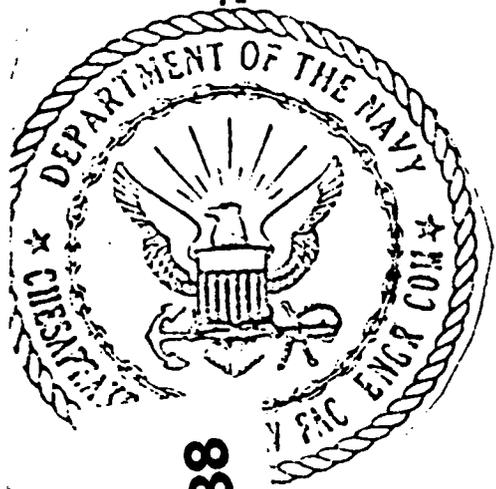
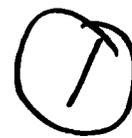


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**ACMR INSPECTION
PROJECT EXECUTION REPORT**

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JUNE 77**

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The report deals with the construction of the East Coast Air Combat
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This project execution plan, developed by ROICC ACMR, defines the scope and discusses the operational aspects of underwater inspection of the ACMR Towers. The plan has evolved through joint discussions of representatives of COMCBLANT, and UCT ONE and CHESNAVFACENCOM, including ROICC ACMR. It is to be included, as an appendix to COMCBLANT's ACMR inspection OP Plan.

1.2 Description of Towers

Each of the four ocean structures will consist of three major components - a jacket, piling, and a superstructure. Each structure is of the same general configuration as shown in figure 1.2, triangular in planform, but varying in overall height and base width depending on the water depth at each of the respective locations.

The jackets are of welded steel construction having tubular members and battered faces. Each jacket is sized so that its overall height exceeds the mean low water depth at its respective site by fifteen feet. Corrossion protection is provided by a combination of:

(1) painting - to six feet below mean low water; (2) excess thickness of material; and (3) sacrificial anodes attached at strategic locations on diagonal braces. A boat landing, barge fenders and walkways are attached to each jacket.

Each jacket is affixed to the ocean floor by piling driven through the jacket legs to approximately 250 feet below the sea floor. The piles are subsequently cut off, and joined to the top of the jacket legs by welding.

The superstructures for all towers are identical, both in size and design. Each is comprised of two decks of beam - and - plate construction supported by three tublar columns. The columns are sufficiently long to

place the two decks well above the crest of the design storm wave. The base of each column fits into and is adjoined to the tops of each pile by welding. Access to the decks is provided by a stairway extending from the walkway of the jacket to the upper deck. ACMR instrumentation, navigational aids, and a 2T capacity jib crane are mounted atop one or the other deck.

1.3 Site Locations

The four ocean structures will be installed 15 to 32 miles off-shore Cape Hatteras, North Carolina, in water depths from 81 to 105 feet. The distance to Naval Amphibious Base, Little Creek, VA, varies from 57 to 83 nautical miles as shown in figure 1.3

1.4 Definitions and Abbreviations

For purposes of this plan, the following definitions and abbreviations apply:

ACMR - East Coast Air Combat Maneuvering Range

AOD - At Sea Operations Director

AREICC Inspection - Assistant resident Engineer in Charge of Construction for underwater inspection of ACMR Towers; also referred to as CHESDIV Project Director

CHESNAVFAC - Chesapeake Division, Naval Facilities Engineering Command

COMCBLANT - Commander, Naval Construction Battalions, U.S. Atlantic Fleet

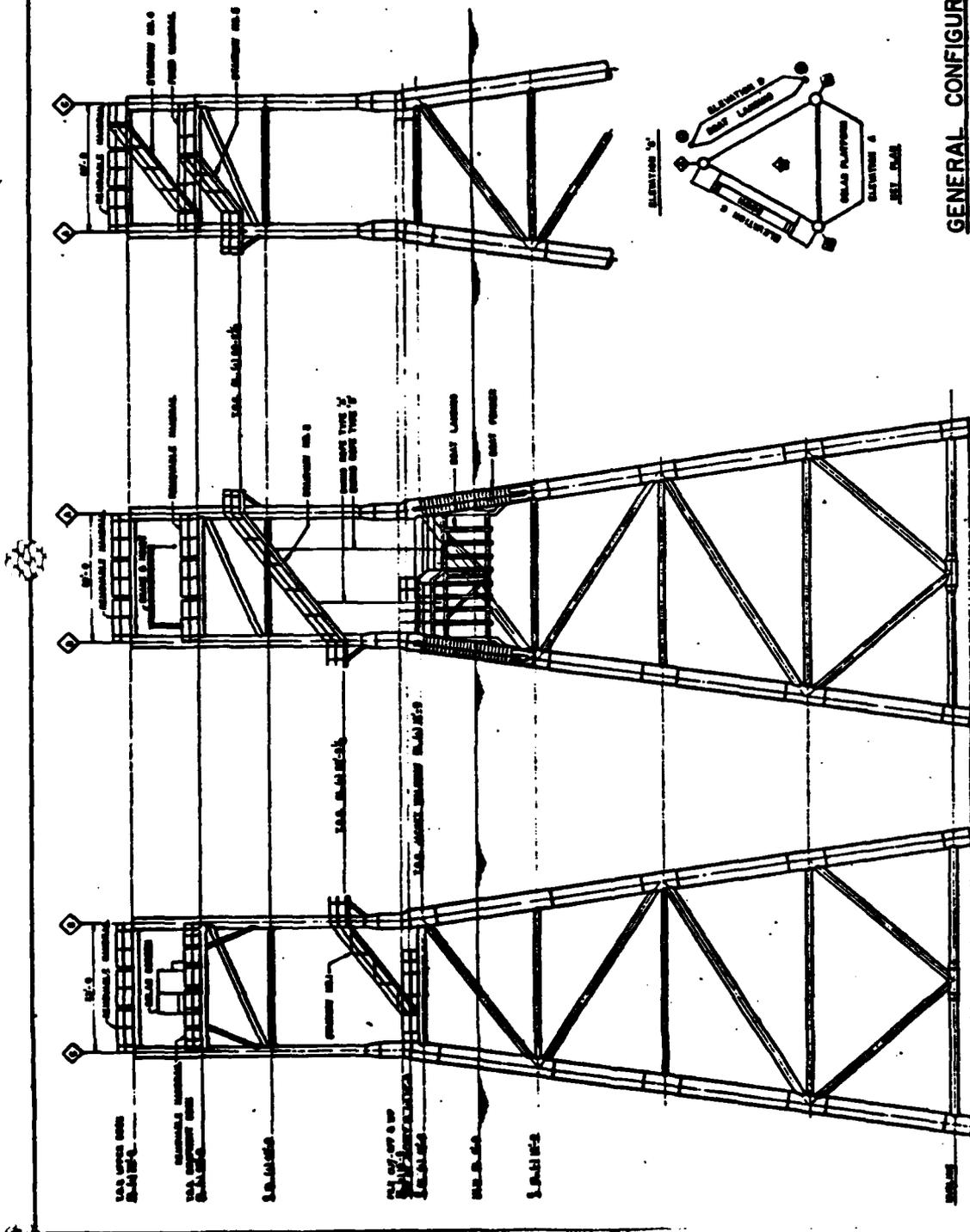
Contractor - Brown and Root Marine Operators, Inc.

OCPSEACON - CHESNAVFAC's Ocean Construction Platform

POD - Platform operations director, also referred to as SEACON Master

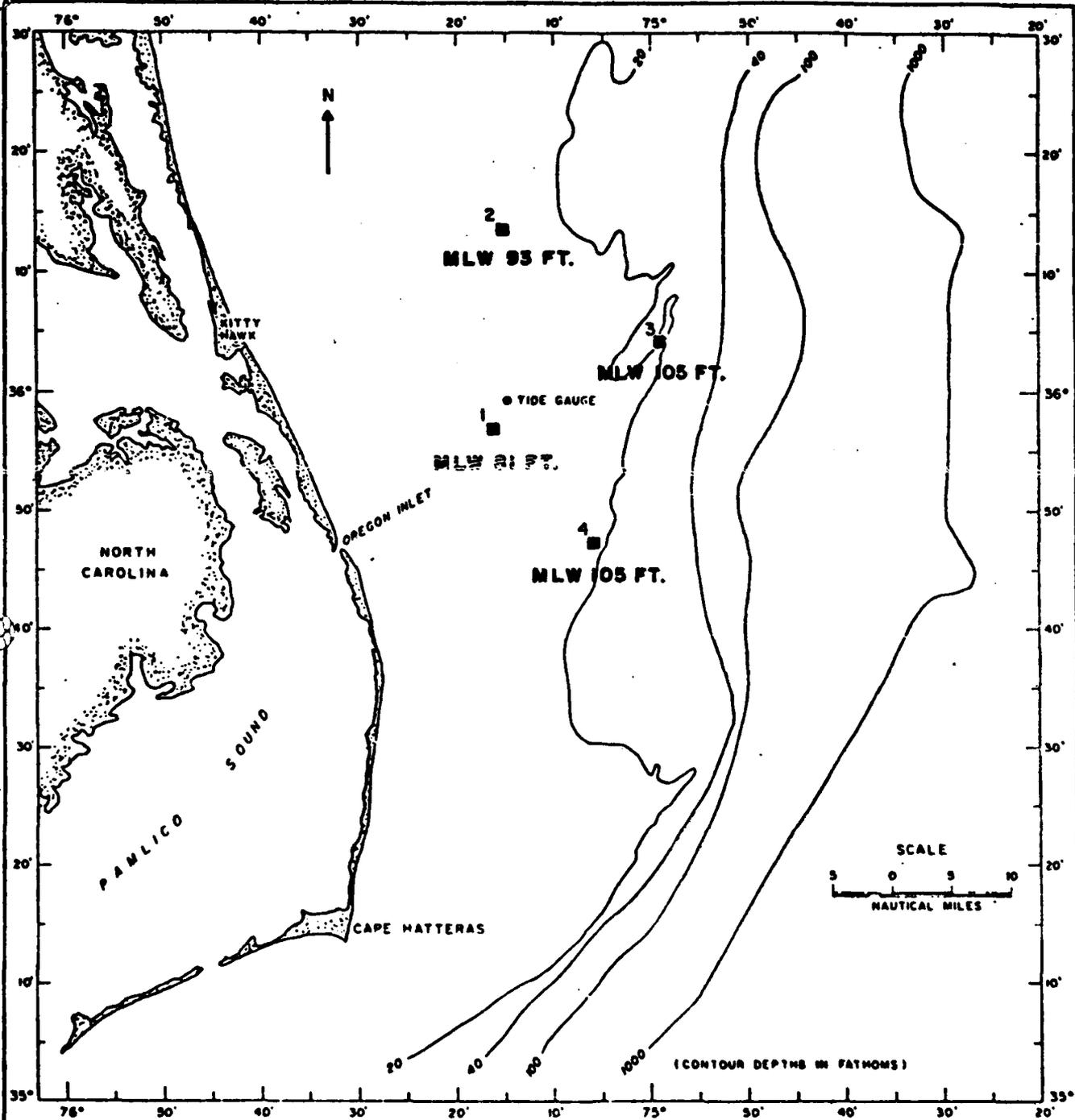
ROICC ACMR - Resident Officer in Charge of Construction for CHESNAVFAC Contract N62477-76-C-0180, ACMR Towers

