



DEPARTMENT OF THE NAVY

USS CANOPUS AS-34
FPO MIAMI, FLORIDA 34087-2595

5750
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27 FEB 1989

From: Commanding Officer, USS CANOPUS (AS 34)
To: Director, Naval History (OP-09B4), Washington Navy Yard,
Washington, DC 20474

Subj: COMMAND HISTORY OF USS CANOPUS (AS 34), 1988; REPORT
SYMBOL 5750-1

Ref: (a) OPNAVINST 5750.12C

Encl: (1) Basic History
(2) Commanding Officer's Photograph and Biography
(3) Change of Command Program

1. In accordance with reference (a), enclosures (1) through (3) is submitted as the Command History for USS CANOPUS (AS 34) for calendar year 1988.

A handwritten signature in cursive script, appearing to read "F. A. Adams", is positioned above the printed name.

F. A. ADAMS

BASIC HISTORY

COMMAND ORGANIZATION

USS CANOPUS (AS 34) is under the operational control of Commander, Submarine Squadron 16, Captain Albert H. Konetzni, Jr., USN. USS CANOPUS' primary mission is to conduct repair work for units assigned to Submarine Squadron 16 at Replenishment Site VI, Kings Bay, Georgia. USS CANOPUS is also the Command Ship for Commander, Submarine Squadron 16. Commanding Officer of CANOPUS is Captain Frederick A. Adams, and the Executive Officer is Commander Howard "D" Hively. Key personnel changes which occurred during 1988 are as follows:

<u>Billet</u>	<u>Date</u>
Commanding Officer	July 1988
Executive Officer	March 1988
Dental Officer	August 1988
Administrative Officer	September 1988
Personnel Officer	September 1988

NARRATIVE

1. USS CANOPUS was moored and homeported at Naval Submarine Base, Kings Bay, Georgia.

2. REPAIR DEPARTMENT

a. Repair Administration Division (R-0) shops accomplished the following:

(1) The Drafting Shop (64D) consolidated with the Print Shop (37A). This consolidation enabled both rates to cross train resulting in larger work output and better quality. The new typesetter has allowed us to reduce all Submarine Engineering Logs to 8 1/2 X 11. The shop has redrafted approximately 60 RADCON maps.

(2) The Photo Lab (39A) processed 1,600 work requests and completed 967 Job Orders. The Photo Lab processed approximately 15,600 work units of color prints, 11,520 units of color neg, 960 units of B/W prints, 1,200 units of B/W negs, and 2,400 units of slides.

b. The Hull Division (R-1) accomplished the following:

(1) Shipfitter Shop (11A) expended approximately 68,000 man hours during FY88. Noteworthy repairs included:

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- (a) Assist a battery change out by removal and replacement of battery well plates on a tended unit.
 - (b) Removed and reinstalled interference for 300KW MG Rotor replacement.
 - (c) Cut out and replaced sections of ballast tank plating to allow for access to the BQR 15 on a tended unit.
 - (d) Manufactured and installed personnel safety guards on 5 units.
 - (e) Installed stainless steel deck plates on a transient unit.
 - (f) Installed a watertight door on the USS PETREL.
 - (g) Straightened and repaired a large watertight hatch on the USS CANOPUS boat deck.
 - (h) Assisted in the completion of 7 Missile Muzzle Hatch Pin Stiffner ShipAlt installations on one tended unit.
 - (i) Replaced over 1,500 zinc anodes on tended SSBNs.
 - (j) Repaired over 300 Sound short discrepancies on tended units.
 - (k) Cut out and replaced a large section of superstructure on a tended unit to allow access for removal and repair of ABT 24.
 - (l) Manufactured removable Drydock Safety Stanchions, this set of stanchions has saved large amounts of time and money compared to the previous method of welding on and cutting off temporary stanchions.
 - (m) Installed Computer Desk ShipAlts to 7 tended units.
- (2) The Sheetmetal Shop (17A) expended approximately 18,000 man hours. Noteworthy repairs include:
- (a) Manufacture and replacement of over 300 feet of ventilation onboard CANOPUS and tended units.
 - (b) Fabrication of over 50 standard cruise boxes for various units.
 - (c) Accomplished the complete disassembly and reassembly of a new convection oven on a tended unit.
 - (d) Installed accordion type doors to replace worn

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(e) Realigned, shortened and reinstalled Induction piping on 2 tended SSBNs.

(f) Redesigned and rerouted the exhaust duct piping on a transient unit.

(g) Manufactured over 200 various size funnels used in drain systems on tended units.

