

UNCLASSIFIED

FINAL REPORT

FIELD TEST FT-34

ANNEX A

TEST CONTROL AND SUPPORT (U)

SEPTEMBER 1968

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VOLUME II - FT-34 FINAL REPORT

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- A TEST CONTROL AND SUPPORT (U)
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- C TEST SITE ENVIRONMENT (U)
(CONFIDENTIAL-RESTRICTED DATA)
- E HUMAN FACTORS (U)
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SYNOPSIS

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Annex A describes and evaluates the test control function, the organization established to monitor FT-34 (formerly CG-34) operations, and the administrative and logistical support required to plan, implement, and execute the field test.

From the development of the FT-34 test plan in August 1966 to the completion of the final report in mid-1968, over 43 man-years of effort were expended. Included in this total were approximately 23 man-years of temporary duty personnel (61 officers, 19 enlisted men) from the three services of the Department of Defense. Contractor support from the Sandia Corporation amounting to approximately 9 man-years was utilized for development of plans and for technical, analytical, and computational support. AEC plant support amounted to approximately 4 man-years, and support from AEC classification specialists amounted to approximately 2 man-years. In addition, permanent members of the ACDA Field Operations Division contributed approximately 5 man-years of effort throughout all phases of the field test. The total cost of the field test was about \$801,000.

Under the direct control of the Test Director, a military officer assigned to the ACDA Field Operations Division, the organization was functionally divided into a planning staff, whose work terminated at the start of the field operations; a Field Test Control Group, charged with the conduct of the test in accordance with test design; and an Administrative and Logistic Support Group.

The organization for test control and for the administrative and logistic support was entirely adequate to meet the requirements of the test.

In the event another field test like FT-34 is conducted, an organization similar to that used in FT-34 and similar test control and administrative procedures should be used.

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I. INTRODUCTION

A. GENERAL

Annex A summarizes the test control and the administrative and logistic support activities of the FT-34 (formerly CG-34) field test. The field test, including training, was conducted between 21 June and 20 October 1967.

Test control sections of annex A explain the basic relationships between test control staff, inspectors, and contractor personnel. Test organization, personnel, and test operations are discussed and evaluated. The test procedures discussed in this annex relate the functions of test control personnel to the requirements for and methods used in the collection, the examination, the reporting, and the transmission of test data obtained during the field test.

The annex includes a definition of the responsibilities of the principal personnel involved in the administrative and logistic support areas of the field test.

The administrative and logistic activities discussed are applicable to Pantex, Rocky Flats, Paducah, and Oak Ridge (Y-12). These activities were under the supervision of personnel assigned for each test site, and as defined herein.

Test headquarters at Paducah was self sustaining as an administrative element. In addition, it provided support to the Paducah Test Site Commander since the activities were co-located.

The Pantex, Rocky Flats, and Oak Ridge (Y-12) test sites operated independently in the areas of logistics and administration with backup support from the host plants. Supervision and coordination were provided by the test headquarters.

Discussions of organization and job descriptions, forms and reports, security classification policy, motor vehicle accident procedures, public affairs, personnel requirements, requisitioning procedures, vehicle requirements, and of the secure teletype system are included in this annex. Finally,

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the entire concept of test control and support is discussed within the framework of a future test conducted within a single facility.

B. TEST CONTROL

1. Definition. Test control procedures were those actions, carried out by the FT-34 Headquarters Staff, Site Operations, Sandia Corporation, and AEC contract personnel, which were used to monitor, direct, limit, and control the conduct of the inspection to insure that the objectives of the test were met.

2. Purpose. Test control procedures were established to insure that:

a. Inspections were carried out in the prescribed manner.

b. Test data and test reference data were collected, examined for accuracy and adequacy, classified, accurately summarized, and properly reported.

c. Test integrity was maintained.

3. Scope. Test control functions carried out both before and during the field test included collecting of test reference data, briefing and debriefing of inspection teams, directing and monitoring of the inspections, providing host escorts under AEC support, and reviewing and transmitting test data.

C. SUPPORT

1. Definition and Purpose. Administrative and logistic support activities were those carried out by FT-34 Headquarters Staff, Site Operations Staff, Sandia Corporation, and AEC contract personnel to provide support for Test Control in meeting the test objectives.

2. Scope. Administrative support functions included procurement and training of personnel (exclusive of inspectors),

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security, clearances, badging, document control, communications between test sites and test headquarters, billeting and messing, pay and all financial accounting, military and civilian pay liaison, medical and legal affairs, press releases and public affairs, and awards and commendations. Logistic support functions included acquisition of facility and office equipment and supplies, and arrangements for photographic and transportation support (personnel and component shipment between sites).

D. PERSONNEL RESOURCES

The personnel utilized in planning the field test, in monitoring and performing field operations, in analysis, and in documentation expended approximately 43 man-years of effort. A tabulation of the apportionment of this effort is shown in figure A-1.

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AGENCY	FUNCTION			TOTAL
	PLANNING	FIELD OPERATIONS	ANALYSIS & REPORTS	
^a ACDA Field Ops Div.	2	1	2	5
DOD (TDY)	5	18		23
Sandia Corporation	4	2	3	9
AEC Plants		4		4
AEC Classification		2		2
TOTAL	11	27	5	43

^a Project CLOUD GAP prior to 13 September 1967

FIGURE A-1. Man-Years of Effort Expended for FT-34

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II. TEST ORGANIZATION

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A. GENERAL

1. FT-34 was conducted under the direction of a Test Director, operating from a test headquarters at Paducah, Kentucky.

2. The organizational structures of the Test Headquarters Group, the Operations Group, the Support Group, and the four Test Site Groups are outlined in this section.

B. TEST HEADQUARTERS

Test Headquarters provided overall direction of the test. Responsibilities of personnel assigned to test headquarters were:

1. Test Director. The Test Director had overall responsibility for the conduct of the test at all installations.

2. Technical Director. The Technical Director was responsible to the Test Director for all technical and analytical portions of the test. He was assisted by the Assistant Technical Director.

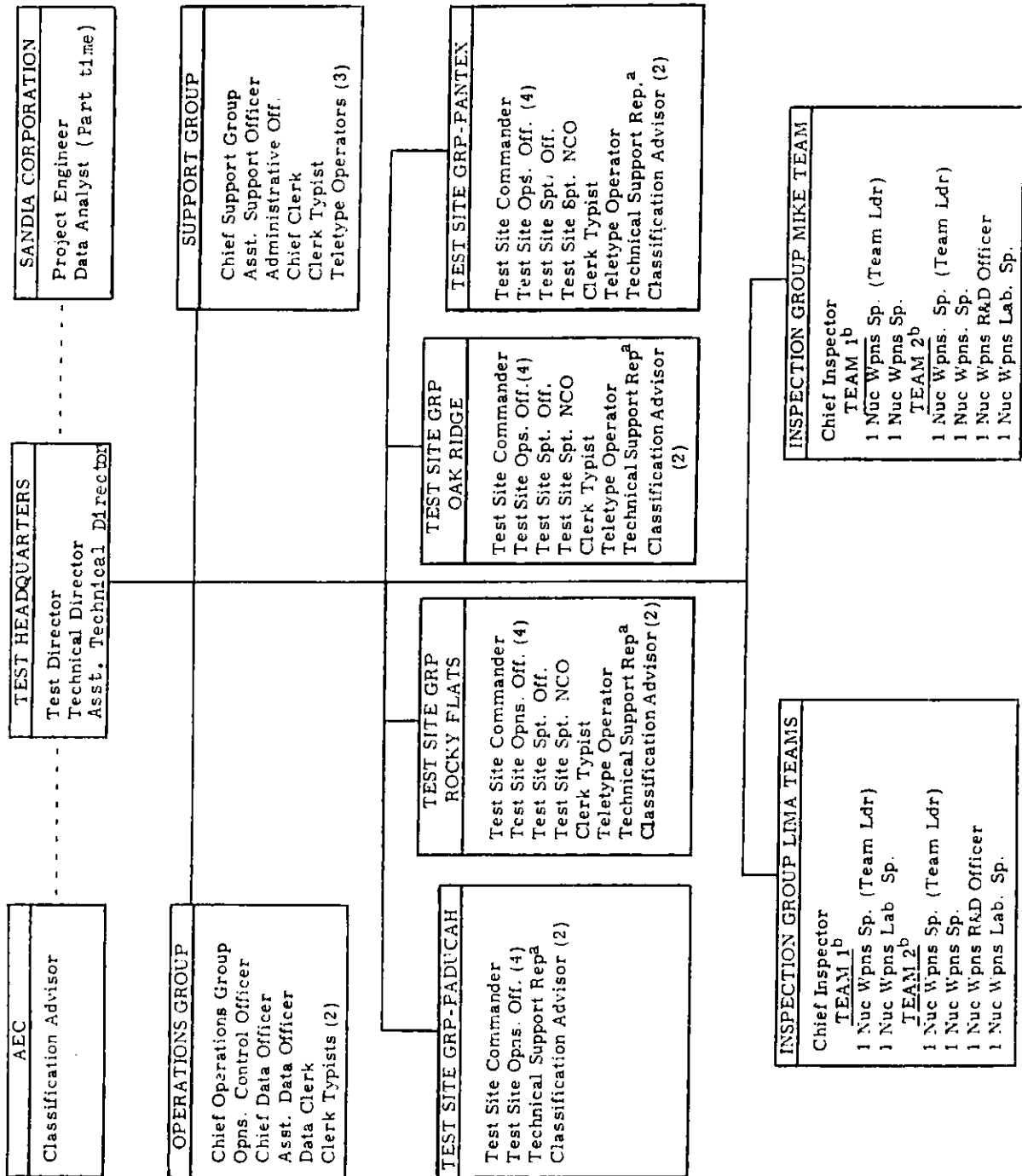
3. Project Engineer. The Project Engineer was the technical support contractor's chief technical advisor to the Test Director and the Technical Director. He directed the activities of the site technical support representatives.

4. Classification Supervisor. The Classification Supervisor and his alternate were assigned to Test Headquarters by the AEC to supervise the activities of the site classification advisors and to perform an overall classification review of all data packages received.

5. Headquarters Support Group. The Headquarters Support Group was manned as indicated in figure A-2. Assigned personnel were responsible for administrative and logistical support of the test. Specific details regarding the functions of the Headquarters Support Group are contained in chapter V

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^aReport to the Project Engineer

^bTwo such teams required.

FIGURE A-2. Manning of Test Site Groups

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of this annex.

6. Headquarters Operations Group. The Headquarters Operations Group was manned as indicated in figure A-2. Personnel assigned to this group directed and controlled test operations under the guidance of the Test Director and the Technical Director and gathered and evaluated data from the four test sites. Specific details regarding the functions of the Headquarters Operations Group are contained in chapter IV of this annex.

C. TEST SITES

1. General. The four Test Site Groups were commanded by Test Site Commanders and were manned as indicated in figure A-2. Personnel assigned to the Test Site Groups performed the following functions:

a. Monitored and supervised the inspection activities and transmitted test reference data and test data gathered by inspection teams to test headquarters.

b. Provided for necessary on-site training for inspector teams; contractor-provided instructor personnel conducted the training.

c. Provided coordination between Test Headquarters and inspector teams operating at the various test sites.

2. Paducah. Since Paducah also served as the site for Test Headquarters, site administrative and logistic functions were performed by headquarters personnel for the Paducah Test Site Group.

3. Test Site Group responsibilities are given in chapters IV and V of this annex.

4. Technical Support Representatives assisted the Test Site Commander, provided necessary liaison between FT-34 personnel and host contractor personnel, reviewed test data, gathered test reference data, and served as general consultants to both the Test Site Group and the host contractor.

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Technical Support Representatives reported to the Project Engineer.

5. Classification Advisors provided on-site classification interpretation for information derived during the test. They also monitored inspection team activities and independently listed all available classified items pertinent to the test. The Test Site Classification Advisors reported to the AEC Classification Supervisor.

