Statement by James S. Stockdale, Deputy Under Secretary for Intergovernmental Affairs, Department of Health and Human Services and Chair, Agent Orange Working Group of the Cabinet Council on Human Resources, before the Committee on Veterans' Affairs, United States Senate, November 18, 1981
STATEMENT

BY

JAMES S. STOCKDALE

DEPUTY UNDER SECRETARY FOR

INTERGOVERNMENTAL AFFAIRS

DEPARTMENT OF HEALTH AND HUMAN SERVICES

AND

CHAIR

AGENT ORANGE WORKING GROUP OF THE

CABINET COUNCIL ON HUMAN RESOURCES

BEFORE THE

COMMITTEE ON VETERANS' AFFAIRS

UNITED STATES SENATE

THURSDAY, NOVEMBER 18, 1981
MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

I am James Stockdale, Deputy Under Secretary for Intergovernmental Affairs, Department of Health and Human Services, and Chair of the Agent Orange Working Group of the Cabinet Council on Human Resources. I am pleased to have this opportunity to appear before the Committee to report on the Federal government's ongoing efforts to study and hopefully to reach scientifically valid conclusions about the possible adverse long-term human health effects of exposure to phenoxy herbicides and contaminants, with a particular focus on the results of exposure of American service personnel to the herbicide known as Agent Orange in Vietnam.

I am accompanied today by Dr. Vernon Houk and by Mr. Leslie Platt. Dr. Houk is the Acting Director of the Center for Environmental Health of the Centers for Disease Control and is the Chair of the Working Group's Science Panel. Mr. Platt is Legal Counsel to the Department of Health and Human Services and serves as the Working Group's legal counsel and staff director.

As members of the Committee will recall, the Agent Orange Working Group had its genesis in the Interagency Work Group to Study the Possible Long-Term Health Effects of Phenoxy Herbicides and Contaminants. The IWG was chartered by the White House in late 1979 and held its first meeting in February, 1980. Meetings of the IWG and its successor, the Agent Orange Working
Group, have been held almost every month since that time. The mission of the Working Group, then as now, is to monitor, coordinate and set priorities among Federal Government research activities, to design a research agenda, and to organize the means to assure that the research agenda is carried out. Thus, the Working Group does not itself conduct any research but is charged instead with being the overall coordinator, clearinghouse and evaluator of the Federal research effort.

Since its inception, the Working Group has been advised by a scientific panel of knowledgeable scientists from the various government agencies concerned with the broad issues of public health under the jurisdiction of the Working Group.

As originally structured, the Working Group was comprised of three full-agency members, including the Departments of Health and Human Services and Defense and the Veterans Administration. The Department of Health and Human Services was designated the lead agency and the Departments of Agriculture and Labor and the Environmental Protection Agency became fully participating observers. Additionally, the Congress' Office of Technology Assessment has participated fully as an observer in all working Group activities, and the General Accounting Office was very early brought into the effort and has been kept abreast of developments. Also, the White House Office of Science and Technology Policy participated as an ex-officio member.
When this Administration assumed office, the excellent work of the Interagency Work Group was reviewed and a decision was made by the President to upgrade its visibility, to encourage accelerated development of research, and to broaden the availability of resources and personnel. At a White House meeting in July, President Reagan announced that he had re-established and expanded the Working Group, renamed it the Agent Orange Working Group, and raised its status to Cabinet Council working group level.

As such, the Working Group reports directly to the White House Cabinet Council on Human Resources which is chaired by Secretary of Health of Human Services Richard Schweiker. This action clearly reflects the President's commitment to the goals of the Working Group and accords the highest priority to its mission. I would like to offer for the record a copy of Secretary Schweiker's August 21, 1981, memorandum which formally re-established the Working Group (Attachment A).

Under its new charter, the Department of Health and Human Services continues as the lead agency with full participation by the Veterans Administration and the Department of Defense. Raised to the status of full participants have been the Departments of Agriculture and Labor, the Environmental Protection Agency, the Action Agency, the Office of Management and Budget, the Council of Economic Advisors, and the White House Offices of
Science and Technology Policy and Policy Development. The congressional Office of Technology Assessment continues as an observer.

On August 28th of this year, the expanded Agent Orange Working Group held its first meeting. At the beginning of that meeting, and speaking as its Chairman, I wished to assure those who had worked so hard and long for the establishment and progress of the Group of the commitment of the Administration and of my position as its new chairman. With your permission, I would like to summarize for the Committee my statement at that meeting.

I said, and I believe, that the fears of possible long term adverse health effects as a result of exposure to Agent Orange are very real. They demand answers. They demand the kind of deliberate, objective research that will provide as many answers as science can give.

I said that there is no fear like the fear of the unknown. It is the mission of the Working Group to make known the unknown insofar as humanly possible.

The Working Group will not cave in to the hysteria of emotionalism that surrounds this issue. The Working Group has a responsibility to turn aside from the barrage of demands for quick and easy answers based on assumptions and fears rather than facts.
Equally so, the Working Group will not bow to any interests that might seek to sweep this issue under the rug ... to pretend it does not exist and hope it will simply go away. This issue will not go away.

The Working Group's mission is to seek truth and to reveal openly as much truth as can be found.

On behalf of those who wonder and worry and fear we can do no less.

Mr. Chairman and Members of the Committee, a great deal of work is moving forward. Quite frankly, it is not sensational, headline grabbing activity, rather it is the quiet research inquiry of highly qualified and dedicated men and women of science.

I would like to review briefly some of this research. As you know, the Working Group is currently in the process of preparing a comprehensive, updated catalogue of all relevant Federal research. We hope to have this completed in the near future and will provide it to the Committee and the public as soon as it is ready.

First, I would note that research into possible birth defects in the children of Vietnam veterans is currently being conducted by the Centers for Disease Control. This research is being conducted as a direct result of the Working Group's recommendation and is being funded jointly by the Departments of Health and Human Services and Defense and the Veterans
Administration. It is designed to help find answers to one of the most serious questions facing Vietnam veterans and their families.

Second, the National Institute for Occupational Safety and Health of the Centers for Disease Control is continuing its assembly of a registry of all workers in the United States who have been involved in the manufacture of 2,4,5-T, one of the two herbicides in Agent Orange and the one which contains dioxin as a manufacturing contaminant.