UCT ONE - Underwater Construction Team ONE of the U.S. Atlantic Fleet



GENERAL CONFIGURATION

FIGURE 1.2



Structure No.	1	2	3	4
Distance to Shore (Nau. Miles)	16.0	23.5	31.5	20.0
Distance to Cape Henry (Nau. Miles)	70.0	57.0	73.0	83.0

FIG. 1.3

SECTION TWO
ORGANIZATIONAL RESPONSIBILITIES

Reference: (a) CHESNAVFACINST 3100.1
(b) U.S. Navy Towing Manual, NAVSEA 0925-000-1000
(c) U.S. Navy Diving Manual, NAVSEA 0994-001-9010

2.1 TASKING

By CHESNAVFACENGCOM message 122038Z APR 77 (Appendix A), the Commanding Officer, Chesapeake Division Naval Facilities Engineering Command requested the services of Underwater Construction Team ONE to accomplish the underwater inspections of the four ACMR Towers. Commander Naval Construction Battalions, U.S. Atlantic Fleet, accepted the request by CBLANT message 211834 2 APR 77 (Appendix B), tasked UCT ONE accordingly, and agreed to assume operational control of the Ocean Construction Platform SEACON for the period necessary to complete the underwater inspections. The SEACON will be used as the diver support vessel and will provide messing and berthing for the UCT ONE detachment while at-sea.

To maximize at-sea safety of the SEACON, Commanding Officer, CHESNAVFACENGCOM, requested Commander in Chief, U.S. Atlantic Fleet, to task an ATF (or equivalent vessel) to tow the SEACON to and from its berth at NAB, Little Creek for each tower inspection, (Appendix C). CINCLANTFLT responded favorably to this request as detailed in CINCLANTFLT message 021625Z JUN 77 (Appendix D). Commander Naval Surface Forces, U.S. Atlantic Fleet, has been tasked to provide a towing vessel when notified of the inspection dates.

A measure of the success of the underwater inspections will be the responsiveness with which they are accomplished to preclude costly construction standby time. Demurrage charges are likely to be assessed

against the government while the contractor awaits completion of the Government's acceptance inspection. Thus, coordination amongst the commands involved in the inspections is of utmost importance. The responsibilities of each command to accomplish the necessary training and ensure a responsive, efficient and safe inspection program are delineated in the following paragraphs.

2.2 DETAILED RESPONSIBILITIES

COMCBLANT shall have operation control (OPCON) of all phases of this inspection project, including training, mobilization, diver operations, and demobilization. COMCBLANT has appointed, as At-Sea Operations Director (AOD), the OIC of UCT ONE. COMCBLANT will provide liaison with Naval Amphibious Base Little Creek, SOPA ADMIN.

CHESNAFACENGCOM shall have administrative control (ADCON) of the SEACON and all deployed CHESNAFACENGCOM personnel. Existing CHESNAFACENGCOM instructions and guidelines for the operation of the SEACON shall remain in effect.

CHESNAFACENGCOM has appointed a project director (AREICC) to oversee and verify the validity and acceptability of the inspection data.

2.2.1 UCT ONE RESPONSIBILITIES

a. Mobilization and Demobilization. Under the guidance of CHESNAFACENGCOM Inst 5321.1 (Appendix E), which delineates the OCP watch, Quater and station bill. OIC UCT ONE shall select and mobilize OCP crew, divers and construction personnel. Mobilization shall include the acquisition loading and securing of applicable UCT TOA equipment, CHESNAFACENGCOM OCEI equipment, mooring equipment and consumable materials on the OCP and preparing the OCP for tow in accordance with reference (a).

The OIC UCT ONE shall ensure proper rigging and seafastening of all

equipment and shall arrange for their inspection and acceptance by both the Barge Master (POD) and the Commanding Officer of the designated towing vessel.

At the completion of diver inspection operations (all towers), shall arrange for offloading of all TOA equipment and material, and in placing the SEACON into a caretaker status.

b. Training. OIC UCT ONE, with technical support from CHESNAVFACENCOM (AREICC and POD) shall train designated personnel in OCP SEACON billet responsibilities; construction divers in underwater inspection techniques and diving skills, as required; and construction personnel in the operation and operators maintenance of construction equipments necessary to support the at-sea operations.

c. Tow. The OIC UCT ONE shall provide personnel necessary to connect and disconnect towing hardware; and shall provide watchstanders during tow in accordance with Manning Level III of WQS Bill (See Section Four).

d. Inspection Operations. OIC UCT ONE shall provide the personnel to perform the duties and responsibilities of the OCP crew billets designated to be filled by UCT ONE personnel; provide personnel and equipment to install OCP moorings at each of the tower sites; provide personnel and TOA equipment and direct their efforts during inspections, and will be responsible for medical treatment of any diving accidents. During inspections, the OIC UCT ONE, as the At-Sea Operations Director, shall be responsible for operation of the SEACON, (through the cognizant direction of the POD), all divings operations and associated small boat operations; and the collection of the necessary inspection data as described in Section Three. Operation of the SEACON will be in accordance with reference (a); all diving operations shall be in accordance with reference (c).

2.2.2 CHESNAVFACENCOM

a. Mobilization and Demobilization. CHESNAVFACENCOM will mobilize the OCP SEACON for at-sea operations including power plant check-out; installed equipment and deck machinery checkout; and quartering requirements. Also, CHESNAVFACENCOM shall mobilize personnel and specialized inspection equipment for both at-sea training and inspection operations; establish with the CO NAB Little Creek for pier and harbor services; provide liaison with FLTAVCOMLANT for film documentation of the inspection operations; and be responsible for the disbursement and accountability of all project funds.

Upon completion of the inspection operations, all equipments will be refurbished, as necessary; returned to the proper commands; and the OCP will be placed in a caretaker status under the guidance of the Platform Operations Director.

b. Training. CHESNAVFACENCOM shall assist in a classroom training program to acquaint the inspection personnel with ACMR Tower structural design, inspection requirements, techniques, and equipment.

The CHESNAVFACENCOM Project Director (AREICC) will provide the OIC UCT ONE with technical support to present this program and assist in on-the-job training, as necessary. CHESNAVFACENCOM will also provide a Barge Master (POD) and a Chief Engineer who will train designated personnel in specific OCP billet duties.

c. Tow. Upon notification by ROICC ACMR, CHESNAVFACENCOM shall request tug assistance from SERVON 8, both prior to and subsequent to each inspection, in accordance with Appendix D. If a vessel is not available from SERVON 8 assets, CHESNAVFACENCOM will execute a previously negotiated contract for commercial tug services.

d. Inspection Operations. Provide supervisory personnel - POD, Chief Engineer and Engineering Crew to operate and maintain the OCP in accordance with reference (a). Provide a Project Director (AREICC) to assure validity and acceptance of all inspection data and requirements. The AREICC shall provide technical support and supervision during inspection operations as required. Provide for operation and cleanliness of the messing services, water supply, and sanitation facilities on board the OCP. Provide through ROICC ACMR liaison with the contractor's personnel, vessels, and equipments.

2.2.3 SERVRON 8. Upon request of CHESNAVFACENGCOM, SERVRON 8 shall provide a towing vessel to effect the tows of the OCP from NAB Little Creek to the installation sites and return at the completion of each inspection. During towing operations only, the Commanding Officer of the towing vessel shall assume OPCON of the OCP SEACON and shall be responsible for the safety of both crews, vessels, and equipments.

2.2.4 Brown and Root Marine Operators, Inc. Responsible for satisfactory construction of the ACMR Towers. To accomplish the installation phase of construction, the contractor will have available at the installation sites, a derrick barge, two equipment barges and three accompanying tugs. In addition, a supply vessel will transit to and from Norfolk with personnel and construction consumables on an approximate four-day schedule. Although the contractor has no responsibility related to the Government's underwater inspection or this project execution plan, one or more of the contractor's vessels could be made

available to assist the OCP SEACON and its crew during situations in extremis.

2.2.5 FLTAVCOMLANT. Responsible for photographic documentation of the underwater inspection operation (not inspection date^a documentation). Diver-qualified personnel from FLTAVCOMLANT with photographic equipment will augment UCT ONE on one or more inspection, as required to obtain this documentation.

2.3 COMMAND AND CONTROL

COMCBLANT shall have operational control of all phases of operations associated with this project execution plan, except during towing when operation control of the SEACON and its crew will be assumed by the Commanding Officer of the towing vessel. This authority shall be limited at the installation site when the contractor is operating in the vicinity. In this instance, while control of the inspection operations remains with COMCBLANT, they may be conducted only on a not to interfere basis with contractor personnel, equipment or vessels. Joint operations between Government and contractor personnel, whether involving divers or surface craft, shall be coordinated through the ROICC ACMR. The contractor's organization for accomplishment of construction, and COMCBLANT's organization for accomplishment of the underwater inspections are shown interfaced through the ROICC ACMR organization in figure 2.1

Operational control of the OCP SEACON has been transferred to COMCBLANT in accordance with CHESNAVFACENCOM OPORD 2-77 of June 1976; Appendix F.

Administrative control of UCT ONE, CHESNAVFACENGCOM, SERVRON EIGHT,
FLTAVCOMLANT and contractor personnel shall remain with their respective
organizations.

