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ARMED FORCES SPECIAL WEAPONS PROJECT
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27 April 1950

MEMORANDUM FOR: Chairman, Committee on Atomic Energy
Research and Development Board
1901 Constitution Avenue
Washington 25, D. C.

SUBJECT: Budget Support for Atomic Weapons Tests

1. A preliminary examination of research and development budgets indicates that inadequate provision has been made for funds for conducting contemplated atomic tests during Fiscal Years 1951 and 1952. Sufficient data is not presently available to make a similar examination to determine the funds required for operational costs over and above normal operating costs of the Services. The following analysis is therefore related to research and development costs only.

2. There are three future atomic tests presently being considered. The estimated research and development funds required and other pertinent details in connection with these tests are as follows:

a. Underground Test

The Joint Chiefs of Staff by memorandum dated 14 December 1949 directed the Chief, AFSWP, to make recommendations as to date and location of a possible underground test, the financial implications, the phenomenological information to be determined, and the administrative organization for conducting such a test. A preliminary report dated 18 April 1950 has been submitted. The Research and Development Board has informed the Secretary of Defense and the Joint Chiefs of Staff that an underground atomic explosion is appropriate and that it should be carried out soon, perhaps within fifteen months. The Joint Chiefs of Staff have limited expenditure of research and development funds to \$5,000,000. No detailed breakdown of research and development costs has been made by AFSWP, but based on past experience, it is believed that \$5,000,000 will be the minimum required for adequate support of the test.

b. Operational Test of Fox-type Weapon

This test was originally proposed by the Air Force in a memorandum to the Chairman, MLC. The MLC requested the comments of the AEC and was informed that the AEC had no objection to this test. Subsequently the MLC forwarded the proposal to the JCS for consideration. As

Appendix "B"

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AE

per AE/DOE
Date... 6... MAY 1981...
Declassified
REC. MGT. DIV., WHS
Name... Brian V. Kinney...

WNRC:
RG: 330
ACCESSION# 68A-0247
BOX# 2
FILE NAME: A4M 15th CAE Meeting Held 5 MAY 1950

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of this date, the JCS have not completed action on this matter. Since this test is primarily a military operational exercise, research and development fund requirements will be relatively small, but it is estimated that \$1,000,000 may be required.

c. Test of Thermo-Nuclear Weapon

Progress on the development of the thermo-nuclear weapon indicates that major research and development fund expenditures for a test of this weapon will probably be required in FY 1952. Based upon the experience gained from Operation GREENHOUSE, the minimum research and development for military participation in a thermo-nuclear test has been estimated as follows:

Bio-Medical	\$1,000,000
Structures	3,000,000
Cloud Physics	800,000
Radiological Instruments	100,000
Physical Tests and Measurements	1,000,000
Long-range Detection	Not included
Effects on Aircraft (gages etc.)	100,000
	<u>\$5,000,000</u>

3. The Chief of Staff, U. S. Army, and the Chief of Naval Operations, recognizing the necessity for adequate budgeting for future atomic weapons tests, have individually directed the Chief, AFSWP, to include funds in the FY 1952 AFSWP budget to cover research and development participation during FY 1952 by the Army, and the Navy, respectively. Two copies each of the letters from the Chief of Staff, U. S. Army, and the Chief of Naval Operations to the Chief, AFSWP, concerning this budget matter are inclosed for use by the Committee on Atomic Energy in reviewing the FY 1952 budget estimates.

4. The Armed Forces Special Weapons Project has budgeted research and development funds for future atomic tests as follows:

a. For FY 1951, \$2,495,000 has been budgeted. It is estimated that \$1,000,000 of this sum will be allocated to Operation GREENHOUSE and the balance programmed for the tests described under paragraph 2 above.

b. The sum of \$7,000,000 is included in the AFSWP FY 1952 budget for research and development phases of future atomic tests. This estimate is made up of the following components.

(1) \$1,000,000 included in AFSWP research and development ceiling

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(2) \$1,000,000

included in AFSWP research and development "B" list.

These estimates are to provide funds for specific projects in connection with the tests, for which AFSWP will have a primary interest, and which it must be prepared to support.

(3) \$2,600,000

above AFSWP "A" and "B" ceiling item for Navy participation in future tests (Par. 3 above)

(4) \$2,100,000

above AFSWP "A" and "B" ceiling item for Army participation in future tests (Par. 3 above)

5. The letter from the Committee on Atomic Energy to members of the CAE Working Group for Budget Review, subj: Tabulations of FY 1951, Planned Obligations by Technical Objectives, dated 19 April 1950, with inclosures, indicates that the Department of the Air Force has budgeted \$500,000 for the Underground Test for FY 1951. An informal check with the Air Force Staff discloses that it was the intention to budget this \$500,000 under Operation GREENHOUSE. The CAE letter also indicates that the Air Force has made no provision in their FY 1952 budget to cover research and development costs of future tests, although the Air Force has anticipated a need for funds for future tests.

6. As indicated above, the following funds are being budgeted by AFSWP for future tests, other than Operation GREENHOUSE:

FY 1951	\$2,395,000
FY 1952	<u>7,000,000</u>
TOTAL	\$9,395,000

The minimum research and development funds for military participation in the future atomic tests described in paragraph 2 above are summarized as follows:

Underground Test	\$5,000,000
Operational Test of Fox-type Weapon	1,000,000
Test of Thermo-Nuclear Weapon	<u>6,000,000</u>
TOTAL	\$12,000,000

This analysis indicates a deficiency of at least \$2,605,000 for Fiscal Years 1951 and 1952.

7. It is recommended that the Committee on Atomic Energy take action to provide a total of at least \$12,000,000 in the FY 1951 and FY 1952 budgets, of which \$8,605,000 is above established RDS "A" ceilings, to cover military participation in the research and development phases of future atomic weapon tests, other than Operation GREENHOUSE. As noted above, AFSWP has already included \$6,000,000 of this amount above its FY 1952 "A" ceiling and will include an additional \$2,605,000 if so requested. This action will not, however, provide adequate funds in Fiscal Year 1951 if the Underground Test is scheduled for a date as early as September 1951 and the Thermo-nuclear Test is scheduled for early 1952. In this event obligations for the Fiscal Year 1951 are estimated as follows:

Underground Test	\$4,000,000
Operational Test of Fox-type Weapon	1,000,000
Test of Thermo-Nuclear Weapon	<u>2,000,000</u>
TOTAL	\$7,000,000

If this most optimistic schedule is assumed, there will be a Fiscal Year 1951 deficit of approximately \$4,600,000 since the FY 1951 budget includes only \$2,395,000.

K. D. NICHOLS
Major General, USA
Chief, AFSWP

2 incls.

1. Ltr fm CMO to C/AFSWP
dtd 22 Feb 50.
2. Memo fm Actg C/S, USA
to C/AFSWP dtd 27 Mar 50

(Inclosures not included.)