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STATEMENT OF DR. DAROL K. FROMAN, SCIENTIFIC DIRECTOR, JOINT TASK FO
SEVEN, AT PRESS CONFERENCE, HEADQUARTERS, USARPAC, FORT SHAFTER, T.H.
MAY 18, 1948

General Hull and Captain Russell have outlined the historical background leading up to the 1948 program of atomic weapon tests and organization of the Task Force which was formed to carry out the pro Although the tests were conducted by a combined military and civilia Joint Task Force Seven is a military organization with a great major its personnel from the Armed Forces. However, the spirit of cooperat which existed between the military and civilian personnel resulted i smoothest possible operation. Throughout the whole life of the Join Force, there has not been a single incident which impeded any test o measurement and which arose from the rather great differences betwee military and civilian philosophies and methods of operation. The mi was really very intimate; for example, most of the technical section staffed with both civilians and members of the Armed Forces Special Project.

A year ago, I would not have believed such a pleasant and succe working relationship could be achieved, and I believe now that it re this case from the broad understanding and wisdom of General Hull.

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involved a series of nuclear explosions, carried out under conditions as close to laboratory control as we could make them, and with very extensive instrumentation.

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The technical and experimental work really fell into two categories. As General Hull has said, the purpose of these tests was not to find the effects of atomic explosions on material and equipment as at Bikini. Yet, since the detonations were to be made, several agencies of the Armed Forces carried out tests of this kind. Many of these tests were not very extensive and, in general, they were designed to fill in gaps in the knowledge gained at Bikini. Armed Forces and other Government agencies participating included the Corps of Engineers, the Chemical Corps and the Signal Corps from the Army; the Navy Bureau of Ships, Bureau of Medicine and Surgery and Bureau of Yards and Docks; The United States Air Force; the Armed Forces Special Weapons Project; United States Coast and Geodetic Survey; and the United States Public Health Service. These tests were successful in the sense that the desired data were obtained.

The second category of tests and experiments was designed to answer questions arising in connection with the military applications of atomic energy. The program for this work was laid out at the Los Alamos Scientific Laboratory. It was quickly realized, however, that if all the technical personnel required were drawn from that laboratory, other very important work would suffer seriously. The problem was solved by forming a skeleton organization at Los Alamos, consisting of one expert in each phase of the technical work. In some cases, where the work of the Laboratory would not be too badly impeded, scientists and technicians were drawn from the Los Alamos staff to carry out certain technical operations under these experts acting as section leaders. In other cases the University of California, which operates the Los Alamos Laboratory for the Commission, made contracts

with outside agencies. In these cases the Los Alamos experts filled liaison positions.

The technical work, in which naturally I have the most interest, has received the very best support from both the Atomic Energy Commission Headquarters in Washington and the Los Alamos Laboratory. In fact, of the commissioners, Dr. Robert F. Bacher, spent about three weeks with us at Eniwetok. During this time he contributed very significantly to t success of the operation by assisting with the interpretation of the data. Also, Dr. N. E. Bradbury, Director of the Los Alamos Laboratory, spent an even longer time in the field with us doing similar work.

Dr. Alvin C. Graves as Deputy Scientific Director, and Mr. R. W. Henderson and Dr. John C. Clark as Assistant Scientific Directors - all from the Los Alamos Laboratory - have formed a highly qualified committee making scientific and technical decisions on what to do and ho to do it. It has been a great personal satisfaction to me to be so closely associated with these men and I have the highest regard for the ability of each of them. Dr. Graves and I have worked so closely for several years we each have learned how the other thinks. It was easy to learn since we think alike, and when Graves does a job, I always feel that it has been done as I would have done it but just a little bit better.

Among the organizations outside the Los Alamos Scientific Laboratory taking part in the technical program at Eniwetok were the Naval Ordnance Laboratory at Washington, D. C.; the Aberdeen Proving Ground (Army Ordna Dept.) at Aberdeen, Maryland, and the Navy's David Taylor Model Basin at Washington, D. C. all supplying technical personnel for pressure and bla measurement work.

The Argonne National Laboratory at Chicago provided a group to measure gamma radiation from the bursts. Another of the important jobs was the technical photography which required automatic, remotely-controlled cameras, some taking more than 10,000 pictures a second. Technical photography was done by the Air Force and civilian cameramen. Several important technical jobs were done by sections drawing personnel from the branch of the Los Alamos Scientific Laboratory at Sandia Base in Albuquerque.

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Apart from the Los Alamos Laboratory the largest single supplier of personnel for the Atomic Energy Commission Proving Ground Group was the Armed Forces Special Weapons Project. About one hundred commissioned and non-commissioned officers of the AFSWP were members of the various test units. Like all of our other technical personnel, these officers did a very fine job indeed. Every one of the technical sections turned out very high quality work. I wish to mention in particular that each of the outside contracting agencies planned and executed an effective and finished operation. They are to be commended highly.

You understand, of course, that I am strictly limited in what I can say about the details of the conduct of the tests and about the scientific results. We have already discussed some of these details. I am going to tell you as much more as possible now, then when we have questions we will limit ourselves to the non-scientific aspects of the operation. If I am to be quoted, I would appreciate it if you would quote directly from these notes. There are some copies available for you.

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The ultimate purpose of the tests was to insure efficient utilization of the national resources required for the development and application of atomic energy. Captain Russell has suggested to you that the Los Alamos Laboratory had developed new weapon designs. It is obvious that a research and development program of any nature cannot long be fruitful if the product of the program never gets tested. If the nation elects to develop and manufacture atomic weapons, these weapons must be tested. Unlike other bombs, however, the cost in actual cash, man hours and natural resources is quite high for each weapon. Moreover, the physical processes going on during the explosion of an atomic bomb are very complicated. For these reasons, development and improvement of atomic weapons cannot be carried on by the common methods of making small changes in current models and proof-testing after each change.

A very great deal of physical research and mathematical analysis goes into the plans of an atomic weapon. Therefore, tests of the kind we have just completed are designed primarily to provide experimental data necessary for a better understanding of the process of nuclear explosion and necessary to form a sound basis for improved design of weapons. Certainly such tests do include proof-firing new models of weapons, but the model types must be selected carefully in order to make information obtained from one test supplementary to that obtained another. A well planned series of atomic weapon tests can yield much more information than an equal number of unrelated single tests.

Proof-tests of new models often can be carried out under conditions that make it possible to attain secondary, but important objectives.

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Without interference with the primary objective, much information can be gained which is useful in the peaceful applications of atomic energy.

We have not had time to tabulate and analyze but a small portion of the experimental data obtained in these tests. Yet, what we have learned already would have been enough to make the tests profitable. We are very pleased with the results. Our tests were not successful merely because the weapons we used exploded with a loud bang. They were successful because the weapons did explode and we obtained good experimental data which will guide us in research and development in the future.