This registry is designed to provide a significant data base which can be extremely valuable to support studies of the health of workers exposed as a result of their occupation. Thus, the registry holds real promise of providing reliable information about the effects of exposure to dioxins that can be related and cross-referenced to other research underway on the possible adverse effects of Agent Orange exposure in Vietnam.

Third, the Air Force Ranch Hand Study has begun. It is now past the planning stages. The Air Force has begun contacting the approximately 1200 Air Force pilots and maintenance crews who were engaged in spraying herbicides in Vietnam. Also, I would note that a formally chartered Federal Advisory Committee, which includes a member of highly qualified scientists from outside the government, has been formed to provide close monitoring of the study.
The Advisory Committee will be chaired by Dr. John Moore, Deputy Director of the National Toxicology Program. Dr. Moore served with great distinction as Chairman of the IWG's scientific panel. Other members of the committee appointed by Secretary Schweiker are as follows:

Dr. John Doull  
Professor  
Department of Pharmacology and Toxicology  
University of Kansas Medical Center

Dr. Norton Nelson  
Professor and Chairman  
Department and Environmental Medicine  
New York University  
School of Medicine

Dr. Alan Poland  
Associate Professor of Oncology  
McCordle Laboratory  
University of Wisconsin

Dr. Irving Selikoff  
Director, Environmental Sciences Laboratory  
Mt. Sinai School of Medicine

The Advisory Committee is scheduled to hold its first meeting in December at Brooks Air Force Base. Following that meeting, two additional scientists will be appointed to serve on the committee. Those scientists will be selected on the basis of their expertise in scientific disciplines deemed desirable by the committee and the Secretary to complement the broad and considerable expertise already represented on the committee.
Fourth, a preliminary protocol for the congressionally directed Veterans Administration epidemiology study of Vietnam veterans has been received from Dr. Gary Spivey of the UCLA School of Public Health. The protocol has been reviewed by the Working Group's scientific panel and the panel's comments have been forwarded to the Veterans Administration.

Additionally, a comprehensive, world-wide review of all published literature on dioxins has been completed by JRB Associates, Inc., under contract to the Veterans Administration. This literature review provides in one place, for the first time, all that is currently known by the scientific community on the subject.

These and other research activities planned and underway have been, and will be, discussed before this committee in more detail by those closely associated with them. My point in briefly reviewing them is to assure the committee that the Working Group's objectives are being actively pursued.

On a related matter of considerable interest, we were encouraged recently with newly developed information relating to incidents of emergency herbicide jettisoning that resulted from spray aircraft malfunctions or battle damage. In some cases, these incidents appear to have occurred directly over or near American military installations.
For years, Vietnam veterans have been saying that these incidents occurred. Recognizing that what had previously been allegations and unofficial reports were now basically verified, Secretary Schweicker moved quickly to provide this information to the public. He properly felt that even through the "filling in" of details was still underway, the American people and especially Vietnam veterans and their families had a right to know of this new development.

We view these newly verified data as unfortunate in terms of the concern of those thus exposed, but also as a development that may significantly aid our scientists by providing a larger exposed population for research.

I would emphasize, regarding the avenues of research that are currently underway and those that are to come, that no one in this Administration, on the Agent Orange Working Group or elsewhere, is pre-judging the outcome of this massive inquiry. However, I would be remiss were I to fail to add a word of caution. With the exception of chloracne, all of the illnesses that are currently being attributed to exposure to Agent Orange can also be caused by a number of other factors.

Accordingly, we must keep in mind that our work may discover that those who served in Vietnam run a greater risk than other groups of suffering serious disease. We might also discover that the origin of any given disease is not
peculiar to chemicals involved in defoliating procedures or, for that matter, to the Vietnam experience.

It should also be borne in mind that absolutes in terms of answers may be beyond the reach of science. It is hoped, at the very least, that interim and final research results will provide enlightened guidance for the development of basic social and legislative policy in this area.

I stress again that the Agent Orange Working Group will not be permitted to fall victim to anything remotely akin to prejudgment. We are acutely aware that anything short of our most objective, best efforts would be a grievous disservice to our veterans and to the conscience of our Nation.

I wish to thank the Committee, not simply for the honor of appearing before it, but also for the excellent support that you and your staff have accorded the Agent Orange Working Group and its Science Panel.

We are honored by the recent communication of support to Secretary Schweiker from you, Mr. Chairman, and you, Senator Cranston. Equally appreciated are your recommendations for priority consideration by the Working Group. [With your permission, I would like also to present for the record a copy of your letter (Appendix B).]
We are also encouraged by the many letters of support we have received from individual veterans and their families, and by the letters and personal thanks of representatives of veterans organizations, some of whom are in this room today.

For the record, I would like to present copies of letters received by the Secretary from Robert Muller, Executive Director of the Vietnam Veterans of America, and from Mr. Norman Hartnell, National Director of Services of the Disabled American Veterans (Appendix C).

I believe these expressions of support are a clear reflection of the progress we are making. They are a credit to the continuing effort of the many people who are supporting the Working Group. And most importantly, they represent a broad -- and I would add -- a bipartisan consensus that we are on the right track.

I believe that every Vietnam veteran can be certain in the knowledge that the Executive and legislative branches of their government are unified in their dedication to the best interests of those who served their country when called upon to do so.

Earlier in my testimony, I briefly discussed the preliminary protocol for the Veterans Administration's epidemiological study submitted by Dr. Gary Spivey. I would like to offer for the record a copy of Dr. Houk's letter, on behalf of the Science Panel of Working Group, to Dr. Shepard at the VA regarding the protocol (Attachment D).
As is obvious from the letter, the Science Panel believes we still have a long way to go before we are ready to begin the VA study. However, I believe Dr. Houk, Dr. Shepard and the other members of the Science Panel, all concur in the belief that Dr. Spivey's work, together with the new information about exposures which is now being developed, can provide the basis for finally -- at long last -- breaking the research design logjam that has existed because of the uncertainty about the military records base.

I pledge to you that all members of the Working Group, and especially its Science Panel, will continue to work toward the expeditious development of what we hope will be a consensus protocol for the design of that very important study. While we are disappointed that Dr. Spivey and his colleagues at the UCLA School of Public Health were not able to move us further along, we are nevertheless hopeful that we will, in the next several months, be able to report in good conscience that all of the major elements of the Federal research effort are either in, or being put in, place.

For the record, I would offer at this point a copy of the chronology of activities of the Agent Orange Working Group which we recently made public (Appendix E).

