



UNITED STATES GENERAL ACCOUNTING OFFICE

WASHINGTON, D.C. 20548

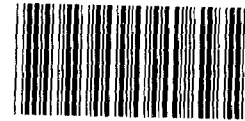
119260

MISSION ANALYSIS AND  
SYSTEMS ACQUISITION DIVISION

B-208595

AUGUST 20, 1982

The Honorable John O. Marsh, Jr.  
The Secretary of the Army



119260

Attention: The Inspector General  
DAIG-AI

Dear Mr. Secretary:

Subject: Deficiencies Identified With an Urban Warfare  
Modeling Program at the TRADOC Systems Analysis  
Activity (GAO/MASAD-82-46)

On February 25, 1982, we advised the Secretary of Defense that we were initiating a review of Department of Defense (DOD) efforts relative to military operations on urbanized terrain. As part of our review, we found that an important element of DOD's efforts is an Army project at the TRADOC Systems Analysis Activity (TRASANA) to develop a computer model to assess the Army's urban warfare capabilities. Our examination of that modeling effort showed that several fundamental management principles have not been applied. Although our overall review of DOD's urban warfare programs will not be completed until early 1983, we are bringing these matters to your attention now to provide you an opportunity to direct immediate actions that will improve the results of this modeling effort.

BACKGROUND

In response to interest expressed by the Army and an international defense group comprised of representatives of American, British, Australian, and Canadian armies, TRASANA is developing a model to assess the effectiveness of various weapons and tactics in an urban area. Specifically, the Army plans to use the TRASANA model to (1) evaluate the effectiveness of their doctrine and tactics relative to the unique features of urban warfare and (2) identify future combat development needs for the urban battlefield. This report discusses our concerns about the potentially limited use of the TRASANA model to satisfy these Army plans.

FINDINGS AND CONCLUSIONS

TRASANA has been developing its urban warfare model since November 1980. This modeling effort is scheduled to be completed

(953020)

023168

by May 1983 at a cost of about \$1 million. We found that several fundamental control and coordination tasks that are essential for successful model development have not been implemented. For example: formal plans have not been developed, cost data for specific developmental phases have not been formulated, periodic reporting between model developers and management has not been established, and user requirements have not been considered in designing the model. As a result of these tasks not being implemented, the TRASANA model may have only limited use to assess current Army urban warfare programs and to identify future combat development needs for military operations on urbanized terrain.

The failure to follow generally accepted systems development standards and the absence of a project manager have contributed to these tasks not being implemented.

#### Failure to follow generally accepted systems development standards

Federal information processing standards require that management exercise sufficient control to determine the adequacy of design, where improvements are needed, and if user needs are being addressed. These standards, as promulgated in Federal Information Processing Standards Publication 64, are intended for use throughout the federal government to plan and evaluate management information systems.

The urban warfare modeling effort has failed to follow these standards. For example, TRADOC reviewed the project in April 1982--midway in the development cycle--and concluded, among other things, that the project failed to assess user requirements and had an inadequate data development plan. However, the only milestone for corrective action established by TRADOC was a directive that TRASANA formulate a data development plan by July 15, 1982. During our discussions with TRASANA on July 14, 1982, we were told that even this single milestone had been extended indefinitely.

TRADOC officials agree that such standards should be followed. However, they said that if they were forced to follow the standards, they would have to seek a waiver to meet their May 1983 completion milestone. Otherwise, the scheduled completion date would have to slip.

#### Absence of a project manager

As a matter of good management practice, project managers are assigned as a central point of authority with responsibility for coordinating and controlling developmental efforts.

At the outset of the urban warfare modeling effort in November 1980, TRADOC designated a project manager but did not assign

formal responsibility or authority. Even though that project manager left in December 1981, a new project manager has not been assigned. Based on our discussions with Army officials, it is not clear to us why a manager has not been assigned and given formal responsibility and authority.

In our opinion, the presence of the factors discussed above constitute inappropriate management control of this TRADOC project. Also, these deficiencies raise doubts as to the potential for the TRASANA modeling effort to serve as a tool for the Army to assess the effectiveness of its doctrine and tactics as well as future combat development needs for fighting on urbanized terrain. Further, if the TRASANA model does not provide such a tool, it will also not satisfy the Army's need for an analytical basis for evaluating proposed urban warfare programs.

RECOMMENDATIONS TO THE  
SECRETARY OF THE ARMY

To make the urban warfare modeling effort more responsive to user needs and to provide adequate control over the project, we recommend you direct TRADOC to take the following actions:

- Require TRASANA to follow standardized and formalized systems development procedures as stated in Federal Information Processing Standards Publication 64. Specifically, formal plans should be developed, cost data for developmental phases should be formulated, periodic reporting between model developers and TRADOC management should be established, and user requirements should be considered.
- Appoint a project manager with formally assigned responsibility and authority to direct development efforts. The completion milestone should be evaluated and action should be taken quickly to raise the level of attention being given to meeting the established objectives. This should be a fundamental goal for the new project manager.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget, and the Secretaries of Defense, Air Force, and Navy. Copies are also being sent to the Chairmen of the Senate and House Committees on Budget, Armed Services, and Appropriations; and the Chairmen, House Committee on Government Operations and the Senate Committee on Governmental Affairs.

We would appreciate receiving a copy of your statement when it is provided to the congressional committees.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "W. H. Sheley, Jr.", written in dark ink.

W. H. Sheley, Jr.  
Director