(h) Manufactured and installed a sneeze shield on the USS PETREL.

(i) Manufactured over 600 various size lockers and cabinets for USS CANOPUS and tended units.

(3) The Weld Shop (26-A) and Pipe and Copper Shop (56-A) expended approximately 67,214 man hours. Noteworthy repairs included:

(a) Replacement of piping and inserts for Tank Level indicators on 3 tended units which entailed hard to weld welding of HY-80 in extremely dirty environment.

(b) Accomplished the poppet seat replacement on 6 main engines and 1 Astern throttle.

(c) Replaced 20 Boiler valves on the USS CANOPUS.

(d) Removed and replaced a section of HY-80 bulkhead 119 on a tended unit to allow for replacement of a 300KW Rotor.

(e) Base metal repaired over 20 Hatch seating surfaces on tended SSBNs.

(f) Replaced over 80 High Pressure Drain Valves and Manifolds.

(g) Repaired two holes in the hull of a transient surface unit.

(h) Accomplished extensive repairs to the Firemain piping onboard the USS CANOPUS which included the replacement of many valves.

(i) The Pipe Shop accomplished ShipAlts for chillwater systems, Trim and drain systems, #3 Ballast tanks and Refrigerant Systems on all submarines tended at Site VI.

(j) Removed interference for the Bulkhead 119 patch for 300KW Rotor replacement which required the removal of 5 separate piping systems, 15 individual braze joints and 5 work packages.

(k) Accomplished ShipAlts to the BRA-24 Hydraulic Systems aboard all submarines assigned to SITE VI.

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- (a) Manufacture of 192 critical and non-critical flex hoses.
 - (b) Rebuild 30 EB critical and non-critical risics.
 - (c) Expanded risic rebuild capabilities to include type 2A Risics at a savings of over \$4500.00 per rusic.
 - (d) Replaced all flexible hoses on a BRA-24 system of a tended unit.
- (5) The Lagging Shop (57A) expended approximately 30,000 man hours. Noteworthy repairs included:
- (a) Removed over 80 feet of asbestos pipe insulation on Steam Generator Feed piping to allow for ultrasonic testing of piping on 5 tended units. This task saved the Navy over 2 million dollars compared with contracts completed by civilian vendors.
 - (b) Removed replaced with removable padding over 30 feet of CHV piping in the reactor compartment of a tended unit.
 - (c) Performed over 80 asbestos ripouts onboard tended units and CANOPUS.
 - (d) Replacement of 11,000 feet of cold lagging, manufacture of 800 lagging pads, replacement of 150 square feet of wallboard.

As well as the above, R-1 Division also hosted 5 Naval Reserve Units during 15 ACDUTRA periods and 24 Weekend training periods. R-1 Division provided personnel to train the NR AS-34 Unit at Syracuse, New York on two training weekends. R-1 personnel received over 25 Letters of Commendation, 50 Letters of Appreciation as well as one Navy Achievement Medal for Superior performance.

c. The Machinery Repair Division (R-2) accomplished the following:

- (1) The CANOPUS Machine Shop (31A) has continued to excel by adding hatch grinding capability. In addition, main engine and SSTG seat removal techniques have been augmented by the introduction of two new cutting jigs. Spline and gear machining capability has markedly increased as well. The Machine Shop assisted in the repair of over 38 pumps, 75 valves, 18 hatches, and over 480 other production pieces resulting in continued mission accomplishment.

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(2) The Fleet Mechanical Calibration Laboratory (96A) increased the calibration recall effectiveness from 86% to 95%, the highest in the Atlantic Fleet. In addition, a complete refurbishment of the Oxygen Clean Station was implemented. A total of 19,823 pieces of optical, dimensional, mechanical and electro-mechanical equipment were calibrated.

(3) The Optical Shop (35A) removed, overhauled and reinstalled 22 periscopes of the following types: 2D; 8B/D; 15D. In addition, the shop overhauled 82 pairs of binoculars. Over 300 pairs of 7 X 50 binoculars were obtained from the Army disposal at no cost, resulting in the savings of thousands of dollars in spare parts.

(4) The Office Machine Repair Shop (35E) continued to save the Navy money by servicing and repairing over 300 typewriters, 355 copiers and 47 viewer printers.

(5) The Engraving (31B), Lock, and Watch Shops (35P) each increased their capabilities and production levels from last year, enabling repair department to continue to provide these services without need of outside assistance.

d. The Electrical Repair Division (R-3) accomplished the following:

(1) 26 vent fans, 63 MG sets and 87 pump motors were repaired and balanced. Sound mounts, snubbers and DIM materials were also replaced, along with maintenance of 12 gyros, 8 CAMS units and the rotors replaced on a 64KW and 300 KW MG set.

