

DASAPL 337

80 NOV 1960

MEMORANDUM FOR: ASSISTANT TO THE SECRETARY OF DEFENSE (ATOMIC ENERGY)
SUBJECT: DASA Briefing to JCAE

Transmitted herewith are copies of the briefing given to the staff members of the JCAE on 17 November 1960.

FOR THE CHIEF

1 Incl
Briefing (SFND)
(Cys 1A, 2A, 3A)
w/Charts

R. H. HARRISON
Brigadier General, USA
Chief of Staff

MR: On 17 Nov 1960, the DCS/OPS gave a briefing (CN 50618) to various staff members of the JCAE. Col Shankle requested copies of the briefing be furnished to his office for transmittal to the JCAE.

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DASA 50618

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17 November 1960

ATOMIC WEAPONS PROGRAM

Briefing given to staff members of JCAE on 17
November 1960 by the Defense Atomic Support
Agency.

DECLASSIFIED WITH DELETIONS BY
DNA (ISFS)

[Signature]
DATE: 8/26/94

DNA 50618

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Good afternoon, gentlemen, On behalf of General Donnelly, the Acting Chief of the Defense Atomic Support Agency, I wish to express our appreciation for this opportunity of speaking with you on some of the aspects of the Department of Defense atomic weapons program. (UNCLASSIFIED)

EVOLUTION OF DASA

Chart #1

As you may recall, President Roosevelt set up the Manhattan Engineer Project for development of the atomic bomb. In 1946, the Atomic Energy Commission was created to exercise Government monopoly of both military and commercial aspects of atomic energy. Shortly thereafter, all functions dealing with military application of atomic energy, which were not taken away from the military by law, were vested in the Armed Forces Special Weapons Project. Last year, AFSWP was redesignated the Defense Atomic Support Agency (or DASA) and received a new charter, which I'll discuss later. (UNCLASSIFIED)

NATIONAL ORGANIZATION FOR ATOMIC ENERGY

With this background on the law, let's turn to the National Organization for Atomic Energy. I think it is important to realize that this organization has evolved and developed over the past 14 years. It may seem quite complex; as a matter of fact, it is. However, I have shown here only some of the major elements.

Chart #2

You will note, on the left side of this chart, your Joint Committee on Atomic Energy. (UNCLASSIFIED)



DASA 50618



Next, the Atomic Energy Commission and the Department of Defense, both executive agencies reporting directly to the President. (UNCLASSIFIED)

Without elaborating further on the organization and responsibilities of the AEC, I should like to point out those offices or agencies of the AEC with which the DOD is most concerned on a day-to-day and week-to-week basis. (UNCLASSIFIED)

To meet the majority of Department of Defense requirements within the AEC is the Division of Military Application. The Atomic Energy Act requires that the Director of this division be an active military officer (presently Major General Starbird of the Army). The majority of his staff is military, all of whom work for the AEC. The Division of Military application is concerned with all weapon aspects including:

Research and development - test - manufacture - storage - custody- and inspection of atomic weapons. (UNCLASSIFIED)

The Division of Military Application establishes policy guidance for and directs the activities of two AEC field offices: the Albuquerque Operations Office in New Mexico, and the San Francisco Operations Office in California. The Albuquerque Operations Office (called ALOO) supervises the activities of the Sandia Corporation, the Los Alamos Laboratories, and the production and assembly plants of the AEC. It has authority to let contracts, and supervises the AEC's custodians at atomic weapons storage sites. The San Francisco Operations Office supervises the activities of the weapons laboratory of the University of California at Livermore. (UNCLASSIFIED)



DATA



The Military Liaison Committee (MLC) appears next. This committee was established by law and consists of the chairman and two senior officers from each of the three services. The Director of the Division of Military Application and the Chief, DASA are advisors to the MLC. (UNCLASSIFIED)

This committee is the normal channel of formal communication between the DOD and the AEC. However, in the exercise of its liaison function, it encourages and facilitates informal contacts between agencies of the DOD and the AEC at corresponding levels. (UNCLASSIFIED)

On behalf of the DOD, it advises the AEC on all atomic energy matters it deems necessary to relate to military applications of atomic weapons or atomic energy. This includes:

Development, manufacture, use and storage of atomic weapons, allocation of special nuclear material for military research, and control of information relating to the manufacture or utilization of atomic weapons. (UNCLASSIFIED)

The MLC also keeps the Secretary of Defense and other appropriate agencies of the DOD informed on activities concerning the above mentioned matters. (UNCLASSIFIED)

It further keeps the AEC currently informed on all DOD matters which the Commission deems to relate to the development or application of atomic energy. (UNCLASSIFIED)

Now a look at the Department of Defense organization. (UNCLASSIFIED)

On the staff of the Secretary of Defense, you will note the Director of Defense, Research and Engineering, Dr. Herbert York. The major functions of this director are: (UNCLASSIFIED)





(1) To act as principal advisor to the Secretary of Defense on scientific and technical matters; and (UNCLASSIFIED)

(2) To supervise all research and engineering activities of the DOD. (UNCLASSIFIED)

You will note throughout the following comments that this office plays a major role in the testing and development of atomic weapons, as well as delivery vehicles. (UNCLASSIFIED)

The Assistant to the Secretary of Defense (Atomic Energy), Mr. Loper, is the principal staff assistant to the Secretary of Defense on atomic energy matters. As such, he: (UNCLASSIFIED)

1. Recommends policies and guidance governing DOD planning and program development. (UNCLASSIFIED)

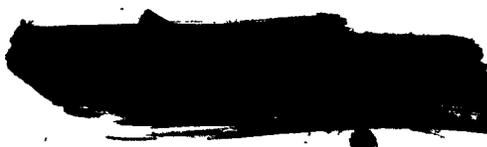
2. Develops systems and criteria for the execution of approved plans and policies. (UNCLASSIFIED)

3. Reviews programs of the military departments for carrying out approved policies. (UNCLASSIFIED)

4. Evaluates the administration and management of approved policies and programs. (UNCLASSIFIED)

5. Advises and assists other officials of the DOD on atomic energy aspects of the DOD policies, plans, and programs. (UNCLASSIFIED)

6. Develops policies and procedures for the transmission of information to the JCAE and coordinates such information, where appropriate, with other officials and agencies of the DOD and with the Chairman of the AEC. (UNCLASSIFIED)





He also represents the Department of Defense in discussions with other national and international organizations on atomic energy matters of mutual interest. This Assistant to the Secretary is also Chairman of the Military Liaison Committee. (UNCLASSIFIED)

The Joint Chiefs of Staff, as you well know, are the principal military advisors to the Secretary of Defense, the National Security Council and the President. In the atomic weapons field, they recommend requirements both in types and numbers to the Secretary of Defense. (UNCLASSIFIED)

Next, appear the JCS Unified and Specified Commanders to whom the atomic weapons are allocated. This slide also shows the relationship of the Defense Atomic Support Agency to the Unified and Specified Commanders and the Services. (UNCLASSIFIED)

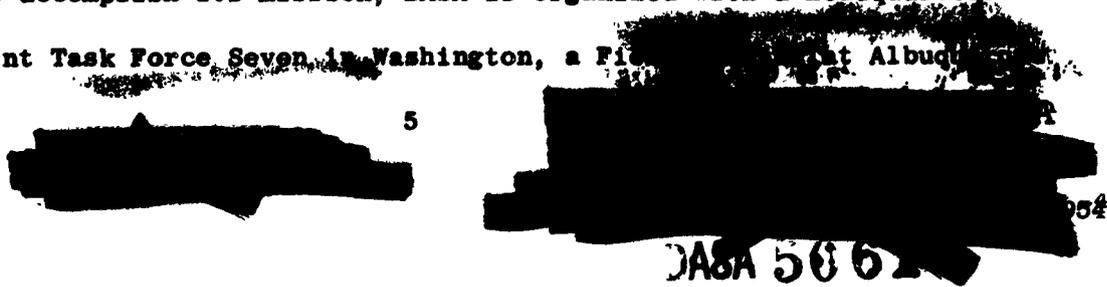
Chart #3

Previously, the Armed Forces Special Weapons Project reported to the three Service chiefs separately. As a direct result of the DOD reorganization, the AFSWP was redesignated, on 6 May 1959, the Defense Atomic Support Agency, and now reports through the JCS to the Secretary of Defense. (UNCLASSIFIED)

