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CmlC Control No. \_\_\_\_\_

HEADQUARTERS

CHEMICAL CORPS RESEARCH AND DEVELOPMENT COMMAND

DEPARTMENT OF THE ARMY

WASHINGTON 25, D. C.

HISTORICAL REPORT

1 January 1957

to

30 March 1957

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*declassified by CBDCOM Security  
Classification Review Board 3 Mar 95*

Reports Control Symbol CMLHO-194



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18 numbered pages  
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PART I

ADMINISTRATION

A. Mission and Responsibilities.

No change.

B. Acquisition of Physical Facilities.

No Change.

C. Organization.

By General Orders Number 1, 19 February 1957, Hq, CMLC Research and Development Command, the Plans and Coordination Division was abolished effective 20 February 1957 and Plans and Programs Division was established with three Branches; namely, Financial Management, Program Development and Coordination, and Program Evaluation and Control Branch. Effective 20 February 1957, the Long Range Research and Development Plans Office was established as a Staff Office of the Office of the Commanding General.

D. Development of Administrative Procedures.

No change.

PART II

FISCAL

This portion will be submitted by the Chemical Corps Comptroller who renders comptroller support functions to this Headquarters.

PART III

PERSONNEL

A. Key Personnel.

The assignment and transfer of key personnel in Headquarters, CalC Research and Development Command are as follows:

<u>Effective Date</u>	<u>Name and Status</u>	<u>Authority</u>
20 Feb 57	Col. Joseph F. Escude' designated Chief, Long Range Research and Development Plans Office	Para 4, SO 42, Hq, US Army CalC RDCOM, 8 Apr 57
20 Feb 57	Mr. Robert A. Bergseth designated Chief, Plans and Programs Division vice Col. Joseph F. Escude'	Para 5, SO 42, Hq, US Army CalC RDCOM, 8 Apr 57
29 Jan 57	Lt. Col. Lowell E. Thompson assigned for duty as Nuclear Effects Engineer, Products Development Division	Para 1, SO 11, Hq, US Army CalC RDCOM, 29 Jan 57
31 Jan 57	1st Lt. Harold G. Young appointed as Assistant Executive Officer vice Major Robert S. Dyal, resigned	Para 1, SO 12, Hq, US Army CalC RDCOM, 30 Jan 57
9 Jan 57	Col. Graydon C. Egan designated Acting Inspector General, Hq, CalC RDCOM vice Col. Joseph F. Escude'	Para 2, SO 5, Hq, US Army CalC RDCOM, 9 Jan 57
1 Mar 57	1st Lt. Harold G. Young appointed as Adjutant in addition to other duties	Para 1, SO 24, Hq, US Army CalC RDCOM, 4 Mar 57
1 Mar 57	Lt. Col. Lowell E. Thompson appointed as Asst. Adjutant in addition to other duties	Para 2, SO 24, Hq, US Army CalC RDCOM, 4 Mar 57
12 Mar 57	Mr. Wm. F. Hodgkinson designated Executive Officer and Alternate Security Officer vice Mr. Daniel J. Sheerin reassigned	Paras 1 and 2, resp. SO 29, Hq, US Army CalC RDCOM, 12 Mar 57

B. Personnel Strength.

As of 30 March 1957, authorization is 42 civilians and 8 military.

PART IV

PLANS

A. Plans for Peacetime Establishment.

No change.

B. Mobilization Plans.

No change.

C. Current Planning.

No change.

PART V

OPERATIONS

The major staff actions of Headquarters, CmlC Research and Development Command are attached.

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2 Jan 57  
(4697-56-C)

Letter to C/R&D, DA, CMLRD-D, "Army Program at USNRDL for Fiscal Year 1958 (U)," referring to letter from C/R&D dated 16 November 1956 and transmitting proposed Army FY 1958 Program at the U. S. Naval Radiological Defense Laboratory.

In accordance with R&D Directive Nr. 20, 28 Sep 56, CRD/G 13046 (CmlC Control Nr. 3882-56-C), "Cognizant Agent for Army Programs Conducted at USNRDL," the Chemical Corps, as cognizant agent for the technical supervision and coordination of all programs sponsored by the Department of the Army at USNRDL, submitted following recommendations concerning Army Program for Fiscal Year 1958.