We look forward to continuing and strengthening the close, cooperative working relationship we have enjoyed with the Committee as we move forward. Thank you.
My colleagues and I would be happy to answer any questions the Committee may have.

Attachments
MEMORANDUM FOR: SECRETARY OF DEFENSE
SECRETARY OF AGRICULTURE
SECRETARY OF LABOR
DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET
ASSISTANT TO THE PRESIDENT FOR POLICY DEVELOPMENT
CHAIRMAN, COUNCIL OF ECONOMIC ADVISERS
DIRECTOR OF ACTION
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY
ADMINISTRATOR OF VETERANS AFFAIRS
DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY POLICY

FROM : SECRETARY RICHARD SCHWEIKER
CHAIRMAN PRO-TEM, CABINET COUNCIL ON HUMAN RESOURCES

SUBJECT : Agent Orange Working Group

The Administration has reviewed the excellent work of the Interagency Work Group to Study the Possible Long-Term Health Effects of Phenoxy Herbicides and Contaminants and believes that it has made significant progress toward fulfilling its important mandate. By bringing together knowledgeable scientists from the various Federal departments and agencies the Work Group has identified ongoing research activities on phenoxy herbicides and contaminants and begun to develop and organize the means to carry out additional needed scientific research.

President Reagan shares the widespread public and congressional concern over possible adverse health effects among Vietnam veterans exposed to Agent Orange and other substances. The President stated, during his meeting with national veterans organization leaders at the White House on July 17, 1981, that the Administration is giving special consideration to those concerns of Vietnam veterans.

At the White House meeting, the President announced that the administration had re-established an expanded Working Group as the Agent Orange Working Group and raised its status to Cabinet Council level. The President is personally determined to assure that the full resources of the Federal government are
available to support the Working Group's continuing efforts. The decision to re-establish and expand the membership of the Working Group and to make it an integral part of the Cabinet Council on Human Resources reflects the President's commitment and accords the highest priority to its mission.

As Chairman Pro-Tern of the Cabinet Council on Human Resources, I am, accordingly, reaffirming by this memorandum the Agent Orange Working Group's mandate of December 11, 1979 and providing specific guidance as to how that mandate is to be carried out in accordance with the Cabinet Council's decisions.

The Department of Health and Human Services shall continue to have lead responsibility for overall direction and management of the Agent Orange Working Group. The Secretary of Defense and the Administrator of Veterans Affairs shall continue to assure that their respective agencies participate fully in all Working Group activities. The Departments of Agriculture and Labor and the Environmental Protection Agency, each of which have until now been observers, shall assume full membership and their respective agency heads shall assure that those agencies participate fully in all Work Group activities.

In addition, ACTION, the Office of Management and Budget, and the Council of Economic Advisers, as well as the White House Office of Science and Technology Policy and the Office of Policy Development, shall assume membership on the Working Group and the heads of those agencies and offices shall assure that the resources of their respective agency or office are fully available to support it.

Also, the congressional Office of Technology Assessment, which has been actively involved in all Working Group activities as an observer, will be invited to continue to participate in that capacity, and the General Accounting Office, which has been extremely helpful to the Working Group in the past, will continue to be kept abreast of developments and invited to advise and assist as appropriate.

The Working Group has initiated research efforts designed to find answers to many of the questions surrounding Agent Orange that have been raised. These efforts include the birth defects study being conducted by HHS' Centers for Disease Control, the Ranch Hand Study being conducted by the Air Force, the epidemiological study being planned by the Veterans Administration pursuant to P.L. 96-151, and the compilation by HHS' National Institute of Occupational Safety and Health of a national registry of workers exposed to dioxins. Each of these research activities, as well as the other important research
activities being conducted under the overall guidance of the Working Group, are to be continued without interruption or delay.

The Working Group has developed an impressive record of scientific objectivity, impartiality and integrity and it is imperative to the success of the Working Group effort that this record and the Group's credibility be maintained. In this regard, regular progress reports to the Cabinet Council, the Congress and the public will continue to be made by the Agent Orange Working Group.

To assure effective leadership of the Working Group, I am hereby appointing James Stockdale, HHS Deputy Under Secretary for Intergovernmental Affairs, as Chair. Also, I am appointing Dr. Vernon N. Houk of the Center for Environmental Health of the Centers for Disease Control as Chair of the Working Group's Science Panel. In addition, I am appointing HHS Legal Counsel Leslie A. Platt, who has served as legal adviser to and staff director of the Working Group since its inception, to continue in those capacities. I know and believe you will find that these individuals share my commitment to carrying out this important mission.

Please review your representation on the Working Group to assure that your agency or office is adequately represented by appropriate technical experts, scientists and policy-level officials. In order to facilitate the Group's effectiveness, it is of course important that each agency's total membership be limited.

The first meeting of the full Working Group has been scheduled for Friday, August 28, 1981 and a meeting of the Science Panel will be scheduled for shortly thereafter. Accordingly, please let Mr. Bart Kull, Special Assistant to the Deputy Under Secretary for Intergovernmental Affairs (245-6156), or Dr. Peter Beach, HHS Director of Veterans Affairs (245-2210), know as soon as possible the name(s) of your designated representative(s) so that briefing materials may be forwarded to them.

Attached for your information is a copy of the memorandum of the Executive Secretary to the Cabinet Council on Human Resources establishing the Working Group.

Attachment

cc: Comptroller General of the United States
    Director, Congressional Office of Technology Assessment
    Mr. Robert Carleson
    Mr. Edwin Gray
MEMORANDUM FOR:  
SECRETARY RICHARD SCHWEIKER  
CHAIRMAN PRO-TEM, CABINET COUNCIL  
ON HUMAN RESOURCES  

FROM:  
ROBERT CARLESON  
EXECUTIVE SECRETARY OF HUMAN RESOURCES  
CABINET COUNCIL  

SUBJECT:  
Agent Orange Working Group  

The Secretariat of the Human Resources Cabinet Council has established an Agent Orange Working Group. The lead agency will be HHS, and participating members drawn from:

- Department of Defense
- Department of Agriculture
- Department of Health and Human Services
- Department of Labor
- Environmental Protection Agency
- Veterans Administration
- Action Office of Management and Budget
- Council of Economic Advisers
- Office of Science and Technology
- Office of Policy Development

cc: Martin Anderson  
Edwin Gray
HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE

Laura Genero - (202) 245-6343
Dick McGowan - (202) 245-7204

Wednesday, September 23, 1981

HHS Secretary Richard S. Schweiker today announced that the administration's Agent Orange Working Group has received significant new data about emergency aerial dumpings of herbicides that could help scientists determine the possible long-term health effects of the defoliant on Vietnam veterans.

