



456 vvlk

96 MAY 29 P4: 03

FAX!

Peace Action
and
Peace Action Education Fund
1819 H Street, NW, Suite 640
Washington, DC 20006-3603
ph: 202/862-9740
fax: 202/862-9762

TO: MR Phil Karpis
FROM: Alicia L. Byrd
DATE: May 28 TIME: _____
OF PAGES (including this one): _____

Confirmation of Reply? yes no

MESSAGE: peace

M E M O R A N D U M

TO: The Executive Committee and Board Members

FR: Acie Byrd Jr. 

DA: May 15, 1996

Re: Atomic Veterans and Executive Board Member

Regarding my meeting with Mr. Phil Kaplan, White House on Radiation Victim and Survivors issues.

- I. I met with Mr. Phil Kaplan, at the request of the Executive Board members who had follow up responsibility from the 2/27 workshop meeting with the Inter- Agency working group.
- II. Met with Mr. Kaplan and related the following:
 - (a) That the Task Force on Radiation and Human Rights requested an official meeting with White House official on our issues;
 - (b) one of our primary concerns were to have our representative on the Bioethics Committee established by President Clinton, Oct. 3rd, 1995 Executive Order.
 - (c) To receive a representative delegation from the Task Force contingent group to open an dialogue with White House officials on our issues, with respect to remedial programs, compensation , future cooperative programs to build confidence and openness in our democracy.
- III. Mr. Kaplan informed me that our request would be considered.
- IV. During the latter part of March Mr. Kaplan informed me that:
 1. the White House would indeed meet with a delegation from our task force on Radiation and Human Rights
 - (a) There was one stipulation -
Mr. Kaplan stated he "was not authorized to meet with lawyers who had cases pending against the U.S. Government"
- V. I am respectfully recommending the following:
 - (a) lawyers on both sides (the Task Force, White House and Department of Justice) meet separately;
 - (b) task force select (8) to (10) members to include non-lawyers on the executive committee and board members of the task force to meet with members of the white house delegation - non lawyers.

(c) Task force delation, white house delegation, accompanied by two task force lawyers and two white house lawyers meet.

VI. A meeting with the White House and Administration officials should not be delayed based upon contrived legal restraints. People should in our democracy be able to dialogue, free of the adversary methodology. After all, the First Amendment guarantee of free speech and assembly did not mandate the presence of lawyers, as a prerequisite to the exercise of free speech.

cc: Phil Kaplan, White House

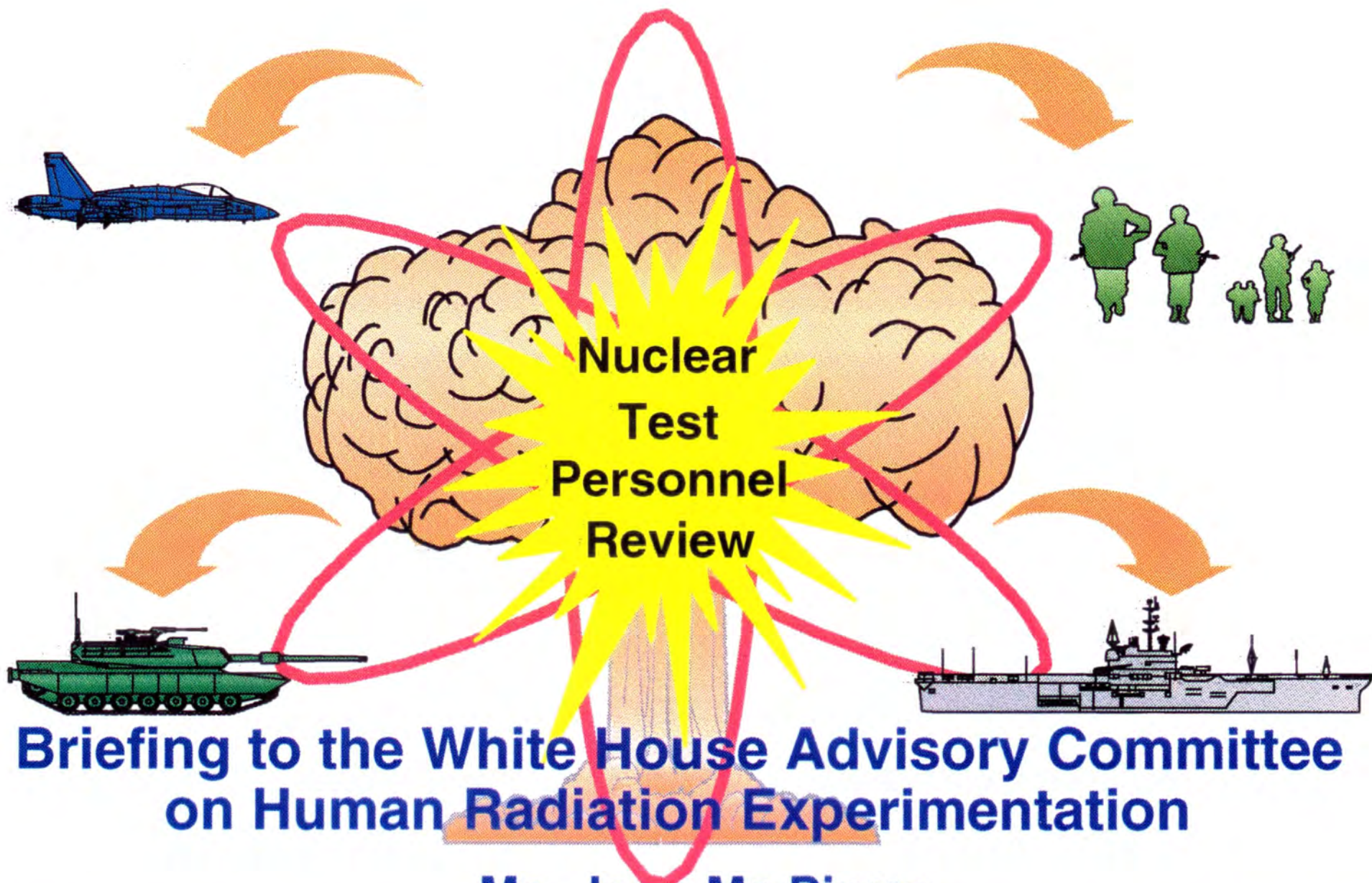


Defense Nuclear Agency
Washington, DC 20305-1000

JOAN MA PIERRE
Director For Radiation Sciences

(703) 325-7302

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Briefing to the White House Advisory Committee on Human Radiation Experimentation

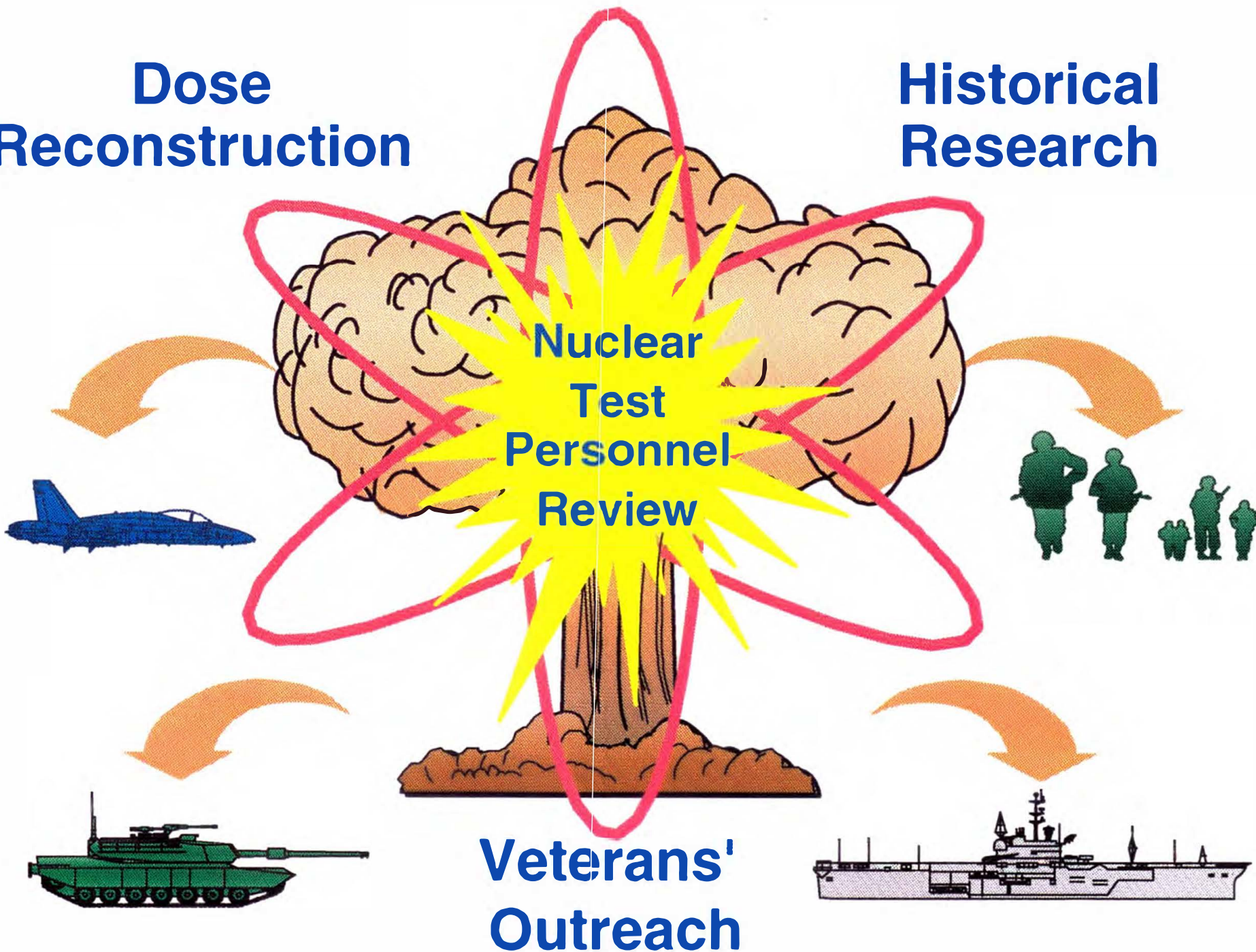
**Ms. Joan Ma Pierre
Director for Radiation Sciences, Defense Nuclear Agency
5 October 1994**

