EXHIBIT 13

DRAFT
Findi

GAO DRAFT REPORT--DATED NOVEMBER 13, 1992
(GAO CODE 393487) OSD CASE 9262

"HUMAN EXPERIMENTATION: INFORMATION FROM DOD CAN HELP VA ASSESS VETERANS' DISABILITY CLAIMS"

FINDINGS AND RECOMMENDATION TO BE ADDRESSED IN THE DOD RESPONSE TO THE GAO DRAFT REPORT

* * * * *

FINDINGS

FINDING A: Military Medical, Chemical and Biological Research. The GAO observed that, since at least World War I, the military has conducted medical, chemical, and biological research using military personnel who have volunteered. The GAO noted that military procedures have long required that the volunteers be fully informed of the nature of studies in which they participate and the foreseeable risks. The GAO pointed out, however, that prior to 1975, those procedures were not always followed.

The GAO noted congressional hearings (conducted in 1975 and 1991) disclosed that (1) participants were not always informed about the nature of the experiments, (2) some medical records were not adequately documented, and (3) the volunteers were not medically followed after the tests. The GAO also reported that the congressional hearings further disclosed some veterans were having trouble obtaining compensation for injuries alleged to have occurred as a result of the testing.

The GAO reported that, on March 20, 1991, the Department of Veterans Affairs issued guidance on evaluating claims for compensation from veterans who participated in early military research. The GAO noted that the guidance was more detailed for the Navy because, at the time, the Department of Veterans' Affairs knew very little about the testing activities of the Army. The GAO observed that, prior to March 1991, the Department of Veterans' Affairs did not track claims from veterans who alleged participation in secret military tests because it ordinarily tracked claims by type of disability--not how the disability was incurred. The GAO reported that, as a result of the congressional hearings, the Department of Veterans' Affairs began tracking the claims in March 1991. The GAO noted, however, that the processing of mustard gas exposure claims

NOV 19 1992

EXHIBIT
737
LVF 01-13-12

was stopped in February 1992, pending development of a new regulation.

The observed that. on July 31, 1992, the Department of Veterans' Affairs issued a new regulation acknowledging that veterans exposed to mustard agent during secret tests faced a potentially insurmountable disadvantage when attempting to establish entitlement to compensation. The GAO noted that the new regulation recognized eight ailments known to be caused by exposure to mustard agent. The GAO noted that the Department of Veterans' Affairs currently is evaluating all pending claims and previously denied claims involving exposure to mustard agent. (pp. 2-5/ GAO Draft Report)

- FINDING B: Navy and Army Mustard Agent Tests. The GAO reported that, at the beginning of World War II, the Navy initiated the secret testing of protective clothing and antivesicant--blister--ointments. The GAO found that the Navy did not maintain records for all personnel involved in the testing. The GAO reported that the Army World War II mustard agent test program similarly tested protective clothing, equipment, and antivesicant ointments. In addition, the GAO noted that the Army developed and tested offensive chemical weapons in different environments. The GAO observed the Army records of mustard agent test activities were not accumulated in a manner that readily identified soldiers who participated--or the types of tests used in World War II test activities. (pp. 5-7/GAO Draft Report)

- FINDING C: The Army Incapacitating Agent Tests in the Cold War Era. The GAO reported that, in 1952, the Army Chemical Corps began a classified medical research program for developing incapacitating agents--nerve agents and antidotes, psychochemicals, irritants, and vesicant agents. The GAO learned that the program continued until 1975. The GAO stated that, in total, Army documents identified 7,250 Army and Air Force personnel who participated in the tests. The GAO found that the Army has the names and service numbers of all test participants, and listings of the chemicals to which the servicemen were exposed. (p. 7/GAO Draft Report)

- FINDING D: Claims Made Under the Old Criterion Were Often Disallowed. The GAO learned that, in evaluating mustard gas claims made before July 1992, adjudicators at the

NOV 19 1992

Veterans' Affairs Regional Offices relied primarily on an analysis prepared by the Veterans' Affairs Office of Environmental Medicine. The GAO reported that the adjudicators looked for evidence of treatment for a mustard gas-related injury during the veterans active duty, evidence of a chronic disability shown on the veteran's military separation physical, or a history of treatment of a disability known to be caused by exposure to mustard gas. The GAO indicated that entitlement to benefits usually was not granted unless the veteran could show some post-service treatment.

The GAO reported that few veterans exposed to mustard agent testing were able to meet the Veterans Affairs criteria to prove chronic disabling injury. The GAO observed that the service medical records often contained no evidence of an acute mustard agent injury at the time of exposure or of a chronic health problem at the time of separation from the service. In addition, the GAO noted that few veterans were able to show any post-service treatment for the claimed conditions that would allow the Department of Veterans' Affairs to conclude that the conditions were caused by exposure to mustard agent. The GAO stated that, for most of the veterans, the first evidence of the injury appeared at an age when the same ailments are showing up in the general population. (p. 1, pp. 8-10/GAO Draft Report)

- FINDING E: Revised Veterans Affairs Criterion Is Less Demanding But Proving Participation Will Be Difficult. The GAO stated that the new Department of Veterans' Affairs regulation substantially liberalizes the policy that veterans prove their disabilities had their onset in service. The GAO reported that the new regulation will make it easier for full-body participants to receive benefits and it will likely place more emphasis on the ability of the veteran to prove participation in testing as a criterion for receiving benefits. The GAO concluded, however, that proving participation in secret testing will likely pose a significant problem for most veterans because the documentation listing test participants is sketchy or non-existent. The GAO reported that, according to Department of Veterans' Affairs officials, without names of test participants, the adjudicators will have to rely on other evidence--such as matching a veteran's description of the test experience with military descriptions of the testing program. (pp. 10-11/GAO Draft Report)

NOV 19 1992

- FINDING F: Veterans Affairs Asked the National Academy of Sciences To Address Other Eligibility Issues. The GAO observed that veterans who participated in tests in which mustard gas was applied to their forearms were generally not awarded benefits. The GAO reported that, according to Veterans' Affairs officials, the participants in arm tests are not usually awarded benefits because a search of medical literature did not disclose any long-term chronic effects stemming from arm exposure. The GAO noted, however, that the Department of Veterans' Affairs has commissioned the National Academy of Sciences to review world medical and scientific literature to ensure that all possibilities concerning long-term residuals have been considered. The GAO concluded that, should the study identify additional adverse effects, it would substantially increase the number of veterans that might apply for disability benefits. The GAO point out that, since World War II, hundreds of thousands of soldiers have been exposed to small amounts of mustard agent.

  The GAO stated that the National Academy of Science study is also expected to address problems the Department of Veterans' Affairs has faced in determining which disabilities are cause by mustard gas exposure. The GAO noted that the current list of disabilities related to mustard gas aliments is based on a Department of Veterans' Affairs review of the literature dealing with the effects of exposure to mustard gas. The GAO reported that the National Academy of Sciences will review world medical and scientific literature to determine whether the list of conditions requires amending. (pp. 11-12/GAO Draft Report)

- FINDING G: Claims From Army Incapacitating Agent Test Veterans Are Pending. The GAO found only five claims from veterans who participated in the Army incapacitating agent tests. The GAO noted that the claims were still pending as of October 1992. The GAO reported that the claims adjudicators at each of the offices visited were knowledgeable of the procedures for developing claims from participants in the Army incapacitating agent experiments. The GAO noted that the Army had provided the veterans with sufficient data to develop their claims. The GAO stated that the fact so few claims were found from participants in the Army incapacitating agent testing may be attributable to the group having been extensively followed. The GAO indicated that, as a result of Army and National Academy of Sciences follow up on incapacitating agent test participants, many of the veterans may have already filed claims. (pp. 12-13/GAO Draft Report)

NOV 19 1992

- **FINDING G: Information Gaps Limit Veterans Affairs Outreach Efforts.** The GAO reported that, to date, the Department of Veterans' Affairs has conducted only one outreach effort to contact veterans who participated in secret chemical biological experiments. The GAO found that the initiative was hampered because the names of only a few of the test subjects are known. The GAO noted that the Department of Veterans' Affairs has yet to direct any outreach efforts towards the Army and Air Force veterans who participated in the Army incapacitating agent experiments. The GAO observed that the absence of names of test participants has precluded any significant effort by the Department of Veterans' Affairs to contact the individuals. (pp. 13-14/GAO Draft Report).

* * * * *

RECOMMENDATION

- **RECOMMENDATION:** The GAO recommended that the Secretary of Defense direct the Secretaries of the Army and Navy to aggregate and provide information to the Department of Veterans' Affairs on the World War II mustard gas testing activities. The GAO indicated that the information should include the following:

  - location of tests;
  - dates of the tests;
  - units involved;
  - types of exposures experienced by volunteers, and ;
  - names of participants to the extent they are available. (p. 14/GAO Draft Report)

NOV 19 1992

DRAFT Comments to GAO

GAO DRAFT REPORT--DATED NOVEMBER 13, 1992
(GAO CODE 393487) OSD CASE 9262

"HUMAN EXPERIMENTATION: INFORMATION FROM DOD CAN HELP VA ASSESS VETERANS' DISABILITY CLAIMS"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

- **RECOMMENDATION:** The GAO recommended that the Secretary of Defense direct the Secretaries of the Army and Navy to aggregate and provide information to the Department of Veterans' Affairs on the World War II mustard gas testing activities. The GAO indicated that the information should include the following:

  - location of tests;
  - dates of the tests;
  - units involved;
  - types of exposures experienced by volunteers; and
  - names of participants to the extent they are available. (p. 14/GAO Draft Report)

  DOD RESPONSE: Concur. The Department agrees to provide the recommended information to the extent it is available in current documents. The Department does not, however, have the resources to determine the identification of the participants beyond what is in the documentation. In addition, the Department will provide Service points of contact to assist the Department of Veterans' Affairs in determining the validity of disability claims associated with the tests. The Service points of contact will be identified in the third quarter of FY 1993.

Enclosure

DRAFT

JOBNAME: NAP-Vet #2737 PAGE: 1 SESS: 3 OUTPUT: Sat Nov 28 11:23:07 1992
/bs3/304/team5/vet/2737/exec

Veterans at Risk NAS Report 6 JA

Executive Summary pg 1-7

Summary Findings + Recommendations p

BACKGROUND

World War II (WWII) has been called "the unfought chemical war." Both sides had produced millions of tons of chemical weapons and had made massive preparations for their use, yet the weapons were never used. These preparations included the establishment of secret research programs to develop better weapons and better methods of protecting against these weapons. In the United States, some of this research was focused on the development of protective clothing and skin ointments, which could prevent or lessen the severe blistering effects of mustard agents (sulfur and nitrogen mustard) and Lewisite (an arsenic-containing agent).

By the time the war ended, over 60,000 U.S. servicemen had been used as human subjects in this chemical defense research program. At least 4,000 of these subjects had participated in tests conducted with high concentrations of mustard agents or Lewisite in gas chambers or in field exercises over contaminated ground areas. The human subjects had experienced a wide range of exposures to mustard agents or Lewisite, from mild (a drop of agent on the arm in "patch" tests) to quite severe (repeated gas chamber trials, sometimes without protective clothing). All of the men in the chamber and field tests, and some of the men in the patch tests, were told at the time that they should never reveal the nature of the experiments. Almost to a man, they kept this secret for the next 40 or more years.

Public attention was drawn to these experiments when some of the WWII human subjects began to seek compensation from the Depart-

JOBNAME: NAP-Vet #2737 PAGE: 2 SESS: 3 OUTPUT: Sat Nov 28 11:23:07 1992
/bs3/304/team5/vet/2737/exec

ment of Veterans Affairs (VA) for health problems that they believed were caused by their exposures to mustard agents or Lewisite. Two factors complicated resolution of these cases. First, there were often no records or documentation available of an individual's participation in the testing programs. Second, there was a great deal of uncertainty about which health problems were in fact the result of mustard agent or Lewisite exposure.

In June 1991 the VA announced guidelines for the handling of these cases. These guidelines included the loosening of normal requirements for documenting the individual's participation in the experiments and the identification of seven diseases that the VA would consider to be caused by mustard agents or Lewisite. These seven are asthma, chronic bronchitis, emphysema, chronic laryngitis, corneal opacities, chronic conjunctivitis, and keratitis (of the eye). In addition, the VA requested that the Institute of Medicine convene a committee to survey the scientific and medical literature in order to assess the strength of association between exposure to these agents and the development of specific diseases. The committee was also charged with identifying the gaps in the literature and making recommendations relevant to closing those gaps. This report details the committee's findings and recommendations.

Between October 1991 and August 1992, almost 2,000 scientific papers, technical reports, and other documents were reviewed by the committee. The experimental protocols used in the WWII testing programs were examined to assess the potential dose levels experienced by the experimental subjects. In addition, the committee consulted with a variety of outside experts and sought information from the affected veterans themselves, through a public hearing process that resulted in written or oral statements from over 260 veterans regarding their exposures to these agents and subsequent health problems.

The committee found large gaps in the literature pertaining to the long-term health effects of exposure to mustard agents and Lewisite. For many diseases, very little or no work had been done in the eight decades following the first use of sulfur mustard in World War I. Almost all of the work in the United States had been conducted or funded by chemical defense sections of the military and was concerned only with the acute effects of these agents and not with their long-term effects. As a result, the committee depended heavily on occupational studies of chemical weapons production workers in other countries, on what could be found on battlefield casualties, and on what was known about the effects of nitrogen mustard derivatives that have been used since WWII as cancer chemotherapy agents. In addition, the committee carefully considered the basic scientific data available regarding the biological mechanisms of tissue damage from mustard agents and Lewisite.

Chemical Warfare Service during the peak years of production. Many other servicemen were trained to handle the gases or were assigned to jobs that put them in contact with mustard agents or Lewisite. A German bombing attack on the harbor of Bari, Italy, released sulfur mustard from a damaged American ship into the water and atmosphere, resulting in thousands of injuries and hundreds of deaths. Yet no follow-up studies were done with any of these groups; the committee had to rely instead on occupational studies from Japan and Great Britain for data on World War II production workers and their long-term health problems.

SPECIFIC FINDINGS

The following is a summary of the major conclusions reached by the committee regarding the association of exposure to mustard agents or Lewisite and the development of specific diseases in different organ systems. Much more is known about mustard agents than is known about Lewisite. Thus, the following summary pertains to mustard agents, except when Lewisite is indicated.

The findings generally fall into one of three categories. In some cases, the data examined were found to indicate a *causal* relationship between exposure and a particular disease. For a few diseases, the data were *suggestive* but not completely clear. Finally, there were many diseases for which very little or no data existed regarding the possible contributions of exposure to mustard agents or Lewisite. This means that many diseases in this category may (or may not) be caused by mustard agents or Lewisite, but no study has been done. It is important to emphasize that *no condition evaluated could be removed from consideration as a health consequence of exposure to these agents*. Thus, for many diseases there remains significant doubt.

The evidence found indicated a causal relationship between exposure and the following health conditions:

- Respiratory cancers
  - —Nasopharyngeal
  - —Laryngeal
  - —Lung
- Skin cancer
- Pigmentation abnormalities of the skin
- Chronic skin ulceration and scar formation
- Leukemia (typically acute nonlymphocytic type, nitrogen mustard)
- Chronic respiratory diseases (also Lewisite)
  - —Asthma

JOBNAME: NAP-Vet #2737 PAGE: 5 SESS: 3 OUTPUT: Sat Nov 28 11:23:07 1992
/bs3/304/team5/vet/2737/exec

—Chronic bronchitis
—Emphysema
—Chronic obstructive pulmonary disease
—Chronic laryngitis

- Recurrent corneal ulcerative disease (Includes corneal opacities; acute severe injuries to eye from Lewisite will also persist.)
- Delayed recurrent keratitis of the eye
- Chronic conjunctivitis
- Bone marrow depression and (resulting) immunosuppression (An acute effect that may result in greater susceptibility to serious infections with secondary permanent damage to vital organ systems.)
- Psychological disorders
  —Mood disorders
  —Anxiety disorders (including post-traumatic stress disorder)
  —Other traumatic stress disorder responses (These may result from traumatic or stressful features of the exposure experience, not a toxic effect of the agents themselves.)
- Sexual dysfunction (Scrotal and penile scarring may prevent or inhibit normal sexual performance or activity.)

The evidence found suggested a causal relationship between exposure and the following health conditions:

- Leukemia (acute nonlymphocytic type, sulfur mustard)
- Reproductive dysfunction (genotoxicity, mutagenicity, etc.; mustard agents)

There was insufficient evidence found to demonstrate a causal relationship between exposure and the following health conditions:

- Gastrointestinal diseases
- Hematologic diseases
- Neurological diseases
- Reproductive dysfunction (Lewisite)
- Cardiovascular diseases (Except for those that may result from serious infections shortly following exposure—heart disease resulting from rheumatic fever, for example.)

RECOMMENDATIONS

There are large gaps in all areas of the knowledge base about the long-term health risks associated with exposure to mustard agents and Lewisite. For example, very little is known about the long-term effects on specific organ systems from studies in animals. The data from human studies lack precise information about the exposure levels in occupational settings. After consideration of these gaps in light of the commit-

tee's findings regarding the probable long-term health effects of exposure to these agents, as well as the likely exposure levels to the human subjects involved, the committee formulated the following recommendations.

> **The committee recommends that the Department of Veterans Affairs (VA) institute a program to identify each human subject in the WWII testing programs (chamber and field tests, and to the degree possible, patch tests), so that these individuals can be notified of their exposures and the likely health risks associated with those exposures. Further, all subjects so identified, if still living, should be medically evaluated and followed by the VA as to their health status in the future. These individuals should also, if they request it, be treated by the VA for any exposure-related health problems discovered. Morbidity and mortality studies should be performed by the VA, comparing chamber, field, and patch test cohorts to appropriate control groups, in order to resolve some of the remaining questions about the health risks associated with exposure to these agents.**

The only way to answer some of the key remaining questions is to establish a base of knowledge based on human exposures. There is precedent in the later identification and follow-up of veterans exposed to chemicals, including hallucinogenic drugs, in other military testing programs.

The committee is well aware that a half century has now passed and that many of those who might have benefited from a broader understanding of the toxicity and carcinogenicity of mustard agents and Lewisite are already dead. Nevertheless, their surviving family members deserve to know about the testing programs, the exposures, and the potential results of those exposures. For those veterans still living, diseases such as skin and lung cancer may still appear, and full knowledge of their likely cause might well save their lives.

In the case of the human subjects of the WWII testing programs, it is reasonable to assume that secrecy, uncertainty, and fear may have resulted in adverse psychological effects for the veterans and their families.

> **The committee recommends that careful attention be paid by health care providers to the special problems and concerns of the affected veterans and their families. This attention may include the convening of a special task force of experts in stress disorders and risk perception to aid the VA, further than this**

committee is able, in the establishment of comprehensive guidelines for handling of these cases.

These recommendations are not meant to ignore the fact that thousands, probably tens of thousands, of other military and civilian personnel were exposed to mustard agents and Lewisite in occupational and training settings, and in combat in the Bari harbor disaster. Some of these exposures will have resulted in one or more of the exposure-related health problems identified in this report; and, in fact, some military personnel who served in the Chemical Warfare Service have qualified for service-connected disability as a result of such exposures. However, many more military personnel were exposed to significant levels of mustard agents or Lewisite than is obvious from service records.