Basic Army-Navy agreement relative to Army program at USNRDL prescribes potential Army interest in a fairly broad segment of subjects. For terminal part of FY 1956 and for FY 1957, Army Program was set up in such a way that a small level of support was established in each of these areas. Since total level of support was quite minor in many of the programs, most of the Army work has been in joint support with other agencies. Technical services have indicated concern about consequent lack of ability to identify in any realistic sense what the specific interest of the Army might be in these particular programs. For this reason, it is strongly recommended that, starting with FY 1958, the Army Program at USNRDL concentrate on a segment of the program which is of greatest concern to the Army and concentrate Army sponsorship behind major components of these particular programs. To be consistent with existing Army-USNRDL agreement, Army support should be confined to research in basic concepts in the field of radiological defense and in the field of defensive measures against other nuclear weapons. Specifically, this policy should be interpreted for the maximum Army benefit as being work which is "applied" to the scientist yet fundamental to the Army.

Letter recommends that review of joint agreement be postponed for one year.

Proposed Army FY 58 Program at USNRDL contains problems of interest to the technical services combined into a consolidated segment of the USNRDL program in four specific areas; namely, biomedical program (level of support - \$120,000); reclamation engineering handbook (level of support - \$20,000); demolition studies (level of support - \$20,000), and contamination-decontamination studies (level of support - \$140,000). Total level of support for FY 1958 should be maintained at a level of \$300,000. Detailed breakdown of problems recommended, with technical objectives, manpower assignments, and fiscal allocations within the general recommendations of the Army should be made by USNRDL. In recommending proposed FY 1958 program, consideration has been given to continued support of problems of primary interest to the Army (already in progress at USNRDL).

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- 2 Jan 57  
RD 2888 Letter to Chief Chemical Officer, CMLRD-D, "Mask Scheduling and Selection Committee," advising that, in compliance with Chief Chemical Officer's recent verbal instructions, a Committee, with Dr. Thomas W. Whitehead as Chairman, was formed to advise the Chemical Corps on the scheduling for the E13 Mask and on the selection of the mask for early procurement, and that group would meet at CWL on 11 January 1957.
- 7 Jan 57  
(4489-56-C) 1st Indorsement to Chief Chemical Officer, CMLRD-L, "Mask, Protective, Field, E13 Type," confirming verbal report that there had been a six-week slippage in E13 Mask development program necessitating a change in completion date of final engineering tests from 31 May to 15 July 1957 and for a change in completion date of engineering drawings and specifications from 31 July to 15 September 1957. Slippage is due to necessity for making a revision in the under-chin region of the mask to provide a more comfortable and secure fit and to reduce the dead air space. Requirement for making this change was not determined until after completion of a thorough analysis of data obtained from field wearing trials of the mask at Army Chemical Center, Dugway Proving Ground, and Yuma Test Station. Date of 1 March 1959 for initiation of production was best possible estimate and was based on completion of engineering drawings and specifications by 31 July 1957. There is no basis for changing either of these forecasts at this time; therefore, procurement may be initiated six weeks later than 1 March 1959. The Commanding General, AOC and Calc MATCOM and the Commanding Officer, Calc ENCOM concur in this indorsement.
- 8 Jan 57  
(77-57-C) Comment No. 2 to Chief of Research and Development, DA, CMLRD-R (28 Dec 56), "Review of Mutual Weapons Development Program Projects," advised that the only MWD project assigned to Calc ENCOM is Project TN-01-MWP-A-56, "Therapeutic and Prophylactic Agents Against Nerve Gases," under date of 5 Sep 56. Calc projects 4-08-02-017, "Biochemical Aspects of CW," and 4-08-02-018, "Medical Aspects of CW," concern this same area of research.
- 8 Jan 57  
(83-57-C) Letter to CO, CWL, CMLRD-R, "MWD Project on 'Therapeutic and Prophylactic Agents Against Nerve Gases,'" advised that, in November 1955, the Research and Development Division, OGCALO, recommended approval of subject project to be performed by the Medical Biological Laboratory of the Netherlands Research Organization (RVO-TNO). This project was actually initiated on 27 June 1956 and Calc RDCOM was assigned monitorship in September 1956.

Letter forwarded, for analysis and comments, copy of analysis of research proposal and basic agreement with its TAB A, and requested nomination of individual to monitor technical progress of this project.

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8 Jan 57 Letter to CO, DPO, CMIRD-D, "Data Evaluation for Operation (4767-56-C) TRANSIT III (U)," referenced (a) 1st Indorsement from Hq, Calc RDCOM, "Clarification of TRANSIT III Responsibility," 17 Dec 56, (Uncl) and (b) Letter from Commander, Task Unit 130.2.8, to Hq, Calc RDCOM, above subject, 18 Dec 56, with first indorsement.

