

# Librascope Corporation



"BALEARES" CLASS, SPANISH NAVY



"CHARLES F. ADAMS" CLASS



"TANG" CLASS



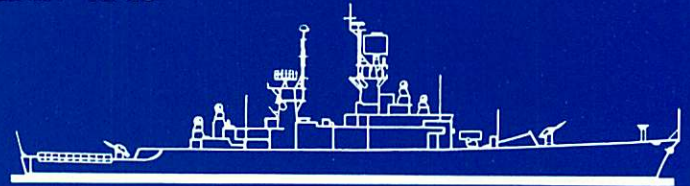
"ALBANY" CLASS



"SKIPJACK" CLASS



"TRUXTUN" CLASS



"LEAHY" CLASS



"GEORGE WASHINGTON" CLASS



"PERMIT" CLASS



"SEAWOLF"



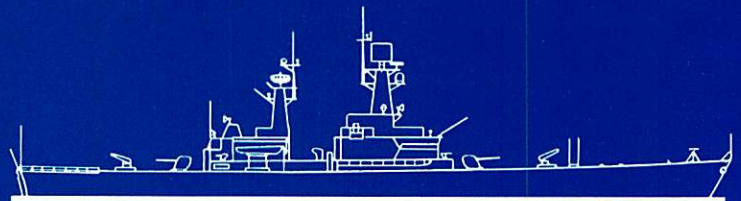
"TULLIBEE"



"BRONSTEIN" CLASS



"LAFAYETTE" CLASS



"VIRGINIA" CLASS



"TRIDENT"



"OXLEY" CLASS, ROYAL AUSTRALIAN NAVY  
(BRITISH "OBERON" CLASS)



"SPRUANCE" CLASS

## Librascope

A SINGER COMPANY

# A Leader In Shipyard Support

## LIBRASCOPE – A LEADER IN SHIPYARD SUPPORT DURING COMBAT SYSTEM INSTALLATIONS

A team of seventy-five specialist Librascope Engineers/Technicians is continuously available for shipyard support assignments. Currently, our personnel are performing on-call support services at most major shipyards and naval installations in the United States and at bases around the world. All personnel have been trained in one or more phases of the installation, checkout, and grooming of electrical and electromechanical equipment of all types; all have specialty skills in the technologies of command and control, communications, weaponry, and environmental support. Specialists are available for both surface and subsurface environments.

### SPECIFIC CAPABILITIES

Specific installation capabilities include:

- (1) Planning of:
  - General installation arrangement
  - Control interfaces
  - Interconnecting wiring and cabling
  - Mechanical adjuncts (i.e., mounting)
  - Piping
  - Maintenance access provisions
  - Transportation and packaging of equipment
  - Provisions for heat transfer and other key environmental performance conditions
- (2) Designing and providing installation kits of required parts and materials to facilitate rapid physical installation.
- (3) Coordinating the efforts of all installation personnel where a number of contributors are involved simultaneously in the installation environment.
- (4) Preparing all associated engineering installation documentation, such as:
  - a. A detailed Installation Plan which references and/or includes all other documentation necessary to the installation
  - b. Deck Plan Layouts
  - c. Cabling block diagrams
  - d. Cable interconnection data (Form Able's)
  - e. Cable connector cross-reference lists
  - f. Piping diagrams
  - g. Equipment Outline and Installation Drawings
  - h. Isometric cabling diagrams
- (5) Developing the necessary system grooming data:

- a. Light-off procedures
  - b. Acceptance tests
  - c. Adjustments and alignment procedures
- (6) Assessing all on-board maintenance resources to assure that all necessary data and support hardware (spare parts) will be available to the proper equipment configuration.
  - (7) Conducting formal and on-the-job training with shipyard personnel to assure that they can carry out subsequent installations efficiently.
  - (8) Preparing any or all of the following additional items of installation and/or support data (which the hardware manufacturer may not have delivered):
    - a. Planned Maintenance System documentation (MRC's, MIP's)
    - b. System Description, Operation, and Maintenance Technical Manuals
    - c. Gearing schematics
    - d. Electrical and mechanical schematics
    - e. Power distribution diagrams
    - f. Assembly drawings
    - g. Provisioning Technical Documentation, including all associated lists, indexes, IPB's, etc.
    - h. OrdAlts and ShipAlts
    - i. Trouble analysis procedures



