

## BIKINI ATOLL

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## CLEANUP AND SITE PREPARATION

## SCOPE OF WORK - PLANNING ESTIMATE

Bikini & Eneu - Rehabilitation to include clearing, stockpiling and/or burning of brush, demolition of metal and wooden structures, burning of wood scrap, removal of metal scrap and disposal by deep-sixing, demolition of exposed concrete slabs, footings (to a maximum of 24" below grade), etc. with rubble (not contaminated) used for rip-rap to provide a mole at an approved location.

Other islands on Atoll - Demolition of steel tower (Eneman), removal of metal scrap and disposal by deep-sixing, removal of concrete and steel members which protrude from footings, etc., thereby presenting physical danger, repair of concrete bunkers on Aomen by patching concrete where iron aggregate is exposed, demolition, removal, and deep-sixing of bunker at end of Sand Island west of Nam.

General, all islands - Removal of steel doors, climbing rungs, stairways and any protruding steel members from all bunkers and disposal by deep-sixing, removal of any other contaminated material or debris. Usable bunkers left in place. Underground utilities left in place.

Revised 9/30/68

BEST COPY AVAILABLE

## BIKINI ATOLL

## CLEANUP AND SITE PREPARATION

## ASSUMPTIONS - PLANNING ESTIMATE

Planning estimates are based on Holmes & Narver Pacific Test Division performing the work under existing AEC Contract AT(29-2)-20. This cleanup and site preparation work is to be completed prior to commencement of other planned or phased activities.

Contractor work force will be made up of (1) supervisors and craftsmen hired from the Mainland and Hawaii, and (2) Trust Territory interpreters, supervisors and laborers. The TT personnel will be limited to working on Bikini and Eneu. Cost of labor included in estimate.

54-hour workweek for contractor and TT personnel.

MAC airlift will be used for contractor personnel movement from Hickam to Kwaj and return. DOD will be used for airlift of contractor personnel from Kwaj to Eneu and return. Cost included in estimate.

Trust Territory to furnish surface transportation from Kwaj (Mainland and Hawaii employees) and points of origin within TT (TT employees) to Eneu at beginning of job and for resupply once every 30 days for approximately six months duration. TT to furnish surface transportation for return of TT employees. Upon arrival at Eneu at beginning of job, the TT ship will be required to standby for approximately five days until camp is established. Cost not included in estimate.

MAC and DOD to furnish airlift from HAFB to Kwaj and from Kwaj to Eneu on a weekly or 10-day basis for fresh produce, supplies, and mail. Cost not included in estimate.

DOD to furnish emergency air evacuation from Eneu to Kwaj, if required. Cost not included in estimate.

Existing Assembly Building or Mess Hall on Eneu will be used for temporary camp. In addition, the camp will consist of tents and a "porta-camp" type latrine and galley. Cost of latrine and galley included in estimate.

## Assumptions - continued

Construction and camp equipment (less latrine and galleys) is to be loaned from AEC assets or obtained on no-cost transfer basis from other Government agencies.

Communications equipment is to be loaned from AEC assets.

Upon completion of this phase of work, construction materials used in temporary camp construction will be left on EBM.

Due to non-availability of current wage rates for Territory personnel, the following rates were assumed:

Laborer	.50 per hour
Supervisor/Interpreter	.90 per hour

NOTE: Spelling of island names in accordance with AEC station accompanying report to Commission. See attached cross reference sheet.

## BIKINI ATOLL

TABLE - ISLAND NAMES.

