



# governmentattic.org

*"Rummaging in the government's attic"*

Description of document: National Nuclear Security Administration (NNSA) Title page and table of contents for each After-Action Report on a Nuclear Emergency Support Team (NEST) Exercise 1989-2020

Requested date: 04-January-2023

Release date: 20-March-2024

Posted date: 08-April-2024

Source of document: FOIA request  
NNSA-OGC FOIA Office  
PO Box 5400  
Albuquerque, NM 87185  
Fax: (505) 284-7512  
[NNSA Online FOIA Request Form](#)  
Email: [foiofficer@nnsa.doe.gov](mailto:foiofficer@nnsa.doe.gov)

The governmentattic.org web site ("the site") is a First Amendment free speech web site and is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file. The public records published on the site were obtained from government agencies using proper legal channels. Each document is identified as to the source. Any concerns about the contents of the site should be directed to the agency originating the document in question. GovernmentAttic.org is not responsible for the contents of documents published on the website.



Department of Energy  
National Nuclear Security Administration  
Office of the General Counsel  
P.O. Box 5400  
Albuquerque, NM 87185-5400



March 20, 2024

**SENT VIA EMAIL**

This letter is the National Nuclear Security Administration's (NNSA) final response your January 4, 2023, Freedom of Information Act (FOIA) request.

**You requested a copy of the following:**

“A copy of the title page, cover page, and table of contents of each after action report on a NEST exercise found with a reasonable search.”

Your request was received in our office on March 27, 2023. Upon receipt, we forwarded your request to the NNSA Office of Counterterrorism and Counterproliferation (NA-80) to conduct a search for responsive records. We also forwarded your request to the NNSA Nevada Field Office (NA-NV) for search and processing.

NA-80 and NA-NV and its Management and Operating contractor, Mission Support and Test Services, LLC., located twenty-six (26) responsive documents. The documents are being provided as outlined below.

**Responsive Documents**

Twenty-six (26) documents are being provided to you with deletions pursuant to 5 U.S.C. § 552 (b)(6) and (b)(7)(c) (Exemption 6 and 7c of the FOIA):

1. NUWAIX 14 Interagency AAR
2. Vibrant Response 15 AAR
3. NUWAIX 17 AAR
4. Marble Challenge 1701 AAR
5. NUWAIX 19 AAR
6. Cobalt Magnet 2019 AAR
7. Marble Challenge 20-01 AAR
8. 1989 Nestor title - eDCRO\_2403
9. 1990 Jigsaw III V1 title - eDCRO\_2438
10. 1990 Jigsaw III V1 TOC - eDCRO\_2440

11. 1990 Jigsaw III V2 title - eDCRO\_2441
12. 1990 Jigsaw III V2 TOC - eDCRO\_2442
13. 1994 Mirage Gold title - eDCRO\_2404
14. 1995 Jigsaw title - eDCRO\_2431
15. 1995 Jigsaw TOC - eDCRO\_2436
16. 1995 Mile Shakedown cover - eDCRO\_2407
17. 1995 Mile Shakedown title - eDCRO\_2412
18. 1995 Mile Shakedown TOC 1 - eDCRO\_2414
19. 1995 Mile Shakedown TOC 2 - eDCRO\_2425
20. 1995 Mile Shakedown TOC 3 - eDCRO\_2427
21. 1995 Mile Shakedown TOC 4 - eDCRO\_2428
22. 1997 Jigsaw title - eDCRO\_2443
23. 1997 Jigsaw TOC - eDCRO\_3126
24. 1998 Ellipse Alpha cover memo - eDCRO\_2405
25. 1998 Package Satyr title page - eDCRO\_2445
26. 2001 Wasatch Rings cover memo - eDCRO\_2406

**Exemption 6** permits the withholding of personnel and medical files and similar files when the disclosure of such information would constitute a clearly unwarranted invasion of personal privacy. The purpose of Exemption 6 is to protect individuals from the injury and embarrassment that can result from the unnecessary disclosure of personal information. To determine whether disclosure would constitute a clearly unwarranted invasion of personal privacy, the public interest in disclosure, if any, must be balanced against the privacy interests that would be invaded by disclosure of the information. In this case, the names, titles, and contact information of employees have been withheld. Release of the information pertaining to these individuals will cause inevitable harassment and unwarranted invasion of personal privacy for this individual and could cause unwarranted scrutiny by persons or entities harboring political, philosophical, or other objections to the mission of the Nuclear Security Enterprise and our agency. NNSA has experienced a rise in phishing attempts as threat actors aim to obtain access to sensitive information as well as to Information Technology (IT) and Operational Technology (OT) networks, and release of employee names/email addresses will assist these threat actors in their efforts to gain access and exploit the agency's IT and OT systems.

In addition, release of this information would not shed light on the operations of the federal government since the underlying information related to the agency's actions is being provided. Since its release will not reveal anything of significance to the public, the interest in protecting against the invasion of privacy that would result to the individuals in question far outweighs the public interest in such disclosure.

**Exemption 7(c)** of the FOIA provides protection for, among other things, records or information compiled for law enforcement purposes and may be withheld from disclosure, but only to the extent that the production of such law enforcement records or information could reasonably be expected to constitute an unwarranted invasion of personal privacy. The information withheld under Exemption 7c includes names, titles, and contact information of agency employees who are federal law enforcement officers. Public identification of these individuals could conceivably subject them to harassment and annoyance in the conduct of their official duties and in their private lives.

The Department of Energy (DOE) regulation 10 CFR § 1004.1 provides that documents exempt from mandatory disclosure under the FOIA shall be released regardless of their exempt status, unless DOE determines that disclosure is contrary to public interest. For the reasons described above, NNSA has determined that release of the information described above is not in the public interest.

