

## R. V. Barnett Appointed GPI Marketing Head

Ralph V. Barnett, Librascope vice president in charge of eastern operations, has been appointed Director of Marketing for GPI, according to an announcement by D. W. Smith, GPI President.

In addition to his new position, Barnett will wear a second executive hat for the present, continuing as vice president of our eastern operations. In this capacity he will continue his work in the organization and management of the comparatively new eastern branch.

Barnett's Librascope experience covers an extensive range of positions in production, engineering and administration. He started with the company in 1948 as a technical writer and later became manager of the publications department. He was then made engineering manager and, after two years, appointed manager of master scheduling.

In his new position as Director of Marketing, Barnett will coordinate the sales effort of the four divisions of General Precision, Inc. He will supervise the sales activities of GPI sales offices in Boston, Dayton, Huntsville, Los Angeles and Washington, D.C.

Born in Idaho, Barnett received his early education in Kansas City, Kansas. He attended Washburn College in Topeka, Kans., and in 1937, accepted a position with Lockheed Aircraft before coming to Librascope.

## Annual Cost Reduction May Reach \$695,000

Changes in methods of manufacturing the complex etched circuit boards which are the heart of Librascope computers, promise savings in time and material in excess of \$400,000 a year, according to a report from George Clark, Manager of Industrial Engineering, submitted this month to Production Superintendent Harlan Buseth.

Based on current production, total potential cost reductions in all Manufacturing sections for the entire year, are \$694,934, the report declared.

Increases in production volume and product-quality parallel the dollar savings and have been attained with no increase in the work force and with less than a 1-thousand dollar outlay for facilities and equipment.

THESE ADVANCES in the all-important areas of cost-cutting have come about as the result of cooperative efforts between the Methods Improvement Group of Industrial Engineering, operating heads of the manufacturing groups involved and numerous production and engineering support groups. Among these: Production Engineering, Quality Control, Reliability, Standards and Tool Design.

Two significantly large savings resulted from suggestions made by staffers of the manufacturing sections where the cost reduction process was applied, according to Shelby Drucker, Supervisor of Methods Improvement.

FROM BILL O'MARA, General Foreman of Plating and Processing, came a recommendation to add a new process for making the basic



GRAND OPENING—Precisioneer store staffers (l-r) Dorothy Haber, Mabel Steiner and Eileen Brown gather for the camera during the grand opening of the newly located store. Manager Eileen Brown states that because of greater stock and display space, the store will carry a more diversified line of major products. Presently there's quite an assortment of binoculars, cameras, transistor radios, organs and television sets, at substantial savings. The new location is 625 Flower St., with entrance on the southwest corner of Bldg. 2.

### Knox to Dallas

Chief Security Officer Don Knox and Building Engineer Cliff Dahl, attended the annual convention of the American Society for Industrial Security Oct. 3-4-5 at Dallas, Tex. Both ASIS members took part in several security seminars. An international group, ASIS drew attendance from all 50 states and numerous overseas U.S. installations.

## Break Ground For San Marcos Bldg. Oct. 7

Groundbreaking ceremonies for the San Marcos facility—the new home for the Aerospace branch—took place Friday, Oct. 7, as the culmination of San Diego's "Industry Week."

Following a luncheon at the Robin Hood Inn in Escondido, the San Diego Chamber of Commerce, hosts for the event, joined members of Librascope for the groundbreaking ceremony at the 30-acre San Marcos site.

The first commemorative shovel-full was turned over by Librascope President W. E. Bratton, as members of the press and television covered the event.

In addition to San Diego civic and business leaders, the Librascope personnel attending the San Marcos groundbreaking included: M. L. Lindahl, S. E. Burroughs, Jr., D. C. Webster, S. L. Briggs, T. H. Lassagne, H. W. Norris, R. E. Bible, A. C. Krein, C. Foodim, P. E. Bender, Art Davis, M. N. Cannon and J. J. Schwarz.

circuit board. Drucker assigned Industrial Engineer Don Guy and Methods Analyst Don Day to work with O'Mara, Foreman Charles McCutchan and Bob Waycott, and Technician Steve Gates in developing the process.