The mission of the DASA, basically the same as AFSWP's old mission, is to assist the various elements of the DOD by providing technical, logistic and training advice and services in the field of atomic weapons, and to supervise Department of Defense atomic weapons test activities. (UNCLASSIFIED)

Chart #4

To accomplish its mission, DASA is organized with a headquarters and Joint Task Force Seven in Washington, a Field Office at Albuquerque





and the national storage sites. This comprises a total authorized strength of approximately 8,400 personnel, 2,000 of whom are civilians, the majority being non-technical personnel. The military manning is apportioned among the Services. (UNCLASSIFIED)

Chart
#5

The headquarters organization has a strength of approximately 300 people. The command of this organization is rotated among the Services. It is currently commanded by Major General Donnelly of Field Command pending the determination of Admiral Parker's replacement. His predecessors were Air Force and Army generals respectively. The organization provides for two deputies, each being from a Service other than that of the Chief. Key positions are held by members from the different Services. Presently, the Deputy Chief of Staff for Operations is Air Force; the Deputy Chief of Staff for Research and Development is Army; the Deputy Chief of Staff for Weapons Effects and Tests is Air Force; and the Deputy Chief of Staff for Damage Assessment Plans is Navy. (UNCLASSIFIED)

Similar Service representation is distributed throughout the remainder of the staff. (UNCLASSIFIED)

DASA is also charged with the responsibility for providing administrative and logistic support to the Joint Atomic Information Exchange Group, (JAIEG). The Chief of JAIEG is one of the Deputy Chiefs of the DASA. The JAIEG acts as the representative of the DOD and the AEC in formulating arrangements and providing the channel with other nations for transmitting and receiving certain types of atomic information. (UNCLASSIFIED).





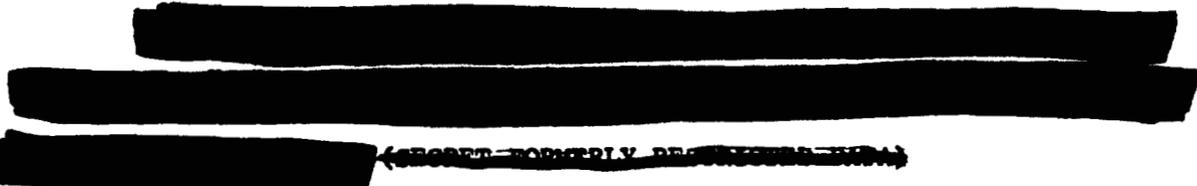
Subordinate commands consist of:

Chart #6

JTF-7, which has the responsibility for supporting AEC tests and conducting DOD nuclear tests, is presently reduced to a planning staff headquarters located at Arlington Hall, Virginia. (UNCLASSIFIED)

The present nuclear test ban and the need for test ranges have resulted in the Eniwetok Proving Ground being turned over to the Pacific Missile Range. Since resumption of full-scale overseas testing is presently in doubt, JTF-7 will be reduced still further with a view to its final elimination. Should a full scale test operation again be authorized, JTF-7 will either be reactivated or a similar organization will be formed to conduct the tests. During the last overseas tests, JTF-7's strength reached approximately 10,000 personnel. (UNCLASSIFIED)

Field Command is located at Sandia Base, Albuquerque, New Mexico, and commanded by Air Force Major General Donnelly. The Commander of Field Command is always from a Service other than that of the Chief, DASA. Its staff headquarters and training activities are jointly manned by the Services. Within Field Command we have the Sandia Atomic Weapons Depot which provides spare parts support to all Services on AEC-procured items. We have six National Stockpile Sites which are each manned by a single Service --



~~(SECRET - FORMERLY RESTRICTED - USA)~~

Although manned by a single Service for ease of administrative control of personnel, they are a part of Field Command. (UNCLASSIFIED)





As a generalized comparison, they operate in a manner similar to a depot. (UNCLASSIFIED)

DETAILED MISSION

In my detailed discussion of the DASA mission, I will cover what we consider are the four major areas of responsibility, namely:

Staff assistance to the OSD and JCS;

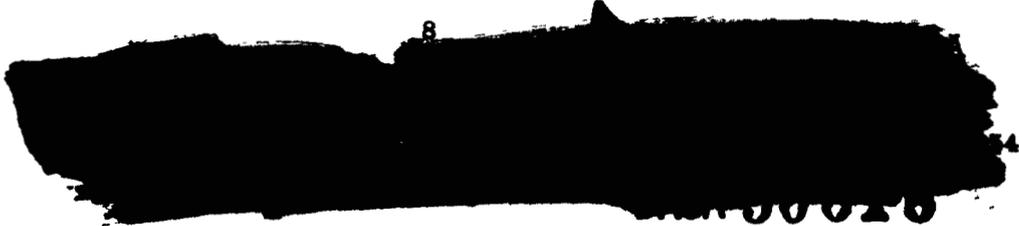
Assistance to the Services;

Weapons effects testing; and

Weapons development. (UNCLASSIFIED)

In providing staff assistance to the OSD and JCS, we advise and assist in the preparation of plans for dispersal and distribution of atomic weapons; provide administrative and technical management of the Joint War Room Annex; maintain current information on the status of production, modification, stockpiling and retirement programs to include the review of AEC schedules to insure conformance with DOD requirements; and act as the central coordinating agency with the AEC on matters pertaining to the research, development, production, stockpiling and testing of atomic weapons. In addition, the Secretary of Defense made provisions in the charter for Chief, DASA to render other assistance as required. (UNCLASSIFIED)

The assistance which DASA renders to the Services falls into three general areas: technical, logistic, and training. Specifically, we consolidate requirements and procure for the Services all AEC produced





training weapons, equipment, spare parts and other material; provide technical information on atomic weapons and criteria for standardizing inspection procedures; furnish guidance on accountability and responsibility for RD material; and conduct orientation, familiarization, and qualification training. We also assist the Services, as required, in their own training programs by training instructors, providing instructional material, and making recommendations as to their course content. Lastly, we provide stockpile management services as required.

(UNCLASSIFIED)

Within our sphere of responsibility for atomic weapons testing, we obtain requirements for atomic weapons effects information for use in operational planning and to meet research and development needs of the DOD; prepare, in coordination with the Services and other agencies concerned, a full-scale test program; and prepare plans for the military phases of tests and budget for items not normally included in Service budgets. After coordinating with the Services or commanders of Unified or Specified Commands, we make recommendations to the JCS as to the composition and control of forces to conduct tests or to support the AEC in conducting the DOD portions of tests. At the conclusion of tests, we prepare reports and analyses of the results and disseminate data to appropriate agencies. As requested by the Services or JCS commands, we provide technical liaison and assistance for any operational evaluation tests involving nuclear detonations, and we coordinate laboratory and theoretical programs for the investigation of nuclear weapons effects. (UNCLASSIFIED)