Local Island Name IAW AEC Sketch	Island Code Names Used During Testing	Island Names IAW Hydrographic Chart No. 6032
ENEU	NAN	*ENYU
BIKINI	HOW	*BIKINI
AOMEN IROIJ COMPLEX	EASY	*UORIKKU
AOMEN IROIJ COMPLEX	DOG	*YUROCHI
AOMEN IROIJ COMPLEX	FOX	*ROMURIKKU
AOMEN IROIJ COMPLEX	GEORGE	*AOMOEN
NAM	CHARLIE	*NAMU
BOKONEJEN	BAKER	*BOKONEJEN
JELETE	VICTOR	*RUKOJI
LUKOJ	WILLIAM	*CHIEERETE
ENIDRIK	UNCLE	*ENIRIK
AEROKOJ ENEMAN COMPLEX	TARE	*ENINMAN
AEROKOJ ENEMAN COMPLEX	SUGAR	*REERE
AEROKOJ ENEMAN COMPLEX	ROGER	*BIGIREN
AEROKOJ ENEMAN COMPLEX	PETER	*AIRUKIRARU
AEROKOJ ENEMAN COMPLEX	OBOE	*AIRUKIJI
EONJEBI	MIKE	IONCHEBI
ROKERE	LOVE	RÖCHIKARAI
ENIAIRC	KING	ENIAIRO
YOMYARAN	JIG	YÖMYARAN
BOKANTUAM	ITEM	BOKONFUAAKU
BOKDROUL	BRAVO	BOKÖRORYÜRÜ
BOKAETOUTOK	ALFA	BOKOAE TOKUTOKU
OROKEN	ZEBRA	OURUKAEN
ADRIKAN	YOKE	ARRIKAN
BOKBATA	ABLE	BOKOBYAADA

\* Work to be performed on these islands.

9/30/68

SUMMARY ESTIMATE  
CONTRACT AT (29-2)-20

HOLMES & HARVER, INC.  
ENGINEERS - CONSTRUCTORS

TITLE: BIKINI ATOLL  
CLEAN-UP AND SITE PREPARATION  
REVISED PLANNING ESTIMATE

DOE ARCHIVES

S.P. NO.	DESCRIPTION	QUANTITY	UNIT	LABOR		MATERIAL TOTAL	EQUIP. USE		SUB-CONTRACT TOTAL		TOTAL	
				HOURS	TOTAL		HOURS	TOTAL	CONTRACT	TOTAL		
	This Estimate prepared in response to IMX DTC R242000Z September, 1968 from Major General E.B. Gilmer, USAFC Washington D.C., and based on all work being performed concurrently.											
	BIKINI AND ENEU ISLAND											\$ 1,025,000
	OTHER ISLANDS											\$ 175,000
	TOTAL COST											\$ 1,200,000

APPROVED: *[Signature]*  
Chief Estimator

DATE 30 Sept 1968

*[Signature]* 12/68

SUMMARY ESTIMATE

CONTRACT AT(29-2)-20

HOLMES & HARVEY, INC.  
ENGINEERS - CONSTRUCTORS

TITLE: BIKINI ATOLL

CLEAN-UP AND SITE PREPARATION  
REVISED PLANNING ESTIMATE

NO.	DESCRIPTION	QUANTITY	UNIT	LABOR		MATERIAL	EQUIP. USE		CONTRACT		TOTAL
				MAN HOURS	TOTAL \$		HOURS	TOTAL \$	TOTAL \$	TOTAL \$	
1	BIKINI AND MURU ISLANDS										
<p>This Estimate based on six-month clean-up and site preparation time and prepared in response to LEX from Major General E.B. Giller, USAFC, Washington D.C., DTC R24200Z, dated September 24, 1968, to W.A. Rountree, Manager USAEC/HAO, requesting Bikini (104) and Enyu (104) be separated from other island cost. All cost prorated based on man hours for demolition and clean-up, and all work being performed in conjunction with the other Islands.</p>											
	MONUMENTATION			17,530	17,530				82,497	100,027	
	TRAVEL AND SUBSISTANCE			9,753	9,753				4,573	14,326	
	CAMP SUPPLIES (FOOD & BEV.)					30,537				30,537	
	CAMP LOSS					18,852				18,852	
	SUPPLIES (FUEL, ETC.)					72,955				72,955	
	MISC. ITEMS (MATERIALS, FORMS-CAMP)					22,965				22,965	
	LABOR WAGES			364,238	364,238					364,238	
	SUPERVISOR AND RAD-SAFE SALARIES			40,780	40,780					40,780	
	SMALL TOOLS					16,208				16,208	
	REPAIR TO EQUIPMENT			1,717	1,717	38,633				40,350	
	DEMOLITION			14,955	14,955				80,780	95,735	
	Sub-total			448,913	448,913	200,150			167,850	816,913	
	Subcontract Surcharge									2,500	
	Sub-total									819,413	
	Material Handling						17%			34,026	
	Sub-total									853,439	
	Contingency						20%			170,688	
	Sub-total									1,024,127	
	Total (Found)									\$1,025,000	

