

REPORT BY THE COMPTROLLER  
GENERAL OF THE UNITED STATESISSUES AFFECTING THE NAVY'S  
ANTISHIP CRUISE MISSILE  
PROGRAMSD I G E S T

The Navy, to meet existing and projected threats from enemy surface ships armed with long-range missiles, has three antiship cruise missiles in various stages of development. These missiles are designed to provide the Navy with a standoff capability against enemy ships. (See p. 1.)

The missiles under development are the Harpoon, the Tomahawk Antiship Missile (TASM), and the Medium Range Air-to-Surface Missile. The Harpoon is deployed on surface ships and on submarines and can be launched from aircraft. It has a range of about 60 nautical miles and a program unit cost of about \$886,000. TASM is being developed to be launched from surface ships and submarines. It has an operational range of about 250 nautical miles and a program unit cost of about \$4.4 million. (See pp. 1, 17, and 18.)

SIGNIFICANT ISSUES THAT NEED TO  
BE ADDRESSED IN THE TASM PROGRAM

TASM may be approved for production in December 1981. However, a number of basic issues should be resolved before that date. Continuing TASM should depend on considerations, such as mission need, expected operational performance, and effectiveness. Issues which should be considered are:

- The mission need for TASM has never been officially approved and the threat is relatively low. (See pp. 4 and 5.)
- The TASM system's utility could be adversely affected by large decreases in approved quantities, possible salvo firing requirements, and lowered operational requirements. (See pp. 6 and 7.)

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These factors should be carefully considered and reevaluated to determine whether TASM is likely to fill a priority need. These matters are particularly important now that the production decision for submarine-launched TASMs is scheduled for December 1981.

### AN ASSESSMENT OF NAVY'S OVER-THE-HORIZON TARGETING EFFECTIVENESS IS NEEDED

To effectively use its long-range antiship missiles, the Navy needs to accurately detect, classify, and target over-the-horizon ships. Such a capability exists, but the Navy's evaluation of 1978 tests and fleet exercises showed that its current over-the-horizon detection, classification, and targeting (OTH-DC&T) capabilities is seriously limited.

All subsystems of the OTH-DC&T system are limited to varying degrees. Especially weak are ship identification and battle damage assessment. Since fleet ships and submarines are not equipped to perform OTH-DC&T, Harpoon and TASM OTH-DC&T must be done by combining onboard sensors, remote sensors, or undedicated and scarce fleet aircraft resources. (See pp. 9 to 11.)

Improvements are being tested and evaluated, and some Navy officials believe a capability acceptable to the Defense Systems Acquisition Review Council will be demonstrated for submarines by the scheduled TASM production decision in December 1981. Assessments of OTH-DC&T capability have been made and corrective actions have been instituted. However, an assessment of the likelihood of adequate over-the-horizon effectiveness over a range of the most probable scenarios and the resulting contribution to or limitation of TASM success, particularly in crisis or wartime conditions, has not been made. Such information is essential for making a production decision on TASM. (See pp. 9, 15, and 16.)

Demonstrating an acceptable OTH-DC&T capability by December 1981 will be a formidable task because of restrictive requirements (e.g.,

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minimize use of new and dedicated systems) and the technical difficulties and funding restrictions which exist. Testing and evaluation lacks specific criteria for success, is conducted in a structured environment, and is highly dependent on scenarios. (See p. 15.)

### REDUCTION IN MISSILE QUANTITIES AND OTHER ISSUES AFFECTING OPERATIONAL EFFECTIVENESS

Quantities of Harpoon and TASM being procured or planned for procurement are significantly less than the needs estimates. The operational capability of the two weapon systems could be seriously limited particularly since more, rather than fewer, will probably be needed for salvo tactics (firing several at one time) which the Navy is developing. (See p. 20.)

Currently, the fleet has a shortfall of Harpoon missiles, and a shortfall is also anticipated at program completion in fiscal year 1984, if current procurement plans prevail. High level Navy officials are critical of the shortages because fleet readiness is impaired. (See p. 20.)

Readiness of the Harpoon missile is impaired because the required logistics support has not been fully provided. During Harpoon development, more emphasis was given to producing a missile for service use and not enough was given to logistics support. As a result, although Harpoon received provisional approval for service use in 1975, deficiencies still exist in areas such as training, maintenance, spares, and documentation needed to support the system. The Navy believes that logistic shortfalls have been identified and efforts are being made to resolve them. (See p. 23.)

### RECOMMENDATIONS TO THE SECRETARY OF DEFENSE

GAO recommends that the Secretary of Defense direct the Navy to:

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--Specifically define the TASM mission and the Soviet threat and consider TASM utility in light of the large decreases in approved quantities, possible salvo firing requirements, and lowered operational requirements.

--Establish test criteria for evaluating the OTH-DC&T capability and conduct an assessment of its available capability simulating a more realistic environment using the most likely scenarios in which antiship cruise missiles will be needed.

--Determine whether Harpoon and TASM can be effective against the threat with the reduced procurement quantities, particularly in view salvo firing tactics being developed.

--Require that logistic support be given greater emphasis so that Harpoon readiness will be improved.

GAO did not request official comments on this report because of the tight reporting deadline. Instead, a draft of this report was discussed with high level officials associated with management of the program to assure that the report is accurate and complete. Their points of view are included where they differ with GAO's.