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FOLDER PIKINI SURVEY
SEPT & OCT, 1969

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8 October 1969

Subject: After-Action Report of Bikini Cleanup Project

To: Commander
Joint Task Force Eight
Sandia Base
Albuquerque, New Mexico

BEST COPY AVAILABLE

1. References:

- a. CJTF 8 OPOCRD 602-69 dated February 1969
- b. Memorandum of Understanding on Cleanup of Bikini Atoll dated 29 April 1969 with first amendment dated 25 June 1969 and second amendment dated 13 August 1969.
- c. ABC-DOE BIKINI CLEANUP WORK LIST data sheets submitted by Holmes & Marver to CJTF 8 during September 1969.
- d. Weekly Progress Reports to CJTF 8 from CJTG 8.8.
- e. Letter from LISTAD Representative at Bikini to CJTG 8.8 dated 8 October 1969. Subject - Cleanup of Bikini Atoll. (Encl. 2)

2. GENERAL:

The mission of JTG 8.8 is to remove material, structures, and debris residual from nuclear testing which represents a radiological or physical hazard to the native population, and removal of vegetation overgrowth inhibiting the development of agriculture.

The Memorandum of Understanding as amended outlines the scope of work to have been accomplished as determined on site by representatives of the DOE, the ABC, and the TMI. The Bikini cleanup work list data sheets document in detail the work that was accomplished. Weekly progress reports contain information on ship arrivals, equipment problems, visitors, and units and men assisting in the operation. In letter, Reference 1.c, TMI Representative at Bikini states that the cleanup is completed and that he accepts responsibility for management of Bikini Atoll.

The purpose of this report is to state that we have accomplished our mission and to provide my observations on the operation. Recommendations are included that may assist in planning future operations at remote locations. I assumed command of JTG 8.8 on 18 June 1969.

Appropriate comments of the previous commander, Col. Jack Rawlings, are contained in Weekly Progress report dated 18 June 1969. In analyzing the operation, it is important to realize that until the end of June 1969, the total funds available were uncertain, therefore; priorities, organization, schedules, and other decisions prior to that time were made under severe fund limitations.

3. ORGANIZATIONS

- a. Structure: JTC S.S was tailored as a combined Government-Contractor organization. This combination provided the specialized talents, experienced craftsmen and military transportation support that enabled us to operate efficiently while maintaining the flexibility so essential to remote operations. On short notice, I was able to obtain the following: demolition men, a Navy salvage team, skilled carpenters, operators, mechanics and special assignment airlift.
- b. Management: Essentially, I had operational control over two separate internally-managed elements — the Navy Boat Element and Holmes and Harver, our contractor. The other military personnel, including the doctor, reported directly to me while my deputy supervised the actions of the Public Health Service men determining the radiation environment. My deputy, as contract administrator, supervised directly the work of the contractor. Some days we worked as many as four islands concurrently. With this dispersion of resources, it is particularly essential that supervisors and managers talk with one another freely and often. Responsible individuals must keep each other informed. Individual personalities influence communication and cooperation much more here than in less remote and less dispersed operations.
- c. Holmes and Harver: The men working for Holmes and Harver were hard working, congenial and very competent. Having been told what was required, they worked without need for constant direct supervision. With few exceptions, when finished with one task, they would come and ask what had to be done next. Most of the men are talented in multiple skills. Unencumbered by union restrictions, they shifted quickly to whatever talent was needed. On-site management, however, left much to be desired. To require one man to be project manager, as well as run the camp, is asking too much even in a small camp. Defects were noted early, especially in the logistics control. The field work also suffered. For, more often than not, the word just didn't get down to the men that had to do the work.
- d. Navy Boat Element: The Navy men did an outstanding job considering their experience and the boats and equipment they had to work with. Starting to work at six-thirty daily, they managed to keep the boats operating. Since the middle of June we have lost less than four hours of cleanup operations directly attributable to boat failures. About half the sailors' man hours should be considered training since, with few exceptions, they lacked the expertise needed to do a job quickly and efficiently.

