

CRM FILE BC



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63-8187
Castle
R/S 4103
attached

TASK GROUP 7.1
JOINT TASK FORCE SEVEN
LOS ALAMOS SCIENTIFIC LABORATORY
J-Division, P.O. Box 1663
Los Alamos, New Mexico

Castle -
John

1 July 1953

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J-18603

NMB-U

TO: Distribution
FROM: Commander, Task Group 7.1
SUBJECT: OUTLINE OF SCIENTIFIC PROGRAMS - OPERATION CASTLE
(Supersedes J-17930 dated 8 May 1953)

Project Number	Title	Organization	Project Officer
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TASK UNIT 13 - DOD PROGRAMS (Col. H. K. Gilbert, Capt. N. E. Kingsley)

PROGRAM 1 - BLAST AND SHOCK MEASUREMENTS (LCDR W. L. Carlson)

- | | | | |
|-----|--|--------------|---|
| 1.1 | Blast Measurements by Photography | | |
| | a. Free Air Pressure (Rocket Trails) | NOL | C.J. Aronson |
| | b. Precursor Phenomena (Rocket Trails) | NOL | C.J. Aronson |
| | c. Base Surge Phenomena | NOL | C.J. Aronson |
| | d. Peak Pressure by Aerial Photography | NOL | C.J. Aronson |
| 1.2 | P vs. T on the Surface | | J. M. HARDING |
| | a. Pressures less than 40 psi | Sandia Corp. | J. D. Shreve, Jr. |
| | b. Pressures greater than 40 psi | BRL | M. F. Clarke J. J. Messer |
| 1.3 | Shock Winds and Afterwinds | Sandia Corp. | J. M. HARDING -
B. F. Murphy |
| 1.4 | Underwater P vs. T | ONR-NOL-DTMB | W.J. Thaler |
| 1.5 | Acoustic Pressure Signals in Water (SOFAR) | ONR | J.W. Smith |
| 1.6 | Water Wave Studies | ONR-Scripps | R.R. Revelle |
| 1.7 | Close-in Ground Accelerations | Sandia Corp. | J. M. HARDING
B. F. Murphy |

PROGRAM 2 - NUCLEAR EFFECTS (Lt. Col. E.A. Martell)

- | | | | |
|------|--------------------------------------|------|-------------------------------------|
| 2.1 | Gamma Film Dosage Measurements | ESL | P. Brown Capt. J. Graham |
| 2.2 | Gamma Dose Rate vs. Time | ESL | P. Brown R. C. Bass |
| 2.3 | Neutron Flux & Spectrum Measurements | NRL | T.D. Hanscome |
| 2.5a | Fall-out Distribution Studies | NRDL | E.R. Tompkins |
| 2.5b | Fall-out Distribution Studies | CRL | E.F. Wilsey |
| 2.6a | RC Analysis of Ground Contamination | NRDL | E.R. Tompkins |

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(1)

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW

1. DETERMINATION OF EASY DECLASSIFICATION REVIEW

2. CLASSIFICATION CHANGED TO: UNCLASSIFIED

3. DATE: 6/22/93

4. AUTHORITY: 33 CFR 1.12

5. COORDINATE WITH: 6/24/93

6. CLASSIFICATION CANCELED AND BRACKETED

7. OTHER (SPECIFY):

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7. OTHER (SPECIFY):

of 2, 3, 4, 5,
70, 71, 72 destroyed 9/15/54

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2.6b	RC Analysis of Ground Contamination	CRL	R.C. Tompkins
PROGRAM 3 - STRUCTURES (Capt. N. E. Kingsley)			
3.1	Loading of Structures	ONR-SRI	L.M. Swift
3.2	Crater Survey and Evaluation	ONR-SRI	R.B. Vaile, Jr.
3.3	Tree Stand Studies (may be cancelled)	ONR-SRI <i>W.L. FONS</i>	L.M. Swift
PROGRAM 6 - TESTS OF SERVICE EQUIPMENT AND OPERATION (Lt. Col. D.I. Prickett)			
6.2	Effects of Blast, Gust, and Thermal on AC in Flight	WADC	Maj. A. Boreske, Jr
6.4	Proof Testing of AW Countermeasures	BuShips	Capt. G.G. Molumphy
6.5	Decontamination and Protection	CRL	J.C. Maloney
6.6	Ionospheric Effects <i>ON IONOSPHERE</i>	ESL	Capt. A. Giroux
PROGRAM 7 - LONG RANGE DETECTION (Col. P.R. Wignall)			
7.1	Electromagnetic Radiation Calibration	AFOAT-1	J.A. Crocker
7.2	Detection of Airborne Low Frequency Sound from Atomic Explosions	AFOAT-1	G.B. Olmstead
7.4	Calibration Analysis of A-Bomb Debris	AFOAT-1	W. Singlevich
PROGRAM 9 - SUPPORTING MEASUREMENTS (Lt. Col. Jack G. James)			
9.1	Cloud Photography	AFSWP	Lt. Col. James
<u>TASK UNIT 1 - LASL PROGRAMS (L. Aamodt)</u>			
PROGRAM 11 - RADIOCHEMISTRY (R. Spence)			
11.1	Analysis for Fission and Fusion Energy Yields. <i>OVERSEAS PHASE WILL BE HANDLED BY 11.2.</i>	J-11, LASL	R. Spence
11.2	Sample Collection	J-11, LASL	H. Plank
11.3	Heavy Element Investigations	J-11, LASL and UCRL	Maj. G. Browne