D. INSPECTION TEAMS

Inspection teams were designated after interviews were completed at Paducah (with the exception of Oak Ridge Special Assay Exercise teams which were designated just prior to the exercise).

Duties and responsibilities of the inspection teams and individual team members are discussed in annex B.

E. OTHER SUPPORT

1. AEC Support. The U.S. Atomic Energy Commission supported the FT-34 field test directly and indirectly. Direct support involved supplying two classification advisors at each site and a classification supervisor at the headquarters. Indirect support involved setting up and administering the badging and security regulations through the AEC Area Office and contractor at each facility. The classification advisors were charged with the responsibility of classifying all FT-34-generated data and also of determining the amount and classification level of classified material available which could be revealed to the test inspectors. The AEC also provided the nuclear weapons and the facilities for the field test. In addition, the AEC reviewed the FT-34 documentary film for classified content and level of classification.

a. Sandia Corporation Support. The Sandia Corporation acted as analytic and technical contractor for FT-34 under a scope-of-work agreement between the Atomic Energy Commission (through the Albuquerque Operations Office) and

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the U.S. Arms Control and Disarmament Agency (through Project CLOUD GAP). The Sandia Corporation, a prime contractor to the AEC, maintains direct contact with the AEC production facilities used as test sites for FT-34. Under the scope-of-work agreement the Sandia Corporation provided assistance in planning the field test, preparing equipment and sites for field operations, the conduct of the inspection operations, the analysis of data gathered during the test, and the preparation of the Final Report and Procedures Manual.

During the field operations, the Sandia Corporation provided technical support at all the plant facilities and at Paducah headquarters. At least one Sandia Corporation technical support representative was present at all activities of FT-34. Responsibilities included rendering such technical assistance as was required by the site commanders, providing liaison with plant contractor personnel on technical matters pertaining to the test, reviewing all inspector-derived data for technical completeness, and in many cases setting up and integrating details of the test plan with plant personnel. A technical Project Engineer was assigned and was responsible for technical support representatives. The Sandia Corporation also supplied instructors qualified in weapon technology. In addition, it acted as the AEC financial coordinator by placing purchase orders on the test site contractors and by managing disbursements from FT-34 funds.

b. Site Contractor Support. The AEC site contractors were Dow Chemical Company at Rocky Flats, Mason and Hanger-Silas Mason Company at Pantex, and Union Carbide-Nuclear Division at Paducah and Oak Ridge. All contractors assigned competent personnel to FT-34 activities. In addition to providing facilities and facility support, the site contractors provided technical and administrative assistance to accomplish the objectives of FT-34. Key personnel were provided by the site contractors as instructors for the test headquarters and the on-site training sessions. Plant services, such as medical, messing, finance, photographic, and security, were also provided by the site contractor.

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2. DOD Support. The Department of Defense supported FT-34 by providing personnel for test planning and field operations phases of the test. Actual nuclear weapons used in the test were obtained from DOD inventories; these weapons were to be processed by the AEC in the weapon retirement program. Fake weapons (8-inch artillery shells, Mk 57 bomb dummy units, and Hawks) were supplied by service agencies for processing at both the Sandia Laboratory and the Pantex plant. The DOD also supplied, under a reimbursable agreement, personnel (three to five people, depending upon site requirements) from the Test and Evaluation Command (TECOM) of the Department of the Army to produce a documentary film of FT-34 operations. TECOM facilities at White Sands Proving Grounds were used for film developing, editing, and production.

F. EVALUATION OF ORGANIZATION

1. General. The organization for the test control and support function was adequate to meet the requirements of FT-34; however, it was found that the teletype operator assignment became unnecessary. This function was adequately performed by contractor personnel without any interference with their normal work load. It had originally been thought that FT-34 personnel would actually transmit messages. This did not turn out to be the case. Therefore, the function of teletype operator became one of message preparation; actual transmission and reception of messages was performed by AEC site personnel.

2. Test Headquarters. After initial planning and personnel procurement for the field test were accomplished and operations had begun, the headquarters staff was reduced. For instance, the assistant support officer (see figure A-2) was needed only during the early part of field operations to initiate support and supply procedures. The three teletype operators were also superfluous (although used as clerk-typists in the initial stages) and were detached early. An additional clerk typist, needed in the support group, was borrowed from the operations group which needed only one typist. In the operations group, the assignment of an assistant data officer was not necessary throughout the test

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operations. This officer was released after data processing operations were established.

It was originally planned to have the Technical Director operate from the test headquarters and monitor inspection operations at the sites as necessary. Early in the test operations, however, an analyst from the Field Operations Division was assigned as Assistant Technical Director. This allowed the Technical Director and his assistant to remain in the field, one monitoring LIMA operations and one monitoring MIKE operations. Several minor technical problems were encountered during inspection operations which required on-the-spot resolution. If a technical officer had not been present on such occasions, some operations might have been delayed or improperly performed.

A full-time Sandia Corporation data analyst was not used at headquarters. Personnel of the Data Display Center (control room) at Paducah successfully kept test headquarters abreast of the progress of the test. They were also helpful in briefing visitors on test aims and results.

3. Test Sites. The test site organizations were successful in accomplishing their missions. Suggested organizational changes, pertaining to all sites, include deletion of the teletype operator position and addition of another clerk typist.

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III. PERSONNEL

A. GENERAL

The contributions of the particular personnel involved in the FT-34 test played an important part in the success of the test. Because of the nature of the test, the operational environment, the test variables, and other aspects of the experiment, the results obtained could have been drastically affected by individual personnel performance. Supervisory test control and instructor personnel took every opportunity to re-emphasize the significance of the project and the importance of each individual in preserving the integrity of the test.

This chapter will discuss the personnel of FT-34, both military and civilian, with the exception of the Test Inspector Force (see annex B). Personnel requirements, procurement practices, qualification, training, and performance will be outlined, and personnel effectiveness will be evaluated. Details of test controller duties will be found in chapter IV (Operations Management).

B. REQUIREMENTS

The DOD provided a total of 80 personnel on a temporary duty (TDY) basis for planning the test, conducting the inspection, and controlling and administering the operations. Of these, 59 were officers, 2 were professional civilians, and 19 were enlisted personnel. The number of these personnel required varied as the test progressed. The maximum requirement was for 72 personnel during the peak activities of the field operations. Of these, 46 were engaged in administrative, support, and test control activities; 26 acted as inspectors. In addition, three ACDA/FO members acted as Test Director, Technical Director, and Assistant Technical Director.

C. PROCUREMENT AND QUALIFICATIONS

Temporary duty personnel for test control and support were provided from the three military services by authority of a memorandum to the secretaries of the services and the

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Assistant to the Secretary of Defense (Atomic Energy) from the Deputy Secretary of Defense, dated 25 August 1966. Each service was requested to provide approximately one-third of the total personnel needed for the FT-34 program.

In turn, each service was contacted by letter requesting these personnel and detailing the type of people desired, outlining their duties, and specifying reporting and TDY dates. Appendix A1 gives details on the numbers, grades, and types of personnel requested.

The planning group was recruited early in the program (late 1966). This group was charged with the responsibility of planning the test. They were required to develop the test control, administrative and support functions, training program, and personnel duties required by FT-34. To assist them in planning, a 2-week trip was scheduled through the five potential test sites. As a result of this trip, four test sites were selected. In addition, a pilot test was held at the four sites where planning group personnel performed abbreviated test procedures to determine problem areas, to increase their knowledge of facilities and services available at the sites, and to determine final test procedures. The 2-week familiarization trip was held 28 November to 8 December 1966, while the pilot test was held 10 to 21 April 1967.

D. AEC AND CONTRACTOR PERSONNEL

In support of FT-34 test objectives concerning classification, Headquarters AEC assigned a minimum of two classification experts to each site to assist in classification and to independently observe all that inspector personnel observed. These experts then compiled an individual tabulation of all classified items and classification levels available to inspector teams. These people, who were highly qualified in the field of classification of nuclear weapons, were supplied to the test by the Division of Classification, AEC Headquarters.

Sandia Corporation provided a minimum of one technical support representative per site, one overall technical supervisor, one part-time data analyst, and one part-time statistician. In addition, Sandia supplied qualified weapon instructor

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personnel for weapon training sessions at Paducah.

Test Site Contractor support in general was satisfactory. Numbers of people assigned to FT-34 varied with the test site. At least two contractor personnel per site were assigned to assist FT-34 for the duration of the test. They acted in both technical and administrative capacities. Others were assigned as needed. The services of large numbers of people were utilized on part-time bases in support of test objectives. The total number of personnel involved in some substantial way with FT-34 (including civilian) is estimated at over 200.

E. PERFORMANCE AND EVALUATION OF PERSONNEL

1. General. The Test Control and Administrative/Support personnel accomplished their mission satisfactorily. Planning personnel wrote a number of annexes to guide the test; these annexes proved to be invaluable during the test activities. Headquarters and site control personnel were effective. In some cases it was necessary to caution some test controllers that they were limited in the scope of their activities and should not try to aid or abet inspector personnel but should be impartial observers. About one-half of the test controllers did not have prior knowledge of or experience with nuclear weapons (see appendix A1).

Administrative personnel performed satisfactorily at both headquarters and at test sites even though, in some cases, personnel had less experience in their field of activity than desired. Because of the small number of legitimate transmissions by teletype between sites and headquarters and the availability of site contractor support, cryptographic qualified teletype personnel were not used to full capacity. They should be deleted from requisition lists for any further tests of this nature at established sites where teletype services are available. FT-34 operators were used for other clerical duties, but they were not needed in their specialty except in the early setting-up stages.

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2. Specific Site Comments

a. Pantex. All personnel had excellent backgrounds for the duties assigned. Time was not available in the headquarters or site training schedules to permit the site personnel to read and digest all annexes of the Operation Plan prior to the start of inspection operations. Training had to be supplemented during initial operations by "learning while doing."

b. Rocky Flats. All individuals had adequate backgrounds to perform their assigned duties. Training received at test headquarters for support and operations personnel was brief but adequate. Further training was conducted on-site at Rocky Flats for specific duties.

c. Paducah. No particular problems concerning site personnel were uncovered at Paducah. Test headquarters administrative and logistic support personnel performed effectively.

d. Oak Ridge. Three of the Operations Officers (controllers) assigned to this site had no background in the nuclear weapons field and the other had a minimal background. Their training at Paducah headquarters was sufficient to cover part of the requirements but was not adequate in relation to the use of data forms and to the collection of test reference data. On-the-job training was required to prepare them to carry out their duties adequately.

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IV. OPERATIONS MANAGEMENT

A. GENERAL

This chapter discusses the direct operational support provided for meeting test objectives. "Operations" is defined in this chapter as the application of test control. Operations (test control) personnel were responsible for maintaining test integrity. This chapter contains a description and appraisal of the control organization at Test Headquarters and all site test control units relating to functions, duties and responsibilities, training received, and methodology of data flow. Examples of data reduction and analysis may be found in annex F. The schedule of FT-34 Field Operations is given in figure A-3.