The committee additionally recommends that the Department of Defense (DoD) should use all means at its disposal, including public channels, to identify former chemical warfare production workers (military or civilian) and individuals exposed to mustard agents or Lewisite from gas handling, training, the Bari harbor disaster, or other circumstances. Records of former military personnel could be turned over to the VA for notification, inclusion in morbidity and mortality studies, and health status evaluation. Records of the civilian personnel should be used by the DoD to advise former workers as to their health risks and options for seeking appropriate compensation for any illnesses that resulted from their exposures.

This committee discovered that an atmosphere of secrecy still exists to some extent regarding the WWII testing programs. Although many documents pertaining to the WWII testing programs were declassified shortly after the war ended, others were not. Of those declassified, many remained "restricted" to the present day and, therefore, not released to the public. As a result, the committee often had great difficulty obtaining information. For example, only one of the three major chamber test locations, the Naval Research Laboratory, freely shared technical reports and detailed summaries with the committee from the beginning of the study. For other locations, such information arrived only as the study was in its final stages, despite months of requests and inquiries to a variety of offices. The committee is certain that other relevant information exists that was never obtained. It is also clear that there may be many exposed veterans and workers who took an oath of secrecy during WWII and remain true to that oath even today. Even as this report was going to press, veterans were still contacting the committee for information, having just heard about the study and

thinking it might now be permissible to reveal their experiences. This continuing secrecy, in the committee's view, has impeded well-informed health care for thousands of people.

The committee recommends that the VA and DoD publicly announce and widely advertise that personnel exposed to mustard agents or Lewisite during their service are released from any oath of secrecy taken at the time. In addition, professional educational materials should be prepared by the VA or DoD, or both, and made available for physicians who may be treating affected individuals. These materials should incorporate the latest information regarding the long-term health effects of exposure to mustard agents and Lewisite.

There is no doubt that the long-term health consequences of exposure to mustard agents or Lewisite can be serious and, in some cases, devastating. This report has demonstrated that complete knowledge of these long-term consequences has been and still is sorely lacking, resulting in great costs to some of those exposed in WWII. The lack of knowledge, however, has ongoing ramifications as nations will probably continue to use these chemical weapons in battle or begin to grapple with their disposal. Thus, accidental and deliberate human exposures to mustard agents and Lewisite can only be expected to continue in the foreseeable future.

JOBNAME: NAP-Vet #2737 PAGE: 1 SESS: 9 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

Veterans at Risk: The Health Effects of Mustard Gas and Lewisite
6 Jan 92

12

Summary of Findings and Recommendations

GENERAL CONCLUSIONS

In the course of this study the committee reviewed almost 2,000 papers, monographs, abstracts, and technical summaries in search of information regarding the long-term health effects of exposure to mustard agents and Lewisite. The committee found a "stunted" body of literature, clearly focused on the acute effects of these agents and the prevention or treatment of these effects. Certainly, protection of lives in combat situations is an important and necessary effort. Yet the narrow focus of the literature presented a major barrier to this committee, concerned as it was with surveying the scientific and medical literature to assess the health risks incurred by anyone exposed to these agents, but especially the human subjects in the World War II (WWII) testing programs. Thus, **the lack of follow-up health assessments of the human subjects in WWII gas chamber and field tests severely diminished the amount and quality of information that could be applied in the assessment of long-term health consequences of exposure to mustard agents and Lewisite.**

The lack of follow-up of these subjects particularly dismayed the committee for a number of reasons. For example, the end point of the chamber and field tests was tissue injury, but it was already known by 1933 that certain long-term health problems resulted from sulfur mustard exposure. Further, it was documented that numerous subjects suffered severe injuries that required up to a month of treatment. Finally, the exposure levels were sufficiently high that even the most efficient gas mask could have leaked enough mustard agent or Lewisite to cause inhalation and eye injuries.

8

JOBNAME: NAP~Vet #2737 PAGE: 2 SESS: 7 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

There was, in fact, no long-term follow-up of any of the thousands of individuals exposed to these agents during WWII as evidenced by the accompanying **lack of epidemiological studies of chemical warfare production workers, war gas handlers and trainers, and combat casualties of the Bari harbor bombing.** The committee was particularly dismayed at this lack of epidemiological and follow-up data from the United States, despite the availability of a large cohort of civilian workers and military personnel who were involved in chemical warfare production and training, as well as the individuals who served as human subjects in chemical warfare testing programs. The committee was forced to rely on studies done in Japan and Great Britain to assess what was known about the long-term health risks from occupational exposure to mustard agents and Lewisite. As demonstrated in Chapters 3 and 7, such occupational data are directly relevant to the assessment of the potential effects of mustard agent and Lewisite exposure in the experimental testing programs, because **the levels of exposure to mustard agents or Lewisite experienced by the human subjects may have been much higher than inferred in the summaries of the gas chamber and field tests.**

These exposures were likely as high as those estimated for battlefield and occupational exposures, due to cumulative skin exposure compounded by inhalation exposure. Numerous lines of evidence demonstrate that inhalation exposures did indeed occur (see Chapter 3 and 7). First, modern gas masks have efficiency ratings (or PF) between 50 and 100 (a PF of 100 means that 1 percent of the contaminant in the atmosphere will penetrate a mask's filter canister); however, the efficiency achieved in actual use has been demonstrated to be much lower. Even if a much higher PF of 1,000 is assumed for the gas masks used in the WWII testing programs, penetration of sufficient amounts of the agents to cause respiratory and ocular signs and symptoms would have been expected at many of the concentrations used in the experiments. Second, there is documentation in the actual records of these experiments, as well as official histories of production settings, that respiratory and ocular symptoms and injuries did occur, and that problems were encountered with gas masks leaking after repeated use. Third, the specific diaphragm type of gas mask used in the gas chamber tests was eventually shown to be leaky due to penetration of the diaphragm element, independent of the filter canister employed.

The reasons for the lack of follow-up of human subjects and combat casualties, as well as gas production, handling, and training personnel, can only be surmised, but the climate of secrecy within which the WWII chemical warfare production and testing programs were conducted is probably a key factor.

9

CONCLUSIONS REGARDING THE CAUSAL RELATIONSHIPS OF EXPOSURE TO THE DEVELOPMENT OF SPECIFIC DISEASES

The major conclusions reached by the committee regarding the association of exposure to mustard agents or Lewisite to specific diseases in different organ systems are summarized in Table 12–1. In some cases, the data examined were found to indicate a causal relationship between exposure and a particular disease or health problem. For other health problems, the data were suggestive, but not completely clear. Finally, there were certain health problems for which very little or no data existed regarding the possible contributions of exposure to mustard agents or Lewisite. By the same token, however, there was no condition evaluated that could be removed from consideration as a health consequence of exposure to these agents. Thus, for many diseases and health problems, there remains significant doubt about whether or not exposure to these agents is a key etiological factor.

The evidence indicates a causal relation between sulfur mustard exposure and the occurrence of excess respiratory and skin cancer, and possibly leukemia. This conclusion is based upon estimates of exposure to sulfur mustard during the chamber tests, which may have approximated the battlefield exposure of surviving World War I (WWI) soldiers and WWII production workers in Japan and Great Britain. Inadequate exposure information, however, limits precise estimation of the cancer excesses that may be expected. The evidence is insufficient to indicate a causal relationship for Lewisite carcinogenesis.

Mustard agents are DNA-alkylating agents and are extremely cytotoxic at low doses. DNA alkylation is probably responsible for the mutagenicity of mustard agents. These agents also alkylate RNA and proteins and can, at moderate to high doses, produce nonrepairable DNA lesions (genotoxicity). The sulfur mustards induce a wide variety of genetic lesions in many types of mammalian cells *in vitro* in a dose-related fashion. They also induce genetic damage *in vivo* in peripheral blood lymphocytes from exposed individuals at low doses. The toxicology of Lewisite has been poorly studied.

Chamber exposure to sulfur mustard has produced skin malignancies in rats, and intravenous injection has produced a significant increase in pulmonary tumors in highly susceptible strain A mice. Subcutaneous injection of sulfur mustard has been shown to cause sarcomas and other tumors at the injection site in C3H, C3Hf, and strain A mice, but did not produce an increase of tumors at other sites.

Nitrogen mustard, particularly HN2, has been more widely tested than sulfur mustard and has been found to be a carcinogen, producing

JOBNAME: NAP-Vet #2737 PAGE: 4 SESS: 8 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

TABLE 12-1 Summary of Findings Regarding Specific Health Problems

Evidence Indicates Causal Relationship to Mustard Agent Exposure[a]
Respiratory cancers
nasopharyngeal
laryngeal
lung
Skin cancer
Pigmentation abnormalities of the skin
Chronic skin ulceration and scar formation
Leukemia (typically acute nonlymphocytic type, nitrogen mustard only)
Chronic respiratory diseases (also Lewisite)
asthma
chronic bronchitis
emphysema
chronic obstructive pulmonary disease
laryngitis
Recurrent corneal ulcerative disease[b]
Delayed recurrent keratitis of the eye
Chronic conjunctivitis
Bone marrow depression and immunosuppression[c]
Psychological disorders[d]
mood disorders
anxiety disorders (including post-traumatic stress disorder)
other traumatic stress disorder responses
Sexual dysfunction[e]
Evidence Suggestive of Causal Relationship to Mustard Agent Exposure
Leukemia (sulfur mustard)
Reproductive dysfunction (genotoxicity, mutagenicity, etc.)
Insufficient Evidence of Causal Relationship to Mustard Agent Exposure
Gastrointestinal diseases
Hematologic diseases
Neurological diseases
Reproductive dysfunction (Lewisite)
Cardiovascular disease[f]

[a]Includes Lewisite only when indicated.

[b]Includes corneal opacities; acute severe injuries to eye from Lewisite will persist.

[c]An acute effect that may result in greater susceptibility to serious infections with secondary permanent damage to vital organ systems.

[d]These may result from traumatic or stressful features of the exposure experience, not a toxic effect of the agents themselves.

[e]Scrotal and penile scarring may prevent or inhibit normal sexual performance or activity. Decreased sexual function may adversely affect reproductive success.

[f]Except when caused by serious infection (e.g., rheumatic fever) closely following an exposure that produced bone marrow depression and immunosuppression.

pulmonary tumors from both intravenous and intraperitoneal injections in strain A mice. Subcutaneous exposures produced injection site tumors and pulmonary tumors in selected strains of mice. The carcino-

genic potency of nitrogen mustard appears to be similar to sulfur mustard. In addition, nitrogen mustard has been shown to be one of the most potent carcinogens amongst the alkylating agents tested in the strain A bioassay program of the National Cancer Institute.

Studies of these agents in humans have involved occupational, battlefield, and therapeutic exposures. Occupational exposure to sulfur mustard has been associated with respiratory tract cancer. The data from battlefield exposures, however, have been somewhat more equivocal: an excess of lung cancer was observed, but the excess was not statistically significant. Follow-up of cancer patients treated with nitrogen mustard derivatives has clearly indicated a causal association with skin cancer and leukemia, particularly the acute nonlymphocytic type. Although an excess of skin cancer or leukemia was not evident in the occupational or battlefield studies, the discrepancy may result from differences in amount of exposure; the leukemias or skin cancer may have occurred prior to the start of observation of the occupational and battlefield cohorts; or nonfatal cases of skin cancer may not have been detected in mortality studies. It is also possible that skin cancers did not occur in the studied populations, or that there was a difference in effects between sulfur and nitrogen mustards. Although nitrogen mustard-associated leukemia and skin cancer occur usually within a decade of therapeutic exposure, the occurrence of an excess of such cases among the WWII human subjects, Bari casualties, or workers would not be surprising.

The evidence indicates a causal relation between exposure to sufficient concentrations of sulfur mustard (and presumably nitrogen mustard and Lewisite) and chronic nonreversible respiratory effects in humans.

Follow-up of WWI battlefield casualties has demonstrated the association between exposure to sulfur mustard and development of chronic bronchitis, emphysema, and asthma. Chronic respiratory effects have also been shown in workers from WWII chemical weapons factories and casualties of the Iran-Iraq war. These results are well supported by studies in laboratory animals. Given the concentrations of mustard agents and Lewisite used in the WWII experiments, prior research predicts the development of chronic nonreversible lung diseases. Further, indirect evidence, based on a review of the relationships between acute and chronic effects caused by other substances, suggests that these long-term respiratory effects may occur in the absence of an acute respiratory response.

The evidence indicates a causal relation between exposure to sulfur mustard and recurrent corneal ulcerative disease (including corneal opacities), delayed recurrent keratitis, and chronic

JOBNAME: NAP-Vet #2737 PAGE: 6 SESS: 7 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

intractable conjunctivitis. Evidence in laboratory animals indicates no causal relation between exposure to Lewisite and any long-term ocular disease process. However, any corneal scarring or vascularization that occurs soon after injury from Lewisite will persist.

There is an extensive base of knowledge from studies in laboratory animals and humans regarding the long-term effects of mustard agents on the eye. Thus, acute, severe injury of the eye with sulfur mustard, resulting in corneal scarring among other effects, can result in recurrent corneal ulcerative disease. The maximum incidence of this disease occurs 15 to 20 years after the injury. Acute severe injury from sulfur mustard has also been shown to result in the development of delayed recurrent keratitis and corneal opacities. The conjunctiva of the eye has been shown to be more vulnerable than the cornea to sulfur mustard exposure, explaining the development of intractable, prolonged conjunctivitis even in the absence of severe injury to the cornea.

The evidence indicates a causal relation between acute, severe exposure to mustard agents and increased skin pigmentation and depigmentation, chronic skin ulceration, scar formation, and the development of cancer in human skin. A causal relationship also exists between chronic exposure to minimally toxic, and even subtoxic, doses and skin pigmentation abnormalities and cutaneous cancer. There is insufficient evidence, however, to establish a causal relationship between Lewisite exposure and long-term adverse effects on skin.

There has been much research on the toxic mechanisms of acute skin injury from mustard agents, especially in laboratory animals and tissue cultures. Injuries from mustard agents have been shown in these models to result in a complex cascade of biochemical reactions that cause cell death and genotoxicity. Studies of carcinogenesis were positive in laboratory animals, but these studies employed outdated methods and are relatively crude by today's standards. Studies in humans after battlefield or occupational exposure also vary tremendously in quality.

Nevertheless, skin cancers have been observed in many of these studies. That fact, coupled with documented and plausible biological mechanisms, indicates cancer as a likely consequence of acute, severe (or chronic, mild to moderate) mustard agent injury to the skin. Scar formation and chronic ulceration of the skin following mustard agent exposure have been well documented in the literature. Genital regions are especially sensitive to exposure, and scarring of the scrotum and penis can seriously impair sexual performance and capability. In those studies in which pigmentation abnormalities were reported, including recent observations in casualties of the Iran-Iraq war, the abnormalities

12

are completely consistent with known effects of skin damage. Despite data highly suggestive of a link between skin diseases and arsenic exposure, very little data exist that can be directly extrapolated to exposure to the organic arsenical Lewisite and its consequences in the skin.

The evidence indicates a causal relationship between exposure to mustard agents and bone marrow depression and immune system dysfunction. These acute effects would render individuals highly susceptible to infections, including pneumonia, rheumatic fever, and tuberculosis, which in severe cases may cause permanent damage to vital organs. There is insufficient evidence with which to draw conclusions regarding the effects of Lewisite on immune system function.

Animal studies clearly demonstrate a causal relationship between exposure to mustard agents and immunotoxicity. Evidence from observations in humans indicates a causal relationship between mustard agent exposure and acute bone marrow toxicity expressed as leukopenia, pancytopenia, and aplastic or hypoplastic bone marrow. However, underrepresented in human studies is information on chronic or delayed effects. The data examined, however, indicate that clinical studies as a whole support a close parallelism between animal experiments and observations in humans regarding the immunosuppressive properties of mustard agents.

There is insufficient evidence to demonstrate a causal relationship between exposure to mustard agents and the development of long-term gastrointestinal, hematologic, or neurological diseases or dysfunctions, other than those secondary to other conditions related to exposure to mustard agents. In addition, there is insufficient information to link Lewisite with long-term health effects on the hematological, gastrointestinal, and neurological systems.

Gastrointestinal, hematological, and neurological effects are common after acute high exposures to mustard agents and can be attributed primarily to the known toxicological effects of these agents and secondarily to effects on other organ systems (e.g., from shock or burns). However, effects on these organ systems have not been a focus of any follow-up studies of humans exposed to mustard agents or Lewisite.

There is insufficient evidence to demonstrate a causal relationship between exposure to mustard agents or Lewisite and toxicity to the reproductive system.

The database is too small and uncertain to allow a clear understanding of human reproductive risk from exposure to sulfur mustards.

JOBNAME: NAP-Vet #2737 PAGE: 8 SESS: 9 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

However, there is evidence to suggest a causal relationship between sulfur mustard exposure and reproductive toxicity in laboratory animals. Reproductive success, however, can be adversely affected by impaired sexual function caused by scarring of penile tissue.

The studies of the reproductive toxicity of Lewisite in laboratory animals are negative. Such data, however, are not complete and thus are insufficient to support or deny a causal relationship between exposure and adverse reproductive outcomes.

The evidence indicates a causal relationship between characteristic aspects of the chamber and field experiences and the development of adverse psychological effects. These effects may be highly individual, but diagnosable, and may include long-term mood and anxiety disorders, PTSD, or other traumatic stress disorder responses. Data are insufficient, however, to associate the presence of adverse psychological disorders with any physiological disease or dysfunction.

Many elements of the gas chamber and field experiments were highly stressful. These include lack of prior knowledge about what to expect, the duration and conditions of the chamber trials, the experience of skin injury from the exposures, the threats of punishment if the experiments were revealed, and other elements. Any stress reaction from the experiences may have well been magnified by subsequent secrecy, fears about the health risks, and institutional denials. Data from studies of chemical and biological warfare environments and environmental exposures to toxic chemicals or radiation support the assertion that, in certain individuals, these experiences would have been sufficient to cause adverse psychological effects, resulting in long-term dysfunction. It is likely that such effects also occurred in some production workers, gas handlers and trainers, and Bari harbor survivors as a result of traumatic episodes including explosions, accidents, personal exposure injury, or the witnessing of severe injury or death of others. Current investigations of the physiological concomitants of psychological disorders are compelling and of great interest for future research. However, it is not possible to predict from these studies what adverse physiological effects may be attributable to long-standing psychological problems.

GAPS IN THE LITERATURE REGARDING MUSTARD AGENTS AND LEWISITE

Human Studies

Clearly the most important gap in studies assessing the effect of agent exposure on humans is the lack of epidemiological studies of occupa-

15

tional exposure. Only limited cohorts of workers in Japan and Great Britain have been studied, and the value of these studies has been diminished by a lack of precise exposure information. The few exposure measurements made were usually from specific plant regions or during particularly troublesome parts of the manufacturing process. More useful would have been exposure information according to specific job categories. Finally, no attempts were made in such studies to determine the likely dose-response relationships. Such prediction would require quantitative risk assessments for which adequate data are not available.

The focus on carcinogenicity in epidemiological studies also left large gaps in the literature pertinent to the development of nonmalignant diseases. Although sufficient studies exist to associate the development of nonmalignant respiratory diseases, eye damage, and certain skin diseases with exposure, little to nothing is known regarding the effect of exposure on the development of gastrointestinal, immunological, and neurological diseases in humans. Further, no human data exist concerning the possible adverse reproductive effects of exposure to mustard agents or Lewisite.