Pursuant to 10 CFR § 1004.7(b)(2), I am the individual responsible for the withholding of information pursuant to Exemptions 6 and 7c of the FOIA.

You may appeal DOE's withholding of information pursuant to 10 CFR § 1004.8(a). Such an appeal must be made in writing within 90 calendar days after receipt of this letter, addressed to the Director, Office of Hearings and Appeals, HG-1, U.S. Department of Energy, 1000 Independence Avenue SW, L'Enfant building, Washington, DC 20585. Your appeal must contain a concise statement of the grounds for the appeal and a description of the relief sought. **Please submit a copy of this letter with the appeal** and clearly mark both the envelope and the letter "Freedom of Information Appeal." Please specify that you are appealing DOE redactions. You may also submit your appeal by email (preferred method) to the following email, [OHA.filings@hq.doe.gov](mailto:OHA.filings@hq.doe.gov), including the phrase "Freedom of Information Appeal" in the subject line. Thereafter, judicial review will be available to you in the District of Columbia or in the district where (1) you reside, (2) you have your principal place of business, or (3) the Department's records are situated.

You may contact me, NNSA's FOIA Public Liaison, Office of the General Counsel, at 1-866-747-5994, or by mail at Department of Energy, National Nuclear Security Administration, Office of the General Counsel, P.O. Box 5400, Albuquerque, NM 87185, for further assistance and to discuss any aspect of their request. Additionally, the requester may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at [ogis@nara.gov](mailto:ogis@nara.gov); telephone (202) 741-5770; toll free 1-877-684-6448; or facsimile (202) 741-5769.

There are no fees chargeable to you. If you have questions about the processing of your request, please contact Ms. Keyyme Anchondo by e-mail at [keyyme.anchondo-bustillos@nnsa.doe.gov](mailto:keyyme.anchondo-bustillos@nnsa.doe.gov), or write to the address above. Please reference Control Number FOIA 23-00134-KA.

Sincerely,

Christina H. Hamblen  
Digitally signed by  
Christina H. Hamblen  
Date: 2024.03.20  
12:50:51 -06'00'

Christina H. Hamblen  
FOIA Officer

Enclosures



# NUWAIX 14

## Interagency After Action Report

August 25, 2014

**OFFICIAL USE ONLY**

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), exemption number and category: **7 – Law Enforcement**

Department of Energy review required before public release

Name/Org: (b) (6), (b) (7)(C)- DOE/NA-42 Date: 8/25/2014

The NUWAIX 14 Interagency After Action Report has been approved for publication by:

(b) (6), (b) (7)(C)  
[Redacted]  
\_\_\_\_\_  
(b) (6), (b) (7)(C) JJ  
**Exercises and Evaluation**  
**Oak Ridge Associated Universities**

2/26/15  
Date

(b) (6), (b) (7)(C)  
[Redacted]  
\_\_\_\_\_  
(b) (6), (b) (7)(C)  
**Operations and Exercises**  
**U.S. Department of Energy**

23 Feb 15  
Date

(b) (6), (b) (7)(C)  
[Redacted]  
\_\_\_\_\_  
(b) (6), (b) (7)(C)  
**Office of Emergency Response**  
**U.S. Department of Energy**

2/23/15  
Date

## ADMINISTRATIVE INFORMATION

This is an Interagency After Action Report. The information gathered in this AAR is classified as Official Use Only (OUO) and should be handled as sensitive information not to be disclosed to parties without need-to-know. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### *Points of Contact*

(b) (6), (b) (7)(C)

Oak Ridge Associated Universities  
Arlington, VA  
(b) (6), (b) (7)(C)  
@orise.orau.gov

(b) (6), (b) (7)(C)

U.S. Department of Energy/National Nuclear Security Administration  
Washington, D.C.  
(b) (6), (b) (7)(C)  
@nnsa.doe.gov

## TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION .....	iii
EXECUTIVE SUMMARY .....	1
EVENT OVERVIEW .....	3
EXERCISE PARTICIPANTS .....	4
SUMMARY OF KEY EXERCISE EVENTS .....	5
EXERCISE RESULTS .....	7
APPENDIX A: EXERCISE DESIGN FINDINGS .....	16
APPENDIX B: SUPPLEMENTARY EXERCISE SUMMARY .....	19
APPENDIX C: CAPSTONE EXERCISE 2014 SUMMARY .....	20
APPENDIX D: ACRONYMS .....	22





# Vibrant Response 15

DOE/NNSA Internal After Action Report

7/16/2015

The Vibrant Response 15 Internal After Action Report has been approved for publication by:

(b) (6), (b) (7)(C)

2/17/16

(b) (6), (b) (7)(C)

Date

National Exercise Group  
Oak Ridge Institute of Science and Education

(b) (6), (b) (7)(C)

8 March 2016

Date

(b) (6), (b) (7)(C)  
(b) (6), (b) (7)(C) Operations & Exercises  
Office of Emergency Response  
U.S. Department of Energy/National Nuclear Security Administration

(b) (6), (b) (7)(C)

3/17/16

(b) (6), (b) (7)(C)

Date

Office of Emergency Response  
U.S. Department of Energy/National Nuclear Security Administration

## ADMINISTRATIVE INFORMATION

### *Points of Contact*

(b) (6), (b) (7)(C)

Oak Ridge Institute for Science and Education (ORISE)

Arlington, VA

(b) (6), (b) (7)(C)

@ornl.gov

(b) (6), (b) (7)(C)