1st Indorsement referred to in (b) above designated Dugway Proving Ground as the Chemical Corps agency responsible for subject evaluation and directed that DPO take direct action, with information copy to Hq, Calc RDCOM, to implement Navy's requests in 18 Dec 56 letter, appropriate coordination to be effected with BWL and CWL.

10 Jan 57 Letter to Co, CWL, "Army Research and Development Budget Execution Plan for FY 1957 (U)," CMIRD-D, forwarding, for appropriate (1794-56-S) action, Comment No. 1 from Chief of Research and Development (Uncl) dated 18 Dec 56 which directed the Chief Chemical Officer to continue active development of the 8" T174 shell and the T302 105mm mortar shell and directed that 8" T19E shell be terminated unless further justification was furnished. Comment advised that T238 115mm mortar was still under consideration for continuation of development.

Letter requests CWL to furnish suitable comments for a possible reclass on the 8" Howitzer HD T19E Shell, including time and cost estimate to complete. Reasons advanced for termination are considered invalid, particularly since the capability now considered adequate was in existence at the time of initiating the 8" howitzer development. It is felt original justification of requirement is still valid and that item should be completed to standardization even though probably not desirable for stockpile.

Letter also requests information relative to possible adaptation of the T19E munition to V-Agent and/or possible employment toward a V-Agent round of the data acquired in completing the development of the T19E.

11 Jan 57 Memorandum for Chief, Plans and Coordination Division, Calc RDCOM, (Conf) CMIRD-E, Subject: "V-Agent Pilot Plant," stated that plant is under construction; process is essentially a three-step procedure; steps are being worked on, and present funding and personnel indicate completion of Step 1 on 1 Apr 57, Step 2, 1 May 57, Step 3, 15 May 57. 15 May to 1 July 1957 will be shakedown period and, with no unforeseeable difficulties, the pilot plant will be on stream by 1 July 1957.

14 Jan 57 Letter to Chief of Ordnance (Chief, R&D Div), CMIRD-D, "Chemical (4599-56-C) Corps Requirement for Influence-Type Fuses (U)," advised that (Conf) Calc has requirement for influence-type fuses for self-dispersing CER munitions and transmitted copy of Comment No. 1, CMIRD-E-11-MD, from Chief, MD Division, BWL, to Chief, Procurement Division, BWL, with Appendices A, B & C, which discusses details of this requirement.

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Informal coordination between BWL and Diamond Ordnance Fuse Laboratories and Picatinny Arsenal reveals unavailability of suitable influence fuses for desired application and, for this reason, CALC desires to establish a project for development of subject fuses.

Letter requests Ordnance advise as to the extent of Ordnance participation in this requirement.

15 Jan 57  
(RD 112)

Letter from Mr. Louis Benjamin, U.S. Representative on NATO Group of Experts on Equipment by Protection Against Chemical Warfare, to U. S. Regional Organisation, APO 230, New York, New York, Attn: Production, Procurement and Facilities Assistance Division, referring to NATO Restricted Working Paper AC/61-WF-8, Subject: "Draft Questionnaire on Principles, Techniques and Equipment for Protection Against Biological Warfare," 3 November 1956, and requesting that following unclassified comments, which were requested in above reference, be forwarded to the Secretary of the Group of Experts for Protection Against Chemical Warfare.

The United States feels that Group of Experts for Protection Against Chemical Warfare should concentrate its efforts in the BW field as an extension of the studies already made in area of protection against CW. On this basis, it is proposed that discussions in BW field will be concerned with following paragraphs of referenced draft questionnaire:

- a. V. Detection of BW Agents
- b. VI. Protection of the Human Population Against BW
- c. VII. Decontamination of Personnel and Material Contaminated by BW Agents.

15 Jan 57  
FOOO

Letter to Commanding Officer, Dugway Proving Ground, GMIRD-KI, "DFG Funding Program for Balance of FY 1957," referencing (a) letter, GMIRD-PP, Hq, CALC RDCOM, 24 May 56, "Reduction in Personnel," with 1st and 2d Indorsements; (b) 1st Indorsement, GMIRD-PP, Hq, CALC RDCOM, 5 Jul 56, to letter from Dugway, 20 Jan 56, "Reduction in FY 1957 Funding Program," (c) letter, GMIRD-KI, Hq, CALC RDCOM, 11 Jan 57, "DFG Personnel and Funding Program, FY 1958." Reference (a) reduced originally planned funding requirements of Dugway by \$194,000; (b) advised Dugway that total funds from all sources planned for Dugway for FY 1957 were \$6,486,000, and directed program be adjusted accordingly; (c) restated General Rothschild's policies governing operations of Dugway as given in previous correspondence and conferences with Commanding Officer of Dugway.