As part of a continuing search of Vietnam war files, Department of Defense records personnel discovered that approximately 90 chemical spraying missions had been aborted and their cargo dumped due to enemy fire or engine failure. Agent Orange apparently was involved in 41 such dumps, some directly over or near U.S. air bases and other military installations.

Until now, approximately 1,200 pilots and support personnel who sprayed Agent Orange were the only group documented and identified to have been heavily exposed to the defoliant.

Veterans groups fear it is causing a variety of illnesses among soldiers who were exposed to the chemical and birth defects in their offspring.

On July 17, President Reagan elevated a government-wide Agent Orange Working Group to cabinet council level. HHS Deputy Under Secretary James Stockdale was named chairman by Secretary Schweiker.

This new information is of particular interest to the working group's scientific panel, because it may help in identifying additional exposed populations for potential health effect study. Information is now being developed by the Department of Defense on exact locations, times, weather conditions, personnel present and the extent of possible exposure.

# # #
**Introductory Statement by James Stockdale, HHS Deputy Under Secretary for Intergovernmental Affairs and Chair, Agent Orange Working Group**

Good Morning. I am James Stockdale, HHS Deputy Under Secretary for Intergovernmental Affairs and Chair of the Agent Orange Working Group. As Chair of the Working Group, I wish to express to you my beliefs about the work under way.

Many of you have known frustration in the course of time serving on this project. Occasionally there has been the concern that it would be stuffed away in some dusty corner of official memory and permitted to die of neglect.

Some of you have believed - and in that belief have held firm, and in that firmness have kept the mission and the mechanism of this group intact and alive.

The President of the United States, in his recognition of the trust this nation holds on behalf of those who have served our country in war ... in recognition of the heavy questions that eat at the minds of many who served ... has publicly and forcefully reaffirmed and reinforced the goals this working group seeks to achieve.

President Reagan recently said "we are giving special consideration to the concerns of Vietnam veterans over Agent Orange. Our fiscal year '82 budget will contain a large
increase in funding for the continued study of Agent Orange. In addition to the VA's epidemiological study and the Air Force Ranch Hand Study, we have reestablished an expanded Interagency Work Group as the Agent Orange work group and, yesterday, we raised its status to Cabinet Council level."

If ever there has been a statement of genuine concern for the fears that lurk in the minds of many Vietnam veterans and their families - that was it.

Those fears of possible long term adverse health effects as a result of exposure to Agent Orange are very real. They demand answers. They demand the kind of deliberate, objective research that will provide as many answers as science can give.

There is no fear like the fear of the unknown. It is the mission of this working group to make known the unknown insofar as humanly possible.

This working group will not cave in to the hysteria of emotionalism that surrounds this issue. This working group has a responsibility to turn aside from the barrage of demands for quick and easy answers based on assumptions and fear rather than facts.

Equally so, this working group will not bow to any interests that might seek to sweep this issue under the rug - to pretend it does not exist and hope it will simply go away. This working
group will not succumb to any effort to stonewall. This issue will not go away. Efforts to stonewall it will fail.

This working group's mission is to seek truth and to reveal openly as much truth as can be found.

All of the truth may be beyond our grasp but we have a moral obligation to reach and even to stretch our reaching beyond the limits we believe imposed upon us by the nature of our finite minds and the current state of science.

On behalf of those who wonder and worry and fear we can do no less.

I am especially pleased, therefore, that we have assembled such an outstanding team for this project.

At this time, I would like to introduce some of the key people in this effort from the Department of Health and Human Services. First, I would like to introduce Dr. Vernon Houk of the Center for Environmental Health of the Centers for Disease Control, who will chair the Science Panel. Next, Leslie Platt, our legal counsel and staff director, and Bart Kull, my special assistant, who will chair the group in my absence. Also, you all know Dr. Peter Beach, the Department's director of veteran affairs who has been and continues to provide overall coordination for this effort. We all welcome you to the Department and look forward to working with you.
Date        September 24, 1981

From      Chairman, Science Panel
          Agent Orange Working Group

Subject    Report of the Science Panel to the Agent Orange Working Group

To         Mr. James Stockdale
          Chairman, Agent Orange Working Group
          Deputy Under Secretary for Intergovernmental
          Affairs, HHS

Attached is the Report of the Science Panel.

Vernon N. Houk, M.D.

Attachment
REPORT OF SCIENCE PANEL

TO THE

AGENT ORANGE WORKING GROUP

The Science Panel met September 2 and September 15, 1981. A summary of these meetings and other activities is as follows:

Veterans Administration (VA) Draft Protocol for Epidemiological "Studies of Agent Orange"

The Veterans Administration Draft Protocol for Epidemiological "Studies of Agent Orange" received from the University of California at Los Angeles (VA Contract V101(93)P-842) was distributed to the members of the Science Panel. It was agreed that the review would take place in two stages.

The members are to transmit to the Chair by September 18 a general overview and general comments of what needs to be done. By October 16, detailed, specific comments and suggestions for protocol design on what needs to be done, how to do it, and suggestions on who has the capability of doing it should be transmitted to the Chair. The Chair will consolidate the comments and return it to the members of the Science Panel for review with final comments on the proposed study to be submitted to the VA before their committee meeting on this subject in November.

The present VA proposed protocol is scheduled to be reviewed by the Science Panel, the VA Committee, the Congressional Office of Technology Assessment, and the National Academy of Science, National Research Council (NRC). Dr. Honchar suggested that the document was not yet ready for review by the NRC and suggested the VA discuss with NRC that they consider withholding a review until a more detailed and specific document can be made available. The Science Panel members concurred with this suggestion.

Dr. Gough of the Congressional Office of Technology Assessment indicated that their review has been completed.

A Case Control Study of the Relationship Between Exposure to 2,4-D and Spontaneous Abortions in Humans

The Science Panel was asked to review the document "A Case Control Study of the Relationship Between Exposure to 2,4-D and Spontaneous Abortions in Humans" prepared for the National Forest Products Association and the U.S. Department of Agriculture—Forest Service by SRI International. Dr. Kimbrough and a rather large intergovernmental group has reviewed this study in detail during its route to completion. Those comments were made available to the Science Panel. The members of the Science Panel were asked to complete this review process and send written comments to the Chair by the end of October.
Mr. Platt indicated that he would send to all agencies involved the list of past, present, and anticipated activities on the subject of herbicides. The agencies will be asked to review and update that document and return to Mr. Platt within 1 month.