B. HEADQUARTERS OPERATIONS

1. Operations Group Functions. Headquarters test control personnel were organized as shown in figure A-2. The responsibilities of each position are presented in the following subparagraphs.

a. Chief, Operations Group. The chief of the operations group was responsible to the Test Director to insure that the field operations were conducted as planned. He performed this function by implementing operational/testing procedures in consonance with the Operations Plan by supervising and directing personnel assigned to the Operations Group, supervising training, monitoring daily operations at all sites, and resolving operational problems as they arose.

b. Operations Control Officer. The Operations Control Officer assisted the Chief, Operations Group in the performance of his duties. He coordinated the activities of the Operations Group, the Support Group, and the four Test Site Groups. He was also the training and debriefing officer.

c. Chief Data Officer. The Chief Data Officer was responsible to the Chief, Operations Group. His function was to insure that test control data and inspector data were received and processed. He displayed on a daily basis all

Location	Week of 19 June	Week of 26 June	Week of 3 July	Week of 10 July	Week of 17 July	Week of 24 July	Week of 31 July	Week of 7 Aug	Week of 14 Aug
Pantex			LIMA Teams	LIMA Teams	LIMA Teams		MIKE Teams	MIKE Teams	MIKE Teams
Rocky Flats						LIMA Teams	LIMA Teams		
Paducah	LIMA Teams R, O&T	LIMA Teams O&T			MIKE Teams R, O&T	MIKE Teams O&T		LIMA Teams	LIMA Teams
Oak Ridge									

Location	Week of 21 Aug	Week of 28 Aug	Week of 4 Sept	Week of 11 Sept	Week of 18 Sept	Week of 25 Sept	Week of 2 Oct	Week of 9 Oct	Week of 16 Oct
Pantex									
Rocky Flats	MIKE Teams	MIKE Teams							
Paducah			MIKE Teams LIMA Inspectors DB	MIKE Teams LIMA Inspectors DB			MIKE Inspect- tors DB	MIKE Inspect- tors DB	
Oak Ridge	LIMA Teams	LIMA Teams	LIMA Special Assay		MIKE Teams	MIKE Teams	MIKE Special Assay		Contractor Special Assay

R = Teams report for duty
O&T = Orientation and Training
DB = Debriefing and report writing

FIGURE A-3. Field Operation Schedule

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data received by headquarters personnel to be used in determining test progress and in briefings.

d. Assistant Data Officer. The Assistant Data Officer assisted the Chief Data Officer in gathering, collating, and displaying test data.

e. Data Clerk. The Data Clerk processed data messages, posted and filed data, and assisted in collating test data.

f. Clerk Typist. The two Clerk Typists provided clerical support for the Operations Group.

g. Data Analyst. The Data Analyst, a civilian responsible to the Project Engineer, provided guidance regarding the collection and analysis of test data on a part-time basis as needed.

2. Training. Basic training for operational (test control) personnel took place at Test Headquarters, Paducah, Kentucky, during the periods 20-30 June and 18-28 July 1967. Instructors from among the test control personnel, the Sandia Corporation, and from the AEC Test Site Contractors held classroom presentations covering all aspects of FT-34 operations; these presentations included practical exercises simulating inspector operations. The training sessions at Paducah for test control personnel included the presentation of general information regarding the background of the project and the purpose and objectives of the field test. Public relations information, security, test schedules, test site information, administration, and logistics were also discussed during training. Technical training sessions for test control personnel included discussions of (1) inspection procedures, (2) weapons used for the test; (3) the use of inspection forms by both inspectors and test controllers, and (4) methods and techniques used in the assay of fissile material. On-site instruction was also given later at test sites to orient and familiarize test control personnel with specific operations to be performed at each site.

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C. TEST SITE OPERATIONS

1. Site Operational Functions. Site test control personnel consisted of the Site Commander and four Operations Officers. These officers had the following test control responsibilities.

a. Test Site Commander. Each Site Commander was responsible to the Test Director and actively directed and monitored site operations in support of the test directives. He, with the assistance of a Technical Support Representative, was the primary contact with host plant operational personnel in the proper preparation for and conduct of the field test. He was responsible for scheduling inspections to give the minimum of interference with normal site work load while the test was being conducted. He also supervised and monitored the data collection and preparation efforts of his Operations Officers.

b. Site Operations Officers (4). The Site Operations Officers, also called Test Controllers, were escorts for inspectors. In addition, they had the responsibility of instructing inspectors on the day's activities, debriefing inspectors at the end of each day, collecting and verifying the completeness of each data sheet, and preparing summary sheets and deviation forms. Their prime function was to act as impartial observers of inspection operations, and to note any deviation from expected performance that might possibly have a bearing on test results.

c. Classification Advisors (2). These were classification experts assigned by the AEC to perform two primary duties: to assist the site commander in classifying any material generated by FT-34 personnel (primarily inspector-derived data) and to follow the inspectors during each operation to determine what classified information was available to them. This work culminated in a report to the AEC, from each site, detailing the types and the classification levels of classified items revealed. Copies of these reports were also provided to FT-34 analysts.

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d. Technical Support Representative. This technically oriented weapons specialist from Sandia Corporation, who reported to the Project Engineer, was charged with the responsibility of establishing and maintaining contact with site contractor personnel to assure that the technical aspects of the test were met. He coordinated with them in setting up evasion procedures, schedules, funding (through the Sandia Project Engineer), and all technical walkthroughs and laboratory techniques to be used for FT-34 (Rocky Flats and Oak Ridge). His main contribution was the generation or collection of test reference data on the weapons and facilities. He also reviewed each data package for completeness and technical accuracy. The Technical Support Representatives (as well as the Project Engineer) served with the original planning group in setting up the test to be sure test objectives would be met. They were also responsible for preparing the initial drafts of the various annexes of the final report; their presence at all operations of the field test for which they were responsible was a necessity.

2. Operational Procedure

a. Briefing and debriefing of inspectors was done each day by FT-34 Test Controllers.

b. Controllers filled out summary sheets and deviation reports, as required, and collected data packages.

c. Data packages were verified by the Technical Support Representatives before final review by Site Commanders.

d. AEC classification personnel reviewed inspectors' data packages to verify the classified information reported by inspectors. Any inspector omissions, underclassifications, or overclassifications discovered by classification personnel (based on actual observations of the inspections) were recorded on a data form (CG-34-02) and attached to the inspection team's data package. They then classified all forms and data packages and turned them over to the Site Commander for review and processing.

e. The Site Commander reviewed all data packages for completeness and prepared information messages concerning data

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collected for test headquarters. A copy of all generated data was made; the originals were sent to Test Headquarters, and the copy was sent to Sandia Corporation, Albuquerque, New Mexico. Data flow is illustrated in figure A-4.

3. Test Reference Data (TRD)

a. Development of TRD was the responsibility of the Technical Director, FT-34.

b. Some TRD were furnished by Sandia Corporation in cooperation with AEC and their contractors at specific sites as required by the FT-34 Technical Director. Other TRD were collected by test control monitors during inspection operations. The majority of the TRD were obtained from the site contractor by the technical support representatives. The Site Commander was responsible for assuring the complete collection of TRD.

c. Field collation and recording was accomplished by FT-34 personnel. FT-34 personnel assisted contractors as required in securing technical and field manuals pertaining to non-AEC weapons used in the test - that is, some of those shapes used as fakes. Equipment and facility brochures, drawings, and standard operating procedures were normally obtained from the site contractor and cleared for use as TRD by the local AEC Area Office representative.

d. Initial TRD for weapons, equipment, and facilities were collected prior to the start of the field test. These TRD provided a data base with which to compare numbers, identification markings, and other descriptive data at the test site.

e. The initial TRD were modified during the conduct of the field test as necessary. Because the daily Test Control Reports recorded such changes, they form the true base against which inspector's findings must be compared. Such daily TRD were collected as the situation warranted.

f. Much TRD (such as true assays of material) were not available until completion of the test.

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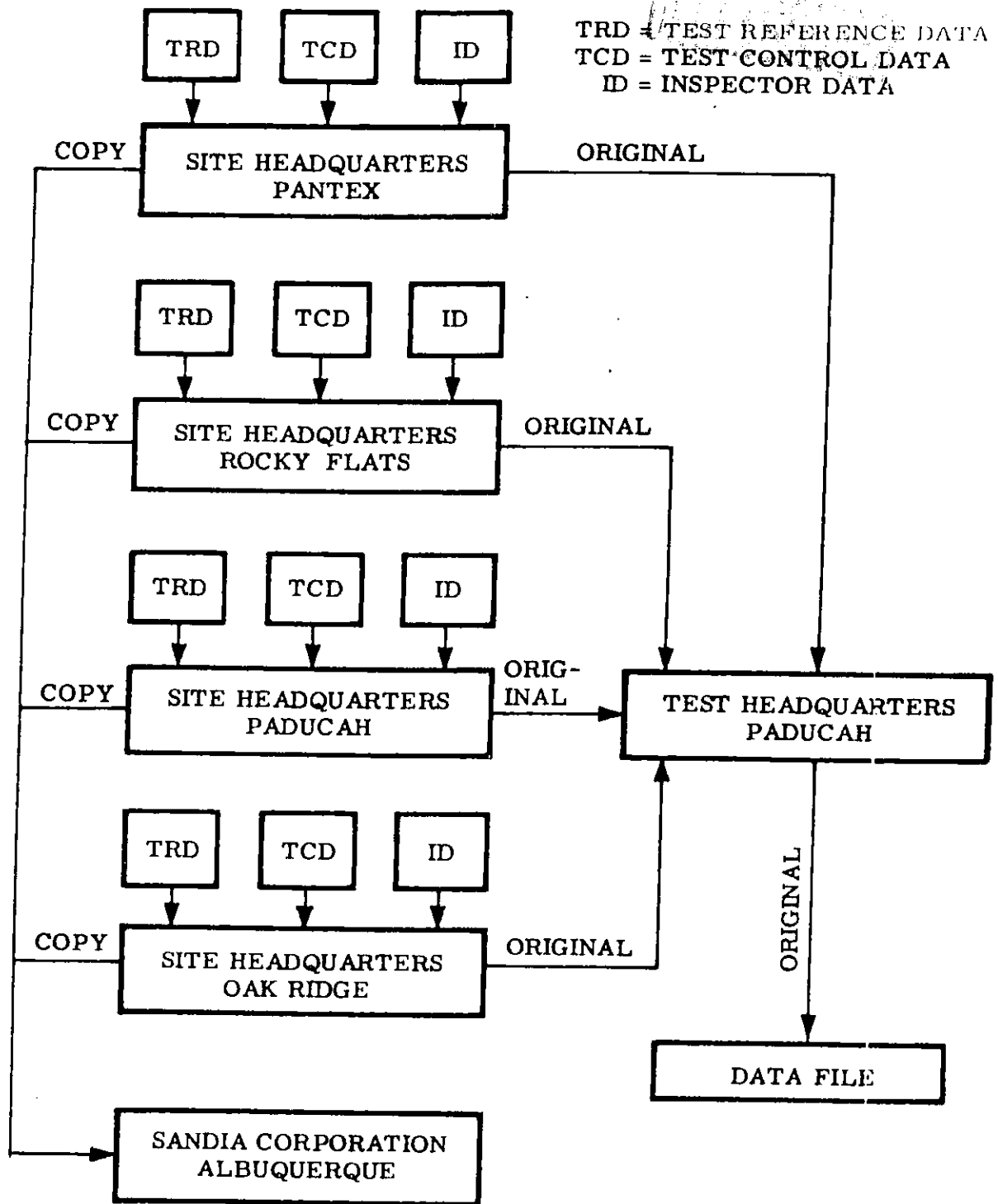


FIGURE A-4, Data Flow

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g. Weapons TRD were obtained from technical and field manuals (modified as necessary), from data supplied by the service furnishing the weapon, and by AEC contractor personnel supporting FT-34.

4. Security. The following procedures were observed:

a. General

(1) FT-34 personnel complied with the security regulations and procedures of the host plants, AEC, DOD, and ACDA, as appropriate, and restricted their movements to those buildings or areas authorized by the plant and Operations Plan directives. The Rocky Flats site required plant escorts for all FT-34 personnel. At Oak Ridge, Test Controllers were permitted to escort inspectors, but on-plant escorts for Test Control personnel in areas exposed to nontest activities were required.

(2) FT-34 test operations were not discussed with members of host plants, except as required in an official capacity. Published guidance was used in dealing with the press or the public. (Refer to Public Affairs Guide in appendix A-2.) The nature and sensitivity of the test required that no discussions be held outside working areas.

b. Clearances

(1) A minimum security clearance of SECRET-RESTRICTED DATA was required for all assigned personnel. Clearances for access to AEC sites were obtained by Field Test Headquarters from Headquarters AEC; AEC Form 277 was used.