Letter advises that no additional DA R&D funds will be made available to Dugway from Headquarters, CALC RDCOM for remainder of FY 1957, and directs a revision of the program to equal a maximum sales of \$7. million, which revision should result in surplus of \$300,000 which can be reprogrammed within Command.

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- 18 Jan 57 Letter to Chief Chemical Officer, Attn: ACCALO/P&D, CO, ACC and Calc MATCOM, CO, Calc ENCOM, CO, CONARC, Attn: ATDEV, British Liaison Officer and Canadian Army Technical Representative, Army Chemical Center, referring to Calc RDCOM Regulation Nr. 135-1, 17 Sep 56, and advising that CWL has completed technical development of K19R5 Smoke Generator (M3 with K12 Fog Oil Pump) and considers item to satisfactorily meet characteristics developed for final engineering testing. Letter requests concurrence and/or comments on attached letter from CWL to CO, Calc RDCOM, CMLRD-CW-D(M)-5, 11 Jan 57, with one inclosure.
- 18 Jan 57 1st Indorsement to CCALO, CMLRD-EX (15 Jan 57), "Agreement Relative to Chemical Corps Arctic Test Team," recommending inclosed agreement between DPG and U. S. Army Alaska be signed.
- 25 Jan 57 Memorandum for Record prepared by the Chairman, RDCOM Shapes  
(217-57-S) Committee, CMLRD-D, reporting on the 8 and 9 Jan 57 meeting at  
CONF. Boeing Aircraft Company and North American Aviation Corporation, respectively, purpose of which meeting was to brief these USAF contractors on the requirements and capabilities of BW/CW munitions in the 110A Strategic Bomber Weapons System.
- 28 Jan 57 1st Indorsement to Executive Secretary, Calc Technical Committee,  
(3176-56-S) CMLRD-PP (26 Dec 56), requesting that appropriate action be taken to terminate Projects 4-04-14-020, -024 and -025 as recommended by Biological Warfare Laboratories, CMLRD-BW-5.
- 29 Jan 57 Letter to President, U. S. Army Artillery Board, Fort Sill,  
CMLRD-D, "Smoke Tracking Device E-24," informing the Board that, in accordance with its letter to Chemical Corps dated 18 Jan 57, AFRA-PR, CWL is being requested to furnish six of the subject devices.
- Letter states that, should devices satisfactorily demonstrate feasibility of obtaining wind data from smoke, the Chemical Corps solicits justification from the Artillery Board for development of specific end items and further requests that action be initiated by the Board in establishing a firm requirement for an end item, including desirable military characteristics.
- 29 Jan 57 Letter to CO's, BWL and CWL, CMLRD-D, "Visits of Calc Representa-  
(3209-56-S) tives to USAF Weapons Systems Contractor's Facilities," referring  
(SECRET) to AFAC's letter of 26 Dec 56 outlining procedures to be followed by Calc representatives making visits to USAF Weapons Systems Contractors, particularly in regard to the 302A, 110A and 125A Systems. (S)
- 29 Jan 57 1st Indorsement to CO, CWL, CMLRD-D, "Smoke Tracking Device E24," requesting that six E24's be furnished the Artillery Board, and that information and assistance necessary to determine feasibility of concept provided fund requirements do not become excessive; development effort should not be expended on items of this nature pending firm requirements therefor and provision of funds.

- 18 Jan 57 Letter to Chief Chemical Officer, Attn: ACCALO/P&D, CO, ACC and CmlC MATCOM, CO, CmlC ENCOM, CO, CONARC, Attn: ATDEV, British Liaison Officer and Canadian Army Technical Representative, Army Chemical Center, referring to CmlC RDCOM Regulation Nr. 135-1, 17 Sep 56, and advising that CWL has completed technical development of E19R5 Smoke Generator (M3 with E12 Fog Oil Pump) and considers item to satisfactorily meet characteristics developed for final engineering testing. Letter requests concurrence and/or comments on attached letter from CWL to CO, CmlC RDCOM, CMLRD-CW-D(H)-5, 11 Jan 57, with one inclosure.
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(3209-56-S) tives to USAF Weapons Systems Contractor's Facilities," referring  
(SECRET) to AFAC's letter of 26 Dec 56 outlining procedures to be followed by CmlC representatives making visits to USAF Weapons Systems Contractors, particularly in regard to the 302A, 110A and 123A Systems. (8)
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30 Jan 57 Letter to CO, CWL, CMLRD-D, "Collective Protection for HAWK," referencing (a) telecons between Colonel Yanka, Mr. Horvats and Mr. Karpel, CWL, and Mr. Benjamin and Mr. Cort, Hq, CalC RDCOM, and (b) letter from CWL 24 Jan 57, "Collective Protection for Military Transport Vehicles (U), CMLRD-CW-D-(P)-3 Project 4-80-12-007-04 (CalC Control 299-57-C). Reference (b) as it pertains to above subject cites correspondence confirming requirement for collective protection for HAWK and states no funds available in applicable FY 57 projects. By reference (a), it was ascertained that \$57,000 in R&D funds and 15 months will be required by CWL to complete work on item through Control Point 2, of which \$10,000 will be required for balance of FY 1957.