**Dose
Reconstruction**

**Historical
Research**

**Nuclear
Test
Personnel
Review**

**Veterans'
Outreach**



NUCLEAR TEST PERSONNEL REVIEW BACKGROUND

- CDC investigation - 1977
- White House initiates national program - 1978
- DNA assigned as Executive Agent - 1978 to present
- Service components up to 1987
- Consolidated program under DNA - 1987
- Compile historical/scientific information
 - Tests performed
 - Participants involved
 - Radiation exposures received
- Serve as information/data source
 - VA/DOJ claims
 - Veterans and families
 - Lawyers, courts, Congress
- DNA not responsible for medical or compensation decisions

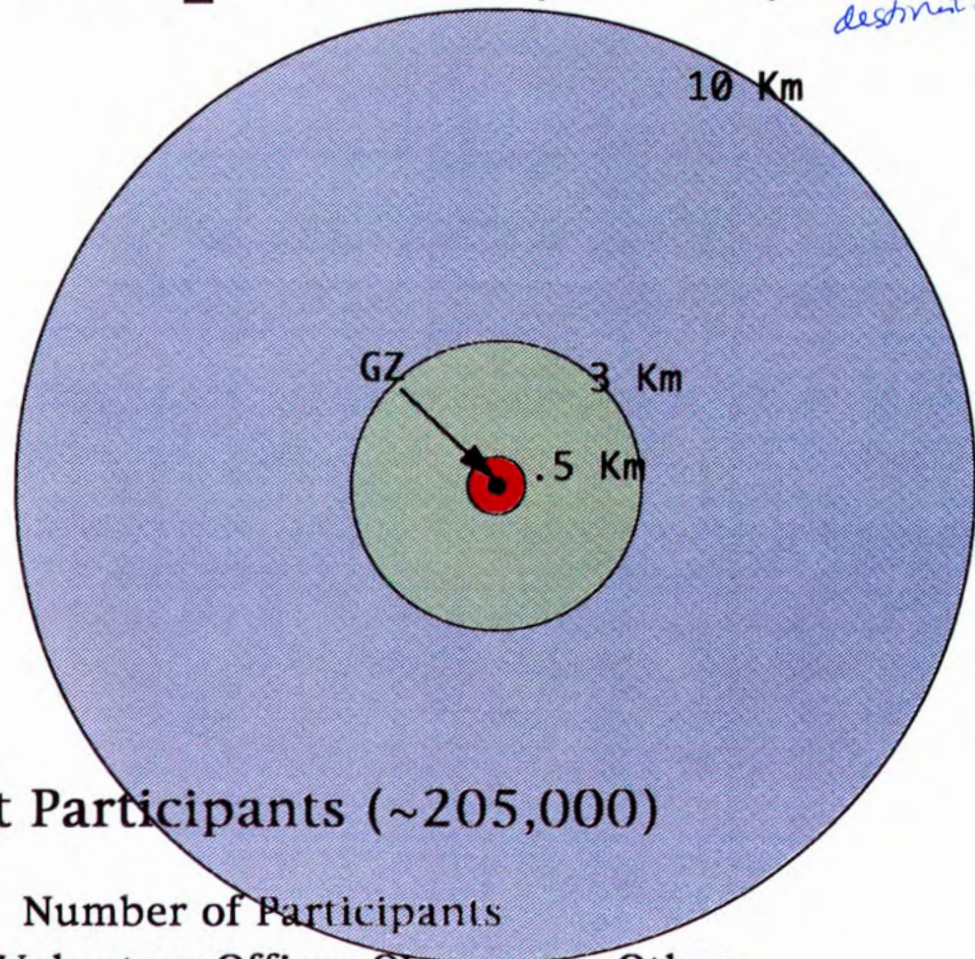
EXCLUSION OF NTPR FROM HRE

- **SECDEF memo of 07 Jan 94, Subj: DoD Human Radiation Research Review**
 - “Veterans who participated in atmospheric nuclear testing and the occupation of Hiroshima and Nagasaki are already included in the national Nuclear Test Personnel Review (NTPR) program and are not part of this effort.”
- **Points for Consideration:**
 - NTPR is established, mature program
 - NTPR population large & could overwhelm focus of HRE
 - NTPR focuses on veterans, not civilians
 - Veterans were engaged in military operations
 - Veterans represented by several advocacy groups

NTPR Participants (T=0) *time of destruction*



US Occupation of Japan
(~195,000 troops to Hiroshima & Nagasaki)



US Atmospheric Test Participants (~205,000)

Number of Participants			
Zone	Regular Observers	Volunteer Officer Observers	Other
	0	0	0
	0	0	0
	1,000	38	0
	56,000	6*	0
	1,000	0	147,000

* vertical distance from GZ

NTPR POPULATION

- Military/veteran participants (comprehensive):
 - approx. 205K U.S. atmospheric nuclear testing
 - approx. 195K Hiroshima/Nagasaki occupation forces
- Civilian population (incidentally collected):
 - DOD government workers (approx. 4K)
 - Downwinders (approx. 50K)
 - DOD/DOE contractors (approx. 2.6K)

Primarily a veteran population (over 95%)
Exposures connected with military operations

SPECIAL NTPR POPULATIONS

(Some overlap in populations)

- Volunteer Observer Program/"Close-In Observers" (44 people)
- Regular observers (approx. 58K people)
- Cloud samplers (approx. 200 people)
- >25 rem - Mar 79 (36 people)
- >5 rem - Sep 79 (approx. 1700 people)
- CROSSROADS (mortality study)
 - 1946 series with ship arrays
 - Largest/oldest population (approx. 45K)
- Five-Series (mortality study)
 - Cross-section of Pacific/CONUS tests (1951-57)
 - Population approx. 65K
- *Body fluid collection* (unknown number)*
- *Flashblindness observation* (approx. 100 people)*