(2) The Administrative Officer, Test Headquarters, insured that a USAEC Request for Visit or Access Approval (Form 277) had been submitted to Headquarters AEC, and that a Department of Defense Secrecy Agreement had been executed by each individual assigned to FT-34. A file of executed secrecy agreements was maintained by FT-34 together with the certification of an individual's security clearance and a copy of his orders to FT-34. The Test Director, FT-34, was authorized by the Assistant Secretary of Defense (International Security

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Affairs) to sign Form AEC 277 as the certifying officer for temporary duty personnel having DOD clearance. The movement of personnel between sites was coordinated by Test Headquarters in accordance with arrangements finalized between FT-34 and Headquarters AEC prior to the establishment of Test Headquarters at Paducah.

c. Badges. Access to classified installations and areas within these installations was arranged by the FT-34 Test Director for all personnel requiring access to test headquarters and test sites. Identification badges were issued by local AEC area offices and test site contractor security offices to all FT-34 personnel with appropriate security clearances and a certified "need-to-know." Local regulations of host plants applied to badges used by FT-34 personnel. Badges were worn on the outer clothing easily visible for identification purposes. All FT-34 test site control personnel were issued picture badges at all test sites. Inspector personnel were issued picture badges at Rocky Flats and Paducah and no-picture badges at Pantex and Oak Ridge. Color coding was used at all test sites to distinguish badges for test site control personnel and inspector personnel. All badges contained identification information including the name of the bearer and his organization. Each badge contained an expiration date. Local plant regulations determined whether badges were taken from the area after working hours by the bearer or were deposited in a receptacle upon leaving an area and retrieved upon return to the area. At Paducah and at Oak Ridge, a dual badge system was used. Each identification badge was supplemented by a metered badge for admittance to specified areas within the plant. Clip-on radiation exposure packs were used at Pantex and Rocky Flats.

D. EVALUATION OF OPERATIONS MANAGEMENT

1. Operations management and test control activities of FT-34 were adequate for test purposes. Inspections were carried out as planned and the overall schedule of operations was met. Test data and test reference data were collected and processed satisfactorily and as planned. Test control succeeded in maintaining test integrity.

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2. Although the operations management and test control activities were adequate, a number of improvements can be recommended, some of a general nature.

It was agreed by nearly all site commanders and others that the training received by test control personnel at Paducah was not thorough enough. More time should have been spent on indoctrination in test design, test objectives, and the purpose and use of data sheets. Site commanders believed that these subjects could be presented more efficiently during headquarters training rather than during on-site training.

In some cases (Pantex particularly) not enough time was available for site preparation and on-site planning and coordination with plant personnel. Reporting times for test control personnel should be at least 1 and preferably 2 weeks prior to the start of operations.

Some difficulty in achieving proper test control arose from the necessity of operating under security restrictions imposed by the host plant. Rocky Flats was the most difficult since plant escorts were required for all FT-34 personnel at all times in any operating area.

The test control system used in FT-34 was effective in assuring that test procedures were followed and that test data were collected and presented in the manner prescribed. There were, however, some deficiencies found in the system. These deficiencies were, in part, results of limited training and of the dual role which test controllers often had to assume during test operations. The lack of familiarity with test procedures, data acquisition, and test control forms caused some confusion early in the test, particularly for the LIMA inspection group. As the test progressed, the test control officers learned through experience, and the operations were completed smoothly. Nonuniformity in the interpretation of test control functions was another deficiency which resulted from inadequate training. Operations officers (test controllers) at each test site used their own set of guidelines appropriate to the site. These guidelines, which involved the extent of participation and control to be used with inspection teams, were formulated at each site to be appropriate to the

conditions at the site.

The scope of the test controller's activities involved his function as inspection team supervisor, counsellor, briefer, and debriefer and at the same time required tactful avoidance of dissemination of the evasion tactics used against the team. This dual role raised some questions in the inspectors' minds as to the role of test control. In actuality, test control personnel performed the desired roles of impartial observers to the inspection teams.

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V. ADMINISTRATIVE AND LOGISTIC SUPPORT

A. GENERAL

Administrative and logistic support for FT-34 was under the overall control of the Test Director through the Chief Support Officer at Paducah Test Headquarters. Administrative support included all personnel and financial accounting as well as the myriad of other services required by military and civilian personnel away from their home stations. Logistic support included provisions for facilities and office equipment (some furnished by FT-34, some by host plants) general supplies, as well as shipping services in support of the field test.

Resources for the above functions include the three services of the Department of Defense; the Atomic Energy Commission, particularly the contributions from the four host plants; and the Sandia Corporation, who provided special financial and logistic support services.

Duties and responsibilities of the administrative and logistic personnel are found in sections B and C of this chapter and details of their functions are listed in sections D and E. Section F describes the funding procedures of FT-34; section G indicates the extent of training given FT-34 administrative and support personnel. Section H evaluates the administrative support given the field test.

B. HEADQUARTERS ADMINISTRATIVE AND SUPPORT GROUP FUNCTIONS

1. Chief, Support Group. The Chief, Support Group was responsible for support planning and for providing administrative and logistical support for the test at the four test sites.

2. Assistant Support Officer. He assisted the Chief, Support Group and performed duties assigned by that officer. His primary responsibility was to provide and manage equipment and supplies.

3. Administrative Officer

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a. The Administrative Officer handled personnel and administrative matters for the headquarters and Paducah Test Site personnel and supervised these areas at all sites. He was under the supervision of the Chief, Support Group.

b. He performed normal administrative support functions for the conduct of the test. As necessary, he coordinated with the local support activities (AEC and/or contractor) for services and material outlined herein. These services included, but were not limited to the following:

- Pay
- Security, including Document Control
- Medical
- Communications
- Public Affairs
- Legal Assistance
- Recreation

4. Transportation Officer. The responsibility for transportation for the Test Headquarters and the Paducah Test Site was assumed by the Chief, Support Group. Transportation Officers for the other test sites were appointed by the Test Site Commanders. The Transportation Officer:

a. Co-ordinated all transportation requirements at his site and insured that the necessary transportation services were provided as required.

b. Insured compliance with all administrative responsibilities, such as care, proper use, qualified drivers, etc., set forth regarding use of GSA and commercial rental vehicles.

c. Maintained vehicle usage data which was included in the Test Site Commanders Status of Accounts Report.

5. Chief Clerk. The Chief Clerk served as the chief NCO. He had overall responsibility at Test Headquarters for administration and support supervision. He was under the supervision of, and performed duties assigned by, the Administrative Officer.

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6. Clerk Typist. The Clerk Typist performed duties of clerical support, as assigned by the Chief Clerk at Test Headquarters.

7. Teletype Operator. Teletype operators performed clerical duties assigned by the Administrative Officer.

C. TEST SITE ADMINISTRATIVE AND SUPPORT GROUP FUNCTIONS

1. Test Site Commander. The Test Site Commander was responsible to the Test Director. The Site Commander delegated authority for site administrative and support functions to his Support Officer.

2. Test Site Support Officer. (Oak Ridge, Pantex, and Rocky Flats only.) The Test Site Support Officer was responsible to the Test Site Commander. He also served as administrative officer and performed necessary administrative/logistical support functions (outlined in paragraph B3 and B4 above).

3. Test Site Support NCO. The Test Site Support NCO assisted the Test Site Support Officer in providing and administering material and supplies.

4. Clerk Typist. The Clerk Typist was responsible to the Test Site Support Officer and provided clerical support for the test site.

5. Teletype Operator. The Teletype Operator maintained a log of all incoming and outgoing messages and performed as clerk typist.

D. ADMINISTRATIVE SUPPORT DETAILS

1. Personnel Accounting

a. The following procedures applied to all assigned temporary duty (TDY) personnel:

(1) Formal morning reports were not prepared. Personnel were carried in TDY status on the morning report of their home duty stations.

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(2) Changes in duty status for TDY personnel were reported immediately by telephone or teletype to the Administrative Officer, Test Headquarters, by the appropriate site Administrative Officer.

(3) Emergency leave was granted at the discretion of the Test Director. In case of extreme urgency, the Test Site Commander could authorize emergency leave, but the Test Director was to be notified at the earliest practicable time.

(4) Week-end passes for trips beyond the local area were authorized at the discretion of each Test Site Commander; considerations of test requirements, distance to be traveled etc., guided these authorizations.

(5) The Administrative Officer, Test Headquarters processed incoming/outgoing TDY personnel and maintained individual CLOUD GAP Personnel Data Cards. A sign in/out registry, Form CG-34-50, was also maintained for visitors.

(6) The Administrative Officer, Test Headquarters, prepared travel orders in the form of Personnel Action Directives for all TDY personnel traveling to other test sites. He also prepared the necessary travel requests. He maintained a file which included copies of orders assigning each individual to FT-34 and of any orders issued by FT-34.

(7) The administrative officer at each test site established the following minimum procedures for control purposes:

(a) Processing incoming/outgoing TDY personnel and maintaining a roster of personnel assigned to that test site; the roster served as a locator file.

(b) Maintaining a sign in/out registry for all visitors.

(c) Publishing daily duties of test site personnel, as appropriate.

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2. Document Control

The Administrative Officer, Test Headquarters, was the Classified Document Control Officer for Field Test operations at Paducah. Test Site Commanders designated a Classified Document Control Officer for their sites. Since each host plant had requested that CLOUD GAP establish its own document control procedures, FT-34 followed procedures contained in the current edition of the CLOUD GAP security procedures,¹ and in published ACDA, DOD, AEC guidance. This included, but was not limited to, daily security checks, sealed safe combinations for emergency use, document accountability receipt forms, and classified material receipts. In addition, the following procedures were used:

a. Serial logs were maintained for incoming/outgoing classified documents. Additional logs and files were maintained as appropriate for unclassified incoming/outgoing documents.

b. The security classification assigned to each data package originated by FT-34 was verified and initialed by the AEC classification personnel assigned to each test site. If any doubt existed as to whether an item should be classified, it was referred to the AEC classification personnel for final determination.

c. Classified material was prepared for transmission according to host plant instructions provided by each site Classified Document Control Officer. This included marking, assignment of serial numbers, packaging, and receipting.

d. Special procedures were followed at Rocky Flats when classified data or documents were carried from one area to another. Instructions were provided by the Classified Document Control Officer.

¹Security Classification Policy Guide, PROJECT CLOUD GAP, 1964.

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e. At the conclusion of the test, all classified material was returned to the appropriate Classified Control Officer who disposed of the material as directed by the Test Director and Test Site Commander.

3. Reports.

a. Weekly Activity Report

(1) The Weekly Activity Report was a detailed situation report covering all aspects of the progress of the test and matters related thereto.

(2) A report was required from all four Test Site Commanders. It was submitted by teletype to the Administrative Officer, Test Headquarters, prior to noon on Fridays. The teletype report was followed up by a telephone notification to the Administrative Officer at Test Headquarters.

(3) The Test Director prepared and forwarded a Weekly Activity Report to Project CLOUD GAP headquarters in Washington.

b. Status of Accounts Report. In order for the Test Director to maintain a record which indicated the status of FT-34 funds, a Status of Accounts Report was submitted on a weekly basis to Test Headquarters (Attn: Chief, Support Group). The report was prepared at the beginning or working hours each Monday. Monthly reports were prepared by FT-34 headquarters and were submitted to Project CLOUD GAP headquarters.

4. Communications. The Administrative Officer, Test Headquarters, and the Site Support Officers of Oak Ridge, Pantex, and Rocky Flats were responsible for co-ordinating FT-34 communications requirements with their host plant representatives, and for establishing procedures to enable FT-34 personnel to use available facilities.

5. Billeting and Messing

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a. Government-owned billeting and messing facilities were not available at the AEC plants. In lieu thereof, reservations were made for accommodations at motels or hotels in the vicinity of each test site.

b. The cafeterias of the four AEC plants were utilized by FT-34 personnel during test duty hours. Arrangements for other meals were responsibility of the individual. Dining facilities were available at or near the motel/hotel selected for billeting. Payment for billeting and messing was made by each individual from his personal per diem allowance.