(2) Eight hundred and eighty plaques and 460 rubber stamps were manufactured for various units. In addition, 865 routine plastisol jobs, 3,760 sq. ft. of plexiglass services, and 36 grout jobs were performed. Twenty-three exterior cable replacements for navigational lights and mast indicators were installed. The Electrical Division calibrated 950 portable meters and 725 inplace meters.

(3) The Electronic Repair Division (R-4) accomplished the following:

(a) Electronic Equipment Repair (67A).

- Repaired over 250 pieces of electronic test equipment for tended units and CANOPUS.

- Researched and implemented ESM Radiated Sensitivity Check procedures, permitting the identification and correction of ESM system deficiencies previously undetected.

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- Conducted wiring-run verification and corrected wiring discrepancies on the ESM suites of 2 tended units. This is an extensive procedure normally performed by shipyard personnel.

- Replaced entire ESM mast assembly on a tended unit.

- Assisted 67C and 67H in forward-site repairs of tended units at Port Canaveral, Florida and at Annapolis, Maryland.

(b) Fleet Electronic Calibration Lab (67B)

- Calibrated over 2,000 pieces of electronic test equipment for tended units and CANOPUS.

- During audit/inspection by SSPO was rated as "Best in the Fleet" for the second consecutive year.

- Performed repairs and calibration of 12 Cesium Beam Time/Frequency Standards, a savings to the government of over \$40,000.00 for each unit repaired.

- Provided forward-site repairs to the Cesium Beam Time/ Frequency Standard of a tended unit at Roosevelt Roads, Puerto Rico.

- One member of the FECL developed and submitted as a beneficial suggestion a computer program for tracking and implementing the Calibration Recall Program. This program, if implemented in the Fleet, has the potential to save the government over \$100,000.00 annually.

(3) Communications Readiness and Assistance Team (CRAT)
(67C)

(a) Performed electronic and VSTS arrival inspections on tended units, identifying problem areas for correction during refit.

(b) Assisted 67H in performing mast and antenna inspections on tended units.

(c) Performed electrical and electronic recertification of both AN/BRA-8C and OE-305 communications buoy systems on tended units. One OE-305 installation performed in excess of 1200 hours of operation at 100 percent communications efficiency.

(d) Performed forward-site repairs on tended units at Port Canaveral, Florida and Annapolis, Maryland.

(e) Assisted NAVSSES site representatives in the repair of 2 AN/BRA-8 buoys, a savings of over \$40,000.00 each to the government.

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(4) Sonar Repair (67G)

(a) Replaced 2 BQR-15 sonar arrays on tended units.

(b) Performed repairs to sonar systems on tended units, including replacement of the following sonar transducers/cables: 8 WLR-9 hydrophones, 5 WLR-9 cables, 2 BQR-19 transducer arrays, 7 BQC-1 transducers, 9 BQC-1 cables, 5 BQN-13 transducers, 11 BQN-13 cables, 8 BQH-1 transducers, 5 BQH cables, 3 BQR-21 transducers, 40 BQA-8 transducers.

(c) Performed RAYCHEM repairs to 79 BQR-7 cables on tended units.

(d) Performed inboard electronic repairs to 2 UQN-1 fathometers on tended units.

(e) Assisted in the installation of 9 GPD-111 receiving units, which replaced the older RYCOM receivers on tended units.

(f) Assisted Weapons Department personnel in the repair of BST-1 buoy hull penetrators on a tended unit.

(5) Mast and Antenna Repair (67H)

(a) Performed mast and antenna arrival inspections on tended units, identifying problem areas for correction during refit.

(b) Performed forward-site repairs on tended units at Port Canaveral, Florida and Annapolis, Maryland.

(c) Conducted on-site training for new NAVSSES engineers.

(d) Assisted in the development of a journeyman exam for NEC ET-1401.

(e) Replaced AN/BRA-8 buoy cable drum packing on a tended unit during a 3-day ready-for-sea period. This job normally takes more than a week to complete.

