

136185

United States General Accounting Office

GAO

Fact Sheet for the Chairman, Legislation
and National Security Subcommittee,
Committee on Government Operations,
House of Representatives

May 1988

STRATEGIC DEFENSE INITIATIVE PROGRAM

Information on Reprogramming and Department of Energy Efforts



136185

RESTRICTED—Not to be released outside the General
Accounting Office except on the basis of the specific approval
by the Office of Congressional Relations.

RELEASED

542302



National Security and
International Affairs Division

B-223094

May 27, 1988

The Honorable Jack Brooks
Chairman, Legislation and
National Security Subcommittee
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

As requested in your October 20, 1987, letter, we reviewed the Strategic Defense Initiative Organization's (SDIO) reprogramming¹ of appropriated funds and the Department of Energy's (DOE) role in the Strategic Defense Initiative (SDI) program. You also asked us to review management information and control issues associated with SDI contracting. On March 29, 1988, we testified before your Subcommittee on the management information and control issues.² The results of our review on reprogramming and DOE's role in SDI are summarized below and described in more detail in appendixes I and II.

REPROGRAMMING OF APPROPRIATED FUNDS

The SDIO Director must follow the same laws and Department of Defense (DOD) guidance on reprogramming as any other head of a DOD component. These laws and guidance define when SDIO must request approval from or notify the Congress concerning reprogramming actions.

About \$93.4 million, or 1.3 percent, of the \$7,388.2 million appropriated for SDIO in fiscal years 1984 through 1987 from the Research, Development, Test, and Evaluation appropriation account has been involved in reprogramming

¹Reprogramming is the use of funds for purposes other than those originally requested of and justified to the Congress at the time of appropriation, including the reapplication of resources within the same appropriation account.

²Strategic Defense Initiative Organization Management Information and Control Issues (GAO/T-NSIAD-88-24).

actions. SDIO complied with the appropriate laws and guidance for all of these actions, including those requiring congressional approval or notification. As of December 1987, SDIO had received congressional approval for one Military Construction appropriation account reprogramming action of \$2.91 million. (See app. I.)

DOE's ROLE IN SDI

DOE supports SDI by directly funding nuclear research programs on nuclear directed energy weapons and space nuclear power. DOE also performs nonnuclear research for the SDI program mainly in support of directed energy weapons, including neutral particle beams and free electron lasers. In fiscal year 1987, DOE received about \$750.6 million for SDI nuclear and nonnuclear research. Of this amount, DOE provided \$392.3 million, and SDIO and its executing organizations--the military services, the Defense Advanced Research Projects Agency, and the Defense Nuclear Agency--provided an estimated \$358.3 million.

The SDIO Director is responsible for providing guidance to the DOE research effort. Interagency agreements between SDIO and DOE define responsibilities and procedures, and a DOD/DOE Steering Committee has been established to coordinate SDI program activities between the two departments. (See app. II.)

- - - - -

We reviewed pertinent documents, including interagency agreements, at SDIO and DOE and interviewed officials at both of these organizations. Our review was performed from October 1987 through March 1988.

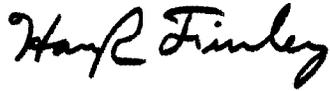
As requested, we did not obtain official agency comments. However, the views of responsible agency officials were sought during the course of our work and are incorporated where appropriate.

As arranged with your Office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies to the chairmen of the appropriate congressional committees; the Secretaries of Defense, Energy, the Army, the Navy, and the Air Force; the Director, Office of Management and Budget; and other interested parties upon request.

B-223094

If we can be of further assistance, please contact me on
275-4268.

Sincerely yours,

A handwritten signature in cursive script that reads "Harry R. Finley".

Harry R. Finley
Senior Associate Director

C o n t e n t s

		<u>Page</u>
LETTER		1
APPENDIXES		
I	REPROGRAMMING OF DOD APPROPRIATED FUNDS	5
	Reprogramming of RDT&E funds	5
	Reprogramming of military construction funds	8
II	DOE'S ROLE IN SDI	9
	Interagency agreements	10
TABLES		
I.1	Fiscal Years 1984 Through 1987 RDT&E Appropriations	5
I.2	Summary of RDT&E Reprogrammings for Fiscal Years 1984 Through 1987	7
II.1	SDI Funding for DOE Research in Fiscal Years 1986 and 1987	10