U.S. Department of Energy/National Nuclear Security Administration

Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

## **TABLE OF CONTENTS**

ADMINISTRATIVE INFORMATION .....	ii
EXECUTIVE SUMMARY .....	2
EVENT OVERVIEW .....	4
EVENT FINDINGS.....	6



NUWAIX 17

Department of Energy  
Internal After Action Report

June 28, 2017

OFFICIAL USE ONLY

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552) exemption number and category: 7 – Law Enforcement

Department of Energy review required before public release

Name/Org: (b) (6), (b) (7)(C) NA-42 28 June 2017

The NUWAIX 17 Internal After Action Report has been approved for publication by:

\_\_\_\_\_  
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

Office of Counterterrorism and Counterproliferation  
Department of Energy/National Nuclear Security Administration

\_\_\_\_\_  
Date

\_\_\_\_\_  
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration

\_\_\_\_\_  
Date

\_\_\_\_\_  
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C), Operations & Exercises

Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration

\_\_\_\_\_  
Date

\_\_\_\_\_  
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C), Operations and Exercises

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration

\_\_\_\_\_  
Date

\_\_\_\_\_  
(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration

\_\_\_\_\_  
Date

## ADMINISTRATIVE INFORMATION

This is an internal Department of Energy After Action Report. The information gathered in this AAR has been identified as *Official Use Only* and should be handled as sensitive information not to be disclosed to parties without need-to-know. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### ***Points of Contact***

(b) (6), (b) (7)(C)

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

(b) (6), (b) (7)(C)

Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

(b) (6), (b) (7)(C)

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

**TABLE OF CONTENTS**

ADMINISTRATIVE INFORMATION..... ii  
EXECUTIVE SUMMARY ..... 4  
EVENT OVERVIEW..... 8  
EVENT FINDINGS ..... 10





# Marble Challenge 17-01

Department of Energy

Internal After Action Report

12/2016

OFFICIAL USE ONLY

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), exemption number and category: 7 – Law Enforcement

Department of Energy review required before public release

Name/Org: (b) (6), (b) (7)(C) NA-42, 20 December 2016

The Marble Challenge 17-01 (MC 17-01) Internal After Action Report has been approved for publication by:

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

\_\_\_\_\_  
Date

Drills and Exercises, Albuquerque  
Office of Counterterrorism and Counterproliferation  
Department of Energy/National Nuclear Security Administration

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

\_\_\_\_\_  
Date

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

\_\_\_\_\_  
Date

(b) (6), (b) (7)(C) Operations & Exercises  
Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

\_\_\_\_\_  
Date

(b) (6), (b) (7)(C) Operations and Exercises  
Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration

(b) (6), (b) (7)(C)

(b) (6), (b) (7)(C)

\_\_\_\_\_  
Date

Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration

## ADMINISTRATIVE INFORMATION

This is an internal Department of Energy After Action Report. The information gathered in this AAR has been identified as *Official Use Only* and should be handled as sensitive information not to be disclosed to parties without need-to-know. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### ***Points of Contact***

(b) (6), (b) (7)(C)

Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

(b) (6), (b) (7)(C)

Exercises  
Office of Emergency Operations  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

(b) (6), (b) (7)(C)

Operations & Exercises  
Office of Nuclear Incident Response  
Department of Energy/National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

## **TABLE OF CONTENTS**

ADMINISTRATIVE INFORMATION.....	ii
EXECUTIVE SUMMARY .....	2
EVENT OVERVIEW.....	7
EVENT FINDINGS .....	8
APPENDIX A: EXERCISE DESIGN FINDINGS.....	17

# **NUWAIX<sup>19</sup>** **NUCLEAR WEAPONS ACCIDENT INCIDENT EXERCISE**

## **Interagency After Action Report**

### *Handling Instructions*

*The DOE/NNSA maintains control of this document. This document may not be duplicated, reproduced or disseminated without prior approval from authorized DOE officials. This document contains information that may be exempt from public release pursuant 5 U.S.C. §552(b)(7)(C), (7) (E) and 7(F). Any request for this document must be referred to DOE/NNSA for an official determination.*

Name/Org: (b) (6), (b) (7)(C) DOE-NA84 Date: 12/04/2019

The Nuclear Weapons Accident/Incident Exercise (NUWAIX) 19 After Action Report has been approved for publication by:

(b) (6), (b) (7)(C) [Redacted] [Redacted]

(b) (6), (b) (7)(C) [Redacted] Date \_\_\_\_\_  
(b) (6), (b) (7)(C) [Redacted]  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration

[Redacted] (b) (6), (b) (7)(C) [Redacted]  
[Redacted]

(b) (6), (b) (7)(C) [Redacted] Date \_\_\_\_\_  
(b) (6), (b) (7)(C), Operations and Exercises  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration

## ADMINISTRATIVE INFORMATION

This is an interagency After Action Report (AAR) that has been coordinated by the Department of Energy. The information gathered in this AAR has been identified as Official Use Only and should be handled as sensitive information not to be disclosed to parties without a need-to-know. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### *Points of Contact*

(b) (6), (b) (7)(C)

[REDACTED]  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

[REDACTED]@nnsa.doe.gov

(b) (6), (b) (7)(C)