**ACHRE interest*

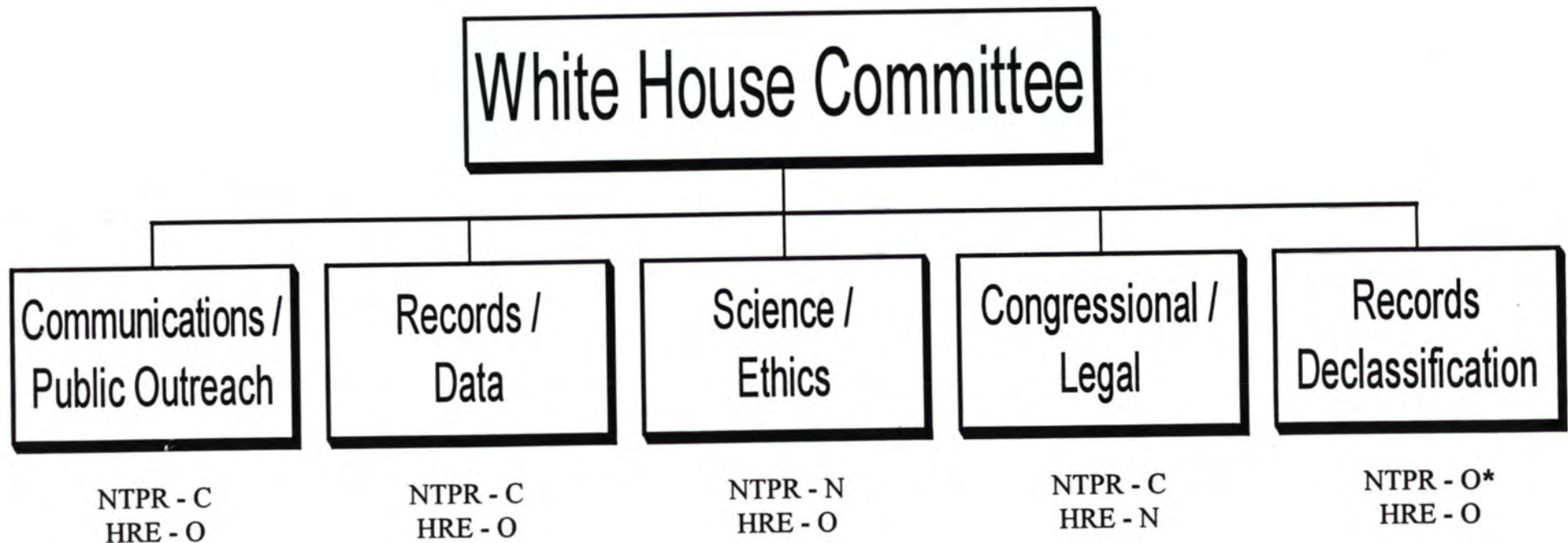
Atmospheric Test Series/Activities Matrix

Series/ Name/Date	Maneuver Troops	Officer Volunteer Observers	HumRRO	Flash Blindness	Decontamination	Cloud Sampling/ Tracking	Body Fluids (urine & blood)
TRINITY Jul 16-Aug 6, 1945							
CROSSROADS Jul 1-Aug 31, 1946					X	X	X
SANDSTONE Apr 15-May 20, 1948					X	X	
RANGER Jan 27-Feb 6, 1951					X	X	
GREENHOUSE Apr 8-Jun 20, 1951					X	X	
BUSTER-JANGLE Oct 22-Dec 20, 1951	X		X	X	X	X	
TUMBLER-SNAPPER Apr 1- Jun 20, 1952	X		X	X	X	X	
IVY Nov 1-Dec 31, 1952					X	X	
UPSHOT- KNOTHOLE Mar 17-Jun 20, 1953	X	X	X	X	X	X	
CASTLE Mar 1-May 31, 1954					X	X	X
TEAPOT Feb 18-Jun 10, 1955	X	X			X	X	X

Atmospheric Test Series/Activities Matrix

Series/ Name/Date	Maneuver Troops	Officer Volunteer Observers	HumRRO	Flash Blindness	Decontamination	Cloud Sampling/ Tracking	Body Fluids (urine & blood)
WIGWAM May 14-15, 1955					X		
REDWING May 5-Aug 6, 1956					X	X	X
PLUMBBOB May 28-Oct 22, 1957	X	X	X	X	X	X	
HARDTACK I Apr 28-Oct 31, 1957					X	X	
ARGUS Aug 27-Sep 10, 1958							
HARDTACK II Sep 19-Oct 31, 1958				X	X	X	
DOMINIC I Apr 23-Dec 31, 1962				X	X	X	
DOMINIC II Jul 6-Aug 15, 1962	X				X	X	

Parallels Between HRE and NTPR



C = Complete
O = Ongoing
N = New Start
* Nearly Complete

NTPR OUTREACH

- Congressional hearings/referrals
- GAO
- OTA
- Press/media (e.g., 20/20, 60 Minutes)
- NAS studies (CROSSROADS, Five-Series)
- Hotline service (800-462-3683)
- Public outreach initiatives
 - Veteran publications
 - Newspapers/magazines
 - Radio/TV

NTPR RECORDS

- Event histories - 41 volumes in public domain
 - 700 libraries nationwide
 - VA Regional Offices (approx. 170)
 - DOE Coordination and Information Center (DOE CIC), Las Vegas
 - DNA NTPR reading room
- Declassified source documents at DOE CIC
 - Sanitized versions available of still classified documents
- Rosters (names/addresses subject to Privacy Act)
 - Participation details
 - Doses

RECORDS AVAILABLE TO THE PUBLIC
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NTPR LEGISLATION

- PL 97-72 (Nov 1981): Veterans' Health Care, Training, and Small Business Loan Act of 1981
- PL98-542 (Oct 1984): Veterans' Dioxin and Radiation Exposure Compensation Standards Act
- PL 99-576 (Oct 1986): Veterans' Benefits Improvement and Health Care Authorization Act of 1986
- PL 100-321 (May 1988): Radiation-Exposed Veterans Compensation Act of 1988
- PL 100-687 (Nov 1988): Veterans' Judicial Review Act of 1988
- PL 101-426 (Oct 1990): Radiation Exposure Compensation Act
- PL 101-510 (Nov 1990): 1991 DOD Authorization Act
- PL 102-86 (Aug 1991): Veterans' Benefits Program Improvement Act of 1991
- PL 102-578 (Oct 1992): Veterans' Radiation Exposure Amendments of 1992