The most extensively studied organ systems in terms of human pathology are the eye and the skin. Much of this research is quite old and, for the skin, research into the long-term effects in humans of exposure is still lacking. The recent casualties of sulfur mustard exposure, such as those injured in the Iran-Iraq war, are now being followed to assess long-term cutaneous effects of acute sulfur mustard exposure. Yet, observation periods as long as 35–45 years may be required to produce meaningful human data. Because these studies are only in their fourth or fifth year, conclusive results will probably not be available for another 15 to 20 years. In the short term for this cohort, however, investigative application of modern methods of ophthalmological treatment, such as the use of soft contact lenses to reduce the effects of chronic relapsing keratitis of the eyes, may yield some benefits. There are also human data derived from patients previously treated in Russian and Eastern European studies of the sulfur mustard-containing agent psoriasin that may be useful in determining the delayed effect of short-term administration of sub-erythema dosages of sulfur mustard. Because these studies began 20 to 25 years ago, follow-up of the psoriasin-treated patients now, if properly done, would be of invaluable help in determining delayed effects of acute sulfur mustard exposure.

Animal Studies

The most critical gap in animal studies is the lack of more extensive carcinogenicity and toxicity studies of mustard agents and Lewisite. Particularly lacking are studies, employing modern methods, of the

JOBNAME: NAP-Vet #2737 PAGE: 10 SESS: 7 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

long-term effects of varying levels of exposure to these agents. For example, investigations of the systemic toxicity of short-term exposures to these agents to the gastrointestinal, immunological, and neurological systems are nonexistent. Further studies of the mechanisms of long-term damage to the respiratory system would also be useful. Despite intensive research on the mechanisms of sulfur mustard injury to the skin in animal models, little data exist regarding the long-term consequences of such injury.

In addition, the mechanisms of eye injury from sulfur mustard remain to be elucidated. For example, research on the effect of sulfur mustard on the ciliary body would disclose any changes in its vascular, nutritive, and transport functions. Research to determine the effect of sulfur mustard and Lewisite on limbal stem cells might be useful in determining whether stem cell replacement could reverse some of the adverse effects of injury. Finally, research directed at protection of the stromal component of the cornea might reduce the incidence of ulceration and perforation so common after chemical injuries to the eyes.

Although data exist on the reproductive toxicity of sulfur mustards in more than one animal species, it would be useful to have additional studies to examine the extent of the variability between species. More inhalation and cutaneous exposure studies would also be very helpful, as these exposure results would more accurately mimic human exposure. Certainly studying larger numbers of animals would provide a more sensitive measure of the possible magnitude of any reproductive risk associated with exposure to sulfur mustards. Short-term, high-dose exposures might also be helpful in attempting to examine any dose-rate effects.

The gaps in our knowledge of the toxicity and carcinogenicity of Lewisite based on animal studies are especially prominent, even in the most basic types of research. There is little information available in the literature concerning the reactions of Lewisite with biologically important molecules. Studies on the carcinogenicity or noncarcinogenicity of Lewisite need to be broadened and pursued with greater intensity. Much of the information obtained from these studies, unlike studies of sulfur mustard exposure, will have broad application in industry, farming, and medicine, because arsenic-containing chemicals are in wide use today.

There are also numerous gaps in the literature relative to the acute and long-term effects of Lewisite skin exposure. Very little is known regarding its specific effect on skin; data on such basic areas as absorption, disposition, and excretion after skin exposure are minimal. In addition, the morphological sites vulnerable to Lewisite are not known. Microscopic examination of affected skin has yet to be pursued in depth, although most studies have been impaired, as has

17

been work on sulfur mustard exposure, by the lack of good animal model systems.

Serious gaps also exist in our knowledge concerning the potential of Lewisite to cause reproductive problems. The reproductive toxicity of Lewisite in males is unclear. Our ability to extrapolate from the animal studies to humans is limited. The kinetics of absorption through the skin are unclear, as is the potential of this exposure to induce long-term storage of potentially teratogenic arsenic in doses high enough to induce reproductive problems later in life. Even the form of arsenic that is a potent teratogen in animals, and the ability of Lewisite to yield this form as a metabolite in man, are not entirely clear. More studies of multiple species would be helpful in understanding the potential reproductive toxicity of this compound.

RECOMMENDATIONS

With the immense gaps in the knowledge base about the long-term health risks associated with exposure to mustard agents and Lewisite, and after serious consideration of the historical analyses of the WWII testing programs and the likely exposure levels to the human subjects involved, this committee believes certain recommendations are necessary and justified. First, the committee recommends that the Department of Veterans Affairs (VA) institute a program to identify each human subject in the WWII testing programs (chamber and field tests, and to the degree possible, patch tests), so that these individuals can be notified of their exposures and the likely health risks associated with those exposures. Further, all subjects so identified, if still living, should be medically evaluated and followed by the VA as to their health status in the future. These individuals should also, if they request it, be treated by the VA for any exposure-related health problems discovered. Morbidity and mortality studies should be accomplished by the VA, comparing chamber, field, and patch test cohorts to appropriate control groups, in order to resolve some of the remaining questions about the health risks associated with exposure to these agents.

The only way to answer some of the key remaining questions is to establish a base of knowledge based on human exposures. There is precedent for this recommendation in the later identification and follow-up of veterans exposed to chemicals, including hallucinogenic drugs, in the military testing programs between 1950 and 1975. The committee is also well aware that a half century has now passed and that many of those who might have benefited from a broader understanding of the toxicity and carcinogenicity of mustard agents and Lewisite are already dead. Nevertheless, these individuals' surviving family mem-

JOBNAME: NAP--Vet #2737 PAGE: 12 SESS: 7 OUTPUT: Sat Nov 28 11:34:07 1992
/bs3/304/team5/vet/2737/chapt12

bers deserve to know about the testing programs, the exposures, and the potential results of those exposures. For those veterans still living, diseases such as skin and lung cancer may still appear. Treating these cancers with full knowledge of their likely cause should be the responsibility of the VA and may be life-saving; for example, the likelihood of survival from skin cancer is greatly increased by early diagnosis and treatment.

In the case of the human subjects of the WWII testing programs, it is reasonable to assume that the secrecy surrounding the experiments may have kept individuals and entire families from successful resolution and treatment of any adverse psychological effects that may have been caused. Given this possibility and the special problems of ambiguity, health fears, and institutional denials encountered by many of those exposed to these agents, **the committee recommends that careful attention be paid by health care providers to the special problems and concerns of the affected veterans and their families. This attention may include the convening of a special task force of experts in stress disorders and risk perception to aid the VA, further than this committee is able, in the establishment of comprehensive guidelines for handling of these cases.**

The above recommendations are not meant to ignore the fact that thousands, probably tens of thousands, of other military and civilian personnel were exposed to mustard agents and Lewisite in occupational and training settings, and in combat in the Bari harbor disaster. Some of these exposures will have resulted in one or more of the exposure-related health problems identified in this report. The committee is also aware that some military personnel who served in the Chemical Warfare Service have qualified for service-connected disability as a result of such exposures. However, many more military personnel were exposed to significant levels of mustard agents or Lewisite than is obvious from service records, because of job classifications, inadequate documentation of "live agent" training and accidents, and other factors. Therefore, **the committee additionally recommends that the Department of Defense (DoD) should use all means at its disposal, including public channels, to identify cohorts of chemical warfare production workers (military or civilian) and individuals exposed to mustard agents or Lewisite from gas handling, training, the Bari harbor disaster, or other circumstances. Records of former military personnel could be turned over to the VA for notification, inclusion in morbidity and mortality studies, and health status evaluation. Records of the civilian personnel should be used by the DoD to notify the former workers. These workers should also be advised as to their health risks and options for seeking appropriate compensation for any illnesses that resulted from their exposures.**

19

This committee discovered that an atmosphere of secrecy still exists to some extent regarding the WWII testing programs. Although many documents pertaining to the WWII testing programs were declassified shortly after the war ended, others were not. Of those declassified, many remained "restricted" to the present day and are not released to the public. As a result, the committee often had great difficulty obtaining information. For example, only one of the three major chamber test locations, the Naval Research Laboratory, freely shared technical reports and detailed summaries with the committee from the beginning of the study. For other locations, such information only arrived as the study was in its final stages, despite months of requests and inquiries to a variety of offices. The committee is certain that other relevant information exists that was never obtained. It is also clear that there may be many exposed veterans and workers who took an oath of secrecy during WWII and remain true to that oath even today. Veterans, who had just heard about the study and thought it might now be permissible to reveal their experiences, were still contacting the committee for information up until the very end of the study. Such continuing secrecy, in the committee's view, has impeded well-informed health care for thousands of people. Therefore, **the committee recommends that the VA and DoD publicly announce and widely advertise that personnel exposed to mustard agents or Lewisite during their service are released from any oath of secrecy taken at the time. In addition, professional educational materials should be prepared by the DoD or the VA, or both, and made available for physicians who may be treating affected individuals. These materials should incorporate the latest information regarding the long-term health effects of exposure to mustard agents and Lewisite.**

There is no doubt that the long-term health consequences of exposure to mustard agents or Lewisite can be serious and, in some cases, devastating. This report has demonstrated that complete knowledge of these long-term consequences has been and still is sorely lacking, resulting in great costs to some of those exposed in WWII. The lack of knowledge, however, has ongoing ramifications as nations will probably continue to use these chemical weapons in battle or begin to grapple with their disposal. Thus, accidental and deliberate human exposures to mustard agents and Lewisite can only be expected to continue in the foreseeable future.

20

JANE'S DEFENCE WEEKLY Jan 9, 1993 Pg. 8

Cheney against cuts but predicts change

US FORCES

BY BARBARA STARR
WASHINGTON DC

US Defense Secretary Dick Cheney acknowledged there may be "additional adjustments" to the US force structure by the end of the decade, but emphasized that he opposes further reductions now.

Cheney, who will leave office later this month, told *JDW* that he still supports the base force plan of 1.6 million active duty personnel by 1995 with a force of 150 000 in Europe. President-elect Bill Clinton has called for 1.4 million troops by 1997 with a force of perhaps less than 100 000 in Europe.

As 1995 approaches, the base force is certain to be looked at again, Cheney said, adding that changes are likely. "I can't argue absolutely that it has to be 150 000 or everything is going to fall apart in Europe."

Cheney also argued that "there will not be peace and security in the world without US leadership. There isn't anybody else to do it. There isn't any system of collective security that will promote a peaceful and stable world that doesn't ultimately depend on US leadership."

That philosophy is not aimed at undercutting the collective European security doctrine offered by the WEU or NATO's North Atlantic commitment.

As far as the USA is concerned, "it's not a go it alone philosophy," Cheney said. But he added, "realistically things didn't happen in Yugoslavia until the US was willing to step up."

NATO, Cheney said, "will be a viable organization as long as the US is part of it."

While the threat of the former Soviet Union has vanished, Cheney emphasized that the emerging republ. are posing a proliferation risk. the export of non-nucle weapons.

"There does seem to be a gr desire on their part to s anything and everything to wide range of customers. I ; not sure the Russians have th tight a control over the hu establishment they have bu up."

He declined to predict t political future of Boris Yelts but said that "developmer inside the former Soviet Uni will continue to preoccupy t West and the US" for years come.

Cheney said he is reluctan make any "new poli pronouncements or recommend broad sweep changes." On several points wanted to leave as mu flexibility as possible to nominated successor Les Asp Specifically, he is undecic whether to send Congres report from the Joint Chiefs Staff on revisions to the ro and missions of the milit services.

He also said he will leave Aspin any changes on the r of women in combat. He agre with the general consensus c recent presidential commiss that women should be exclu

CHENEY...Pg. 20

WASHINGTON POST Jan. 7, 1993 Pg. 10

Injuries Inflicted in Wartime Gas Tests Worse Than Was Believed, Study Finds

By Bill McAllister
Washington Post Staff Writer

They were called "man-break" tests and their object was simple: To see how long it would take before young military recruits placed in sealed gas chambers would be overcome by two toxic chemicals.

Many were exposed repeatedly. At a Navy lab in Anacostia, those suffering the classic symptoms of gas poisoning—inflamed eyes, laryngitis and nausea—were instructed to ignore their ailments and return to the chamber. In all, thousands of sailors and soldiers were subjected to the tests at military research facilities in Washington, Maryland and elsewhere during World War II—and then sworn to secrecy aoout the events.

The tests were not made public until June 1991, when the Department of Veterans Affairs acknowledged that many of the servicemen could have suffered long-term disabilities as a result. At that time, the VA called for a study by the National Academy of Sciences into other ailments that may have been caused by the gases.

That study, released yesterday, shows that the injuries suffered were more grievous than previously believed.

In announcing the results, the VA agreed to add four respiratory cancers, skin cancer, chronic obstructive pulmonary disease and acute nonlymphocytic leukemia to the list of seven ailments it recognized in 1991 as linked to the tests.

"The years of silent suffering have ended for these World War II veterans," acting VA Secretary Anthony J. Principi said in a statement.

The study, conducted by a committee formed by the National Institute of Medicine, lays out in sometimes ghastly detail how more than 60,000 recruits were exposed to chlorinated mustard gas and an arsenic-laden chemical called Lewisite. The object of the testing was honorable: To devise clothing and ointments to protect allied service personnel from chemical weapons the War Department was confident Americans would face.

Those weapons were never used in combat. Yet an estimated 4,000 of the recruits underwent tests that exposed them to as much gas as they would have encountered in a full-scale chemical attack.

Often small drops of the chemicals were placed directly on the recruits' forearms. But in Washington, an estimated 2,500 sailors were shunted 10 at a time into 10-by-15-foot gas chambers and exposed to the gases for up to four hours.

Sometimes the men were not allowed to wear protective gear and those with gas masks often found their rubber hoses leaked and proved ineffective. In one case, the men were given carbon-impregnated suspenders to wear over their shirts in the hopes that would give researchers a strip of protected skin to compare with exposed skin.

Describing the tests and decades of secrecy as "evidence of betrayal and a sad legacy," the committee report called on the VA to expand the number of medical ailments it has linked to gas exposure. The agency readily agreed.

"I am both gratified and horrified by the committee's findings," said Rep. Porter J. Goss (R-Fla.) who first raised the issue in Congress in 1989. He called the new report "indisputable confirmation of our

STUDY...Pg. 6

WASHINGTON TIMES
Jan. 7, 1993 Pg.

Canada defense chief named envoy to U.S.

OTTAWA — Gen. John de Chastelain, chief of Canada's defense staff, has been named ambassador to the United States, the government announced yesterday.

Mr. de Chastelain, 55, will replace Derek Burney, who is expected to leave the post this month to pursue a private career.

Canada and the United States have extensive economic and cultural ties, and the posting is considered a highly important one for Canada.

Mr. de Chastelain was born a British subject in Bucharest, Romania, and was educated in Britain before moving to Canada in 1955. He is married and has two children.

He was appointed chief of staff in 1989.

CURRENT NEWS ANALYSIS & RESEARCH SERVICE
ROOM 4C881, PENTAGON
WASHINGTON, D.C. 20301-7500

CHIEF: Herbert J.Coleman (703) 695-2884 DEPUTY CHIEF: Walter N. Lang (703) 695-2884 CURRENT NEWS BRANCH: Tait Phoebus, *Chief* (703) 697-8765 Elmer Christian, *Acting Early Bird Editor* Sharon Foster, Meredith Johnson, Carol Rippe, Carol Summers, Lisa Stafford, *Writer-Edit* RESEARCH BRANCH: Denise Brown, *Chief* (703) 695-6959 Alice Boyd, Pat Darnell, Mary Katherine O'Donnell, *Writer-Editors* ADMINISTRATION Janice Goff, Jackie Skinner (703)695-2884

DEFENSE WEEK Jan. 4, 1993 Pg. 4

More Pentagon Rumors: Not long after Les Aspin was named the defense secretary designate, names immediately were whirling along the rumor mill as possible subordinates.

Bernard Schwartz, the CEO of Loral Corp. and a longtime Democrat, was said in Pentagon hallways to be a contender for Aspin's deputy. The deputy defense secretary position usually is reserved for an industry titan who is responsible for the day-to-day Pentagon operations.

Another name getting a lot of play lately has been Beverly Byron, a former Maryland representative, as Navy secretary. Byron, who was defeated in her 1992 congressional reelection bid, was chairwoman of the House Armed Services military personnel subcommittee under Aspin.

WASHINGTON TIMES
Jan. 7, 1993 Pg. 2

Weinberger blasts Bush indictment

Former Defense Secretary Caspar Weinberger said it would be "disgraceful" if President Bush were indicted in the Iran-Contra case.

"I think it would be the most disgraceful thing," Mr. Weinberger said Tuesday when asked on CNN's "Larry King Live" if he thought independent counsel Lawrence Walsh would bring charges against Mr. Bush.

"But it would show how completely out of control, how irrational he [Mr. Walsh] is," said Mr. Weinberger, who was pardoned by Mr. Bush on Dec. 24. His trial on five counts of lying to Congress was to have started Tuesday.

"He is obsessed to prove that there was a conspiracy and he doesn't have a single witness to prove it," Mr. Weinberger said of Mr. Walsh.

WEINBERGER...fm Pg. 5

along with sensitive information about talks with U.S. allies, Mr. Weinberger said.

"Ten days later, the lead ship in the first convoy, the Bridgeton, struck a mine that had been laid in its path only hours before by the Iranians," Mr. Weinberger said. He said he did not know if Mr. Aspin's disclosure was a contributing factor.

"Not only had a member of Congress released specific details of a sensitive military operation, but he also told the press that the United States had been granted certain overflight privileges for its AWACS early warning aircraft," Mr. Weinberger said.

That part of the mission "simply did not need to be advertised," Mr. Weinberger said.

"But Rep. Aspin and his impromptu news conference did just that," Mr. Weinberger said. "He spoke openly of the overflight agreement . . . As a result, we lost the southern AWACS orbit; . . . the safety of a military operation, and of the Americans executing it, was carelessly jeopardized," Mr. Weinberger said.

The former defense secretary said complaints about the disclosure came from "military members of my staff" at the time. "Around the Pentagon for the next several days, the tongue-twister 'Les's lips sink ships' was pronounced repeatedly in honor of the loose-lipped chairman of the House Armed Services Committee," he said.

Mr. Weinberger declined to comment on the incident yesterday, and a spokesman for Mr. Aspin could not be reached by phone.

A congressional official familiar with planning for the nomination hearing said the disclosure is a serious issue with the potential for stalling what is otherwise expected to be a smooth confirmation process.

"There needs to be some explanation for this," the official said, speaking on the condition of anonymity.

Democrats derailed President Bush's nominee for defense secretary in 1989, former Sen. John Tower. The Texas Republican, a former Senate Armed Services Committee chairman, was accused of womanizing and excessive drinking.

Other issues expected to be raised at the hearing include Mr. Aspin's use of military transport for personal travel.

Congressional officials say Mr. Aspin will be asked to explain why he and his girlfriend used military aircraft "extensively" for personal travel after he became panel chairman beginning in 1985.

"He also traveled [on military aircraft] at convenient times around holidays to some real nice places," one official said.

The Washington Times first disclosed the questionable military travel by Mr. Aspin in 1991.

A Senate official said questions also will be asked about allegations that Mr. Aspin assigned a staff person, full time, to arrange military transport for committee members, including "politically questionable" trips.

Among the military issues likely to be raised during the confirmation hearing are women in combat and Mr. Clinton's plan to lift the ban on homosexuals in the armed forces.

