DIGEST

The Landing Craft Air Cushion (LCAC) is an advanced design, high-speed air cushion vehicle being developed by the Navy for use in conducting amphibious operations. A $38.6 million contract for long-lead items and detailed design was awarded to Bell Aerospace Textron in June 1981. Total program acquisition costs are estimated at about $3.2 billion, in escalated dollars, for 107 craft. (See pp. 1 and 3.)

This review was conducted to provide the Congress with an assessment of the LCAC program as it approaches the start of production in 1982 and to identify important issues which should be considered in progressing to full production in 1985.

LCAC is being developed to replace current landing craft which possess a number of operational performance limitations. Although still being designed, studies conducted and testing completed on full-scale advanced development air cushion vehicles supports LCAC's potential to improve the Navy's surface assault capability. (See pp. 6 to 8.)

LCAC is expected to possess a number of operational advantages, such as high overwater speed and the ability to cross the beach and discharge cargo on firm ground. Navy studies have also identified disadvantages associated with its introduction. These are high cost, increased maintenance requirements, and modifications to ships that will transport LCAC. (See pp. 8 and 9.)

There are a number of additional matters which will require special attention and monitoring as the program progresses to the full-scale production decision scheduled for 1985. These are:

--To take full advantage of LCAC's potential operational capabilities, the Navy and the Marine Corps have determined that a revised operational
the fleet. The resolution of program issues, (See pp. 22 and 23.)

The third part reviews the project to monitor and ensure

the periodic reviews to monitor and conduct

the maintenance of low-risk programs and conduct

3,496 million. This increase in the importance

of LACs at 12 LACs at a cost of

limited production of the

the Navy's plans for the

were initiated in 1995, the Navy plans

were not

been tested. (See pp. 22 and 23.)

representative for LAC's operational suitability

presents better LAC's operational suitability

certification, certification tested for 1995. The fleet

 cannot be evaluated, until test and evaluation of a representativ

such as reliability, maintainability, and saliency

cannot command on LAC's operational suitability,

technically effective. However, the fleet

stated that LAC has the potential to be opera

working, operational test and evaluation program

merit and commissioning vehicle, the Navy's com

as a result of tests of the advanced develop

2. The program, (See pp. 22 and 23.)

latter would introduce an additional risk into

LM-200, it being studied, selection, sufficiency. The

although the Navy believes the evidence problem

pressure problems associated with the TP-48

tion. However, the Navy has identified com-

has been used to support LAC's limited produc

The use of demonstrated, low-risk technology

meritability. (See pp. 19 to 21.)

bonuses, and the need to decrease cost cut-

corrosion of electrical and electronic com-

than include proper fleet and system evaluation.

be resolved and incorporated into the LAC de-

development and calculation variables which need to

problems identified during testing of advance

and other issues. (See pp. 17 to 18.)

since these issues, reviewed operational concept,

November 1, 1982, to review the LAC concept

directed a program review no later than

the Secretary of the Navy has

planning and conduct of future LAC's and

have significant importance in the

material required, the plan's suitability

since requirements, the number of craft utilized

operational tactics and doctrine is necessary.

concept and changes to current amphidrome
In October 1980 the Deputy Secretary of Defense, citing low risk as a basis, waived the first scheduled LCAC major milestone review at full-scale development. Then in June 1981 the program was designated a nonmajor acquisition because the dollar threshold criteria used for designating major systems increased. The Secretary of the Navy was then designated the decision authority for future program reviews. While this delegation of authority is consistent with current Defense initiatives, recent decisions have increased the program size to where cost is now estimated to be $3.2 billion. As such, it should be a high visibility program necessitating close monitoring. (See pp. 23 and 24.)

LCAC is not presently on the Selected Acquisition Report system. As a result, high-level visibility by top Office of the Secretary of Defense management and congressional oversight committees is not available in the same way as Selected Acquisition Report-designated systems. This lack of visibility deprives key decisionmakers of a useful management tool. (See p. 24.)

COMING EVENTS

The first major program review, to be held no later than November 1, 1982, will be extremely important in ensuring that LCAC's acquisition strategy is appropriate and can be achieved.

RECOMMENDATIONS TO THE SECRETARY OF DEFENSE

Although the Secretary of the Navy has been designated the decision authority for future LCAC program reviews, the Secretary of Defense is the ultimate decisionmaker on all weapon system acquisitions, in that he has the final say over the budget preparation in the Department of Defense. Because the Secretary of Defense will not be directly involved in detailed reviews of the program, and in accordance with the new Defense acquisition initiatives, GAO recommends that the Secretary, as a minimum, closely scrutinize the Navy's acquisitions plans for LCAC during the Program Objective Memorandum and the Program, Planning, and Budgeting System reviews. This would include determining how

the revised LCAC operational concept will influence craft performance requirements, system
design, number to be procured, and program cost;

--LCAC will interface with and influence the composition of future surface assault forces, such as the Marine Corps LVT-X program; and

--the LCAC test program is being structured to ensure that any changes in the craft's performance thresholds as a result of agreements reached on the operational concept have been incorporated into the future test plan.

GAO also recommends that the Secretary of Defense direct the Secretary of the Navy to make sure the ongoing lead production effort, regardless of its size, provides adequate milestones for monitoring cost, schedule, and performance progress. Special attention should also be given to those matters not specifically planned for the Secretary of the Navy review scheduled for no later than November 1, 1982, including

--the effect engine selection will have on the program as currently structured;

--accumulation of assessable reliability, maintainability, and availability data; and

--the incorporation into the LCAC design of solutions to problems identified during testing of advanced development air cushion vehicles, including propeller and lift fan erosion, corrosion of electrical and electronic components, and the need to decrease craft vulnerability.

GAO further recommends that the Secretary of Defense require preparation of Selected Acquisition Reports on LCAC beginning with the April 1982 quarter. This would provide decisionmakers and the Congress with valuable information.

MATTERS FOR CONSIDERATION BY THE CONGRESS

Although LCAC has been designated as a nonmajor acquisition, GAO believes the program demands high visibility by top Department of Defense management and congressional oversight committees. The Congress should pay particular attention to the actions surrounding the acquisition of this multibillion dollar program. The critical management actions identified in this report and the forthcoming decisions to acquire
LCAC will have significant budgetary implications for years to come.

VIEWS OF PROGRAM OFFICIALS

GAO did not request official comments on this report because of the need to issue it in time for congressional consideration of the fiscal year 1983 defense budget request. GAO did, however, discuss a draft of this report with high level officials associated with management of the program and they agreed with the facts presented. Their views are incorporated as appropriate.