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QUARTERLY HISTORICAL REPORT OF MAJOR EVENTS AND PROBLEMS

Proving Ground Division

15 July 1954

I. Administration

A. Changes in mission and responsibilities.

None.

B. Acquisition and/or disposal of physical facilities.

Design drawings on all projects in the 2.8 program have been prepared for FY 55 execution.

The contract for installation of micrometeorological network at Dugway Proving Ground (DPG) has been negotiated with Bendix Aviation Corporation.

II. Fiscal

Funds were reprogrammed for Dugway Proving Ground to provide for an emergency water line and for a portion of the sampling equipment which was formerly scheduled for 1955. In addition, a contract was negotiated with Stanford University on Meteorological Research in the amount of approximately \$200,000 for one year for field testing and reporting by Stanford University on travel of toxic clouds in mountainous terrain.

III. Personnel

A. Changes in personnel.

Mrs. Catherine Lehman assigned to the Proving Ground Division 10 May 1954.

B. Personnel Strength:

Military

	<u>Division</u>	<u>Branches</u>		Attached EM	Other
	Chief	Operations	Planning		
Authorized	Col 2167	Lt Col 2167	Lt Col 2170	1392 (1)	Capt AF 1st Lt Sig C
Actual	Col 2167			1390 (E4)	Capt AF 1st Lt Sig C

Civilian

	<u>GS 14</u>	<u>GS 13</u>	<u>GS 11</u>	<u>GS 5</u>	<u>GS 4</u>	<u>GS 3</u>
Authorized	1	2	1	1	3	1
Actual	1	2	1	1	2	2

~~See attached Organization Chart.~~

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GROUP 4
DOWNGRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

WRC 54 C 4 288

Incl 6'

Edgewood Arsenal, Maryland
CBDCOM Historical Office
Higher Command Room
File Cabinet # 6 Drawer # 1
File Name: Historical Reports R+E Command
Apr-Jun 1954

IV. Plans

A. Mobilization Plan.

To be reported by Comptroller.

B. Current Planning.

During this period, in addition to the 750-lb toxic cluster, the following long-range Chemical Corps test programs were prepared and disseminated: 500-lb Navy bomb; 5, 6, and 8" Navy projectiles; and the 5" Navy rocket. In preparation and ready for distribution are test programs for the 750-lb massive toxic bomb (USAF), the E26 conversion kit for spray tanks, and the E17 field filling equipment for spray tanks. Coordination with various segments within the Department of Defense and Chemical Corps has been effected in connection with the preparation of 11 additional Chemical Corps items in the toxic munitions field. Implementation was effected relative to Field Forces knowledge requirements of various Chemical Corps end items. Coordinated and discussed were knowledge requirements and segments of our test programs with personnel from the Chemical Corps Board, MATCOM, and Training Command. More detailed discussions were held with personnel of Dugway Proving Ground during staff visits to that installation and test dates were firmed up. A summary of R&D project funding for FY 55 and 56 was set up relating to Dugway Proving Ground and Cml C Chemical and Radiological Laboratories projects for approval by the Senior Review Board. This included project briefs and specific tasks and breakdown of funds.

V. Operations.

No change in air support has been made and a unit of the 6570th Test Group is still based at Army Chemical Center.

The projects in an active status at Dugway Proving Ground will be discussed in detail in the Dugway report. The projects are listed below for reference.

- CW 5-52 Single Dynamic GB Munitions Evaluation Tests. No trials conducted this quarter.
- CW 11-52 USAF Vulnerability Assessment. Tests under this phase have been completed. No further charges are to be made to Project Order 4007. Air Vulnerability Study to continue under CW 29-54. Air Force Decontamination Study to continue under CW 31-54.
- CW 3-54 Assessment of Rocket, Gas, HD, 4.5" T165; Rocket, Gas, HD, 4.5" T166; and Rocket, Gas, GB, 4.5" T164. T164 remains to be tested.
- CW 4-54 Winter Program, 1953-1954. All reports published from Suffield. Dugway final report to be published approximately 15 July.

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- CW 7-54 Service Test of 5"/38 Navy Chemical Projectile. Test plan being prepared by Dugway Proving Ground to include comparison static versus dynamic tests.
- CW 9-54 M32 Cluster Adapter Test completed 11 June 1954.
- CW 11-54 Test of Impermeable Protective Suits ELR2 and Related Items. Cost estimate returned to DPG comptroller as considered excessive.
- CW 13-54 Test of Ampoule, Ethylene Oxide, E7. Ampoules arrived DPG 29 June. Test will begin next quarter.
- CW 15-54 Persistence of GB, 155 Shell. First trial on 28 June using 0.05 second delay fuze. Shell pierced reinforced concrete bottom of pit and buried self in ground at some 6-7 foot depth; shell body did not burst but emptied contents through nose. Discontinuance of 0.05 second delay firings authorized; shorter delay fuzes not available.
- CW 17-54 Persistency Studies. Trials are continuing.
- CW 18-54 Bomblet Test for 750-lb GB Cluster. CRL considering a new burster ratio for E91; all work completed on E104 bomblet.
- CW 19-54 Munition Expenditure Tables for 750-lb GB Cluster. Awaits completion of CW 18-54.
- CW 20-54 Additional Simulated VT Fuze Trials. Trials are continuing.
- CW 21-54 Reuse of Previously Mustard-Filled Ton Containers for Storage of G-Agent. Test started 22 June. Will continue for 6 months.
- CW 22-54 Initial CW Testing of the Gorgon V Missile. 4th and final trial run 25 June 1954.
- CW 23-54 CW Testing of Aero 14 Airborne Spray Tanks, Warm Temperature Phase. Trials have started. Medical Laboratories to participate under CW 200.
- CW 24-54 Angle Functioning of the E54R6 10 lb Bomblet. Trials continuing.
- CW 25-54 ME for 5"/38 HD Fld. Shell, Navy. Project Order 4105 in amount of \$125,000 forwarded Dugway Proving Ground.
- CW 26-54 500-lb Nonpersistent Gas, E110 Bomb. Test plan being written.
- CW 27-54 Determination of Leakproofness of E101R3 Clusters. Tests indicated in Engineering Agency Test Plan 70 approved by Dugway Proving Ground. Project Order 4106 for \$7,000 forwarded.