Sen. Robert C. Smith, New Hampshire Republican, hopes to question Mr. Aspin about his criteria for using military force, the future of the Strategic Defense Initiative and U.S. military force structure, according to an aide.

STUDY...from Pg. 2

worst fears and an unmistakable call for action to right some of the terrible wrongs caused by these tests."

The medical panel study expressed shock at how the government treated the young men. "Most appalling was the fact that no follow-up medical care or monitoring was provided for any of the WWII human subjects . . . despite knowledge available by 1933 that mustard agents and Lewisite could produce long-term debilitating health problems, particularly in those people suffering severe burns and inhalation injuries," it said. "There was not even adequate short-term follow-up of the human subjects by the Department of Defense."

In its 420-page report, the panel also complained that some Defense agencies continued to cloud the testing in "an atmosphere of secrecy" and had frustrated the researchers' efforts to learn details of the testing. The Naval Research Laboratory in Southeast Washington was the only one of three major facilities involved in gas-chamber tests that "freely shared technical and detailed summaries" of its work, the panel said.

Test reports from Army research facilities remain classified or restricted, the committee said; often the military agencies insisted the researchers file Freedom of Information Act requests to obtain documents needed for the survey, it said.

The panel urged the VA to continue to research the issue and expand its efforts to contact veterans who were part of the tests. In addition to the Naval Research Laboratory in Washington, the VA said that heavily exposed veterans may have participated in tests run by the Army at the Edgewood Arsenal Md.; Camp Sibert, Ala.; Bushnell Fla.; Dugway Proving Ground, Utah, and San Jose Island, Panama Canal Zone. It said, however, there is no central roster of personnel who were exposed to the laboratory or field tests.

In August of last year, the VA published final regulations citing seven ailments eligible for benefits. Since the VA first announced it would award compensation to mustard gas victims, 187 veterans have applied for benefits but only 24 of those qualified. A VA spokesman said the department would be reexamining the claims on the basis of the new medical report.

LANCASTER (PA) NEW ERA Jan. 4, 1993 Pg. 6

A radical at the Pentagon could reduce preparedness

Much has been made of Bill Clinton's new Cabinet appointees. They are a varied and high-powered lot.

Less has been said of the people who will be replacing the several senators and representatives who are moving from Capitol to White House.

Rep. Les Aspin, the highly competent House Armed Services Committee chairman who has been tapped to run the Pentagon as Secretary of Defense, will be replaced by Rep. Ronald V. Dellums of California.

Dellums is also competent and, by all reports, a master of military matters. There his similarity with Aspin and mainstream U.S. military thinking ends. Aspin is a Democratic hawk. Dellums is one of the leading doves in Congress.

Pentagon spending levels "make no sense," according to Dellums. He says the Pentagon's "incredible wish-list" eventually must be cut in half. The "Star Wars" program, he notes, is "a gross case of theft."

As chairman of the Armed Services Committee, Dellums would have little statutory power, but he would hold the keys to the Pentagon budget each year.

George Stephanopoulos, Bill Clinton's spokesman, has dismissed Dellums' calls for deep military spending cuts; but it may not be so easy for President Clinton to dismiss Dellums when the congressman gets on one of his rhetorical rolls.

A former Marine, Dellums has opposed practically every U.S. political maneuver, including Desert Storm, since he won his seat in Congress in 1970. He favors dismantling all American intelligence agencies.

The White House and the Pentagon may be able to withstand the massive assault Dellums is planning on U.S. military forces, but the fight will be bloody and Dellums will not stand for losing everything.

We only hope Dellums' radical views of national defense do not translate clearly in foreign nations. If they do, Saddam Hussein, among others, must be smiling in anticipation.

TUESDAY, January 12, 1993

NEW YORK TIMES Jan. 12, 1993 Pg. 10

U.N. to Ask NATO to Airdrop Supplies for Bosniar

By JOHN F. BURNS
Special to The New York Times

SARAJEVO, Bosnia and Herzegovina, Jan. 11 — Citing reports of hundreds of deaths from cold and hunger, the United Nations official who oversees relief operations in this embattled republic said today that he had urged NATO to consider dropping food and medicines by air.

The proposal, by José-Maria Mendiluce of Spain, who directs relief operations for 1.6 million Bosnians, came amid signs that the United Nations effort to save lives is foundering. Mr. Mendiluce said he had received "very alarming reports of deaths from cold and starvation" from wide areas of the republic, particularly eastern Bosnia.

For months, United Nations truck convoys attempting to reach predominantly Muslim communities have been held up or turned back by Serbian nationalist forces. These forces have surrounded the few pockets of Muslim residents surviving in eastern Bosnia and blocked almost all efforts to send in food, medicines and winter supplies.

The Military Consequences

Any decision to air-drop supplies would almost certainly involve military planes from the United States and other NATO countries currently taking part in a United Nations airlift to Sarajevo, the capital.

A military aide to Mr. Mendiluce, Lieut. Col. Neill Wright of Britain, said dropping supplies by air would almost certainly require protection from jet fighters to deter attacks from missile batteries and to destroy any batteries or radar installations that threatened the cargo planes. Some fighters might also come from the United States.

The presence of Western fighter planes over Bosnia would add a new element to the debate in the United Nations Security Council over a resolution that would authorize NATO air forces to enforce the flight ban over Bosnia that the Security Council imposed in October.

The ban, intended to halt Serbian military flights, reportedly has been violated more than 300 times by the Serbian forces. The Bush Administration has said that it favors a new resolution empowering Western aircraft to shoot down planes violating the ban and to attack Serbian military airfields.

Britain has opposed this, saying it fears that the 1,200 lightly armed British soldiers with the United Nations and other United Nations units would be at risk of retaliation from Serbian ground forces.

Mr. Mendiluce, the relief supervisor, said he had asked Sadako Ogata of Japan, the United Nations High Commission for Refugees, to discuss air drops with delegates to the Geneva peace conference on Bosnia.

150,000 May Be Trapped

Mr. Mendiluce said reports from Zepa, Cerska and Srebrenica, three towns in eastern Bosnia with predominantly Muslim populations, suggested that further delays in delivering relief supplies would be intolerable.

United Nations officials estimate that as many as 150,000 Muslims may be trapped in towns and villages in eastern Bosnia. When relief convoys reached Srebrenica for the first time in November, United Nations officials were shocked by conditions, which included amputations of the limbs of wounded civilians without anesthetics. No relief convoys have reached Zepa and Cerska since the beginning of the war in April.

Reports of deaths from cold and hunger have reached alarming proportions.

Zlatko Lagumdzija, a Deputy Prime Minister, said Sunday that amateur radio operators in Zepa, which had 33,000 residents before the war, had reported 104 deaths in recent
from a combination of hunger an
posure to temperatures as low a
degrees below zero Fahrenheit.
figure could be independently ver

Accusations Against the U.N.

As the relief officials pondered
to get supplies through, United Na
military commanders faced gro
impatience from the Government
investigations into the killing Frid
Hakija Turajlic, another Deputy Pr
Minister. Mr. Turajlic, 56, was sho
a Serbian soldier after the United
tions armored vehicle carrying
from the Sarajevo airport into the
was halted at gunpoint by more th
Serbian soldiers.

Jusuf Pusina, the Interior Mini
who is in charge of the police, acc
Gen. Philippe Morillon, the United
tions military commander for Bo
of not allowing the police to inter
United Nations soldiers who witne
the killing. He said the French ger
had also deferred a decision on a B
an request to be allowed to ins
"material evidence," which Mr.
sina said included the uniform wor
the French officer who commands
port, Col. Patrice Sartre.

Colonel Sartre said on Saturday
he had arrived at the point on
airport road where the vehicle
halted an hour after the confronta
began and had placed himself, p
drawn, between the Serbs and the c
rear doors of the vehicle. He said
enraged Serbian soldier lunged
ward and shot over his shoulder
the vehicle, killing Mr. Turajlic.

Conflicting Testimony

Mr. Pusina said that reports re
ing his office, for which he decline
give a source, suggested that Col
Sartre had opened the doors himse
prove that the vehicle contained
passengers other than Mr. Tura
giving the Serb an opportunity to sh
Mr. Pusina said investigators war
to examine the colonel's uniform to
if there was any sign that a gun
been fired over the shoulder.

A British officer at the scene w
Colonel Sartre arrived, Capt. P
Jones, told reporters that the door
the vehicle were not open at that t
United Nations standing orders for
the opening of armored-vehicles to
isfy hostile units, and the identifica
of passengers.

A spokesman for General Mori
noted that Secretary General Bou
Boutros-Ghali had appointed a spe
United Nations team to go to Sara
and investigate the killing. Comdr. L
ry Frewer of the Canadian Navy s
the United Nations force here was c
tinuing its inquiry, and had made
decision on the Bosnian requests
interview witnesses or see evidenc

The U.N.'s Defense

"It's not a matter of dragging
feet," Commander Frewer said.
are conducting our inquiry as exp
tiously as possible. We want to de
mine all the facts."

Aides to Ejup Ganic, a Vice Pr
dent, said the Government had as
the United Nations to withdraw G
eral Morillon and Gen. Hussein
Abdel Razek of Egypt, who comma

SUPPLIES...Pg. 20

BOSTON GLOBE Jan. 9, 1993 Pg. 8

Military malpractice

Rumors of military medical abuses have been bruited about for years. Now a study by the Institutes of Medicine, an arm of the National Academy of Sciences, confirms that the United States conducted medical experiments during World War II that rival in horror those performed by Germany and Japan that were labeled war crimes.

The experiments were indefensible, even though the German and Japanese subjects were seen as enemies – prisoners or "undesirable" civilians. Incomprehensibly, the United States also used 4,000 of its own servicemen without their knowledge or consent.

Most were very young – enlisted men in their late teens – when they were exposed to intense doses of mustard gas and an arsenic compound. They were not told they were being used as human research subjects.

The work was secret, and they were involuntary guinea pigs. Though the gases poisoned and burned them, some of the subjects were warned to keep quiet or go to prison. After the war ended, the Veterans Administration refused to acknowledge their injuries or provide them with help.

"What we found was evidence of betrayal and a sad legacy," states the Institutes of Medicine report. The doses of the gases and the exposure times were far greater than previously indicated, and the subsequent medical neglect of the men was callous and prolonged. The study's director, Dr. David Rall, said there is "no excuse that test subjects, particularly those who suffered severe burns and inhalation injuries, were neglected for so long after the war."

The World War II experiments exceed in atrocity the damage done by the exposure of American combat troops to Agent Orange, the deadly herbicide used during the Vietnam War, whose resulting injuries were also long denied. The new revelations are akin to the US military experiments in which LSD and other hallucinogens were secretly given to unwitting personnel.

In some of the World War II tests, the men had to walk through gas-filled sheds and were doused with liquid forms of the gas-forming chemicals. Often they had to wear their contaminated clothing for days.

The men suffered terrible consequences. The Institutes of Medicine review found direct links between exposure to the gases and leukemia, lung and skin cancer, sexual dysfunction and mental disorders.

The rationale for the tests was that Germany had used poison gas in World War I, though none was used in World War II. American workers at chemical weapons plants may also have been harmed. The VA is urging surviving servicemen and workers and their families to call a toll-free number – 800-827-1000 – for assistance.

A lot more than that is needed. Congress should open inquiries into who was responsible for these tests and hold them accountable.

news from the INSTITUTE OF MEDICINE

The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of medical and other professions for the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 Congressional charter responsibility to be an advisor to the Federal Government, and its own initiative in identifying issues of medical care, research, and education.

NATIONAL ACADEMY OF SCIENCES, 2101 CONSTITUTION AVE., N.W., WASHINGTON, D.C. 20418
AREA CODE 202 334-2000

[NOTE TO EDITORS: Photos available]

Date: Jan. 5, 1993
Contacts: Susan Turner-Lowe, Manager, Media Relations
Audra Garling, Media Relations Assistant
(202) 334-2138

EMBARGOED: NOT FOR PUBLIC RELEASE BEFORE 11 a.m. EST WEDNESDAY, JAN. 6

WORLD WAR II ERA MUSTARD GAS, LEWISITE EXPERIMENTS LEFT LEGACY OF DISEASE

WASHINGTON -- An Institute of Medicine (IOM) committee's report* would substantially expand the list of health consequences the U.S. Department of Veterans Affairs (VA) considers to be associated with exposure to mustard gas or Lewisite [See attached table]. Both compounds were used during World War II in experiments on U.S. servicemen.

The VA has identified seven diseases for compensation as a result of exposure: laryngitis, chronic bronchitis, emphysema, and diseases of the eye including corneal opacities, chronic conjunctivitis and keratitis. In comparison, the committee's list includes the VA's findings but adds to that 13 other health consequences associated with exposure, including respiratory and skin cancers, asthma, sexual dysfunction, and psychological disorders.

While the committee acknowledged that the lack of data, particularly for Lewisite, became a major hindrance in its ability to determine precisely what health

(MORE)

*The report, *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*, is available from the National Academy Press at the mailing address in the letterhead; tel. (202) 334-3313 or 1-800-624-6242. The cost of the report is $39.95 (prepaid), plus $4.00 shipping for the first copy and $.50 for each additional copy. Reporters only may obtain copies from the Office of News and Public Information, also at the letterhead address (contacts above).

problems are linked to exposure, it nevertheless recommended that the VA seek out all veterans who were experimented on so that they can be medically evaluated and treated for any possible exposure-related health problems. The committee also urged the Department of Defense (DOD) to identify former weapons production workers exposed to these chemicals and to advise them of associated health risks and of options for seeking appropriate compensation for any illnesses that may have resulted.

SECRET RESEARCH PROGRAM

While tons of weapons containing mustard gas and Lewisite were produced during World War II and massive preparations for their use were made, they were never used by or against U.S. forces. The preparations included secret research programs to develop better weapons and methods of protecting against them. In the United States, some of this research included the development of protective clothing and skin ointments, which could prevent or lessen the severe blistering effects of mustard agents (sulfur and nitrogen mustard) and Lewisite (a compound containing arsenic).

By the time the war ended, some 60,000 U.S. servicemen had been involved in the experiments. They experienced a range of exposures, from mild (a drop of the chemical on the arm) to severe (repeated gas chamber tests, sometimes without protective clothing). Recently, some of them have begun seeking compensation from the VA for health problems that they believed were caused by their exposure to the chemicals. In June 1991, the VA announced guidelines for handling the cases. The VA also asked the IOM to study the scientific evidence for linking exposure to mustard agents and Lewisite to health consequences.

LONG-TERM HEALTH CONSEQUENCES

After extensive review of the evidence, the IOM committee established three categories for explaining the degree to which long-term health consequences appear to be linked to exposure to mustard gas and Lewisite. In some cases, the committee found that the data "indicate" a causal relationship between exposure and a

particular disease. For a few diseases, the data were "suggestive" but not completely clear. Finally, there were many diseases for which the evidence was "insufficient" regarding the possible link between them and exposure to the compounds. This means that many diseases in this category may -- or may not -- be caused by exposure to mustard agents or Lewisite, but few if any studies have been done.

The committee emphasized that "large gaps" in the knowledge base exist in all areas regarding the long-term health risks associated with exposure to mustard gas and Lewisite. Morbidity and mortality studies should be conducted by the VA, the committee said, comparing the human subjects of gas chamber, field, and skin tests to appropriate control groups, "in order to resolve some of the remaining questions about the health risks associated with exposure to these agents."

In the meantime, the committee urged health care providers to pay careful attention to special problems of affected veterans and their families. "It is reasonable to assume that secrecy, uncertainty, and fear may have resulted in adverse psychological effects," it said. The committee also recommended that either VA, DOD, or both government agencies prepare educational materials for physicians who may be treating affected individuals.

ATMOSPHERE OF SECRECY

The committee expressed dismay that "an atmosphere of secrecy still exists" regarding the World War II testing programs. Although many documents were declassified shortly after the war ended, others were not. Of those declassified, many remain "restricted" and not available to the public. "As a result, the committee often had a great difficulty obtaining information," the committee said. Only one of the three major chamber test locations, the Naval Research Laboratory, freely shared technical reports and detailed summaries." This continuing secrecy, it added, "has impeded well-informed health care for thousands of people."

The committee called on the VA and DOD to publicly announce and widely

advertise that those exposed to mustard agents or Lewisite during their military service are released from any oath of secrecy they may have taken. Each man was told at the time -- almost 50 years ago -- that he should never reveal the nature of the experiments.

"We were asked to study the evidence that determined long-term health consequences from exposure to mustard agents and Lewisite," said David P. Rall, committee chair and retired director of the National Institute of Environmental Health Sciences, now residing in Washington, D.C. "What we found was evidence of betrayal and a sad legacy. Many were seriously exposed. Thousands of military personnel were involved. They volunteered, they underwent the testing, and then they were ignored."

The committee called the dearth of information about the experiments distressing. "Most appalling," the committee said, "was the fact that no follow-up medical care or monitoring was provided for any of the WWII human subjects, other exposed military personnel, or chemical warfare production workers, despite knowledge available by 1933 that mustard agents and Lewisite could produce long-term debilitating health problems, particularly in those people suffering severe burns and inhalation injuries. There was not even adequate short-term follow-up of the human subjects by the Department of Defense."

The report was sponsored by the U.S. Department of Veteran Affairs. A committee roster is attached.

# # #

stl: b,g,i,k

CATEGORIES SHOWING THE RELATIONSHIP OF EXPOSURE TO MUSTARD AGENTS AND LEWISITE TO LONG-TERM HEALTH CONSEQUENCES

The evidence studied by the committee INDICATED a causal relationship between exposure to mustard agents (and Lewisite, where noted) and the following health conditions:

- Respiratory cancers
  nasopharyngeal, laryngeal, lung
- Skin cancer
- Pigmentation abnormalities of the skin
- Chronic skin ulceration and scar formation
- Leukemia (typically acute nonlymphocytic type, from exposure to nitrogen mustard)
- Chronic respiratory diseases (also Lewisite)
  asthma, chronic bronchitis, emphysema,
  chronic obstructive pulmonary disease, chronic laryngitis
- Recurrent corneal ulcerative disease
  (includes corneal opacities; acute severe injuries to the eye from Lewisite will also persist)
- Delayed recurrent keratitis of the eye
- Chronic conjunctivitis
- Bone marrow depression and (resulting) immunosuppression
- Psychological disorders
  mood disorders, anxiety disorders, including post-traumatic
  stress disorder, other traumatic stress disorder responses
- Sexual dysfunction

The evidence studied by the committee SUGGESTED a causal relationship between exposure and the following health conditions:

- Leukemia (acute nonlymphocytic type related to exposure to sulfur mustard)
- Reproductive dysfunction

There was INSUFFICIENT evidence to demonstrate a causal relationship between exposure and the following health conditions:

- Gastrointestinal diseases
- Hematologic diseases
- Neurologic diseases
- Reproductive dysfunction (Lewisite)

VA Adds Service-Connected Conditions For Veterans Exposed to Mustard Gas

Following the findings of a $600,000 study by the Institute of Medicine (IOM), the Department of Veterans Affairs has announced that it is expanding its list of recognized long-term effects of significant exposure to mustard gas. The decision means an estimated 4,000 World War II veterans exposed to high concentrations of mustard gas during chamber and field tests may be eligible for VA disability compensation for associated health problems. (The secret tests were designed to develop better protective clothing, masks and skin ointments.) Veterans present during the World War II bombing attack on Bari, Italy, and certain World War I veterans may be eligible, too.