(f) Provided assistance to 67A and 67G in the removal, repair, and reinstallation of BQR-19, ESM, and BRN-3 masts on tended units.

f. The Radiological Controls Division (R-5) accomplished the following:

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- (1) Primary valve replacements/repairs
- (2) Portable effluent tank installations
- (3) Primary filter media discharge and replacement
- (4) Repair of a primary to atmosphere leak
- (5) Support of Primary Relief Valve Testing
- (6) Decontamination of Reactor Plant Effluent
Collection Facility

In addition, the division packed and shipped several drums of radioactive waste material and processed thousands of gallons of radioactive liquid waste for eventual at-sea disposal. The division also repaired or replaced many radioactive components in the Nuclear Support Facility, while continuing to monitor the environment at Site VI and in Port Canaveral, Florida. The radiac calibration facility calibrated over 300 instruments, repaired over 100 radiacs, and was evaluated as one of the best radiac calibration facilities in the Fleet by the Certification Board. A scheduled Radiological Controls Practices Evaluation (RCPE) was conducted in September, with an overall grade of above average assigned by the CINCLANTFLT Nuclear Propulsion Examining Board.

g. Repair services Division (R-6) accomplished the following:

(1) Carpenter Shop (64A/C) manufactured more than 1,512 command plaques and more than 170 picture frames for tended units. Installed more than 43,000 sq. ft. of deck covering, and more than 5,000 sq. ft. of high pressure laminated bulkhead sheeting material.

(2) Rigging Loft (72A) performed rigging services for more than 650 individual IMA jobs including special projects such as the CNO project and hull cuts for removal of 300KW's, for a total handling weight of 231,000 pounds.

In addition, the shop provided tended units with 6,174 man-hours of rigging services, and installed and removed 62 sets of staging for tended units.

(3) Diving Locker (72B) conducted 496 diving related jobs with a combined total in-water time of 535 hours. On average 7 additional man-hours are required to support one hour

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in the water.

In addition, 10 TAD jobs, each with a 5-man dive team was conducted. The recompression chamber was utilized for 13 treatment cases ranging from aviation bends, decompression sickness, arterial gas embolism and hyperbaric oxygen treatment for osteomyelitis. Pressure and oxygen tolerance test were conducted on 41 diver candidates.

(4) Sail Loft (74A) manufactured and installed more than 15,690 square feet of upholstery covering and more than 13,000 square feet of draperies and curtains. In addition, the shop manufactured more than 7,560 sq. ft. of awning and containment coverings and repaired 415 Kapok Life Jackets.

(5) Foundry (81A) manufactured and cast more than 1000 individual patterns castings. Casted more than 35,000 pounds of brass, bronze, aluminum, lead, zinc and steel. In addition the shop manufactured numerous cable end sockets.

h. The Repair Technical Division (R-7) accomplished the following:

(1) Planning and Estimating Workcenter (10-C) prepared 1,273 technical repair procedures for a variety of non-nuclear hull, mechanical, oxygen and antenna systems/components. Procedure improvements included the development of standard repair procedures for repetitive task, development of fill in the blank QA forms, and standard worded steps for use in all procedures used at this activity. These changes have reduced procedure development time and made a significant contribution to rework reduction. Production goals continued to be met despite a serious turnover of trained and qualified personnel. The non-nuclear ShipAlt program continued to improve over previous years. An aggressive shipcheck program coupled with improved operating procedures caused the accomplishment of 73 ShipAlts, 179 Alterations and Improvements (A&I's) and 20 partial A&I's. Also, 148 shipchecks were conducted to verify the current status of alterations still listed as outstanding. This ensured proper updating of alteration records to correctly reflect current component status.

(2) Personnel assigned to Repair Technical Library (10-E) completed 1,560 technical manual updates, 21,372 technical drawing updated, and performed 4 complete inventories of the ship's 20,350 technical manuals, 1,541 process instructions, 787 TRS's and 1,257 information handling services (VSMF Cartridges) were updated. The Technical Library reproduced 85,781 printed hard copies from microfiche.

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(3) The Quality Assurance Division (R-8) reviewed 1,518 controlled work procedures.

(a) Over 30,000 tests/examinations were performed: Visual, Dimensional, Liquid Penetrant, Magnetic Particle, Eddy Current, Ultrasonic, Radiographic, Acid Spot Test, and Chemical Analysis.

(b) Classes were held and over 245 personnel were trained/qualified as: Controlled Material Petty Officers, Acid Spot Testers, Quality Assurance Workers, Inspectors, or Supervisors, Cleanliness Inspectors, and Supply Controlled Material Petty Officers.

(c) Over 85 audits were held in the following areas: Annual, Cross Shop, Squadron Assist on Tended Units, Mercury, Oxygen Clean Areas, and NDT/Welder/Brazer Quals.