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During the ten weeks that Chief McCoy was here, the younger engineers learned rapidly. He diagnosed the problem and then helped them get the repairs started. Under his supervision, they started to do before-operational maintenance, thus, preventing many failures.

c. Recommendations:

- (1) That the contractor be required to have someone other than the project manager as camp manager.
- (2) That the boat Element have a competent Chief Petty Officer as Chief Engineer on site for the total operation.
- (3) That a Senior Enlisted man, Operations Sergeant E-8 or E-7, with field experience in the Corps of Engineers, be part of the Commander's staff to coordinate the details of planning and execution and to provide administrative assistance.

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4. LOGISTICS:

a. Supplies:

- (1) Dynamite is not the type of explosive best suited to crumbling concrete or cutting steel. There are many military explosives that would have been much more effective. Similarly, electric caps are of limited use on the islands. In most cases, distance is the safe criteria for human protection, thus, non-electric caps and time fuses are better suited for this type operation.
- (2) Some of the fuel we received or placed in drums was contaminated. Capacity for bulk fuel storage with lines for loading from a tanker would have prevented this problem and for an operation of this duration might have been less expensive.
- (3) In determining projected fuel requirements, previous weekly consumption rates are not an accurate criteria. Equipment and boat hourly consumption rates with projected usage provide the most valid predictions.

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b. Repair Parts:

- (1) The boat Element arrived with insufficient parts to keep the boats running during the initial period.
- (2) When using equipment that has been sitting idle, provision must be made prior to shipment or shortly after arriving at the site of operations for changing items that deteriorate in storage such as hoses, seals and gaskets.

c. Transportation:

- (1) Weekly airlift was sufficient and satisfactory. Non-compatibility of supply items and certain items and passengers caused us some problems. There could have been serious problems if the Air Force Liaison Officer at Kunjalein had not informed compatibility requirements for us almost weekly. Another critical problem was the inability to follow up on supply items. Items would be delivered to Hickam and placed into the system. If a specific item did not arrive on the plane, we had no way of knowing where it was backlogged.

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For critical items, we just ordered another one for the following week hoping that one of the two would arrive. In some cases, we ordered the same item three times in an effort to get one here. Much of the blame is our own for not establishing a definite priority system to preclude buying of critical items. In similar future operations, a representative of J-4 with authority should be assigned to duty near the loading airbase to insure that specific items are loaded and then tracked through the system. The close relationship between S.5 and the contractor is essential to operations. This same type of relationship between the TCO at Hickam and the contractor is essential to a smooth flow of supplies. Both CJTG S.5 and the TCO handled logistic problems quickly and efficiently and kept our operations on schedule despite these problems. A different organizational structure in Honolulu or a J-4 expeditor might have prevented many problems from occurring.

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(2) Sea-lift was timely and adequate. We could normally plan on cleanup operations halting for two days whenever a ship arrived. With a small work force it took a total effort to handle the cargo in a timely manner. The ALATIA arrived with three hundred drums of fuel oil loaded on the helicopter deck with no provisions for unloading into lighters. The Captain of the ALATIA informed me that they could have loaded the ship differently but had been informed in Honolulu that we had unloading facilities here.

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d. Support: As mentioned above, both CJTG S.5 and the TCO at Hickam quickly and effectively found solutions to our logistic problems for specific critical items. Global Associates at Kwajalein, in particular Tom Hardison, supplied us with essential items. Without this support from Kwajalein, our completion date would have been a month later. Depot type maintenance support from S.3.9.6 at Johnston supplied us with rebuilt engines and assemblies without which we could not have kept our boats running.

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e. Recommendations:

(1) That a single office be responsible for coordinating procurement, checking priorities of movement, and tracking supplies through the transportation system. This office must establish close working relationship with all carriers — air and sea.

(2) That in future operations, more consideration be given to establishing bulk fuel storage and means of resupply.

5. EQUIPMENT:

a. Construction: The numbers and types of equipment selected for the operation proved satisfactory. A tracked front-end loader, excavator, would have been very effective. A larger crawler crane would have saved much of the strain on the smaller cranes. The large Euclid dumps with their rugged bodies accomplished their task but they are not designed for cross-country movement.

