

NW 972006 B  
By DM LJA Date 8/12/05

This document consists of 4 pages  
Copy No. 16 of 17 Series A

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SECURITY INFORMATION  
January 15, 1953

411911 AEC 597/9  
COPY NO. 16

ATOMIC ENERGY COMMISSION

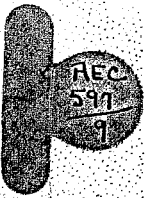
OPERATIONAL CONCEPT OF CASTLE (4)

Note by the Secretary

The attachment has been submitted for circulation to the Commission by the Director of Military Application with the following comment:

"Based on Commission action on AEC 597/4, the Director of Military Application has approved this concept in general except that the actual date for the first detonation will be set after UPSHOT-KNOTHOLE when the rate of development of the models to be tested is established. Meanwhile, however, the rate of progress on Atomic Energy Commission support activities will be brought generally into phase with that of the Task Force preparations and set so that the site can support the earliest foreseeable date for first detonation. That is, one large detonation site will be prepared for Fall 1953 in case development of one model exceeds expectations while completion of the balance of preparations will be programmed for February 1954."

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REPOSITORY NARA - College Park  
RG 326 AEC SECRETARIAT  
COLLECTION 1951-58  
BOX No. 208 CLASSIFIED  
FOLDER # 3 MRA-7 CASTLE



WITH ATTACHMENTS/ENCL	
DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
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ROY B. SNAPP  
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UNIVERSITY OF CALIFORNIA  
LOS ALAMOS SCIENTIFIC LABORATORY  
P. O. Box 1663  
LOS ALAMOS, NEW MEXICO

16 December 1952

TO: Brig. Gen. K. E. Fields  
Division of Military Application  
Atomic Energy Commission  
Washington 25, D. C.

THRU: N. E. Bradbury, Director, LASL

FROM: A. C. Graves

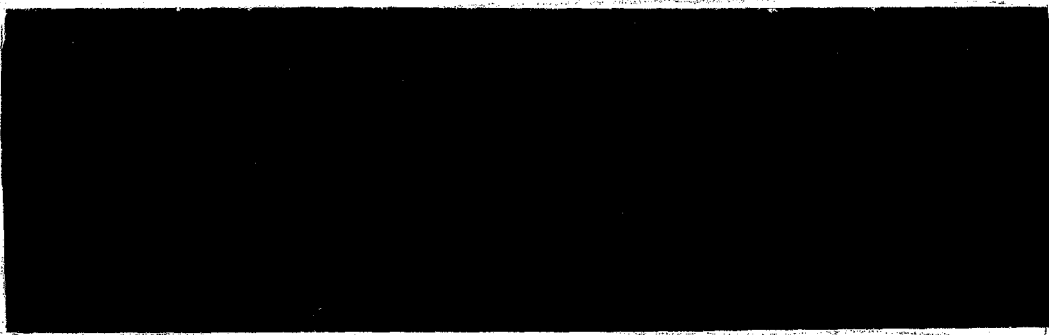
SUBJECT: OPERATIONAL CONCEPT OF CASTLE

SYMBOL: J-15163

1. General:

This concept is intended to indicate a feasible plan for a six shot Castle operation and to serve as a basic planning guide on which detailed plans can be formulated. Caution must be exercised to the extent that the devices to be tested are still quite tentative and changes in this concept may become necessary.

2. The Castle Schedule - The following is the proposed plan of detonations:



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6.1(a)

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6.1(a)