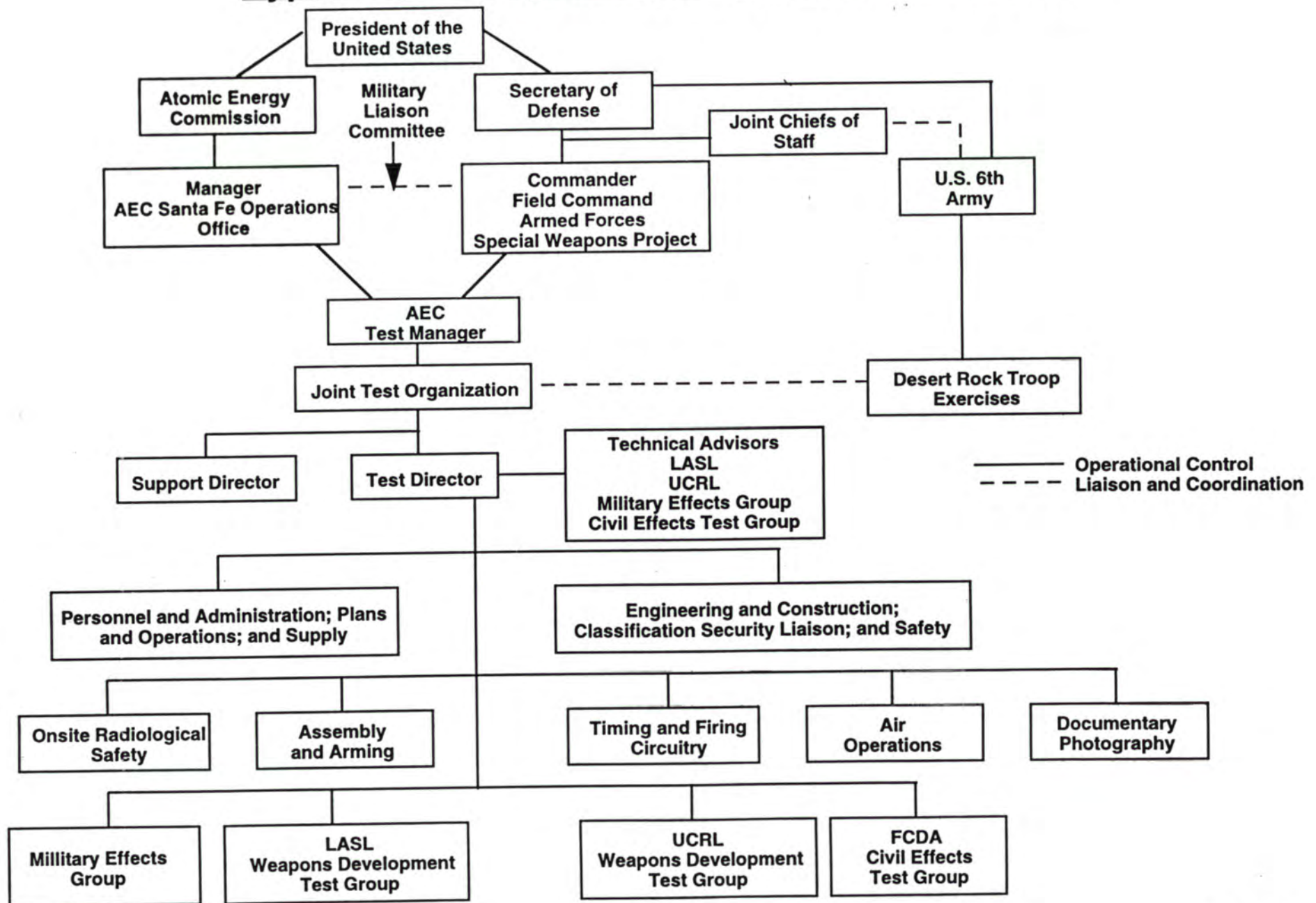
RADIOLOGICAL SAFETY CONSIDERATIONS

- Possible hazards from radiation exposure of concern to test planners
- Knowledgeable medical experts served in organizations reporting to test directors
- Radiation protection measures implemented included:
 - Determination of safe distances before personnel placements
 - Radiological monitoring and control of entry to contaminated areas
 - Use of protective clothing/masks, as indicated
 - Establishment of check points to control spread of contamination
 - Use of film badges to measure doses
 - Urine and blood sample analysis primarily at CROSSROADS
- Retrospective dose assessments today:
 - Film badge records
 - Dose reconstructions
 - Internal dose calculations

Medico-Legal Board (CROSSROADS)

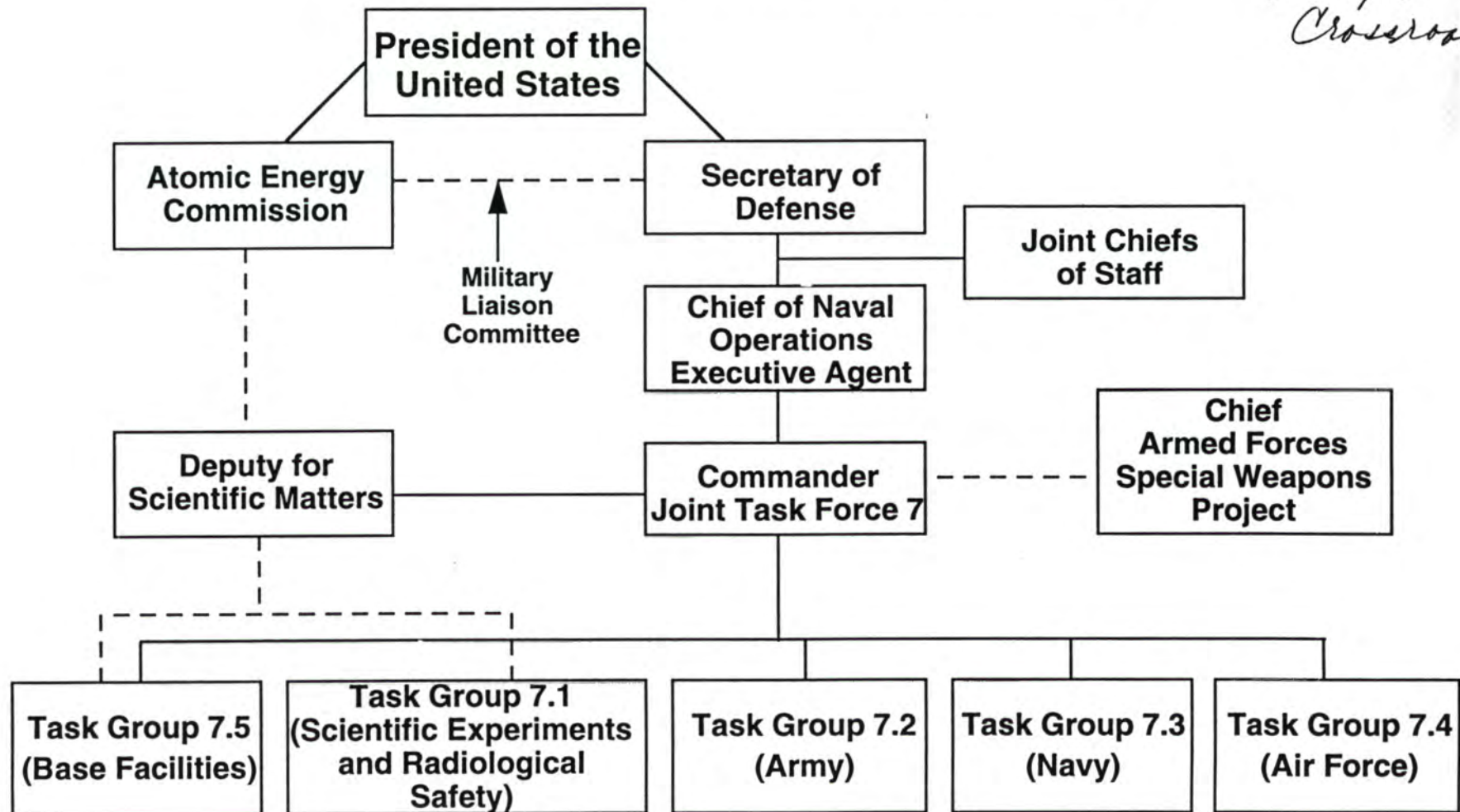
- Initially known as The Committee For Review of Radiological Safety Measures. (14 members; most were M.D.s)
- First met on 15 June 1946; subsequently as deemed necessary.
- Evaluated radiological safety regulations and measures.
- Conducted investigations into safety-related matters.
- Considered the following topics (14 meetings).
 - Plutonium hazard
 - Permissible beta exposure limits
 - Airborne fission products
 - Personnel decontamination
 - Control of overexposures
 - Blood and urine bioassay
 - Monitoring procedures
 - Removal of equipment from contaminated target ships

Typical Test Organization at Nevada Test Site



Typical Joint Task Force Organization **For Pacific Nuclear Test Series** **(Often Called Joint Task Force Seven)**

*Post
Dunity &
Crossroads*



————— Operational Control
 - - - - - Liaison and Coordination

ETHICS/CONSENT

- Volunteer Observer Program
 - Computed own placement distances
 - Signed consent form
- Radiological Safety Program
 - Application of then-known radiobiological effects to setting of exposure limits
 - Monitoring of personnel and on-site environments with film badges and instruments
 - Medical follow-up of high exposure cases
 - Body fluid analyses - situational
- Other activities
 - Pre-deployment training and indoctrination
 - On-site Desert Rock briefings
 - Biomedical board implementing improved protective measures

**PRELIMINARY ASSESSMENT
RADSAFE/BIOMEDICAL ROLES AND INTERESTS**

Operation/Dates	RadSafe Board Roles/Interests	Biomedical Board Roles/Interests
TRINITY Jul 16-Aug 6, 1945	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
CROSSROADS Jul 1-Aug 31, 1946	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
SANDSTONE Apr 15-May 20, 1948	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	Policy Memo - discusses sampling procedures and radiation exposure to pilots.
RANGER Jan 27-Feb 6, 1951	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	

**PRELIMINARY ASSESSMENT
RADSAFE/BIOMEDICAL ROLES AND INTERESTS**

Operation/Dates	RadSafe Board Roles/Interests	Biomedical Board Roles/Interests
GREENHOUSE Apr 8-Jun 20, 1951	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring Scientific Directors Report of Atomic Weapons Tests at Eniwetak 1951 Annex 9.3 Radiological Safety p. 24 Scientific Directors Report of Atomic Weapons Tests at Eniwetak 1951 Annex 6.9 protective clothing and clothing and personal decon. Comments by T. N. White on Report by the Commander, JTF 3 on Completion of Operation GREENHOUSE	Urine samples taken from individuals present in Shot DOG fallout area Testing protective clothing on live subjects. Testing decontamination techniques on live subjects "Report favors liberally dosing military personnel..."
BUSTER-JANGLE Oct 22-Dec 20, 1951	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
TUMBLER-SNAPPER Apr 1- Jun 20, 1962	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
IVY Nov 1-Dec 31, 1952	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	(History JTF 132) Radiological Safety Issues at IVY including safety measures for sampler pilots.