SECTION THREE
SCOPE OF INSPECTION

3.1 INTRODUCTION

Significant structural loadings during installation can arise from pile driving and/or contact with surface vessels. Such loads may cause mechanical damage such as weld cracking or bent members which must be detected and repaired to preclude catastrophic fatigue failure of the tower at a later date.

Excess material or debris left attached to the structure may increase in-life service loadings, possibly compromising the structures reliability. Similarly, debris left on the sea bottom could contribute to excessive bottom scour about the jacket base and also compromise reliability.

Further, while biological (fouling) and chemical (corrossion) damage to the structure will be insignificant at the time of these inspections, measurements of electrical potential can give extremely accurate indications of the corrossion rates and whether additional protective measures are required. Measurements of electrical potential and mudline elevations of each jacket can also provide baseline documentation for future comparisons of the effects of the anodic protection system and the extent of mudline scour.

Thus, the purpose of the underwater inspections of the ACMR Towers is three-fold:

(1) To ensure that each structure is free of any significant mechanical damage during installation

(2) To ensure that the contractor has removed all debris from the structure and the surrounding sea floor; and

(3) To gather baseline documentation for future scour analysis and corrosion studies.

Visual techniques will be used to inspect for damage and/or debris. Any deficiencies detected thereby shall require still and motion picture documentation. Baseline documentation shall be obtained by a combination of visual observations, manual and electrical potential measurements.

To accomplish the three-fold purpose of inspection while minimizing interference and dermmurage of contractor equipment, each inspection operation has been separated into two phases:

Phase I Inspection - encompassing the visual inspection for structural damage and debris; and photographic documentation, as required; and

Phase II Inspection - encompassing detailed visual examination of critical welds, and collection of baseline data.

The differing philosophies in the two phase are as follows: Phase I is to be an efficient inspection conducted as quickly as is practicable. It's purpose will be to discover major, obvious, deficiencies so that a prompt transmittal of the deficiency report may be made to the ROICC for his subsequent resolution with the contractor; Phase II will be a more in-depth inspection which will include photographic documentation, thorough visual weld inspection, baseline documentation, as well as, a complete investigation and documentation of any deficiencies discovered in Phase I.

As a planning guide Phase I is expected to take one day while Phase II should take two days.

3.2 PHASE I INSPECTION

3.2.1 VISUAL INSPECTION

Divers shall: (a) perform cursory inspection of all jacket members to ascertain that none have been broken loose or severely bent from impact loadings during installation; and to ensure that all cables and other debris have been removed from the structure. (b) verify that reach rods on the inside of each jacket leg have been cut away between the first and second levels of horizontal bracing. (c) verify the presence of all anodes; and visually inspect each for mechanical damage and to ensure the welded connections to brace pipe are in tact; (d) visually inspect the paint coated areas of jacket legs and braces between minus six-foot and mean low water for cracking, peeling or abrasive wear. (e) visually and/or tactilely inspect each weld for obvious separations or large cracks.

2.2.2 VISUAL BOTTOM SURVEY

Divers shall search the bottom inside each jacket and over a 25-foot radius circle about each jacket leg to verify that all debris has been removed. The extent and location of any debris shall be noted.

3.3 PHASE II INSPECTION

3.3.1 PHOTOGRAPHIC INSPECTION

Divers shall photograph all defects such as weld cracks, damaged or missing anodes, member buckling and coating damage. Preferably photographic documentation shall include instantaneous video coverage (B&W) and close-up color photographs (or slides). The UDATS camera on loan from EOD FAC, Indian Head shall provide the video capability. For still photos, the standard

NIKONOS camera with flash and close-up lens (if available) will be adequate.

3.3.2 ELECTRICAL POTENTIAL MEASUREMENTS

Divers shall take and report electrical potential readings at selected joints of each jacket with CHESDIV's u/w current meter. Because of jacket design conformity, readings taken on one horizontal and one diagonal brace pipe at each jacket leg joint can will be sufficient. At least four separate readings will be taken on each brace pipe to be measured. If any two readings indicate more than -.8 volts an additional four readings shall be taken and recorded.

3.3.3 MEASUREMENTS FOR SCOUR ANALYSIS

Divers shall take measurements of the relative distance between the base of the jacket and the surrounding soil. All measurements shall be taken relative to the top of the base, horizontal brace pipe. This brace pipe may be either exposed or buried hence a sufficient probe with markings at least every 3" should be brought for measurement purposes. UDATS coverage of the soil surrounding each leg should be taken.

3.3.4 WELD INSPECTION

Each weld joining jacket legs to bracing members and all welds joining internal and external braces shall receive a thorough visual inspection for surface cracks; particular emphasis shall be given to the toes of each weld. A wire brush for cleaning to bare metal and artificial lighting (dive brites) shall be used as necessary.

3.4 REPORTING REQUIREMENTS

A log of all members and welds inspected, whether or not a defect is found, shall be maintained throughout each inspection. It shall be the responsibility of the AREICC, or an appointed representative, to record all data including items inspected and defects found. Uniform log sheets will be developed, by the AREICC.

SECTION FOUR OPERATIONS

4.1 Mobilization

The SEACON will return from its Fort Lauderdale deployment on or about 20 June 1977. Upon arrival at NAB, Little Creek, OPCON of the SEACON will transfer from the Commanding Officer of the towing vessel to COMCBLANT in accordance with CHESNAVFAC OPOD 2-77, Appendix F.

When in homeport, the SEACON will be berthed at NAB, Little Creek.

CHESNAVFACENGCOM personnel, with assistance from members of UCT ONE, will begin offload of the Fort Lauderdale equipment immediately.

Following offload, OIC UCT ONE shall coordinate the onload, positioning and seafastening of the UCT ONE TOA equipment, CHESNAVFACENGCOM OCEI equipment and all mooring hardware. A deck layout plan and a mooring configuration and deployment plan shall be presented by OIC UCT ONE to the SEACON Master (POD) and the CHESDIV Project Director (AREICC).

for review and approval. (NOTE: Review and approval of deck layout, mooring configuration and mooring deployment will be conducted from a standpoint of safety to personnel and equipment, and the towers and from the standpoint of SEACON capabilities; it is not meant to interfere with CBLANT's Operational Control of the Project).

At-Sea crew and diver training shall be accomplished during the week of 28 June in accordance with the guidelines provided in Section 5, TRAINING.

As Tower #2 nears completion, (first tower to be installed), the ROICC ACMR will notify the CHESNAVFACENGCOM Project Director who will initiate tow confirmation with SERVON EIGHT. Concurrently, OIC UCT ONE and SEACON POD shall prepare the SEACON for towing in accordance with the

requirements of the U.S. Navy Towing Manual, NAVSEA 0925-000-1000.

4.2 Tow to Site

On the day of the tow, OPCON of the OCP SEACON shall transfer from COMCBLANT to the Commanding Officer of the towing vessel.

OIC UCT ONE and CHESNAVFACENGCOM shall mobilize their personnel for at-sea operations and to assist in fastening towing hardware. The tow will commence at NAB, Little Creek and cease at the installation site.

OPCON of the OCP SEACON will return to COMCBLANT upon completion of the tow.

4.3 INSPECTION

The OCP SEACON will stand off and/or anchor away from the contractor's equipment until instructions are received from the ROICC ACMR by motorola radio.

The ROICC will advise the At-Sea Operations Director-when inspection operations may commence. Upon this notification, the At-Sea Operations Director may elect to commence the phase I inspection (see Section 3.4) if in his opinion operations can be safely accomplished.

A variety of diving operational modes may be selected as follows:

- (1) Diving from the contractor's derrick barge (LINDSAY).
- (2) Diving from the tower itself.
- (3) Diving from the SEACON, with the SEACON in an approved moor, or
- (4) Diving from a small craft such as an LCM-8 tied to the tower.

It will be the responsibility of the AOD to decide which mode of operation will be the most efficient and within the safety constraints of the U.S. Navy Diving Manual for the conditions prevalent at the time.

Upon completion of the Phase I inspection, the AREICC shall notify ROICC ACMR of all noted deficiencies with a description of each. ROICC ACMR shall in turn notify the contractor of the deficiencies for his correction.

If the contractor elects to repair the deficiency at the time of notification, the SEACON and any small craft shall stand off from the site until the deficiency is corrected.

The SEACON will then return to the selected operational configuration and Phase II will commence.

Again, the AOD or his designated dive supervisor shall take charge of the operation. Divers will obtain the data required by Sections 3.3 and 3.4. In addition, the divers will verify that any deficiency noted during the Phase I inspection has been corrected. Any deficiencies noted during the Phase II inspection shall be forwarded by the AREICC to the ROICC ACMR, aboard the contractor's derrick barge, at the close of the days diving operations. It will be the ROICC ACMR's responsibility to have the contractor repair or replace the deficient work.

Prior to commencing the Phase II inspection, the CHESNAVFACENCOM Project Director shall notify SERVON 8 of the requirement for the return tow, advising that Command of OCP location and the approximate time and date desired.

Upon completion of the Phase II operations, the SEACON shall either (1) reposition a minimum of 500 yards from the tower; or (2) set sail to the site of the next tower installation, to await the arrival of the towing vessel. The project director shall keep SERVON 8 advised of any change in tow requirements.

4.4 Return Tow

Upon arrival of the tug for the return tow, OCP crew members shall assist in effecting the tow connections.

OPCON of the SEACON shall transfer to the Commanding Officer of the towing vessel until arrival of the SEACON at NAB, Little Creek.

4.5 DEMOBILIZATION

Upon return to it's home berth, the OIC UCT ONE shall ensure that the SEACON and equipment are placed in a standby status to await the next inspection. Subsequent inspections - including mobilization, tow to site, at-sea operations, and return tow-shall be accomplished in a manner similar to that just described.

Upon completion of the final inspection, the Platform Operations Director, with assistance of UCT ONE, shall place the OCP SEACON into a care-taker status - the recompression chamber, support van, TOA equipment, etc... shall be offloaded.

SECTION FIVE
TRAINING

5.1 GENERAL

Training in preparation for SEACON operations and the ACMR underwater inspection shall be conducted under the cognizance of COMCBLANT.

