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

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

A year ago, I would not have believed such a pleasant and successful working relationship could be achieved, and I believe now that it resulted in this case from the broad understanding and wisdom of General Hull. He has set a standard for all future integrated projects involving the Armed Forces and civilian groups. To have been a member of his organization has been a most pleasant experience for me personally, and I believe for all the civilians of the Task Force.

The Task Unit responsible for carrying out technical operations and making Scientific measurements was part of the Task Group commanded by Captain Russell. Captain Russell also represented the Atomic Energy Commission as Test Director. Only his wide and intimate knowledge of the organization, activities, and technical work of the Commission, and of military operations - particularly naval and air operations - made it possible for us to do the job required. Since the beginning of this project, Captain Russell and I have worked very closely together. We have even shared the same room for the past three months. We are now nearing the end of one of those rare experiences which someone as lucky as I sometimes finds and which marks a highlight in one's life.

The Deputy Commanders of the Task Force, Major General W. E. Kepner, USAF, and Rear Admiral W. S. Parsons, USN, were of great assistance throughout the operations. General Kepner's intimate knowledge of so many phases of air operations contributed directly to the success of our more important experiments, and Admiral Parsons' wide experience and understanding in the field of military applications of atomic energy were of the greatest value.

The test program just completed at the Eniwetok Proving Ground 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.

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 materiel 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. 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, one of the Commissioners, Dr. Robert F. Bacher, spent about three weeks with us Eniwetok. During this time he contributed very significantly to the 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 how 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.

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. I am going to tell you as much 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.

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 from 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. 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.

One of the most gratifying results of the entire operation has been the confirmation of the large body of ideas, theories and methods which have grown out of the theoretical and experimental work done since the war at the Los Alamos Scientific Laboratory.