Based on the IOM study, which reviewed some 2,000 scientific papers, technical reports and other documents, the VA will recognize the following conditions as linked to significant mustard gas exposure: respiratory cancers (nasopharyngeal, laryngeal and lung) except mesothelioma, skin cancer, chronic obstructive pulmonary disease and leukemia (acute nonlymphocytic type resulting from nitrogen mustard). The study also linked to mustard gas exposure laryngitis, chronic bronchitis, emphysema, asthma, chronic conjunctivitis, chronic keratitis and corneal opacities — conditions the VA has already recognized as associated with mustard gas exposure.

The VA is attempting to contact veterans who may have been affected, and DAV National Service Offices have been put on alert. In a bulletin to DAV field offices, National Service Director Art Wilson said, "All National Service Officers are urged to provide as much assistance as possible to any veteran claiming to have been exposed to mustard gas. In view of the secrecy surrounding World War II testing, when filling a claim you should ensure that as much information as possible regarding the veteran's participation and exposure is given to the VA so they may properly and efficiently adjudicate the claim."

The VA encourages veterans who believe they were exposed to significant amounts of mustard gas to contact their nearest VA regional office or call VA's nationwide toll-free number, 800/827-1000. The DAV recommends that affected veterans contact their nearest DAV National Service Office.

U.S. Infantrymen struggle with the early, ill-fitting masks.

Independent Budget

(Continued from page 3)

crease of about $2.6 over what the VA was allocated during Fiscal Year 1993. The VA needs this funding boost, Gorman said, to handle increases in the patient workload, provide more extended care, and to increase programs for homeless veterans, those suffering from Post-Traumatic Stress Disorder (PTSD), blind rehabilitation, long-term psychiatric care, elimination of the equipment backlog, and others.

Gorman said the IB also calls for a $25 million increase in funding for Medical and Prosthetic Research, from $303 to $328 million, and a $37.2 million boost for the VA's Medical Administration and Miscellaneous Operating Expenses account, from $51.5 million to $88.8 million.

On the Compensation and Pension (C&P) side of the VA budget, the IB authors express grave concern about the dramatic increase in the time it takes VA to adjudicate veterans' claims and the lack of resources available to the VA to rectify this problem. The percentage of original compensation claims not completed in six months, for instance, grew from 34.1 percent in Fiscal Year 1991 to 35.7 percent by the end of Fiscal Year 1992. Claims backlogged in the C&P service soared to 493,283 in Fiscal Year 1992 compared with 391,743 in Fiscal Year 1991, while at the VA's Regional Office rating boards, the number of claims pending doubled from approximately 40,000 to more than 80,000.

"A major contributing factor in these increases can be attributed to creation of the Court of Veterans' Appeals, which is remanding large numbers of appealed claims back to local rating authorities for additional development," said DAV Assistant National Legislative Director Rick Schultz. "While we acknowledge that, we also believe the VA has been slow to react to these increased demands and just doesn't have the money or the people to provide quality service in a more timely manner."

To help correct the problem, Schultz said the IB is recommending dramatic increases in both funding and personnel for the VA's Veterans Benefit Administration. While precise numbers weren't available as this issue went to press, Schultz said the VSOs will continue to press Congress to ensure that VBA has enough employees and fiscal resources to meet minimum standards for claims adjudication and vocational rehabilitation services and to restore good, timely service throughout all VBA functions.

DAV Magazine intends to devote more coverage to the IB in the months ahead. ■

EXHIBIT 14

REDACTED VERSION

Exhibit # 5

SAREA-SL-RC

8 August 1975

COL C.C. McClure, M.D.
Director
Biomedical Laboratory
Edgewood Arsenal, MD 21010

Dear COL McClure,

I am writing this letter to document my distress concerning the sudden discharge of medical bolunteers from our research program on 29 July 1975 and the manner in which the situation was handled. I would hope that this letter may be forwarded through the chain of command to the appropriate authorities because fundamental medical and ethical issues have been raised in my mind over the propriety of this precepitous decision.

As background let me explain that as a member of the Clinical Investigations Section of the Medical Research Division it was and is my responsibility to minister to the medical problems of the volunteers who enter our program. This not only involves overviewing the entire inprocessing medical evaluation, but also involves the ongoing follow up and resolution of the medical illness of our volunteers. While this function has never been an officially designated one, it was an implied one I assumed as a matter of routine some fifteen months ago when our physician strength inthe laboratory was redueed by 50%. It is a responsibility which I consider, and have always considered, of paramount importance to the human research program, exceeding my responsibilities for research, because of the need to avoid subjecting any volunteer to undde risks which might be complicated by existing medical problems.

In virtually all of the five groups of volunteers that I have been responsibility for inprocessing we have, in the course of their evaluations, uncovered active medical problems, ranging in severity from minor to major illness, in 25 to 30% of our subjects. Because of our desire to avoid utilizing persons not fit to participate in studies, and because of a promise and commitment to the volunteers to give them the most thorough medical evaluation most of them will ever probably have, a considerable

Exhibit 5

Exhibit # 5 (Pg. 2)

Summary: Some vets had medical problems we uncovered but they were then ignored & we couldn't help due to short notice. NOTHING to do with experiments per se

SAREA-PL-PC
A

8 August 1975

portion of my time has been spent in obtaining adequate attention to even the most minor of their problems. Upon discharge from the program those problems that are not resolved are documented to the volunteer, and on his medical records. Letters to Chief Medical Officers at home duty stations are written when deemed necessary.

The directive of 29 July 1975 to return the present group of 36 volunteers to their home duty station on eight hours notice, without even the courtesy of prior consultation with either Dr. Sidell or myself at the very least demonstrated an absolute lack of respect for the well being of these individuals, and completely undermined our efforts to discharge our medical responsibilities to them.

Of the 36 volunteers, 12 of them had unresolved problems, and of these twelve I was only able to appraise four of them personally of the status of their medical problems at the time of discharge. While letters were sent to the Chief Medical Officers of seven other volunteers together with copies of our extensive work-ups, it has been my impression in the past that these letters are generally disregarded by dispensaries at home duty stations if they ever reach the appropriate destination. Hence I am left with the distasteful thought that some of these individuals may never receivedappropriate medical follow up. Had I been given even one hour to talk to these volunteers, this trouble could have been avoided.

It is ironic that the current investigations being conducted by the Department of the Army were initiated, presumably in part, to identify and possibly rectify improper medical practices of the past, because the action of summarily discharging our volunteers makes the Army responsible, in fact, for the same types of injustices of which it is being accused.

I refuse to accept the ethical responsibility for any consequences of the aforementioned decision about which neither I nor Dr. Sidell was consulted. Though this type of situation will hopefully not arise again, I would hope that more thoughtfulness would be exerted in the future.

Sincerely,

JOHN JOSSELSON, M.D.
MAJ, MC
Clinical Investigations Section
Medical Research Division
Biomedical Laboratory
Edgewood Arsenal

Exhibit 5

EXHIBIT 15

BIOMEDICAL AND BEHAVIORAL RESEARCH, 1975

JOINT HEARINGS

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON LABOR AND PUBLIC WELFARE

AND THE

SUBCOMMITTEE ON ADMINISTRATIVE PRACTICE AND PROCEDURE

OF THE

COMMITTEE ON THE JUDICIARY UNITED STATES SENATE

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

HUMAN-USE EXPERIMENTATION PROGRAMS OF THE DEPARTMENT OF DEFENSE AND CENTRAL INTELLIGENCE AGENCY

AND

S. 2515

TO AMEND THE PUBLIC HEALTH SERVICE ACT TO ESTABLISH THE PRESIDENT'S COMMISSION FOR THE PROTECTION OF HUMAN SUBJECTS INVOLVED IN BIOMEDICAL AND BEHAVIORAL RESEARCH, AND FOR OTHER PURPOSES

SEPTEMBER 10, 12; AND NOVEMBER 7, 1975

Printed for the use of the Committee on Labor and Public Welfare and the Committee on the Judiciary

U.S. GOVERNMENT PRINTING OFFICE

70-026 O WASHINGTON : 1976

CONTENTS

ADDITIONAL INFORMATION

APPENDIXES

Colonel REWET. No, sir.

Senator KENNEDY. Do you know who gave you the drug?

Colonel REWET. I presume it was the CIA people who gave me the drink.

Senator KENNEDY. Did you ever ask or did anybody ever——

Colonel REWET. I believe they confirmed this.

Senator KENNEDY. Would the members of the family like to make a brief remark? You understand what our particular interests are in terms of the notification and other factors. If there is anything else any of you would like to say, we would be glad to hear you.

Mr. OLSON. I think we want to emphasize that there are many areas involved in this whole incident about which we know little or nothing. One area is the whole trip to New York, what exactly the purpose of that trip was, the kind of treatment he received, if it was treatment, what the purpose of the consultation was with Dr. Abrahamson, who we now know from the CIA documents was a psychiatrist and had been practicing in that specialty.

The concern that we have had has been that apparently my father did pose some kind of security risk after he was given the drug, and, given that, what kind of precautions were going to be taken for his well-being. We know very little about that. We do know that there was no medical professional available at the meeting where the drug itself was administered.

Senator KENNEDY. Senator Schweiker?

Senator SCHWEIKER. No questions.

Senator MATHIAS. Could you supplement Colonel Rewet's testimony in any way with respect to Dr. Olson's behavior when he came back from Deep Creek Lake?

Mrs. OLSON. When he came back from Deep Creek, he had been gone for 3 days and he came in very depressed, very quiet. And I sat at the table and I said it is a shame that the adults in this family don't communicate any more, because it was totally unlike him. On the weekend he spoke very little, but he was concerned about a bad mistake—he had not done well at the meetings, people had laughed at him, and it was totally unlike the kind of person that he was.

Senator MATHIAS. Would you consider this a real change in personality?

Mrs. OLSON. A real change in personality. And it had distressed me forever, because I tried to reason with him—I asked him if he had ever broken security, did he ever falsify data, which were the two things in science that were most important. Then I said, well, this is ridiculous, it can't be that bad.

There was no way to reason with him, which is what I was trying to do. Of course, I had no idea that this was not a normal depression. It wasn't a normal kind of concern which he had—but it was not like him. It was the most unreal weekend I could ever remember.

Senator MATHIAS. The most unreal weekend?

Mrs. OLSON. Unreal. When he left on Monday morning to resign, because he had done so badly at the meetings—and, of course, I accepted this as fact. He walked out of the house and then called me about 10 o'clock in the morning and said he had talked to Colonel Rewet and everything was fine. And that night his mood was ever so much better. So the next day, when he walked into the house about 10 o'clock in the

morning and told me that he had consented to have psychiatric care and that someone had wanted to accompany him home because they were afraid he might do me bodily harm, I suddenly had to sit down. I could not comprehend what was happening.

Senator MATHIAS. Had he ever considered the possibility of psychiatric care before this weekend at Deep Creek Lake?

Mrs. OLSON. No. I assumed, of course, I was talking to a rational person, and that was the first time—when he said they felt that I might be harmed—the first time it dawned on me that this man was not rational.

Then I asked if I could go to Washington and drove down with him and Colonel Rewet, and took him to a building which I could not identify, which I assumed was the CIA building. That was the last I ever saw him.

I talked to him on Friday night just after Colonel Rewet had talked to him, and it was a fine discussion—everything was we will see you tomorrow—it was not a goodbye. That was the one thing that consoled me, was that I knew that this could not have been an international act, because he did not call up to say goodbye—it was I will see you tomorrow.

Senator MATHIAS. Forward looking.

Mrs. OLSON. Yes.

Senator MATHIAS. Now, when did you know that he was going to New York?

Mrs. OLSON. When he came home on Tuesday morning, he said he had consented to have psychiatric treatment and he was going to New York to receive it.

Senator MATHIAS. He knew then it would be in New York?

Mrs. OLSON. Yes; they had apparently discussed that at work before he came home. And this was about the middle of the morning on Tuesday.

Senator MATHIAS. But you did not know the name of the doctor?

Mrs. OLSON. No; I had no idea. I later was told that the reason they had taken him to Dr. Abrahamson was because he knew him slightly from a tour at Edgewood, and also the doctor had high security clearance so Frank would be able to talk with him freely, which was necessary. I assumed he was going to be getting psychiatric care from him, or treatment.

Senator MATHIAS. Colonel Jordon, I can't help but observe that once again you are nodding in a reminiscent way as if these experiences are being relived, is that true?

Colonel JORDAN. That is right.

Colonel REWET. Mr. Chairman, could I say one thing?

Senator KENNEDY. Certainly.

Colonel REWET. Something that has troubled me for 22 years is the fact that, while I never recall having told Mrs. Olson anything that was flatly untrue, I did allow her to think things were not true. I would like to have that put on the record that I do regret it.

Senator KENNEDY. That is a very honorable gesture.

Senator MATHIAS. Colonel Rewet is a very honorable man.

Senator KENNEDY. It points up even more dramatically, I think, that we are talking about some of the most loyal and committed and dedicated and patriotic Americans who have been included in this kind of testing procedure, and whose lives have been obsiously, in terms

of the direct testimony we have heard today, altered and changed in the most significant and dramatic way, and tragic way, including death, contemplation of death, disruption of lives.

Certainly, no one would question the need for drug experimentation if there is to be progress in this field, but no one should experience what we have heard here today, in terms of the gross misrepresentation about potential side effects of any of these drugs, the complete failure of notification in terms of some of those that participated, so they are completely unprepared to cope or deal with these tragic after-effects. And even if they were notified, they were not notified as to the full extent of implications, as to what the effect of the drug would be. Apparently there was very little medical supervision during the testing—and, woefully, tragic little follow-up on all the kinds of emotional and psychological and physical damage that was the result of these tests.

And that is just wrong. And I don't think any of us are so naive as to believe that we are going to be able to, with the passage of any kind of legislation, eliminate the ills of our society. But what we can do, as legislators is to set up the necessary kinds of protections for our citizens which I think all of us here—and I think I speak without exception for the Members of the Senate and Congress, feel that every American is entitled to.

I want to just reiterate what Senator Mathias, Senator Stafford, and Senator Schweiker commented on, and that is that we want to offer whatever help that we possibly can during this period. But there is nothing that we are going to be able to do that is going to bring back a loved one, and in many senses the kind of damage that has been done is irreversible.

But to the extent that we can help and assist, I want you to feel that any of us, myself and the others all included, want to be of whatever help and assistance that we possibly can.

Senator MATHIAS. Mr. Chairman, it has been a particularly revealing morning of testimony. The chairman is to be thanked for having taken the leadership in scheduling this hearing and bringing this whole question to the kind of focus that it has come today. And it is valuable, because, Mr. Chairman, I think in these hearings that you have arranged, we not only get, really for the first time, a kind of first-hand look at what has happened, but I think, at least as far as I am concerned, we understand some new facets of it.

I think we have all been able to feel and understand the kind of experience that the Olson family suffered in not knowing for more than 20 years exactly what happened to Dr. Olson, in not being sure what kind of cloud lay over them. But Colonel Rewet's last remark, I think, is very revealing, the kind of pressures that are put on an honorable man, the kind of pressures with which he has lived for 22 years, which are created by the system—and I do think we all have an obligation to change the system and to remove this particular kind of pressure on Americans, which I think is so alien to the whole system.

Senator KENNEDY. Thank you very much, you are all excused.

We will stay in order, please. We have got two more panels. What we are going to do is excuse the third panel. We had given some

assurances to the Army to have them on and out by a certain time and we are going to run into a time problem.

And so I will ask if Major Johnston and Captain Wannarka and Lieutenant Colonel Dettor would just remain with us till the end of the hearing, so in terms of reference to various materials they had, they can clear those matters up. But we will go right to the panel, U.S. Army—their General Counsel Mr. Ablard and Lt. Gen. R. R. Taylor, the Surgeon General, and Brig Gen. K. R. Dirks, who is the Assistant Surgeon General—if they would be kind enough to come up here.

As I understand, you have a prepared statement that is essentially the same statement that you gave to the Hébert committee earlier this week with the exception of one additional page.

Am I correct, or do you have new testimony today?

STATEMENT OF CHARLES D. ABLARD, ESQ., GENERAL COUNSEL, DEPARTMENT OF THE ARMY; ACCOMPANIED BY LT. GEN. R. R. TAYLOR, SURGEON GENERAL AND BRIG. GEN. KENNETH R. DIRKS, ASSISTANT SURGEON GENERAL FOR RESEARCH AND DEVELOPMENT, A PANEL

Mr. ABLARD. That is the major change.

Senator KENNEDY. Well, since you have basically presented, that testimony already to the House, I would just think we could incorporate that in the record. If there was any other additional comment that you would want to make, you may make that, I would think, now.

But it seems to me that rather than running through the whole kind of testimony which you have already given 2 days ago that we ought to get on to some of the matters which have been brought up here this morning, which we are interested in.

Mr. ABLARD. You would incorporate that, then?

Senator KENNEDY. Yes, I will have it incorporated in the record as if read.

[The prepared statement of Mr. Ablard follows:]

STATEMENT

BEFORE THE

SUBCOMMITTEE ON ADMINISTRATIVE PRACTICE AND PROCEDURE

SENATE JUDICIARY COMMITTEE

AND THE

SUBCOMMITTEE ON HEALTH

SENATE LABOR AND PUBLIC WELFARE COMMITTEE

BY

CHARLES D. ABLARD

GENERAL COUNSEL

DEPARTMENT OF THE ARMY

SEPTEMBER 10, 1975

Mr. Ablard was appointed General Counsel of the Army on 19 February 1975. In this capacity he serves as legal counsel to the Secretary, the Under Secretary, the Assistant Secretaries, and their staffs.

Mr. Ablard was born on October 25, 1930, in Enid, Oklahoma. He received a Bachelor of Business Administration from the University of Oklahoma in 1952, an LLB from the University of Oklahoma in 1954, and an LLM from the George Washington University Law Center in 1959. He has been admitted to practice before the Supreme Court of the United States, the Supreme Court of Oklahoma, the U.S. Court of Military Appeals and several lower federal courts.

Immediately after he graduated from law school in 1954, Mr. Ablard served as a judge advocate in the Air Force with duty assignments at Maxwell AFB, Oklahoma, and Itazuke, Japan.

From 1958 to 1960 Mr. Ablard was the Judicial Officer and Chairman of the Board of Contract Appeals of the Post Office Department. Mr. Ablard was in the private practice of law in Washington, D.C. from 1960 to 1963.

From 1963 to 1969 Mr. Ablard served as the Vice President and Counsel of the Magazine Publishers Association and the American Association of Magazine Editors, in Washington, D.C.

In 1969 Mr. Ablard became General Counsel and Congressional Liaison of the United States Information Agency, Washington, D.C., where he served until 1972. Mr. Ablard served as Associate Deputy Attorney General in the Department of Justice from 1972 until 1974. During 1974 Mr. Ablard was a Visiting Fellow of the Center of International Studies, Cambridge University, England.

Mr. Chairman, Members of the Committee:

It is a privilege for me to appear before your subcommittee this morning to discuss the Army's Drug Testing Program; a subject which quite properly warrants your review. I am accompanied by Lieutenant General Richard Taylor, The Surgeon General of the Department of the Army. We welcome the opportunity to testify within the limits of our present knowledge.

Current interest in the history of Army drug testing using human subjects was prompted in part by the Rockefeller Commission Report's disclosure that an unidentified Army civilian employee had committed suicide several days after having been administered LSD. This individual was, of course, later identified as Dr. Frank Olson.