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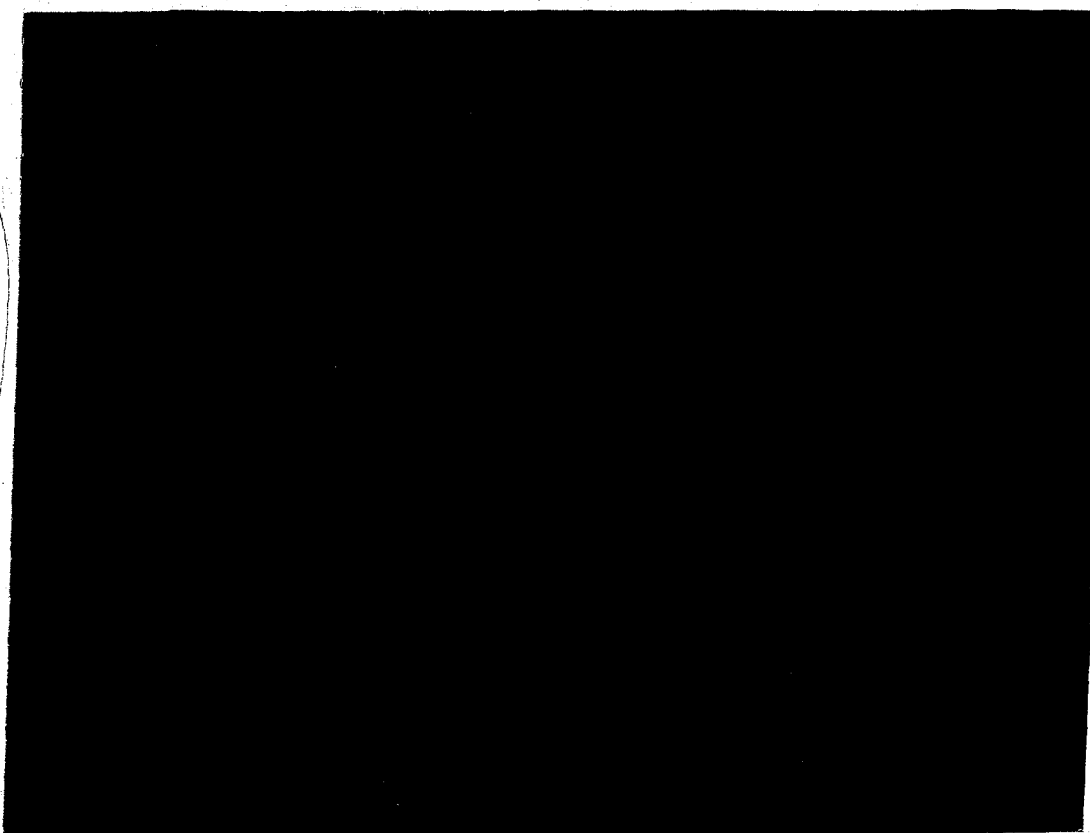
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DOE  
6.1(a)

NOTE - The detonation locations are predicated not only on yield and radiological considerations, but also on obtaining the maximum utilization of expensive test facilities now in acceptable condition in the forward area. It is planned in the case of barge shots to use Eniwetok base facilities to the maximum by assembling the respective devices and allied electronics systems at Parry Island and then tow, or carry in an LSD, to the desired location.

3. Operational Factors:

A. Safety Considerations - Personnel protection measures will be predicated on the maximum predicted yields of each shot. Protection measures for "things" will be based upon the respective design yields. Therefore, using the above as a guide, it will not be necessary to actually evacuate Parry and Eniwetok Islands for the Eniwetok Atoll shots, but because of radiological possibilities it will be necessary to have the capability of such evacuation. All Bikini shots will require complete evacuation either aboard ship or to Eniwetok Atoll.

B. Phasing - Preliminary consideration of a base facilities construction program, the design fabrication, shipment, etc. of the device indicates a schedule for the first detonation of about 1 March 1954. By maximum use of key personnel on

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instrumentation readiness subsequent detonations may possibly be scheduled at ten day intervals.

C. Requirements - A preliminary review of major requirements which will be needed from the Military Services indicates that those set forth in CJTF 132's report to JCS dtd 4 August (JCS series 2179), with adjustments, will be adequate even though the present Castle scope is much broader than that of August 1952. One such adjustment would be the need for a CVE of the Rendova class with the primary mission of furnishing a platform and support base for helicopters for both Bikini and Eniwetok shots. In addition, suitable barges for cab platforms will be needed, in this connection the SFOO, AEC is now investigating the availability of these from commercial or government sources. Moreover, the many undeveloped islands on Bikini Atoll which will almost certainly be instrumented for effects and development experiments will increase the number of helicopters required. The requirements will be continually reviewed by Task Group 132.1 with a view of presenting detailed requests as early as possible. Subsequent revisions will be submitted as necessary.

It is requested that the Commission approve the above concept at an early date in order that detailed planning can proceed.

/s/

ALVIN C. GRAVES  
J Division Leader

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