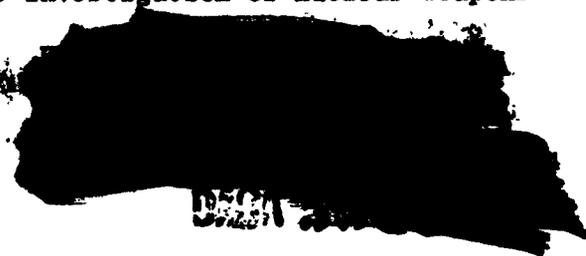




Chart
#7

To show our part in test planning and implementation, here is the typical cycle. Starting at the top, the Services submit their requirements to the DASA. Then, the Service requirements are reviewed and consolidated to prevent duplication of effort and provide maximum results. This review results in the formulation of the general objectives. From this follow the specific objectives, which are finally integrated into a weapons effects program. All of these steps are accomplished with continuing contact and coordination with the Services. To facilitate this coordination, we have established the Weapons Effects Board which is composed of DASA and Service representatives. The panels of this board consider the Service requirements for effects information in terms of the information available and the various technical considerations relevant to obtaining more information. (UNCLASSIFIED)

Once a Service-coordinated test program is established by the DASA, it is submitted for program approval and funding to the JCS, Director of Defense for Research and Engineering, and the Bureau of the Budget. The approved investigation may be conducted either through laboratory methods or by full-scale tests of nuclear weapons or devices. The choice here is based on determining the most suitable, effective and economical way of obtaining required information. Since actual field test operations have been halted, the laboratory methods are all we have used for two years. (UNCLASSIFIED)

The actual program may be executed, individually or jointly, by the AEC, Joint Task Force Seven, Field Command DASA, or individual





contractors. Headquarters, DASA analyzes these reports, and then, jointly with the Services, makes a final evaluation. The evaluation either meets the Service requirements or it opens new areas for additional effects research. (UNCLASSIFIED)

Although this cycle is shown as continuous, it does not necessarily require each individual step. DASA, as the primary coordinating agency, is able to combine steps as appropriate. (UNCLASSIFIED)

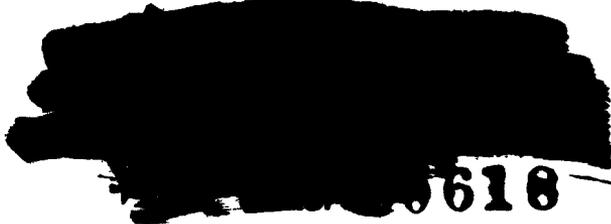
Chart #8

Now, a discussion of the DASA responsibilities in the area of atomic weapons development. This chart lists the six phases of development as delineated in the AEC-DOD Agreement of 1953. (UNCLASSIFIED)

Phase 1 - The idea for a new weapon may originate with any of the Services or AEC. DASA is responsible for providing the primary DOD liaison and consolidated guidance to the AEC. Important here is that, if justified, the idea advances to the next phase. (UNCLASSIFIED)

If Phase 2 is authorized by the DOD, a Feasibility Study is conducted by DASA in conjunction with the interested Services and the AEC. DASA acts as chairman for the Phase 2 Study Group, and prepares the formal report. Provided the results are favorable, and the JCS then state an operational requirement for the weapon, the interested Service may request the Secretary of Defense to authorize Phase 3 Development. (UNCLASSIFIED)

If he approves, the Secretary of Defense requests the AEC to proceed with Phase 3, the Development Engineering Phase, in cooperation with the DOD, which is represented usually by the cognizant Service





and DASA. As soon as possible after Phase 3 authorization, DASA submits the formal military characteristics to the MLC for action and, in turn, they are forwarded to the AEC as the official design specifications. In accordance with these military characteristics, the Phase 3 Joint Working Group coordinates the simultaneous development of the warhead, adaption kit, and delivery vehicle. (UNCLASSIFIED)

Phases 4 - Production Engineering, 5 - First Production, and 6 - Quantity Production are primarily AEC responsibilities; however, DASA continually evaluates the product to be sure it meets DOD specifications and requirements. (UNCLASSIFIED)

The determination that weapons are technically satisfactory for full release to stockpile to include simultaneous transfer to the DOD, when authorized, is the responsibility of the AEC. After the weapons are accepted into stockpile, the DOD is responsible for maintaining their functional readiness. This is accomplished with AEC technical assistance as required. (UNCLASSIFIED)

AEC has the over-all responsibility for quality assurance of the stockpile. The Quality Assurance Program includes verification inspections, quality evaluations and surveys, systems tests of new material and the stockpile sampling program. Data obtained as a result of these various activities provides information on the quality and reliability of weapon materiel. (UNCLASSIFIED)





DAMAGE ASSESSMENT PLANS

I spoke earlier of that part of the DASA mission which stipulates "other assistance as required." (UNCLASSIFIED)

Several years ago the Secretary of Defense foresaw the need for a DOD damage assessment capability to support the preparation for and prosecution of war plans. This culminated in a DOD directive in September 1959 to establish a DOD Damage Assessment Center. A short time later, DASA was designated the responsible agency to organize the DOD/Damage Assessment Center. The general operational concept for the DOD/DAC has been approved by the JCS. (UNCLASSIFIED)

The mission of DOD/DAC is to conduct pre-attack and post-attack damage assessment in support of the JCS and other appropriate authorities. This, of course, means damage assessment to military forces and economic resources, not only of the Continental U.S., but also those of the enemy and our allies. (UNCLASSIFIED)

Current plans are to have a development center in limited operation by July 1961. This will be in the Pentagon, or at least in the Washington area. Concurrently with the establishment of this developmental center will be the establishment of an emergency capability for damage assessment in the AJCC to serve the JCS in a post-attack phase. (UNCLASSIFIED)

An additional function which has been assigned to this section is the preparation and maintenance of the Joint Atomic Weapons Planning Manual. This manual is being prepared to help simplify the operations



performed in analyzing various type targets. The development of this manual was instrumental in the decision to designate DASA as the agency to establish the DOD-DAC. (UNCLASSIFIED)

BUDGET

Chart #9

The Chief, DASA has been delegated certain authorities by DOD in money and material matters. By this authority, Chief, DASA formulates his own budget, based on his requirements to support his mission. This budget is submitted to the Office of the Secretary of Defense and the Bureau of the Budget for review and approval. It is supported before Congress by Chief, DASA and is carried as a one-line entry in the Department of Army's budget. Congressional appropriations are apportioned by BOB through OSD to the Department of the Army. Directed allocations are then made to DASA by the OSD. This places DASA requirements outside of Army ceilings and, consequently, outside of budget and funding administration of the Department of the Army. (UNCLASSIFIED)

Chart #10

This slide shows the breakdown of the budget programs for FY 61. The total program amounts to 77.4 million dollars.

Research, Development, Test and Evaluation Account for 63% - \$48.7 million.

Operations and Maintenance - 28% - \$21.6 million.

Procurement of Equipment and Missiles - 7% - \$5.1 million.

Military Construction - 2% - approximately 2.0 million.

(UNCLASSIFIED)





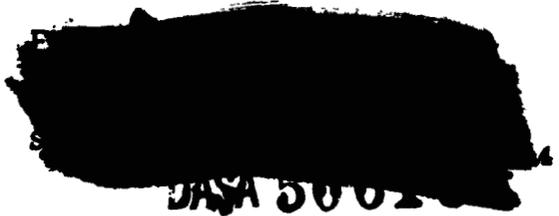
SAFETY

As you might imagine from the enormous size of our stockpile of atomic weapons, safety plays an important role within DASA. We review the military characteristics of the weapons under development to insure they provide for sufficient safety, and we play a "conjunctive" role in the preparation of safety rules which apply to weapons systems placed into operational use.

Chart #11

The Services prepare safety studies for each weapon system prior to its being placed into operational use. In each case, a representative from our Field Command participates with the Group which prepares the study. The study is processed through the particular Service channels and serves as a basis for a draft JCS paper written by that Service. This paper contains the proposed controls and procedures which will apply during all phases of operational readiness, training, logistic movements, maneuvers, and exercises. This paper comes to us for our official comments to the Service. After that, it is processed through the JCS, the Secretary of Defense, coordinated as required with the AEC, and, if necessary, forwarded to the President. On approval, the JCS forwards the safety rules to the Services and CINC's for implementation.