On July 21, 1975, the Acting Secretary of the Army directed the Army Inspector General to conduct a comprehensive investigation to establish the totality of historical facts and circumstances surrounding the Army's participation in drug testing, focusing particularly upon the testing of hallucinogenic drugs on human subjects. The Secretary also suspended all human testing, and ordered all volunteers to be returned to their regular duty assignment. The Inspector General's investigation which also encompasses the allegations concerning the

Chief of the Medical Research Division, is currently in progress. Although substantial investigatory effort has already been expended, including formal interviews of over 55 witnesses, numerous informal interviews of other individuals, and review of thousands of pages of documentation, the bulk of this investigation remains to be completed. In the course of this investigation, one fatality has been identified as having occurred in connection with one of the contracts let by the Army for drug testing. This was Mr. Harold Blauer, who at the time of his death was a patient at the New York State Psychiatric Institute. The Department of the Army announced this information shortly after it was learned on 7 August 1975.

As the time period of the investigation dates back to the late 1940's many of the most knowledgeable witnesses are either deceased or have not as yet been located, and the memory of many of those who have been located is incomplete or imprecise. In addition, numerous pertinent records have not as yet been located, and many may have been routinely destroyed under standard procedures for destruction of all records. In my testimony today I will attempt to summarize the information that has thus far been developed as a result of the

Inspector General's investigation. However, I wish to emphasize that because this investigation is still in progress, and because of the problems that I have just noted with regard to locating knowledgeable witnesses and pertinent documentation, we have not as yet been able to reconstruct a complete account of the Army's participation in drug testing. There are substantial gaps in our knowledge, and much of the information that we have been able to assemble is incomplete. For this reason, there are many questions to which we simply do not have the answers at the present time.

Before discussing the specifics of the program, I believe it appropriate to provide insofar as security considerations permit, the factors which mandated that a program be initiated, and what we perceived as the objectives of such a program.

Starting in the early 1950's, intelligence reports which were received indicated large purchases by other governments of possible hallucinogenic agents which could be used as chemical warfare material. These reports also cited documented studies of research conducted by these countries in the 1940's and 50's with various psychochemicals, as well as references to the capture by U.S. or U.S. allies of foreign agents who were carrying syringes of fluid to

facilitate control of captives. Furthermore, on October 21, 1951, after communication with several European medical personnel concerning the effect of "ego-depressant drugs," a civilian doctor under sponsorship of The Surgeon General sent a report to him in which he related reports of the utilization of drugs by foreign agents and indicated the need for further research to determine the possible effects such drugs could have on national security.

This information presented a serious threat -- it indicated that a major portion of our deterrent forces could be rendered helpless -- and defenseless -- by drugs which were odorless, colorless and tasteless. It also reflected that our most sensitive security matters could be unknowingly compromised. But perhaps of even greater significance, it indicated that an alternative to nuclear weapons might be available; a weapon which might render large forces helpless -- but only temporarily -- and without any permanent damage to those forces and none to their surroundings. These matters were covered in testimony by Major General William M. Creasy, former Chief Chemical Officer, U.S. Army, before hearings of the House Committee on Science and Astronautics on June 16, 1959, wherein he discussed

at great length the possible use of chemical agents as a substitute for nuclear weapons.

The program initiated at that time therefore had three specific objectives: to determine what hallucinogenic drugs might provide an effective alternative to more drastic weaponry; to ascertain the potential application of such drugs in intelligence operations; and finally, to attempt to develop an antidote to such drugs should they be used against U.S. or Allied forces.

Once decisions were made at levels above that of the Department of the Army to proceed with the testing of psychoactive and other drugs, the Chemical Corps, then a separate technical service of the Army, headquartered at Edgewood Arsenal, Maryland, entered into a series of contracts with various universities, state hospitals, and medical foundations. Unfortunately, many of the early contracts are unavailable. Our best information is that many of these contracts were routinely destroyed some time ago. However, we have located some documentation, all of which indicates that the Army's primary interest was in acquiring the results of investigations and experimentations being conducted by these civilian research organizations.

Our review has encompassed a total of fifty-two contracts, starting from the early 50's and continuing to the 70's. I should like

to stress that of the fifty-two contracts of which we have knowledge, only a small number (13) involve testing compounds which might be described in a broad sense as hallucinogenic or delirient. The 39 remaining contracts can all be placed into three categories: first, tests of various anticholinergic agents, such as atropine, and basic research into organophosphates, in a constant effort to refine antidotes to organophosphate nerve poisons; second, tests of various common drugs in medical use, such as morphine, and other analgesics as well as miscellaneous non-psychoactive drugs; and, third, non-drug tests of physiological functions, such as lung function or skin permeability. In the interest of time, I have not prepared detailed remarks on these contracts, but I have pertinent documents should you have any questions.

Turning to the research on hallucinogenic drugs, we discovered 9 such contracts. The first two of these were negotiated in 1951 with the New York State Psychiatric Institute, a leader in the field of the use of hallucinogenics in the diagnosis and treatment of the mentally ill. The subjects were psychiatric patients. The records are ambiguous concerning the matter of the consent of the patients. The drugs utilized included LSD, mescaline, and others. In the course of one of these contracts, a subject, Mr. Harold Blauer, then a patient at the New York State Psychiatric Institute, was administered a

mescaline derivative which proved fatal. This matter is presently the subject of a pending claim against the Army by Mr. Blauer's two daughters.

Information regarding Mr. Blauer's death came to light during the course of the Inspector General's investigation as the result of the discovery of a file at Edgewood Arsenal on 7 August of this year. The Department of the Army announced this discovery on 12 August. Although originally classified, the Army recently has made available to the two daughters those documents in the file containing factual data concerning Mr. Blauer's death. More recently additional information regarding Mr. Blauer's death has become available as the result of the discovery of another classified file maintained by the Department of Justice.

These files indicate that Harold Blauer entered Bellevue Hospital in New York City in October of 1952. On December 5, 1952 he was transferred to the New York State Psychiatric Institute. We have thus far been unable to locate any records reflecting how Mr. Blauer was chosen by the Psychiatric Institute to participate in the mescaline derivative experiments. Nor is there any indication as to whether his consent was obtained by the attending physician. Mr. Blauer died at the Institute on January 8, 1953, several hours after having been administered a mescaline derivative.

Harold Blauer was survived by his former wife, since deceased, and two minor daughters. In April of 1953, Mrs. Blauer initiated two lawsuits against the State of New York in the New York Court of Claims. It appears that officials of the Army's Chemical Corps, which had entered into the contract with the New York State Psychiatric Institute, were informed of Mr. Blauer's death by Institute officials shortly after it occurred. These officials apparently were concerned that public disclosure of the Army's interest in the compounds being tested could prove detrimental to the national security, and that classified information might be required to be disclosed in the course of litigation. Consequently, following meetings with Department of Justice officials a settlement was negotiated with Mrs. Blauer by New York State attorneys. The New York Court of Claims ultimately required assurance of an $18,000 award before it would approve the settlement. On June 17, 1955, the settlement was finalized by a Court order.

70-026 O - 76 - 11

Turning to some of the other contracts involving research on hallucinogenic drugs, we have learned of a 1955 contract with Tulane University which involved the administration of LSD, Mescaline, and other drugs to mental patients who had theretofore had electrodes implanted in their brains as a part of their medical treatment unrelated to an Army contract. The electrodes were utilized to study the effects of the drugs on the brain's functioning. The methodology used might be subject to some criticism on the ground that a range of compounds was administered to at least one patient without apparent relation to therapy or diagnosis. However, work on the brai n chemistry of mental illness was still pioneering work in 1955, and perhaps it is not surprising in the cool light of analysis 20 years later that some of the techniques then employed now appear less than perfect.

Of the six remaining contracts, one was with the University of Washington, two were with the Research Foundation for Mental Hygiene, Inc., the successor to the New York State Psychiatric Institute, two others were with the University of Maryland and one was with the Institute for Behavioral Research. Five of the six studied LSD. the remaining one studied many compounds including amphetamines. They covered the time period 1953 to 1965. None of them appears remarkable, but, again, I have more complete information should you desire it.

Although the medical profession has had ethical codes and procedural safeguards on the use of human beings in drug experimentation for over a century. I must admit that they appear not always to have been followed in these tests. These standards require, for example, that the individual be informed as to all aspects of the nature, methods and effects of the experiment, that he give his voluntary written consent before any testing and that he be free to withdraw from the experiment at any time. The Surgeon General will elaborate on these matters in his testimony. These are the obligations of the attending physician, or the researcher conducting the experiment. Our records, admittedly incomplete, do not reflect that these procedures were necessarily followed by the research organizations with whom we contracted. To insure compliance with these requirements, the Army has, since at least the early 60's, followed the practice of requiring contract clauses setting stringent controls over the use of human beings in experiments. Such a clause is present, for example, in our contract with the Institute for Behavioral Research.

Chemical Corps Testing of LSD

Based upon the results obtained under early contracts with civilian research organizations, military-related testing of hallucinogenics was initiated. Insofar as we have been able to determine, Army in-house testing of LSD on human subjects commenced some time in 1955 and was conducted intermittently through 1967 using military and Army civilian personnel recruited from the Army areas within the United States. Most of this testing was conducted at Edgewood Arsenal, Maryland.

In addition, available information indicates that a number of field tests were conducted at certain other Army installations. The purpose of these field tests was to determine the effects of LSD administration on the ability of soldiers to perform various normal military functions. For example, in December 1957, 16 men were tested under LSD influence during operation of a radar van at Aberdeen Proving Grounds, Maryland. During this same period, at Edgewood Arsenal, 40 individuals were tested under LSD influence in the performance of such activities as rifle assembly and disassembly, masking and skin decontamination procedures, a volley ball game, and close order drill. Films were made of the latter test and used as a demonstration vehicle within the Army as to the effects of LSD.

In September, 1958, field tests were conducted at Fort Bragg, North Carolina. One of these tests involved administration of LSD to 20 Special Forces personnel engaged in a guard post exercise and a simulated interrogation exercise. In another series of tests at Fort Bragg, 59 men from the XVIII Airborne Corps Field Artillery were tested under LSD influence while engaged in a meteorological survey, a ground survey, a 40 mm artillery crew drill, and fire direction center and forward observer exercises. These latter tests were also filmed.

Available information also indicates other field tests involving personnel of the advanced officers courses at the Chemical Corps School, Fort McClellan, Alabama; four members of an instructor class at Dugway Proving Grounds, Utah, in 1959; and approximately 34 members of an infantry advanced course at Fort Benning, Georgia, in January, 1960.

Available records characterize all of the LSD test subjects, both at Edgewood Arsenal and at the field locations, as volunteers. However, as I will discuss later in connection with testing of LSD, for intelligence purposes, it is not certain how much advance information was imparted to each prospective subject regarding the possible effects

of LSD or the exact nature of the experiments to be conducted, or whether some coercion may have been brought to bear upon prospective subjects by their superiors in order to obtain their participation.

Testing of LSD for Intelligence Purposes

During the period 1958 through 1962 a series of experiments were conducted specifically designed to evaluate potential applications of LSD to intelligence operations. In particular, these experiments focused upon the possible use of LSD as an aid in intelligence interrogations. In this regard it was desired to determine whether, as a result of the administration of LSD, a well-trained and experienced intelligence agent could be made to divulge classified information that could not be obtained from the agent solely through use of conventional questioning.

A series of clinical experiments were performed during the period 1958 through 1960 at Edgewood Arsenal, Maryland. These experiments, which were conducted as a joint project of the U.S. Army Intelligence Board and the Medical Research Directorate of the Army's Chemical Warfare Laboratories, used as subjects military intelligence personnel made available by the U.S. Army Intelligence Center. Subjects were specifically selected for a high degree of security conditioning and intelligence experience. In addition, preliminary mental and physical examinations were a prerequisite to acceptance into the program.

Available records indicate that approximately 31 Army intelligence personnel participated as subjects in the program. Because these records are incomplete, there are significant unanswered questions as to whether participation in the program was truly voluntary by today's criteria. Planning documents indicate that prospective subjects were to be advised generally as to the nature of the program, and that they could terminate their participation at any time. In particular, prospects were to be advised that the project would consist of a series of mental and physical tests of human reaction to a specific material which would be administered under in-patient clinical conditions. Prospects were not, however, to be informed as to the exact properties of the material to be administered or its potential intelligence application, nor, in connection with certain of the experiments, the time, location, or method of administration. This information was withheld in order not to prejudice experimental results by suggestion. Planning documents also indicate that each prospect who agreed to participation in the program was to sign a statement indicating in part that the general nature of the experiments had been explained to him from the standpoint of possible hazards to health; that he understood that the experiments would be so conducted as to avoid all unnecessary physical and mental suffering and injury; that he would be at liberty to request that the experiments

be terminated at any time; that he recognized that in the pursuit of certain experiments transitory discomfiture may occur; and that there had been no coercion, undue moral suasion or other adverse pressure brought to bear in his volunteering; and that he had done so of his own free will. Available records do not indicate, however, whether these procedures were in fact followed in each case, or exactly what information was imparted to the prospective subjects.

The experiments at Edgewood were conducted by qualified medical personnel of the Chemical Warfare Laboratories under controlled clinical conditions. Project officers of the U. S. Army Intelligence Center provided technical advice and assistance in the structuring of experiments. In addition to a number of standard tests of mental and physical abilities related to performance of intelligence tasks, conducted so as to compare pre and post drug administration results, the experimentation program included certain structured situations wherein the applicability of the drug for intelligence purposes was assessed. In these situations an attempt was made to overcome the security training and experience, principally interrogation resistance, of the subjects by exploitation of the effects of the drug. The structured situations consisted of: (1) Simulated social receptions where LSD was administered surreptitiously to the subjects (in cocktails);

(2) Simulated stress situations wherein subjects were given polygraph examinations after administration of LSD; and (3) Administration of LSD in conjunction with confinement in an isolation environment.

In each situation medical personnel were present at all times. Observation reports by those supervising the experiments, as well as subjective reports by the subjects themselves, were used in assessing the effect of the drug. In general, it was found that use of LSD, either alone or in conjunction with conventional interrogation techniques, could be effective in reducing the resistance to interrogation of well-trained and experienced intelligence personnel.

In view of the results of the clinical experimentation at Edgewood Arsenal, and in recognition of the limited capability to structure realistic interrogation situations in a laboratory environment using volunteers, a proposal was submitted by the U.S. Army Intelligence Center, in coordination with the Chemical Warfare Laboratories, to conduct field experimentation in conjunction with actual interrogation situations. This proposal was approved by the Army's Assistant Chief of Staff for Intelligence, and subsequently two series of field tests were conducted.

Available records indicate that on 10 April 1963, the Deputy Assistant Chief of Staff for Intelligence directed that no further field

testing of LSD be conducted. No records have been found to indicate that any Army intelligence testing of LSD has been performed since that time.

Available records indicate that approximately 600 individuals were administered LSD during the course of the Army in-house testing programs at Edgewood Arsenal and at the field test locations. There is reason to believe, however, that these records may not be complete, and that the total number of participants may have been somewhat higher. Hence, a priority effort is continuing as part of the Inspector General's investigation in an attempt to compile a complete listing of participants in the LSD testing programs. The names of all of the participants thus far identified have been forwarded to the Army's Surgeon General for the purpose of conducting a comprehensive follow-up medical evaluation program on all individuals who can be located. This effort, which is currently underway, will require the assistance and cooperation of at least two other agencies, the National Academy of Sciences - National Research Council Medical Follow-up Agency and the Veterans Administration.

Mr. Chairman, this concludes my prepared remarks. I have attempted to describe within the structure of security considerations

and the right of privacy of the individuals involved the external factors which caused our government to initiate a testing program; the manner in which the program was conducted; and the actions we have recently initiated in an attempt to insure that the participants in the program have and will continue to receive appropriate medical treatment.

Mr. Chairman, as I indicated at the outset, the Inspector General investigation has not been completed. As soon as any additional information is developed, it will be provided to you.

I will be pleased to attempt to respond to any questions you may have.

EXHIBIT 16

LTC Bradley

SAGC/Feagles/slb/7August 1979

8 AUG 1979

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (RESEARCH, DEVELOPMENT AND ACQUISITION)
CHIEF OF PUBLIC AFFAIRS
DIRECTOR OF THE ARMY STAFF
DEPUTY CHIEF OF STAFF FOR OPERATIONS
THE JUDGE ADVOCATE GENERAL
THE SURGEON GENERAL

SUBJECT: Notification of Participants in Drug or Chemical/Biological Agent Research

In August 1978, I requested on behalf of the Secretary of the Army that the Director of the Army Staff initiate a notification program. As part of that program, contractors who, in performance of contracts with the Army, conducted research on humans with drugs or chemical/biological agents would be asked to notify those individuals who were not fully informed participants and may have suffered injury or be subject to a possible injury. A copy of that request is at Tab A.

Although preliminary steps to implement the program have been taken, not enough progress has been made. A number of issues have been raised by various parties and must be resolved prior to successful implementation of a comprehensive notification program. The paper at Tab B sets forth those issues and our recommended solutions to each issue. The purpose of this memorandum is to solicit your comments concerning those issues and the overall notification program.

In formulating your comments, you should be aware that the Secretary, after consulting with various members of the Secretariat and Staff, has concluded that, as a policy matter, some type of notification program is necessary. Moreover, the legal necessity for a notification program is not open to dispute. The Department of Justice has concluded that another Federal agency "may well be held to have a legal duty to notify those . . . drug-testing subjects whose health [it] has reason to believe may still be adversely affected by their prior involvement in [the] drug-testing program." We independently reached the same conclusion with respect to the Army's programs.

ASG Mrs. Volner
CGC Mr. Feagles ✓

EXHIBIT
710
LVF 01-11-12

I would appreciate receiving any comments that you might have not later than August 21, 1979. After considering the various comments received, I plan to recommend a comprehensive course of action to the Secretary.

(Signed) Jill Wine-Volner

Enclosures
as

Jill Wine-Volner
General Counsel

EXHIBIT 17

DEPARTMENT OF THE ARMY
OFFICE OF THE GENERAL COUNSEL
WASHINGTON, D.C. 20310

24 SEP 1979

MEMORANDUM FOR THE DIRECTOR OF THE ARMY STAFF

SUBJECT: Notification of Participants in Drug or Chemical/Biological Agent Research

On August 8, 1979, we solicited your views and those of several other Army officials concerning a program to notify participants in Army drug or chemical/biological agent research programs. We have considered the various comments received and have developed the following broad guidance.

a. The Army should review all research programs, regardless of whether conducted by the Army or on behalf of the Army by independent contractors, that were initiated to study possible military, rather than medical, applications of various drugs and chemical/biological agents. If there is reason to believe that any participants in such research programs face the risk of continuing injury, those participants should be notified of their participation and the information known today concerning the substance they received. This notification should be affected regardless of whether the individuals were fully informed volunteers at the time the research was undertaken.

b. The determination of risk of continuing injury will require a medical determination. The Surgeon General should have primary responsibility for that determination. However, he should be authorized to consult with an outside expert body such as the National Academy of Sciences when making that determination.

c. In the event that the long term hazards of a substance are not known, The Surgeon General should continue to monitor research developments, and if at some future time more information makes it necessary to take some action, The Surgeon General should recommend appropriate action, including notification.

d. Apart from the decision concerning notification, The Surgeon General should be asked to consider whether medical examinations would be medically beneficial or desirable in any particular case. Again, he should be urged to consult with an appropriate outside body in arriving at his conclusion.