[REDACTED]  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

[REDACTED]@nnsa.doe.gov

## TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION .....	iii
EXECUTIVE SUMMARY .....	1
Major Strengths.....	1
Primary Areas for Improvement .....	2
INTRODUCTION .....	3
Purpose of After Action Report .....	3
Scope.....	3
Scenario .....	3
Participation .....	3
Objectives .....	4
EVALUATION AND ASSESSMENT PROCESS .....	5
Overview.....	5
Capability Targets.....	5
ANALYSIS OF CAPABILITIES .....	7
Capability 1: Command and Control .....	7
Capability 2: Transportation Planning .....	12
Capability 3: Radiation Monitoring .....	13
Capability 4: Public Information and Warning.....	17
Capability 5: Planning Coordination.....	22
Capability 6: Physical Security and Access.....	25
Capability 7: Consequence Management Modeling .....	29
Capability 8: Information Management.....	31
Capability 9: Communications.....	35
EXERCISE DESIGN LESSONS LEARNED .....	37
APPENDIX A: IMPROVEMENT PLAN MATRIX .....	42





# Cobalt Magnet 2019

Department of Energy

National Nuclear Security Administration

After Action Report

09/24/19

The Cobalt Magnet 19-01 After Action Report has been approved for publication by:

(b) (6), (b) (7)(C)

09/24/2019

(b) (6), (b) (7)(C)

Date

(b) (6), (b) (7)(C) Consequence Management Program

Department of Energy

National Nuclear Security Administration

## Administrative Information

This is the After Action Report (AAR) for the Cobalt Magnet 2019 (CM19) exercise. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### Points of Contact

(b) (6), (b) (7)(C)

Consequence Management Program

Office of Nuclear Incident Response

Department of Energy (DOE)/National Nuclear Security Administration (NNSA)

Phone: (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) [@nnsa.doe.gov](mailto:(b) (6), (b) (7)(C)@nnsa.doe.gov)

(b) (6), (b) (7)(C)

Office of Nuclear Incident Response (NA-84)

Department of Energy (DOE)/National Nuclear Security Administration (NNSA)

Phone: (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) [@nnsa.doe.gov](mailto:(b) (6), (b) (7)(C)@nnsa.doe.gov)

(b) (6), (b) (7)(C)

Contractor to DOE/NNSA (NA-80)

Emergency Management Services International, Inc. (EMSI)

Phone: (b) (6), (b) (7)(C)

(b) (6), (b) (7)(C) [@nnsa.doe.gov](mailto:(b) (6), (b) (7)(C)@nnsa.doe.gov)



Table of Contents

- Administrative Information ..... iii**
- 1.0 Background ..... 1**
  - Scenario.....1
  - Participants.....1
  - Exercise Objective .....2
- 2.0 Summary of Findings ..... 5**
  - Analytical Methodology .....5
- 3.0 Detailed Findings ..... 6**
  - Primary Focus Area 1: Command and Control.....6**
    - Topic 1.1: Incident Management Team (IMT) ..... 6
    - Topic 1.2: Understanding and Communicating Organizational Roles and Responsibilities .....6**
      - Topic 1.3: Situational Awareness within the FRMAC..... 7
      - Topic 1.4: Information Sharing ..... 8
      - Topic 1.5: Decision Making Framework Between RADCC, PMG, and Brevard County..... 9
      - Topic 1.6: Radiological Operations Support Specialists (ROSS) ..... 9
      - Topic 1.7: Proactive Response Posture for FRMAC ..... 10
  - Primary Focus Area 2: Public Information.....10**
    - Topic 2.1: JIC Team Coordination and Collaboration..... 10
    - Topic 2.2: Technical Support to JIC ..... 11
    - Topic 2.3: Timeliness of Responses..... 12
    - Topic 2.4: Public Release of Information ..... 13
  - Topic 3: Standard Operating Procedures (SOPs).....14**
    - Topic 3.1: Information Sharing ..... 14
    - Topic 3.2: Response Activities..... 15
    - Topic 3.3: Technology ..... 16
    - Topic 3.4: Analysis and Radiological Databases..... 17
  - Primary Focus Area 4: Training .....17**
    - Topic 4.1: RadResponder Training ..... 17
    - Topic 4.2: Tailgate Field Team Training During Response/Exercise..... 18
  - Primary Focus Area 5: Exercise Design and Oversight .....18**
    - Topic 5.1: Planning ..... 18
    - Topic 5.2: Conduct ..... 21
- Appendix A: Information Flow Analysis: CM19..... 24**
  - Survey Form.....24
  - Network Graph .....24
  - Degree and Weighted Degree .....26
  - Betweenness Centrality.....26
  - Community Detection .....28
  - Summary & Conclusions .....30
- Appendix B: Lessons Learned and Corrective Actions ..... 31**

**Appendix C: Best Practices..... 38**  
**Appendix D: Acronyms ..... 41**



# Marble Challenge 20-01

**DOE/NNSA Office of Nuclear Incident Response**

## **Internal After Action Report**

**OFFICIAL USE ONLY**

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), exemption number and category:  
7, Law Enforcement  
Department of Energy review required before public release.  
Name/Org: (b) (6), (b) (7)(C) /NNSA NA-84  
Date: 3/25/2020  
Guidance (if applicable): CG-RER-1, dated July 2002

### *Handling Instructions*

*The DOE/NNSA maintains control of this document. This document may not be duplicated, reproduced or disseminated without prior approval from authorized DOE officials. This document contains information that may be exempt from public release pursuant 5 U.S.C. §552(b)(7)(C), (7) (E) and 7(F). Any request for this document must be referred to DOE/NNSA for an official determination.*

Name/Org: (b) (6), (b) (7)(C) / DOE-NA84 Date: 03/25/2020

The Marble Challenge (MC) 20-01 After Action Report has been approved for publication by:

(b) (6), (b) (7)(C) [Redacted]

(b) (6), (b) (7)(C) [Redacted]  
(b) (6), (b) (7)(C) Operations and Exercises  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration

\_\_\_\_\_  
Date

(b) (6), (b) (7)(C) [Redacted]

(b) (6), (b) (7)(C) [Redacted]  
(b) (6), (b) (7)(C) Joint Technical Operations Team  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration

\_\_\_\_\_  
Date



## ADMINISTRATIVE INFORMATION

This is an internal Department of Energy After Action Report (AAR). The information gathered in this AAR is identified as Official Use Only and should be handled as sensitive information not to be disclosed to parties without a need-to-know. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives.