Data Sets

There was considerable discussion about additional data sets that may be available. Dr. Shepard was asked to have the VA review and report back to the Science Panel specific information on the VA death certificates, any health information that may be contained in VA life insurance information, and to survey the major VA hospitals for any additional studies or information that may be available.

The Department of Defense (DOD) was asked to report on the status of the Soft Tissue Sarcoma Registry at the Armed Forces Institute of Pathology (AFIP). DOD was asked to investigate and report on the kinds and amounts of herbicides used in non-Vietnam DOD installations in various parts of the United States and the rest of the world.

The Department of Agriculture (DA) was asked to report on any information from their sources (Extension or otherwise) on the use of herbicides in the United States. Dr. Shaw of the DA was concerned that special groups in the United States, such as those involved in spraying the electrical power transmission lines rights of way, could be identified and could contain significant health information on workers involved in this activity. Drs. Rall and Landrigan felt that this information would at best be sketchy. Dr. Shaw was asked to report to the Science Panel on this subject.

VA Mortality Study

Dr. Kimbrough suggested that the VA proceed with the review of the VA death certificates for Vietnam veterans. VA has 95 to 98 percent of death certificates of veterans who died on file in various locations around the country. The study would also include, in cooperation with DOD, individuals who died while still on active duty. Dr. Kimbrough will work with Dr. Shepard and others to explore the feasibility of this being accomplished. It was suggested by several members of the Science Panel that in order to be successful, individuals will have to be identified and trained to extract the specific information needed in a uniform manner from the records. It is unlikely to be successful simply by paying available people overtime to review records in their current installation.

International Symposium on Chlorinated Dioxins and Related Compounds
October 25-29, 1981

Dr. Shepard asked the Science Panel to endorse and various agencies to co-sponsor (without commitment of dollars) the subject conference. Dr. Landrigan felt that the speakers listed on the brochure presented only one side of the
subject material. Dr. Shepard indicated that this was not intended, and anybody with any information was invited to participate.

Attempts will be made to contact the group evaluating soft tissue sarcoma from Sweden to participate. Dr. Honchar was also asked to present her recent study on this subject.

Since the above discussion on the subject symposium, Dr. Lennart Hardell of Sweden asked to present their data on soft tissue sarcoma. He was apparently told by organizers of the conference that there was no room on the program for his paper. The Chair communicated with Dr. Shepard that this was not in accord with the previous agreement and was asked to use his influence with the symposium organizers to have Dr. Hardell's paper included in the formal program.

No governmental agency will formally co-sponsor or otherwise endorse the symposium though many will provide participation by their employees.

Other Groups to be Explored

Major Young suggested that there are other individuals who may have been exposed to Agent Orange in high doses that could be identified and available for study. These include possibly 200 scientists at Fort Dietrick, 200 to 300 spray equipment operators who were involved in studies at Elgin Air Force Base, and individuals from PACER HOE. Major Young was asked to make a presentation at a future meeting of the Science Panel.

After the previous discussion of Data Sets above, Dr. Bricker shared with the Chair information on "aborted missions." An aborted mission is one when for various reasons the intended targeted spraying of the herbicide was not done but the material was dumped from the aircraft. The Chair asked Dr. Honchar to quickly review these data. Her report is attached. Major General Augerson formally notified the Science Panel of these data. That notification and acknowledgment of the Science Panel are attached.

On September 15 a meeting was called for the Science Panel to examine this new information.

Aborted Missions

Dr. Bricker and Mr. Christian presented a briefing on aborted missions. They have identified 90 between 1965-1971 and have reasonable information on 28 (MACV records). It is possible that information could be developed on the other 62 (Air Force printouts). They suggested that major attention be given to the activities at four locations in Vietnam. In addition to exposed personnel in these four areas associated with the aborted missions, there may be other groups that have had extensive exposure. These may include personnel who were involved in base perimeter spraying, by air or by land, sprayers of riverbanks, and any personnel who were used for cleanup activities when there were leaks or disruptions of the storage containers or other significant accidental spills. We would suggest that the Defense Department develop
information on those units that might have had the highest exposure. It is necessary to determine the duration of acute, heavy, and long term exposure to all herbicides used in Vietnam. For the herbicide Agent Orange, it would also be useful if information could be developed on the manufacturer and date of manufacture or at least whether this was one stripe or two stripe Agent. By consensus of the Science Panel, Drs. Honchar and Kimbrough were asked to work with Dr. Bricker and Mr. Christian to develop information from the Army records and other documents. Hopefully, it will be possible to identify units that have had considerable exposure to Agent Orange from these records.

A request regarding this matter was sent to Major General Augerson on September 21. A copy of that letter is attached. The Science Panel recommends that the Chair, Agent Orange Working Group, ask the Resource Panel to explore providing the necessary resources to complete this task. By October 20, we should have a fairly good estimate of what tasks will be needed. DOD should provide a resource estimate. Not only are there groups who may have been acutely heavily exposed to these materials but the surface is likely to be heavily contaminated. It appears that at least some of these incidents occurred in places with significant populations remaining in contact with the contaminated area for a period of time. The Science Panel will explore the possibility of identifying similar non-Vietnamese areas of contamination that would lend themselves to a study of for how long and how much of the TCDD is likely to remain in the soil. It is known that TCDD degrades upon exposure to ultraviolet light. TCDD in soil on the other hand may be extremely persistent. Dr. Kearney of DA has been asked to report on this by October 20 in more detail. Dr. Kearney was also asked to determine what environmental monitoring data is available from Vietnam on 2,4,5T; 2,4D; and TCDD.

Laboratory Quality Monitoring

Dr. Eric Sampson of the Clinical Chemistry Division, CEH, CDC, presented to the Panel some general information on quality control procedures used by the information on new methods developed at CDC for the precise measurement of five reproductive hormones.

The Science Panel recommends for any investigations, including the Ranch Hand Study, that tight quality controls of laboratory tests be incorporated into their studies. This is even more critical when longitudinal observations are being made on groups so the data will be comparable over time.

Respectfully submitted September 24, 1981.