5.2 TRAINING SCHEDULE

The period for training is two-phased as delineated below:

<u>PHASE</u>	<u>PERIOD</u>
*Inport Training - Familiarization	
SEACON	20-29 June
INSPECTION PROCEDURES	20-29 June
*At-Sea Training	
SEACON	30 June - 1 July
DIVER REFRESHER	30 June - 1 July

5.3 TRAINING REQUIREMENTS

5.3.1 OCP CREW TRAINING.

The OIC UCT ONE shall select individuals to fill the billets 0-2 through 0-8, E-2 through E-4, H-1 through H-3 and D-1 & 2 as listed in CHESNAVFACENGCOMINST 5321.1. Individual Qualifications shall also be in accordance with that CHESNAVFACENGCOMINST 5321.1. CHESDIV will provide personnel to fill billets 0-1, E-1, E-5 and H-4, 5&6.

On-the-job crew training shall be scheduled during the week of 20 June to refresh personnel qualifications or to correct qualification deficiencies. Individual training will be of sufficient depth such that each individual can satisfactorily demonstrate proficiency in assigned component system operation including prestart checks, system alignment, start-up operation, maintenance, emergency procedures, and securing, as applicable. Team training will be afforded the OCP crew members to insure they are capable of operating the SEACON under all anticipated conditions in a safe and efficient manner.

In addition to OCP operation, the OIC UCT ONE shall designate two individuals to receive on-the-job training in the operation and maintenance of the cross-deck winch and 30 ton hydraulic crane. This training shall consist of overboarding and handling construction and diving equipment and anchors with associated hardware. This training shall come under the cognizance of OIC UCT ONE with assistance from the POD.

In addition to the operations training described above, the Platform Operations Director shall plan and execute on-the-job training of the OCP crew in firefighting, damage control and abandon ship drills. Sufficient training shall be conducted to insure familiarity with individual-assigned duties to enhance teamwork and to produce a capability to minimize damage to platform, installed and roll-on equipments, and embarked personnel. Formal firefighting and damage control training will be provided for as many crew members as possible.

During the week of 27 June, the SEACON will be operated at sea in the vicinity of mooring site number 1 off Cape Henry. The purpose of this training is to develop and insure proficiency of the crew in all modes of at-sea operation. The crew will be exercised in at-sea transit, diving, maintaining station and establishing and retrieving moors. During this at-sea training period, the crew will also be exercised at emergency engineering plant casualty drills.

5.3.2 ACMR UNDERWATER INSPECTION TRAINING

Designated UCT ONE diver personnel shall receive classroom training to familiarize sufficient personnel with the ACMR structural design, inspection information desired. Such training shall include, but not be limited to the following:

*ACMR Project Review - including structural design, installation procedures, scheduling, and inspection significance.

*Motion Picture Films - At-Sea Construction (ARGUS Island); CBI Underwater Welding Repair;

*Equipment Familiarization - use and maintenance of video photographic camera, corrosion meter;

*Inspection Plan - inspection terminology; reporting and recording; baseline documentation; bottom search.

The AREICC will be available to assist the OIC UCT ONE as required in its presentation.

Diver refresher training and recompression chamber operations training may be incorporated in this classroom training program as deemed necessary by the OIC UCT ONE.

The OIC UCT ONE shall conduct diver training from the OCP in depths to 100 feet in the vicinity of mooring site number 1 off Cape Henry. The purpose of this training shall be to refamiliarize the divers with Mark I Dive System decompression diving procedures, recompression chamber treatment and, if available, the diving bell. The extent of such training shall be at the discretion of the OIC UCT ONE.

SECTION SIX
ENVIRONMENTAL CONDITIONS

6.1 METEOROLOGICAL CONDITIONS

A review of meteorological data shows that favorable operating conditions can be expected offshore Cape Hatteras, North Carolina, through July, August and September, although conditions do deteriorated during the latter part of August and beyond.

Air temperatures range from 70-92°F in July and August, and from 63-88°F in September. The mean daily temperature is 80° in July and August, dropping slightly to 77° in September.

Visibility conditions are excellent; visibility will be at least two miles, 99% of the time from July through September.

Measureable amounts of precipitation (more than a trace of rain or drizzle) will be encountered less than 6% of the time during July, August and September; with mean monthly precipitation of 4.8, 4.7 and 3.2 inches, respectively. Average precipitation is normally significantly lower during September, except when tropical storms and/or hurricanes occur. There is a 50% chance that at least one tropical hurricane will pass through the region during August or September.

Summer winds occur most frequent from the south and southwest during July and August (see figures 6.1a,b) and average 12 knots intensity. During September, however, predominant winds come from the northeast quadrant (figure 6.1c) with average intensities of 14 knots. Of greater significance, winds exceeding 20 knots can be expected less than ten percent of the time during July through Mid-August; however, the frequency of these high intensity winds increases to 15-20 percent during late August and September, when a tropical storm and/or hurricane is most likely.

FIGURE 6.1:

SURFACE WIND LOSSES -

JULY, AUGUST, SEPTEMBER

OFFSHORE KITTY HAWK, N.C.

Veinity: 36° N, 75° W.

SWEE: NBCC-4273

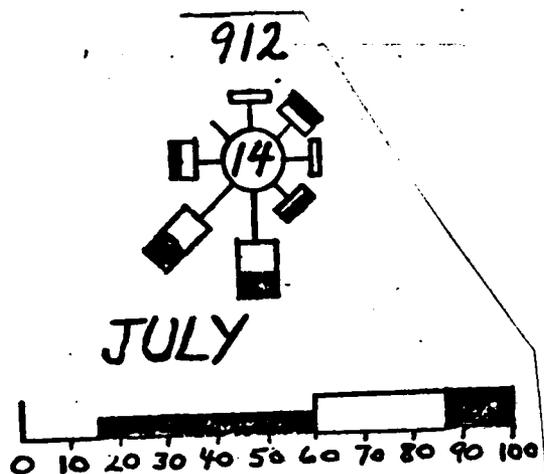


fig 6.1.a.

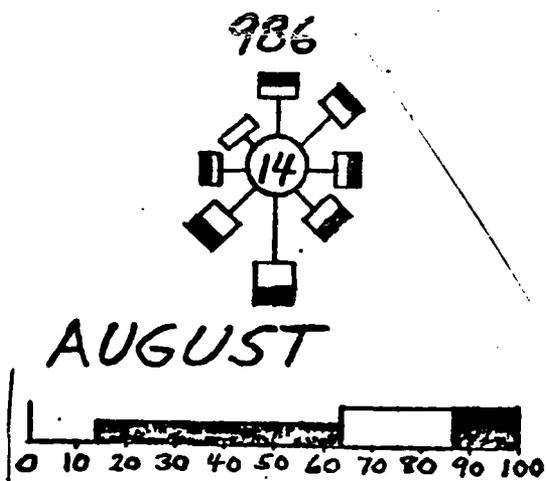


fig 6.1.b

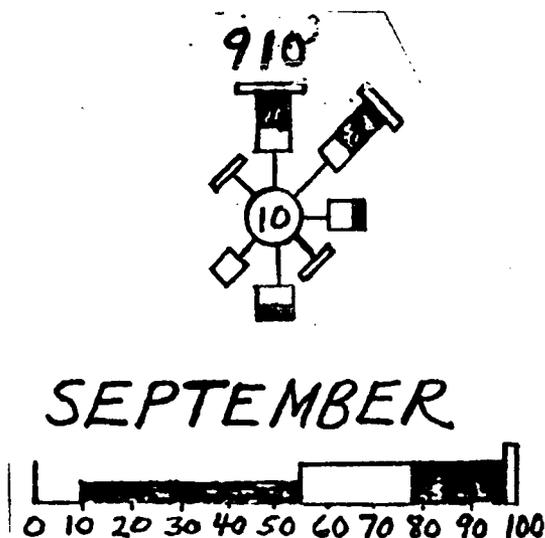


fig 6.1.c

LEGEND

NUMBER OF OBSERVATIONS → 315

KNOTS

4-10 11-16 17-27 28

23

2-3 4 5-6 7-12

BEAUFORT

% BEAUFORT 0-1

PERCENTAGE FREQUENCY

6.2 SEA CONDITIONS

Figure 6.2 indicates the relatively favorable but deteriorating sea conditions from July through September and beyond. During July and August, the predominate seas are from the southeast quadrant with significant wave heights less than four foot, 60% of the time; and less than eight foot, 90% of the time. In September, predominant seas are distributed uniformly from the north, east, and south; the average height increases slightly such that significant wave heights less than four foot and eight foot can be expected only 50% and 85% of the time, respectively. Figures 6.3a,b,c provide a further detail of percentage of wave height versus direction for the months of July, August and September.

The tidal cycle is diurnal with a mean range of 3.2 feet. The maximum tidal range occurs in July (4.5 feet). The tidal cycle can be closely approximated using the following reference:

NOAA Tide Tables 1977 - High and Low Water Predications, East Coast of North and South America

and adjusting Hampton Ros, VA., data to that of Kitty Hawk, N.C.

Offshore currents at the installation sites average just under 1 knot a maximum 3 knot current can be expected, but 70% of the time, the current will be less than one knot. The ACMR sites are in a transition zone between the southerly flowing coastal current and the fringes of the northeasterly-flowing Gulf Stream. The result is likely to be a change in current direction over periods of one week or greater.

Surface water temperatures range from 70⁰F to 85⁰F through the summer months. The mean sea surface temperatures are 78⁰F & 80⁰F for July, August and September, respectively. Depending on the prevalent subsurface current, water temperatures at the sea bottom may be from 7⁰F - 20⁰F less than the

Figure 6.3. b.

TABLE 8: AVERAGE PERCENTAGE OCCURRENCE OF SIGNIFICANT WAVE HEIGHT - DIRECTION GROUPS: 39°47.2'N, 75°05.7'W: SPECIFIED 105 FOOT CHART DEPTH: OFFSHORE KITTY HAWK, NORTH CAROLINA: AUGUST

Direction	Significant Wave Height Groups (Ft.)							Total
	0-1.9	2-3.9	4-5.9	6-7.9	8-9.9	10-15	15 Plus	
N	2.9	3.5	2.2	1.3	0.7	0.5	0.1	11.2
NE	2.5	4.1	3.0	2.1	1.1	0.9	0.1	13.8
E	2.6	4.4	3.2	2.2	1.2	0.9	0.1	14.6
SE	2.9	4.9	3.5	2.5	1.4	1.1	0.1	16.4
S	7.2	8.9	5.5	3.3	1.7	1.3	0.2	28.1
SW	5.5	5.0	1.8	0.3	0.0	0.0	0.0	12.6
W	1.2	0.3	0.1	0.0	0.0	0.0	0.0	1.6
NW	0.9	0.6	0.2	0.0	0.0	0.0	0.0	1.7
Total	25.7	31.7	19.5	11.7	6.1	4.7	0.6	100.0

FIGURE 6.3. c.

