



DEPARTMENT OF THE NAVY
USS CANOPUS AS 34
FPO MIAMI 34087

AS34:11:pab
5750
Serial **0793**
29 APR 1982

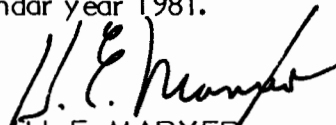
From: Commanding Officer, USS CANOPUS (AS-34)
To: Director of Naval History (OP-09BH), Washington Navy Yard, Washington, DC
20474

Subj: Command History of USS CANOPUS (AS-34), 1981; Report Symbol OPNAV 5750-1

Ref: (a) OPNAVINST 5750.12C

Encl: (1) Basic History
(2) List of VIPs and Visitors
(3) Lists of Ships and Submarines Tended

1. In accordance with reference (a), enclosures (1) through (3) are submitted as the Command History for CANOPUS for calendar year 1981.


H. E. MARXER

COMMAND ORGANIZATION

USS CANOPUS (AS-34) was under the operational control of Submarine Squadron EIGHTEEN, Captain Charles H. Brickell, Jr., who was relieved by Captain John M. Kersh, on 16 June 1981 as the Squadron Commander. CANOPUS Commanding Officer, Captain Hugo E. Marxer, and Executive Officer, Captain Gary Q. Geist, served aboard throughout the entire period. Key personnel changes that occurred during the past year are as follows:

<u>BILLET</u>	<u>DATE</u>
Legal Officer	21 May
Radiation Health Officer	22 June
Dental Officer	30 June
Engineering Officer	16 July
Damage Control Assistant	21 July
Production Management Assistant	21 July
Medical Officer	01 August
Supply Officer	24 August
Operations/Navigation Officer	31 August
Communications Officer	14 September

1981 CHRONOLOGY OF EVENTS

February 9-13	Personnel Qualification Standard Assist Visit
February 23-27	Navy Maintenance and Supply Systems Office Assist Visit
March 9-13	Proficiency and Readiness Evaluation Inspection/Quality Assurance Audit
March 16-27	Assist Food Management
March 18-24	Underway, Charleston, local operations
March 29-31	Underway, Charleston, local operations, Propulsion Examination Board - Operation Propulsion Plant Evaluation Preparations
April 01	Underway, Charleston, local operations, Propulsion Examination Board - Operation Propulsion Plant Evaluation
April 06-10	Supply Mangement Inspection (SMI)
August 14-22	Underway, Visit Port Everglades, Fort Lauderdale, FL

September 21-24

TWCR/Weapons QA Inspection

November 2-4

Radiological Controls Practices Evaluation

November 12-December 16

Interim docking period Charleston Naval Shipyard

November 24

Communications Security Inspection

December 16-17

Undock Charleston Naval Shipyard, underway Charleston, local operations

NARRATIVE

USS CANOPUS remained moored and homeported at FBM Replenishment Site IV, Charleston, South Carolina except for a brief interim docking period at Charleston Naval Shipyard from 12 November to 16 December 1981. During this period, CANOPUS was relieved at FBM Replenishment SITE IV by USS HUNLEY (AS-31).

During 1981 the Operations Department was divided into three separate divisions comprised of Communications, Electronics and Navigation. The Communications Division processed in excess of 110,000 narrative, card, and visual messages resulting in over one million message copies being reproduced and distributed. This resulted in a daily average of over 300 messages and 3,500 copies processed. The Communications Division maintained 15 radio, landline circuits and broadcast channels. Ten ET's and one RM teletype repairman maintained some 200 plus individual pieces of cryptographic and teletype equipment. Communications and electronics repair services were rendered to COMSUBRON EIGHTEEN, USS ALAMOGORDO (ARDM-2), CVS CRAYFISH (TWR-682) and all other assigned units. In addition to own ship's maintenance requirements, this division provided support to 30 SSBN's in the form of 36 crypto and teletype inspections and overhauled and/or repaired 80 pieces of crypto equipment and 100 pieces of teletype equipment. As the Communications Center for COMSUBRON EIGHTEEN, the Operations Department was tasked with quality control monitoring of various submarine broadcasts and is currently participating in the TACAMO monitoring program. The Operations Department received a grade of OUTSTANDING on the CMS Inspection administered by COMSUBGRU SIX. A total of 1,262 articles of ARFCOS Material were handled as well as CMS and 52 two-man control transactions. CANOPUS was tasked by CINCLANTFLT and CINCSOUTH as distribution point for the scheduling and delivery of SAS material to operating SSBN's. The Navigation Division was significantly enhanced by the addition of th LN-66 Radar and the Morrow LCA-3450 Loran C, navigational equipment.