6. Liaison Personnel at Military Installations. Requirements such as pay and medical care for military personnel, which could be satisfied only at a military installation, were provided by a military activity which was located convenient to each site. The following installations were furnished the required military support to FT-34 field operations:

<u>TEST SITE SERVED</u>	<u>MILITARY INSTALLATION</u>
Paducah/ Oak Ridge	Fort Campbell, Kentucky
Rocky Flats	Lowry AFB Denver, Colo.
Pantex	Amarillo Technical Training, Amarillo AFB, Texas

7. Pay. Since the services had been advised to instruct FT-34 TDY personnel to leave pay records at their home station, pay during the field test operations was required only for per diem and miscellaneous travel expense.

8. Medical. Dispensaries of the host plant were utilized as required. There were no serious illnesses or accidents requiring hospitalization during FT-34.

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9. Motor Vehicle Accident Investigation. A few minor motor vehicle accidents occurred during FT-34 operations. Only property damage resulted. Project CLOUD GAP and FT-34 published instructions were followed in reporting and handling accidents.

10. Medical Reports of Radiation Exposure. All visitor film badges were processed at the plant, and permanent records were maintained by the plants. In addition, a whole body gamma count was performed at the Oak Ridge site to provide readings before and after possible personnel exposure. No significant radiation exposure was experienced by FT-34 personnel.

11. Public Affairs

a. In view of the sensitivity and nature of FT-34, requests for information were handled with extreme care and due caution. Several requests were made by a television station in Denver for a televised interview with the Test Director and for a documentary film of the field test. These requests were tactfully avoided. Press conferences were not held. ACDA/DOD published guidance was used in dealing with the public, press, etc. See appendix A2.

b. To prevent generating unwanted interest in test operations, FT-34 personnel were instructed not to discuss matters pertaining to the test outside test site areas. Release of information was the responsibility of the local Test Site Commander in co-ordination with the local AEC official and the Test Director.

c. Other personnel connected with FT-34 field tests referred all inquiries to these persons. Public Affairs matters or release of information not previously cleared through ACDA/DOD were referred to the Test Director.

12. Personnel Efficiency/Performance Reports. The performance of all officer and enlisted personnel were rated with respect to their temporary duty period.

Appropriate forms and service directives were furnished to each site Administrative Officer by the Test Headquarters

Administrative Officer. The Headquarters Administrative Officer published a list of the individuals to be rated, when to be rated, and by whom.

13. Awards and Commendations. Supervisory personnel nominated individuals deserving special recognition for awards or letters of commendation. During FT-34, recommendations were made for Joint Service Commendations Medals, letters of commendation, and letters of appreciation.

14. Letters of Appreciation. Letters of appreciation to each AEC area office and each plant were prepared by the Test Director upon completion of the field test. Test site personnel recommended to the Test Director any individual, AEC area office, or AEC plant deserving special recognition for any particular assistance rendered in the successful accomplishment of the FT-34 field test.

15. Duty Officers. The Administrative Officer at each site published a duty officer's list indicating name, telephone number, and duty date for a CLOUD GAP telephone contact who could be reached during all nonduty hours. Copies of these duty lists were provided to each of the Test Site Administrative Officers and to the Test Headquarters Administrative Officer prior to the effective duty dates.

16. Uniform Regulations. While performing duty with FT-34, all military personnel were encouraged to wear appropriate neat and clean civilian clothing in lieu of the military uniform. Where required, special clothing was issued by host plants.

E. LOGISTIC SUPPORT DETAILS

1. Facilities. All facilities and office equipment required by FT-34 in support of the test at Paducah and Oak Ridge were furnished by the host plant. Two trailers were used for the inspection team offices at Pantex. The Pantex plant provided a conference room, test site office space, and office equipment for offices and trailers. Four trailers were used at Rocky Flats to satisfy office space requirements. Office equipment and a conference room were provided by the plant.

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2. Supplies and Equipment - General

a. Standard expendable office type supplies were provided by the host plants. Pantex, Rocky Flats, and Paducah preferred not to bill FT-34 for supplies, because the limited amount required would not justify the additional administrative burden to accomplish reimbursement. Supply economy was practiced, and unused supplies on hand at the end of the test were returned to the host plants.

b. Office Supplies. The acquisition of office supplies for FT-34 use varied according to practice at each site. At Pantex and Rocky Flats, office supplies were provided by the plants on a no-charge basis. Paperwork for supply withdrawals was not required. At Paducah, specified individuals were designated to obtain supplies from the plant office supply room. These individuals maintained a record of all supplies drawn for FT-34 use. At Oak Ridge, expendable office supplies were charged to FT-34 use. The Site Commander designated one person to withdraw supplies. The designee withdrew supplies, as required, by either ordering the supplies by phone or by direct withdrawal from the plant supply store.

3. Photo Equipment and Services. Cameras and film used by inspectors were provided from Project CLOUD GAP supplies. In addition, some photographic services were provided by the host plants. The services included taking pictures for TRD, development of the film, accomplishment of security requirements related thereto, and co-ordination with Test Site Commanders as was required regarding film editing, etc. Any photographs taken by inspector test control personnel were processed by the AEC classification representative. No photographs, official or private, were permitted unless processed in accordance with the foregoing procedure. Residue of Polaroid photographs were surrendered to the host plants for disposal.

4. Vehicles

a. Government fuel was obtained for GSA vehicles at Rocky Flats and Paducah. In addition, the commercial vehicles at Paducah only used the fuel facilities at the plant. Credit

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cards provided by the appropriate rental agency and GSA were used to purchase fuel from commercial sources where government facilities were not available. Credit receipts for fuel and services were retained for the Transportation Officer at each site.

b. A government operator's license was required for all personnel operating government vehicles. Personnel requiring government operator's licenses obtained the licenses through the motor pool division at each of the AEC sites, except Pantex. A valid operator's license from any state was required to operate commercial rental vehicles; this license was also a prerequisite to the issuance of a government operator's license. All vehicles used by FT-34 were obtained through government contract.

5. Shipping Procedures and Schedule

a. General. In order to assure that inspection schedules were not interrupted because of delays in the shipment of material, a set of procedures covering interplant shipments of FT-34 materials was established. Initial disassembly of weapon was performed at the Pantex Plant; therefore, most of the packaging and shipping of FT-34 weapons parts was done at Pantex. Pantex personnel shipped materials to Rocky Flats, Paducah, and Oak Ridge. Other materials shipments were made from Rocky Flats to Oak Ridge.

b. Procedures. Packaging, labelling, documenting, and processing were done in accordance with existing AEC and plant regulations at each site where FT-34 material was shipped to another site. In addition to AEC and plant markings on shipments, FT-34 markings and identifications were used. These markings consisted of the test designator (CG-34), the inspection group for which the material had been used, and the weapon batch number of the material. The LIMA group examined weapon batches one and two; the MIKE group examined weapon batches three and four. Shipments of FT-34 items were normally made by regularly scheduled AEC interplant transportation and schedules; however, special shipping was used to assure on-time delivery where critical

dates had to be met and when regular schedules were not adequate. Only one instance of late arrival of material arose during the test: batch one and batch two material shipped from Rocky Flats to Oak Ridge did not arrive at Oak Ridge in sufficient time for first walkthrough tour display and weight check. The Rocky Flats shipment was made on schedule; however, accelerated inspection at Paducah permitted inspection to begin at Oak Ridge earlier than originally planned. Rocky Flats material was not received for the early start at Oak Ridge. The revised schedule was met for the MIKE inspection group.

When material was shipped, the Test Site Commander at the origin was advised of the identification of the material, the date shipped, mode of transportation, and estimated time of arrival at the destination. He advised the receiving Test Site Commander and Test Headquarters of this information. The receiving Test Site Commander determined that the shipment was correct and complete, determined the holding location and integrity of the material shipped, and reported the arrival of the shipment to Test Headquarters.

F. FUNDING

Ample funds for the field test were provided by the DOD and ACDA. A reimbursable agreement was arranged with the AEC for analytic and technical support by the Sandia Corporation and for technical and operational support by the contractors operating the four plants where field operations took place. Funds for reimbursing the AEC and the military services for some salaries were disbursed by ACDA; other funds were disbursed by the Air Force Systems Command. The total cost of FT-34 was approximately \$801,000 as shown in figure A-5.

1. The Sandia Corporation, through the AEC Albuquerque Operations Office, was designated to coordinate and handle AEC reimbursement matters for FT-34 expenditures. Sandia Corporation expenditures, excluding AEC plants, totaled approximately \$370,000. AEC plant expenditures for support of inspection operations totaled approximately \$230,000.

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<u>ITEM</u>	<u>EXPENDED</u>
Contract	
Analytic & Technical Support	\$370,000.00
AEC Plant Support	230,000.00
Documentary Film	15,000.00
Travel and Per Diem	146,000.00
Automobile Rental	7,900.00
Equipment Transportation	1,422.00
DOD Reimbursable Salaries	30,929.00
TOTAL	<u>\$801,251.00</u>

FIGURE A-5. Expenditure of Funds

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2. The Air Force Systems Command disbursed approximately \$165,000 as shown in figure A-5 for travel and per diem, automobile rental, transportation of material, and for a documentary film. The greatest of these expenditures was approximately \$142,000 for travel and per diem.

3. ACDA disbursed approximately \$28,000 directly to the military services concerned as reimbursement for salaries of military personnel on duty with the field test after Project CLOUD GAP, a joint ACDA/DOD group, became the Field Operations Division of ACDA in September 1967.

G. ADMINISTRATIVE AND LOGISTIC SUPPORT TRAINING

To acquaint administrative and support personnel with the background and the objectives of the field test and with the duties which had to be performed, training sessions were conducted at test headquarters. Training sessions for administrative and logistic personnel utilized approximately 4 hours of training at test headquarters and covered topics such as test background, public relations, security, test site information, and administration and logistic support (accounting, pay, medical support, correspondence, communications, billeting and messing, and security). In addition to the formal training at test headquarters, individual on-the-job training was provided at each test site prior to the start of operations.

H. EVALUATION OF ADMINISTRATIVE AND LOGISTIC SUPPORT

1. General. Administrative and logistic support were adequate for FT-34 purposes. No communication problems between sites and headquarters existed, and site support from headquarters was effective. AEC Contractor support was adequate and satisfactory at all sites, and only minor inadequacies were infrequently encountered. The largest problem was the difficulty of operating under the relatively tight escort provisions of Rocky Flats security (which tended to affect test control operations more than administrative and logistic support).

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2. Specific Site Comments

a. Pantex. Overall support provided by the Pantex plant was satisfactory. Reaction and response to requests were rapid and realistic. Physical administrative quarters provided FT-34 personnel were adequate but were small, and the layout not the most efficient. All other Pantex areas used for normal operations were off limits to FT-34 personnel except the Xerox facility. This regulation posed no problems after the first few days. Supplies and message center services were adequate. Processing of badges for test control, administrative and supply personnel, inspectors, and visitors was excellent. Custodial service provided by the plant was marginal. Photographic and locksmith services were excellent.

The quantity of classified waste generated during operations created a storage problem because of the once-a-day only pickup scheduled by the plant.

The trailers used by FT-34 personnel were not completely equipped and the latrines were inoperative. An outside chemical latrine was emplaced; however, a slight morale problem was created by the objectionable odor.

Plant physical location gave the biggest problem. It was 22 miles from Amarillo, Texas, where the nearest living accommodations were located. Accommodations available were widely spread because of the reluctance of landlords to rent facilities for less than 60 days. There was a shortage of furnished apartments. A daily round trip of 60 miles and 1-1/2 hours travel time was required.

b. Rocky Flats. Administrative and logistic support provided FT-34 operations at Rocky Flats were satisfactory. Security was a bit restrictive, but every attempt was made to live up to the host plant's restrictions. Two problems arose, but they were operational in nature. They dealt with the batching mixup during walkthroughs and with the late shipment of LIMA components to Oak Ridge, previously mentioned.