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
PROGRAM 12 - REACTION HISTORY (B. Watt)			
12.1	History	UCRL	S. Colgate
12.2	Telemetered Time Interval	J-16, LASL	B. Watt
12.3	History	J-16, LASL	B. Watt
PROGRAM 13 - PHOTOGRAPHY (G. Felt)			
13.1	Ball of Fire Photography	EG&G	H. Grier
13.2	Cloud Photography	EG&G	H. Grier
13.3	Bhangmeters, GR Slit Cameras, Etc.	EG&G	H. Grier
13.4	High-Speed Photography	J-15, LASL	G. Felt
13.5	Time Interval Measurement with Bowen Cameras	J-15, LASL	G. Felt
PROGRAM 14 - EXTERNAL NEUTRON MEASUREMENTS (C. Cowan)			
14.1	Threshold Detectors	J-12, LASL	W. Biggers
PROGRAM 15 - ALPHA MEASUREMENTS (N.H. Smith)			
15.1	Teller and Scintillation Alpha	J-13, LASL	N.H. Smith
15.2	ELECTROMAGNETIC ALPHA	LASL	E.D. ENGLAND
PROGRAM 16 - GAMMAS AND RESIDUAL CONTAMINATION (B. Watt)			
16.1	Gamma Intensity at Late Times		
17.1	PROGRAM 17 - MICROBAROGRAPHY (J.M. HARDING) MICROBAROGRAPHY	SANDIA	J.M. HARDING
PROGRAM 18 - THERMAL RADIATION (H. Hoerlin)			
18.1	Time Interval Between Reactions	NRL	H. Stewart
18.2	Power vs Time	NRL	H. Stewart
18.3	Spectroscopy	NRL	H. Stewart
18.4	Air Transmission and Resolution	NRL	H. Stewart
18.5	Total Thermal Radiation	NRL	H. Stewart
PROGRAM 19 - MARINE SURVEY (LAUREN DONALDSON)			
19.1	MARINE SURVEY	UNIV. OF WASH. APPLIED FISHERIES LAB.	L. DONALDSON

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
<u>TASK UNIT 12 - UCRL - LIVERMORE PROGRAMS (A. J. Hudgins)</u>			
PROGRAM 21 - RADIOCHEMISTRY (Kenneth Street, UCRL)			
21.1	Analysis for Fission & Fusion Energy Yields	UCRL	K. Street
21.2	Sample Collection	UCRL P. STEVENSON	K. Street
21.3	Heavy Element Investigations	UCRL	W. Crane
21.4	Gas Analysis	UCRL F. Monver	K. Street
PROGRAM 22 - HISTORY OF THE REACTION (S. Colgate, UCRL)			
22.1	Ganex	UCRL	S. Colgate
22.2	Tenex	UCRL	S. Colgate
22.3	Alpha	UCRL	S. Colgate
PROGRAM 23 - SCIENTIFIC PHOTOGRAPHY (W. Ball)			
23.1	Bomb Case Motion Hot Spot Time Interval Measurements	UCRL	W. Ball
23.2	Ball of Fire Photography	EG&G	H. Grier
PROGRAM 24 - EXTERNAL NEUTRON MEASUREMENTS (S. White, UCRL)			
24.1	Phonex	UCRL	S. White
PROGRAM 25 - DIAGNOSTIC DEVELOPMENTS			
25.1	ELECTROMAGNETIC MEASUREMENTS	UCRL UCRL	W. R. Aiken W. R. Aiken

Addresses and channels for classified communications may be found in document J-17635, dated 11 May 1953.

Key to abbreviations used above:

- AFOAT-1 Air Force Office of Atomic Energy
- AFSWP Armed Forces Special Weapons Project
- BRL Ballistics Research Laboratory
- BuShips Bureau of Ships, U. S. Navy
- CRL Chemical and Radiological Laboratory
- DTMB David Taylor Model Basin
- EG&G Edgerton, Germeshausen & Grier, Inc.
- ESL Evans Signal Laboratory

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Abbreviations Continued:

LASL	Los Alamos Scientific Laboratory
NRDL	Naval Radiological Defense Laboratory
NRL	Naval Research Laboratory
NOL	Naval Ordnance Laboratory
ONR	Office of Naval Research
SCRIPPS	Scripps Institution of Oceanography
SRI	Stanford Research Institute
UCRL	University of California Radiation Laboratory
WADC	Wright Air Development Center

FOR THE COMMANDER:



Duncan Curry, Jr.
Deputy for Administration

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