**PRELIMINARY ASSESSMENT
RADSAFE/BIOMEDICAL ROLES AND INTERESTS**

Operation/Dates	RadSafe Board Roles/Interests	Biomedical Board Roles/Interests
UPSHOT-KNOTHOLE Mar 17-Jun 20, 1953	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	● Concern with maximum dose allowance set by Div. of Biology and medicine ● Volunteer troops dug in at progressively closer distances to ground zero ● Psychological and knowledge concerns pertaining to effects of radiation - surveyed troops before and after instruction and safety guidelines given.
CASTLE Mar 1-May 31, 1954	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring Ltr from Thomas Shipman to William R. Kennedy dtd 4 Mar 54	"Interesting to see exposures of the Nam party."
TEAPOT Feb 18-Jun 10, 1955	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	(Memos) Discuss radiological safety for armored units.
WIGWAM May 14-15, 1955	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
REDWING May 5-Aug 6, 1956	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	(WT-1344) Project 4.1 (requirements for protection against chorioretinal burns - results used in development of eye-protective devices)
PLUMBBOB May 28-Oct 22, 1957	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	(7-25-57) Discusses film badge procedures for sampler pilots.

**PRELIMINARY ASSESSMENT
RADSAFE/BIOMEDICAL ROLES AND INTERESTS**

Operation/Dates	RadSafe Board Roles/Interests	Biomedical Board Roles/Interests
HARDTACK I Apr 28-Oct 31, 1957	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	(Memos) Discuss TG 7.4 radiation doses for sampler pilots.
ARGUS Aug 27-Sep 10, 1958	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
HARDTACK II Sep 19-Oct 31, 1958	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
DOMINIC I Apr 25-Dec 31, 1962	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	
DOMINIC II Jul 6-Aug 15, 1962	Responsible for Personnel Safety: - personnel dosimetry - use of protective equipment - monitoring	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Hearings Before the Subcommittee on Health and the Environment of the Committee on Interstate and Foreign Commerce, House of Representatives 95th Congress, 2nd Session/Jan 24-26, Feb 8, 9, 14, & 28, 1978 Overview of the extent to which the general public is exposed to radiation, the effects of radiation on human health, and to determine whether existing law is adequate to protect the public	Dr. Karl Z. Morgan, Ph.D., Director, Health Physics Division, Oak Ridge National Lab under contract to AEC (Was not present at the NTS for Shot SMOKY. He had a team of personnel there at the site for the shot)	Dr. Morgan was questioned by committee members over his concerns about the health risks associated with Shot SMOKY and in what manner his team participated in the shot.	
Subcommittee on Environment, Energy, and Natural Resources of the House Committee on Government Operations/July 13, 1978		DoD research to identify participants in U.S. atmospheric nuclear weapons testing and possible exposures to ionizing radiation resulting from their participation.	
Subcommittee on Energy, Nuclear Proliferation and Federal Services of the Senate Committee on Governmental Affairs/May 8, 1979		Progress made by DNA and the Service teams to identify participants in U.S. atmospheric nuclear weapons testing and possible exposures to ionizing radiation resulting from their participation.	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Veterans' Claims for Disabilities from Nuclear Testing, Veterans Affairs - Senate/20 June 1979	Sen. Allan Cranston	Opening Statement - Addressed purpose of hearings - Veterans' claims for death or disability resulting from exposure to ionizing radiation.	
	Ronald G. Bakal Attorney for the Marshallees and Veterans	Recounted his experiences with the U.S. Government when representing clients exposed to ionizing radiation	
	VADM Robert R. Monroe, Director of DNA	Outlined DNA's efforts to identify participants	
	Al Poteet, Asst. Director, National Legislative Service, VFW	Prepared statement to the VA	
	Robert F. Gary, Esquire	Re: White House Memo initiating the Interagency Task Force on Ionizing Radiation	
	Operation PLUMBBOB - Project 2.9	"Nuclear radiation received by aircrews firing the MB-1 Rocket" - Basically technical summary of project	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Senate Committee on Labor and Human Resources/October 27, 1981		Discussion of proposed Bill S. 1483, which would make the U.S. liable in incidents related to fallout from U.S. atmospheric nuclear tests.	
Senate Committee on Veterans' Affairs/April 18, 1983		Status of the NTPR program and VA's adjudication process.	
Subcommittee on Oversight and Investigations of the House Committee on Veterans' Affairs/May 24, 1983		The NTPR program, Operation CROSSROADS, and the Stafford Warren papers.	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Oversight on Issues Pertaining to Veteran's Exposure to Ionizing Radiation Hearings Before the Committee on Veterans' Affairs United States Senate, 99th Congress 1st Session/Nov 14 & Dec 11, 1985	Oral: Don Ofte, Acting Asst. Sec for Defense Programs, DOE Written: Alvin M. Guttman, Legislative Counsel, NAAV Oral/Written: Dr. Dorothy Legarreta, Admin Director, NARS Written: Fred C. Thompson, CROSSROADS participant Oral: Felice Fond, Member, NARS Written: Felice Fond Written: Ltr from TRINITY Post Commander, Robert L. Campbell, VFW/AMVETs	Contractor Acceptance of responsibility inherent in weapons testing Overall views on atomic testing Testing of civilians without their knowledge Bio sketch Notes from his father Prepared Statement Problems with Operation GREENHOUSE	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Oversight on Issues Pertaining to Veteran's Exposure to Ionizing Radiation Hearings Before the Committee on Veterans' Affairs United States Senate, 99th Congress 1st Session/Nov 14 & Dec 11, 1985 (Cont'd)	Written: Statement Sen. Jeton Anjan, Rongelap Atoll Written: Arjun Makhinjani Written: LTG John L. Pickett, Director DNA Oral: Dr. David Bradley Oral: Fred C. Thompson Written: Arjun Makhijani, Irradiation of Personnel During Operation CROSSROADS Written: Robert L. Campbell, Post Commander, AMVETS Trinity Post 7-45	Impact of island fallout Experimental irradiation of USAF personnel during Operation REDWING Radiation measurement and the NTPR Geiger procedures at CROSSROADS Operation CROSSROADS participation Legal aspects of exposure to radiation Operation CROSSROADS	

CONGRESSIONAL TESTIMONY SUMMARY

Hearing Identifier Title/Committee/Date	Testimony Presented by Names/Titles	Topic(s) Addressed	
Oversight on Issues Pertaining to Veteran's Exposure to Ionizing Radiation Hearings Before the Committee on Veterans' Affairs United States Senate, 99th Congress 1st Session/Nov 14 & Dec 11, 1985 (Cont'd)	Written: Statement of the NARS, Dorothy Legarreta, Ph.D.	Analysis of radiation contamination.	
Hearing Before the Subcommittee on Oversight and Investigations of the Committee on Veterans Affairs House of Representatives, 98th Congress 1st Session/May 24, 1983	Antony Guarisco, National Association of Atomic Veterans National Research Coordinator John Smitherman, President, NAAV Sidney Cobb, Dr. - Center for Atomic Radiation Studies James M. Magill, Spec. Asst., National Legislative Service, VFW	Veterans at Operation CROSSROADS Prepared Statement Written testimony Written statement of VFW	
Hearing Before the Subcommittee on Compensation, Pension and Insurance of the Committee on Veterans' Affairs House of Representatives 102nd Congress, 1st Session/13 November 1991	Ms. Pat Broudy, Legislative Director, NARS	Re: Dr. Alice Stewart conducting study now on the Camp Hanford Veterans, the 20,000 that were at Camp Hanford in the 40's and 50's that were exposed deliberately to releases of plutonium and radioactive iodine.	

SUMMARY

- NTPR is mature program
- Exposures from events related to military duties
- Data collected:
 - Population defined
 - Records open to public
- Established advocacy groups (e.g.. NARS, NAAV, TP 7-45)
- Compensation legislation exists
- NTPR support to HRE (ethics issue)
 - Value added (to veterans)
 - Potential diversion of NTPR resources
 - Large NTPR population may detract from focus of HRE on civilian populations

From: Dan Guttman

September 29, 1994

To: Ms. O'Toole and Varney, and Messrs Caplan, Soper, Gaulson

Re: Information on Human Experimentation In Connection with Atomic Bomb Tests

For your information, I enclose:

1. Memos, recently provided by the Defense Nuclear Agency, which a) make clear that some biomedical human experimentation took place in connection with atomic bomb tests (see document with HRE-0421 in bottom right corner, at paragraphs "3" and "4"), and b) indicates recognition that the Secretary of Defense's 1953 Nuremberg Code memo, which was issued as top secret, applied to biomedical experiments conducted in connection with the tests (see page 3, attached to the document).
2. Two Staff memos (from the public briefing book of the September 12-13 meeting) which:
 - a) Lay out the biomedical planning which underlay human subject testing conducted in connection with bomb tests; (as the memo notes, important gaps remain in what we know);
 - b) Identifies ethical and policy questions presented by the facts, as we know them.