### *Points of Contact*

(b) (6), (b) (7)(C)

Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

@nnsa.doe.gov

(b) (6), (b) (7)(C)

Operations and Exercises  
Office of Nuclear Incident Response  
Department of Energy / National Nuclear Security Administration  
Washington, DC

(b) (6), (b) (7)(C)

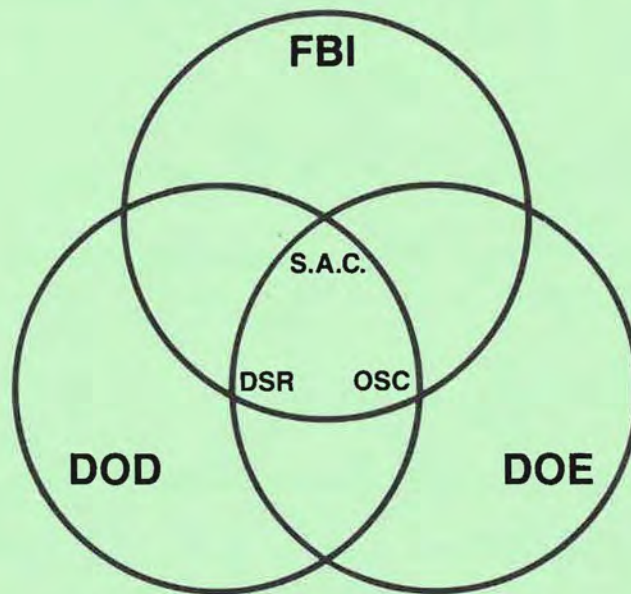
@nnsa.doe.gov

## TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION .....	ii
EXECUTIVE SUMMARY .....	4
Major Strengths.....	4
Primary Areas for Improvement .....	4
EVENT INFORMATION .....	5
Purpose of After Action Report .....	5
Scope.....	5
Participation .....	5
Scenario .....	5
Objectives .....	5
KEY FINDINGS.....	7
Major Strengths.....	7
Primary Areas for Improvement .....	7
APPENDIX A: ADDITIONAL FINDINGS AND ANALYSIS .....	10
APPENDIX B: ADMINISTRATIVE AND PROGRAM-LEVEL FINDINGS .....	23
APPENDIX C: EVALUATION AND ASSESSMENT PROCESS .....	25
Overview.....	25
Mission Capability Task List (MCTL) .....	25

NESTOR 89  
NEST  
JOINT OPERATIONS  
CENTER EXERCISE

AFTER ACTION FINAL REPORT  
(DRAFT)



AUTHORS: (b)(6), (b)(7)(C)  
EXERCISE PLANNERS  
PARTICIPANTS

DATE: NOVEMBER 1, 1989

NOT FOR PUBLIC  
DISSEMINATION

May contain Unclassified Controlled Nuclear Information subject to section 148 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2168). Approval by the Department of Energy prior to release is required.

(b)(6), (b)(7)(C)

UNCLASSIFIED

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
(b) (6), (b) (7)(C) /MSTS 13BM  
April 13, 2023

~~MAY CONTAIN UNCLASSIFIED-CONTROLLED NUCLEAR INFORMATION~~

LOS ALAMOS NATIONAL LABORATORY

## Program Technical Note

Title: JIGSAW III EXERCISE: VOLUME I

Author(s): (b)(6), b(7)(C)

Jigsaw Exercise Planners  
Working Group Chairmen  
Jigsaw Participants

Date: January 19, 1990



Advanced Nuclear Technology

~~MAY CONTAIN UNCLASSIFIED-CONTROLLED NUCLEAR INFORMATION~~

(b)(6), (b)(7)(C)

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
~~(b)(6), (b)(7)(C)~~ MSTs 13BM  
April 13, 2023

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

VOLUME 1

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
DESCRIPTION	2
LEARNING STAGE	2
TESTING STAGE	5
RESULTS	6
EXERCISE PLANNING	8
EXERCISE PLANNING SUMMARY	11
ATTACHMENTS	11

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
(b)(6), b(7)(C) MSTs 13BM  
April 13, 2023

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

LOS ALAMOS NATIONAL LABORATORY

Program Technical Note

Title: JIGSAW III EXERCISE: VOLUME II

Author(s): (b)(6), b(7)(C)

Jigsaw Exercise Planners  
Working Group Chairmen  
Jigsaw Participants

Date: January 19, 1990



Advanced Nuclear Technology

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

(b)(6), b(7)(C)

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
(b)(6), b(7)(C)/MSTS 13BM  
April 13, 2023