DOE ARCHIVES

SUMMARY ESTIMATE  
 CONTRACT AT (29-2)-20

HOLMES & HARVER, INC.  
 ENGINEERS & CONSTRUCTORS

BIKINI ATOLL  
 CLEAN-UP AND SITE PREPARATION  
 REVISED PLANNING ESTIMATE

ACCT. NO.	DESCRIPTION	QUANTITY	UNIT	LABOR		MATERIAL TOTAL \$	EQUIP. USE		SUB-CONTRACT TOTAL \$
				HOURS	TOTAL \$		HOURS	TOTAL \$	
1-3.	OTHER ISLANDS								
	This Estimate based on six month clean-up and site preparation time and prepared in response to JMW from Major General E.B. Giller, USAEC, Washington D.C., DTC R242000Z, dated September 24, 1968, to W.A. Bonnet, Manager USAEC/MAO, requesting that the Estimate for clearing Bikini and Eneu be separated from the other Islands. The following Islands are included in this Estimate: Uorikku, Yurochi, Romurikku, Aomoon, Nenu, Bokoonajien, Rukoji, Chiceereto, Enirik, Eniwan, Reere, Bigiren, Mrukdraru, and Mrukijiji. All cost prorated based on man hours for demolition and clean-up and all work being performed in conjunction with Bikini and Eneu Island.								
	MOBILIZATION			2,891					13,603
	TRAVEL AND SUBSISTENCE			1,589		5,037			763
	CAMP SUPPLIES (FOOD & BEV.)					3,108			5,037
	CAMP LOSS					12,197			3,108
	SUPPLIES (FUEL, ETC.)					3,785			12,197
	MISC. ITEMS (WASHERS, PORTA-CAMP, ETC.)								3,785
	LABOR WAGES			60,035					60,035
	SUPERVISOR AND RAD-SAVE SALARIES			6,712					6,712
	SMALL TOOLS					2,671			2,671
	REPAIR TO EQUIPMENT			283		6,367			6,367
	DEMOBILIZATION			2,466					13,320
	Sub-total			73,976		33,165			27,686
	Subcontract Surcharge								2,500
	Sub-total								137,327
	Material Handling								5,638
	Sub-total								142,965
	Contingency								28,593
	Sub-total								\$171,558
	Total (Round)								\$175,000

HOLMES & HARVER, INC.  
ENGINEERS - CONSTRUCTORS

ALICE BIKINI ATOLL  
CLEAN-UP AND SITE PREPARATION  
REVISED PLANNING ESTIMATE

SUMMARY ESTIMATE  
CONTRACT AT (29-2)-20

TEST ISLAND NAME	DESCRIPTION	QUANTITY	UNIT	LABOR		MATERIAL TOTAL	EQUIP. USE		SUB-CONTRACT TOTAL
				MAN HOURS	TOTAL \$		HOURS	TOTAL \$	
IANI		16,620		38,920 hr	(38,920)				
HOH		22,300			(45,335)		85.85%		
EASY		70							
DOG		260							
FOX		120							
GEORGE		1,470							
CHARLIE		790		6,415 hr	(6,415)		14.15%		
BAKER		40			(45,335)				
VICTOR, WILLIAM		130							
UNCLE		1,145							
TARE		440							100.00%
SUGAR		270							
ROGER		80							
PETER		120							
OSON		1,480							
MIKE									
LOVE									
KING									
JIG									
ITEN									
BRAVO									
ALFA									
Z BRA									
YOKE									
ABLE									
TOTAL, PREPARATION AND REMOVAL						45,335			