Vernon N. Houk, M.D.
Chairman, Science Panel
Agent Orange Working Group
Date September 14, 1981
From Science Panel Member
Subject Preliminary Assessment of Epidemiologic Utility of Aborted Ranch Hand Missions
To Chairman, Science Panel, Agent Orange Working Group
Through Director, DSHEFS, NIOSH
Chief, IWSB, DSHEFS, NIOSH

On September 10, 1981, I met with Department of Defense personnel to learn about aborted Ranch Hand missions and to determine whether adequate information about these missions is available to allow identification of a cohort(s) with defined exposure for epidemiologic study. To this end, questions about both the exposure and potential cohorts were explored.

Concerning the exposure, ninety aborted missions have been identified. Of these, some documentation (e.g., date, altitude, agent, gallons, location, etc.) is available for 28, and less complete information on the additional 62 missions is contained in the HERBS tape. It will be important to assemble the original documentation for the additional 62 missions. Based on what is known about the 28, it appears that ultimately documentation for some of the missions will be incomplete. When all available data about these missions is assembled, information such as agent, altitude, gallons, time and date when available can be analyzed to estimate the area contaminated by the emergency dumps. The Army has begun to map the aborted missions, and this activity can and should continue with additional information on the emergencies.

Concerning the population exposed, it appears at this time that it will continue to be difficult to know with absolute certainty from records that a particular individual or unit was located directly under and came in contact with Agent Orange released in an emergency dump. The Army has, from preliminary mapping of the missions, begun to identify military populations in closest proximity to clusters of aborted missions. At this time, four population areas have been identified with from approximately 800 to approximately 12,000 military personnel in residence at the time of the aborted missions in the four areas.

In summary, this evaluation is preliminary. After all available information about the known aborted missions is assembled and evaluated, continued effort can be applied to identify the ground units in closest proximity. At that time, issues of potential cohort size, controls, etc. can be considered. It is very important to note, however, that further information about these aborted missions at best can be utilized to maximize the probability of exposure of a cohort; it will be difficult or probably
impossible to define the exposure of each individual in any cohort. Questions of frequency and amount of exposure, and multiple exposures, will remain. And finally, given that the bulk of Agent Orange exposure including the aborted missions occurred in the late 1960's, the issue of inadequate latency must be addressed if a cohort mortality study is proposed.

Patricia A. Honchar, M.S., Ph.D.
Major General William S. Augerson  
MC, USA  
Deputy Assistant Secretary of Defense  
Washington, D.C. 20301

Dear General Augerson:

Thank you for your letter of September 9 regarding an "approach for exploring a possibly more well defined troop exposure to herbicides."

We have reviewed the concept paper and find that it may potentially be very useful. A member of the Science Panel has reviewed this information in some detail with Dr. Bricker. We are convening a special meeting of the Science Panel on September 15 to discuss this matter in detail.

Thank you for bringing this to our attention. We very much appreciate the cooperation we are receiving from your staff and the Army Records personnel.

Sincerely yours,

Vernon N. Houk, M.D.  
Chairman, Science Panel  
Agent Orange Working Group

cc:  
Mr. Leslie Platt  
Mr. James Stockdale  
CDC/W

CDC:CEH:VNHouk:gb 9/14/81 FTS 236-B194
Doctor Vernon Houk  
Chairman, AOWG Science Panel  
Center for Environmental Health  
Centers for Disease Control  
1600 Clifton Road, N.E.  
Atlanta, Georgia 30333

Dear Doctor Houk:

As a result of our continuing efforts to support the Science Panel of the Agent Orange Working Group, my staff has been reviewing Dr. Spivey's recent report on his efforts to develop an effective protocol for a larger epidemiological study of Vietnam Veterans and their possible exposure to Herbicide Orange. Because of Dr. Spivey's discussion of the very difficult problems facing all of us in being able to establish an accurate exposure index, one of my staff members has come up with a new idea concerning release of a known quantity of herbicide. At this stage, it is only an application concept, and we have not had sufficient time to establish the spray plots, locate the units, or determine what might be the likely concentrations of herbicides at a given point on the ground.

The staff member was concerned that so many of the ground troops who claimed to have been exposed to herbicide spraying were probably patrolling under very dense three-tier levels of trees. Under these dense jungle conditions with multiple tree layers much of the Ranch Hand disseminated herbicide may never have reached the ground. He shares Dr. Spivey's opinion that personnel located within "Fire Bases" in which there were frequent sprayings by use of ground vehicles and back-pack sprayers may have been more likely to have been directly exposed to herbicide due to the coarse and gross nature of the truck spraying than those troops operating out in the jungle. However, considering the difficulties already encountered in locating accurate day-to-day positions for small units and individuals from the battalion study another possible source of exposed people should be found.

The conceptual approach for exploring a possibly more well defined troop exposure to herbicides is described in the enclosed concept paper.
We, therefore, request review of this concept paper by the Science Panel to determine if the panel believes this research methodology may offer a potential solution to this vexing problem of locating a known herbicide exposed population. While awaiting your recommendations, my staff in collaboration with Army records personnel, will continue their background research.

Sincerely,

[Signature]

William S. Augerson
Major General, MC, USA
Deputy Assistant Secretary of Defense
(Health Resources and Programs)
Possible Method to Identify a Specific Population Exposed to a Known Quantity of Herbicides

Background:

1. Except for the 1196 members of the Ranch Hand group no other population of personnel can be accurately fixed as being exposed to a known quantity of herbicide.

2. Battalion studies undertaken by the Army and Marine Corps records staffs have clearly shown that it may be impossible to fix ground personnel by date and time to an exact grid coordinate which relates to an airborne (fixed-wing or helicopter) spray mission.

3. Less than 5% of all helicopter spray missions were recorded on the Herbs tapes.

4. A considerable amount of perimeter spraying using various herbicides took place around fire bases and other outposts. Documentation of such spraying is poor at best.

5. Much of the Ranch Hand sprayed herbicide may never have penetrated the dense three level forests to the ground level where troops were operating. The spray that did penetrate to this level was usually absorbed into the leaves within 30 minutes. Spray droplets not impacting on foliage would strike ground or branches and the dioxin contaminent would be then susceptible to photo degradation to less toxic tri and di chlorinated dioxins.