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- b. Boats: Many of the initial breakdowns could have been prevented if a complete technical inspection and servicing had been conducted prior to shipment. I think that events proved that more boats could have been put to good use sooner. In order to have two, operating daily, there should be four boats on hand. Unfortunately, the unmanured boat Element spent most of their time repairing non-operating boats so that a good preventative maintenance program never got past the starting stage. The LCU was the nucleus of our off-Eniwetok Island operations. With the galley and fresh water storage capacity, we were able to keep as many as thirty men at a remote job site for as long as a week; although we normally brought them back to the base camp every three days. W&
- c. Camp: The four 60KW generators were satisfactory and required minimal maintenance. The Distillation Units are very old and required constant maintenance. With five units on hand we could normally keep three in operation. The 10,000 gallon flexible tanks used for water storage were satisfactory. Over the period of the operation, they deteriorated, however, and any plan that assumes that this type tank can be reused at another location should be reconsidered. The Porta Kamps and ice machines required little maintenance once installed.
- d. Recommendation: If equipment for readiness is required to sit idle, some system should be initiated for rotating the operational equipment so that working parts on all equipment are exercised.

6. OPERATIONS:

a. Planning and scheduling:

(1) Full advantage was not taken of available blueprints and plot plans. Initial reconnaissance of most islands was conducted with little knowledge of what we expected to find or where we might find it.

(2) In planning requirements for demolition teams and other short term TDY support, schedules must be projected at least four weeks in advance. I found that even these short term projections were very optimistic. Not enough delays due to unknowns, such as, weather, equipment breakdowns or lack of essential supplies were incorporated into the projected schedule.

(3) Daily meetings to determine plans and allocate resources are essential, especially when off-island operations are involved. Each supervisor must know the overall plan so that urgently needed equipment does not end up on an island three hours away.

(4) The nine-hour day for six days a week is a working pace that can be maintained indefinitely. Although we worked Sundays quite often, especially the last two months, to work more than one Sunday a month as a regular schedule would have doubtful benefits.

- b. Execution: Except for the long boat rides to outer island job sites, very few man hours were wasted. Much of the pick-up work was hand labor so that equipment sat idle quite often. Here again, the versatility of equipment operations is important. Since the D-6 Tractors would not fit into the LCM 6's, the D-7 Tractor and the Front-End Loaders were the work horses on outer islands with limited access.
- c. Bikini Natives: Although the Bikini natives contributed to the work force, the primary benefit may be long range. They saw our men handling radioactive metal and thus became less emotional in their fear of radiation. Lore and the other leaders here with us for three months soon understood the amount of work involved and appreciated why the total program will take a few years.

7. ADMINISTRATION:

- a. Camp: The food was plentiful and very well prepared. Cold beer and good food were two of the basic factors in the high morale among the men. Our small camp store did good business. No clubs, as such, were set up. Beer was sold by the case to individuals.
- b. Reports: From my point of view a written weekly progress report was sufficient. Both my deputy and CTE S.3.9.7 submitted weekly reports to the HAO, AEC and CTE S.3, respectively.
- c. Discipline and morale: We had a few minor breaches of discipline. None of those were with the men from Holmes and Marvor. All were handled here satisfactorily. In general, morale was good. Langusta hunting and skin diving supplemented volleyball, mountain-ball, music and nightly movies for recreation.
- d. Mail: Because our APO had recently been withdrawn from another area, we received much mail destined for people not associated with the project. Weekly mail delivery was satisfactory.

8. COMMUNICATIONS:

- a. Radio: Our SSB one Kiltwitt radio using a sloping V antenna provided highly reliable voice communications with Honolulu. Contractor-supplied technicians/operators were well trained and dependable. The Motorola VHF radios were also highly reliable within the Atoll. Air-ground communications were good although quite often the weekly supply plane did not know our frequencies and landed without radio contact. A very important morale factor was the phone patch to families in Honolulu two nights a week.
- b. Classified communications: The only way we could receive or transmit classified information was by registered mail. The nature of our operation was such that no serious problems resulted from this restriction. I sent out no classified documents or messages. Those received by mail were generally received after the fact and primarily concerned ship movements.

1 Enc.
Letter from TTG Rep to
CJTG S.3 dated 8 Oct 69

PATRICK J. DONOHUE
Colonel, C.E., U.S. Army
Commanding