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

Dear Mr. Zwick:

You will recall that on August 12, 1968, the President announced that the people of Bikini can be returned to their home atoll. This announcement followed a determination that the main islands of the atoll are safe for continuous human habitation and that the security requirements of the nation will permit the restoration of the atoll to the Bikinians. At the time of the announcement, the President requested the Secretary of Defense, the Chairman of the Atomic Energy Commission and the Director of the Bureau of the Budget to cooperate and assist us in developing and putting into effect a redevelopment program.

As a first step in that effort, this Department and the High Commissioner of the Trust Territory organized a survey trip to Bikini, the survey party being composed of representatives of the Bikini people, staff members of the Trust Territory Government, and representatives of the Atomic Energy Commission, the Defense Department and the Department of the Interior. This visit, undertaken within two weeks of the President's announcement, was intended to lay the foundation for a re-settlement program for Bikini.

Following the completion of the visit to Bikini, we have turned to drafting a program looking toward the earliest possible return of the Bikinians. Representatives of the Atomic Energy Commission have prepared the estimates for the removal of testing debris, radioactive materials, and the clearing of vegetation preparatory to replanting the islands to productive crops. The Trust Territory Government and personnel of this Department have turned to the development of a re-settlement program designed to meet the President's criteria of a new and model community on Bikini.

I am pleased to forward to you for your consideration the combined results of the work to date, a program of redevelopment of Bikini for the next six years which represents our best current estimate of the cost of meeting the obligation of the United States to provide for a viable community and the speediest possible relocation of the people. The estimate calls for the expenditure of approximately \$3,000,000, most of which falls in the first two years of the program for the initial cleanup and construction phases of the project.

We believe it is important that steps be taken to begin the program at an early date. We owe the people of Bikini nothing less; we owe the American people who have assumed responsibility for the Trust Territory nothing less. However, although the involved agencies of the Federal Government and the Trust Territory have been for some time working toward the ultimate return of the Bikini people, both the timing of the determination that return was possible, and the subsequent announcement by the President were such that it has not hitherto been possible to include funds for Bikini in any agency's 1969 or 1970 budget program.

I would add one further comment with respect to the estimated costs of re-settlement. As you will note in the enclosed paper, there has been an absolute loss of land in this land-poor area. Buildings can be rebuilt, crops can be replanted, but the land resource cannot be restored. During the August visit to Bikini, the representatives of the people became aware of the loss of this resource. Whether they will press for compensation for such loss we cannot at this time say. I merely wish to point out that the enclosed re-settlement program does not include any item for such compensation, if loss or damage claims are presented by the Bikinians, or if payments are otherwise found to be due them.

We believe the re-settlement program should continue to be moved forward with all possible dispatch and that its main features should be laid before the Congress soon after it convenes. We look forward to working with you to that end.

I am sending copies of this letter and its enclosures to the Chairman of the Atomic Energy Commission and the Secretary of Defense. Representatives of both agencies are informally aware of our proposed program and the funding requirement which arises from it.

Sincerely yours,

Secretary of the Interior

Hon. Charles J. Zwick  
Director  
Bureau of the Budget  
Washington, D.C. 20503

Enclosures

cc: Secretary's File  
Secretary's Reading File (2)  
PLM  
LOT  
WRNorwood

Chas. Johnson  
Clark Clifford (Sec. DOD)  
Glenn Seaborg (Chairman AEC)  
Ralph Earl II (DepSec, DOD)  
Col Gomes  
Cdr Kuhn

GMilner/tv 11-7-68