TAB F - PART I

◆◆◆DRAFT◆ FOR DISCUSSION PURPOSES ONLY◆◆◆

MEMORANDUM

TO: Members of the Advisory Committee on Human Radiation Experiments

FROM: Advisory Committee Staff

DATE: September 8, 1994

RE: Human Experimentation in Connection with Atomic Bomb Tests

Introduction

This memo summarizes documentation indicating that: (1) human experimentation was contemplated in biomedical planning in connection with atomic bomb tests; and (2) that what appears to be research involving human subjects was, in fact, carried out. This supplements earlier presentations to the Committee regarding the Joint Panel on the Medical Aspects of Atomic Warfare ("Joint Panel").

It should be emphasized at the outset that we are trying to reconstruct a story, some of whose key aspects have long been public. Most prominently, it has long been known, even advertised, that troop maneuvers were conducted close to ground zero. What appears to have been less well known (although even this remains to be seen) is the biomedical planning that preceded, and related to, this, and further, instances in which human subjects were used for data gathering.

At the June meeting, the Committee discussed a September 1951 Joint Panel draft document entitled "Biomedical Participation in Future Atomic Weapons Tests." The document identified general criteria for bomb test related "experiments" and identified 29 "specific problems" as "legitimate basis for biomedical participation." The presently available documentation, as discussed below, shows that at least 4 of the items listed in this draft planning document (i.e., vision testing, psychological observation of troops, testing of human body fluids for radioisotopes, and human fly-through of atomic clouds) appear to have been conducted. However, the relation between the Joint Panel's plans and these studies is still a puzzle.

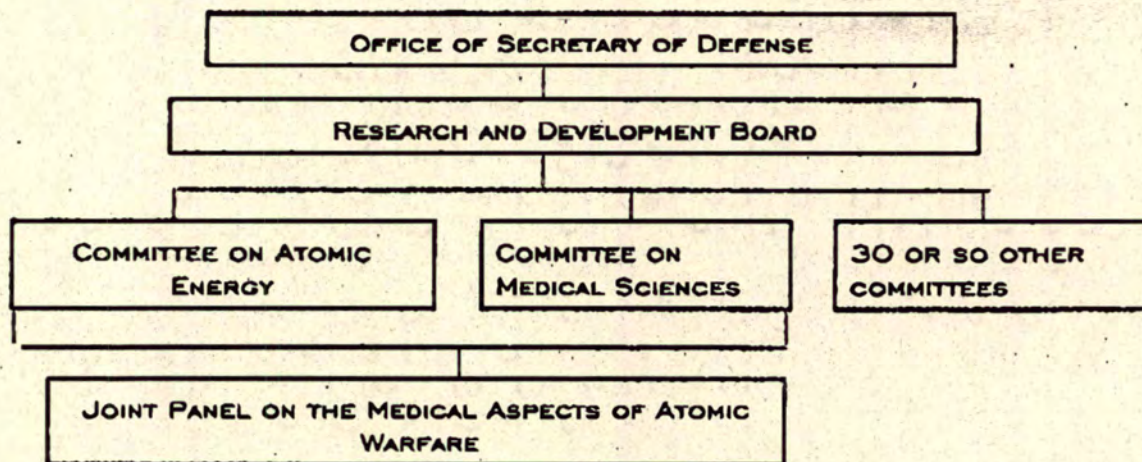
There is a further piece of the puzzle. The documentation received shows that 1951 biomedical planning was initiated by the Armed Forces Medical Policy Council, another group within the Office of the Secretary of Defense. At the same time, the Council was embarking on a

debate which led to the February, 1953 issuance by Secretary of Defense Wilson of the Nuremberg Code policy to govern "the issue of volunteers in research in defense against atomic, biological, and chemical warfare." We do not yet have documentation that shows whether and how these two discussions were connected at the time, or since.

I. The Biomedical Planning

In 1949, the Defense Department empaneled the "Joint Panel on the Medical Aspects of Atomic Warfare."¹ By charter, the Joint Panel was chaired by a civilian member, and was to include three civilian members and two members from each of the services. Joint Panel documents indicate that associate members included representatives of the National Institutes of Health and the Public Health Service. (The Chairman was associated with Harvard University and Massachusetts General Hospital).

The Joint Panel was created by the Committee on Medical Sciences and the Committee on Atomic Energy, which were Committees of the Research and Development Board. According to the initiating Directive, the Joint Panel was administered by the Committee on Medical Science. The reporting structure was:



A. 1951

At its September 1951 meeting, the Panel reported on a request from the Committee on Atomic Energy for (Attachment 1):

"a statement of the medical and biomedical information they consider

¹ Basic materials on the Joint Panel, including its mandate, appear in Tab O of Briefing Book 4. We have assembled the available Joint Panel materials (e.g., minutes, agenda, Program Guidance documents) in a single volume at the Advisory Committee office.

essential for the Department of Defense to obtain through participation in atomic weapons tests. . . ."

The agenda for the September meeting contained a draft document² entitled "Biomedical Participation in Future Atomic Weapons Tests." The draft discussed the basic criteria for experimentation (e.g., "[i]s the experiment itself worthwhile, and does it hold promise of producing significant results?"). The document identified 29 "specific problems for future tests." (Attachment 1, at 4-6.) The list was "designed to show the type of problem which should be considered as a legitimate basis for biomedical participation in future weapons tests."

The document stated a concern that even the use of "animals" in "experiments" must be limited.³ Nonetheless, the document identified at least four "specific problems" which (1) expressly or implicitly suggest the need for human subjects, and (2) bear, as discussed below, fair resemblance to activities that were, in fact, undertaken. These include:

- "11. Effects of exposure of the eye to the atomic flash;
 - (a) Changes in visual acuity;
 - (b) The after-image, description, and duration;
 - (c) Light blindness, description, and duration. . . .
- 24. Measurements of radioactive isotopes in the body fluids of atomic weapons test personnel. . . .
- 28. Psychophysiological changes after exposure to nuclear explosions.
- 29. Orientation flights in the vicinity of nuclear explosions for certain combat air crews."

The minutes of the September 1951 meeting record that it was decided to authorize the Chairman to appoint a working group, with responsibility for initiating and reviewing proposals for biomedical participation.

² The agenda noted that while civilians were polled in the creation of the draft, "very few civilians responded." The draft was therefore "offered not as a proposed statement, to be accepted after only minor revisions, but as a general guide to the type of paper which is expected of the Joint Panel."

³ The document stated, at 3: "it seem unwise to argue that since much remains to be learned there must be animal exposures at every test. Rather, it seems that actual animal exposures should be limited as much as possible and more accurate physical measurements be made. . . ."

The minutes further record that the Joint Panel prepared a Program Guidance Report (identified as "BAW 107/2, Log No. 405-51"). (The "Program Guidance Reports" were evidently prepared periodically to outline research goals, activities and recommendations.)

The Program Guidance Report for the September 1951 meeting (Attachment 2) included a section entitled "Biomedical Participation in Future Atomic Weapons Tests." The "Conclusions and Recommendations" of that section stated, in full (page 20, emphasis added):

- 4.1 "To complete present program and plan for participation in future tests in light of results from Operation GREENHOUSE [a prior test]. These plans should include studies on the effect of atomic weapons detonations on a troop unit operating in normal tactical support."

The "Psychological Studies" section included the following "Recommendations" (Attachment 2, at 14):

- "4.1.3 Continue studies in psychology of panic.
- 4.1.4 Seek technics [sic] for reducing apprehension and for producing psychologic resistance to fear and panic, especially in presence of radiation hazard (emotional 'vaccination').
- 4.1.5 Spread knowledge of radiation tolerance, technics [sic] of avoidance, and possibility of therapy through military and civilian populations and measure their acceptance.
- 4.1.6 Prepare to make psychologic observations at and after bomb tests. . . ."

The Program Guidance Report singled out a number of items for emphasis. The most critical included the initiation of "[t]roop indoctrination at atomic detonations" and "psychological observations on troops at atom bomb tests." (Id., at 23.)

B. 1952

In a January 9, 1952 memo to the Chief of Army Field Services, the Executive Officer for the Army Surgeon General addressed the topic of "Psychiatric Research in Connection with

⁴ Among "[f]actors interfering with the program," the section notes:

"3.6.1 Poor repute of psychological research and general lack of confidence in emotional engineering. . . ."