Letter directs CWL immediately initiate development work on subject protection in view of high priority placed on development of HAWK system by Ordnance.

31 Jan 57 Letter to CCALO, Attn.: ACCALO/P&D, CG, ACC and MATCOM and CO, CalS ENCOM, CMLRD-D, "Completion of Final Engineering Test of H2SO4 Mechanical Irritant Gas Disperser (U)," referring to CalC RDCOM Regulation Nr. 135-1, 17 Sep 56 and advising that CWL has completed technical development of subject item and considers it to satisfactorily meet the military characteristics and fulfill the military requirement.  
(182-57-C)  
(UNCL)

Letter requests comments and/or concurrence on attached letter from CWL, 14 Jan 57, with two inclosures.

1 Feb 57 Letter to CO, CWL, CMLRD-R, "Selection of V-Agent of Choice (U)," (109-57-C) referencing letter from CWL, same subject, CMLRD-CW-DEA, 11 Dec 56, (CalC Control 3051-56-8) and granting approval for selection of EA 1701 as the V-Agent of choice in accordance with decisions made at CWL on 7 Jan 57. At CWL's discretion, minimal research effort may be devoted to increasing stability of EA 1664 as suggested by the Chemical Corps Board. Recommendations for change to a V-Agent of choice other than EA 1701 will be forwarded to Hq, CalC RDCOM with suitable support.  
(CCW)

6 Feb 57 Memorandum for Record prepared by Mr. J. Rex Pinnett, CMLRD-D, "Report of Conference on ENVANAL," held at CCMC on 1 Feb 57 for the purpose of discussion of transition of ENVANAL from an R&D function into the Army Planning Structure. Conference was attended by representatives from all the technical services and DCSLOG.

FY 58 budget will be the same as it was in FY 57. At present, CalC has 3 civilians (GS-14, GS-11 and GS-4) conducting ENVANAL program and estimated FY 58 budget for this support is \$53,979. It is not intended to increase this action in FY 59 but, by FY 60, one GS-4 clerk will be added to handle extra data generated by new items coming into program in FY 59. New ENVANAL budget will be supported from M&O funds and the total budget will be allocated to QND who will redistribute to the technical services.

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Spaces will be allocated directly to each technical service by DCSLOG.

Transfer of ENVANAL from an R&D function to operations will not affect present system setup in CalC RDCOM. The only difference will be that project will be funded from M&O funds, thus releasing equivalent amount of R&D funds for other purposes.

6 Feb 57

Letter to CCalO, Attn: ACCalO/P&D, GMLRD-D, "R&D Command Comments Relative to Smoke Generator Use in Brazil for Coffee Tree Frost Protection," forwarding (1) letter from DFG to CCalO, 16 Jan 57 and (2) copy of letter from CCalO to Joint Brazil-US Mil Com, 30 Aug 56, with two inclosures.

RDCOM

CalC/has previously discussed feasibility of fog oil smoke clouds for protection against frost bite of nut-fruit tree blossoms with representatives of the Florida tung oil producers, Department of Agriculture, U. S. Weather Bureau, and Esso Research Center of New Jersey. Conclusion was reached that fog oil smoke, as such, offered no assurance whatever in protection of crops against frost bite.

CalC RDCOM would offer no objection to the Brazilians conducting a field trial and would recommend M2A1 generator from the water vapor standpoint should decision be made to conduct such trials. Further recommendation is made that CalC personnel observe any such trials and provide technical assistance as required, emphasizing that funds are not available within CalC RDCOM for effort of this type.

13 Feb 57

Multiple address letter to CO's, BML, GML and DFG, GMLRD-EX, "Nomenclature of Army Equipment," referencing DA Memo Nr 705-3, 26 Nov 56, prescribing that Chiefs of Technical Services will submit proposed names for equipment for which they have developmental responsibility to the Chief of Research and Development, DA, for approval, such names, as described in referenced memorandum, referring to the popular designation or nickname rather than standard nomenclature.