As you can see, the review procedure emphasizes the high level at which safety rules are considered and the importance which is placed upon them. (UNCLASSIFIED)



DASA 5002



I've mentioned what we do in an effort to prevent accidents. Now, I'd like to tell you what happens if, in spite of our best efforts, something does go wrong. (UNCLASSIFIED)

The following things must be done in each case. A lot of interested people must be told what has happened; and proper action must be initiated to minimize the effects. (UNCLASSIFIED)

To do this, we use a special reporting system, which provides coverage for both nuclear accidents and incidents. (UNCLASSIFIED)

Accidents are defined as unexpected events of a serious nature involving a nuclear weapon or component. Included in this category are loss or serious damage, detonation of the weapon, radioactive contamination, and public hazards. (UNCLASSIFIED)

Incidents are less serious events, involving human errors, malfunctioning of equipment, and conditions causing some, but not serious, damage to the weapon. These accident and incident reports are prepared as soon as possible after the event and provide necessary information to the Services, DASA, the AEC, the DOD and the Joint Nuclear Accident Coordinating Center. This center, called JNACC, was established at Field Command to provide a centralized agency for coordinating response to requests for assistance and maintaining information pertaining to nuclear accidents. (UNCLASSIFIED)

In responding to requests for assistance, the JNACC acts as a central hub. With headquarters at Sandia Base in Albuquerque, the





Director of JNACC maintains an alert system which permits immediate contact with any of the Nuclear Assistance Teams maintained by the Services, and with the Atomic Energy Commission, and DASA. (UNCLASSIFIED)

The JNACC organization can draw on a technical and operational resource of approximately 450 accident teams whose capabilities include:

- Monitoring of Alpha, Beta and Gamma Radiation.
- Plutonium control.
- Chemical monitoring.
- Explosive ordnance disposal.
- Radiation sickness treatment.
- Special weapons disposal. (UNCLASSIFIED)

It is interesting and gratifying to note that there has never been a nuclear contribution to any explosion resulting from an accident, even though high order detonation of the HE has occurred on five occasions. On seven occasions, weapons have burned without detonation. (UNCLASSIFIED)

Statistically speaking, all those nuclear weapon accidents which have occurred to date involve but a very small fraction of the national stockpile. (UNCLASSIFIED)

Gentlemen, in closing I would like to express our appreciation for this opportunity of briefing you on our agency. We hope it has given you a clearer picture of who we are and what we are capable of doing. If you have any particular questions we would be glad to attempt to answer them for you. (UNCLASSIFIED)



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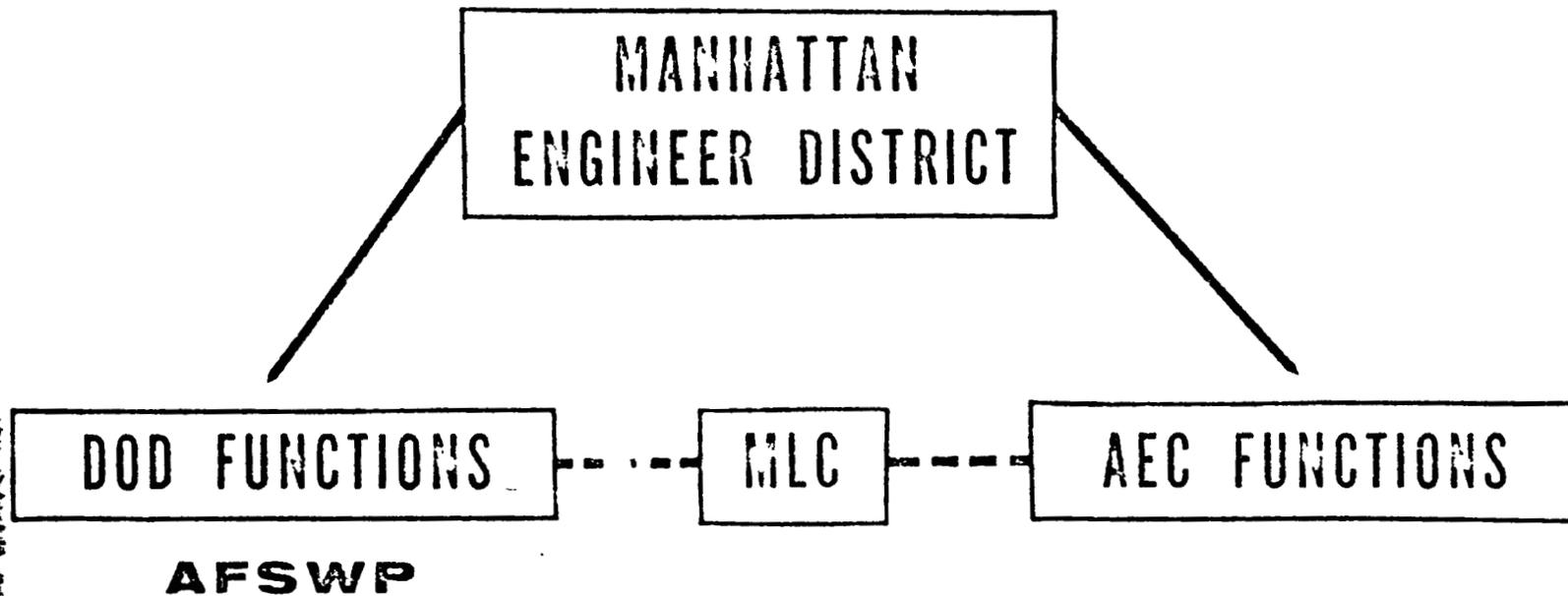
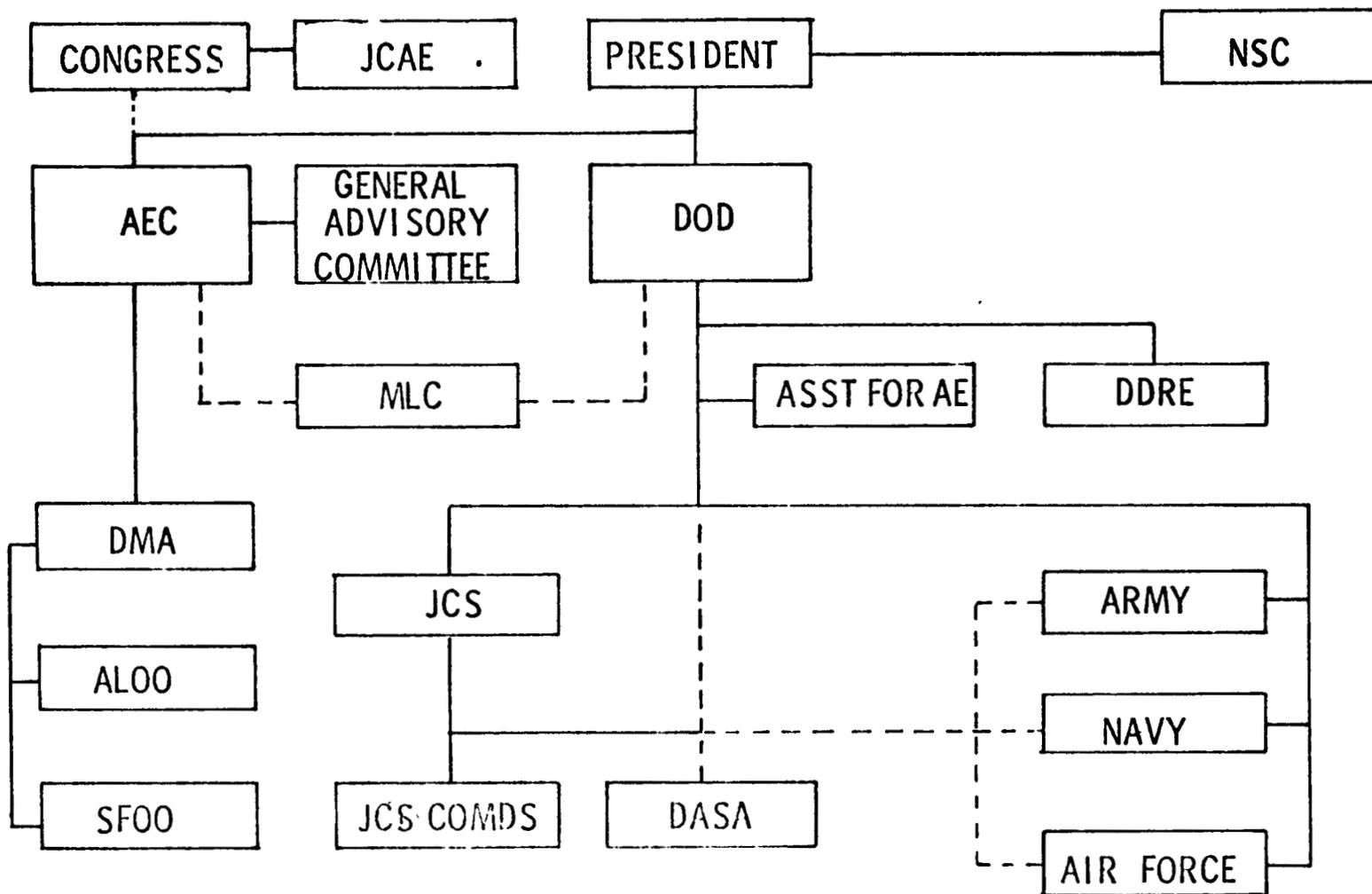
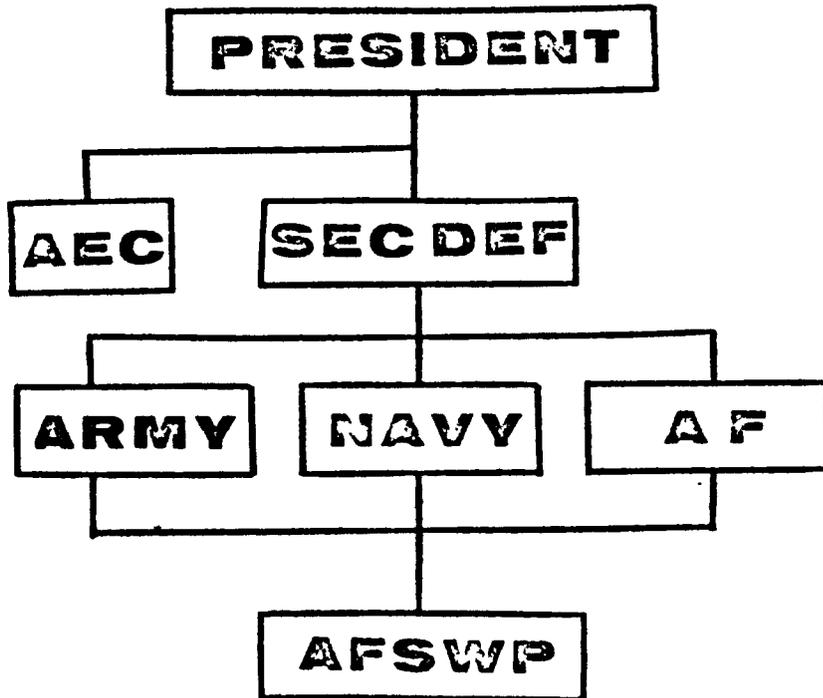


