OCEAN FACILITIES PROGRAM
REMINISCENCES
(By Captain Jim Osborn, CEC, USN, Ret.)

In the late 1950's and early 60's, Navy research in deep ocean activity was given a priority, primarily because of the recognition of the importance of submarines in performing the Navy mission of strategic defense. As a result of the loss of the USS Thresher in 8,400 feet of water in 1963, the Navy began a serious effort to establish a capability to do work at great ocean depths and established the Deep Submergence Systems Review Group.

For reasons unknown to the writer, a CEC Commander by name of Walt Eager, was assigned to the Deep Submergence Systems Project. (According to Dr. John Craven, the then Chief of the Bureau of Yards and Docks had approached the Deep Submergence Systems Project, indicating that the Civil Engineer Corps had waterfront responsibilities and would like to have input into the program.) Commander Eager saw the multi-disciplinary field of ocean engineering as a field that the Civil Engineer Corps should be involved with. Almost all Navy facilities had some physical tie to the ocean, and it was the responsibility of the CEC to maintain and manage this facility. Primarily through his aggressive lobbying with the Chief of Civil Engineers, he was successful in getting the CEC to start an Ocean Engineering training program.

In 1964 the Postgraduate Program Selection Board made the first two selections for training to begin in 1965. LT Robert D. Smart chose to go to MIT. LT James H. Osborn chose to go to Texas A&M University. Because there was no established curriculum, and the concept of an ocean engineering degree was new, the Navy assigned these two officers to attend the schools of their choice while developing the appropriate curriculum for future students. These two students were given two years to complete their academic training. For several years afterward, students were granted up to two years to obtain their degree because of the perceived need of a broad based multi-disiplinary background. Of course, neither officer had a complete understanding of the needs of the Navy regarding ocean engineering, and so each was left to develop their own interests. Each officer prepared a planned course of instruction, and then upon completion of the individual courses, a critique was prepared and forwarded to the Detailers indicating the potential worth of the course, the instructor, and the utility the material taught had to the needs of the Navy. It was during this period of time that the Vietnam war was demanding more military personnel, and the CEC Detailers considered cutting the two years schooling to a single year, but the Deep Submergence Project had plans for these officers, and dictated that they should complete the two year course of work, and then report to the newly established Deep Submergence Systems Project Technical Office in San Diego, CA.

As an aside, when LT Osborn arrived at Texas A&M University, he found that they had no Ocean Engineering Department. The Civil Engineering Department and the

Oceanography Department were still trying to decide whether or not a new Department was required, or for that matter, whether or not there was a need for a degree field in Ocean Engineering. LT Osborn developed a combined Graduate Committee that had a Civil Engineering Department Chairman, an Oceanography Department Vice Chairman, and members from the Civil, Geology and Mechanical Engineering Departments. Upon graduation in 1967, LT Osborn received a Master of Civil Engineering Degree. It wasn't until several years later that Ocean Engineering degrees were granted at Texas A&M University.

Upon completion of the academic work, the two officers were assigned to the Deep Submergence Systems Project Technical Office in San Diego, CA, via a temporary duty assignment at the Navy School for Diving and Salvage where each was trained and designated a HEO2 Navy Diving Officer.

Arriving in San Diego, the two had only a few days to find housing and settle their families before returning to Washington, DC for further training at the Naval Experimental Diving Unit in saturation diving. Just prior to entering the hyperbaric chambers for his one week stay at 450 feet, the Medical Officers determined that LCDR Smart had an unknown and undefined scarring on his lung. Fearing possible further damage to his lung with the experimental saturation training, they decided to eliminate LCDR Smart from further diver training. They also decided that the whole class at the Navy School for Diving and Salvage would have to undergo tuberculosis screening, in case the scarring was tuberculosis related. LCDR Osborn was found healthy and he entered the saturation diving training, achieving designation as a Saturation Diving Officer. LCDR Smart was reassigned to the Deep Submergence Systems Program Office in Washington, DC to manage research projects.

LCDR Osborn was designated an Aquanaut and Team Engineer on SEALAB III Team 3, the Construction Team. The Team consisted of: LT McDole, a Line Officer and the Team Leader; LCDR Osborn, the Team Engineer; Dr. Larry Hallenger, the Construction Project Leader; BUC Bill Schleigh, MMC Don Schmitt, EN1 Duane Jensen, and GM1 Wilbur Eaton; HM1 Armstrong, the Team Corpsman; PO1 Nobby Clark, RN a Royal Navy Exchange Petty Officer; and, Phillipe Cousteau, the Team Photographer. CMC Melder was a stand by Seabee diver in the event that another on the Team became disqualified for some reason.

Training for the SEALAB experiment continued up until the underwater habitat was lowered into 610 feet of water off the eastern side of San Clemente Island in February 1969. The experiment was terminated shortly after it began when the Team Engineer for Team 1, Mr. Barry Cannon, was killed while attempting to open the habitat for occupancy. The cause of death was attributed to the absence of baralyme in the CO2 scrubbing unit of the MK9 Underwater breathing apparatus that was in use at the time. During the ensuing investigation, it was concluded that insufficient additional knowledge would be gained by continuing the program compared to the additional cost of repairing and refurbishing the habitat, and the project was terminated. LCDR

Osborn stayed on with Submarine Development Group One, the organization that assumed the function of the Deep Submergence Systems Project Technical Office, until the summer of 1970 when he was detached for further career assignments in the Civil Engineer Corps.

Commander Eager moved from DSSP to the Naval Facilities Engineering Command where he became the first Director of the Ocean Facilities Program. He was virtually totally responsible for establishing the concept of the ocean engineering/facilities program, the expected career paths of its personnel, and the Underwater Construction Teams, the first being established on the east coast, Underwater Construction Team One.