(d) Through analysis of results and inputs (obtained in items a, b, and c) rework within the IMA was reduced by over 50%.

j. The Outside Machinery Repair Division (R-9) expended approximately 114,000 man-hours in repairs to tended and transient units of the Atlantic Fleet Submarine Force. During the FY88 Maintenance Management Inspection (MMI) the R-9 shop spaces were commented upon to be the best observed in Sublant in 1988. The following significant repairs were performed:

(1) The Valve Shop (31D), repaired 3 Drydock Flood and Drain valves, overhauled 9 Modified After Signal Ejectors (MASE), 3 Forward Signal Ejectors, 10 Trash Disposal Units (TDU), 5 Diesel Seawater Valves, 62 Trim/Drain and Auxiliary Seawater Valves, 4 Ventilation Valves, 31 BFV Valves, 4 Hovering Valves, 5 Trim and Drain and Auxiliary Seawater strainers.

(2) The Hydraulic Shop (31F), overhauled 19 High Pressure Air Marotta Valves, 3 Snorkel Mast Hydraulic Hoist Cylinders, 2 ESM Mast Hoist Cylinders, 2 ESM Mast Hoist Cylinders, 3 periscope Hoist Cylinders, 12 Missile Gas Valves, 6 Hydraulic Filter Assemblies, 2 Servo Control Valves, 12 Hydraulic Actuators, 8 BRA-24 Hydraulic Direction Control Valves and numerous relief valves. Completely refurbished 7 BRA-24 Hydraulic Control Motors. The Hydraulic Shop also completely refurbished 23 Oxygen Valves and Regulators.

(3) The AC&R Shop (56B) repaired 3 Reefer Pantry Boxes

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and overhauled 5 Refrigeration valves. Assisted technical representatives in the major overhaul of a submarines centrifugal Air Conditioning plant. Repaired 4 Ice Cream machines and 7 Galley Salad Bars.

(4) The Diesel Engine Repair Shop (31E) replaced 6 Secondary Propulsion Motors (SPM's), overhauled a Gray Marine 6-71 diesel engine, performed 5 Torpedo Ejection Pump cap screw replacements, set and flushed several diesel engine governors, replaced 4 2-K Distilling Plant Vapor Compressors, and repaired 7 Ventilation Valves.

(5) The Outside Machine Shop (38A) overhauled 11 BRA-24 Antenna Transfer Assemblies, performed a major field change to a BRA-24 unit. Overhauled and replaced mechanical seals in over 25 Auxiliary Seawater, Air Conditioning Seawater and Main Seawater Pumps. Completely overhauled 9 Trim and Drain Pumps and 3 Missile Heating and Cooling Pumps. Replaced for the first time in over 36 months a submarine propeller. Performed a simultaneous port and starboard Main Engine Throttle poppet and seat replacement. The first repair of this magnitude performed by CANOPUS. Performed 9 Main Propulsion bearing repairs. Conducted 11 Submarine Hatch overhauls and 7 Steering and Diving operating gear repairs.

k. The Nuclear Planning/Repair Division (R-10) prepared procedures for and completed 96 nuclear repairs/alterations on tended units and the Nuclear Support Facility. In addition, Nuclear Planning functioned as the lead work center and provided material support and technical liaison for accomplishment of more than 35 alterations performed by the ship's force of tended units.

3. SUPPLY DEPARTMENT

Again during calendar year 1988 the Supply Department continued to lead COMSUBLANT tenders in all indices for productivity and professionalism. For the third consecutive year, the Supply Department was recognized with the award of the Supply Blue "E" for excellence for its dedicated customer service and support to Fleet units. Significant accomplishments:

a. Continued to be ranked number one COMSUBLANT tender for CY 1988 for financial and inventory management.

b. Continued to lead the force with the lowest overage unmatched dollar value C&H listing.

c. Applied the annual SSPO Consolidated Operational

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Maintenance/Effectiveness Tasks (COMET) and Annual Tender Load Implementation System (ATLIS).

d. Offloaded over \$9 million in excess material to control management of redistributable assets on board. Maintained standards well within TYCOM requirements.

e. Upgraded the Tender Bar Code Recognition System.

f. Restowed and Relocated over 50,000 line items, reducing overloaded locations to manageable levels.

g. Implemented a SNAP I computer upgrade by introducing Pertec Tape Drives, HD-250 Winchester Disks (6) and Honeywell AP-6 Smart Terminals (4).

h. Upgraded the Retail Operations Management System (ROM) operating hardware from the Zenith Z-248 system to the Honeywell AP-6.

i. Attained a Sales and Services stock turn of near 2.0 per accounting period for the entire calendar year. Fleet goal is 1.33.

j. Generated approximately \$100,000 profit for turnover to Welfare and Recreation.

