

GAO

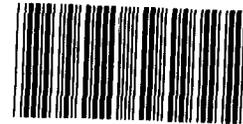
United States General Accounting Office

Report to the Chairman, Committee on  
Armed Services, House of  
Representatives

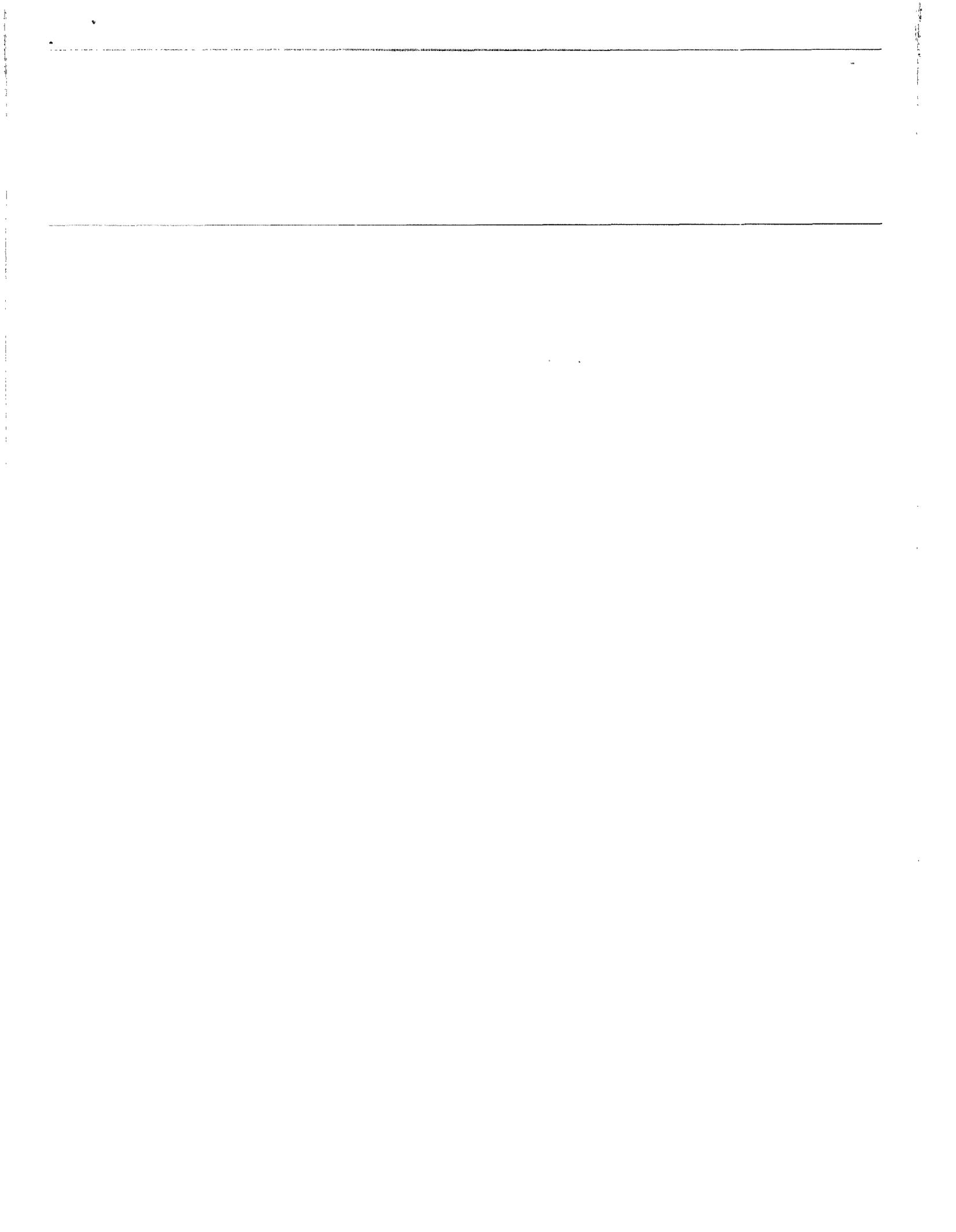
January 1991

# NAVY BUDGET

## Status of Flying Hour and Steaming Day Performance Indicators



143047



**National Security and  
International Affairs Division**

B-235728

January 29, 1991

The Honorable Les Aspin  
Chairman, Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