The Deck Department organized a new division within the Crane Repair Division on 10 February 1981. In July the Ship's first female to qualify as a Travel Crane Operator was designated with excellent results. During the CANOPUS interim docking period, the ship's hull was completely repainted by Deck Department personnel.

The Engineering Department, in addition to providing electrical power, low pressure (LP) air, potable water, pure water, and fire and flushing water to the ship, provided the following services to 42 tended units: 3,150 gallons liquid nitrogen, 770 air charges, 364 sewage transfers, 68 waste oil transfers, 62,026 gallons diesel fuel (marine), and 2,267 gallons of 2190 lubricating oil. Major maintenance actions performed on the ship included replacement of #2 and #3 conveyors, replacement of shore power cables, overhaul of cathodic protection system, installation of communications system for all conveyors, material upgrade of all conveyors and elevators, replacement of #1 boiler refractory, replacement of #2 boiler air casing doors, overhaul of incinerator, overhaul of #1 and #2 distilling plants and replacement of #1 ship's service turbo generator reduction gear bearings. Other major improvements made within the Engineering Department were: PQS implementation for watchstanders, successful completion of OPPE conducted by CINCLANTFLT, significant upgrade of electrical safety program, implementation of Heat Stress Program, development and implementation of Engineering Operational Sequencing System (EOSS), overhaul of all propulsion toggle-operated valves, extensive replacement of insulation throughout all Engineering spaces and overhaul of over 200 valves in the main and auxiliary systems.

During 1981, the Repair Department completed 20 refits, 3 extended refits (ER), 9 submarine voyage repairs, 1 fast attack selected Refit Availability upkeep, provided services to 4 submarines performing post overhaul testing and 5 submarines preparing to enter shipyards. The Repair Department conducted a total of 43 refit/voyage repair periods on 26 separate hulls. In addition service and repairs were provided to various surface units including 7 refits for TWR-682, 4 refits for ARDM-2 and 9 refit periods on CANOPUS. There were over 453,000 man-hours directed to maintenance. In November 1981 CANOPUS underwent an interim dry dock period for self-refit where the Repair Department expended 39,000 man-hours, completing 142 jobs. Each submarine refit consisted of over 100 routine jobs, from printing logs to repair and certification of subsafe systems. The Hull Repair Division did extensive welding, completely replating the hull of two LCM's and installing a new deck to the missile break catwalk. The Machinery Repair Division produced innumerable pieces of machinery parts including special bevel gears, boiler modification parts and executed repairs to a TDU ball valve on a submarine at Cape Kennedy. The Machinery Repair Division performed its first, in place optical alignment of a periscope. The Electrical Repair Division rewound hundreds of motors and assisted in the repair of numerous motor generators. The Fleet Electronics Calibration Laboratory calibrated over 3,300 pieces of equipment while the Electronics Repair Division completed the certification of over 35 AN/BRA-8 buoys and performed numerous antenna system repairs. The Radiological Division accomplished over 200 radioactive material transfers from tended units and conducted a complex nuclear propulsion plant resin discharge. This division also performed 14 Portable Effluent Tank (PET) hook-ups and 4 Hot PET Hook-ups in support of tended unit testing. The Repair Services Division laid thousand's of square feet of tile, molded numerous items including flanges for dry dock connections, rebabbiting of bearings and plaques for CANOPUS and tended units in addition to providing various carpenter services. The divers performed arrival and departure swims on all units arriving at SITE IV as well as installation of numerous hull flanges. The Nuclear Repair Division accomplished 43 repair procedures on 12 separate submarines, repairing or replacing 15 nuclear valves and replacing two reactor plant fresh water (RPFW) pumps. The Outside Machine Repair Division repaired a submarine low pressure blower, poppets and seats on several main engines, and turbine generator throttles. In addition, a TDU ball valve was overhauled away from SITE IV. The Print Shop prepared over 2 million impressions and the Photo Lab developed over 20,000 prints and slides.