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

VOLUME 2

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
REFERENCE DOCUMENTS	2
ATTACHMENT 1: Jigsaw Time Line	3
ATTACHMENT 2: Player Input Summary	20
ATTACHMENT 3: Lessons	25
ATTACHMENT 4: Notes from the CFS Meeting Following Jigsaw III	30
ATTACHMENT 5: Lessons Learned from (b)(6), b(7)(C) and (b)(6), b(7)(C)	38
ATTACHMENT 6: Notes from a Disablement Field Team Meeting after Jigsaw III	42
ATTACHMENT 7: Lesson on Intelligence Play	48
ATTACHMENT 8: Notes from Device Assessment	54
ATTACHMENT 9: Lessons from Damage Limitation	57
ATTACHMENT 10: Lessons from Diagnostics	61
ATTACHMENT 11: Observations from Diagnostic Home Team	65
ATTACHMENT 12: Lessons from TIDS	68
ATTACHMENT 13: Jigsaw III Organization Chart	71
ATTACHMENT 14: Player's Guide	74
APPENDIX 1: Jigsaw III Objectives	81
APPENDIX 2: Excerpt from On-Scene Commander's Handbook	90
APPENDIX 3: Proposed Joint OOE/EOD WP SOP	117
APPENDIX 4: Proposed DOE JTOC SOP	122
APPENDIX 5: Jigsaw III Control Principles	125
APPENDIX 6: Jigsaw III Moves	129
APPENDIX 7: Jigsaw III Participant List	145
APPENDIX 8: Participant Logistics	153
APPENDIX 9: Jigsaw III Information Summary	156
ATTACHMENT 15: Player Input Sheets	160

~~MAY CONTAIN UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

**DEPARTMENT OF THE ARMY  
HEADQUARTERS FIFTH UNITED STATES ARMY  
AND FORT SAM HOUSTON  
FORT SAM HOUSTON, TEXAS 78234-7000**

**AFKB-OP**

**15 NOV 94**

**Exercise MIRAGE GOLD  
After Action Report  
16-21 Oct 94**



**(b)(6), b(7)(C)**



*File  
JIGSAW*

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
~~(b)(6), (b)(7)(C)~~/MSTS 13BM  
April 13, 2023

# **JIGSAW - 95**

## **AFTER ACTION REPORT**

\*\*\*

**Area 27**

**December 5 and 6, 1995**

~~(b)(6), (b)(7)(C)~~

~~UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

Jigsaw-95 After Action Report

February 9, 1996

**TABLE OF CONTENTS**

1. Executive Summary .....	1
1.1 Scope and Purpose .....	2
1.2 Objectives .....	2
1.2.1 General Objectives .....	2
1.2.2 Technical Objectives .....	3
1.3 Document Organization .....	4
1.4 Drill Highlights .....	4
1.5 Activity Time Line .....	4
2. Drill Organization and Logistics .....	6
2.1 Locations of Play .....	6
2.2 Logistics and Security .....	6
2.3 Communications .....	?
2.4 Working Point .....	7
2.5 Technical Operations Center .....	8
3. Working Point Access and Control .....	8
3.1 Forward Control Point .....	8
3.2 Working Point Supervisor .....	8
3.3 Forward Scientific Observer .....	8
3.4 Real World Security .....	9
3.4.1 Interaction between Play and "Real World" .....	9
3.4.2 Lessons Learned .....	9
3.4.3 Action Items .....	9
4. Technical Operations .....	9
4.1 Diagnostics - Observations .....	10
4.2 Device Assessment - Observations .....	11
4.3 Disablement - Observations .....	11
4.4 Containment and Effects - Observations .....	11
4.5 IINNFO - Observations .....	11
4.6 Command and Control - Observations .....	12
4.7 Operational Action Items .....	12
5. Training Event Planning and Execution .....	13
5.1 Successes .....	13
5.2 Problems .....	14
5.3 Lessons Learned .....	14
5.4 Action Items .....	14
5.5 Visitor and Guest management .....	15
6. References .....	15
Appendix A Planners .....	16
Appendix B Controller and Coach Assignments .....	17
Appendix C Players .....	18
Appendix D Guests and Visitors .....	22
Acronyms .....	23



**Department of Energy**  
 Nevada Operations Office  
 P. O. Box 98518  
 Las Vegas, NV 89193-8518

PLEASE  
 FILE  
 RL

JUL 05 1995

RECEIVED  
 JUL 7 1 24 PM '95  
 ORIGINAL FILE

**Distribution**

**MILE SHAKEDOWN AFTER-ACTION REPORT**

A series of four Nuclear Emergency Search Team (NEST) inter-related exercises were held between December 1993 and October 1994. This series of exercises was called MILE SHAKEDOWN.

After completion of the exercise series, comments were solicited from participants. These comments were consolidated and corrective actions were identified. The enclosed report discusses major issues identified, outlines corrective actions, and assigns responsibility to the appropriate NEST working group.

In addition to this report, a second document compiling all comments and critiques was prepared. This is a compilation of the original critiques collected from participants, and was not evaluated against the objectives criteria developed for the exercise series. Subsequently, a number of comments or criticisms that are found in this document are not addressed in the report. This document is available upon request.

For further information on either document, please contact (b) (6) or (b) (6).

(b) (6)

EMND/PRT:DMD-95-133

Enclosure:  
 As stated

INFO: (b)(6), b(7)(C) L-10  
 SL-14  
 RSL-21  
 -10  
 L-15  
 -11  
 RSL-21  
 -10  
 R-10

CF

ONM 3-36

Does Not Contain  
Unclassified Controlled  
Nuclear Information  
(b)(6), (b)(7)(C) MSTs 13BM  
April 13, 2023

# **MILE SHAKEDOWN: A SERIES OF EXERCISES AFTER ACTION REPORT**

**FINAL DRAFT**

**FEBRUARY 18, 1995**

**U. S. DEPARTMENT OF ENERGY  
NEVADA OPERATIONS OFFICE  
LAS VEGAS, NEVADA**

~~**UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION**~~

~~**NOT FOR PUBLIC DISSEMINATION**~~

~~**UNAUTHORIZED DISSEMINATION SUBJECT TO CIVIL AND CRIMINAL  
SANCTIONS UNDER SECTION 148 OF THE ATOMIC ENERGY ACT OF 1954, AS  
AMENDED (42 USC 2168)**~~