k. Renovated Ship's Laundry and Dry Cleaning Plant.

l. Implemented and intensive ADP security program.

m. Improved accountability of shipboard microcomputers and associated hardware.

n. Implemented requirements contracts to better support SSBN refits.

o. Developed and implemented a personal computer program for processing Material Obligations Validation reconciliation.

p. Reduced Maintenance Data System error rate to a fleet leading 1%.

q. Developed and implemented an aggressive Repair Parts Petty Officer Training Program.

r. Exceeded COMSUBLANT's FY88 Direct Deposit System

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participation goal of 55 percent. CANOPUS participation rate reached 81 percent.

s. Successfully underwent an on-site audit by FAADCLANT auditors with no major discrepancies being noted.

t. Successfully implemented the automated Food Service Management Module (FSM) for the Food Service Division.

u. Completed revision of the Cycle menu to include a greater variety of items and crews preferences.

v. Established a permanent MTR/DLR position at the Site VI Transit Shed for more complete control of CARCASS tracking/issuing.

w. Developed and implemented a COSAL maintenance micro computer program to track and organize COSAL maintenance actions.

x. Developed and implemented a Controlled Equipage micro computer program capable of maintaining all controlled equipage items in a database environment. This program also prints controlled equipage cards.

y. Doubled the audits performed by the Supply Quality Assurance Division (SQA).

z. Began construction of a new permanent Hazardous Waste Accumulation Area structure for Site VI.

aa. Successfully transferred all bulk storage items, hazardous and flammable materials, and associated warehouse equipment from the old mooring site Transit Shed to a new and larger facility.

bb. Enhanced security measures and equipment at the new Transit Shed.

4. ENGINEERING DEPARTMENT

a. CANOPUS successfully completed an Engineering Readiness Evaluation (ERE) with an adjective grade of Above Average, the highest grade possible.

b. Fireroom successfully completed Boiler Inspections on both main boilers. The SURFLANT Inspector commented, "Boilers, Boiler Records are in outstanding condition and best looking fireroom I've seen." Completed major tube repairs and refractory work on #1 Boiler, with minimum downtime.

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c. Department successfully demonstrated a graded Full Power Run.

d. Successfully completed 26 nitrogen off-ship charges, totalling approximately 19,000 gallons of liquid nitrogen, expending approximately 2900 manhours.

e. Successfully completed support of nuclear freeze seals for tended units, totalling 19,800 gallons of liquid nitrogen, and expending 3000 manhours.

f. Ship's Company successfully completed Class "B" overhaul of both the ship's 50,000 gallon-per-day evaporators.

g. Completed SHIPALT on the twin-agent system, removing the PKP bottles and system from the ship.

h. Successfully completed machinery alterations on automatic boiler control systems, fuel oil system and high pressure air compressors.

i. Received the COMSUBLANT Engineering Red "E" Award for Fiscal Year 1988.

5. WEAPONS REPAIR DEPARTMENT

The Weapons Repair Department continued on-line operations through 1988. Exercise torpedo handling support was provided on two occasions at Port Everglades, Florida by a Fly Away Team. CANOPUS was certified for MK 48 Exercise Torpedo Recovery at sea. Manhours expended in production and production support increased by 22%; overall Weapons Repair Department manning decreased 3%; operating costs decreased by 47%. Five-hundred eighty-one submarine-launched conventional weapons and countermeasures and 122 strategic weapons were received/issued during this period.

6. ADMINISTRATIVE DEPARTMENT

The Administrative Department provided excellent Administrative/Personnel assistance in every area of responsibility.

a. The Educational Services Office administered Navy-Wide Advancement in Rate examinations and provided crewmembers with Navy Correspondence Courses and arranged to administer local college courses on a recurring basis.

b. The Legal Office handled Captain's Mast, Courts-Martial and Administrative Boards.

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c. The Command Chaplains continued pastoral care for CANOPUS' 1200-member crew by providing:

- (1) Bible Study Groups
- (2) Outreach Ministries and Marriage Enrichment Sessions
- (3) Christian Film presentations
- (4) Implemented Catholic Communion Services onboard, on a weekly basis, even though no Catholic Chaplain is assigned
- (5) Provided counseling and conducted Command Visitation Program for all personnel hospitalized both on board and at area hospitals
- (6) Monitored the region's most successful blood donor program with a total for calendar year 1988 of 612 donated units.

d. Due to the efforts of the highly successful Command Career Counselor program, USS CANOPUS won the Commander, Submarine Force U. S. Atlantic Fleet Silver Anchor Award for Calendar Year 1988 and was runner-up for the CINCLANTFLT Golden Anchor for retention for the second consecutive year.