The Weapons Repair Department completed several complex evolutions involving interface with other departments on CANOPUS and outlying commands. The Torpedo Repair Division handled a total of 721 warshots and exercise torpedoes while completing 99 system and deck checks. There were twenty-two MK53 torpedo batteries rebuilt and made ready for issue. In addition, 30 torpedo tube inspections were conducted, 5 torpedo ejection pump ordnance alterations (ORDALTS) accomplished and 62 exploders overhauled. During this past year the CANOPUS received Mobile Submarine Simulator (MOSS) limited capability which enables CANOPUS to handle and store the MOSS Launcher and units. Two submarines were converted to accept MOSS capability thus extending maintenance due date (MDD) by 200 days each, on forty-three MK-48 torpedoes. The gunnery personnel coordinated and trained over 800 personnel on the .45 caliber pistol, M14 rifle and M870 riot shotgun, expending approximately 2,250 rounds of various pyrotechnics, 61,840 rounds of small arms ammunition and 3,840 rounds of 3 inch 50 ammunition. All pyrotechnics and ammunition handling evolutions between CANOPUS and tended units were accomplished without incident or loss of accountability. The MK-37 torpedo exercise program was discontinued and all MK-37 assets successfully transferred to USS HUNLEY (AS-31). The division received a grade of EXCELLENT during the Tactical Weapons Capability Review (TWCR) with only minor deficiencies noted. The