CHART #1

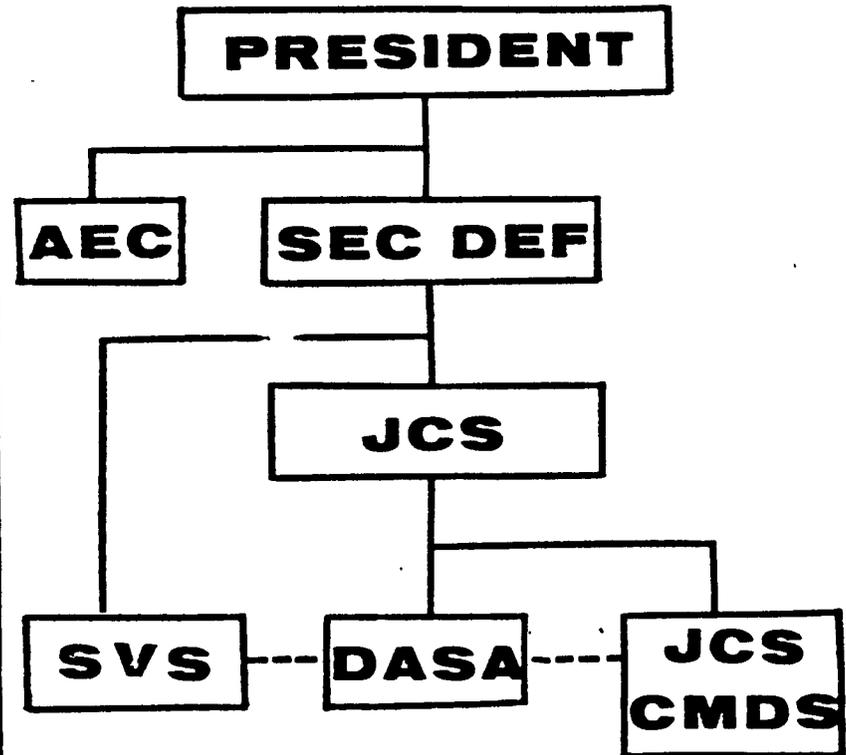
NATIONAL ORGANIZATION FOR ATOMIC ENERGY



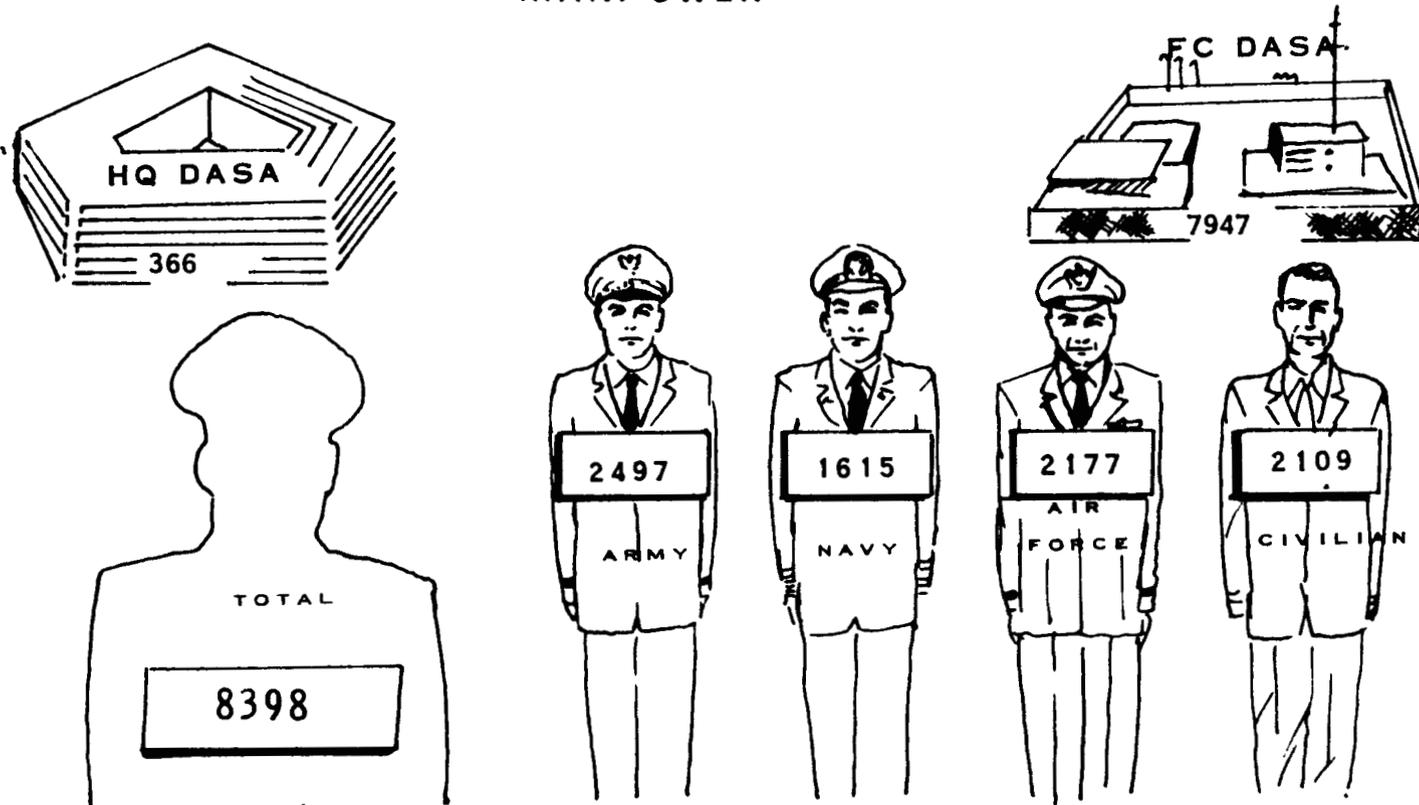
NATIONAL ORGANIZATION FOR ATOMIC ENERGY (Prior to 1958)



DOD RE-ORGANIZATION ACT (Post 1958)