7. OPERATIONS DEPARTMENT

The CANOPUS Operations Department, consisting of Communications, Electronics and Navigation Divisions, achieved the following during Calendar Year 1988:

a. The Communications Division:

- (1) Was named as a Strategic Systems Top Performer for "best off-the-air TACAMO monitoring" for all four quarters of 1988.
- (2) Consistently maintained superior reliability in submarine broadcast monitoring, promptly reporting outages to SUBLANT for timely restoral actions.
- (3) In May 1988, received a Communications Material Security (CMS) Assist Visit by Naval Security Group, Mayport, Florida. The CMS Account was evaluated "Excellent" overall, with special note made on the Command's Emergency Action Plan.
- (4) Received recognition from COMSUBLANT for outstanding performance by relinquishing major COMGUARD requirements to allow a standdown for personnel during the Christmas and New Year's

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holidays.

(5) Achieved a record score of 98.1% on the annual Communications Readiness Exam.

(6) Received the third consecutive Green "C" Award for communications excellence.

b. The Electronics Division, in addition to outstanding maintenance support, accomplished the following:

(1) Completed 20 arrival inspections on tended units on COMSUBRON 16.

(2) Repaired, overhauled, and tested over 45 crypto equipments.

(3) Completed the installation of the following new equipments:

(a) AN/URT 23D	HF transmitter
(b) Magnavox MX4102	Satellite Navigation Unit
(c) ICOM IC-M100	Marine Band radio
(d) TRACOR 79059B	OMEGA Navigation Unit

(4) Completed Radiation Hazard Survey with NAVSEA in May 1988.

c. The Navigation Division conducted the following underway operations:

(1) 14-19 March 1988 - Underway en route St. Thomas, U.S. Virgin Islands.

(2) 19-23 March 1988 - In port St. Thomas, U.S. Virgin Islands.

(3) 23-28 March 1988 - Underway en route USNSB Kings Bay, GA.

(4) 29-30 March 1988 - Underway for familiarization of PCO

(5) 08-11 August 1988 - Underway to U.S. Naval Academy, Annapolis, Maryland

(6) 11-15 August 1988 - In port Annapolis, Maryland for USNA Midshipman Submarine Force indoctrination.

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(7) 15-18 August 1988 - Underway en route USNSB Kings Bay, GA.

(8) 03-04 November 1988 - Underway local ops area for OPPE.

d. The ship shifted its moor to its present location (Warrior Wharf) in March 1988.

8. DECK DEPARTMENT

The CANOPUS Deck Department provided support for Submarine Squadron 16 and tended units, as well as maintaining the superior material condition of CANOPUS. Among the significant accomplishments during Calendar Year 1988:

a. Managed a \$315,000 OPTAR for maintenance and preservation of two 57.5-ton Boat and Missile Cranes, four 2.5-ton Traveling/Cargo Cranes, two 50-foot LCM-6 boats, two 50-foot utility boats, two 40-foot utility boats, two 33-foot personnel boats and two 26-foot motor whaleboats. Also maintained decks and hull, ground tackle and three anchors, and rigging locker with swedging press for the manufacture of slings and pennants.

b. Expertly accomplished eight modified Med Moor evolutions at Site VI and three anchoring evolutions at remote locations.

c. Operated liberty boats, in support of a daily liberty party of 500 persons while on a port visit to Annapolis, Maryland.

d. Manufactured 73 cargo slings, 203 taglines, 317 lifelines, and 15 mooring lines for the ship, the OAKRIDGE (ARDM 1), and numerous alongside tended units.

e. Trained and qualified 58 crane safety observers, 37 crane signalman, and 34 crane operators.

f. Safely accomplished 5000 torpedo/cargo crane lifts and 5300 boat/missile crane lifts.

g. Accomplished several navigational and recreational smallboat runs in and around the Cumberland Sound waters in support of submarine navigation teams, submarine recreational parties and VIP personnel.

h. Spraypainted approximately 50 ship's spaces and issued paint and supplies for the divisional painting of approximately

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75 additional spaces.

i. Assembled and issued 20 paint packs to alongside tended units.

j. The ship's cranes received annual certification as follows:

STBD B&M	15 MAY 88
PORT B&M	30 MAY 88
#1 TC	22 JUN 88
#2 TC	26 JUN 88
#3 TC	14 JUN 88
#4 TC	08 MAY 88

k. Successfully completed crane portions of NTPI and RCPE inspections with zero major discrepancies. Inspector comments were that Deck Department Crane Repair is performing excellent maintenance and repair on all cranes.