6. 2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin is very insoluble in water (2 x 10^-7)

Basis for Concept Development

Accidents with dangerous substances due to either human error or equipment malfunction have over the years provided exposure information which because of the nature of the substance could not otherwise be obtained in controlled experiments. (i.e., biological and chemical agents and radioactive isotopes). Except for minor loading and filling spills experienced by Ranch Hand personnel loading herbicides were there other larger short duration releases of herbicides of an accidental nature?
Releases of large quantities of herbicides could occur in two instances, namely: (1) crash of a fully loaded C-123 or (2) jettison of the herbicide in extreme emergency due to battle damage or major engine failure. In the latter case, the emergency dump valve would be opened which, as the undersigned recalls, was designed to release 1000 gallons in 30 seconds or less through a hole of about 10 inches in diameter. Here was the possibility for a massive release of herbicide in a very short distance once the dump valve was opened. The writer remembered that many months before in reviewing some records he had seen a detailed large scale map of the area around Bien Hoa relating to an incident in which the pilot of a Ranch Hand C-123 suffered an engine failure on take off and had to feather an engine. To save the crew and aircraft he had to lighten the aircraft by dumping his load of herbicide. He had marked the trail of dumped herbicide in a general rectangular form back over Bien Hoa to the end of the same runway he had just departed from. He landed safely and saved the aircraft and crew.

Here was an accidental life threatening situation in which a large quantity of herbicide was released over a populated area without being disseminated through the spray booms over dense jungle forests. A potential at least existed for relatively high contamination over a small area. Since release of 1000 gallons in 30 seconds at a flight speed of 150 knots would take place in approximately 1.3 miles. Lateral dispersion would be greatly affected by altitude of release and wind direction and speed between the release altitude and the ground. The above described idea evolved on Friday afternoon, 28 August 1981.

Subsequent verification with Army records personnel located the file of "incidents" which pertained to the teletype and message reports of aborted missions together with some map plots of the dump locations.

We are still in the preliminary stages of research into this source of information, however, it was found that in 1969 when the referenced abort took place near Bien Hoa, the military population at the base area was 12,420 military (Army 6,085, Navy 1, Marine Corps 2, and Air Force 6,320). The release altitude was about 2,000 feet and the quantity was 500 gallons. We are not sure whether the herbicide was white or orange. Further checking is necessary. There may be as many as 87 such aborted missions in which major size herbicide dumps were made. However, many of these releases may not be of any great exposure value because of the following factors:
1. Release at high altitude with subsequent wide dispersion and evaporation of herbicide.

2. Release over enemy held jungle areas (battle damage)

3. Release over the ocean or rivers.

4. Release over areas not populated by American forces

5. Release without grid coordinates precisely established in after action report.

6. Herbicides other than orange were dumped.

On the other hand, preliminary research indicates several aborts took place near heavy concentrations of American forces. Where pilot and crew member names are given in reports, actual interviews might be undertaken with Ranch Hand alumni who did the drop in an effort to fill in mission operational details.

The other possibility exists of recreating an actual abort situation by using a herbicide simulant in a C-123 aircraft configured as it was for Ranch Hand and then performing a simulent dump at proper altitude and wind conditions over range C-52A at Eglin Air Force Base using an array of sample plates as we did in the early 60's to determine real concentration reaching the ground and construct density contours of agent from the aircraft release point.

It is suggested that the above described techniques may offer a more reliable means to establish a known concentration exposure to a given herbicide for a well defined population at one specific point in time at a reasonably defined geographic area.

Jerome G. Bricker, Ph.D.

Enclosure

Map of Dump at Bien Hoa
Major General William S. Augerson  
MC, USA  
Deputy Assistant Secretary of Defense  
(Health Resources and Programs)  
Room 3E182 The Pentagon  
Washington, D.C. 20301

Dear General Augerson:

This is in further response to your letter of September 9 regarding troop exposure to herbicides.

As I wrote you on September 14, the Science Panel appreciates the information transmitted and believes it is very useful. Dr. Bricker and Mr. Dick Christian provided the Science Panel a detailed briefing at the meeting on September 15.

The Science Panel believes that the aborted missions offer a unique opportunity to identify those military units which have the most extensive exposure to Agent Orange. I have enclosed a memorandum from Dr. Patricia Honchar to me regarding this matter. We would suggest that, in addition to the data presented, the Defense Department start developing information on those units that might have had the highest exposure from these aborted missions.

It is necessary to determine the duration of acute, heavy, and long term exposure to all herbicides used in Vietnam. For the herbicide Agent Orange, it would also be useful if information could be developed on the manufacturer and date of manufacture or at least whether this was one stripe or two stripe Agent.

By consensus of the Science Panel, we have asked that Dr. Renate Kimbrough and Dr. Patricia Honchar, both members of the Panel, work with Dr. Bricker and Mr. Christian to explore if there are other groups which have had extensive exposure. These may be those who were involved in base perimeter spraying, both by air or by land, sprayers of riverbanks, and any personnel who were used for cleanup activities when there were leaks or disruptions of the storage containers or other significant accidental spills. We
recognize that this is a tremendous task which will be very time-consuming; however, we believe it should have priority. By October 20, the next meeting of the Science Panel, we will have developed specific requests to be transmitted to you through the Chairman of the Agent Orange Working Group.

Sincerely yours,

Vernon N. Houk, M.D.
Chairman, Science Panel
Agent Orange Working Group
Doctor Vernon Houk  
Chairman, AOWG Science Panel  
Center for Environmental Health  
Centers for Disease Control  
1600 Clifton Road, N.E.  
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We, therefore, request review of this concept paper by the Science Panel to determine if the panel believes this research methodology may offer a potential solution to this vexing problem of locating a known herbicide exposed population. While awaiting your recommendations, my staff in collaboration with Army records personnel, will continue their background research.

Sincerely,

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Major General, MC, USA
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(Health Resources and Programs)
Concept Paper

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Jerome G. Bricker, Ph.D.

Enclosure
Map of Dump at Bien Hoa
Dear Secretary Schweiker:

I am pleased to forward the first report of the Agent Orange Working Group, as re-established and expanded in accordance with your August 21, 1981 memorandum (copy attached as Appendix A). The Working Group has taken a number of actions designed to assure that the President's mandate, as reflected in your memorandum, is carried out.

The full Working Group held a meeting on August 28, 1981, which included a review of the status of all ongoing research and related activities pertinent to the Working Group effort. A number of assignments, with firm deadlines for completion, were made and the Working Group's Science Panel was commissioned to carry out its duties in the most vigorous possible manner. For your information, I have enclosed a copy of my opening remarks to the August 28 Working Group meeting (attached as Appendix B). Also enclosed (as Appendix C) is a list of all current Working Group numbers as designated by their respective member agencies.

