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HEADQUARTERS

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Joint Tack Force, SEVELES REDIVAN
P. O. Box 16d?

J3-H-58

15 February 195

SUBJECT: Major Military Support Items for Operation HARDTACK

TOI

Commander Joint Task Force SEVEN Washington 25, D. C. ATTN: Brig Gen Perry B. Griffith

This haverial contains information or Colonice of the D within the me Title 18, U. S. C. 703 and 794, the transcribeion of even which in any a unauthorized per or is prory law.

- 1. Reference is made to the following letters which have been issued previously and are pertinent to subject of military support for Operation HARDTACK.
- a. Confidential letter, Headquarters JTF SEVEN, file J-3/300.6. 3608, subject: Conference on HARDTACK Hilitary Support Requirements, dated 21 December 1956. This letter amounced the 20 February 1957 major military support conference.
- b. Secret letter, Headquarters JTF SEVEN, file J-3/300.6, S-20-57W, subject: Visit of Colonel E. A. Lucke, USA, and Colonel Robert H. Gattis, USAF, to JTF SEVEN Headquarters, dated 28 January 1957. This letter established the agreed policy that Headquarters AFSMP would be responsible for determining the items of military support required for the DOD effects and scientific programs of Operation HARDTACK and would present these requirements at the 20 February conference. At such time as the AFSWP programs are passed to Field Command for implementation, requirements will then be processed through Headquarters, Task Group 7.1.
- c. Confidential letter, Headquarters Task Group 7.1, file IS-401, SP-DO 1012, subject: Vehicles, Operation HARDTACK, dated 1 January 1957. This letter forwarded TG 7.1 vehicle requirements for Operation HARDTACK.
- d. Confidential letter, Headquarters Task Group 7.1, file J-15G-188, subject: Sampling Requirements for HARDTACK, dated 4 February 1957. This letter from Dr. Felt to RAD: Hanlon forwarded and referred to copies of correspondence concerning TG 7.1's requirement for sampler aircraft.
- Confidential lotter, Headquarters Task Group 7.1, file J3-H-25, subject: Service Craft Requirements for Fiscal Year 1958, dated 26 December 1956.

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- f. Secret RD letter, UCRL, file COPAA-311, subject: Medification of Support Requirements, dated 11 February 1957. This letter concerning nuclear cloud radiochemical sampling technique by utilizing rockets, from Dr. Johnson to RADA Hanlon through Dr. Felt, set forth the requirement for a fast ship to be used in support of the project. Ship to be employed in the post-shot location and retrieving of the nose cones from the sampling rockets.
- 2. In evaluating and determining the major military support items required for Operation HARDTACK, this Task Group's recommendations are based on the following assumptions:
- a. Operationally, HARDTACK will be similar to REDWING but it is expected that the scope, both in numbers of weapons and devices to be fired and the range of yields, will be greater.
- b. The capability of conducting operations from afloat at BIKINI must be maintained.
- c. The dual capability of simultaneous firings at both atolls is planned.
- d. The evacuation of Task Group 7.1 personnel from the ENTWETCK Atoll on an emergency basis must be provided for.
- e. Off-stell sites and participation may be equal to or greater than on REDWING.
- f. For planning purposes, Task Group 7.1 participation and numbers of personnel at both stells will be approximately the same as on REDWING.
- 3. The following is a discussion which includes the proposed utilization and justification for certain major items of military support which are required by Task Group 7.1:
- a. A requirement exists for a ship which will serve as Task Group 7.1 Command Ship while conducting operations affect at BIKINI. Adequate space such as shops or large staterooms must be available which can be converted to serve as offices for approximately twelve staff sections and task units. It should have quartering capability for an estimated 70 cabin class TG 7.1 personnel and a lesser number of troop class accommodations. Suitable space, both as to size and location, must be available to install the timing and firing equipment required aboard. Power requirements for the Control Station for Operation REDWING were 10 kW, 115 volts AC single phase. So that EGGG could guarantee the equipments' operation, this power came directly from the ship's gonerating plant and was independent of the ships distribution system. Airconditioning was required, and will be again, whereby the temperature of the Control Room was reduced to 80° F and 60 percent relative humidity. Also the ship must serve as the TG 7.5 Communication Center and Coding Center affoat.

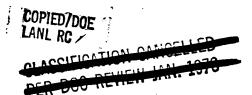


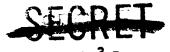




For Operation REDATING, the above and other requirements necessitated extensive modifications and installations shipboard. As a result, the USS CURTISS (AV-4) received these alterations and served as the TG 7.1 Command Ship for REDUTING. Considerable time and funds were expended to fit her out which undoubtedly will have to be accomplished again in the event another ship is supplied. Therefore, in the interest of economies, it is the recommendation of this Task Group that the USS CURTISS be obtained for this same purpose for Operation HARDTACK.

