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REPORT BY THE
COMPTROLLER GENERAL
OF THE UNITED STATES

DEFENSE PLANS TO DEPLOY
SOME CRUISE MISSILES
BEFORE THEY ARE READY

D I G E S T

Tomahawk cruise missiles--subsonic, jet-powered airframes designed to deliver nuclear or conventional warheads--can be launched from the air, sea, and ground. Five variants of the missile are being acquired for use against various land and sea targets. The Department of Defense has placed a high national priority on the deployment of cruise missiles, which military analysts believe can be more cost effective than aircraft in attacking some heavily defended targets. (See p. 1.)

Full-scale production decisions for the submarine launched Tomahawk conventional land attack and antiship missiles are currently scheduled for May 1982, with initial deployment of missiles produced during limited production scheduled for June 1982--full-scale production decisions for these missiles were previously scheduled for December 1981. Initial deployment of other Tomahawk variants are scheduled between 1983 and 1985. Together, the five Tomahawk variants represents a program cost of over \$10 billion. (See p. 1.)

This report is part of GAO's annual review efforts to provide the Congress with an independent evaluation of certain weapon system programs and with information to consider when making judgments concerning some cruise missile programs.

TOMAHAWK CONVENTIONAL LAND ATTACK
CRUISE MISSILE MAY BE DEPLOYED WITH
LIMITED CAPABILITIES

Because of problems during operational testing, the Tomahawk conventional land attack cruise missile full-scale production decision has been delayed to May 1982 and initial deployment to June 1982. If deployed as currently scheduled, the missile will not be fully capable because:

--It can not effectively attack certain important targets with the attack options and



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conventional warheads currently available.
(See pp. 6 to 9.)

--It will not be able to attack most potential targets in certain geographical areas because guidance maps have not been prepared.
(See pp. 9 and 10.)

--Questions concerning the missile's survivability remain unresolved. (See pp. 10 and 11.)

TOMAHAWK ANTISHIP CRUISE MISSILE
MAY ALSO BE DEPLOYED WITH LIMITED
CAPABILITIES

Because of problems and delays in operational testing, the Tomahawk antiship cruise missile production decision has also been delayed to May 1982, and initial deployment to June 1982. Unless improvements are made, the missile's effectiveness will be limited when it is initially deployed and the numbers required could increase significantly. Specifically:

--Recent test results show problems in accurately targeting the missile. Unless soon to be released evaluations or future testing show improvements, the antiship missile's effectiveness may be limited when deployed. (See pp. 14 to 18.)

--Questions concerning the missile's survivability could have a significant impact on its effectiveness. (See pp. 18 and 19.)

--If the missile is used against secondary targets and current missile limitations are considered, the number of missiles currently approved may not be adequate to satisfy mission needs. (See pp. 18 to 20.)

--Recent Navy studies indicate that disabling a target is not a simple matter. (See pp. 21 and 22.)

GROUND LAUNCHED AND MEDIUM RANGE
AIR-TO-SURFACE MISSILES

Apart from its performance as an integrated system, which has not yet been tested in an operational environment, the principal issue in the ground launched cruise missile program is the total number which will eventually be required. Both the location and number of

missiles eventually deployed could be affected by such matters as the recently resumed arms talks between the United States and the Soviet Union. (See pp. 24 to 28.)

The latest Tomahawk variant--the medium range air-to-surface missile--is to be used by both the Navy and the Air Force. Since the development of the missile began, in March 1980, the Navy has repeatedly attempted to avoid funding its portion of the program's cost. This raises possible questions about the Navy's need as well as their commitment to procure this missile. (See pp. 28 and 29.)

Also, the Department of Defense has not yet begun to include the medium range air-to-surface missile in the Selected Acquisition Reporting system. The program is currently in full-scale engineering development and is expected to cost \$4.5 billion. (See p. 29.)

CONCLUSIONS AND RECOMMENDATIONS

Because of two test flight failures, the Tomahawk conventional land attack cruise missile's full-scale production decision has been delayed to May 1982 and initial deployment to June 1982. If deployed as scheduled, the types and geographical locations of targets it will be able to effectively attack will be limited. These limited attack capabilities could become critical if certain improvements are not made before the missiles are deployed in significant numbers. These include the development of improved software, alternative warheads, and additional guidance maps. Since initial deployment will involve a small number of missiles, the limited capabilities of the missile may not be a problem because there should be a sufficient number of targets available which it can effectively attack. However, if deployed in significant numbers with its current limitations, the result could be the proliferation of missiles which cannot be fully used against a wide spectrum of high value targets. Thus, an approach needs to be taken which would tailor the production and deployment of the Tomahawk conventional land attack missile to the availability of targets it can effectively attack.

GAO, therefore, recommends that the Secretary of Defense direct the Secretary of the Navy to limit fiscal year 1983 and later year production rates of the Tomahawk conventional

land attack missile to those which can be effectively used against a wide spectrum of high value targets.

Because of problems and delays in operational testing, the Tomahawk antiship missile's full-scale production decision has also been delayed to May 1982. Nevertheless, the Navy still expects to meet its scheduled initial deployment date of June 1982. Unless improvements are made, the missile's effectiveness will be limited when it is initially deployed. These limitations, in addition to the possibility of expanding the missile's target base, raise questions about the number of missiles required and the eventual cost of the program.

The eventual cost of the program cannot be determined until an inventory objective is established which takes into consideration the missiles' limitations and potential additions to its target base. Accordingly, GAO recommends that the Secretary of Defense direct the Secretary of the Navy to establish a total inventory objective for the missile which is based upon its limitations and potential additions to its target base. GAO further recommends that any changes which result, in terms of numbers needed and its affect on program cost, be included in the Selected Acquisition Reporting system.

GAO also recommends that the Secretary of Defense:

- Reevaluate the Navy's need for the medium range air-to-surface missile. If the need for the missile is reaffirmed, the Secretary should ensure that adequate funding is provided by the Navy to meet the missile's projected deployment date or revise the scheduled deployment date as appropriate.
- Require that the medium range air-to-surface missile be included in the Selected Acquisition Reporting system.

VIEWS OF PROGRAM OFFICIALS

GAO did not request official comments on this report because of the need to issue the report in time for congressional consideration of the fiscal year 1983 defense budget request. GAO did, however, discuss a draft of the report with high level officials associated with

management of the program and they agreed with the facts presented. Their views are incorporated as appropriate.