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United States General Accounting Office

GAO

Fact Sheet to the Honorable  
Bill Chappell,  
House of Representatives

April 1986

# FIRE SUPPORT SYSTEM

## Status of the Marine Corps Integrated Fire and Air Support System



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

NATIONAL SECURITY AND  
INTERNATIONAL AFFAIRS DIVISION

April 28, 1986

B-222814

The Honorable Bill Chappell  
House of Representatives

Dear Mr. Chappell:

As requested on February 21, 1986, we expanded our work on fire support command and control (C2) systems to obtain information on the Marine Integrated Fire and Air Support System (MIFASS). MIFASS is designed to coordinate and control, with automated equipment, Marine Corps artillery fire and air support assets.

On April 14, 1986, we provided you a copy of our prior report on MIFASS.<sup>1</sup> In that report, we recommended that the Secretary of Defense

- consolidate responsibility in the Office of the Secretary of Defense (OSD) for fire support C2 systems to enhance central direction in pursuit of common and interoperable systems and
- assess, independently of the services, the potential for common fire support C2 systems in the Army and the Marine Corps.

However, no action has been taken as yet to consolidate OSD responsibilities and little has yet been done to achieve common Army and Marine Corps fire support C2 systems. Although consideration was recently given to consolidating these responsibilities in OSD in response to your January 24, 1986, letter to the Secretary of Defense, we were informed that a decision was made not to consolidate. However, an OSD representative did state that OSD plans to study the potential to develop common fire support C2 systems.

To develop information concerning the potential to merge MIFASS with similar Army fire support C2 efforts, we submitted a series of questions to Marine Corps officials. We have provided you with a copy of their responses. Some key aspects are highlighted below.

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<sup>1</sup>Development of Fire Support Command and Control Systems by the Army and the Marine Corps (GAO/NSIAD-84-15, October 1983).

- Similarities of hardware between MIFASS and the Army's interim Light Field Artillery Tactical Data System (LFATDS) do not exist because LFATDS is basically commercially ruggedized equipment and MIFASS has been developed in accordance with military specifications. Similarities between MIFASS and the Army's Advanced Field Artillery Tactical Data System (AFATDS) are unknown because AFATDS hardware is not yet fully defined. However, some of the hardware functions are similar since most of the basic doctrinal requirements for both the Marine Corps and the Army are alike.
- Software functional similarities exist between the systems. Successful tactical and technical employment of artillery for both services requires certain basic calculations.
- Similarities also exist between mission requirements. But, AFATDS at initial operational capability (IOC) will be less capable than MIFASS at IOC.
- The benefits of codevelopment and coproduction include
  - (1) lower unit acquisition cost,
  - (2) common logistics with reduced system life-cycle costs,
  - (3) more economical training and training support, and
  - (4) better interoperability between the systems.
- From the Marine Corps perspective, the codevelopment and coproduction of a fire support coordination system would best be served by codevelopment and coproduction of either MIFASS or a future program to follow MIFASS and AFATDS. The MIFASS program is further along in development than AFATDS. The AFATDS is still largely conceptual, and the AFATDS concept does not meet all Marine Corps needs.
- The MIFASS production contract is scheduled for fiscal year 1989 with a 1992 IOC. The Marine Corps prefers to continue its development and fielding as currently planned.

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The results of our discussions with Marine Corps officials, as well as with OSD officials, are summarized in appendix I.

We hope that this information and the information already provided will be useful to you in upcoming deliberations. Unless you publicly announce its contents earlier, we plan no further distribution of this fact sheet until 30 days from the date of this letter. At that time we will send copies to interested parties and make copies available to others upon request. If you have additional questions or if we can be of further assistance, please contact me on (202) 275-4841.

Sincerely yours,

  
Richard Davis  
Associate Director

MARINE INTEGRATED FIRE AND AIR SUPPORT SYSTEMBACKGROUND

--Total estimated program cost (research and development (R&D) and procurement)	\$843.8 million
--Total R&D spent through fiscal year 1986	101.6 million
--Fiscal year 1987 funding request (R&D only)	7.7 million
--Balance to complete R&D and procurement	734.5 million
--Quantity to be procured	5 systems

STATUS

- Development testing II to be completed July 1986.
- Operational testing II to be completed February 1987.
- Production decision April 1987.
- IOC 1992.

SCOPE OF WORK

- GAO has performed limited work primarily at the Marine Acquisition Sponsor's Project Office (ASPO), Headquarters, Marine Corps, Washington, D.C.
- MIFASS program data was gathered in response to a series of 11 GAO questions discussed with the ASPO.

SUMMARY OF FACTS

--MIFASS development has been slow.

- (1) Full-scale engineering development contract awarded September 1979 with estimated IOC 1985.
- (2) Hardware testing began in May 1980.
- (3) Selected functions were deferred or deleted in December 1981 for implementation at a later date.
- (4) Currently, the operational testing II is scheduled to begin in August 1986 with IOC estimated at 1992.

--MIFASS uses 1970's technology and is heavier than intended.

--Marines plan to initiate a Product Improvement Program after MIFASS fielding to incorporate field identified deficiencies.

--MIFASS and AFATDS share much commonality.

- (1) Common operational activities:
  - (a) fire support coordination,
  - (b) fire planning/execution,
  - (c) target intelligence,
  - (d) communications, and
  - (e) technical fire control.
- (2) Common equipment characteristics:
  - (a) screen display,
  - (b) computer,
  - (c) data storage capacity,
  - (d) communications processor,
  - (e) printer,
  - (f) integration device,
  - (g) power control,
  - (h) power generation, and
  - (i) environmental function requirements.
- (3) Common operational goals:
  - (a) mobility,
  - (b) survivability, and
  - (c) interoperability.

(4) Common training held at Fort Sill, Oklahoma.

--Some system differences do exist. For example, the MIFASS includes air control functions which the Army system does not yet have.

- OSD Command, Control, Communications, and Intelligence representatives state they would favor consolidation of Army and Marine programs and they plan to study the feasibility of consolidation.
- Marines support the consolidation of the next generation of Army and Marine programs, but only after gaining initial field experience and operational capability with MIFASS.
- Army's new program called AFATDS has a IOC of 1990 compared to the IOC of 1992 for MIFASS.
- The Army is testing a lightweight TACFIRE interim automated system in 9th Infantry Division. The remaining light divisions will receive a data system to interoperate with automated Battery Computer Systems. Such interim off-the-shelf equipment could be provided to the Marines to speed the fire support process according to OSD and Marine Corps officials.

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