Letter directs compliance with provisions of cited memorandum in naming new items of Chemical Corps equipment, such proposed names to be forwarded to Executive Secretary, Chemical Corps Technical Committee for consideration and submission to the Chief of Research and Development.

18 Feb 57  
(528-57-9)

Memorandum for Record, GMLRD-D, "Report of Conference - Seventh Meeting of ARDC-CalC RDCOM Coordinating Committee (U)," reporting of 5 Feb 57 meeting held at Hq, CalC RDCOM. Conference was a rather thorough briefing on the future trends in BW/CW research and development.

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18 Feb 57 3d Indorsement to Secretary, Chemical Corps Technical Committee, CMLRD-R, "Declassification of Information on SS and PP," concurring in the proposal from the Chemical Warfare Laboratories to declassify information on SS and PP.

19 Feb 57 2d Indorsement to CO, BWL, CMLRD-D (14 Jan 57), "Chemical Corps Requirement for Influence-Type Fuzes (U)," forwarding 1st Indorsement from Chief of Ordnance, 11 Feb 57 for implementation and authorizing direct communication with Diamond Ordnance Fuse Laboratories in connection with processing this requirement.

(CONF)

MEMO FOR RECORD - Letter from BWL 5 Dec 56 (CMLRD-BW-11) to Hq, CMLC RDCOM forwarded scope of contract for commercial development of subject fuzes. Informal coordination with Ordnance indicated that if Ordnance could find a use for this type fuse, it would also partially support this development. Ordnance does have a use for this type fuse in another self-dispersing item. Letter from Hq, CMLC RDCOM to Ordnance 14 Jan 57 requested extent of Ordnance participation in this project. 1st Ind 11 Feb 57 from Ordnance accepted project and assigned it to Diamond Ordnance Fuse Laboratories for implementation. Ordnance will partially support the development (about an equal amount according to informal information). DOFL will first run a feasibility study to determine best avenue of approach. This project was established at BWL by USAF in July 55 in amount of \$100,000. First scope of contract was sent out of MD Division in October 55. Action has been coordinated with Dr. Roberts and Mr. Edwards of BWL, Mr. Morawski and Mr. Biggars of OCO, and Mr. Cise of DOFL. This completes action.

25 Feb 57 Memorandum for Record prepared by Mr. J. Rex Pinnett, Products Development Division, "Report of Conference - Meeting of Tactical and Technical Steering Committee - Project MICHIGAN (U)," reporting on meeting held at Marine Corps School, Quantico, Virginia, on 13 Feb 57. Objective of conference was to discuss latest developments in drones for conveying battlefield surveillance equipment and to decide on future actions to be taken. Meeting was held at Marine Corps School in order for members to attend briefing on Marine Corps Advanced Base Exercise - Project DRAGON, in which need for battlefield surveillance was recognized and discussed.

(SECRET)

Products Development Division will initiate action on Conclusions (a) The Chemical Corps should initiate action to establish a requirement and development project for a CW warhead for the Little John Rocket and (b) The Development Laboratories should be informed as to the Thermal Radiation Research Facility at the QMC RD Laboratory. It was also concluded that there does not appear to be any possible chance of using reconnaissance drones for chemical purposes.

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27 Feb 57 Memorandum for CO, Calc RDCOM, CMLRD-D, "Decontamination," transmitting copy of letter from the Chief, Products Development Division to the CO, CWL, CMLRD-D, "Decontamination," requesting that CWL investigate the problem of decontamination of uranium or plutonium contamination as to feasibility and effort required and furnish Hq, Calc RDCOM estimates of cost and time required for completion of project.  
(573-57-3)

25 Feb 57 1st Indorsement to President, U.S. Army Chemical Corps Board, CMLRD-D, "Project CCB 3-57, "Field Experiment of the Effectiveness of CW Munitions Against Hard Targets," concurring in objectives of subject test plan and suggesting that a study of V-agents be included as an alternate.  
(333-57-3)  
(CONF)

26 Feb 57 Letter to CO, BWL, CMLRD-D, "Coordination of OFF-Post BW Anticrop Field Trials (U)," referring to letter from BWL 4 February 1957 requesting Hq, Calc RDCOM obtain blanket authorization from Chief of Research and Development, DA, to conduct subject trials whenever desired.  
(499-57-0)  
(CONF)

Letter advises BWL that, due to present status of the anticrop program, further action on this request at this time is considered inadvisable.