7-6-11
PLAINTIFF'S EXHIBIT 310
Kilpatrick

Incl 2

VET017-000279

e. With respect to research conducted by contractors, the contractor should be notified of the information available to the Army and of the Army commitment to an appropriate notification program, and asked to undertake an effort to notify, as necessary, those participants in the contract research. Should the contractor refuse to conduct such an effort, the Army should consider whether further action is necessary or appropriate.

f. An essential preliminary to this notification program will be the development of complete information concerning the Army's past nonmedical drug and biological/chemical agent research efforts. Although the 1975 Inspector General Report represented a substantial undertaking, it appears that more needs to be done. I recommend that the Staff undertake an effort to locate, consolidate, organize and summarize those records that related to these various research programs. This effort would be similar to that which has been undertaken with respect to atmospheric nuclear weapon tests. Such an effort not only will aide greatly in the implementation of the notification program, but will ensure that the Army is in position to respond quickly and accurately to various new reports concerning its research programs. At present, we are not always fully prepared to respond to these disclosures, and unnecessary time may therefore lapse before we can ascertain the details.

The foregoing guidance is intentionally quite broad. In undertaking this notification effort, a number of details remain to be resolved, and minor issues will continue to arise. These matters should be resolved within the Staff, relying upon the sound and reasonable judgment of the appropriate staff officers. This office will of course be available to assist as necessary in resolving these matters.

I trust that you will ensure that this matter is given appropriate attention.

Jill Wine-Volner

Jill Wine-Volner
General Counsel

EXHIBIT 18

CHIEF OF STAFF

Memorandum

U. S. ARMY

DISTR A EXPIRES 31 October 19

CSM 79-385-39

DATE 25 October 1979

FILE CS 250.1 (25 Oct 79

ACTION OFFICER/EXT
LTC Bradley/rc/53071

SUBJECT: Notification of Participants in Drug or Chemical/Biological Agent Research

MEMORANDUM FOR: HEADS OF ARMY STAFF AGENCIES

1. PURPOSE. This memorandum establishes Army Staff responsibilities for review of past Army research involving possible military applications of drug or chemical/biological agents. The objective of this effort is to identify and notify those research participants who may face the risk of continuing injury. Medical examinations and other follow-up efforts will be conducted if appropriate. This program has high public, media, and Congressional interest and the commitment of the Secretary of the Army that all actions will be completed in a timely and efficient manner. It is a positive and humane program on the part of the Army, designed to properly look out for the continued well-being of individual test participants.

2. REFERENCES.

a. SAGC memorandum, dated 24 September 1979, subject: Notification of Participants in Drug or Chemical/Biological Agent Research (Inclosure 2).

b. DAIG report, dated 10 March 1976, subject: Use of Volunteers in Chemical Agent Research.

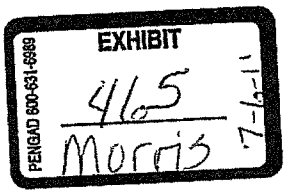
c. HQDA report, dated 24 February 1977, subject: U.S. Army Activity in the U.S. Biological Warfare Programs.

3. DISCUSSION.

a. As indicated in referenced documents, both the Army and contractors acting on behalf of the Army conducted research with various drugs or chemical/biological agents using humans as the test subjects.

b. In the process of providing support for DOD Congressional testimony and answers to interrogatories related to continuing litigation, the Army has reviewed and consolidated known available, past chemical research contracts and supporting documents at the Chemical Systems Laboratory (CSL), Armaments Research and Development Command, Aberdeen Proving Ground, Maryland. Past biological research contracts and supporting documents are maintained by elements of The Surgeon General's Medical R&D Command, Fort Detrick, Maryland. Records of internal Army chemical and biological research of this nature are currently maintained by elements of the Medical R&D Command at Aberdeen (Edgewood Arsenal) and Fort Detrick.

DAS FORM 63, 1 MAR 66



SUBJECT: Notification of Participants in Drug or Chemical/Biological Agent Research

c. Reference a requires a medical review of those past research projects that were initiated to study possible military applications of various drugs and chemical/biological agents. Participants in those projects who are considered by medical authority to be subject to the possible risk of a continuing injury are to be notified. In the event that long-term hazards of a substance are not known, The Surgeon General (TSG) should continue to monitor research developments, and if at some future time more information makes it necessary to take some action, TSG should recommend appropriate action, including notification.

d. Reference a also recommends that further efforts be taken to consolidate organize, and summarize records that relate to the various research programs. This action, coupled with the extensive historical information contained in references b and c, will aid greatly in the implementation of any notification/ medical follow-up efforts and will also ensure that the Army is in a better position to respond to future reports and requests for information from the public, the media, etc.

e. Significant required actions resulting from reference a are outlined at Inclosure 1.

4. RESPONSIBILITIES.

a. Coordination, Analysis, and Reports Division, Management Directorate, will be OCSA point of contact for coordination and resolution of operational and policy matters and will monitor the program for the VCSA.

b. TSG will assume the lead responsibility for implementing this program with authority to task other Army Staff (ARSTAF) agencies and commands as appropriate for support.

c. Responsible ARSTAF agencies listed at Inclosure 1 will--

(1) Accomplish actions required.

(2) Coordinate with other Staff agencies as appropriate.

BY DIRECTION OF THE CHIEF OF STAFF:

2 Incl
as

JOHN R. McGIFFERT
Lieutenant General, GS
Director of the Army Staff

SIGNIFICANT ACTIONS

	Action	Responsible Agency	Projected Completion Date
1.	Develop necessary implementation plans in coordination with DARCOM.	TSG	1 December 1979
2.	Develop and dispatch list of compounds/agents for National Academy of Sciences (NAS) review and recommendations. Request NAS to expedite evaluation of compounds for determination of risk of continuing injury and benefit or desirability of medical examinations/follow-up. Request NAS provide recommendations to TSG as individual compounds are reviewed, rather than as a total package, after review of all compounds.	TSG (task DARCOM for assistance as required)	15 January 1980
*3.	Start immediately on development of centrally located/catalogued summary data on: a. All Contracts - name of contractor, contract number, substances used, dates of exposure, location of test, names or number of participants, results of testing, etc. b. Each Research Project - name of compound, why, when, and where tested, results, names/number of participants, etc. c. Each Participant - name of compound received, why, when, and where tested, dosage, results of testing, etc. Include identifying data, i.e. name, military or civilian status, rank, SSN/SSAN, unit/address (if available).	TSG (task DARCOM for assistance as required)	1 June 1980
4.	After evaluation of compounds, determine those contracts in which participants may face the risk of continuing injury and draft letters of notification to appropriate contractors	TSG (task DARCOM for assistance as required)	ASAP

	Action	Responsible Agency	Projected Completion Date
5.	Sign and dispatch letters of notification to appropriate contractors.	TAG	ASAP (as required)
6.	Provide, as it becomes available, individual participant identification data to TAG for determination of last known address.	TSG (with DARCOM assistance)	ASAP (as ID data becomes available)
7.	Determine last known addresses and provide to TSG.	TAG	ASAP
8.	Assist TAG by providing last known address information on DA civilian test participants.	DCSPER	as required by TAG
9.	After evaluation of compounds, prepare and dispatch letters of notification to appropriate individuals as addresses become available.	TSG (with TJAG and DARCOM assistance)	ASAP (as required)
10.	Handle all litigation and tort claims associated with this program.	TJAG	as required
11.	Recommend appropriate Army action in the event contractors fail to respond to requests for notification.	TJAG (with TSG and DARCOM assistance)	as required
12.	Respond to routine inquiries concerning the necessity/requirements for and operational aspects of past non-medical drug and chemical/ biological agent testing efforts.	DCSOPS (with TSG and DARCOM assistance)	as required
13.	Respond to routine inquiries concerning the use of humans in testing and this notification program and task other ARSTAF agencies and DARCOM to provide input in their areas of responsibility as required.	TSG	as required

	Action	Responsible Agency	Projected Completion Date
14.	Process all FOIA and other requests for information received by HQDA; establish central file copies of all requests received and answered by HQDA Staff agencies, MACOMs and subordinate elements; and act as central point of contact for responding to FOIA and other requests on this subject.	TAG	15 November 1979
15.	Provide technical chemical/biological expertise/assistance	DCSOPS/DCSRDA	as required
16.	Coordinate all public announcements and interviews associated with this program.	CPA	as required
17.	Coordinate Congressional activities and responses to Congressional inquiries and task ARSTAF agencies for support as required.	CLL	as required
18.	Coordinate all notification actions and responses to inquiries with TJAG.	All	as required
19.	Continue to monitor questionable compounds for long-term hazards and take notification/ follow-up action as appropriate.	TSG	indefinite
20.	Provide monthly progress report to OCSA with information copies to other interested agencies.	TSG (with input from other responsible ARSTAF agencies and DARCOM as required)	15th of each month for previous month
21.	Be prepared to participate in IPR for VCSA, as required.	TSG TJAG TAG DCSOPS CPA DCSPER	as required

* Note: Chief of Staff Memorandum 385, dated 30 June 1953, which implemented the Wilson Memorandum (26 February 1953) authorizing human testing suggests itself as the ideal cut-off date for in-house Army testing. The earliest contract effort was reportedly 1947, which should be the cut-off date for research in that area. Priority of effort should be concentrated on testing subsequent to these dates with follow-up of earlier testing, as appropriate, if identified.

EXHIBIT 19

DEPARTMENT OF THE ARMY
OFFICE OF THE SECRETARY OF THE ARMY
WASHINGTON, D.C. 20310

OFFICE, CHIEF OF
LEGISLATIVE LIAISON

2 November 1979

MEMORANDUM FOR RECORD

SUBJECT: Notification of Participants in Drug or Chemical/Biological Agent Research

1. The Department of the Army announced today that it has initiated a program to identify and notify participants in past Army drug or chemical/biological agent research who may be subject to a risk of continuing injury. Under this program, the Army will review all research programs undertaken by the Army or on behalf of the Army by private contractors to study possible military applications of drugs and chemical/biological agents.

2. Interested Members of Congress and Committees will be advised via post office delivery, this date. Public release will be made at 1530 hours, this date.

HANSEN/Operations/74417

CC:
CLL
DCLL
SALA
SA
SAUS
SAPA
DAPE
DACS-DMA
OSD(MRA&L)
OSD(LA)
OSD(PA)
ODAB
DASG
SAGC
DAJA
DAMA
DAMI
DAMO-NCC
CCA
HOUSE LN DIV
SENATE LN DIV
RELEASE FILE

PLAINTIFF'S EXHIBIT 318 Kilpatrick

VET030-022692

DEPARTMENT OF THE ARMY
Office of the Secretary of the Army
Washington, D.C. 20310

INFORMATION FOR MEMBERS OF CONGRESS 2 November 1979

Notification of Participants in Drug or Chemical/Biological Agent Research

The Department of the Army announced today that it has initiated a program to identify and notify participants in past Army drug or chemical/biological agent research who may be subject to a risk of continuing injury. Under this program, the Army will review research programs undertaken by the Army or on behalf of the Army by private contractors to study possible military applications of drugs and chemical/biological agents.

The Army Surgeon General is planning to request the National Academy of Sciences (NAS) to assist in review of available data on compounds/agents tested to determine if there may be risk of continuing injuries to individuals who have been exposed to them. If there is reason to believe that participants in a research program conducted by the Army face risk of continuing injury, the Army will notify those participants of the information concerning the substance received. In addition, The Surgeon General, in consultation with the NAS, will determine if medical examinations or other follow up efforts would be medically beneficial in any particular case. If so, the Department of the Army will consider undertaking those efforts.

With respect to research conducted by contractors on behalf of the Army, the contractors will be notified of the information available to the Army and of the Army's commitment to an appropriate notification program. The contractors will be asked to undertake an effort to notify, as appropriate, those participants in the contract research.

If the long term hazards of a substance are not known, The Surgeon General will continue to monitor research developments. If at some future time more information becomes known, The Surgeon General will recommend action, including notification, as appropriate.

Because of the detailed record searches and the complex medical issues involved, this program likely will take several years to complete. To expedite the process, however, individuals and contractors will be notified as soon as determinations as to the risk of continuing injury associated with each substance are made and individual names and addresses are located.

FURNISHED BY:
OFFICE, CHIEF OF
LEGISLATIVE LIAISON

INTEREST LIST

Broadside Announcement
Sen Kennedy (Hand carry)

House and Senate Armed Services Committee (HASC, SASC)
House and Senate Appropriations Committee (HAC, SAC)

Mr. Kim Wincup, PSM, HASC
Mr. George Travers, PSM, SASC
Mr. John Lally, Counsel, Committee on House Armed Services

Dr Boyle - Let us know before you [illegible]

DEPARTMENT OF THE ARMY
OFFICE CHIEF OF STAFF
WASHINGTON

Chief, Chemical Div.
Col. Robinson

27 September 1979

1. I have been tasked to develop instructions for implementation of the attached memo for VCSA approval NLT 15 October 1979.

2. My plan is to circulate a draft CSM, along with a list of possible future pitfalls, for your review and comment on 2 October. There will be a working level meeting to discuss the draft at 0900 hours, 4 October, in DAS Conference Room, 3D672.

3. Subsequent to the 4 October meeting, I will prepare a final draft document to be reviewed at a General Officer meeting, to be chaired by MG Greer on 10 October. Time and location of that meeting will be provided later.

William A. Bradley, Jr.

WILLIAM A. BRADLEY, JR.
LTC, GS
DACS-DMC X-59913

15 Copies

DEPARTMENT OF THE ARMY
OFFICE CHIEF OF STAFF
WASHINGTON

WDCSA Washington 12 October 1979

1. Attached is the final draft CSM which implements a program for notification of participants in past chem/bio agent research. Appropriate DA STAFF Comments on the initial draft CSM have been included.

2. The list of anticipated factual problems is also attached. That list has not changed since there were no DA STAFF recommended changes.

3. Request Concurrence or written Comments NLT COB 16 October. Telephonic Concurrence is acceptable.

4. This CSM is due to VCSA for final approval on 22 October.

William A. Bradley, Jr.
LTC GS
DACS-DMC X59913

2 Incl
as

EXHIBIT 20

THE DEPUTY SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

9 MAR 1993

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
ASSISTANT SECRETARIES OF DEFENSE
COMPTROLLER
GENERAL COUNSEL
INSPECTOR GENERAL
DIRECTOR OF OPERATIONAL TEST AND EVALUATION
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR OF ADMINISTRATION AND MANAGEMENT
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Chemical Weapons Research Programs Using Human Test Subjects

On January 6, 1993, the National Academy of Sciences Institute of Medicine published a report titled "Veterans at Risk: The Health Effects of Mustard Gas and Lewisite." Based on the findings of the report, Congressional inquiries, and requests from the Department of Veterans' Affairs, I am releasing any individuals who participated in testing, production, transportation or storage associated with any chemical weapons research conducted prior to 1968 from any non-disclosure restrictions or written or oral prohibitions (e.g., oaths of secrecy) that may have been placed on them concerning their possible exposure to any chemical weapons agents. I am also declassifying documents for all chemical weapons research studies conducted prior to 1968, with respect to the issues of personnel health and safety as specified below:

a. The location of each U. S. chemical weapons research program (chamber, field and patch) which used human subjects, the type of chemical(s) tested (e.g., sulfur or nitrogen mustard), and the start and finish dates of each test including preliminary research;

b. Identification of each military unit stationed at each research site during the testing period, and the name, service or social security number, and military unit of each individual known to have participated in a chemical weapons research or testing program (chamber, field, and patch); and

78073

c. The location of all facilities at which individuals participated in the production, transportation or storage of these chemical agents to include: the dates on which storage or production was begun and terminated; identification of each military unit stationed at each storage or production site; and the name, service or social security number, and military unit of each service member known to have participated in production, transportation, or storage of these chemical agents.

Secretaries of the Military Departments are tasked with the following actions:

a. Initiate procedures to fully cooperate in locating and providing the above specified information. Please ensure that the information is provided in such a way as to maintain the integrity of our records and meet Privacy Act requirements.

b. Initiate procedures to declassify documents with respect to the issues listed above for chemical weapons research studies conducted after 1968, including studies performed in support of other Federal agencies; and, release participants from any non-disclosure restrictions (e.g. oaths of secrecy) that may have been placed on them concerning their possible exposure to any chemical weapons agents during testing, production, or transportation of such chemicals. If there are any reasons that would prevent declassification of this material, those reasons should be provided to the Assistant Secretary of Defense (Force Management and Personnel) (ASD(FM&P)), in writing.

Information on the location, chemicals tested, and dates of each chemical weapons research program should be provided immediately. Personnel information should be provided to the ASD(FM&P) by July 31, 1993. Our goal is to provide information to the Department of Veterans' Affairs as soon as possible.

I fully recognize that some of this information may not be readily available. I expect a comprehensive search, however, to ensure that our current and former members receive the assistance and support to which they are entitled. I am directing the Assistant Secretary of Defense (Force Management and Personnel) to establish a task force to monitor the status of these actions. By March 31, Secretaries of the Military Departments should designate points of contact to Ms. Norma St. Claire, OASD(FM&P), (703) 696-8710.

William J. Perry

EXHIBIT 21

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

OAKLAND DIVISION

VIETNAM VETERANS OF AMERICA, et al., Plaintiffs	:	
vs	:	
CENTRAL INTELLIGENCE AGENCY, et al., Defendants	:	CIVIL ACTION NUMBER CV 09-0037-CW

CONFIDENTIAL

Videotaped Deposition of NORMA ST. CLAIRE, taken at 2000 Pennsylvania Avenue, N.W., Suite 6000, Washington, D.C., commencing at 9:37 a.m. Wednesday, January 11, 2012, before Lisa V. Feissner, RDR, CRR, CLR, Notary Public.

PAGES 1 - 257

Q. So the Military Services had not allocated permanent resources to this effort?

A. Right, right. It's -- it's a very reactionary organization. A memo comes out, everybody does this, and then another memo comes out and everybody goes over there, and something else comes out and -- you know. So we were feeling that the high interest in doing this had waned. And we also wanted to add biological.

Q. So what do you mean by the interest had waned?

A. What I just said. Resources had been pulled off to do other things.

Q. But this effort to collect information was a priority for the Department of Defense, correct?

A. In March of 1993, it was a priority for the Department of Defense. It was not the only priority for the Department of Defense. We were in the middle of a kind of a hostile undertaking elsewhere in the world, and undiagnosed illnesses were a priority for the Department of Defense.

Q. So at some point the effort didn't become a priority anymore?

A. It didn't become as high a priority as

some of us thought it should be.

Q. And so this memo was written to get the military departments to put it as a priority again?

A. Uh-huh. It wasn't necessarily signed. I don't remember if it was signed or not. Do you?

Q. Well, let me direct your attention to the first -- very first page of the exhibit.

A. Okay.

Q. And the handwritten note to Fred says, why was attached memo to "redouble efforts" never signed?

A. Okay. Then I guess it was never signed. And my guess that it was never signed would be because we never got coordination. Do we have the response from Fred?

