

## DOCUMENT RESUME

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**The Nuclear Weapons Joint Flight Test Program Needs Stronger Management Controls (Unclassified Digest of a Classified Report).** PSAD-78-98; B-165546. May 30, 1978.

**Report to the Congress; by Elmer G. Staats, Comptroller General.**

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**Contact: Procurement and Systems Acquisition Div.**

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**Organization Concerned: Department of Defense; Department of the Air Force; Department of the Army; Department of the Navy; Department of Energy.**

**Congressional Relevance: Congress.**

Joint flight tests play a key role in determining the combat readiness of deployed nuclear weapons and have been instrumental in identifying and correcting serious problems that were found only under operational flight conditions. The Joint Flight Test Program verifies that nuclear weapon systems function correctly in the flight environment, confirms the continued compatibility of Department of Defense (DOD) and Department of Energy (DOE)-designed systems and procedures, and provides input to the reliability assessment of the system. The tests permit system components to be tested in an operational environment, except those which would lead to radiation releases or a nuclear detonation. Findings/Conclusions: DOE and DOD are not realizing maximum benefits from the program because management controls are not clearly defined. DOD has not always cooperated with DOE in providing carrier systems, missiles, or aircraft when required for joint flight tests. Consequently, fewer tests were performed than the minimum required by DOE to accurately assess the combat readiness of the remaining weapons in the stockpile. Serious reliability problems may continue to go undetected because some nuclear warhead components are not tested, weapons tested are not selected from the total population, and some test weapons and environments are not representative. DOE's weapons reliability assessments are not as meaningful as possible because large amounts of nonjoint test data dilute recent test results. Memoranda of understanding, which were formulated by the Departments to guide program operations, do not place responsibility for the timely and proper performance of program operations or provide adequate criteria to insure uniformity in testing and reliability assessments. Recommendations: The Secretaries of DOD and DOE should enter into a new agreement which: assigns responsibilities and priorities for scheduling and timely performance of tests, specifies procedures for selecting and preparing weapons for tests and for conducting tests to ensure

that they are representative of the stockpile and operational environments, and prescribes uniform criteria for evaluating test results used in making weapon reliability assessments. The Congress should require the Departments to provide assurance that they have taken action to improve interdepartmental agreements and guidance for the program. (Author/HTW)

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COMPTROLLER GENERAL'S  
REPORT TO THE CONGRESS

THE NUCLEAR WEAPONS JOINT  
FLIGHT TEST PROGRAM NEEDS  
STRONGER MANAGEMENT CONTROLS

## D I G E S T

Joint flight tests play a key role in determining the combat readiness of deployed nuclear weapons and have been instrumental in identifying and correcting serious problems that were found only under operational flight conditions. However, stronger management controls are needed to further increase the effectiveness of the test program.

### THE JOINT FLIGHT TEST PROGRAM

The Joint Flight Test Program (1) verifies that nuclear weapon systems function correctly in the flight environment, (2) confirms the continued compatibility of Department of Defense- and Department of Energy-designed systems and procedures, and (3) provides input to the reliability assessment of the system. The tests permit nearly all system components to be tested in an operational environment, except those which would lead to radiation releases or a nuclear detonation. (See p. 1.)

### FINDINGS AND CONCLUSIONS

GAO examined the Joint Flight Test Program to evaluate its effectiveness in identifying weapon system defects for correction and in providing test data for assessing the reliability of the Nation's deployed nuclear force. Energy and Defense are not realizing maximum benefits from the program because management controls over it are not clearly defined. Specifically:

--Defense has not always cooperated with Energy in providing carrier systems, missiles, or aircraft when required for joint flight tests. Consequently, fewer tests were performed than the minimum required by Energy to accurately assess the combat readiness of the remaining weapons in the stockpile. In some instances

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this occurred when the services conducted flight tests of their carrier systems without Energy material. (See pp. 5, 6, 7 and 8.)

--Serious reliability problems may continue to go undetected because some nuclear warhead components are not tested, weapons tested are not selected from the total population, and some test weapons and test environments do not closely represent actual operational use of deployed weapons. (See pp. 11, 12 and 13.)

Energy's weapons reliability assessments are not as meaningful as possible because large amounts of nonjoint flight test data used in compiling the assessments dilute recent test results. (See p. 14.)

These conditions could continue unless management controls over program operations are strengthened. Memoranda of understanding, which were formulated by the Departments to guide program operations, do not

--place responsibility for the timely and proper performance of program operations and

--provide adequate criteria to insure uniformity in preparing weapons for tests, conducting tests, and making reliability assessments. (See pp. 18 and 19.)

### RECOMMENDATIONS

To make sure that joint flight tests are conducted to maximize benefits and achieve program objectives, the Secretaries of the Departments of Defense and Energy should enter into a new agreement which

--assigns responsibilities and priorities for scheduling and timely performance of tests,

--specifies procedures to be followed in selecting and preparing weapons for tests and in conducting the tests to ensure they are representative of the stockpile and operational environments, and

--prescribes uniform criteria for evaluating test results used in making weapon reliability assessments. (See p. 19.)

#### AGENCY COMMENTS

Energy agreed with most of GAO's conclusions and recommendations. It disagreed with the conclusion that Energy weapon reliability assessments are not as meaningful as possible. Defense agreed that there was a need for standardized weapon selection criteria and for a uniform reliability assessment methodology. It did not agree that memoranda of understanding governing the program should be strengthened to improve management control over the program. (See pp. 19 to 21.)

Although the Departments did not fully agree with the concerns GAO raised on the Joint Flight Test Program in this report, they did agree to promptly review the program operations, including: (1) memoranda of understanding, (2) procedures for selecting and preparing weapons for tests, (3) conducting tests, and (4) the criteria for evaluating test results. Energy believes the review will result in identifying what actions are needed for the proper degree of program control. (See pp. 19 to 21.)

#### MATTERS FOR THE ATTENTION OF THE CONGRESS

The effectiveness of the Joint Flight Test Program depends heavily on the coordination and cooperation between two major departments, which receive funding for this program through separate congressional actions. In the absence of direct funding control, the Congress should require the Departments to provide assurance that they have taken action to improve interdepartmental agreements and guidance for the Joint Flight Test Program.