27 Feb 57 2d Indorsement to Chief, Bureau of Yards and Docks, Department of the Navy, CMLRD-D (15 Jan 57), "Sub-project NY 310 004-1, Chlorine Infuser and Chemical Feeder; Testing and Evaluation of," advising (a) estimated cost for execution of the inclosed proposed test plan is \$17,500; (b) equipment should be shipped to Test Division, Directorate of Development, CWL; (c) initiation of test is scheduled for May or June 1957, contingent upon receipt of funds, availability of appropriate apparatus and auxiliary materials, and recommending that separate funding orders to cover work be issued no later than 29 March 1957 as follows:- CWL - \$13,500; BWL - \$4,000.

28 Feb 57 Letter to CO, Calc Engineering Command, CMLRD-D, "Completion of Final Engineering Test of KLERI Mechanical Irritant Gas Dispenser (U)," requesting that item be processed toward type classification.  
(182-57-C)  
(UNCL)

28 Feb 57 1st Indorsement to CO, Redstone Arsenal, CMLRD-D (31 Jan 57), "Collective Protection for Military Transport Vehicles (U)," advising that under recent reorganization of the Chemical Corps, responsibility for research and development within Calc has been delegated to Calc RDCOM; that, accordingly, matters of a policy nature should be addressed to CO, Calc RDCOM and matters of a technical nature pertaining to individual projects should be accomplished by direct communication with CWL on chemical and radiological warfare research and development and with BWL on biological warfare research and development.  
(809-57-C)



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1 Mar 57  
(332-57-C)  
(UNCL) Multiple-address letter to BWL, CWL and CalC Proving Ground, CHIRD-D, "Radiation Effects Testing Using the Godiva Reactor (U)," inclosing copy of letter from Chief, AFSWP to Chief of Research and Development, 4 Jan 57.

Letter states that, although AFSWP's letter specifically refers to the testing of electronics materials, any materials desired can be tested so long as their size and shape conform to the limitations imposed by reactor design and directs that all requests for use of this reactor be forwarded through Hq, CalC RDCOM.

1 Mar 57  
(592-57-S)  
(U) Letter to Chief, Research and Development, DA, CHIRD-PP, "Submission of CalC R&D Budget Execution Plan, FY 1958 and Planning Estimates, FY 1959, 1960 and 1961," transmitting Plan and Estimates in accordance with D/F's from C/R&D 7 Jan and 22 Jan 57, "Research and Development Program," CRD/A 81 and CRDF/774 and in consonance with objectives contained in attached Chemical Corps Research and Development Command Technical Program (Draft).

(S) Neither basic command schedules nor those covering supplemental requirements include provision for continuing the antierop warfare program; however, there is included a "Proposed Command Schedule for Antierop Warfare" with a planned funding of \$740,000. \$200,000 additional funds will be required to cover installation support costs for this program. Basic and Supplemental Programs attached, totaling \$40,250,000, are considered minimal for FY 58 to ensure assigned responsibilities.

5 Mar 57  
(300-57-S)  
(U) Letter to CO, BWL, CHIRD-D, "BW Lagoon Test Site (U)," inclosing, for evaluation and comment, staff study on above subject prepared by Dugway Proving Ground.

(S) Name for Record - Letter from DFG (CHIRD-DU-ACD) through Hq, CalC RDCOM to OCCALO dated 1 Feb 57 forwarded staff study on BW Test Site located in the Marshall Islands Group, Pacific Ocean, which site would permit testing of any hot BW agent. Plan was originally designed as an alternate site for the St. Jo Program; however, plan is somewhat obsolete by present methods of BW testing and would require heavy logistic support by Navy, which is doubtful now that Navy has cut back TRANSIT III very heavily. This plan would cost approximately \$2.5 million to put into effect, plus an equal amount per year for operations.

7 Mar 57  
(36-57-S)  
(S) Comment No. 3 to Chief, R&D, DA, from the Chief Chemical Officer, CHIRD-P (15 Jan 57), "Research and Development Program Directive (U)," stating that if funds are not forthcoming to continue the antierop program, it will be necessary to take prompt action for the disposition of the Corps Division at Fort Detrick, which action should be initiated not later than 1 April 1957. This action would mean the dissipation of a highly competent 90-man team and the loss of approximately 50 skilled and experienced scientific and

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technical civilian personnel. Once dissipated, it would be extremely costly and take many years to reassemble and train an equivalent group of experts in this field.

Comment urgently recommends that all possible effort be made to obtain an early and favorable decision for continuation of this highly important program.