9. DENTAL DEPARTMENT

CANOPUS' Dental Department serves nearly 2,000 personnel, not including tended units, in a fast-paced submarine refit environment. Specific accomplishments for calendar year 1988 include:

a. Commended by the SUBLANT Force Dental Officer for a highly effective and active Dental Submarine Liaison program. This program was noted as the most comprehensive program in SUBLANT.

b. The Library and reference material were the most comprehensive and up-to-date of any tender in SUBLANT, providing outstanding training for the Dental Officers on board.

c. Received Outstanding overall during the FY 88 COMSUBLANT Dental Department Administrative Inspection. This placed CANOPUS among the top tenders in the Atlantic Fleet.

d. Annual 3-M Inspection was completed with zero discrepancies.

e. CANOPUS received the COMSUBLANT Athletic Excellence Award for 1987 due to the efforts of Lieutenant Ellis, a Dental Officer who volunteered as Athletic Officer.

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f. Departmental Awards were:

(1) 1988 Combined Federal Campaign Highest "Per Person" contributions

(2) 1988 Navy Relief Drive Highest "Per Person" contribution contest Second Place winner

(3) 100% Participation in Direct Deposit System

(4) 100% Participation in Voter Registration

g. Major equipment installation included a PANOLIPSE X-ray machine. This has greatly improved the comprehensive dental care provided.

h. The entire Dental Department has been upgraded by a completed painting of overheads and bulkheads. The decks were replaced in August 1988 and the Administrative Office was rearranged for increased efficient flow of administrative procedures. An additional waiting area has also increased patient flow and streamlined patient care.

i. Future equipment purchases that have been approved and ordered are: A Central Suction System for compliance with the current infection control instruction and new units and chairs to be installed by September 1989.

10. MEDICAL DEPARTMENT

The CANOPUS Medical Department continued to provide medical care for crew, staff members of Submarine Squadron 16 and tended units. Some significant accomplishments were:

a. Passed COMSUBLANT Medical Readiness Inspection (MRI) with a grade of Satisfactory and an overall grade of Average.

b. Received grades of Excellent and Above Average on two semi-annual external Radiation Health Audits.

c. Received grades of Satisfactory on two internal Radiation Health Audits.

d. Received grades of Satisfactory and Above Average for Radiation Health Program during Radiological Controls Practices Evaluation (RCPE).

e. Received grade of Satisfactory on Nuclear Technical Proficiency Inspection (NTPI).

CAPTAIN FREDERICK A. ADAMS, U. S. NAVY

Captain Frederick A. Adams was born in Minneapolis, Minnesota in 1943. He graduated from the U.S. Navy Academy in 1965 and immediately commenced nuclear propulsion training, completing courses of instruction in Maryland and Connecticut. Following graduation from the Naval Submarine School in 1967, Captain Adams was assigned to the USS STONEWALL JACKSON (SSBN 634) (GOLD), where he completed four Pacific Fleet Polaris deterrent patrols. In 1969, he reported to the pre-commissioning crew of the USS HAWKBILL (SSN 666), serving in the Engineering Department and as Weapons Officer.

From 1973 to 1976, Captain Adams was assigned as Navigator and Operations Officer on USS JOHN ADAMS (SSBN 620) (BLUE), completing one Polaris patrol and a refueling overhaul and Poseidon conversion at Portsmouth Naval Shipyard. In 1976, he reported to the staff of Commander, Submarine Group EIGHT in Naples, Italy, where he served as SSN Operations Officer. He left Italy in August 1978, and was assigned as Executive Officer of USS SHARK (SSN 591) until November 1981.

Captain Adams was Commanding Officer of USS BATFISH (SSN 681) from November 1982 to December 1985. Following command, he attended the Integrated Warfare Course at the Naval War College in Newport, Rhode Island and was assigned as the Force Level Plans Branch Head for the Deputy Chief of Naval Operations, Naval Warfare from April 1986 to May 1988. On 9 July 1988, he assumed command of USS CANOPUS (AS 34), homeported at Naval Submarine Base, Kings Bay, Georgia.

Captain Adams is entitled to wear the Legion of Merit, Meritorious Service Medal with two gold stars, Navy Commendation Medal with gold star, Navy Achievement Medal, Meritorious Unit Commendation, Navy Expeditionary Medal, Armed Forces Expeditionary Medal and the Vietnam Service Medal. He is married to the former Eileen (Reeney) Dickson of Silver Spring, Maryland. They and their three children, Melissa, Michele and Douglas, reside in St. Marys, Georgia.