CDR Eager continued his efforts to organize and field a team of CEC officers and Seabees who had the necessary skills to perform underwater construction. He sought out Seabees who were assigned to Fleet diving units, and succeeded in putting together a team of personnel who were responsible for the installation of the TEKTITE underwater habitat in the Caribbean in the early 1970's. He maintained this team of military personnel while setting out to establish a civilian cadre of engineers and technicians who could perform offshore work for the Navy. His actions in establishing new functions for the Seabees led to the Undersea Surveillance Program to commit to using Seabee Divers for the inshore landings of submarine cables. Undersea Surveillance also decided that it would be beneficial to have a CEC Officer on staff to support cable landings and protection projects.

The outgrowth of his efforts was the opening of the Ocean Facilities Construction Project Office at the Chesapeake Division of the Naval Facilities Engineering Command. One of the first projects this team of military and civilian personnel undertook was the successful installation of the Azores Fixed Acoustic Range in the middle of the Atlantic.

When Commander Eager retired, he was replaced by Captain Larry Donovan as head of the Ocean Facilities Program. Captain Donovan was a nuclear power trained CEC officer who worked with the Navy Nuclear Power Plant in the Antarctic prior to coming to the Ocean Facilities Program. Captain Donovan was the leading proponent of the Ocean Facilities Program to have an ocean construction platform. With out such a work platform, Captain Donovan proclaimed the Program to the a "Paper Tiger". The Ocean Construction Platform SEACON was designed and built under his leadership and guidance. OCP SEACON operated from about 1976 until the middle 90's under the operational control of the Ocean Engineering and Construction Project Office, FPO-1. Captain Donovan was also the leader in using innovative contracting methods such as Delivery Order contracts instead of the more traditional but cumbersome A&E type contracts.

Commander Osborn relieved Captain Donovan in 1977 after having two training deployments on the OCP SEACON, one off Fort Lauderdale where coaxial cables were

being retrieved and laid and another off San Croix where a cable landing was conducted. During the time when Captain Osborn was head of the Ocean Facilities Program, the Ocean Construction Equipment Inventory was substantially increased in size and capability. New tasks were assigned in assisting the Undersea Surveillance Program cable landing and protection programs. Research became more focused on problems of cables and their protection as well as on new diver tools to be used by the Underwater Construction Teams. There was a time of levity though that bears remembrance. On a visit by Captain Osborn to Underwater Construction Team 2 in Port Hueneme, CA, a party was held at the home of one of the officers. After having had a good time, Captain Osborn went to his car to leave, feeling great because all the people at the party came out to see him leave. When the keys were turned in the ignition, there was a loud "bang" and smoke came pouring from under the car! After a momentary shock, Captain Osborn concluded that an "explosive device" had been wired to the car by none other than Warrant Officer Dave Handley, at the instigation of the Officer in Charge, LCDR Pete Marshall. Trying to save "face", Captain Osborn vowed he would get even, and drove off, waving good-bye to the people who were laughing so hard they couldn't stand up!

One officer who was also very important in the development of the OFP was Captain Don Wells. Captain Wells relieved Captain Osborn in NAVFACENGCOM in 1981. He had also relieved Commander Osborn at the Undersea Surveillance Project Office. (I often introduced him as the officer who came along behind me and cleaned up the messes and fixed the problems I had started!) Captain Wells opened up new billets for our officers by exposing their capabilities to other organizations that needed ocean engineering skills. He showed those organizations how to obtain the necessary billets to have CEC officers assigned, and then assisted them in making it happen.

Captain Wells was also the driving force behind getting the Underwater Construction Teams increased in size, upgrading them to units with Commanding Officers, and into many more areas of responsibility.

There were so few trained officers in the program and so many developing billets that most officers in the early program years went from one ocean tour to another. After SEALAB and a tour in Vietnam, I returned to Washington where I worked for the Oceanographer of the Navy, the Naval Material Command, the Undersea Surveillance Project Office, and other organizations on temporary assignment before finally coming to NAVFACENGCOM as Director of the Ocean Facilities Program in 1977.

As time went on, more officers were trained and the number of billets were somewhat stabilized. This permitted the officers in the program to rotate into and out of the program in order to maintain their professional experience in the mainstream civil engineer corps. All of the assignments weren't without controversy. There were billets that were established and then disestablished, sometimes as a result of a turf war, sometimes because the mission went away, or sometimes because the person who went into the job didn't quite live up to the expected standard. I recall when I

was detailed to the Undersea Surveillance Project Office as the first CEC officer in that organization. The senior civilian director of the upcoming new shore facility system was elated that a CEC officer had been assigned, and he was ready to assign me to the military construction and facility development side of the program. I had to have a meeting between me, the Undersea Surveillance Project Manager and this senior civilian to get it understood that I had been assigned as a staff ocean engineer to work the cables side of the house and not as a facilities planner. Fortunately for me, and for the Ocean Facilities Program, the Project Manager had been in Vietnam and had his "bacon" saved by the Seabees. He respected the Seabees and the Civil Engineer Corps and understood the rationale for my assignment. He directed that I work with the cable side of the organization. The Supply Corps officer ended up with the MCON and facilities headaches!

Tena Lord was one of the major stalwarts in helping the Ocean Facilities Program develop. She was brought into the Program Office by Commander Eager and continued to work in that office up through Captain Wells. She was much more than a secretary, being thoroughly familiar with the projects, the people and the politics of the program. She permitted the other staff of the office to travel freely performing their duties because we all knew that she could handle the problems at "home", and she always kept in touch with us while we were on the road.