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Rocky Flats did not have sufficient office space for FT-34 site or inspector personnel; therefore, four trailers were leased for this purpose. They were satisfactory.

c. Paducah. All administrative support supplied to the Paducah Test Site came through FT-34 headquarters staff which was not under the command of the Paducah Test Site Commander. It was adequate and satisfactory.

One of the reasons Paducah was chosen as Test Site Headquarters, apart from its centralized location, was the excellence of its office and training facilities for FT-34 personnel, both site and headquarters.

A slight built-in harassment to inspection operations at Paducah (caused by security restrictions) was the necessity to circle the plant on an exterior perimeter road, a distance of about 4 miles, to reach the inspection area.

d. Oak Ridge. Adequate office space was furnished FT-34 personnel near one edge of the plant proper; about a mile of travel to operational areas was required. Y-12 support was characterized by efficient, prompt assistance on any request.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

1. Organization

a. The organization for Test Control of FT-34 was adequate and appropriate, with minor exceptions, to meet the requirements of the test. Teletype operator were not needed, and the assistant data officer was not required throughout the test.

(1) Teletype operators were not required in the organization structure for this test because the AEC plants provided adequate teletype support; however, they may be required for similar tests where teletype services are not provided.

(2) The assistant data officer was not needed after data processing operations were established.

b. The administrative and logistical organization was fully adequate to satisfy test demands, however, the assistant support officer was not required after support and supply procedures were established.

c. The value of having the Technical Director or his assistant present during all test operations was quite evident. Several technical problems arose which required immediate resolution.

2. Personnel

a. Backgrounds of FT-34 test controller TDY personnel were adequate for the duties they performed. These backgrounds are described in appendix A1.

b. Training given Test Control and Support personnel at Paducah prior to operations was adequate, inasmuch as it was planned that this training be supplemented

with on-site training and experience prior to the start of operations. It was found, however, that some site control and support personnel did not fully understand the objectives of the test early in their operations.

3. Operations (Management)

a. Test control procedures and activities were sufficient to insure that the test was conducted as planned and that all data required were gathered.

b. Not enough time was allowed for test site personnel in setting up their offices and in preparing for the arrival of inspectors. This did not hamper inspection operations significantly, but it did require much overtime work in some cases.

c. The security restrictions imposed at the various sites occasionally hampered test control activities. This limited their movements and affected the efficiency of operations, however, plant personnel cooperated as much as possible within the limits of their regulations to minimize this problem.

4. Administrative and Logistic Support

a. Administrative and logistic support was adequate to meet the needs of FT-34.

b. The initial 2-week trip for planning personnel and the pilot test were of great benefit in anticipating administrative and logistic problems before they occurred.

5. General. In an inspection like FT-34, it is necessary to obtain and utilize cooperative plant support. Many inherent inconveniences occurred at the test sites which were resolved only by close coordination between test control and plant personnel.

B. RECOMMENDATIONS

As a result of the test, the following recommendations concerning test control and support are made:

1. Figure A-6 gives a recommended organizational chart for a test such as FT-34. Teletype operators should be added if adequate teletype services are not provided between sites. An assistant data officer would not be required, and an assistant support officer would only be required on a part-time basis. A technical officer should be provided to monitor all inspection operations directly.

2. Backgrounds recommended for test planners, test controllers, and support personnel are given in detail in appendix A1. In general, normal military experience and backgrounds in operational and logistic planning and in development of planning documents would be adequate for planning a field test such as FT-34. Supervisory experience and backgrounds in military field operations would be required for test controllers. For planning and test control personnel, backgrounds in nuclear weapons is highly desirable. Normal military administrative and support personnel should have adequate backgrounds for fulfilling administrative, logistic, and supply requirements.

3. Training for test control and support personnel for a field test such as FT-34 should be similar to that discussed in this annex. This should include general and on-site training in all aspects of the operations with separate training as necessary in specific duties. Training for test control personnel should include practical exercises simulating inspector operations.

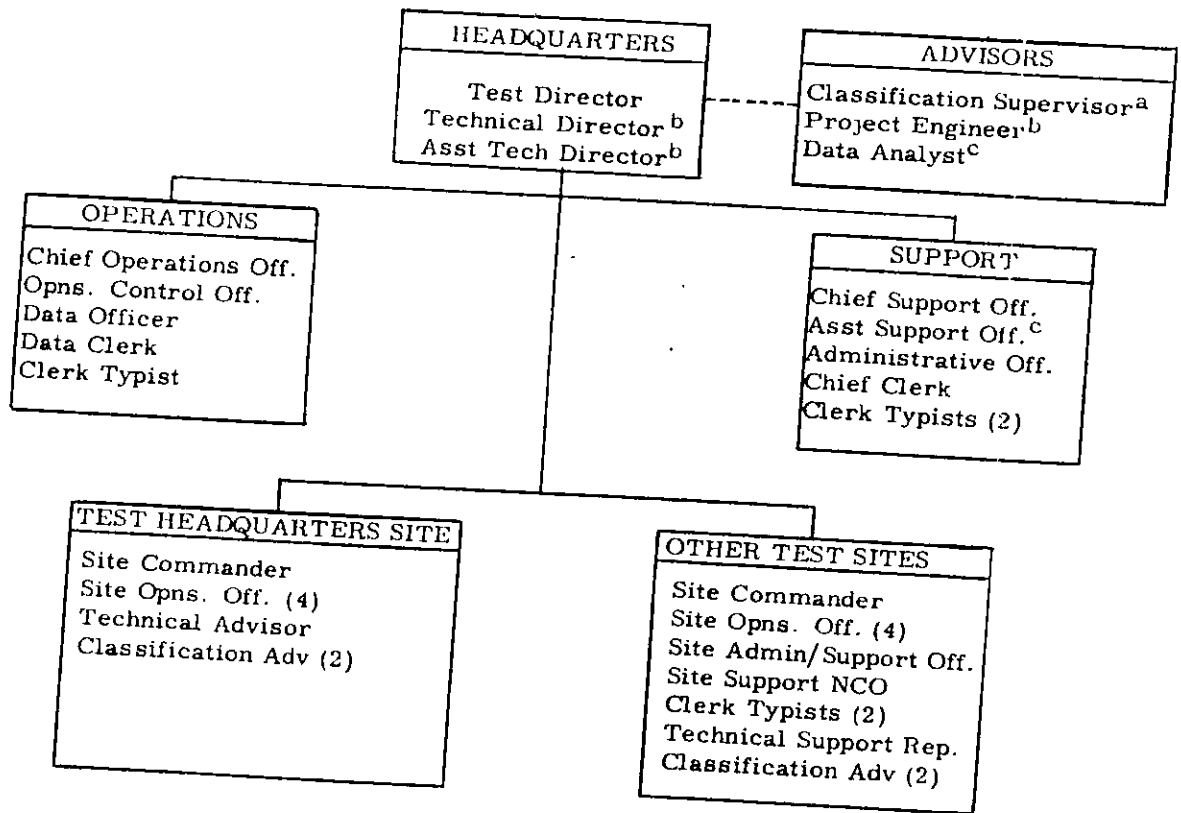
4. Thorough training in test objectives and meaning and use of test data should be provided to test controllers prior to test operations. This will help test controllers understand the purpose of a test and enhance their resolution of operational problems which inevitably arise.

5. For a test such as FT-34 test control, administrative, and support procedures similar to those used during the field test, which are discussed in this annex, should be followed.

6. For a test such as FT-34 test site and test control personnel should arrive at their site well in advance of inspection operations. A period of 1 to 2 weeks should be planned for site preparation.

7. In preparation for planning a field test of this nature a visit to all sites by all planning personnel is recommended. At least 2 days at each location would be required for familiarization with the facility and extensive discussions with plant personnel. Administrative and logistic plans developed should be exercised during a pilot test and modified as necessary prior to field operations.

8. Every effort should be made to secure AEC and site contractor support and cooperation in every phase of test operations prior to initiation of each phase. Ample preparation for operational activities and support functions will assist in efficient and effective inspection operations.



- ^a Resident at Headquarters
^b Follow test operations
^c Part time as needed

FIGURE A-6 Suggested Organization Chart—
Control and Support

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VII. TEST AT A SINGLE FACILITY

A. GENERAL

This chapter is devoted to an examination of the test control and support requirements which would be peculiar to conducting a test similar to FT-34 at a single inspection facility. It is assumed that such a site would be located in the United States and would be constructed as illustrated schematically in figure A-7.

A future test of demonstrated destruction of nuclear weapons at a single facility would probably contain many of the elements of the FT-34 test. Objectives of the test, however, would define the test activities and would determine which portions of FT-34 would be applicable to the new test. It is reasonable to expect that the basic inspection concepts of FT-34 would be retained for a future test. These concepts include walkthrough tours of the inspection facility, monitoring of weapons presented for destruction, inspection and weight accounting of weapon residue, and inspection (assay) of fissile materials derived from the weapons destroyed.

The primary difference between this sort of an operation and the FT-34 test, of course, would be the single test site versus four test sites. The single facility would be tailored for this operation, and no adjacent production activity by host plants would distract inspectors or interfere with test control. There would be no need for logistic activities between test sites, no communications between sites and test headquarters, and no administrative headaches caused by temporary billeting, travel, office facilities, etc., because suitable semipermanent facilities could be prepared ahead of time. Security could be an in-house problem eliminating much of the inconvenience inherent in AEC security regulations, assorted badging procedures, etc. Because of the above, the test control and supply problem would be greatly simplified.

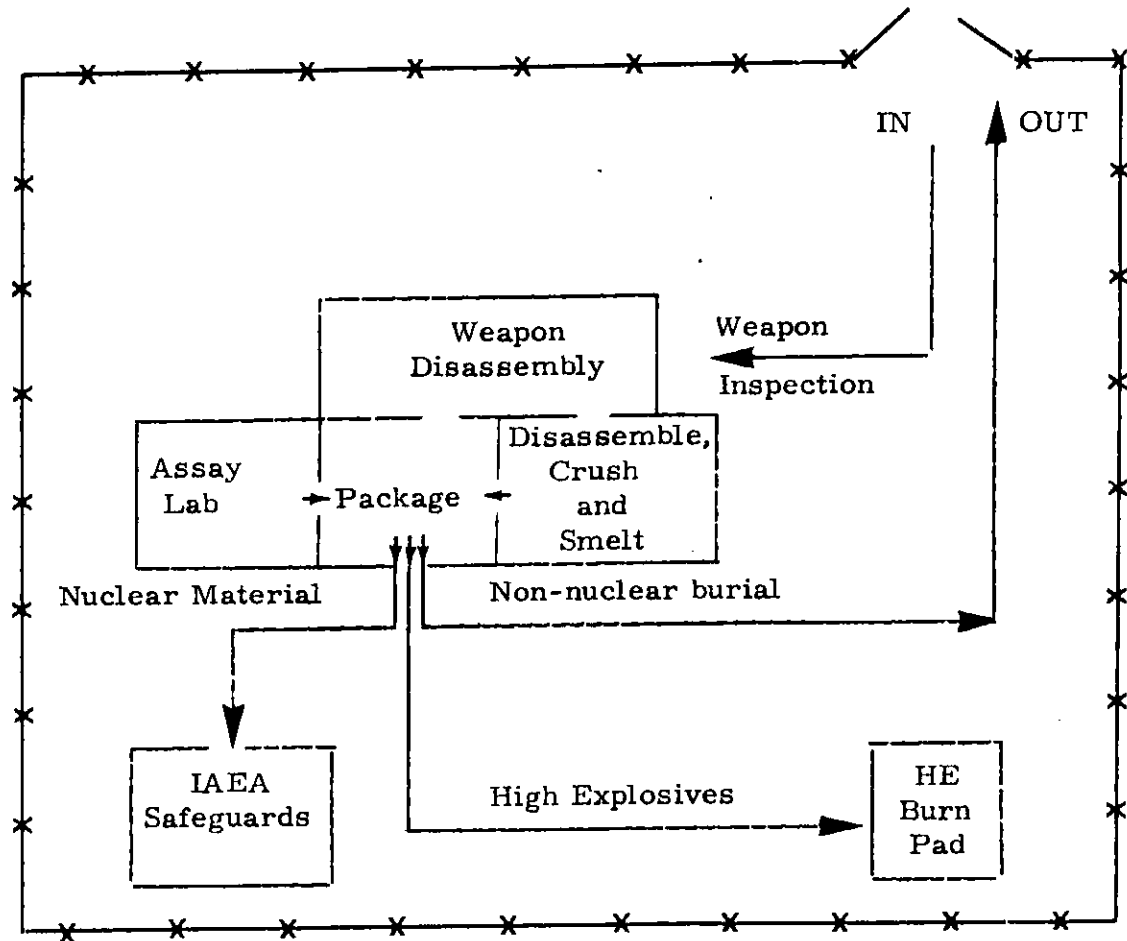


FIGURE A-7. Single-Facility Concept

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B. ORGANIZATION

An organization similar to that at Headquarters for FT-34 could suffice for a single facility test (see figure A-8). A Test Director, with full responsibility for all phases of the operation, and a Technical Director, reporting to the Test Director, would be required. They should be supported by a contractor advisor, thoroughly familiar with nuclear weapons, and by a resident data analyst. In fact, the field data analyses should be performed on site. A classification advisor would be required. The rest of the organization can be divided into operational and support groups with duties similar to those already delineated for FT-34 Headquarters group, as revised. Manning of the operations and support groups would depend on the workload. Teletype operators would definitely not be required, with the possible exception of one to handle urgent classified correspondence to the outside.