TABLE 9: AVERAGE PERCENTAGE OCCURRENCE OF SIGNIFICANT WAVE HEIGHT - DIRECTION GROUPS: 35°47.2'N, 75°05.7'W: SPECIFIED 105 FOOT CHART DEPTH: OFFSHORE KITTY HAWK, NORTH CAROLINA: SEPTEMBER

Direction	Significant Wave Height Groups (Ft.)							Total
	0-1.9	2-3.9	4-5.9	6-7.9	8-9.9	10-15	15 Plus	
N	3.8	5.4	3.6	2.3	1.4	1.3	0.3	18.1
NE	3.7	6.7	4.7	3.5	2.2	2.0	0.4	23.2
E	2.5	4.6	3.2	2.3	1.5	1.4	0.2	15.7
SE	1.9	3.2	2.4	1.7	1.1	1.0	0.1	11.4
S	3.8	5.4	3.5	2.3	1.3	1.2	0.3	17.8
SW	3.3	3.9	2.0	0.7	0.2	0.0	0.0	10.1
W	1.2	0.5	0.1	0.0	0.0	0.0	0.0	1.8
NW	0.9	0.6	0.3	0.1	0.0	0.0	0.0	1.9
Total	21.1	30.3	19.8	12.9	7.7	6.9	1.3	100.0

surface temperature.

Based upon surface observations and underwater photography taken at each of the installation sites, in-water visibility is expected to be at least 10 feet during daylight hours between 9:00 AM and 5:00 PM.

6.3 SEA BOTTOM

Soil borings at each of the ACMR Towers sites indicates very dense sand intermixed with shell fragments from the mudline to at least 30 feet below the sea bottom. The submerged unit weight of this material is 60 pcf, with an average internal friction angle of 40°.

6.4 FORECASTS

To preclude operating difficulties from environmental conditions, meteorological data and weather forecasts will be obtained periodically, at least twice daily, from the Fleet Weather Service, Norfolk, VA. The Officer in Charge will review and analyze the wind records and meteorological charts twice daily and more frequently when deteriorating conditions are forecast. In the event of impending severe weather, assistance for the SEACON shall be obtained in accordance with Section Eight of this plan.

SECTION SEVEN
SCHEDULING

7.1 MILESTONES

The contractor will begin transport of ACMR Towers #2 and #3 from its fabrication yard in Houston, Texas on 6 June 1977. Transit by ocean-going barges is estimated to take two weeks. Weather permitting, installation of Tower #2 will commence on 20 June 1977, with completion scheduled two weeks hence. The remaining three towers are to be installed in the following sequence - #3, #4, and #1; these installation are estimated to be of two, three, and two week durations. However, the contractor's estimates of installation times do not include contingencies for weather, unforeseen equipment problems, or unanticipated site conditions.

The construction contract provides for a government's acceptance inspection of each tower as soon after notification by the contractor that the tower is complete as is reasonable. As described in Section Three, Inspection Scope, the underwater inspection consists of two phases - Phase I Inspection prior to or just after tower completion and Phase II inspection with baseline documentation. An ideal milestone chart for each tower inspection would be as follows:

- Day 1 - SEACON is towed to installation site, one day prior to tower completion.
- Day 2 - (AM) UCT ONE divers complete Phase I inspection (if able to dive from contractor derrick barge)
(PM) Contractor barges break moor for next ACMR site.
- Day 3 - UCT ONE divers start Phase II inspection
- Day 4 - UCT ONE divers complete Phase II inspection
- Day 5 - SEACON returns to home port under tow.

7.2 SCHEDULE

Based on the contractor's current schedule, a tentative UCT ONE deployment schedule is shown in figure 7.1. This schedule is provided for preliminary planning only - actual schedule dates will vary with the contractor's actual performance, weather and other contingencies impacting.

JUNE

14 16 18 20 22 24 26 28 30 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 1 3 5 7 9 11 13 15 17 19 21 23 25

MARINE OPERATORS INC.

JUNE 2 13 INSTALL TOWER 2 INSTALL TOWER 3
 JULY 1 4 TRANSIT TOWERS 1 & 4 INSTALL TOWER 4 INSTALL TOWER 1

OVERSEAS TRAINING

CCP INSTALLATION

DIVER AND OBT TRAINING

TRANSIT

INSTALLATION

TRANSIT

TRANSIT

INSTALLATION

TRANSIT

TRANSIT

INSTALLATION

TRANSIT

TRANSIT

INSTALLATION

FIGURE 7.1

SECTION EIGHT
SAFETY

8.1 GENERAL

Safety of personnel shall receive top priority during all phases of training, mobilization, inspection and demobilization. Each operation shall be conducted in such a manner that established safety standards, practices and regulations, i.e. COMCBPAC/COMCBLANTINST 5100.1 Series, shall be adhered to at all times. Safety shall be the responsibility of each individual assigned to this inspection operation - each individual must practice safety on all his assigned tasks. He shall also report promptly any unsafe conditions or practices to the At-Sea Operations Director, or his designated safety representative, so that timely corrective actions can be taken.

8.2 SPECIAL PRECAUTIONS.

8.2.1 RESPONSIBILITY.

Except as provided for in paragraph 8.2.2, safety of personnel, craft and equipment shall ultimately be the responsibility of the At-Sea Operations Director with safety of operation of the SEACON the specific responsibility of the POD.

8.2.2 SAFETY DURING TOW.

During tow, ultimate responsibility for the safety of all personnel, both craft, and equipment, shall rest with the Commanding Officer of the towing vessel (or Craft Master in the event a commercial tug is used).

8.2.3 DIVING SAFETY.

Diving procedures and equipment shall be in conformance with the requirements of the U.S. Navy Diving Manual, NAVSHIPS 0994-001-9010.

8.2.4 FIRST AID.

The At- Sea Operations Director shall establish an equipped first aid station aboard the SEACON.

A hospital corpsman or other person qualified and designated to give first aid shall be available at all time during at-sea operations (tow and inspection).

8.3 EMERGENCY PROCEDURES.

8.3.1 PERSONNEL EVACUATION.

The U.S. Coast Guard operates Sea-Air Rescue (SAR) services from Elizabeth City, N.C. and Oregon Inlet, outer banks of N.C. Should emergency personnel evacuation be required for any reason the following assistance is available.

a. Helicopter rescue from Elizabeth City on immediate standby status 24 hours per day; certified for night operations; helicopter is equipped with personnel hoist; capable of 110 knot speed (1-1 1/2 hours to ACMR sites).

b. Hi-speed, all weather surface craft assistance from Oregon Inlet - 44 foot long motor life boat, on standby status 24 hours per day; 10-12 knot speed (1-2 hours from ACMR sites), storm wave capability. For purpose of coordination, SAR assistance should be requested from the Coast Guard Group Facility at Cape Hatteras which continually monitors radio frequencies VHF/FM #16 (Emergency Broadcast Channel) and MF/AM 2183.4 KH.

If medical assistance is required, depending on the extent of injury, civilian personnel will normally be transferred to the local hospital in Elizabeth City, N.C. Navy personnel would be flown to Portsmouth Navy Hospital, Portsmouth, VA.

8.3.2 SEACON EMERGENCY PROCEDURES

In the event of storm warnings or heavy sea predictions, the At-Sea Operations Director and the POD shall decide whether to request tug support from CINCLANTFLT OPS; or Coast Guard Assistance from the C.G. Group Facility at Cape Hatteras. Besides the motor life boat at Oregon Inlet and a second at Cape Hatteras, the U.S. Coast Guard maintains an ATF and buoy tender on six-hour standby at it's facilities at Little Creek, VA., and Moorhead City, N.C. Either ATF or buoy tender could provide the SEACON adequate towing assistance. When necessary, the SEACON shall make way to and ~~remain~~ in the vicinity of the Contractor's vessels until the requested tug support arrives or the environmental conditions safely subside to continue at-sea operations.

Should the SEACON come in extremis due to unforeseen circumstances, immediate tug support shall be requested from the Contractor's Derrick Barge LINDSAY (VHF/FM #16). The radio operator will immediately notify the Barge Master, who in turn will contact the contractor's project manager and ROICC ACMR. The contractor will dispatch one of its available tugs to assist the SEACON until government support arrives or until the extremis situation can be remedied.

Handwritten initials

12 APR 77 20:38 Z

NAVY

FROM: CHESNAVFACENGC COM WASHINGTON DC
 TO: COMCBLANT LITTLE CREEK VA
 INFO: CINCLANTFLT NORFOLK VA
 UCT ONE
 COMNAVFACENGC COM ALEXANDRIA VA

UNCLAS //NO3000//

CINCLANTFLT FOR CODE N92

COMNAVFACENGC COM FOR PC-2

UCT ONE SERVICES IN SUPPORT OF EAST COAST AIR COMBAT MANEUVERING RANGE
 (EC/ACMR); CONFIRMATION OF

- A. CHESNAVFACENGC COM LTR FPO-1CP:FM/11000 DTD 22 OCT 76 (NOTAL)
- B. FOMECON CDR ERCHUL, CHESNAVFACENGC COM AND LCDR WOOD, UCT ONE OF 7 APR 77
- 1. REF A LISTING REQUESTED UCT ONE SUPPORT TO CONDUCT UNDERWATER INSPECTION SERVICES ON FOUR EC/ACMR TOWERS. REF B INFORMALLY ADVISED UCT ONE AVAILABILITY TO CONDUCT SUBJECT INSPECTION. THE STRUCTURES WILL BE LOCATED 15 TO 32 MILES OFFSHORE KITTY HAWK, N.C. IN WATER DEPTHS FROM 83 TO 105 FEET. EACH INSPECTION WILL BE AN ESTIMATED FOUR DAYS IN DURATION, INCLUDING TRANSIT TIME. FIRM, FIXED DATES OF EACH INSPECTION WILL NOT BE KNOWN UNTIL OFFSHORE CONSTRUCTION BEGINS; HOWEVER, MINIMUM 72-HOUR NOTIFICATION WILL BE POSSIBLE. THE PERIOD FOR OFFSHORE

APPENDIX A

CONSTRUCTION IS CURRENTLY SCHEDULED BETWEEN 20 JUNE AND 5 SEP 77.