MANPOWER



ALL SERVICES CONTRIBUTE TECHNICAL SUPPORT AND OPERATIONAL PERSONNEL

DASA HEADQUARTERS ORGANIZATION

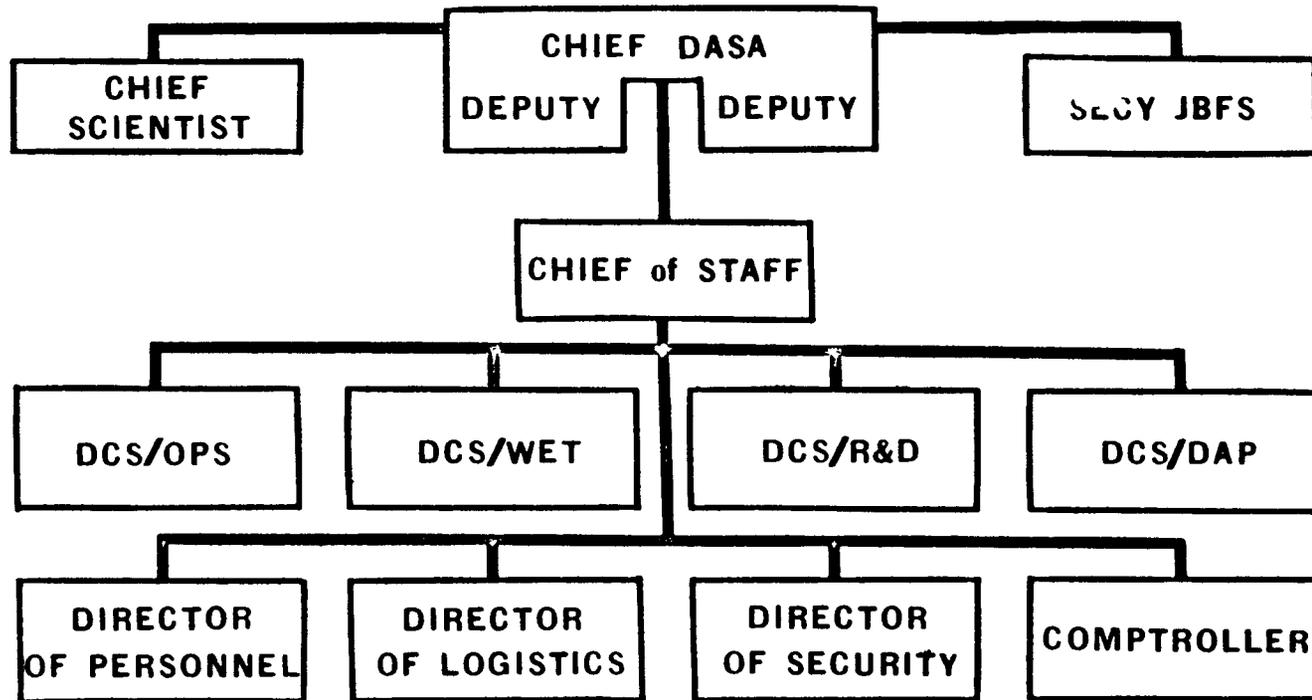


CHART #5

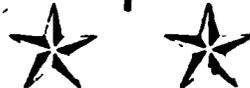
DASA COMMAND



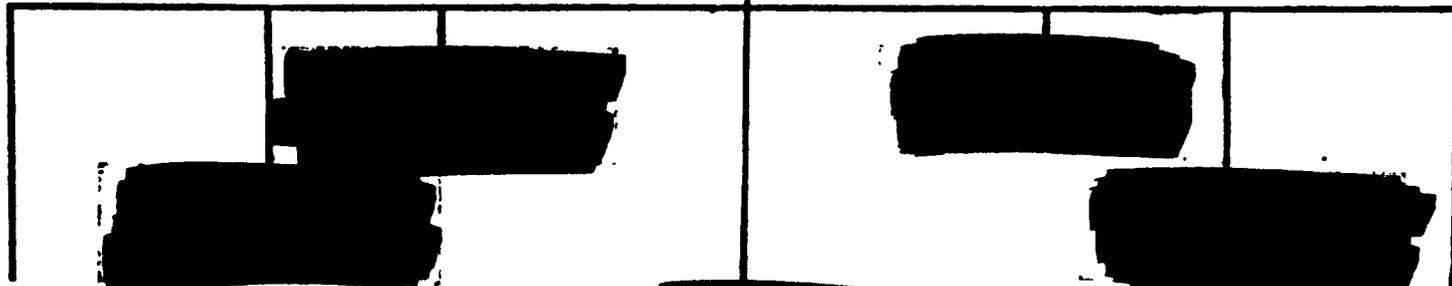
CHIEF DASA



COMMANDER JTF-7



COMMANDER FIELD COMMAND DASA



**SANDIA ATOMIC
WEAPONS DEPOT**

CHART
#6

WEAPONS EFFECTS CYCLE

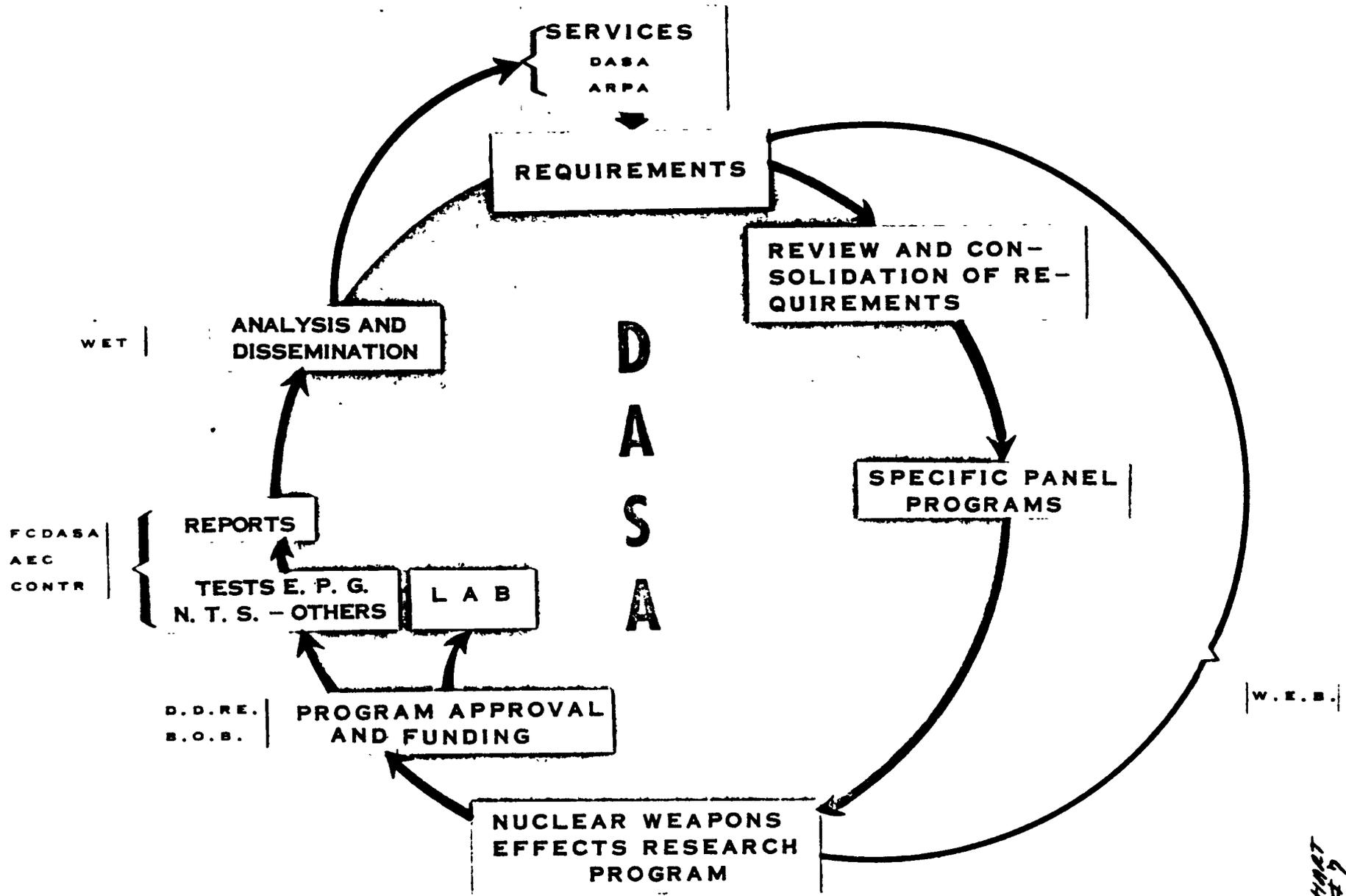


