

2400
120656



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

MISSION ANALYSIS AND
SYSTEMS ACQUISITION DIVISION

FEBRUARY 28, 1983

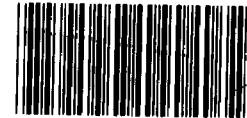
B-201266

The Honorable Mark O. Hatfield
Chairman, Committee on Appropriations
United States Senate

The Honorable John G. Tower
Chairman, Committee on Armed Services
United States Senate

The Honorable Melvin Price
Chairman, Committee on Armed Services
House of Representatives

The Honorable Jamie L. Whitten
Chairman, Committee on Appropriations
House of Representatives



120656

Subject: Matters of Concern Observed in Evaluation
of the Advanced Medium Range Air-to-Air
Missile Program (GAO/MASAD-83-17)

This letter summarizes our observations on the status of the Advanced Medium Range Air-to-Air Missile (AMRAAM) program. We are reviewing the extent to which AMRAAM is likely to satisfy Air Force and Navy performance objectives and the status and significant issues concerning this missile program. Our evaluation of the program is continuing, and we plan to issue a follow-on report later this year, if warranted.

AMRAAM is intended to replace the Sparrow system. The new missile is to be compatible with the latest Air Force and Navy fighter aircraft and be capable of operating both within and beyond visual range. AMRAAM is to be faster, more reliable, and more resistant to electronic countermeasures than Sparrow. It is also to have an active radar seeker which affords several important operational advantages. AMRAAM is being developed by the Air Force and the Navy to meet their joint operational requirements in the 1985-2005 time frame. As of November 1982, the life-cycle cost of the missile system was estimated at about \$14 billion.

AMRAAM has experienced significant cost growth in the past 2 years. The program is dynamic and uncertainty surrounds what the future holds. Auditable data has been scarce to us to examine in detail until recently when the Secretary of Defense approved

(951683)

024690

full-scale development. We believe the AMRAAM system has not had sufficient visibility before the Congress. Before February 1983, the Department of Defense had not prepared and furnished the Congress with Selected Acquisition Reports nor with Unit Cost Reports, called for by Public Law 97-86--December 1, 1981, and we are concerned that many relevant factors will not be evident even if the Department of Defense initiates periodic reporting later this month. Consequently, we are bringing the following information to your attentions to help identify AMRAAM program issues which merit development in the hearings your Committees will be conducting during the next several weeks.

In the course of our current review 1/ of the AMRAAM program, we have observed the following:

- Assessments and simulations made of operational usefulness during 1981 and 1982 highlighted the favorable combat attributes of AMRAAM. These studies, however, suggest that some AMRAAM-related capabilities may have only marginal usefulness in combat.
- AMRAAM technical performance remains uncertain. Validation phase ground tests and simulations and captive and guided flight tests with Air Force and Navy aircraft have provided increased assurances that some performance goals can be achieved and have identified other areas which are to be emphasized during full-scale development. Some scheduled tests, however, either were not done or were only partially completed. Consequently, some critical issues and technical characteristics have not been fully demonstrated. Demonstration of the missile's total performance will not be possible until after the planned November 1984 production commitments because the final increment of software will not be available until May 1985.
- Full-scale development testing is scheduled to continue well beyond the initial commitment to production. The validation phase schedule


1/We have twice reported on previous reviews of the AMRAAM program: "Progress and Problems of the Advanced Medium Range Air-to-Air Missile Program" (C-MASAD-81-6, February 23, 1981) and "Effectiveness of the Advanced Medium Range Air-to-Air Missile Is Uncertain" (C-MASAD-81-17, August 4, 1981).

proved to be unrealistic, and the full-scale development schedule seems to be no less ambitious.

--A July 1982 estimate shows AMRAAM's acquisition cost has more than tripled since concept validation began 3-1/2 years ago, and this does not include known elements which could add substantially to acquisition costs. While we have not examined the details, a November 1982 Secretary of Defense estimate shows that the program's life-cycle cost may approach \$14 billion.

We are prepared to discuss these matters in detail with your staffs if desired.

We are sending copies of this letter to the Director, Office of Management and Budget, and to the Secretary of Defense.



W. H. Sheley, Jr.
Director