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- CW 28-54 Cluster, E101R3, Air Drop Tests. Tests indicated in Engineering Agency Test Plan 71 approved by Dugway Proving Ground. Project Order 4107 for \$5,000 forwarded.
- CW 29-54 Air Force Vulnerability Studies. One test completed 18 June 1954. Others awaiting repair of F-80. This test is continuation of CW 11-52.
- CW 30-54 Test of the 750-lb Massive Bomb. Project Order 4110 for \$250,000 forwarded.
- CW 21-54 Aircraft Decontamination Study. Project Order 4111 for \$27,000 forwarded.
- CW 200 Medical Laboratories Participation in CW Testing of Aero 14. Project Order 5200 forwarded DPG in the amount of \$500. This is the first of series of tests in which the project order and test number are consolidated.

Environmental Test

An environmental evaluation conference held at this headquarters on 23 June 1954 was attended by representatives of Cml C Materiel Command, Dugway Proving Ground, Cml C Chemical and Radiological Laboratories, Cml C Engineering Agency, Chemical Corps Board, Cml C Training Command, and RECOM. As a result of the conference Dugway Proving Ground will prepare a single coordinated test plan to include the requirements of the interested agencies. Evaluation of results will be the coordinated effort of Dugway Proving Ground and Cml C Materiel Command.

Colonel Wm. C. Hammond, DPG, visited the Panama Canal Zone and ascertained that the Chemical Corps test site will not be moved in the near future and that the staff of USARCARIB is aware that the Chemical Corps will continue testing for an indefinite time.

Meteorological Research

A micrometeorological seminar conducted by Dugway Proving Ground on 28-29 June 1954 was attended by representatives of Air Force, Signal Corps, RECOM, C&RL, Operations Research Group, Chemical Corps Board and Stanford University. Papers were presented on various aspects of micrometeorology of interest to those present. A tour of Dugway Proving Ground was made part of the program. Personnel were favorably impressed.

Comments on Dugway Proving Ground Staff Study on Meteorology from all interested agencies should reach Dugway by the second week in July. A coordinated meteorological program is scheduled to be submitted to the Chief Chemical Officer in the early part of the next quarter.

Professor Haurwitz of New York University was unable to accept the Chemical Corps' offer to act as consultant in meteorology. Professor Verne Hales was released as consultant to Dugway Proving Ground in meteorology.

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Facilities Program

The construction of the Big Delta facilities is in the FY 55 execution program.

Construction of the Yuma test facilities will be completed within the next quarter.

The 2.8 MCA Construction Program, DPG, is currently being carried on by the Corps of Engineers.

Projects at Cml C Chemical and Radiological Laboratories (C&RL)

- CRL 1-54 Flame Decontamination. Flame machines broken down. Awaiting replacement parts.
- CRL 3-54 Test for Penetration of Winter Clothing by Liquid CW Agent. Still in progress.
- CRL 4-54 Combined Cml C Test of Flame Thrower, Combat Vehicle, Nonintegral, E24-20. Machine again broken down. Need replacement engine for trailer. Will cause delay until September-October.
- CRL 6-54 Kit, Chemical Agent Detector, E28 (joint test). Engineering tests completed. CRL Report 383 in preparation.
- CRL 7-54 Alarm, G-Agent, Automatic, E25. Test plan completed. Prototype is at Rocky Mountain Arsenal.
- CRL 8-54 Cold Weather Testing of Toxic Agents at Suffield. Reports in Canadian Liaison Office. Copy to be furnished Proving Ground Division.
- CRL 9-54 Tank, Airplane Smoke, MLO, Modified for Use in CBR Training. Test completed. Medical Laboratories report of eye injury sent to Chief Chemical Officer. Copies of all reports sent to Dugway Proving Ground.

VI. Test Review

The accumulation of reports on tests related to end items, as well as references and reviews of such reports, has continued. These supply the technical background on which to base recommendations for field tests and for action to be based on test results. There has been a considerable improvement in the accessibility of the information.

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VII. General.

Test plans for additional work on TRAC completed. Awaiting funds.

Initial coordination accomplished between Canadians and Dugway Proving Ground for winter testing at Suffield in FY 55.

Beginning FY 55 Dugway Proving Ground, CW tests will be numbered consecutively. Project orders, trial reports, and final reports will all be designated by the same last three numbers, with a prefix number to indicate the fiscal year in the case of project orders.

Samuel P. Pickett
SAMUEL P. PICKETT
Colonel, Cml C
Chief, Prov Gr Div

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