Single facility site test operations would still require test controllers with duties similar to those of FT-34 test controllers. Site Commanders, of course, would not be required. Additional technical advisors and classification specialists may be assigned as the need arises.

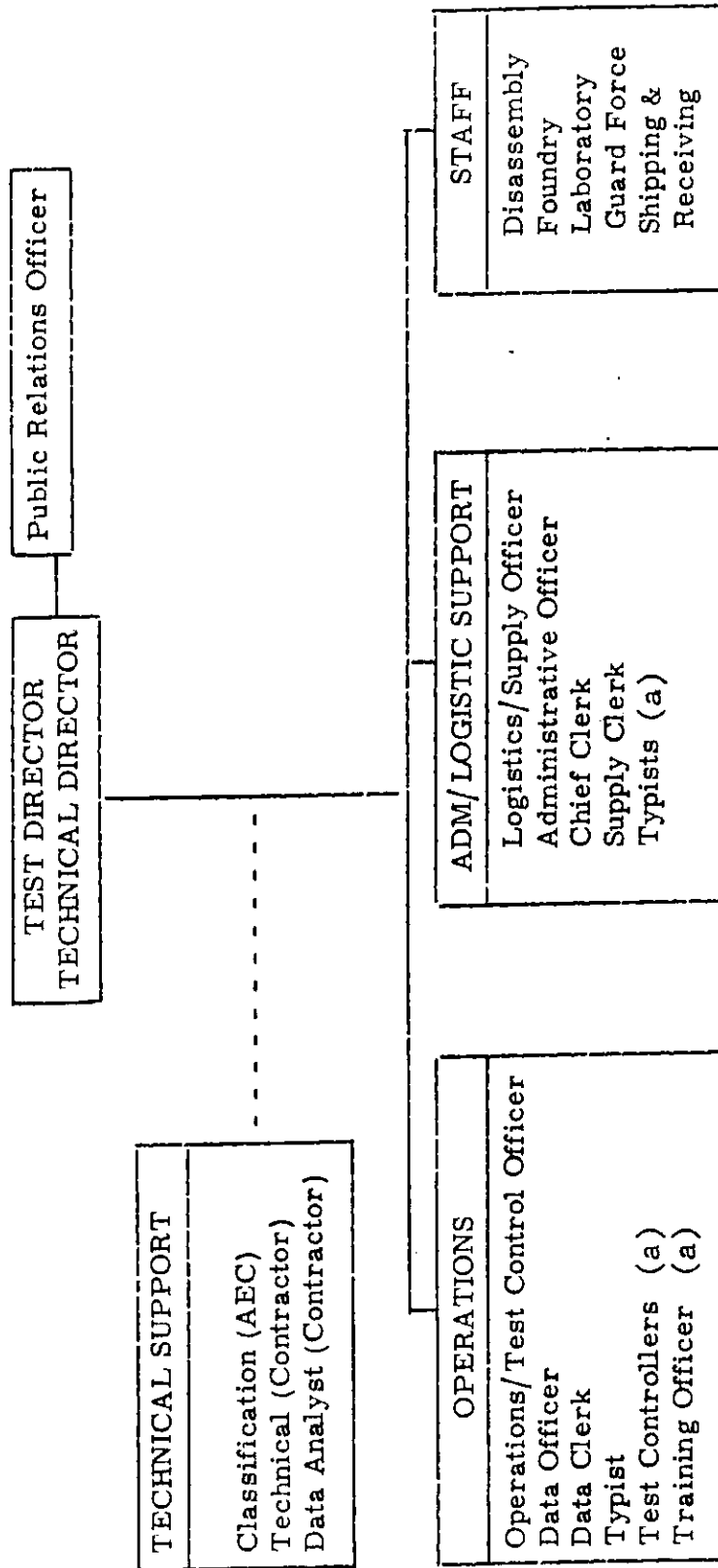
C. PERSONNEL

If it is decided to undertake another FT-34 type test at a single facility, every effort should be made to staff the site with highly qualified personnel. A professional civilian staff or career military staff officers should be assigned to the facility on a stabilized tour basis. The same group should plan the test and help conduct it. Contractor and site civilian personnel should be highly qualified and motivated. Time and resources should be planned for thorough training of test control personnel.

D. OPERATIONS MANAGEMENT

The skeletal framework of Operations Management used in FT-34 could be adapted to the needs of the single-facility test. The mechanics of data collection and review would

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^aNumbers required will depend on number of inspectors.

FIGURE A-8. Proposed Single-Facility Test Control and Support Organization

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apply to the single-site test operations with the exception of transmission of data to a remote headquarters. The outline of test operations found at the beginning of this chapter can guide the formation of applicable test control procedures.

E. ADMINISTRATIVE AND LOGISTIC SUPPLY

Here, of course, is where the most noticeable difference between FT-34 and a test at a single facility occurs. Administrative duties for a single-site operation would be similar to those for FT-34 but reduced in scope. The duties could be handled by an administrative officer, a chief clerk, and probably two clerk typists. A public relations officer would probably be needed for briefings and press relations. He could also serve as an assistant data officer when not needed for his primary duties.

Logistic supply for a single-site operation would be simplified. The flow of weapons and materials into the out of the facility and the control of the proper material records could be handled by one supply officer and a clerk.

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FINAL REPORT
FIELD TEST FT-34

ANNEX A

APPENDIX A1

PERSONNEL REQUISITION FORMS
TEST CONTROL PERSONNEL (U)

SEPTEMBER 1968

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PERSONNEL REQUISITION FORM
CG - 34

PLANNING GROUP
Test Headquarters

ITEM NO.	REQ. GRADE	SERVICE	JOB TITLE	DUTIES	BACKGROUND DESIRED	BACKGROUND OBTAINED (if different)	REPORT DATE	REPORT PERIOD OF DUTY	REMARKS
1	1*	05	Navy	Chief Planning Group	Prepare and coordinate all operational plans. Supervise planning staff.	Knowledge of nuclear weapons design and maintenance. Experience as a staff planner	Li. Comm. Opns Officer. Super-vice staff. No nuclear experience.	24 Oct 66 6 months TDY	Report to Washington, D.C.**
2	2*	04	Army - 1 Asst. A.F. - 1 Planner	Assist the Chief Planner in the discharge of his duties. Prepare Training Program.	Knowledge of nuclear weapons design and maintenance. Experience as a staff planner.	Knowledge of nuclear weapons design and maintenance. Experience as a staff planner.	8 Nov 66 6 months TDY	Report to Washington, D.C.**	
3	1*	04	A.F.	Asst. Planner (Technical) their duties.	Technical knowledge of nuclear weapons design and maintenance. Experience as staff planner.	Technical knowledge of nuclear weapons design and maintenance. Experience as staff planner.	8 Nov 66 6 months TDY	Report to Washington, D.C.**	
4	1	04	Army	Logistics Planner	Assist the Chief Planner in supply and logistics matters.	Knowledge in supply and logistics, contracting, and communications.	8 Nov 66 6 months TDY	Report to Washington, D.C.**	
5	1	03	Navy	Asst. Logistics Planner	Assist the Logistics Planner in his assigned duties.	Supply, Logistics, Administration, and Communications. <u>Can be female.</u>	8 Nov 66 6 months TDY	Report to Washington, D.C.**	
6	2	E4-E5	Army - 1 Clerk A.F. - 1 Typist	Clerk Typist	Clerk Typist. <u>Can be female.</u>	Clerk Typist. <u>Can be female.</u>	8 Nov 66 6 months TDY	Report to Washington, D.C.**	
TOTAL 8									

The total personnel requirement for a specific job is listed in the column "NO. REQ." Example - Line Item No. 2 requires two persons - one provided by the Army and one provided by the Air Force.

* All personnel require a minimum security clearance of SECRET - NO; those marked with asterisk require TOP SECRET - RD. The level of clearance will be certified on orders.

** Report to Project CLOUD GAP, 1701 Pennsylvania Avenue, Washington, D.C.

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PERSONNEL REQUISITION FORM
CG - 34

OPERATIONS GROUP
Test Headquarters

ITEM NO.	REQ.	GRADE	SERVICE	JOB TITLE	DUTIES	BACKGROUND DESIRED	BACKGROUND OBTAINED (if different)	REPORT DATE	PERIOD OF DUTY	REMARKS
7	1*	05	Navy	Chief Operations Group	Assume duties of Chief Planner. Be Opns Officer for test. Assist in writing reports.	Nuclear weapons and operations staff officer	Lt. Commander Language specialist (Russian) Line officer	27 Mar 67	6 months TDY	Report to Washington, D. C. **
8	1*	05-04	A. F.	Operation Control Officer	Assist Chief, Operations Group. Supervise the training program.	Nuclear weapons and operations staff officer	Major, Bomb Nav., Opns Plans	27 Mar 67	6 months TDY	Report to Washington, D. C. **
9	1*	04	Army	Chief Data Officer	Obtain and record data. Assist Chief, Operations Group.	Automatic data processing	Captain, Statistics, Plans and Operations Officer	27 Mar 67	6 months TDY	Report to Washington, D. C. **
10	1*	04-03	Navy	Asst. Data Officer	Assist the Data Officer	Automatic data processing. Can be female.		12 Jun 67	5 months TDY	Report to Test Hqs., Paducah, Ky.
11	1	E5 or E6	Army	Data Clerk	Operations NCO - Data Recorder	Operations NCO with automatic data processing. Can be female.		20 Jun 67	4 months TDY	Report to Test Hqs., Paducah, Ky.
12	2	E4 or Navy - 1 E5 A. F. - 1		Clerk Typist	Typing and assisting Data NCO	Typing and administration. Can be female.		17 Apr 67	6 months	Report to Washington, D. C. **
TOTAL 7										

* Test Headquarters will be located at 727 Joe-Clifton Drive, Paducah, Ky.

The total personnel requirement for a specific job is listed in the column "NO. REQ." Example-- Line Item No. 2 requires two persons--one provided by the Army and one provided by the Air Force.

** All personnel require a minimum security clearance of SECRET - RD; those marked with asterisk require TOP SECRET - RD. The level of clearance will be certified on orders.

Report to Project CLOD GAP, 1901 Pennsylvania Avenue, Washington, D. C.