ABBREVIATIONS

DEW	Directed Energy Weapons
DOD	Department of Defense
DOE	Department of Energy
HQ/MGMT	Headquarters Management
KEW	Kinetic Energy Weapons
RDT&E	Research, Development, Test, and Evaluation
SABM	Systems Analysis and Battle Management
SATKA	Surveillance, Acquisition, Tracking, and Kill Assessment
SDI	Strategic Defense Initiative
SDIO	Strategic Defense Initiative Organization
SLKT	Survivability, Lethality, and Key Technologies

REPROGRAMMING OF DOD APPROPRIATED FUNDS

DOD funds its SDI program from two appropriation accounts-- Research, Development, Test, and Evaluation (RDT&E), Defense Agencies and Military Construction, Defense Agencies. The following sections provide information on the reprogramming of funds applicable to these appropriations.

REPROGRAMMING OF RDT&E FUNDS

The SDI research efforts are organized into five major program elements--Surveillance, Acquisition, Tracking, and Kill Assessment (SATKA); Directed Energy Weapons (DEW); Kinetic Energy Weapons (KEW); Systems Analysis and Battle Management (SABM); and Survivability, Lethality, and Key Technologies (SLKT). The RDT&E budget also provides funds for the management of SDIO (HQ/MGMT). The fiscal years 1984 through 1987 RDT&E appropriations for these six elements, totaling about \$7,388.2 million, are shown in table I.1.

Table I.1: Fiscal Years 1984 Through 1987 RDT&E Appropriations

<u>Program element</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>Total</u>
	----- (millions) -----				
SATKA	\$13.6	\$ 545.9	\$ 844.0	\$ 909.4	\$2,312.9
DEW	10.8	377.6	796.0	853.1	2,037.5
KEW	11.6	255.9	596.0	722.5	1,586.0
SABM	9.3	100.3	212.3	385.8	707.7
SLKT	4.2	108.4	214.0	375.3	701.9
HQ/MGMT	<u>0.5</u>	<u>8.9</u>	<u>12.8</u>	<u>20.0</u>	<u>42.2</u>
Total	<u>\$50.0</u>	<u>\$1,397.0</u>	<u>\$2,675.1</u>	<u>\$3,266.1</u>	<u>\$7,388.2</u>

DOD guidance and types of reprogrammings

The SDIO Director must follow the same laws and DOD guidance for reprogramming proposals and actions as any other head of a DOD component.

DOD guidance on reprogramming of RDT&E funds are provided in DOD Directive 7250.5 entitled "Reprogramming of Appropriated Funds," dated January 9, 1980, and DOD Instruction 7250.10 entitled "Implementation of Reprogramming of Appropriated Funds," dated January 10, 1980. The directive states the DOD policies on reprogramming proposals and actions relating to the appropriation accounts covered by the DOD Appropriations Act. The instruction explains how to implement those policies, covering the various reprogramming actions, forms, and procedures.

According to the DOD guidance, there are four types of reprogrammings applicable to the RDT&E appropriations.

- Prior congressional committee approval is required on any reprogramming action involving the application of funds, irrespective of the amount, that (1) increases the congressionally approved procurement for certain weapon systems, (2) affects an item known to be or has been designated as a matter of special interest to one or more congressional committees, or (3) involves use of general transfer authority.³
- Congressional committee notification is required for reprogramming actions that exceed given thresholds. For the RDT&E account the threshold criteria are (1) increasing an existing program element in an account by \$4 million or more, (2) adding a new program of \$2 million or more, or (3) adding a new program estimated to cost \$10 million or more within a 3-year period.
- Internal reprogrammings are accounting actions for reclassifying dollar amounts within or between appropriation accounts. These actions do not involve changes from the purposes and amounts justified in the budget presentations to the Congress.
- Below-threshold reprogrammings are those that do not meet the criteria for prior approval from or notification to the Congress.

Reprogramming actions that require prior approval from or notification to the Congress must be approved by the Secretary or Deputy Secretary of Defense before submission to the appropriate congressional committees. Usually, the House and Senate Committees on Armed Services and the Subcommittees on Defense of the House and Senate Committees on Appropriations are involved in the review and approval process for DOD prior approval and

³Transfer authority usually involves moving funds between appropriation accounts. In certain appropriation accounts, in which the Congress has enacted legal subdivisions of funds, transfer authority is also involved in moving funds between budget activities of subdivisions of the same appropriation account.

notification reprogramming requests.⁴ Internal reprogrammings require approval by the Assistant Secretary of Defense (Comptroller). Below-threshold reprogrammings do not require approval by the Secretary or Deputy Secretary of Defense and are handled within SDIO.