Fire Control Repair Division completed optical alignment checks and Bdaim Gradient Verifications and Adjustments on 14 tended units. Fourteen units received Photo Electric Auto Collimator (PEAC) tactical alignments and 8 others received purging of the MK-52 periscope. Buoy Submarine Transmitter/Countermeasures Submarine Acoustic (BST/CSA) work was extensive, including 7 annual inspections and 65 quarterly inspections. There were 57 CSA's and gas generators installed. A total of 5,330 man-hours were expended in BST/CSA support. The Module Test Set (MOTS) Shop tested over 2,000 fire control modules and the Weapons Inspection and Recertification Team completed tests and adjustments on 14 submarines alongside. In addition, arrival checks were conducted on 23 units. The Nuclear Weapons Repair Division assisted with 32 transfers and 25 receipts of Poseidon missiles from SSBN's. Maintenance included processing inspections and the mating/demating of 150 tactical Reentry Vehicles (REV). Additionally, corrective maintenance was performed on 11 tactical warheads. A total of 68 Reentry Vehicles were transferred to/from FBM resupply ships (TAK). The Weapons Repair Division participated in two Poseidon Operational Tests which included receiving and processing 80 inert REV's and mating 4 replacement missiles. The Stockpile Laboratory Test (SLT) and Limited Life Component Exchange (LLCE) programs were supported utilizing the H3520 transfer unit to mate 16 REB's on units alongside and 24 REB's on board CANOPUS. In support of the Stockpile Administration, 65 Operational Change Reports (OCR's) were prepared, assembled and caused to be transmitted for CANOPUS and 44 OCR's for tended units. A total of 22 Unsatisfactory Reports (UR's) were generated to identify major and minor discrepancies within the nuclear weapons program. The Missile/Launcher Division improved production by completing 4 Poseidon Missile Operational Test loadouts/offloads, with all evolutions being completed ahead of schedule. Other significant evolutions performed were the transfer of 60 missiles to/from SSBN's, transfer of 20 missiles to/from TAK's, completion of 60 missile tests, unloading 56 full tube loads of ballast to submarines, transfer of 4 gas generators to submarines, conducting 142 transfer/receipt inspections, safely handling 126 missile guidance and electronic system assemblies, supporting 3 Extended Refit Periods (ERP) and 3 Post Overhaul Upkeep Periods (POUP). The Weapons Repair Quality Assurance Division provided coverage for 8,865 inspections of which 676 were rejected. There were 1,692 publication changes issued and checked, 29 Special Projects Alteration (SPALT) kits inspected and issued and 23 Corrective Action Requests (CAR's) issued. In support of safety requirements for weight/weapons handling equipment, 1,025 weight test certifications were conducted with 53 items being rejected. The division inspectors also conducted semi-annual self audits and publication inventories on all Weapons divisions. Formal QA training was received from Fleet Analysis Center in accordance with Type Commander instructions. Navigation Repair Division's support of SSBN refits continued without failure or lost time due to accidents/injuries. Refit/technical assist routines were performed on 34 SSBN's. A total of 503 submarine repair jobs were completed, requiring a total man-hour expenditure of 28,971 hours. The Navigation Repair Shop completed two ERP refits, replaced 3 sets of AN/BRN-3 cables, replaced 3 AN/BRN-3 antennas, replace 3 AN/BQN-3 transducers, performed BSA Bolt Torquing on 8 SIN's binnacles and repaired an AN/BRN-7 Omega navigation system for SSN-700 while CANOPUS was on a port visit to FT. Lauderdale, FL.

The CANOPUS Supply Department processed over 100,000 requisitions, served over 800,000 meals, washed over 175,000 pounds of laundry, sold over \$550,000 worth of merchandise and disbursed over \$20,000,000.00. Ninety-five percent net and ninety percent gross supply support effectiveness was maintained. An aggressive revamping and redesign of the Transit Shed now allows for prompt storage and offload of incoming/

outgoing material. A fast-food program was established in the Enlisted Dining Facility (EDF) and is a popular favorite of enlisted crew members. A refurbished UNIVAC FASTRAND Mass Storage (drum), a tape cleaner and an IBM 557 interpreter were acquired for the Automatic Data Processing (ADP) Division and have significantly improved the output from ADP.

In the Dental Department, over 39,024 individual procedures were performed covering a wide variety of routine and emergency dental care. Included under these procedures were 6,337 examinations and radiographs, over 7,000 restorative procedures, 50 prosthodontic cases and nearly 504 oral surgery procedures. In addition to treatment of the ship's company, COMSUBRON EIGHTEEN Staff, SSBN's in refit and other ships within the vicinity of CANOPUS, the Dental Department volunteered to accept additional work by devoting their off-duty time providing preventative dentistry to dependents.

The CANOPUS maintained her high proficiency in retention, despite the heavy workload sustained throughout CY81, with retention of 50% first term, 77% second term and 79% career personnel, thus retaining CANOPUS on the Type Commander's retention honor roll throughout CY81.

LIST OF VIPS AND VISITORS

February 06	Thomas S. CROW, Master Chief Petty Officer of the Navy
April 13	CDR PENDER-CUDLIP, Royal Navy
May 19	ADM GALATIN (Ret.)
June 16	RADM R. B. MCCLINTON, COMNAVBASE CHARLESTON RADM D. P. HALL, COMSUBGRU SIX
July 09	RADM D. P. HALL, COMSUBGRU SIX RADM A. J. BACIOCCO, Prospective COMSUBGRU SIX
October 06	VADM S. A. WHITE, COMSUBLANT
October 21	RADM R. B. MCCLINTON, COMNAVBASE CHARLESTON