2. JOINT GOVERNMENT AND CONTRACTOR ACCEPTANCE AND BASELINE DOCUMENTATION ARE REQUIRED PRIOR TO CONTRACTORS DEPARTURE FROM EACH TOWER SITE TO PRECLUDE COSTLY STANDBY TIME. THE OCEAN CONSTRUCTION PLATFORM (SEACON) WILL BE PROVIDED TO SUPPORT THE REQUIRED UNDERWATER INSPECTION. ARRANGEMENTS FOR A SUPPORT VESSEL TO UNDERTAKE TOW OF THE SEACON TO AND FROM THE CONSTRUCTION SITE HAS BEEN INITIATED BY THIS COMMAND. A PROJECT EXECUTION PLAN WITH TRAINING ANNEX WILL BE PROVIDED BY THIS COMMAND AND FORWARDED TO COMCBLANT FOR EXECUTION.
3. UCT ONE USE OF SEACON DURING THE SUMMER TIME FRAME TO SUPPORT OTHER FLEET PROJECTS WAS DISCUSSED DURING REF B. IT WAS SUGGESTED THAT OPCON IN ACCORDANCE WITH CHESNAVFACEN6COMINSTS 3100.1 AND 5321.1 BE TRANSFERRED TO COMCBLANT FOR ACCOMPLISHMENT OF ALL UCT ONE SUMMER WORK INCLUDING THE UNDERWATER INSPECTIONS OF EC/ACMR.
4. REQUEST CONFIRMATION UCT ONE OR AVAILABILITY FOR EC/ACMR TO PROVIDE PERSONNEL FOR UNDERWATER INSPECTION AND MANNING OF SEACON AND APPLICABILITY OF COMCBLANT TAKING OPCON FOR THE ABOVE OPERATION PERIOD.

FPO-1...1C11...1C...1C2...1EA...ROICC ACMR...ØØ...DAILY...ROUTE...0143(2)

09A

LT. R. H. MAYER, CEC, USN, ROICC ACMR
33881, 4/12/77:ps

D.W. WITTSCHIEBE, C.O., CAPT, CEC, USN, 33300

[Handwritten signature]

UNCLASSIFIED

1220382 APR 77

INTERCEPT

ADDRESSEE ERROR

EFTO

DTG FR

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ZNY EEEEE
R 211834Z APR 77

A...CHESDIV

FM COMBLANT NORFOLK VA
TO RUEBJHA/CHESNAVFACENGCOM WASHINGTON DC
INFO RULSSAA/COMNAVFACENGCOM ALEXANDRIA VA
RUCSSAA/CINCLANTFLT NORFOLK VA
ZEN/UCT ONE

BT
UNCLAS E F T O //NO3000//
CINCLANTFLT FOR CODE N32

UCT ONE SERVICES IN SUPPORT OF EAST COAST ACMR
CHESNAVFACENGCOM WASHINGTON DC 122038Z APR 77

1. IRT REF A, UCT ONE SCHEDULED TO PROVIDE OCP SEACON OPERATIONS/CONSTRUCTION CREW FOR PERIOD 11 APR TO 30 SEP 77, WITH DECREASED MANNING LEVEL FROM COMPLETION CURRENT FT. LAUDERDALE CAPTOR WORK UNTIL OCP SEACON RETURN NAB LCREEK.

2. UPON OCP SEACON RETURN TO NAB LCREEK, UCT ONE DIVER RECOMPRESSION SYSTEM, COMPLETE MK-1 SYSTEM, OPEN BELL, IF AVAILABLE, AND ANCILLARY INSPECTION EQUIPMENT FOR ACMR WORK WILL BE PLACED ON BOARD AND TRAINING COMMENCED. NO OTHER USE OF OCP SEACON FOR FLEET PROJECTS NOW SCHEDULED.

PAGE 02 RULYSK6905 UNCLAS E F T O

3. COMBLANT OPCON OF OCP SEACON DURING LCREEK TRAINING PHASE AND ACMR INSPECTIONS CONSIDERED APPROPRIATE AND WILL ASSUME SAME UPON

C7000453

OCP'S RETURN TO NAB LCREEK.
BT
#5905

211834Z APR 77
ROUTINE

APPENDIX B

Board
POICC
ACMR
IC
IA

00		✓
09	<i>IC</i>	✓
09F		✓
FPO-1		✓
01		
OSA		
FPO-2		
09B		
09P		

0143 FILE
0143 REF
LEGEND:
COPY

1 2

R R

FROM: CHESNAVFACENCOM WASHINGTON DC
TO: CINCLANTFLT NORFOLK VA
INFO: COMNAVSURFLANT NORFOLK VA
COMSERVGRUTWO
CONSERVRON EIGHT
COMNAVIRLANT NORFOLK VA
COMNAVFACENCOM ALEXANDRIA VA
COMNAVAIRESYSOM WASHINGTON DC
CHESDIV SEACON

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12 APR 77 20:39 Z

UNCLAS //N03000//

COMNAVFACENCOM FOR PC-2

COMNAVAIRESYSOM FOR CODE 06E

TUG SERVICES IN SUPPORT OF EC/ACMR; REQUEST FOR

A. FONECONS LT. MAYER, CHESNAVFACENCOM AND LCDR DALTON, CINCLANTFLT 332C, OF
1 MAR 77 AND 8 APR 77.

1. AS DISCUSSED REF A, TOWING SERVICES ARE REQUIRED FOR THE OCEAN CONSTRUCTION
PLATFORM SEACON FOR FOUR (4) FOUR-DAY PERIODS DURING JULY/AUGUST/SEPTEMBER 1977.

2. ON 13 JAN 77, CHESNAVFACENCOM AWARDED A \$12.5 M CONSTRUCTION CONTRACT TO
BROWN & ROOT MARINE OPERATORS FOR CONSTRUCTION OF THE EAST COAST AIR COMBAT

APPENDIX C

MANUEVERING RANGE (EC/ACMR) TOWERS. THE STRUCTURES WILL BE LOCATED 15 TO 32 MILES OFFSHORE KITTY HAWK, N.C. IN WATER DEPTHS FROM 83 TO 105 FEET. INSTALLATION OF EACH STRUCTURE WILL INVOLVE TWO TO THREE WEEKS OF AT-SEA CONSTRUCTION, AND IS SCHEDULED BETWEEN 20 JUN AND 5 SEP 77.

3. JOINT GOVERNMENT AND CONTRACTOR ACCEPTANCE INSPECTIONS AND BASELINE DOCUMENTATION ARE REQUIRED PRIOR TO CONTRACTORS DEPARTURE FROM EACH TOWER SITE TO PRECLUDE COSTLY STANDBY TIME. AN OCEAN CONSTRUCTION PLATFORM, SEACON, (EX-YFNB-55) WILL BE USED TO SUPPORT THE REQUIRED SURFACE AND UNDERWATER INSPECTIONS. A VESSEL WILL BE REQUIRED TO TOW THE SEACON TO AND FROM ITS BERTH AT NAB LITTLE CREEK TO THE TOWER SITES (DISTANCE VARIES WITH TOWER FROM 57 TO 83 MILES).

4. IAW REF A, IT IS REQUESTED THAT TASKING OF AN ATF OR EQUIVALENT VESSEL(S) TO TOW/ASSIST THE SEACON DURING THESE INSPECTIONS BE CONSIDERED DURING THE 4TH QTR FY 77 CINCLANTFLT SCHEDULING CONFERENCE. EACH INSPECTION WILL BE AN ESTIMATED FOUR DAYS IN DURATION, INCLUDING TRANSIT TIME. FIRM, FIXED DATES OF EACH INSPECTION WILL NOT BE KNOWN UNTIL OFFSHORE CONSTRUCTION BEGINS; HOWEVER, MINIMUM 72-HOUR NOTIFICATION WILL BE POSSIBLE. ESTIMATE FOR EQUIPMENT COMMERCIAL TUG SUPPORT RANGE FROM \$40-60K.

5. POINTS OF CONTACT, IF FURTHER INFORMATION IS REQUIRED, ARE LT. MAYER AND/OR MR. DON MASSO, CHESNAVFACENCOM, AUTOVON 283 3881.

FPO-1...1C11...1G...1G...ALEA...ROICC ACMR...DAILY...ROUTE...0143(2)



LT. R. H. MAYER, CEC, USN, ROICC ACMR
33381, 4/12/77:ps

D. W. WILTSCHIEBE, C. O., CAPT, CEC, USN, 33300

UNCLASSIFIED

1220393AR



CHESAPEAKE DIVISION
NAVAL FACILITIES ENGINEERING COMMAND

BUILDING 57, WASHINGTON NAVY YARD

WASHINGTON, D.C. 20374

IN REPLY REFER TO:

CHESNAVFACENGCOMINST 5321.1

FPO-1

JUL 7 1976

CHESNAVFACENGCOM INSTRUCTION 5321.1

From: Commanding Officer, Chesapeake Division,
Naval Facilities Engineering Command

Subj: Manning Requirements for NAVFACENGCOM's Ocean Construction
Platform; promulgation of

Ref: (a) CHESNAVFACENGCOMINST 3100.1

Encl: (1) Ocean Construction Platform Watch, Quarter and Station Bill
(2) OCP Organization - Manning Level I
(3) Billet Description Sheets

1. Purpose. This instruction promulgates the operational manning requirements for NAVFACENGCOM's Ocean Construction Platform (OCP).

2. Background. Reference (a) sets forth the operating policy for the OCP and delineates the OCP's manning policy.

3. Discussion:

a. The OCP will be manned in accordance with reference (a) and with the Watch, Quarter and Station Bill (WQSB) (Enclosure (1)). The use of the OCP will normally be in response to a Fleet operation order and/or construction plan. These documents will direct the assignment of CHESNAVFACENGCOM and Naval Construction Force (NCF) personnel to the WQSB, and will also establish the appropriate manning level(s) dictated by the project's schedule and operational needs.

b. The WQSB is organized into five manning levels, each of which represents a different operational activity. The highest level, Manning Level I, is organizationally described in Enclosure (2).

c. Personnel assigned to billets in the OCP's WQSB shall meet the qualifications established by the billet description in Enclosure (3).

d. The conduct of military personnel selected to fill the billets in the WQSB must be in accordance with military regulations, parent unit instructions, and the UCMJ, and that of civilian personnel in accordance with standing CHESNAVFACENGCOM, Navy, and Civil Service regulations.

