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FOLDER MRAT- Recording Volt

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Rear Admiral D. H. Nealon, USN  
Commander, Joint Task Force SEVEN  
Washington 25, D. C.

CLASSIFICATION CANCELLED  
BY AUTHORITY OF DOE/OC  
H. L. Hoppe 1/22/85  
REVIEWED BY DATE  
J. Diaz 2/10/86  
REVIEWED BY DATE

Dear Admiral Nealon:

By: P.M. Sweetman 6/16/86

Reference is made to my letter of January 5, 1956, which outlined the requirements of the Atomic Energy Commission for un-classified photography of Operation KNEADING. As a result of the conference on motion picture coverage held at Joint Task Force Headquarters on January 28, we are now able to amplify this previous letter and provide details of the Commission's requirements. As outlined before, our requirements consist of two general categories, classified record film footage of professional quality, and Quickie Report films, each of which will be covered in detail.

The classified record film footage of professional quality should be taken by Lookout Mountain Laboratory in color and should include:

1. Classified record photography of the entire test operation, with particular emphasis on film footage suitable for inclusion in a history of the development of thermonuclear weapons.
2. Declassifiable film footage for use by Federal Civil Defense Administration in the preparation of an un-classified civil defense documentary motion picture and for other public release purposes.

The classified record photography ( subparagraph 1 above) is intended to insure that a complete film record of professional quality is obtained of the entire test operation, covering those aspects of weapon design and development and weapon effects which are of particular interest to the Atomic Energy Commission. Obviously, a large part of this film footage will be taken for other purposes, such as the Task Force Commander's Report Film or the Department of Defense Weapons Effects Film, and Lookout Mountain Laboratory should make full use of this overlap to reduce the over-all photography requirements. This then is not

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a requirement for a completed motion picture but instead for film footage which supplements the coverage taken for the Commander's Report Film and the Weapons Effects Film. In addition to coverage of the more important aspects of the test operation, including the detonations and unique features of each shot, we have a special interest in film footage which should be suitable for later use in the production of a motion picture depicting the history of the development of thermonuclear weapons. To satisfy this latter need, each of the thermonuclear weapons or devices fired in NERFIRE, including related component devices and experiments, should be given coverage essentially equivalent to that of the Quicksite Reports which are described in a later paragraph. This coverage should also contain sufficient continuity to allow relation of these weapons and devices to previous thermonuclear weapons and tests.

The declassifiable film footage (subparagraph 2 above) is intended to meet two needs for unclassified motion picture photography. The first is film footage for use in a public release documentary motion picture on civil defense which Federal Civil Defense Administration is interested in producing. Federal Civil Defense Administration plans to rely on declassified footage from previous tests, as well as from NERFIRE, for the live photography for their motion picture. The second is few possible public information films for release by the Atomic Energy Commission to television and general opinion. Actually, most of the footage for these purposes from NERFIRE is already planned for other photography requirements such as the Commander's Report Film and the Weapons Effects Film, but in this case it is essential that the footage be taken in such a way that its declassification for public release can be readily accomplished. This means that the planned classified coverage will have to be expanded to include similar shots in which sensitive details are eliminated. In addition, Federal Civil Defense Administration has certain specific fields of interest and, if these are not now adequately covered, provision should be made to expand the coverage in this direction too. These fields of greatest Federal Civil Defense Administration interest are:

1. Detonation and effects of a deliverable multimegaton weapon, including blast, thermal and nuclear radiation.
2. Personnel protection measures.

3. fallout equipment and techniques, including prediction and monitoring.
4. safety precautions taken for protection of inhabited areas and of the Task Force.
5. Federal Civil Defense Administration is primarily interested in footage obtained from Charabes.

The Quickie Report films are to be used to provide a fast up-to-date visual briefing for selected personnel of the Atomic Energy Commission and the Department of Defense on each weapon or device as soon as possible after it is detonated. Our present thinking on the production and handling of these films, the details of which are now being worked out between the laboratories and the Division of Military Application, is outlined in what follows. A Quickie Report film of approximately ten to twenty minutes duration should be produced for each shot of the test series by the responsible laboratory (Los Alamos Scientific Laboratory or University of California Radiation Laboratory) in 16-mm black and white with sound. It presently appears feasible to record on magnetic striped film and utilize magnetic sound-on-film as the finished product. This point is being further explored with a view to eliminating any requirements for optical sound equipment in the forward area or for reprocessing in the continental United States to convert from magnetic to optical sound. Narration for these films should be by responsible individuals of the Scientific Task Group or the appropriate laboratory. Three prints will be prepared of each Quickie Report film, one to be delivered to the Division of Military Application in Washington within five to seven days after shot day, one to be sent to the interested laboratory, and one to be retained in the forward area by the Scientific Task Group until the end of the operation when it will be turned over to the Division of Military Application. The classification of the Quickie Report films should be Top Secret - Restricted Data, because of the possible extreme sensitivity of specific test devices. The Quickie Reports should be similar in scope to those produced for CASTLE and each should include the following:

1. Description of each weapon or device in thorough detail (with photographic coverage of components and assembly as well as over-all appearance) to include construction, design philosophy, concept and ramifications of weapon or device, and description of the complete reaction. Sketches, scale drawings, cutways, etc. will be useful in showing construction and reaction details.

2. Major diagnostic instrumentation associated with test, especially when of an unusual nature.
3. Anticipated results.
4. Operational difficulties encountered.
5. The detonation.
6. Summary of actual results achieved.

In connection with the declassifiable film footage for Federal Civil Defense Administration and other information purposes, it should be noted that such public release films must always be accompanied by suitable still photography. It is requested that arrangements be made for obtaining accompanying stills.

I believe that it is desirable to authorize direct contact between the Federal Civil Defense Administration staff and Lookout Mountain Laboratory, keeping the Atomic Energy Commission and the Joint Task Force (JTF) informed. However, such contact should be limited to technical details such as providing Lookout Mountain Laboratory with shooting outlines, treatments, and detailed guidance. In this connection, a considerable amount of such information has already been passed to Lookout Mountain Laboratory in informal discussions which followed the conference of January 18. The Atomic Energy Commission proposes to work directly with the laboratories in firming up the final details on Middle sports, and will keep the Task Force informed.

Sincerely yours,

Alfred L. Starbird  
Brigadier General, USA  
Director of Military Application