You requested that we update information on the Navy's actions in response to House Report 100-563, dated April 5, 1988. The report directed the Navy to provide budget justifications for its aircraft flying hour and ship steaming day programs, which are to include measurable mission-related goals and the resources needed to meet the goals, a method for measuring the degree to which the goals have been met, and an explanation of any differences between the goals and the actual results.

**Results in Brief**

The Navy added three performance indicators in its fiscal year 1990 steaming day budget justifications to comply with the directives in House Report 100-563. The Navy has not yet developed performance indicators for its flying hour budget justifications but anticipates that indicators will be incorporated in the fiscal year 1992 budget justification documents. The Navy presented revised numeric estimates for the fiscal year 1990 steaming day indicators with the fiscal year 1991 budget justifications but did not explain the reasons for the differences between budgeted and revised estimates.

In addition, the Navy initiated some actions and continued other efforts to quantify the relationship of flying hours and steaming days to proficiency and mission readiness. The Navy has

- studied the relationship between the Navy's training program and aircrew proficiency,
- identified what training aircrews need and how often the training is needed, and
- examined the correlation between the amount and frequency of flying hours and steaming days and proficiency and mission readiness.

However, other factors besides the number and frequency of flying hours and steaming days, such as personnel, equipment, materiel, and maintenance, affect proficiency and mission readiness. Consequently,

---

quantifying the relationship between budget requests and accomplishment of program goals is difficult. The increased operational requirements brought on by Operation Desert Shield will further complicate this process. Thus, the Navy cannot relate actual versus planned program performance in terms of program expenditures.

---

## Background

The Navy's aircraft and ship operation programs are funded by its operation and maintenance appropriation. Personnel that operate Navy aircraft and ships gain proficiency through the flying hour and steaming day programs, respectively.

The flying hour program budget for combat aircraft is based on a formula that includes the average number of operating aircraft in the Navy's inventory, planned crew-to-seat ratios, the number of assigned aircrews, budgeted flying hours per crew per month, total budgeted flying hours, and cost per flying hour. The amount of flying done by each fleet aircraft squadron varies, depending on the type of aircraft and whether the squadron is deployed or advancing through the various stages of training in preparation for the next deployment.

The steaming day program budget is based on a formula that considers the number and types of ships in the Navy's inventory, the number of operating and planned maintenance months, and utility, fuel, repair parts, and other estimated costs.

The directives in House Report 100-563 were based on our ongoing reviews of the Navy's flying hour and steaming day programs. In July and August 1989, we reported<sup>1</sup> that the Navy had not linked the number of flying hours and steaming days and the amounts budgeted and spent to measurable program goals and results. Thus, the Navy could not relate actual versus planned program performance in terms of how proficiency and mission readiness would be affected at various funding levels (if program spending was increased or decreased).

---

## Navy Actions

The Navy has taken actions to link proficiency and mission readiness to resource requirements. These actions are as follows.

---

<sup>1</sup>Naval Aviation: The Flying Hour Program's Budget and Execution (GAO/NSIAD-89-108, July 7, 1989) and Navy Steaming Days: Budget and Execution (GAO/NSIAD-89-172, Aug. 2, 1989).

---

Beginning with the fiscal year 1990 budget, the Navy included three performance indicators with its steaming day budget justifications. These indicators are the number of ship operating months to be supported, the average number of ships to be deployed, and the estimated number of training exercises to be conducted. The Navy presented revised fiscal year 1990 estimates for these indicators in the fiscal year 1991 budget but did not explain the reasons for the quantitative changes, the effect on the budget, or the expected impact on proficiency and mission readiness. For example, the number of ship operating months decreased from 4,662 in the fiscal year 1990 budget to 4,396 in the fiscal year 1990 revised budget. No explanation was provided for this decrease.