Additionally, each member agency was directed to provide updated reports on the status and funding of each of its current or planned research activities. These reports will be forwarded with the next Working Group report.

At the August 28 meeting, the Working Group received reports from the Veterans Administration and the Department of Defense. The Veterans Administration reported that it had received a proposed protocol for the design of its epidemiological study and formally asked that the protocol be reviewed by the Working Group's Science Panel.

The Department of Defense reported that a number of veterans organizations had participated in briefings at the Army records center in Alexandria, Virginia, on the continuing military records search. It also reported that preparations are continuing for the Air Force Ranch Hand study which is about to enter its first phase.
During the course of the ensuing discussion, there was much concern about ensuring the fullest possible participation by Ranch Hand personnel in the study of their health status. Because of the limited size (approximately 1200) of the total potential population to be studied, it was agreed that it was imperative to the success of study that all prospective participants be encouraged to participate.

The Working Group designated Mr. Bart Kull, Special Assistant to the Deputy Under Secretary for Special Projects and Substitute Chair of the Working Group, to chair a public affairs panel. The panel was charged to develop plans for a public meeting of the Working Group to be held sometime in the fall. I will advise of the progress of the panel in my next report.

Also, the Working Group agreed to establish a resource development panel to assure that adequate funding and personnel resources are available to support the work of the Working Group. The panel is to develop a coordinated approach to meeting the many resource requirements of this inter-agency effort.

Dr. Vernon Houk, Chair of the Working Group Science Panel, reported to the Working Group on his plans for the Science Panel. Dr. Houk stated that a meeting of the Science Panel would be scheduled shortly. That meeting occurred on September 2, 1981 and included a review of all research. Details of the Science Panel's work are provided in Dr. Houk's enclosed report (attached as Appendix D).

Immediately after the Science Panel meeting, Dr. Houk and several other members of the Working Group visited the Army records center and received a thorough briefing on the status of the Department of Defense records search. During the course of the briefing, Defense Department personnel stated that they had just developed a potentially promising new concept for the identification of exposed populations other than the Air Force Ranch Hand personnel or broadly defined units of ground troops.

Dr. Houk asked that a full briefing on this new information be provided to the Science Panel. This was done at a second Science Panel meeting held shortly after the initial briefing. An outline of the information is contained in the enclosed September 9, 1981 letter to Dr. Houk from Major General William S. Augerson (attached as Appendix E).

At this time, the information described in Major General Augerson's letter is being more fully developed by direction of the Working Group and a presentation of the matter will be made to the full Working Group at its September meeting.
The information may provide the basis for a promising new approach to finding answers to some of the most serious scientific questions before the Working Group. I will advise you further of developments regarding the information in my next report.

As part of the Working Group's review of all pertinent activities, note should be taken of the activities of the predecessor Interagency Work Group to Study the Possible Long-Term Health Effects of Phenoxy Herbicides and Contaminants (IWG) during the transition period from April 24, 1981, when the IWG submitted its seventh report to Martin Anderson, Assistant to the President for Policy Development, and the formal re-establishment of the group as the Agent Orange Working Group. During that period, the IWG held regular meetings and continued to provide technical assistance and support to member agencies.

At its May meeting, the IWG received a status report from Dr. David Erickson of the Centers for Disease Control on the birth defects study being undertaken by CDC. Dr. Erickson reported that the Office of Management and Budget had approved the study and that study preparations were under way. He noted that completion of the study will likely occur in the summer or fall of 1983.

Also at the meeting, it was reported that a representative of the Medical Follow-Up Agency of the National Academy of Sciences National Research Council had been briefed on and reviewed the Defense Department's records search effort and had concluded that it could be difficult to identify a population of ground troops the nature and extent of whose exposure to Agent Orange could be reliably reconstructed and documented.

At its June meeting, the IWG was honored by the visit of the Australian Minister of Veterans Affairs, Senator Anthony Messner, and several attaches and scientific advisors from the Australian Embassy. Mr. Messner briefed the Work Group on the Australian government's program of Agent Orange-related research and urged continuing close cooperation between the United States and Australia in the research. Ms. Shannon Fairbanks, Senior Policy Adviser in the Office of Policy Development of the Executive Office of the President, expressed the Administration's strong support for Agent Orange research and the Work Group agreed to maintain periodic contact with the government of Australia in this regard.

As an additional note, I believe it would be helpful to provide a basic review of the roles of the respective Federal bodies now involved in coordinating or overseeing Agent Orange
research. Briefly, the Agent Orange Working Group has the lead responsibility for coordinating all Federal Agent Orange research. The AOWG does not undertake any activities on its own but rather acts as the coordinator and monitor. Each of the member agencies undertakes research as appropriate within its areas of interest and competence under the overall guidance of the Working Group. However, cooperative joint agency funding for needed studies may be arranged by the Working Group, as in the case of the CDC birth defects study, which is being equally funded by the Departments of Health and Human Services and Defense and the Veterans Administration.

Second, in addition to the Agent Orange Working Group, the Air Force Ranch Hand Study is to be monitored by an independent advisory committee which has been formally chartered under the Federal Advisory Committee Act. The committee is formally designated as the Advisory Committee on Special Studies Relating to the Possible Long-Term Health Effects of Phenoxy Herbicides and Contaminants. It will include scientists from inside and outside the Federal government and will monitor the conduct of the Ranch Hand study in public meetings which will probably begin in November.

Third, the Veterans Administration has a formally chartered Advisory Committee on the Health-Related Effects of Herbicides. That committee, which includes scientists from inside and outside the government as well as veterans organization representatives, meets periodically to review all VA herbicide-related research activities and advises the VA with respect to all issues arising out of that research.

Fourth, the Office of Technology Assessment of the Congress participates in all Working Group activities as an observer. Additionally, it has established a scientific review panel, which includes outside scientists and veterans group representatives, to review the proposed protocol for the design of the VA epidemiological study and will provide the Veterans Administration and the Working Group with its conclusions and recommendations regarding the protocol.

There are also a number of State-level Agent Orange commissions charged with undertaking and/or monitoring Agent Orange research. Details regarding these State activities are being gathered and further information will be included in my next report.

Finally, I am pleased to report that we have received a number of expressions of strong support for the Administration's
actions regarding Agent Orange and related research. These have come from congressional committees, veterans organizations and members of the public.

Sincerely,

James S. Stockdale
Deputy Under Secretary for Intergovernmental Affairs and Chair, Agent Orange Working Group

Enclosures (5)