- b. The Task Group has a requirement for a ship for the purpose of moving HARDTACK classified devices to and from the EPG. Suitable booms, elevators, and storage space for this classified material must be available. A detailed stowage requirement can not be made at this time as the cubages and tonnages of the material to be moved are not known at this time. For REDWING the USS CURTISS (AV-4), also filled this requirement and from what is presently known would also be entirely adequate for HARDTACK. Some past modifications and alterations have been made on the USS CURTISS to facilitate this mission.
- c. Also there must be a ship present at BIKINI Atoll on which to base the Marine helicopter squadron and from which during afloat operations, conduct evacuation and re-entry-recovery helicopter activities. For Operation HARDTACK no extensive modifications or permanent installation are visualized at this time. It will require, however, a personnel decontamination facility. This includes outside showers (salt water) with overside drains and a clothing change station. TO 7.1 peak population quartered aboard the CVE during REDJING was 66 cabin class and 17 troop class spaces.
- d. A ship is requested by TG 7.1 for the movement of shot barges between atolls. For REDWING the USS CATAMOUNT (LSD-17) was assigned. Due to the suitability and configuration of an LSD it is considered that again this type of ship be assigned for Operation HARDTACK.
- e. In all probability the ship assigned as TG 7.1 Command Ship will not be able to accommodate the bulk of the TG 7.1 and other Task Force personnel at BIKINI during periods affeat. For that reason, a ship of the T-AP type is required. For REDWING, the peak number of TG 7.1 personnel who were quartered aboard the USNS AIMSWORTH (T-AP-181) was 225. The AIMSWORTH was entirely satisfactory and would be highly desirable for Operation HARDTACK. This ship also served as the TG 7.5 Command Ship.
- f. At HITWETOK Atoll provision must be made for the emergency evacuation of TG 7.1 personnel from the stoll in the event of natural disaster or contamination from fallout. Unlike Operation REDUTNG, the necessity to have the capability of firing medium and large yield devices at both atolls restricts the use that can be made of the ships stationed at BIKINI. From discussions on this subject it would appear that a ship of the APA type, on a rotational basis, would adequately satisfy this requirement. For Operation REDWING, TG 7.1 population at ENTWETOK reached a maximum of 1000.
- g. During REDWING, in contrast to the CASTIE operation, the commander TG 7.1 and certain of his key scientific personnel were required to do extensive traveling between ENIMETOK and BIKINI Atolls as shots were readied and as problems developed which required their immediate and personal attention. The







scheduled inter-atoll sirlift was used for their movement the majority of the time, and such airlift would be used again to the maximum extent. However, with the increased number of shots scheduled for HARDTACK, it is believed that the requirement for expeditious movement of key TG 7.1 personnel will be increased. Therefore, though maximum use of the routine sirlift will be made, access to some suitable aircraft should be granted CTG 7.1 when the scheduled inter-atoll sirlift can not satisfy his movement requirements.

h. Other requirements which are of vital concern to this Task Group, but are the responsibility of other Task Groups have in part been covered in the reference letters. Nevertheless, for completeness, these are reiterated in the inclosed summary of military support items for Operation HARDTACK.

to More detailed support requirements, which will be necessary for the various scientific programs and projects, will be forwarded as more firm planning information becomes available. However, currently proposed firing sories, even at this time, indicates that some auxiliary fields of support requirements will be greater than on REDWING. Examples are:

- a. The requirements for sample return flights.
- b. The requirements for MATS and MSTS support for both the build-up and operational phases.
- 5. Shown in Section IV of Inclosure 1 are the support items required by the DOD projects. As stated in paragraph 1.b. above, these requirements have been assembled by Headquarters, AFSMP for presentation at the 20 February 1957 requirements conference. Headquarters, AFSMP pointed out that no detailed evaluation had been made of the requested support. Cursory examination leads one to believe duplication or over-lap may be present. Examples of such are particularly helicopters and boat pool craft. Undoubtedly, some of these requirements can be satisfied by support provided TG 7.1 as a whole. As soon as the program support can be examined, over-all requirements will be adjusted where possible.
- 6. Attached as Inclosure 1 is the summary of military support items for HARDTACK which are required for the support of TG 7.1. It is requested that this Headquarters be kept informed on the status and action taken in regard to these items.

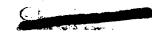
FOR THE COMPLANDER:

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Summary of Hilitary Support Items for Operation HARDTACK E. A. LUCKE

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Plans & Operations



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I Ship Support

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Туре	Number	Purpose
AV (UIS CURTISS)	1	TG 7.1 Command Ship, afloat Timing and Firing Station, TG 7.5 Communication Center, support certain experimental programs and projects, to house key TG 7.1 personnel afloat, and as a Weather Station.
රා ක රා ,	1	Transportation of classified devices and materials to and from the LPG.
CA	1	Helicopter base, base and housing for early Es-entry-Recovery personnel, RadSafe control point for personnel decontamination facility.
T-AP-161 (USNS AIMEMORTH)	1	TG 7.5 Command Ship, RadSafe Laboratory and Center, housing for TG 7.1 and other Task Force personnel.
LSD	1	Barge lift, Boat Pool base and possible Telemetering Station,
APD	1	Inter-Atoll water transport of personnel and cargo and possible Telemetering Station.
IST	2	Inter-Atoll personnel and cargo transport.
LS?	1	Off-stoll scientific, weather and RadSafe personnel and cargo transport.
ATF	1	Towing of support craft (YCV, BC, YC) at BIKHH Atoll.
DD:	1	Recovery vessel for Nose Cone of Rocket Samplers. If vessel is rotated, provision must be made to install shipboard equipment on another DD. Reference paragraph 1.f. of basic letter.
APA UNIVELLET	1	Programy evaluation of personnel at ANIMETOE.