The Navy is reviewing budget criteria for the flying hour program, but it has no specific information on the performance indicators that are useful to justify and measure the program. However, the Navy is hopeful that improved indicators can be included in the fiscal year 1992 budget justification documents.

The Office of the Chief of Naval Operations for Air Warfare initiated a study of the relationship of the Navy's training program and aircrew proficiency. The study, performed by the Center for Naval Analyses, evaluated how F/A-18 aircrew proficiency improved as squadrons progressed through their training program to prepare for their next deployment. One official involved with the study stated that preliminary results indicate that a correlation exists between an aircrew's proficiency and how far it has progressed through the training program. The final results of the study are expected to be issued in early 1991.

The Atlantic and Pacific fleets have developed a matrix that identifies specific training events and when these events need to be accomplished for aircrews to be proficient in their primary mission areas. The matrix also identifies the number of annual flying hours that each aircrew and squadron requires to accomplish its training plus requirements for other training resources, such as ordnance, training ranges, and adversary aircraft. Navy officials said that they are evaluating whether the matrix can be used to set goals, measure performance, and demonstrate budget requirements.

Other Navy-sponsored studies being conducted when House Report 100-563 was issued have identified a correlation between the number and recency of flying hours and steaming days and proficiency. However, these studies did not provide a basis for computing the optimal

---

number of hours or days that are needed to acquire proficiency or provide data to show whether less training affects job performance.

Navy program and budget officials told us that they are continuing to develop and evaluate measurable performance goals that can be used to justify budget requirements, but they are having difficulty finalizing these goals because performance and readiness are also affected by factors other than the number and frequency of flying hours and steaming days. These factors include personnel, equipment, supplies, maintenance, ordnance, and other training resources. In addition, world crises and other unplanned events can affect performance. The Navy has stated that it will continue efforts to develop ways to relate proficiency and mission readiness to budget requirements. However, the Navy does not believe that this relationship will be quantified in the near term because of the impact that factors other than the number and frequency of flying hours and steaming days have on performance.

---

## Scope and Methodology

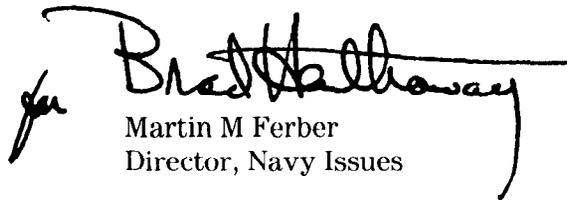
We interviewed officials and obtained documents at the Departments of Defense and the Navy, Center for Naval Analyses, and Institute for Defense Analyses, Washington, D.C., to determine the actions taken by the Navy in response to House Report 100-563 and the relationship of flying hours and steaming days to proficiency and mission readiness. We obtained official oral comments on a draft of this report from the Departments of Defense and the Navy. They agreed with the results of our work. We conducted our review from June to September 1990 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretaries of Defense and the Navy, appropriate congressional committees, and the Director, Office of Management and Budget. We will also make copies available to others.

---

Please contact me on (202) 275-6504 if you or your staff have any questions concerning this report. Other major contributors to this report are Brad Hathaway, Associate Director, William Meredith, Assistant Director, and Kenneth Newell, Evaluator-in-Charge, Navy Issues, National Security and International Affairs Division, Washington, D.C.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Martin M. Ferber". The signature is stylized and includes a large, sweeping flourish that extends to the right and then loops back down. To the left of the main signature, there is a smaller, more compact handwritten mark that looks like "M.F." or similar initials.

Martin M Ferber  
Director, Navy Issues



---

Requests for copies of GAO reports should be sent to:

U.S. General Accounting Office  
Post Office Box 6015  
GaitHERsburg, Maryland 20877

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

---

**United States  
General Accounting Office  
Washington, D.C. 20548**

**Official Business  
Penalty for Private Use \$300**

**First-Class Mail  
Postage & Fees Paid  
GAO  
Permit No. G100**

---