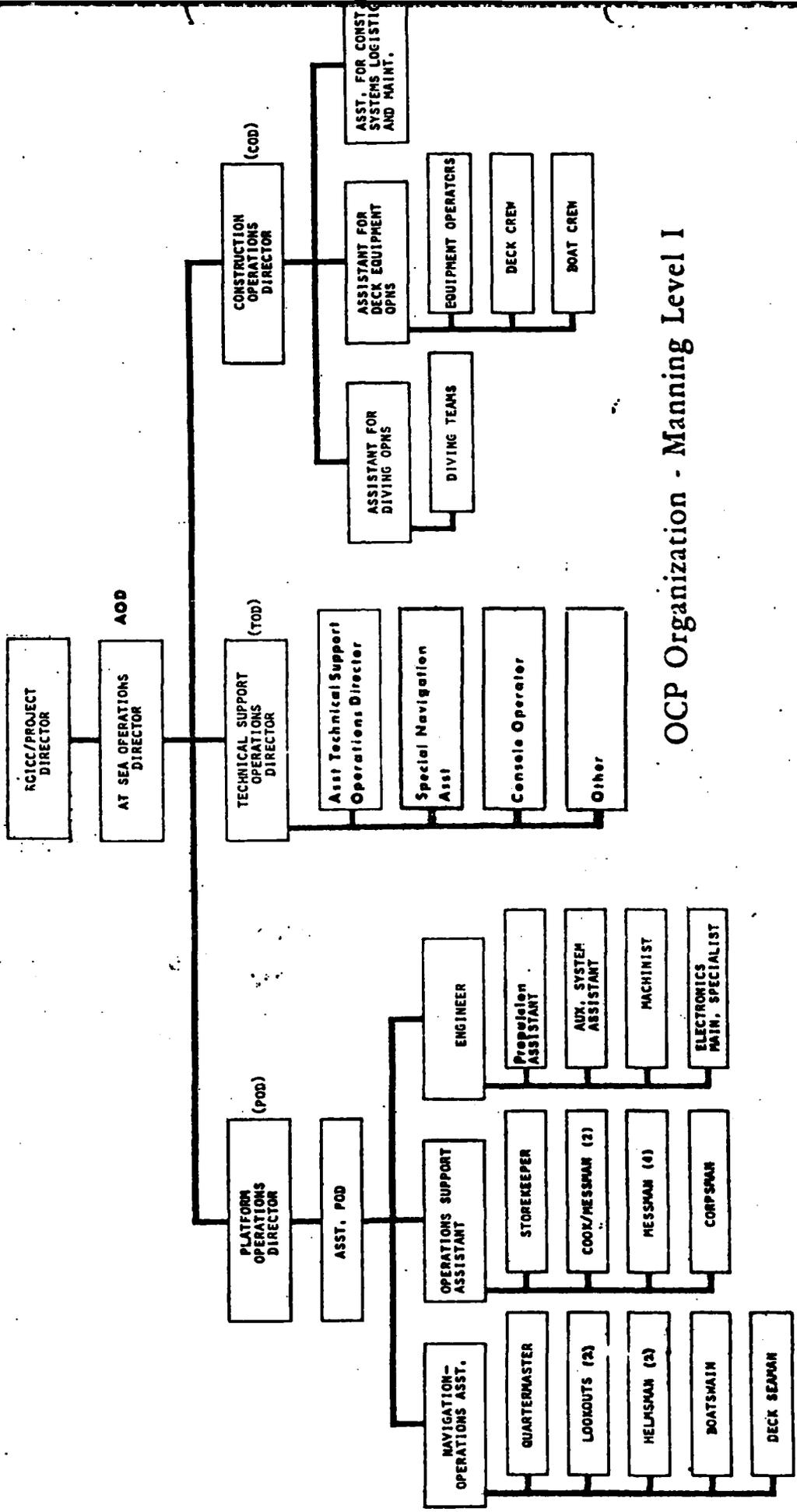
APPENDIX E

4. Action. The organization who has operational control of the platform must provide a manning plan, which reflects compliance with Enclosures (1), (2), and (3) and with reference (a), 90 days in advance for review and approval by the Commanding Officer, CHESNAVFACENGCOM, or his agent, the Head, Ocean Engineering and Construction Project Office.



D. W. Wittschiebs

Distribution:
Lists I, II
NAVFAC (PC-2)



OCP Organization - Manning Level I

OCP ORGANIZATION - MANNING LEVEL I

The OCP organization has three operational components, each of which functions under an operational director who reports to the At-Sea Operations Director (AOD). The AOD reports directly to the ROICC/Project Director, who is designated by the implementing Operation Order and/or construction plan and who has overall responsibility for the project's completion. Figure 1 depicts the OCP organization for Manning Level I and its relationship to the ROICC/Project Director. Organizational responsibilities are as follows:

A. At-Sea Operations Director (AOD). Has overall responsibility for the safe and efficient operation of the OCP. This includes all platform and equipment operations and the maintenance and direction of assigned personnel. The AOD's responsibility begins when the platform is transferred to his custody in accordance with an Operation Order and/or construction plan.

B. Platform Operations Director (POD). The POD is responsible for the safety, navigation, and movement of the OCP beginning at the time the OCP is mobilized for a project. In addition, he is responsible for the operation and maintenance of installed and roll-on/roll-off equipments and systems. In carrying out his responsibilities, he is responsible for and directs the personnel assigned to him for platform operations, as shown in Figure 1. During extended underway periods, the POD may be relieved by the Assistant Platform Operations Director.

1. Navigation-Operations Assistant. Responsible for the safe navigation and transit of the OCP and for organizing and directing the activities of the following personnel:

a. Quartermaster. Provides operational and administrative support on the bridge, which includes keeping a quartermaster's log, communications log, bearing record log, anchor log, contact log, fathometer records, and position-taking and reporting records; operating radio and telephones or signaling devices; using and maintaining charts and navigation publications; and operating equipments located in the bridge area.

b. Lookouts. Provide visually observed information to the POD regarding surface and air contacts to aid him in avoiding collision at sea.

c. Helmsman. Operates the control console on the bridge or the control center during all underway operations. He is also responsible for the cleanliness and maintenance of the bridge and control room areas and adjacent structures.

Enclosure (2)

d. Boatswain and Deck Seaman. Assist in such operations as line handling, mooring, anchoring, rigging, loading/offloading (for fuel, water, stores, etc.), taking craft alongside, and construction which involves the use of installed deck equipments (e.g., cross deck winches, anchor windlass, etc.).

2. Operations Support Assistant. Responsible for the efficient conduct of those functions necessary to support logistically construction operations and to berth and feed personnel. This includes operating the mess and accounting for the sale of meals. Coordinates administrative efforts to assure the timely and adequate provision, receipt, issuance, and storage of stores, equipment spare parts, and documentation.

a. Cook/Messman. Responsible for the ordering of stores, preparing and serving of food, and operating of the galley in accordance with Navy standards regarding health, cleanliness, food storage, and preparation. Duties also include menu preparation.

b. Storekeeper. Maintains a spare part inventory to assure required spares are on board; issues and orders spare parts and consumables; issues and receives messing, berthing, and cleaning equipment; and maintains records, receipts, and files to assure that replacement orders are submitted and that replacement costs can be developed at the termination of an OCP operation.

c. Hospital Corpsman. Provides for the health and welfare of personnel. Must be qualified in diving medicine. Coordinates with assigned personnel who inspect the mess for cleanliness.

3. Engineer. Operates and maintains propulsion, auxiliary, mechanical, electronic, and electrical systems and equipments. This includes the internal and external hull and installed fittings. Responsible for the maintenance of roll-on/roll-off equipment. The engineer's duties include: operating and maintaining equipment; executing established preventative maintenance programs; inspecting the hull and internal spaces to prevent flooding, fire, or other unsafe operating practices and reporting the results of these inspections to the POD; the establishing of an engineering watch to assure equipment is operated in accordance with established practices; the training and directing of personnel in the use of damage and casualty control equipments and procedures to combat casualty situations; effecting repairs to installed systems and equipments; ordering, receiving, and storing fuel, water, lubricants, and other consumables for engineering operations; and ordering spare parts to effect repairs of assigned equipments in accordance with planned levels of maintenance capability. He will be responsible for coordinating and directing the efforts of the following personnel:

a. Propulsion Assistant. Assists in the following systems and/or equipment: dynamic positioning engines, drives, and propellers; fuel and lube oil systems; steering and positioning equipments; electrical generating and distribution systems; engine annunciating, safety and control systems; ballasting systems; and all compartments, tanks, piping, cables, alarms and indicating systems associated with the above.

b. Auxiliary Systems Assistant. Assists in the following systems and/or equipments; heating, ventilating, and air conditioning systems; fresh water storage and distribution systems; sewage and sanitary systems; air compressors and air distribution systems; damage control equipment; fire fighting and flushing; safety equipment; galley equipment; anchor windlass and capstan; lighting; topside fittings and accesses; cable storage and handling; machine shop; diving locker installed equipment; tool inventory, storage, and distribution; and, all compartments, tanks, piping, cables, alarms, and indicating systems associated with the above.

c. Machinist. Assists the engineer.

d. Electronics Maintenance Specialist. Maintains the installed electronics equipments. Assures all spare parts, equipment documentation, and technical support are available to support OCP operations.

C. Technical Support Operations Director (TOD). Has overall responsibility for providing technical support to the AOD in the following areas: precision navigation and positioning of the OCP during construction operations; project execution status reports; construction operations status and data collection; project communications; engineering computations; project reporting and record keeping; analyses of and recommendations regarding interaction between the OCP and the construction system. The TOD will be assigned to the OCP during periods of construction operation. The size and composition of the TOD and his support staff will be dictated by the project requirements and will be delineated in the approved Project Execution Plans. During construction operations, the TOD and his staff will be responsible for the operation of installed or roll-on equipments required for fulfilling the above areas of technical support.