~~UCNI~~ - FINAL DRAFT

**MILE SHAKEDOWN: A SERIES OF EXERCISES  
AFTER ACTION REPORT**

**TABLE OF CONTENTS**

I.	Executive Summary	1
II.	MICA DIG	3
	A. Summary	3
	B. Documentation	4
III.	EDRE	5
	A. Summary	5
	B. Documentation	7
IV.	MILD COVER	9
	A. Summary	9
	B. Documentation	10
V.	MIRAGE GOLD	11
	A. Overview of MIRAGE GOLD	11
	B. Planning Phase	11
	1. Planning Organization	12
	2. Planning Documentation Summaries	14
	a. Planning Guide	15
	b. Operations Plan	15
	c. Technical Support Plan	15
	d. Logistical Support Plan	17
	e. Safety Plan	18
	f. Security Plan	19
	g. IININFO Implementation Plan	21
	h. Master Scenario Event List	22
	C. Scenario Brief	23
	D. Execution Phase: Documentation	27
	1. Planner Documentation	28
	a. Controller Handbook	28
	b. Player's Guide	28
	c. Tactical Turnover Procedure	29
	d. Forensic Guidelines	29

~~UCNI~~ - FINAL DRAFT

~~(b)(6), (b)(7)(C)~~

**UCNI - FINAL DRAFT**

2.	Player Documentation	30
a.	Search Plan	30
b.	Diagnostics Plan	31
c.	Disablement Plan	32
d.	Containment Plan	33
3.	IININFO Applications	33
a.	Player	33
b.	Controller	34
<b>VI.</b>	<b>MAJOR ISSUES</b>	<b>37</b>
A.	Policies and Procedures	37
1.	Interagency	37
a.	Interagency Agreements	37
b.	Joint Field Operations	39
2.	DOE Policy	40
B.	Deployment	41
C.	Technical	43
1.	Overview of Common Technical Problems	43
2.	Search	45
a.	Interfaces	45
b.	Search Organization	46
3.	Access	46
4.	Diagnostics	48
5.	Disablement	49
6.	Containment and Effects	50
7.	Reentry and Forensics	51
D.	Information Management	53
1.	Intelligence	53
a.	Intelligence Flow	53
b.	Intelligence Database	55
c.	Dual Intelligence Base	56
2.	IININFO	56
3.	Information Transfer	58
E.	Training Qualifications	58
1.	Training	58
2.	Deployment Authorization Program	61
3.	Position Descriptions	62
F.	Communications	62
G.	Exercise Management	64
1.	Simulation/Realism	65
2.	Exercise Planning	67
3.	Controller/Player Interaction	68

~~UCNI~~ - FINAL  
DRAFT

VII. Non-Written Documentation	71
VIII. Conclusions	73
Appendix I: Critiques, Evaluations, and Recommendations	75
1. Planning of Exercise	76
a. Process	76
b. Orgarnzation	79
c. Site Selection	79
d. Indemnification	80
e. Agency Commitment	80
f. Prestaging	83
g. Scenario	83
2. Administration of Exercise	86
a. Control Cell Staffing	86
b. Control Cell Access	86
c. Controller Organization	87
d. Controller Interaction with Players	88
e. Safety	89
f. Security	90
g. Logistical Support	91
h. Technical Support to Players	93
i. Control of Interagency Operations	93
j. Controller Training	95
k. Evaluation	96
3. Player Activity in Exercise	96
a. Command and Control	96
(1) Joint Operations Center	96
(2) ESO of DOE Assets	97
(3) FBI as Lead Agency	101
(4) Intelligence Flow	102
(5) Tactical Operations	105
(6) Interagency Operations Coordination	105
(7) DoD Assets	111
b. Interagency Liaison	119
c. Logistical Support of NEST Activities	120
d. Communications	123
(1) Radio	123
(2) IINNFO	124
(3) Briefings to Players	128
(4) Interagency	130
(5) Adequacy Between NEST Personnel	131

**UCNI – FINAL DRAFT**

(6) Of Technical Information to Appropriate User . . . . .	133
(7) Phones . . . . .	133
e. Technical Planning and Operations . . . . .	134
(1) Search . . . . .	134
(2) Diagnostics . . . . .	140
(3) Disablement . . . . .	142
(4) Containment.....	144
(5) Public Management and Evacuation . . . . .	146
(6) Re-entry . . . . .	146
(7) Forensics . . . . .	147
(8) Access . . . . .	148
(9) Consequence Management . . . . .	149
f. Media and Public Affairs . . . . .	150
(1) Joint Information Center . . . . .	150
(2) Interagency Activity . . . . .	151
(3) Local and State Government Incorporation . . . . .	151
g. Prior Training and Qualification . . . . .	152
Appendix II: Glossary . . . . .	157



Does Not Contain  
Unclassified Controlled  
Nuclear Information  
~~(b)(6), b(7)(C)~~/MSTS 13BM  
April 13, 2023

~~UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

JIGSAW-97 After Action Report

June 3, 1997

# JIGSAW -97

## AFTER ACTION REPORT

\*\*\*

### Los Alamos National Laboratory

March 24 27, 1997

~~UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION NOT FOR  
PUBLIC DISSEMINATION~~

~~Unauthorized dissemination subject to civil and criminal sanctions under Section 148  
of the Atomic Energy Act of 1954, as amended (42 USC 2168)~~