DOD is required to submit to the Congress a semiannual report (March 31 and September 30) showing cumulative effects of all reprogramming changes by the SDI program elements.

Reprogramming actions

According to a cognizant SDIO official, SDIO executes minimal reprogramming of RDT&E funds because the Congress allows it flexibility in determining where to take budget reductions. After SDIO receives its RDT&E appropriation, SDIO establishes new dollar amounts by program element to develop a baseline funding level that is reported to the appropriate congressional committees. This is then the base from which SDIO makes and reports reprogramming actions throughout the remainder of the funding time period. About \$93.4 million, or 1.3 percent, of the \$7,388.2 million in SDI funding for fiscal years 1984 through 1987 for RDT&E has been involved in reprogramming actions. Table I.2 presents a summary of the RDT&E reprogramming actions for fiscal years 1984 through 1987.

Table I.2: Summary of RDT&E Reprogrammings for Fiscal Years 1984 Through 1987

<u>Type</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>Total</u>
	----- (millions) -----				
Prior approval	\$50.0	\$ 0.0	\$0.0	\$13.6	\$63.6
Notification	0.5	0.0	0.0	0.0	0.5
Internal	0.0	8.0	0.0	0.0	8.0
Below-threshold	<u>6.0</u>	<u>3.6</u>	<u>3.9</u>	<u>7.8</u>	<u>21.3</u>
Total	<u>\$56.5</u>	<u>\$11.6</u>	<u>\$3.9</u>	<u>\$21.4</u>	<u>\$93.4</u>

In fiscal year 1984, SDIO obtained prior approval from the appropriate congressional committees to reprogram the \$50 million to establish the five research program elements. SDIO obtained these funds from research efforts related to SDI in the Defense

⁴If the request deals with intelligence-related items being funded through the DOD budget, then the House Permanent Select Committee on Intelligence and the Senate Select Committee on Intelligence are also involved in reviewing the reprogramming requests.

Advanced Research Projects Agency and the Departments of the Army and the Air Force.

In fiscal year 1987, SDIO obtained prior approval from the appropriate congressional committees to transfer \$13.6 million from prior year unobligated balances to the SATKA program element.

In fiscal year 1984, SDIO notified the appropriate congressional committees of its plan to reprogram \$0.5 million from the Defense Advanced Research Projects Agency. These funds established the HQ/MGMT program element to fund SDIO's operating costs.

SDIO has implemented one internal reprogramming. In fiscal year 1985, \$8 million was internally reprogrammed from the SATKA, DEW, and KEW program elements to the HQ/MGMT program element to provide accountability and visibility of headquarters management support. SDIO did not have to notify the appropriate congressional committees before this action because it simply reclassified funds for the same purpose as originally justified to the Congress.

During fiscal years 1984 through 1987, about \$21.3 million of the RDT&E funds was involved in below-threshold reprogrammings. These below-threshold reprogrammings did not involve the cumulative movement of \$4 million or more into any of the six SDI program elements.

REPROGRAMMING OF MILITARY CONSTRUCTION FUNDS

Fiscal year 1987 was the first year the Congress appropriated military construction funds, totaling \$28.5 million, for the SDI program.

Military construction reprogrammings are governed by statutory provisions in title 10, United States Code, Section 2853, and DOD Instruction 7250.14, dated May 7, 1986, entitled "Reprogramming of Military Construction and Family Housing Appropriated Funds." This instruction provides procedures and DOD policies on reprogramming proposals and actions relating to military construction funds.

As of December 1987, SDIO had requested and received approval from the appropriate congressional committees for one military construction reprogramming. SDIO reprogrammed funds of \$2.91 million to a construction project at Barking Sands, Kauai, Hawaii, to pay for escalating labor costs. SDIO obtained these funds from a canceled construction project at Kwajalein missile range and from planning and design funds.