D. Construction Operations Director (COD). The construction support operations will normally be provided by a unit of the NCF or a government contractor. As such, all operations under the COD and the administration and conduct of assigned personnel become his responsibility. The COD is responsible for executing construction operations as delineated in Operation Orders and/or construction plans. The COD and his supporting personnel

are responsible for the operation and field maintenance of all roll-on equipment in support of construction operations, except those otherwise assigned to the TOD and POD; the operation and maintenance of the Table of Allowance equipments; the training and performance of construction personnel assigned to the COD; and the scheduling, execution, and safety of construction operation. Depending on the scope of the construction, the COD will have a varying number of personnel assigned to him to assist in the conduct of these duties. The exact number of assigned personnel will be based on the execution plan developed for a specific project. The duties of the assistants to the COD are as follows:

1. Assistant for Diving Operations. Responsible for the conduct and safety of personnel involved in OCP diving operations, to include the operation and maintenance of diving support equipments.

2. Assistant for Deck Equipment Operations. Responsible for the operation of construction equipment for the training and assignment of construction personnel, for the loadout and rigging of the OCP, and for the handling of facilities to be installed in accordance with approved construction plans.

3. Assistant for Construction Systems Logistics and Maintenance. Responsible for meeting all logistic, maintenance, and support requirements necessary to assure that construction operation requirements are met.

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OPERATIONS ORDER

CHESNAVFACENGCOM OPORD 2-77

Commanding Officer
Chesapeake Division
Naval Facilities
Engineering Command
Washington Navy Yard
Washington, DC 20374

230600Q June 1977

- REFERENCES:
- (a) NAVFACENGCOM ltr 2 November, Calendar Year 77-78 Tasking for UCT
 - (b) CHESNAVFACENGCOM 122038Z Apr 77
 - (c) COMCBLANT 211834Z Apr
 - (d) CHESNAVFACENGCOM 122039Z Apr 77
 - (e) CINCLANTFLT 021624Z Jun 77
 - (f) CHESNAVFACENGCOMINST 3100.1 (Rev.)

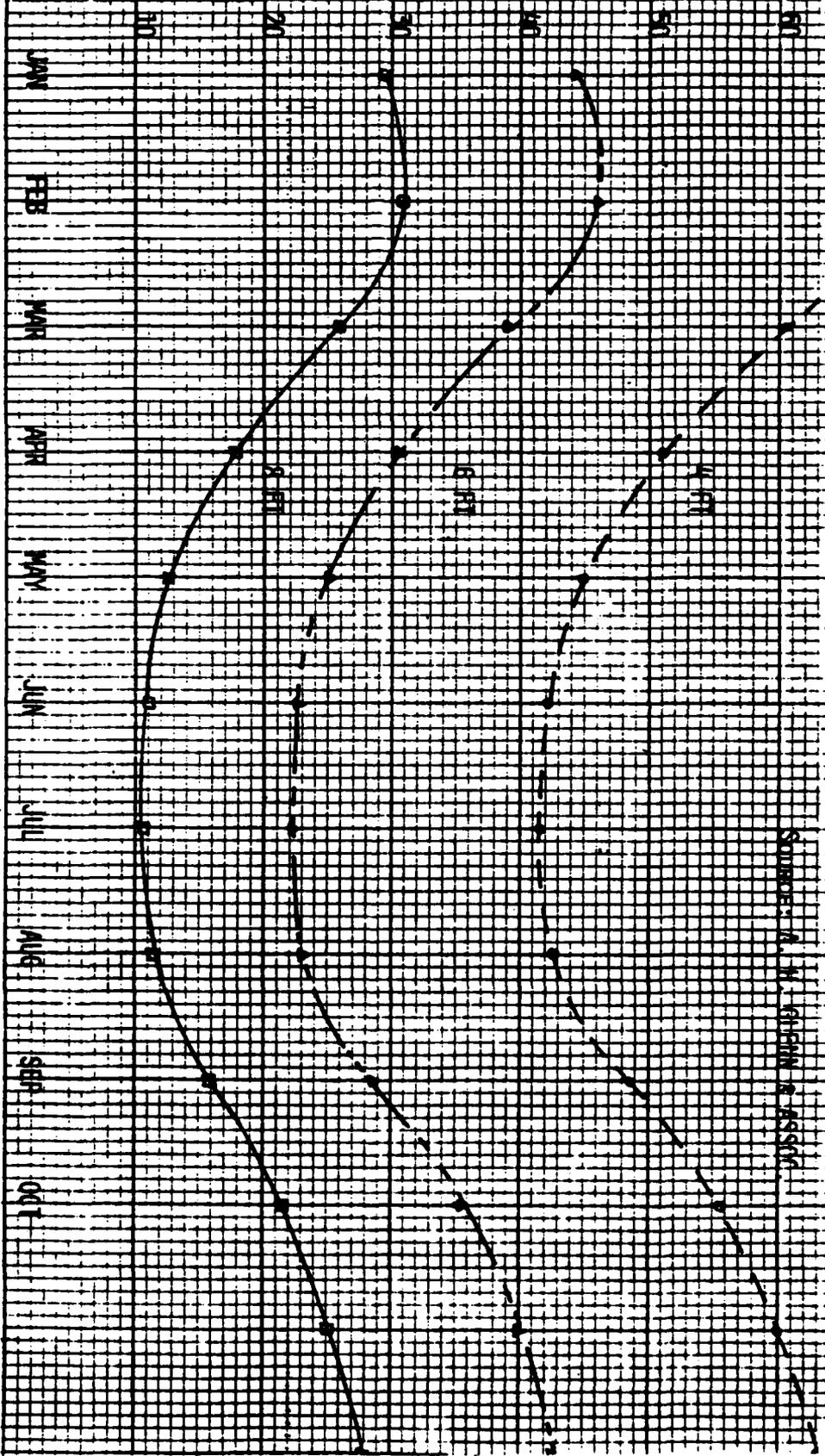
TIME ZONE: Use G.M.T. Zone Quebec (+4) for operations

TASK ORGANIZATION: Chesapeake Division, Naval Facilities Engineering Command, Washington Navy Yard, Washington, D.C., shall be referred to as CHESNAVFACENGCOM. Commander, Naval Construction Battalion, U. S. Atlantic Fleet, NAB Little Creek, Norfolk, Virginia, shall be referred to as CBLANT. Underwater Construction Team One, NAB Little Creek, Norfolk, Virginia, shall be referred to as UCT ONE. Commander in Chief, U. S. Atlantic Fleet, Norfolk, Virginia, shall be referred to as CINCLANTFLT. Naval Facilities Engineering Command, Alexandria, Virginia, shall be referred to as NAVFACENGCOM.

1. SITUATION:

By reference (a), NAVFACENGCOM requested tasking of CBLANT to provide fleet personnel from UCT ONE to assist in manning the SEACON and provide an underwater inspection capability for inspection of the East Coast Air Combat Maneuvering Range (EC/ACMR) towers. Reference (b) confirmed the need for SEACON manning and the underwater inspection capability, and requested CBLANT take OPCON for this operation. CBLANT accepted this tasking in reference (c). By reference (d) CHESNAVFACENGCOM requested tug services from CINCLANTFLT in support of EC/ACMR. A positive reply to this request was provided by reference (e).

AVERAGE PERCENTAGE OF TOTAL MONTHLY TIME
 THAT SIGNIFICANT WAVE HEIGHTS ARE EQUAL TO OR GREATER THAN



OFFSHORE STATION 44010
 LAT. 35° 42.5' N. LONG. 75° 05.7' W

SOURCE: A. N. FISHER & ASSOC.

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OPERATIONS ORDER

CHESNAVFACENGCOM OPORD 2-77

- a. Enemy Forces: None
- b. Friendly Forces: U. S. Armed Forces Personnel
U. S. Government employees and
Brown and Root Corporation

2. MISSION:

CHESNAVFACENGCOM will deploy the Ocean Construction Platform (OCP) SEACON manned appropriate personnel and equipment from CHESNAVFACENGCOM and UCT ONE to perform the underwater inspection of the EC/ACMR ocean towers.

3. EXECUTION:

a. On or about 30 June 1977, OPCON of the SEACON will pass to CBLANT in accordance with references (b) and (c).

b. After demobilization from the Ft. Lauderdale project (CHESNAVFACENGCOM OPORD 1-77), SEACON will be mobilized for the EC/ACMR project at Little Creek, Virginia, and inspection operations of EC/ACMR ocean towers will commence. SEACON will be towed to and from EC/ACMR inspection sites. CHESNAVFACENGCOM and UCT ONE personnel will provide for the manning of the SEACON; UCT ONE personnel will perform the underwater inspection operations. Concept of operations shall be in accordance with CBLANT OPPLAN and CHESNAVFACENGCOM EC/ACMR Project Execution Plan.

c. Upon completion of EC/ACMR ocean tower inspections, about 31 August 1977, the SEACON will be demobilized and OPCON of the SEACON will return to CHESNAVFACENGCOM.

d. During the period 31 August to 31 December 1977, OCP SEACON will be berthed at Little Creek, Virginia, for maintenance and upkeep.

4. ADMINISTRATION/LOGISTICS:

a. Administrative and personnel support of the OCP SEACON and CHESNAVFACENGCOM personnel shall continue to be provided by CHESNAVFACENGCOM. Messing and berthing aboard the OCP SEACON will be provided to all UCT ONE personnel.

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OPERATIONS ORDER

CHESNAVFACENGCOM OPORD 2-77

b. The manning operations of the OCP SEACON will be in accordance with reference (f).

c. CHESNAVFACENGCOM will provide funding to CBLANT for the support of UCT ONE.

5. COMMAND AND COMMUNICATIONS:

a. ADCON of OCP SEACON and CHESNAVFACENGCOM personnel will remain with CHESNAVFACENGCOM. ADCON of UCT ONE will remain with CBLANT.

b. During periods of tow, OPCON of OCP SEACON shall pass to the Commanding Officer or Master of the towing vessel.

c. During the period of EC/ACMR ocean tower inspection and diver training, 30 June to 31 August 1977, OPCON shall pass to CBLANT in accordance with references (b) and (c).

d. CBLANT's At-Sea Operations Director shall take direction from CBLANT and provide coordination of operations between the OCP SEACON, CHESNAVFACENGCOM personnel, and UCT ONE personnel.

e. CHESNAVFACENGCOM's Project Director, as AREICC ACMR, shall oversee inspection reports and procedures and ensure acceptability of the underwater inspection results. CHESNAVFACENGCOM shall issue a Project Execution Plan for inclusion in CBLANT's OPlan.

END

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