

REPORT BY THE COMPTROLLER
GENERAL OF THE UNITED STATES

THE F-16 PROGRAM: PROGRESS,
CONCERNS, AND UNCERTAINTIES

D I G E S T

The F-16 was conceived as the "low" element in a "high/low" concept of mixing high performance, costly aircraft (the F-15) with greater numbers of simpler, less expensive aircraft (the F-16). It eventually evolved into a multimission aircraft to replace the F-4 aircraft. It is being developed in a cooperative undertaking between the United States and four European North Atlantic Treaty Organization countries. The current program provides for coproduction of 998 aircraft--650 for the United States and 348 for the European countries. Other countries have bought or are considering buying the F-16. Moreover, the U.S. F-16 program now calls for an additional 738 aircraft. The program cost estimate is about \$18.7 billion.



The F-16 program is generally progressing on schedule and meeting performance requirements. Its current program cost estimate per aircraft of \$6.4 million (fiscal year 1975 dollars) is within its estimate of \$6.7 million (fiscal year 1975 dollars). Moreover, the operational commands are satisfied with the aircraft's performance, and its mission capable rates have met or exceeded Air Force expectations. However, technical, operational, and program concerns and uncertainties exist. Those involving classified data have been omitted from this digest. (See pp. 12 to 15, 17 to 25, and 27 and 28.) Others are described below:

--Provisions are now being built into the F-16 to allow for future improvements which would transform it into a more expensive and sophisticated weapon system to meet perceived mission needs into the 1990s. Two different configurations are being considered--a "swing" aircraft for air-to-air and air-to-surface missions and a missionized air-to-surface aircraft. Approval of this change followed

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years of disagreement within the Department of Defense over what capabilities the F-16 should have. If the actual transformation takes place, it would be a change to the original F-15/F-16 high/low mix concept. (See pp. 7 to 10.) GAO believes that in view of the increased capability that would result if the improvements are made, Defense should provide justification to the Congress for the total number of F-16s and the number of differently configured F-16s that it believes are required. (See pp. 14 and 15.) GAO also believes that the policy set forth in the Office of Management and Budget (OMB) Circular A-109 for approving mission needs and identifying and exploring alternative solutions could and should be applied in a broader sense to the needs being addressed by the planned improvements. (See pp. 15 and 16.)

--Risk and uncertainty exists regarding the improvement efforts which are being considered. Planned improvements for the missionized air-to-surface configuration may exceed the F-16's currently available cooling capacity. The currently available space may be adequate to incorporate the planned improvements for each configuration, but allows little room for growth for the missionized air-to-surface configuration. Other uncertainties regarding the improvements involve classified data. (See pp. 12 to 14.)

--The F-16 achieved its initial operational capability on schedule, but future site activation dates have been stretched out because production rates were reduced. (See p. 40.)

The F-16 program cost estimate has increased from \$6.1 billion to \$18.7 billion primarily due to a twofold increase in the quantity of aircraft to be acquired, higher than anticipated inflation, and a planned reduction in future production rates. Incorporation of planned improvements would further increase program costs. (See pp. 41 and 42.)

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RECOMMENDATIONS

We recommend that the Secretary of Defense:

- Provide to the Congress in the Air Force's budget hearings an assessment of the cost, risk, and impact on F-16 logistics support that the F-16 improvements will have, if incorporated.
- Provide justification to the Congress for the total number of F-16s and the number of differently configured F-16s that would be required if the improvements are incorporated as now planned.
- Inform the Congress as to the current and expected effect on the U.S. F-16 program of the foreign military sales to Israel and Egypt.
- Direct that mission element need statements be drafted, based on mission analyses at broad mission levels (including the Air Force and the Army contributions), to establish a Defense-wide position on the mission deficiencies being addressed by the planned improvements for the F-16 and other aircraft.
- Review the above mission element need statements and either (1) formally identify the improvements as the accepted approaches to satisfy the mission deficiencies or (2) direct that other possible solutions be solicited and given adequate consideration in accordance with OMB Circular A-109.

GAO's August 20, 1980, report on F-16 integrated logistics support (see app. I) contained recommendations in such areas as underfunded war readiness spares, technical orders, uncertain depot-level repair capability, and problems with deploying automatic test equipment. The Air Force actions on the recommendations in that report are still pending.

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

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management of the program, and a draft was submitted to the European countries participating in the multinational F-16 program to assure that the report is accurate. Their points of view are included where they differ with GAO's. For example, officials of General Dynamics--the prime contractor--disagreed with GAO's concern about the difficulty in achieving and sustaining a high level of readiness as more F-16s are deployed. (See p. 44.) Some of their comments, however, either objected to the tone of the draft report or provided explanatory data which, in some cases, did not warrant inclusion in the report.