U.S. NAVY PHOTOGRAPH

*Support personnel load data gathering system aboard a submarine for weapon tests.*

## APPROACH

Wherever possible, we seek turnkey responsibility for the installation of major multiple-item systems and sub-systems, as well as for the installation of individual items of hardware. Where turnkey responsibility might be inappropriate in a given circumstance, we seek any other assignment that might be of assistance to the shipyard.

We emphasize advance preparation of the site, and the proper timing of the arrival of manpower and material at the site, so that phase-in, installation, and phase-out stages can be carried out swiftly.

Personnel are adept at working odd hours in busy construction environments, on a non-interference basis with surrounding installation activities.



*Company headquarters, engineering, manufacturing are located in Glendale, Calif.*

## EXPERIENCE

Briefly, our experience extends over 30 years at virtually all United States shipyards and many around the world. Recent assignments have been in Australia, Canada, India, Sweden, Spain, Scotland, Guam, and Taiwan (where we are participating in U.S. Military Assistance Program associated with Taiwanese shipyards). To mention just two specific accomplishments, we are pleased to point out that we played an important role in the development of the Rapid Installation Plan for the *Trident* Submarine Defensive Weapon System, as well as for the *Trident* Land Based Evaluation Facility; we are also pleased with our success in installing major modifications to Fire Control System Mk 113/9 aboard Fleet Ballistic Missile submarines during difficult short-term availabilities alongside Tenders.

## LOGISTICS SUPPORT TASKS

As the prior list of capabilities indicates, all logistics activities germane to shipyard tasks are well within the scope of our normal capabilities. We can, in fact, design an entire Integrated Logistics Support Package for any given item of hardware, attending to details such as arranging for tool-bag spares and designing special tools as may be necessary in the installation environment.

## RATINGS IMMEDIATELY AVAILABLE

The following ratings are immediately available for on-

site assignments: Engineer, Sr. Engineer, Designer, Sr. Designer, Installation Engineer, Sr. Installation Engineer, Customer Training Engineer, Field Service Engineer, Sr. Field Service Engineer, and Field Service Technician. Ratings can be tailored to the given task to assure performance that is efficient and economical.

We look forward to challenging installation support assignments in shipyards and naval installations around the world, and invite inquiries about our capabilities and costs for specific tasks.

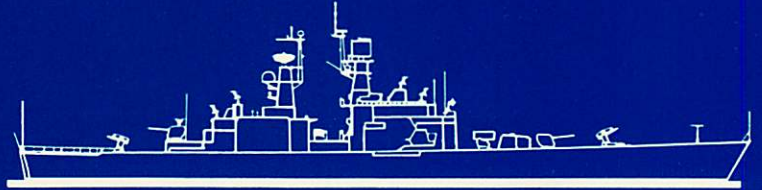
Contact Librascope Corporation, 833 Sonora Avenue, Glendale, California 91201, U.S.A., Telephone (818) 244-6541, FAX (818) 502-8145, Telex 215620.



**Librascope**



"ETHAN ALLEN" CLASS



"CALIFORNIA" CLASS



"GEARING" CLASS



"BROOKE"



"NARWHAL"



"STURGEON" CLASS



"BAINBRIDGE" CLASS



"LONG BEACH"



"SKATE" CLASS



"BARBEL" CLASS



"GLENARD P. LIPSCOMB"



"LOS ANGELES" CLASS



"HALIBUT" CLASS



"DOLPHIN"



"BELKNAP" CLASS



"FORREST SHERMAN" CLASS

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A SINGER COMPANY

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"KNOX" CLASS