Atomic Weapons Tests Involving Troop Participation" (Attachment 3):

- "1. For your information in connection with planning for future exercises and operations in which atomic weapons tests will be used and troops will participate, this office has a continuing interest in the conduct of psychiatric observations regarding the effects of the weapons on the participating troops.
2. Funds for the conduct of psychiatric observations which may be approved for future atomic weapons tests will be made available through the Surgeon General."

The memo bears concurrences from the "Medical Research and Development Board," "Medical Plans and Operations," "Fiscal Division," and "Chief, Psychiatry and Neurology Consultants Division."

In February 1952, the Joint Panel's "Working Group on Biomedical Participation" (created at the September, 1951 meeting) held its first meeting, in connection with the Joint Panel's Ninth meeting of the Panel at Oak Ridge (Attachment 4). The recommendations of the Working Group were approved at the Joint Panel's Ninth Meeting. The recommendations do not appear to include any express "human subject" research. Indeed, the references to living subjects routinely refer to "animals," not humans.⁵

The Joint Panel's Tenth meeting was in September, 1952, at Los Alamos. The minutes record that the Panel "[n]oted the proposed projects of the [bomb test] biomedical program" (Attachment 5). The agenda references the minutes of the February Ad Hoc Group; further documentation is not yet available.

The minutes of the Tenth meeting, however, contain several further items that appear to

⁵ For example:

"PROBLEM # 5:	<u>Hazard from Flying through an Atomic Cloud</u>
OBJECTIVE:	To obtain definitive information on the hazard of the presence of radioactivity and/or thermal hazards within an atomic cloud.
PROCEDURE:	Animals will be exposed in drone aircraft passing through the atomic cloud at various times after detonation. Dosimetry and thermometry are procedures which will be included. Data obtained will aid in determining operational procedures related to the problem."

relate to bomb tests. (Attachment 5, Item 10).

The program on psychological research was referred to the Committee on Human Resources (evidently another committee of the Research and Development Board).

In doing so, the Joint Panel passed a Motion for transmittal to the Committee on Human Resources which reads, in part:

"It is possible that inclination to panic in the face of AW [atomic warfare] and RW [radiation warfare] may prove high. It seems advisable, therefore, to increase research efforts in the scientific study of panic and its results, and to seek means for prophylaxis. The panel is enthusiastic for the Disaster Studies project previously initiated. In addition to observations on spontaneous panic in man it would seem promising to seek out techniques for experimental production of panic in animals. . . .

The panel supports the point of view that troop participation in tests of atomic weapons is valuable. As many men as possible ought to be exposed to this experience under safe conditions. Psychological evaluation is difficult and results can be expected to appear superficially trivial, but the matter is of such extreme importance that the research should be persisted in, utilizing every opportunity."

In referring the psychological component to the Human Resources Committee, the Joint Panel stated that:

"the portion of the program guidance report dealing with psycho-physiological affects of radiation in mammals (and when possible man) be transferred to that section of the panel report entitled 'Biological Effects of Radiation.'"⁶

In addition, the Joint Panel recommended the fly through of an atomic cloud. When the recommendation was reported to the Committee on Medical Sciences in October 1952, the following explanation was provided by Colonel Wood, a Joint Panel member:

⁶ The "Conclusions and Recommendations" of the September, 1952 Program Guidance for "Biological Effects of Radiation" include (page 15):

"4.2 It is still necessary to initiate measurements of the effects of moderate doses of radiation in man.

4.3 Advantage should be taken of any opportunities for the study of the biological effects of radiation particularly in man."

"What they are really asking for is an Arctic trial of an atomic explosion with an operational flying into the cloud to study conditions in the cloud and to see whether such a procedure is safe."

The Tenth meeting is the last Joint Panel meeting for which the Committee presently possesses documentation. The minutes note a "Report on Human Experimentation," and briefly refer to a "Report of the AEC Biomedical Program for the Next Atomic Weapons Effects Test." In addition, the minutes indicate that the Joint Panel "[a]greed to table the resolution on the hazards of the atomic cloud." The minutes note that the next meeting was set for June 1953. No further documentation is presently available.

The Defense Department is searching for all documentation that may be relevant to the Joint Panel.

II. The Armed Forces Medical Policy Council

The Committee on Atomic Energy's request that initiated the Joint Panel's planning appears to have, in turn, been stimulated by a February 23, 1951 memo from the chairman of The Armed Forces Medical Policy Council to the chairman of the Research and Development Board (Attachment 6).

During the 1951-52 period, the Armed Forces Medical Policy Council was a group within the Office of the Secretary of Defense. The Secretary of Defense's 1953 Nuremberg Code Memorandum was, as the memorandum states, "issued at the recommendation of the Council." The February 23 memo noted with concern that there was no biomedical participation by DOD in prior and planned testing.

The memo concluded that biomedical participation was critical in future atomic tests:

⁷ The 1975 Army Inspector General Report on "The Use of Volunteers in Chemical Research" summarizes (at 33):

"The matter of the use of human volunteers was under deliberate consideration by the Armed Forces Medical Policy Council during the first two years of the 1950s. In the fall of 1952, following extensive study, the Council reported to the Secretary of Defense that researchers had reached the point beyond which essential data could not be obtained unless human volunteers were utilized. Thus, they recommended that the Secretary of Defense establish a policy that would authorize the use of humans in medical research. They further recommended that the Nuremberg Code of 1947 be cited as the principal guidance to the services."

"information is necessary in order that we can adequately inform military field commanders of probable biomedical consequences of exposure of their personnel to one effects of such weapons."

III. Bomb Test Activities

At least four of the "specific problems" identified in the September, 1951 Joint Panel draft document ("Biomedical Test Participation") bear a strong relation to data gathering on human subjects that did take place in connection with bomb tests. In some cases it has long been publicly known that these activities took place; indeed, as noted below, they are among the events chronicled in publicly available Defense Department "NTPR" bomb test histories.⁸ The full extent of these activities, however, may remain to be made public.

A. Vision Testing

As quoted above, the September 1951 Joint Panel Draft contemplated the possibility of vision tests in connection with bombs.

A recently declassified Defense Nuclear Agency (DNA) history for 1951 records (page 3, 924):

"At the request of Lt. Colonel Hartgering, a conference on flash blindness was held in March. . . . It was decided at the conference that research on flash blindness would be initiated in the immediate future and would be incorporated into future weapon tests."

The DOD history of the 1951 "Operation Buster Jangle" records that the biomedical program included "flash blindness", testing of 17 volunteers who "orbited in a C-54 aircraft about 15 kilometers from ground zero, at an altitude of 15,000 feet." (Additional materials, also apparently connected to the series, recently declassified by DNA refer to "[h]uman volunteers. . . dark-adapted in a light-tight trailer approximately 10 miles from the detonation.") (Attachment D).

The Joint Panel agenda for a September 1952 meeting records that Lt. Colonel Hartgering reported on the biomedical program at the next atomic weapon test." The February 1952

⁸ The reference is to the "Bluebook" volumes which were prepared in connection with the "Nuclear Test Personnel Review," (NTPR) and are available in many public libraries. The NTPR is an ongoing activity through which DOD has collected a database of personnel who participated in tests, promoted dose reconstructions, and prepared test histories.

recommendations for the test, which, as discussed above, the Joint Panel appeared to approve in the September meeting, did not identify any vision experiments. The declassified report of the 1952-53 "Upshot-Knothole" tests, however, identifies as a component of the Biomedical program (Attachment 8).

"Subjecting 12 human volunteers and 700 rabbits to the initial light flash from six atomic detonations to investigate its effect on the visual function of the human eyes and to determine the burn injury processes in the dark adapted rabbit eye."

B. Measurement of Radioactive Isotopes in Human Body Fluid

As quoted above, the September, 1951 draft contemplated the measurement of body fluids in test personnel.⁹

Attachment 9 is a 1955 report on "The Recovery of Radioactive Iodine and Strontium from Human Urine--Operation Teapot." The report was prepared by the Walter Reed Army Institute of Research, under contract to the Armed Forces Special Weapons Project (a predecessor to the Defense Nuclear Agency). The study was designed to provide base line information for the spring 1956 tests in the Pacific in which the yields are expected to be considerably greater." (*Id.*, at 1.) The "collection process included selection of ten individuals" from males at military installations throughout the world, including Camp Mercury (associated with the Nevada Test Site). The DOD history ("NTPR Bluebook") states that no biomedical program was conducted in connection with TEAPOT.

