

# ATOMIC ENERGY COMMISSION

MEETING NO. 746 30999

2:30 p.m., Thursday, September 11, 1952

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## Present

Gordon Dean  
Thomas E. Murray  
Henry D. Smyth  
T. Keith Glennan

M. W. Boyer  
Walter J. Williams

Roy B. Snapp  
Charles A. Perry

## Also Present

Alvin Graves  
Lt. Col. William R. Sturges, Jr.  
Capt. John T. Hayward  
Lt. Col. Raymond P. Campbell  
I. I. Rabi  
Brig. Gen. Kenneth E. Fields

**DELETED VERSION ONLY**

CLASSIFICATION CANCELLED

OR CHANGED TO *with deletions*  
BY AUTHORITY OF *I. L. Cucchiara, DPC, 5/21*  
BY *P. Line* DATE *5/24/79*

SPECIAL REVIEW	Reviewers	Class.	Date
	<i>William J. 8-15-80</i> <i>W. J. 8/15/80</i>		
	FINAL DETERMINATION		
	Class: UNCLASSIFIED		

US DOE ARCHIVES	
RC326 COMMISSION	
Collection	1951-1958 Secretariat Files
Box	1263
Folder	MR 7 Upshot lethality 1

## 1. Future Test Program

Dr. Graves outlined the proposed test shots to be made in Operation UPSHOT in the spring of 1953. In addition to the weapons effects test and the external initiator tests, several mockup tests are planned leading to the development of weapons to be tested in Operation CASTLE. The shots to be made in CASTLE would be largely dependent upon the results of these mockup tests in UPSHOT. Dr. Graves added that UPSHOT would include tests for both LASL and Berkeley. In some cases it would be possible to conduct experiments for both laboratories using two sides of one tower shot.

The possible test shots to be made in Operation CASTLE in the fall of 1953 in the Pacific would include: (1) the ALARM CLOCK, (2) DELETED

DELETED (3) DELETED (4) DELETED Dr. Graves gave a short description DELETED It may prove that not all of these weapon will be feasible or ready and, therefore, one or more of them may not be tested in CASTLE.

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If we plan to set off two, three or four ground or low tower shots we will not be able to do so on the existing islands in Eniwetok Atoll for several reasons. First we are restricted to the Northern portion of the atoll because of location of the base camp at the southern end -- second, because of the magnitude of the yield of these weapons it will not be possible to have two successive shots in the same immediate area in a short period of time, in view of the residual radioactivity -- third, the islands of Eniwetok Atoll available for thermonuclear shots are sufficiently close together that the blast of the first shot would damage the measuring devices on the other islands. Here we are limited by time as well as the geographical nature of Eniwetok as we do not wish to conduct these tests over a long period because of the cost involved and the difficulty of keeping personnel in the Pacific. Therefore, the test organization proposes to locate some shots on Bikini. It is far enough (180 nautical miles) from Eniwetok to be used for a series of thermonuclear shots without damaging the base at Eniwetok while close enough to use Eniwetok as the base. Dr. Graves feels that firing two successive thermonuclear shots at Bikini in the same operation is feasible.

Mr. Glennan asked whether the use of Bikini would necessitate the construction of any permanent facilities. General Fields answered that they would need to construct a temporary camp which would be made up of tents, a power plant, a C-47 size runway. The over-all cost of having the shot on Bikini would be about \$12 million dollars. However, much of this money would have been required if Eniwetok had been used.

In reply to a question from Mr. Glennan, Dr. Graves said that this would, of course, prohibit the return of the natives to Bikini at this time. Mr. Dean commented that this presented several problems. The natives moved heretofore had not been relocated on an atoll and the lack of a lagoon had forced them to change their mode of life. Secondly, the Russians had been making capital out of this by accusing the U. S. of mistreating natives in the Pacific. He felt, however, that if the use of Bikini is necessary, it could be worked out with the appropriate officials in the Department of the Interior.

Mr. Dean asked whether there were any other alternatives. Could we, for example, have a floating shot on a raft at sea in order to gain the factor of distance from the other shots and the base camp? Dr. Graves replied that if one were interested solely in whether the device

detonated and what its yield was, this would be feasible. However, if the shot was located on a moving platform, it would not be possible to obtain the scientific data required for further experimentation or development. In reply to the suggestion that the shots might be fired outside of the Marshall Island group, Dr. Graves replied that this would necessitate the construction of an additional base and would entail considerable additional expenditures.

Mr. Smyth summarized the discussion by stating that if the Commission were going to carry out its test program, it appeared that it was necessary to go to Bikini. Therefore, the question before the Commission was: Can we afford the contemplated test program? The Commission must carefully evaluate the AEC program with the purpose of postponing expenditures of less immediate importance.

A discussion of the budgetary problems created by the use of Bikini followed. During this discussion Mr. McCarthy entered the meeting. He was asked about the effect of the construction rider, providing that line items must have been in the budget under consideration by Congress before they can be constructed. General Fields stated that he did not feel the contemplated construction could be regarded as permanent construction. Mr. McCarthy stated that, for previous test operations, he had budgeted and classified the shot structures and temporary camps as operational but that the construction of an airstrip would usually be regarded as permanent construction. However, if the air strip would be destroyed or greatly damaged by the shot or shots, the costs of constructing it might properly be regarded as an operating expense. Mr. Dean then asked whether the Commission could get the Army Engineers or the Navy CB's to construct the airstrip. General Fields replied that if this were done we would have to ask the Department of Defense sufficiently in advance of the tests for them to get this item in their budget. Mr. McCarthy emphasized that no permanent facilities could be built on Bikini during Fiscal Year 1953 because of the limitations of the construction rider. Mr. Boyer then suggested that it would probably be necessary to postpone construction of permanent facilities at Bikini until Fiscal Year 1954.

Mr. Dean then asked where the additional funds for the expenditures to be made in Fiscal Year 1953 would come from. Mr. Boyer suggested that funds from the expansion budget might be borrowed. Mr. Dean observed that if the Commission were to carry out this test it might be necessary to ask for a Fiscal Year 1953 Supplemental when the new Congress convenes.

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General Fields stated that if the fall 1953 tests were to be carried out on Bikini it would be necessary for Holmes & Narver to initiate a survey on Bikini within the next month or so. After further discussion, the Commission:

a. NOTED that a survey of Bikini would be initiated as preparation for eventual test shots in the fall of 1953.

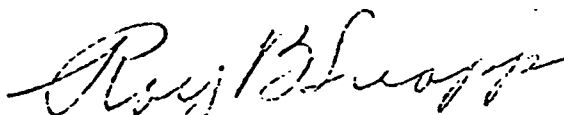
b. NOTED that the appropriate authorities in the Department of the Interior would be notified of this survey.

At this point Messrs. Graves, Sturges, Hayward, Campbell, Rabi, Fields and Perry left the meeting.

## 2. Coordination of Test Activities of LASL and Berkeley

Mr. Smyth pointed out that heretofore Los Alamos, as the single agency engaged in atomic tests and experiments, had been able to determine what tests would be conducted. The introduction of Berkeley into the program, however, meant that such decisions would have to be made elsewhere. The Commission would be confronted at an early time with more tests desired by Berkeley and Los Alamos than could be accommodated or than the expenditure of fissionable material would justify. Mr. Smyth said that the ultimate decision would have to be made by the Commission. It might be helpful to the Commission, however, to establish a small informal review committee to give the Commission technical advice on the subject.

The Commissioners discussed the advantages of such a review committee as well as the difficulties in obtaining qualified persons to serve on it.



Roy B. Snapp  
Secretary

Approved by the Commission: October 8, 1952