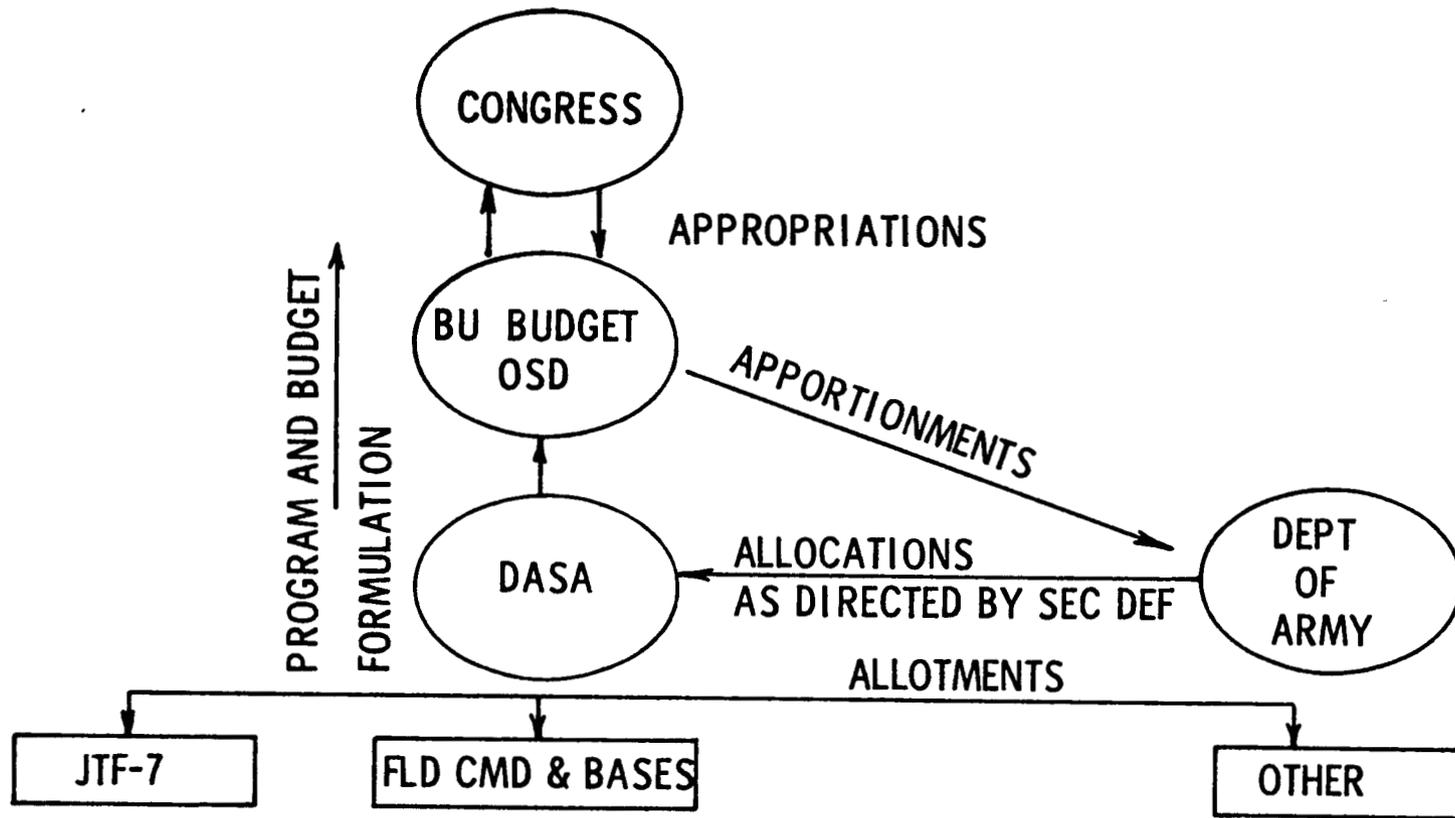
CHART #2

AEC-DOD AGREEMENT OF 21 MARCH 1953

PHASE 1	WEAPON CONCEPTION
PHASE 2	FEASIBILITY STUDY
PHASE 3	DEVELOPMENT ENGINEERING
PHASE 4	PRODUCTION ENGINEERING
PHASE 5	FIRST PRODUCTION
PHASE 6	QUANTITY PRODUCTION

CHART
#8

DASA BUDGET CHANNELS



DASA IS AN OVER CEILING, ONE-LINE ENTRY IN ARMY BUDGETS, AT APPROPRIATION LEVEL, AND IS OUTSIDE OF DEPT OF ARMY BUDGET AND FUNDING ADMINISTRATION.