DOE'S ROLE IN SDI

DOE, by virtue of its charter, funds from its appropriations for nuclear research and development activities that include SDI research in nuclear directed energy weapons and space nuclear power. In addition, SDIO and its executing organizations fund DOE to perform nonnuclear SDI research from DOD appropriations. DOE's Sandia, Lawrence Livermore, and Los Alamos national laboratories perform the majority of this nuclear and nonnuclear research.

DOE officials stated that DOE has been performing nuclear directed energy weapon research since 1980. The purpose of SDI nuclear directed energy weapon research is to (1) determine if such weapons are feasible, (2) assess the Soviet's possible capabilities in nuclear directed energy weapons, and (3) assess the impact of these weapons on a nonnuclear defense. This program includes research in X-ray lasers, hypervelocity pellets, and optical lasers.

The purpose of space nuclear power research is to develop, demonstrate, test, and produce special purpose nuclear power sources for military and civilian missions. The three space nuclear power programs being performed by DOE for SDI are the (1) SP-100 Space Reactor Power System, (2) Multimegawatt Space Nuclear Power Program, and (3) Dynamic Isotope Power System.⁵ According to DOE officials, research in the SP-100 Space Reactor Power System and the Dynamic Isotope Power System predate the SDI. The Multimegawatt Space Nuclear Power research is an outgrowth of the SDI program's need for a range of multimegawatt power in space.

According to SDIO and DOE officials, SDIO and its executing organizations provide funds to DOE to perform nonnuclear SDI research because of the laboratories' unique capabilities. The majority of this research is performed in support of the SDI DEW program element. DOE research in neutral particle beams and the free electron laser are examples of DEW projects funded by SDIO and its executing organizations.

SDIO did not have complete information on the amount of funding its executing organizations provided to DOE. According to SDIO officials, they will collect this information starting with fiscal year 1988 funding. DOE officials, however, were able to

⁵The SP-100 Space Nuclear Power and Multimegawatt Programs are discussed in a prior report, Nuclear Science: Challenges Facing Space Reactor Power Systems Development (GAO/RCED-88-23, December 2, 1987).

provide fiscal years 1986 and 1987 information that was compiled from data provided by DOE's field offices, including an estimate of DOD funds. Table II.1 shows this funding information.

Table II.1: SDI Funding for DOE Research in Fiscal Years 1986 and 1987

	<u>1986</u>	<u>1987</u>
	----- (millions) -----	
DOE funds		
Nuclear directed		
energy weapons	\$235.1	\$349.0
Space nuclear		
power	<u>17.8</u>	<u>43.3</u>
Total DOE	252.9	392.3
DOD funds (estimated)	<u>327.6^a</u>	<u>358.3^a</u>
Total	<u>\$580.5</u>	<u>\$750.6</u>

^aThese funds are from DOD's RDT&E appropriation account for the SDI program.

INTERAGENCY AGREEMENTS

Interagency agreements on nuclear research exist between DOE and DOD that apply to all DOD components, including SDIO and its executing organizations. Two interagency agreements, signed by DOD and DOE, detail overall responsibilities and procedures for SDI work.

DOD and DOE signed a Memorandum of Agreement in 1984 that assigned the following responsibilities for a joint program on SDI research, technology development, and demonstration.

- The SDIO Director manages the SDI program and is responsible for providing guidance for the DOE research effort.
- DOE has responsibility for research and development and testing of nuclear weapons, including nuclear directed energy weapons in support of the SDI program.
- Both departments are responsible for developing an SDI technology base, searching for new and innovative concepts, and conducting research and development on nuclear power systems.

- DOE will continue to formulate and defend the DOE program and budget, to include related SDI activities, with the support of DOD.
- A steering committee, made up of the SDIO Director, DOD's Assistant Secretary of Defense for Atomic Energy, and DOE's Assistant Secretary for Defense Programs, was established to coordinate and integrate both departments SDI research and development activities.

DOE's Office of the Assistant Secretary for Defense Programs and SDIO signed a Memorandum of Understanding in 1986 that established the following procedures for the management of DOE research and development funded by SDIO and its executing organizations.

- SDIO, DOE, or the DOE's management and operating contractors can identify potential SDI research and development efforts.
- SDIO is responsible for ensuring that the specified work effort is relevant to SDI goals and objectives.
- DOE's field operations manager reviews and approves the proposed work and manages the work performed by the management and operating contractors.
- SDIO and its executing organizations monitor the progress of the work and propose changes in cost or schedule through DOE's field operations contracting officer.



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**