Q. But you thought that this effort should be a priority, correct?

A. I did.

Q. So you don't know why this memo was --

A. I don't remember.

Q. I'm sorry, you don't know why this particular memo to redouble efforts was not signed?

A. I do not remember why.

Q. Sorry. If you could --

A. I know.

A. It was, and it was as permanent as the administration.

Q. President Clinton's administration or --

A. Yes.

Q. So after President Clinton left, the permanent Partnership Executive Committee no longer existed?

A. Well, this didn't have any meaning anymore. A separate working relationship was established, and it was established with -- among the Health communities, the ASD Health Affairs and the Assistant Secretary For Health For VA. They found that so many of the issues that they came up on really were personnel issues and not health issues that then instead of doing what we had done, which was just upping the committee to include everything, they created a second committee, and that one then I worked on where -- so as with this one, we had Health and everything under us. In the Bush years, there were two separate committees, one for Health and one for everything else.

Q. And so did these later committees -- did their tasks involve the chemical testing programs?

A. By the Bush years? Good Lord, no.

Q. Why do you say that?

A. There was no -- there was no -- there was no interest. There was no pursuit. There were no questions. There was no -- nobody was asking about it, nobody wanted any information on it. The committee that had worked on it had been allowed to simply disappear. The new committee had new agenda items. You know, we were by -- almost into the second Persian Gulf War by then with a whole suite of new DoD/VA issues. And so no, the chemical weapons issue was never addressed, to my memory or knowledge, by any committees or groups in VA -- or in the Bush years, except that sometime along that time we started getting requests for information for litigation, and whenever those requests came in, even though my office was no longer in charge of it, my office still had all the files, and nobody else had a file of everything. So that was the only involvement there was in the Bush years.

Q. So when you say there was no interest in the chemical weapons programs, when did -- when did that happen where there was no longer any interest priority?

A. Well, it's hard for me to say because I

was no longer involved in 1995 and after. So I don't know what happened between '95 and 2002-ish. In I think it was maybe 2003 -- then we had -- we have this going on still. No, then in 2003 what happened? I'm losing track of dates now. In 2002, it seems to me, is when we formed the personnel committee with the VA, and by that time this wasn't even on the agenda.

Q. Do you know the last time that the testing programs were on the agenda?

A. Whose agenda?

Q. The agenda for --

A. For this group? I would have known the last time it was on the agenda for this group, but I don't remember. We had a long list of agenda items. I was looking to see if it was included in this memo. I don't remember. But it was not much beyond 1995 that I recall. As I said, I was no longer in charge of it. But I was the primary for this group.

Q. And do you know why the issue dropped off in 1995?

MR. LITTLETON: Objection. Calls for speculation.

THE WITNESS: No. It transferred out

C E R T I F I C A T E

I, Lisa V. Feissner, RDR, CRR, CLR, Registered Diplomate Reporter and Notary Public in and for the Commonwealth of Pennsylvania, certify that the foregoing is a true and accurate transcript of the deposition of said witness, who was first duly sworn on the date and place hereinbefore set forth.

I further certify that I am neither attorney nor counsel for, nor related to or employed by, any of the parties to the action in which this deposition was taken, and further, that I am not a relative or employee of any attorney or counsel employed in this action, nor am I financially interested in this case.

_____

Lisa V. Feissner, RDR, CRR, CLR

Notary Public

EXHIBIT 22

Department of Veterans Affairs
Veterans Health Administration
Washington, DC 20420

VHA DIRECTIVE 2009-047

September 30, 2009

PROVISION OF HEALTH CARE SERVICES TO VETERANS INVOLVED IN PROJECT 112-SHIPBOARD HAZARD AND DEFENSE (SHAD) TESTING

1. PURPOSE: This Veterans Health Administration (VHA) Directive provides Department of Veterans Affairs (VA) policy for providing Project 112-Shipboard Hazard and Defense (SHAD) Veterans a thorough clinical evaluation and enhanced access to enrollment in the VA Health Care System. This Directive describes the type of care for which these Veterans are eligible from VA at no cost; notwithstanding there is insufficient medical evidence to conclude their conditions are attributable to such testing.

2. BACKGROUND

a. Public Law 110-387, Section 803, the Veterans' Mental Health and Other Care Improvements Act of 2008, permanently provides for Veterans, who participated in Project 112, (see subparagraph 2b) to be enrolled in Priority Enrollment Category 6, and as such, are eligible for VA health care at no cost for any illness related to their participation in that project. Veterans who participated in Project 112-SHAD are eligible for enrollment in Priority Group 6, unless otherwise eligible for placement in a higher enrollment priority based upon other eligibility factors. Accordingly, they are to receive needed hospital care, medical services, and nursing home care at no cost for any illness possibly related to their participation in these tests. VA waives first and third-party billing for services related to Project 112-SHAD exposure.

b. Project 112 is the name of the overall program for both shipboard and land-based biological and chemical testing that was conducted by the United States (U.S.) military between 1962 and 1973. Project SHAD was the shipboard portion of these tests, which were conducted to determine:

(1) The effectiveness of shipboard detection of chemical and biological warfare agents;

(2) The effectiveness of protective measures against these agents; and

(3) The potential risk to American forces posed by these weapons.

c. The Department of Defense (DOD) estimates that about 6,000 Veterans may have been involved in Project 112-SHAD. DOD has provided VA with the names of approximately 5,000 Veterans who participated in the tests. Currently, it is known that these tests involved low levels of a variety of biological and chemical warfare agents, simulants (thought to be less hazardous substitutes), and decontamination chemical substances.

d. Veterans, Members of Congress, Veterans Service Organizations, and the public have been interested in Project 112-SHAD and any potential long-term health effects to Veterans who participated in these tests.

THIS VHA DIRECTIVE EXPIRES SEPTEMBER 30, 2014

e. DOD has collected, reviewed, and declassified relevant documentation regarding the testing. As the tests were declassified, DOD provided VA with:

(1) Test name, date, location, and, if a SHAD test, the names of ships involved in these tests;

(2) Names and service numbers of individual Veterans involved; and

(3) The materials to which the participants may have been exposed.

***NOTE**: Information about the specific ships involved and the known health effects from exposures to agents that were used in Project 112-SHAD tests is available along with other relevant background information at: http://vaww.va.gov/hec/Access/. This is an internal VA Web site and is not available to the public. Another source of information regarding Project 112 tests, is DOD's Web site at: http://fhp.osd.mil/CBexposures/shad.jsp.*

f. All Veterans identified by DOD as having participated in Project 112-SHAD were notified by letter from the Veterans Benefits Administration (VBA) in May 2002.

3. POLICY: It is VHA policy that Project 112-SHAD Veterans are offered: a thorough clinical evaluation by a knowledgeable VA primary care provider; enhanced priority for enrollment in the VA Health Care System; and pertinent information about Project 112-SHAD exposures and possible related adverse health effects.

4. ACTIONS: Facility Directors are responsible for:

a. Ensuring Project SHAD Veterans are enrolled in priority enrollment group 6, if they are not eligible for a higher-enrollment priority based on other eligibility factors; however, Project SHAD Veterans are not exempt from the requirement to complete a Financial Assessment (Means Test) and may be charged a copay for care for conditions found to have resulted from a cause(s) other than their participation in Project 112-SHAD tests.

b. Ensuring VA physicians consider the following types of conditions, that are not ordinarily considered to be due to occupational or military activities, when making the determination if the illness or disability is possibly related to a Veteran's participation in Project 112-SHAD:

(1) Congenital or developmental conditions, e.g., scoliosis.

(2) Conditions which are known to have existed before military service.

(3) Conditions having a specific and well-established etiology and that began after military service ceased, e.g., bone fractures occurring after separation from military service, a common cold, etc.

(4) Although the preceding types of conditions are not ordinarily considered to be due to military service, if the staff physician finds that a Veteran requires care under this provision for one or more of those conditions, the physician is to seek guidance from the facility Chief of Staff (COS)

and the Registry Physician (RP) regarding the authorization for such treatment. The decision and its basis must be clearly documented in the Veterans electronic health record and chart by the RP.

c. Ensuring that Project 112-SHAD Veterans who request either an examination or enrollment in the VA health care system, whether or not they have previously received health care from VA, are offered a complete "Primary Care New Patient History and Physical Examination," using the standardized template for this examination, and the results of the examination is documented in the Computeriezed Patient Record System (CPRS). ***NOTE:*** *Templates are located at the following Web site: http://vaww.vhaco.va.gov/him/natldoctemplates.html. This is an internal VA Web site not available to the public*

d. Designating appropriate knowledgeable staff (like the "Environmental Agents Clinicians and Coordinators" who routinely deal with military deployment exposure questions) to provide information about Project 112-SHAD exposures and possible adverse affects on Veteran health. This staff must document provision of such information in the patient's electronic health record.

e. Ensuring that facility intake, eligibility and clinic scheduling staff are knowledgeable of the Project 112-SHAD indicator in Veterans Health Information Systems and Technology Architecture (VistA) on the Registration screen 7. ***NOTE:*** *The Project 112-SHAD information entered in this indicator field is also available in other VistA applications to enable other users (e.g., clinicians) to view it.*

f. Ensuring facility intake, eligibility and clinic scheduling staff contact Health Eligibility Center (HEC) staff to make any needed changes to SHAD status since they cannot edit the Project 112-SHAD indicator. ***NOTE:*** *Staff may contact the VHA HEC Alert mail group using Outlook or by fax to (404) 982-3060 or telephone at (404) 828-5257.*

g. Ensuring the name of the specific Project 112-SHAD test or tests in which the Veteran participated, while in military service, and possible exposures are recorded in the patient's electronic health record. This data must be obtained from the patient or from the notification letter the Veteran received from VBA (see subpara. 2f).

h. Identifying one clinical application coordinator at the VA facility to import the template using the Text Integrated Utility template editor in (CPRS Graphic User Interface (GUI)). The template must be imported into the test account prior to placing into production.

5. REFERENCES: Title 38 U.S.C. § 1710(e)(1)(E).

6. FOLLOW-UP RESPONSIBILITY: The Chief Business Office (16) is responsible for the contents of this Directive. Questions about patient care and possible adverse health effects related to Project 112-SHAD maybe addressed to the Environmental Health Strategic Health Care Group (13A) at (202) 461-1020. Questions concerning enrollment and eligibility maybe referred to the Chief Business Office at (202) 461-1589.

7. RESCISSIONS: VHA Directive 2004-016 is rescinded. This VHA Directive expires September 30, 2014.

Gerald M. Cross, MD, FAAFP
Acting Under Secretary for Health

DISTRIBUTION: E-mailed to the VHA Publication Distribution List 10/5/09

EXHIBIT 23

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

- - - - - - - - - - - - - - -x

VIETNAM VETERANS OF AMERICA, et al., Plaintiffs,	:	Civil Action Number CV 09-0037-CW
vs.	:	
CENTRAL INTELLIGENCE AGENCY, et al., Defendants.	:	

- - - - - - - - - - - - - - -x

CONFIDENTIAL VIDEOTAPED DEPOSITION OF MARK BROWN

Washington, DC
Friday, January 20, 2012

REPORTED BY:
CARMEN SMITH

in general.

Q But in a specific case, it would be important for a treating physician or a veteran himself to have information about his specific exposure and any dose information that is available, to the extent it is?

MS. FAREL: Objection; calls for a hypothetical, compound.

BY MR. HASSANEIN:

Q You can answer.

A Say the question over again.

Q In a specific case, where there's a physician/patient relationship and the patient is seeing the physician to identify possible health effects from an exposure in years past, to the extent there is information available about that patient's specific dosage exposure, that would be important information for both the physician and the patient to have; correct?

MS. FAREL: I'm putting my hand out just so you give me a beat between when he asks the question so that I have a time to object before you answer.

Objection; calls for a hypothetical, calls for speculation, compound.

THE WITNESS: Well, I guess I would answer that by saying when a physician sees an individual patient, they treat them for what they see wrong with that patient.

So if they have a specific disease, they treat them for that specific disease. And they might not be particularly interested in what the -- what caused it. Because in a sense, it doesn't matter.

If somebody comes in with leukemia or something like that, to use an example, what caused it may not at all affect the treatment.

On the other hand, if you're trying to do research on cause -- trying to make cause and effect with a population, not that one individual veteran but with a population of veterans, then exposure data becomes critical, absolutely critical. You can't do the epidemiological study without the exposure data.

Finally, with an individual veteran, if they're trying to establish a disability claim that my case of leukemia was caused by such and such exposure, then the exposure also becomes critical.

But your question, in the context of treatment, it's probably the least important.

BY MR. HASSANEIN:

Q And it matters in the context of disability compensation claims, because it's incumbent upon the veteran to establish a service connection; right?

A Correct.

MS. FAREL: Objection; lack of foundation. Just take a breath.

THE WITNESS: I'm sorry. I'm trying to be helpful.

BY MR. HASSANEIN:

Q And, now, the environmental agents services, was it conducting any actual research, or was it -- was its research kind of limited to identifying literature that had previously been published as to the health effects of certain types of exposures?

MS. FAREL: Objection; compound.

THE WITNESS: We didn't do research in the context of bench research, if that's what you mean. We did -- we primarily relied on -- if asked about -- we didn't do bench research, if that -- to answer your question.

BY MR. HASSANEIN:

Q And outside of the environmental agents

I HEREBY CERTIFY that I have read this transcript of my deposition and that this transcript accurately states the testimony given by me, with the changes or corrections, if any, as noted.

X

Subscribed and sworn to before me this day of , 20 .

CERTIFICATE OF NOTARY PUBLIC & REPORTER

I, CARMEN SMITH, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn; that the testimony of said witness was taken in shorthand and thereafter reduced to typewriting by me or under my direction; that said deposition is a true record of the testimony given by said witness; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken; and, further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

Notary Public in and for the
District of Columbia

Commission Expires: MARCH 14, 2013

EXHIBIT 24

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

VIETNAM VETERANS OF AMERICA, et al.,
Plaintiffs,

NO. CV 09 0037-CW

vs.

CENTRAL INTELLIGENCE AGENCY, et al.,
Defendants.

CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER

VIDEOTAPED DEPOSITION OF DAVID ABBOT
VOLUME I
January 24, 2012
8:56 a.m.
Holiday Inn
Longstreet Conference Room
440 E.E. Butler Parkway
Gainesville, Georgia 30501
Maureen S. Kreimer, RPR, CCR-B-1379

PAGES 1 - 243

veterans as opposed to us trying to put it all in the letter. 14:13:01 14:13:05

BY MS. SPRENKEL: 14:13:06

Q. So when you say one of the reasons that it pushed to considering DoD responding with assistance through talking to veterans as opposed to us trying to put it all in the letter, do you mean that one of the reasons was the difficulty of determining whether or not the testing could have resulted in disease or disability? 14:13:06 14:13:17 14:13:21 14:13:25 14:13:27 14:13:29 14:13:32

A. No. DoD -- I was just suggesting that we needed more information to be able to decide whether or not a particular substance and concentration of substance, or the degree of exposure would result in a disability. 14:13:36 14:13:56 14:13:59 14:14:06 14:14:09

And we didn't have that information, so we needed it to come from somewhere. VHA would potentially be one source at the time that this was written. 14:14:11 14:14:14 14:14:18 14:14:21

Q. Once it was decided that DoD would be the source to communicate with veterans about the details of the tests -- 14:14:22 14:14:26 14:14:29

A. Right. 14:14:30

Q. -- did you no longer feel that it was necessary for VHA to determine whether or not the 14:14:31 14:14:33

A. I don't remember how -- how I did the training letter. I would have to reread that to remember what I put in it. 14:16:26 14:16:30 14:16:34

That's the only way I could answer that. I don't remember how I wrote the training letter. 14:16:35 14:16:40

Q. You agree that the determination of whether or not testing could have resulted in a disease or disability is very relevant to whether a veteran will have success on his claim'; right? 14:16:42 14:16:48 14:16:50 14:16:55

A. Very significant, sure. 14:16:58

Q. And that's because a veteran needs to show that his condition was at least as likely as not caused by his exposure? 14:17:00 14:17:09 14:17:12

A. That agent, yeah. That agent and that degree of exposure, yeah, right, you're correct. 14:17:13 14:17:16

Q. Which is why a veteran would need to know the agent he was exposed to, and the amount in order to -- 14:17:18 14:17:21 14:17:23

A. Well, I don't know if the veteran would need to know. But certainly the person handling the claim has to know because, otherwise, they can't make a valid decision -- 14:17:24 14:17:26 14:17:29 14:17:31

Q. Okay. 14:17:32

A. -- or fair decision. 14:17:33

MS. SPRENKEL: Okay. We'll look at the 14:17:38

CERTIFICATE

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was taken down, as stated in the caption, and the colloquies, questions and answers were reduced to typewriting under my direction; that the transcript is a true and correct record of the evidence given upon said proceeding.

I further certify that I am not a relative or employee or attorney of any party, nor am I financially interested in the outcome of this action.

This, the 6th day of February, 2012.

_____

MAUREEN KREIMER, CCR-B-1379
Notary Public in and for the
State of Georgia. My Commission
expires August 14, 2012.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

VIETNAM VETERANS OF AMERICA, et al.,
Plaintiffs,

vs.

NO. CV 09 0037-CW

CENTRAL INTELLIGENCE AGENCY, et al.,
Defendants.

VIDEOTAPED DEPOSITION OF DAVID ABBOT
CONFIDENTIAL SUBJECT TO PROTECTIVE ORDER
VOLUME II
January 25, 2012
8:56 a.m.
Holiday Inn
Longstreet Conference Room
440 E.E. Butler Parkway
Gainesville, Georgia 30501
Maureen S. Kreimer, RPR, CCR-B-1379

Job No. SD130651
PAGES 244 - 431

A. That was part of the conversations. That was not necessarily a plan. 08:36:35 08:36:39

Q. Okay. 08:36:42

A. Because it was difficult to find categories appropriate because of the nature and extent of the list of chemicals, I believe. 08:36:42 08:36:47 08:36:52

Q. Do you recall when the decision was made not to inform veterans of the category of chemicals they were exposed to? 08:36:59 08:37:03 08:37:07

MR. GARDNER: Objection. Lack of foundation. 08:37:08 08:37:09

A. No, I don't. We just had a number of conversations, and none of the conversations seemed to have a clear avenue of the best way to go for everybody. 08:37:12 08:37:16 08:37:20 08:37:23

As I mentioned yesterday, we just realize that the database may change as they have more information available, and we wanted to have an outreach letter that would be sufficient for everybody. And it just seemed -- the final conclusion was, as we finally wrote the letter, that it was a general letter explaining the entire program and allowing DoD then to go into specifics for each veteran. 08:37:25 08:37:32 08:37:36 08:37:41 08:37:43 08:37:46 08:37:50 08:37:54 08:37:58

BY MS. SPRENKEL: 08:37:58

I, DAVID ABBOT, do hereby declare under penalty of perjury that I have read the foregoing transcript; that I have made any corrections as appear noted, in ink, initialed by me, or attached hereto; that my testimony as contained herein, as corrected, is true and correct.

EXECUTED this _____ day of _____, 2012, at _____, _____.

(City) (State)

_____

DAVID ABBOT

CERTIFICATE

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing transcript was taken down, as stated in the caption, and the colloquies, questions and answers were reduced to typewriting under my direction; that the transcript is a true and correct record of the evidence given upon said proceeding.

I further certify that I am not a relative or employee or attorney of any party, nor am I financially interested in the outcome of this action.

This, the 6th day of February, 2012.

_____

MAUREEN KREIMER, CCR-B-1379
Notary Public in and for the
State of Georgia. My Commission
expires August 14, 2012.