CHART #9

DASA PROGRAMS FY-61

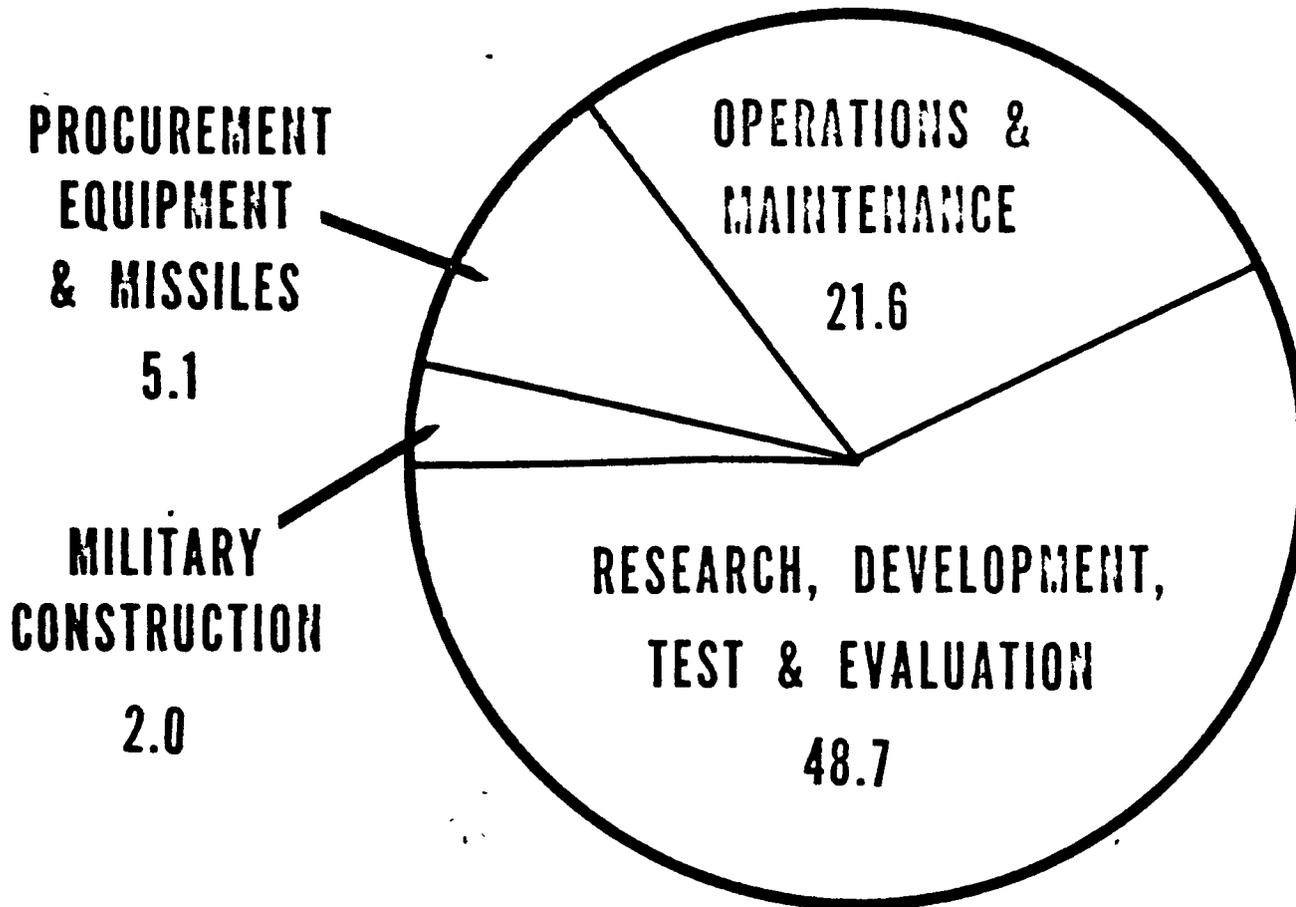


CHART
#10

SAFETY REVIEW PROCESS

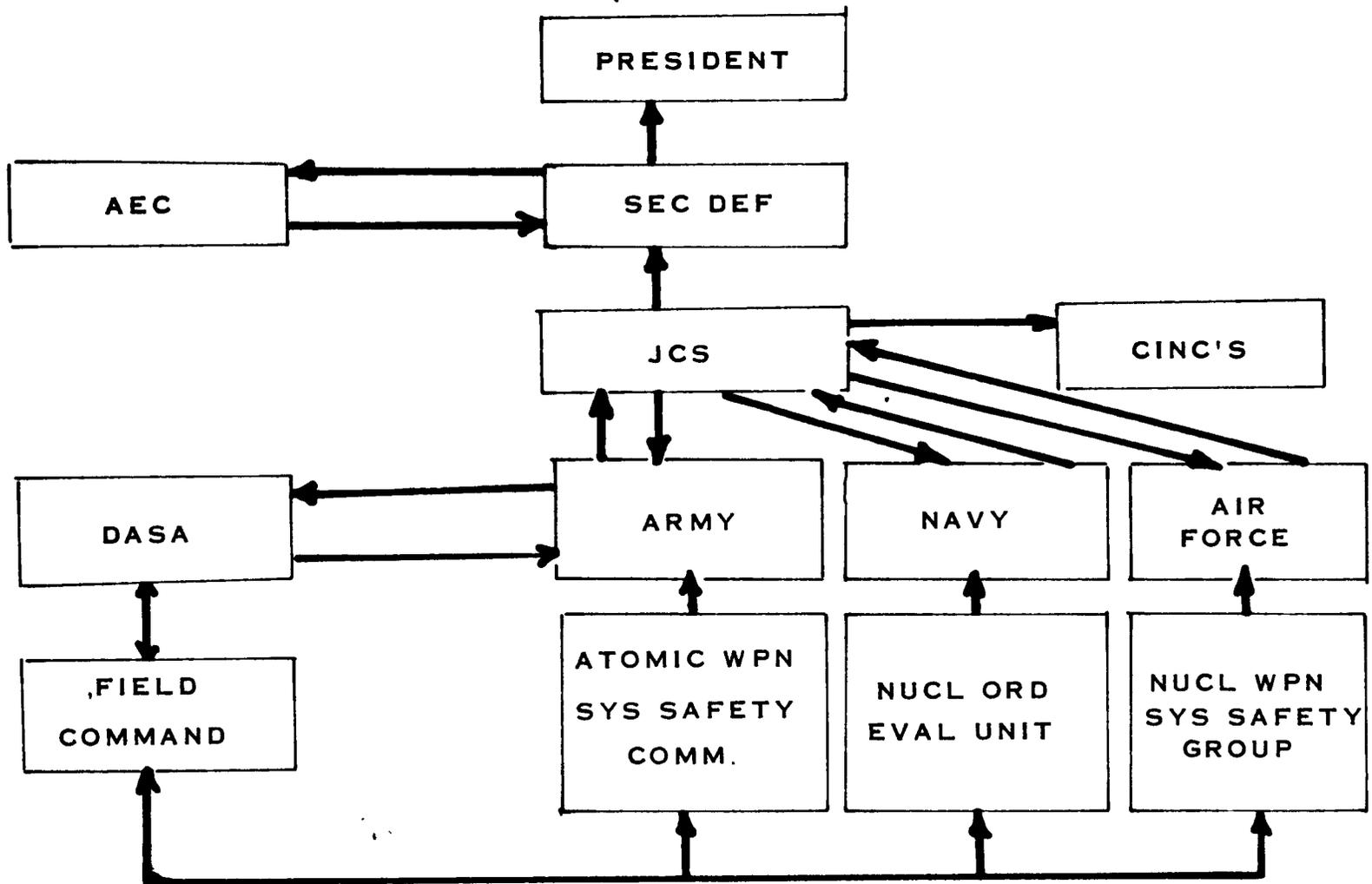


CHART #11