powered fleet for all major vessels seems certain.

The Navy's seagoing anti-ballistic missile system would work this way. A number of ships—some with powerful radar, others as launching vessels—would position themselves across the "window" or angle of approach of missiles launched against the United States from bases in Communist countries. Such a sea-based system would provide an outer line of missiles could be made during their mid-course and terminal phase.