PERSONNEL REQUISITION FORM
CG - 34

ITEM NO.	REQ NO.	GRADE	SERVICE	JOB TITLE	DUTIES	BACKGROUND DESIRED	BACKGROUND OBTAINED (if different)	REPORT DATE	PERIOD OF DUTY	REMARKS
13	1	04	Army	Support Officer	Chief of Logistic and Administration for entire test including personnel requirements	Supply and administration including general personnel requirements	Major	27 Mar 67	6 months TDY	Report to Washington, D C **
14	1	04 or A F 03		Asst Support Officer	Assist Chief	Same as Chief		12 Jun 67	5 months TDY	Report to Test Hqs, Paducah, Ky
15	1	04 or Army 03		Admin Officer	Records, pay, travel requests	Administration Can be female		12 Jun 67	5 months TDY	Report to Test Hqs, Paducah, Ky
16	1	E4 or Navy E5		Clerk Typist	Typing and Administration	Typing and administration to include personnel and preparation of travel requests Can be female		12 Jun 67	5 months TDY	Report to Test Hqs, Paducah, Ky
17	3	E4 or Army - 1 above Navy - 1 and A F - 1		Teletype Operator	Teletype Operator	Qualified and experienced operator. Must be crypto qualified. Can be female		20 Jun 67	4 months TDY	Report to Test Hqs, Paducah, Ky
18	1	E7 or Army E8		Chief Clerk	Chief Test NCO - overall administration and supervision	1st Sgt or Sgt Major		12 Jun 67	4 months TDY	Report to Test Hqs, Paducah, Ky
TOTAL 8										

SUPPORT GROUP
Test Headquarters

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Test Headquarters will be located at
727 Joe-Clifton Drive, Paducah, Ky

The total personnel requirement for a specific job is listed in the column "NO REQ". Example - Line Item No. 2 requires two persons - one provided by the Army and one provided by the Air Force.

* All personnel require a minimum security clearance of SECRET - RD; those marked with asterisk require JOP SECRET - RD. The level of clearance will be certified on orders.
** Report to Project CLOUD GAP, 1901 Pennsylvania Avenue, Washington, D C

PERSONNEL REQUISITION FORM
CG - 34

TEST SITE GROUP
Amarillo, Texas
and Rocky Flats, Colorado

ITEM NO.	REQ. NO.	GRADE	SERVICE	JOB TITLE	DUTIES	BACKGROUND DESIRABLE	BACKGROUND OBTAINED (if different)	REPORT DATE	PERIOD OF DUTY	REMARKS
19	2*	05	Army - 2	Test Site Commander	Site Commander and responsible for testing at a given site	Nuclear weapons and operations	LtC Arty Bn Sv. Officer LIC Infantry Brig exec	27 Mar 67	6 months TDY	Report to Washington D C **
20	8*	04	Navy - 4 A F - 4	Test Site Ops Officer	Assistants to Site Commander	Nuclear weapons and operations	3 with no nuclear experience 1 with no nuclear experience	20 Jun 67	3 months TDY	Report to Test Hqs, Paducah, K
21	2	04 or 03	Army - 2	Test Site Spt Off	Responsible for site supply and administration	Supply and Administration		20 Jun 67	3 months TDY	Report to Test Hqs, Paducah, K
22	2	E6 or E5	Navy - 1 A F - 1	Test Site Spt NCO	Senior Administration NCO. Assists Site Commander and Support Officer	Administration		20 Jun 67	3 months TDY	Report to Test Hqs, Paducah, K
23	2	E4 or E5	Navy - 1 A F - 1	Clerk Typist	Typing and Administration. Prepares TRs	Administration. Can be female.		20 Jun 67	3 months TDY	Report to Test Hqs, Paducah, K
24	2	E4 or above	Army - 2	Teletype Operator	Operate Teletype machine to Test Headquarters	Qualified and experienced operator. Must be crypto qualified. Can be female.		20 Jun 67	3 months TDY	Report to Test Hqs, Paducah, K

TOTAL 18

Test Headquarters will be located at
727 Joe-Clifton Drive, Paducah, Ky

The total personnel requirement for a specific job is listed in the column "NO REQ". Example--Line Item No. 2 requires two persons--one provided by the Army and one provided by the Air Force.

* All personnel require a minimum security clearance of SECRET - RD, those marked with asterisk require TOP SECRET - RD. The level of clearance will be certified on orders.

** Report to Project CLOUD GAP, 1901 Pennsylvania Avenue, Washington, D C.

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PERSONNEL REQUISITION FORM
CG - 34

TEST SITE GROUP
Paducah, Ky. and
Oak Ridge, Tenn.

ITEM NO.	REQ NO.	GRADE	SERVICE	JOB TITLE	DUTIES	BACKGROUND DESIRED	BACKGROUND OBTAINED (if different)	REPORT DATE	PERIOD OF DUTY	REMARKS
25	2*	01	Army - 2	Test Site Commander	Site Commander and responsible for testing at a given site	Nuclear weapons and operations	LtCol Staff Off Conv weapons only	20 Jun 67	4 months TDY	Report to Test Hqs, Paducah, Ky
26	8*	04	Navy - 4 A F - 4	Test Site Operations Officer	Assistant to Site Commander	Nuclear weapons and operations	1 with no nuclear experience 3 with no nuclear experience	18 Jul 67	4 months TDY	Report to Test Hqs, Paducah, Ky
27	1	04 or 03	Army	Test Site Support Officer (Oak Ridge)	Responsible for site supply and administration	Supply and Administration		18 Jul 67	4 months TDY	Report to Test Hqs, Paducah, Ky
28	1	E6 or A F E5		Test Site Support NCO (Oak Ridge)	Senior Administration NCO. Assists site commander and support officer	Administration		18 Jul 67	3 months TDY	Report to Test Hqs, Paducah, Ky
29	1	E4 or Navy E5		Clerk Typist (Oak Ridge)	Typing and administration. Prepares TRs.	Administration. Can be female.		18 Jul 67	3 months TDY	Report to Test Hqs, Paducah, Ky
30	1	E4 or Army above		Teletype Operator (Oak Ridge)	Operates teletype machine to Test Headquarters	Qualified and experienced operator. Must be crypto qualified. Can be female.		18 Jul 67	3 months TDY	Report to Test Hqs, Paducah, Ky
TOTAL 14										

Test Headquarters will be located at
727 Joe-Clifton Drive, Paducah, Ky.

The total personnel requirement for a specific job is listed in the column "NO REQ". Example-- Line Item No. 2 requires two persons-- one provided by the Army and one provided by the Air Force.

* All personnel require a minimum security clearance of SECRET - RD, those marked with asterisk require TOP SECRET - RD. The level of clearance will be certified on orders.

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PERSONNEL REQUISITION (CONT'D)

Special features to be included on all orders for TDY personnel for CG-34:

1. CIPAP as directed by Test Director CG-34.
2. Commercial Air Authorized. Government Air Authorized when available. Sixty (60) pounds of excess baggage authorized.
3. TPA is not authorized. Use of rental vehicles during the Field Operations phase of the test, as directed by the Test Director, is authorized. Civilian driver's licence required.
4. Civilian clothing authorized for duty wear. Special clothing allowance is not authorized.
5. Security Clearance Certification in accordance with specific Line Item on requisition. Crypto Access Certification for all teletype operators.
6. Personnel will report to duty station as indicated in the remarks section of the requisition.
7. Leave not to exceed 30 days authorized by the Test Director.
8. Two (2) copies of orders will be sent to the following addresses:

Director of Finance and Accounting
HQ, Air Force Systems Command
Attn: SCCAA-4
Andrews Air Force Base, Maryland

AND

Project CLOUD GAP
Attn: Test Director, CG-34
1901 Pennsylvania Ave., NW
Washington, D. C. 20452

9. Separate messing and billeting at test sites as authorized by the Test Director.
10. Personnel and Finance Records, except the appropriate travel card which will be turned over to Project CLOUD GAP, will remain at the individual's home station.
11. Travel and per diem costs are chargeable to 57X3600-287-4747-P681354-62410014-S599000-CG-34.

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FINAL REPORT
FIELD TEST FT-34
ANNEX A
APPENDIX A2
PUBLIC AFFAIRS RELEASES
AND PRESS CONTACTS (U)
SEPTEMBER 1968

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UNITED STATES ARMS CONTROL
AND DISARMAMENT AGENCY

PUBLIC INFORMATION RELEASE NO. 2

(For Release Monday, April 3, 1967, 12:00 Noon)

"CLOUD GAP" (CG-34) ANNOUNCEMENT

The United States Arms Control and Disarmament Agency (ACDA) today announced plans for a field test to evaluate procedures contemplated for demonstrating the destruction of nuclear weapons without revealing classified weapon design information. The exercise, to begin later this year and to be completed by September 1967, will be conducted in Tennessee, Kentucky, Colorado, and Texas by personnel of "Project CLOUD GAP," an organization which is jointly staffed and financed by ACDA and the Department of Defense.

This field exercise -- called "CG-34" -- is related to a proposal which was first presented at the United Nations General Assembly by Ambassador Arthur J. Goldberg in September 1965 and has subsequently been discussed at the conference of the Eighteen-Nation Disarmament Committee in Geneva. As a means of halting the nuclear arms race, the United States had earlier proposed that there should be agreement on a verified "Cutoff" in the production of fissionable materials for weapons purposes and a transfer of large quantities of these materials to peaceful uses. The United States has stated its willingness to enter into such an agreement, placing the material obtained from the weapons under international safeguards, providing the Soviet Union would do likewise.

While it would thus introduce an actual turn-down in the nuclear arms race, this proposal would not impinge upon the security interests of either side: It does not involve inspection of remaining nuclear weapons inventories; nor does it call for compromising such sensitive elements as weapons design. It is in this latter connection that field exercise CG-34 has an important role to play: It will undertake a thorough evaluation

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of the methods and procedures by which the destruction of weapons would be demonstrated to ensure that the operations would go as planned, providing reliable verification that the full measure of fissionable materials had been released for peaceful purposes and submitted to international safeguards, but without compromising weapons design information in the process.

The operational phase of the exercise will take approximately three months. To ensure complete realism, actual weapons will be used.

Headquarters for the test will be located at the Atomic Energy Commission's plant at Paducah, Kentucky. Actual operations will be conducted at the AEC facilities at Paducah, Kentucky; Oak Ridge, Tennessee; Golden, Colorado; and Amarillo, Texas. The CLOUD GAP inspection teams will be made up of approximately 80 military personnel and civilian technicians.

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UNCLASSIFIED QUESTIONS AND ANSWERS

1. Q. When do you expect Project Cloud Gap to get under way?
A. Pilot tests (all locations) scheduled to begin early (April (10th). Headquarters to be set up at Paducah mid June. Field operations (all locations) scheduled July through September.
2. Q. What plants in Oak Ridge will be involved in the project?
A. Y-12
3. Q. The announcement says some 80 people will be in the inspection team. Does this mean that 80 will be at a given location during the three month exercise?
A. No. Paducah headquarters will have about 30 people all the time. Other locations, except Paducah, will have a test site group of about 10 persons all the time. In addition all locations have an additional 13 people (inspectors) at a time during the exercises.
4. Q. Will any local plant people be involved and, if so, in what way?
A. Yes. Local people will perform normal disposal operations at all locations.
5. Q. Why was Paducah chosen as the headquarters for the operation? Where will the group be based at the plant?
A. Paducah was chosen for headquarters because classroom and administrative space was available. The headquarters will be in the administration building.
6. Q. How will the actual exercise be carried out?
A. Like the retirement of weapons with limited observation by inspectors.
7. Q. Why were AEC sites chosen rather than military bases?
A. AEC retires weapons.

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8. Q. Why are so many AEC sites involved?
- A. Rather than build an expensive single facility, several present sites will be used.
9. Q. If the "transfer" proposal ever became a reality, does it mean that any of the exercise locations would become involved as sites where destruction of nuclear weapons would take place?
- A. It is too early to say where such work would take place.
10. Q. Does this exercise mean that nuclear weapons would be brought to any of the exercise locations for destruction?
- A. In the exercise, the initial presentation of weapons will be at Amarillo. These weapons will contain all components necessary to the exercise, but will not be complete. Lesser parts of the nuclear weapons will be brought to Paducah, Oak Ridge, and Rocky Flats. We cannot elaborate on this.

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