Reviewing

Official: ~~(b)(6), b(7)(C)~~

~~Special Program and Technology Development Date: May 21, 1997~~

~~UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

~~(b)(6), b(7)(C)~~

~~UNCLASSIFIED CONTROLLED NUCLEAR INFORMATION~~

JIGSAW-97 After Action Report

May 21, 1997

**TABLE OF CONTENTS**

**1. Executive Summary ..... 1**

**2. Objectives ..... 1**

    2.1 Introduction ..... 1

    2.2 Scope and Purpose ..... 2

    2.3 General Objectives ..... 2

    2.4 Technical Objectives ..... 3

    2.5 Drill Highlights ..... 6

    2.6 Conclusions and Recommendations ..... 7

**3. Drill Organization and Logistics ..... 8**

    3.1 Control ..... 8

    3.2 Locations ..... 9

    3.3 Logistics ..... 10

    3.4 Security ..... 10

    3.5 Safety ..... 11

    3.6 Communications ..... 11

    3.7 Activity Time Line ..... 12

    3.8 Visitors and Observers ..... 15

**4. Technical Operations - Observations and Recommendations ..... 16**

    4.1 Access ..... 16

    4.2 Diagnostics ..... 16

    4.3 Device Assessment ..... 17

    4.4 Disablement ..... 17

    4.5 Containment and Effects ..... 18

    4.6 Command and Control ..... 18

**5. Drill Operations - Observations and Recommendations ..... 19**

    5.1 Planning ..... 9

    5.2 Execution ..... 20

**6. References ..... 21**

**Appendix A. Planners ..... A-1**

**Appendix B. Controller and Coach Assignments ..... B-1**

**Appendix C. Master Roster ..... C-1**

**Appendix D. Acronyms ..... D-1**

# Bechtel Nevada

## Memorandum

To: Distribution

Date: July 6, 1998

From: (b)(6), (b)(7)(C) RSL-24  
Technical Operations Section, 5-8820

No.: 2224-RT-98-0086

Subject: **NUCLEAR EMERGENCY SEARCH TEAM  
AFTER ACTION REPORT - ELLIPSE ALPHA '98**  
Project No.: N/A

### SUMMARY

On June 20, 1998, the Nuclear Emergency Search Team (NEST) Search Response Team (SRT) deployed to Exercise "Ellipse Alpha 98" (EA-98). Although the initial participants were aware of the deployment date and destination, the complete notification chain and deployment procedure was tested during the call out. In the course of the exercise, operational requirements dictated that a second SRT be deployed to provide a 24-hour a day search capability. The second group was deployed no-notice from their homes directly to McCarren International. The two teams re-deployed separately on June 25-26, 1998. All pre-determined exercise objectives were met.

### OBJECTIVES

The general objectives are listed below. Specific daily objectives are given in the daily SITREPS (attached).

Complete the exercise in accordance with the BN Zero Accident Philosophy.

Follow all relevant BN Safety procedures.

Maintain real-world SRT standby capability.

Provide the search capability to the DOE technical response.

Deploy the SRT via commercial aircraft with all assets as carryon, check baggage, or air freight

Configure the Search TOC within three hours of arrival.

Conduct Professional mobile / handheld search operations (as necessary).

Conduct Novice mobile / handheld search operations (as necessary) utilizing law enforcement personnel trained on site.

Successfully transfer / receive secure data to / from other deployed DOE elements (via ICE 2.2 standard).

Interface on technical issues with other DOE deployed assets (e.g., NRAT, JTOT II).

(b)(6), (b)(7)(C)

Does Not Contain  
Official Use Only Information  
~~(b)(6), (b)(7)(C)~~/MSTS 13BM  
April 13, 2023

# DEPARTMENT OF ENERGY



# PACKAGE SATYR AFTER-ACTION REPORT

4-6 August 1998

*PREPARED FOR DOE BY:*

Oak Ridge Institute for Science and Education.

~~**OFFICIAL USE ONLY**~~

~~*Contains information which may be exempt from public release under the Freedom of Information Act (5 U.S.C. 552), subsection (b), exemption number 3. Approval by the Department of Energy prior to public release is required.*~~

~~*Reviewed by: [REDACTED] Date: 10 November 1998*~~

Rec'd 4/18  
DB 4/24

# Bechtel Nevada

## Interoffice Memorandum

To: (b)(6), b(7)(C) RSL - 21 ←

Date: April 17, 2001

From: (b)(6), b(7)(C) RSL - 24  
Technical Operations Section, 4 - 1016

No.: 2224-RT-01-0079

Subject: SALT LAKE CITY WASATCH RINGS EXERCISE AFTER - ACTION REPORT  
(AAR)  
Project No. N/A

On Wednesday, April 4, 2001, the Search Response Team (SRT) deployed to Salt Lake City, UT to support exercise "Wasatch Rings." Enclosed are the after action report, situation report (SITREP's) and attendance sheets associated with this events.

Should you have any questions, please contact me at 4- [REDACTED]

For (b)(6), b(7)(C)  
(b)(6), b(7)(C)  
Technical Operations Section

twr

Subject Code: EMT 18

Enclosure: as stated

cc: Correspondence Control, w/enc., NLV008

(b)(6), b(7)(C) w/encs., RSL - 20  
[REDACTED] w/encs., RSL - 23  
[REDACTED] w/encs., RSL - 19  
[REDACTED] w/encs., RSL - 24  
[REDACTED] w/encs., RSL - 25  
[REDACTED] encs., RSL - 24  
[REDACTED] w/encs., RSL - 23

(b)(6), b(7)(C)