- (S) Memo for Record - Comment No. 1 to C/R&D pointed out various reasons why anticrop program should not be terminated, including fact that this was supporting research and, as such, it was an Army funding responsibility according to the DOD Directive and R&D Directive No. 15. Information on number of people to be released and the date of release was obtained from Dr. Housewright by Mr. Walton on 28 Feb 57. Total strength in Corps Division is approximately 90 people - 4 officers, 27 enlisted men, 44 graded GS-9's to GS-15's and 15 ungraded.
- 20 Mar 57 Multiple address letter to BWL, CWL and OaLC Proving Ground, CHIRD-D, "Quartermaster Corps Solar Radiation Facility," advising that subject facility is now under construction at the QM R&D Command, Natick, and that services of this facility to the rest of the technical services have been offered by the Quartermaster Corps.
- 21 Mar 57 (33-57-8) (U) 1st Indorsement to CWL, CHIRD-D (5 Mar 57), "Development Schedule - Field Protective Mask, E13, directing CWL to implement the desires of the Chief Chemical Officer stated in paragraph 3 a., basis letter; namely (1) expedite fitting study program to re-evaluate the use of two faceblank sizes and three nose cups; (2) evaluate proposed design changes on the basis of their overall program.
- 21 Mar 57 Letter to Chief Signal Officer, CHIRD-D, "Radioactive Source Set, M3," forwarding, for comment and/or concurrence prior to submission to U.S. Army COMARC, drawings, calculations and other data concerning a new radioactive source for calibration of radies instruments designed by the Chemical Corps.
- 22 Mar 57 (892-57-C) (U) Memorandum for Deputy Chief Chemical Officer for Scientific Activities, CHIRD-D, "Evaluation of Fall-Out Prediction Methods," attaching copy of letter from Chief of Research and Development, DA, to CO, COMARC, CRD/O 2664, 5 Mar 57, primarily concerning the problem of fall-out prediction and location. Letter states that the Chief of Research and Development at least believes the Chemical Corps has over-all responsibility for radiological defense.
- 25 Mar 57 Letter to Chief Chemical Officer, CHIRD-PE, "Bi-Weekly Report of Significant Accomplishments (RCS-100 141), reporting (a) that a Chemical Corps contractor has developed a device known as the Cardiac Monitor which will give information indicating the onset of cardiac standstill; (b) that work recently conducted at CWL indicates that a dilute solution of ammonia applied to the occluded skin area within a short time after contact with certain

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high-energy rocket fuels of the borane series will effectively remove the borane compound and prevent casualties; (c) that four successful flights of the HONEST JOHN Rocket with CW-type warheads have been completed, which tests demonstrated the soundness of the Chemical Corps quadrant design of such a warhead for dispersing bomblets over a wide area.

- 26 Mar 57 Letter to CO, CWL, CMLRD-R, "Medical Officers and Spaces Allotted to Army Chemical Center and Loaned to Dugway Proving Ground," advising that all medical officers and spaces presently on loan to CalC Proving Ground, Dugway Proving Ground, from Chemical Warfare Laboratories will be withdrawn and that these officers and spaces will be used in the medical research program at CWL.
- 26 Mar 57 Letter to CalC Proving Ground, CMLRD-R, "Medical Investigation Branch, Dugway Proving Ground," stating that, as was discussed and agreed upon at the CalC RDCOM Commanders' Conference at Dugway Proving Ground on 6 Dec 56 and again at the Commanders' Conference at Hq, CalC RDCOM on 20 Mar 57, comments and desires of activities with regard to subject were submitted for review and action by Hq, CalC RDCOM.

Letter advises that the two medical officers and spaces on loan to Dugway from CWL will be withdrawn and used in the medical research program at CWL. The Medical Investigations Program at Dugway will be continued and staffed from personnel presently allotted to the Post Surgeon. As was suggested in 20 March conference, the Commanding Officer will periodically review this program and determine whether or not it can be maintained with the present allotted personnel or whether more personnel are needed.

The Medical Investigations Program at DFG will be limited to (a) conducting medical service to employees occupationally exposed or injured by toxic or infectious agents; (b) conducting of a preventative medicine and treatment program for specific infectious diseases and toxic materials peculiar to the testing program, and (c) conducting minimal research and development on projects associated with and peculiar to the medical services and safety problems at Dugway.

The Post Surgeon and/or Medical Investigations Branch personnel at Dugway will maintain close coordination with CWL and BML in order to keep abreast of most recent advances in medical treatment of BW and CW casualties and to exchange pertinent information of mutual interest to the three activities.