The Walter Reed report refers to three earlier-classified reports on "experience at weapons tests with urinary excretion of fission materials by human subjects." In addition, a recently declassified DNA history indicates that Walter Reed Army Institute of Research performed "a study of iodine-131 concentration in the urine of humans during Operation REDWING" (a test series that followed TEAPOT).¹⁰

C. Psychological Testing and Troop Maneuvers

Troop maneuvers and related psychological testing in connection with bomb tests has long been a matter of public record. In 1951-53 a series of troop maneuvers was held at "Desert

⁹ This memo does not address the question of the relation between body fluid testing for "experimental" purposes and testing for health and safety purposes. See the accompanying memo on ethical questions posed by the documentation.

¹⁰ The Walter Reed work was the subject of 1959 Congressional Testimony. See "Fallout From Nuclear Tests," hearings before the Joint Committee on Atomic Energy, at pages 1314-1319.

Rock" in Nevada.

In connection with these tests the DOD employed two research organizations, HUMRRO and ORO.¹¹ A number of their reports have long been matters of public record (e.g., "Gain in Information in the Desert Rock-Abomb Maneuvers," HUMRRO, March, 1954).

The DOD "NTPR" history of the 1951 Operation "Buster Jangle" ("Shot DOG") records:

"An additional study associated with the troop maneuver was performed by the Human Resources Research Office (HUMRRO), a civilian agency under contract to the Department of the Army. At Shot Dog, HUMRRO investigated the psychological reactions of the maneuver troops. The agency was particularly interested in troop behavior during the maneuver and the changes in troop attitudes about nuclear weapons before and after participation in the activity. In addition, the agency assessed factors governing the amount of information on nuclear testing communicated to other troops by participants returning to their bases. The data collected by HUMRRO assisted the Army in determining the probable behavior of troops involved in nuclear warfare."

The DOD history of the 1952-53 Upshot-Knothole tests discusses both psychological observations of troops and a special volunteer program. Officer volunteers were asked to take positions quite close to ground zero. Attachment 10 is an example of consent forms, a report prepared by one volunteer, and excerpts from the NTPR history.

D. Atomic Cloud Fly Throughs

A previously classified Air Force history chronicles the "Cloud Sampling" program (Excerpts at Attachment 11).¹²

The history reports that "Operation Crossroads [the 1946-47 first postwar atomic tests] saw the beginning of Air Force atomic cloud sampling with drones because of the unknown dangers." (*Id.*, at 4) During the early tests drones continued to be employed.

¹¹ The Human Resources Research Organization (HUMRRO) was affiliated with George Washington University. The Operations Research Organization (ORO) was affiliated with Johns Hopkins University.

¹² "History of Air Force Cloud Sampling," AFSC Historical Publication Series 61-142-1, January, 1963.

The history records that an accidental fly-through of a cloud in 1948 led to the development of the manned cloud sampling program:

"The mission was about three hours old when the plane approached the radioactive cloud. . .the WB-29 inadvertently penetrated a small 'finger' projection of the cloud. 'No one keeled over dead and no one got sick,' Colonel Fackler commented. 'In fact, there seemed to be no undue alarm among the crew members.'" (Attachment 11, at 23).

"Following the mission [the pilot] discussed the experiment with Colonel Cody, assistant rad-safe officer for the operation. This incident, plus the film-badge experiments he had conducted, gave Colonel Cody the idea that manned sampler aircraft, operating several hours after a nuclear detonation, might possibly obtain samples much more efficiently than measures used heretofore." (Attachment 11, at 23).

"Aircraft sampling of atomic clouds became one of the great flying adventures of all time," the Air Force history begins. (Attachment 11, at i.)

The public NTPR bluebooks, as well as the Air Force history, show a continuing program involving air and ground crews.

The exercises included the measurement of radiation effects on humans, as well as in clouds (and in and on the planes). A recently declassified report on Operation PLUMBBOB, a 1957 Nevada test series, begins (Attachment 12, at 14):

"1.1 Objective

The objective of this project was to measure the radiation dose, both from neutrons and gamma rays, received by an air crew delivering an MB-1 rocket.

1.2 Background and Theory

"Whenever a new weapon becomes available for operational use, its characteristics must be known and available to potential users. Before committing the MB-1 to use, an operational commander must have information on the radiation to be received by the delivery air crew, as well as the blast effect on the delivery aircraft. The Joint Chiefs of Staff approved the conduct of a test as part of Operation

PLUMBBOB in order to obtain the necessary experimental measurements."

Ground, as well as air crews, were involved: (Attachment 13, Excerpted from the DOD NTPR Bluebook on TEAPOT):

"Another technique was to have the project personnel rub the base of their hands over the surface of an aircraft with known contamination. An autoradiography of the hand was then made by placing the hand on a large x-ray film packet for a period of time and then developing the film to observe the image created. In this way, changes in the contamination patterns of aircraft and relative amounts of contamination transferred to the hand could be measured. While conducting these studies, none of the survey team exceeded the AFSWC maximum permissible exposures of 3.9 roentgens for ground personnel."

While it appears that personnel were volunteers, the precise method and protocol for the election of pilots and crews is not presently clear. In a section on "Training for Sampler Pilots," the Air Force history records (Attachment 11, at page 66, citing 1952 memos):

"The Strategic Air Command pilots picked to fly the F-84G sampler aircraft were pleased to learn that they were doing something useful, . . . not serving as guinea pigs as they seriously believed when first called upon to do the sampling."

Manned sampling was, at least on occasion, publicly advertised. The swallowing of film badges (on a string) was the subject of particular interest: (Attachment 11, at 128):

". . . [T]he film badge experiments fascinated reporters. The Las Vegas Review Journal headlined a long story about the project: 'Gulp Film Badges to Check Radiation.' The newspaper reported that Captain Charles S. Oldfield, Development Directorate, and Colonel Pinson swallowed some film badges and attached others to their clothing while flying through a nuclear cloud."

The Air Force history identifies over 200 Air Force "sampling personnel." Other agencies and people, particularly from the AEC's Los Alamos operations, played a key role as well.

IV. Questions

The available documentation raises many questions about the basic facts of the story. For example:

1. Where did the planning engaged in by the Joint Panel fit into the planning done by others, both inside and outside the Defense Department? Was the Joint Panel an initiator of ideas, an echo of plans being made by others, or a check for plans being proposed elsewhere? Or some of each, as might be expected from such a panel?
2. Would access to the complete documentation surrounding the Panel (including Committee on Medical Sciences material) reveal a discussion of the bounds of human experimentation in bomb tests? Would it reveal any discussion of the relation between planned or actual experiments and the Nuremberg code policy set forth by the Secretary of Defense in February, 1953?
3. What was the relation between the Panel and the implementation of activities discussed in Panel meetings? To what extent were the activities preceded by the preparation of data gathering for protocols and succeeded by the preparation of reports? Can these be retrieved?
4. What was the relation between bio-medical offices (e.g., the Army Surgeon General) and biomedical test activities?
5. When DOD was reorganized in 1953, who inherited the planning work of the Joint Panel?
6. What was the relation between DOD biomedical test planners, and the biomedical planners in other agencies?¹³ Who was responsible for setting basic safety

¹³ Participation in planning for the biomedical components of tests extended beyond DOD.

In an Atomic Energy Commission April, 1949 letter to Advisory Committee official Dr. Alan Gregg, AEC Chairman Lilienthal wrote:

"Dr. Shields Warren and his staff in the Division of Biology and Medicine are presently engaged in drawing up plans for the biological and medical activities in future tests. A representative of the Los Alamos Scientific Laboratory is participating. . . discussions have been held by the Los Alamos "J" Division with representatives of the Armed Forces. . . ."

A "Biomedical Test Planning and Screening Committee" began to meet in January 1952. AEC

standards? Who could grant waivers? Who was responsible for approving any experiments? Who had to be informed?

7. What was the full range of human testing engaged in under the "Biomedical Program" component of bomb tests? What was the full range of human testing engaged in outside of the "Biomedical Programs" component? For example, the Operation TEAPOT "Bluebooks" record that there was no biomedical program in connection with TEAPOT. Where did the urine sampling program, as discussed above, fall?
8. Where experimentation was conducted, what procedures were employed for evaluating risks and benefits? For selecting subjects? Disclosing information to them? Gaining their consent?
9. Was there an understood distinction between the collection of data to monitor safety, and the collection of data for research purposes? Were efforts made to assure that health and safety interests were not compromised by assigning responsibility to organizations with potentially conflicting roles?

documentation indicates the Committee included representatives of the Public Health Service and the Department of Agriculture, as well as AEC affiliated entities. See "Monthly Status and Progress Report for the Division of Biology and Medicine for the month of January, 1952."