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Ship Support (Cor	nt'a) SECKET	
Туре	Number	Purpose
XCA.	2	Serve as helicopter platform at shot barge sites. Reference paragraph l.e., basic letter.
YC	1	Radioactive sample packaging facility. Reference paragraph l.e., basic letter.
BC	1	RadSafe Barge - BIKIMI. Reference paragraph l.e., basic letter.
Boat Pool (HEN)	2	To provide surface transportation at ENIMPTON and BIKINI.
Boat Hool (Navy)	1	To provide joint (HEE & Navy) surface transportation at BIKHH.
DURVS	15	Support scientific projects.
1C Us	10	Houseboats. Reference paragraph l.e., basic letter. This requirement is subject to revision when shot schedule and shot distribution is firmed up.
II Air Support		
Helicopters=\!IKII	15 15	Inter-Island airlift, re-entry- recovery, evacuation, RadSafe surveys.
Helicopters-ElT//E	TOK 10	Inter-Island mirlift, re-entry- recovery, evacuation, RadSafe surveys.
L-20	8	Inter-Island air transportation. Based on traffic load, three may be utilized at BIKEE prior to required evacuation.
C=514	3	Inter-Atoll air personnel and cargo transportation. Based on traffic load, C-123 aircraft on TDY from TAC will be used to augment cargo capability.
SA-15 equivale	mt 3	High priority cargo and personnel air lift to Off-Atoll sites and at EIKINI Atoll if required. This is in addition to SAR requirements.
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,	Air Support (Cont'd)	SECRET	
	Type	Number	Purpose
	3 -57	10 B-57B 4 B-57D	Radioactive cloud sampling aircraft. Reference paragraph 1.d., basic letter
	Staff Aircraft	1	Support aircraft to meet requirement of CTG 7.1 and key personnel for rapid and unscheduled inter-atoll transportation. Would be on "As Required" basis and not assigned exclusively to this mission.
III	Vehicular Support		
	Truck, 1/4 ton M3841	1148	TG 7.1 Motor Pool at ENLWETOK and BIKINI. Vehicles are to
	Truck, 3/4 ton, M-37 w/o winch	7 6	be ready for issue to TG 7.1 no later than 1 January 1958. Reference paragraph 1.c., basic
	Truck, 3/4 ton, M-37 w/winch	28	letter.
	Truck, 2 1/2 ton, M-211, w/o winch	12	
•	Truck, 2 1/2 ton, M-211, w/winch	12	
	Trailer, 1/4 ton, N-100	3	·
ŧ	Trailer, water, 1 1/2 ton	6	
	Truck, tractor, 5 ton, 6x6	3	
	Truck, apparatus, decontami 2 1/2 ton, 6x6	nation 4	
	Truck, 1/2 ton pick up (Commercial Type)	28	
IA	DOD Support		
	Army		
	YFIB	1	Required as a maintenance and support barge for the Army Bubble Screen project.
	Helicopters	6	The breakdown of these are as follows:
	COPIED/DOE LANL RC	SEORET	2-radiochemistry and fallout 344 2-neutron flux results 2-mine fuses



DCD Support (Cont'd)

Тура	Number	Number Purpose			
Havy	•				
סמ	3	Terget	Target Ships		
rc	-3	*	Ħ		
IC 4	3	#	•		
YFIB	6	*	9		
EC-2 (Liberty Ship)-	1		17		
SQUAN	2	n	(3)		
Additional Ships of Unspecified Typo	2	n	Ħ		
LCU	3	Terget support	Target ship and air net support requirements		
LOM	12	•	W	10	
APL	1 or 2	•	n	81	
YF3	3	*	77	•	
yfid	3	# .	71	•	
YC (Deep water moorings)	12	*	Ħ	æ	
LSD	1	*	70	•	
ATF (3 full and 3 part-time)	6	*	n	Ħ	
IST (mine field array)	1	9	19	**	
ARAD, ARA, OF ARL	1	ìī	50	Ħ	
AU	1	¥	*	, m	
Helicopters	8	•	77	*	

Air Force

Wernal courier of post-shot samples. Up to 10 helicopters per shot for instrument and sample recovery.

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DOD Support (Cont'd)

VIA Shot

A ship is required for the telemeter receiver station. It must have space on or below dack for four vans, each 34 feet by 8 feet by 12 feet, weighing 15,000 pounds each. Also space to mount 12 foot radar dish with 350° clear overhead from 30° to 90° elevation.

UHA Shot

Not too much is developed on this shot as yet. However, it is estimated that it will undoubtedly require:

- 2 to 3 DD's for instrument recovery and radar tracking.
- 4 to 6 iRS helicopters for instrument search.
- 1 ship to lift helium

and may need two aircraft carriers if it planned to launch instrument balloons. If balloons are not used, the helicopters will not be required.