This inter-departmental team adapted the existing process to fit the new process, designed necessary tooling, developed new techniques and investigated a variety of materials before coming up with a working procedure. The result—a method of producing circuit boards in large volume which, at current rates of production, offers a saving of almost \$92,000 a year. At the same time, they increased the potential production capacity almost five times.

IN BLDG. 10, where the circuit boards are further processed and where dozens of costly diodes and transistors are mounted on the boards, General Foreman Ray Bagley's staff is producing more finished boards in less time, with no

(Continued on Page 8)

# New Division Structure Explained by Bratton

An additional major step in the "branch concept" of operation and several key appointments were the outstanding organizational changes announced late last month by Librascope President W. E. Bratton.

Making the announcement before the management group, Bratton told of the problems that had resulted from Librascope's extremely rapid growth which, over the past year, has doubled the size of the company.

"THE GROWTH of Librascope was anticipated and the concept of separate branches functioning autonomously has been under preparation for some time now," Bratton announced. "We fully expect that with each branch operating separately, we will be able to realize our full capabilities."

Bratton sounded a note of confidence for continuing growth both in the foreseeable future and in long-range projections. "Under our new method of operation we can expect greater diversity and opportunity for the company and, certainly, greater opportunity for the individual," he said.

Under the decentralized approach, each branch will gear its respective program to the specialty product line, according to Bratton. Support groups such as controller, contracts administration, purchasing, personnel, sales, facilities and services will be added as needed. These support functions will report to the branch manager and will be directed functionally by the division office.

TO AUGMENT the branch concept of operations, Bratton announced these new organizational appointments, including several newly created positions. Among them:

Admiral S. E. Burroughs, USN (ret), was appointed to the new position of Vice-President—Military Relations. Formerly special assistant to the president, he will now work closely with Military Sales and report to Bratton.

J. W. WHITING has been named to the newly created post of Director of Organization Planning, reporting to Sid Briggs, assistant to the president. Whiting, formerly assistant to the Glendale branch manager, will be responsible for the coordination of all organization planning, organization charts, and the development of policies that apply throughout the division.

Another organizational change was that of D. C. Webster to Vice-President in charge of division manufacturing and technical planning. Webster formerly was Vice-President and Glendale branch manager.

Reporting to Webster as Director of Manufacturing is W. K. McAboy, formerly assistant manager of the Glendale branch. The new position of Director of Technical Planning will be filled by R. A. Dietrich. He also will report to Webster.

UNDER THE reorganization, the design engineering departments are

now called branches and their chief engineers are now titled branch managers. Tom Bryant heads the Glendale branch, with Harlan Buseth as assistant branch manager. Buseth continues as Glendale branch production manager. Hank Norris is manager of Aerospace and Les Bentley is manager of Special Devices. Bentley continues as assistant manager of the Sunnyvale branch. All branch managers report directly to Bratton.

C. P. McKeague, formerly Personnel Manager, has been named to the new position of Employee Relations Director. He will be responsible for the coordination of all employee relations activities throughout the various branches. He reports to Sid Briggs.

McKEAGUE HAS assigned Ray McDonald, who has been working on branch organization, to handle the responsibilities for coordinating personnel functions for the Glendale Branch. He will report to McKeague. John Batten will continue as Personnel representative for Shipboard/SUBROC and will report to McDonald.

Charles E. Talbot, who joined Librascope as an administrative assistant, has been named Employment Supervisor and will be in charge of all hiring in non-engineering areas. Talbot succeeds Walt Sertic, who has been transferred to head the Engineering Employment section in Bldg. 16. Sertic replaces Paul Kennedy, who resigned effective Oct. 1.

## Cannon Named Director Adv'g, Public Relations

Mike Cannon, Librascope Advertising Manager for the past year, has been appointed Director of Public Relations and Advertising, effective October 1. He succeeds Ken Slee, resigned.

Cannon has been in the advertising and public relations field for 14 years. Before joining Librascope, he operated his own advertising agency.

Following his work at the University of Utah, Cannon attended the Los Angeles Art Center. During World War II, he served as a military intelligence officer in the South Pacific and the Pentagon. He now lives in Burbank with his wife and two children.

Cannon told LIBRAZETTE that an expanded effort in advertising, public relations and trade shows is planned for the coming year. In addition to his new appointment, Cannon will also represent Librascope on the GPI joint advertising committee.



NEW SYSTEM—George Clark (center), manager of Industrial Engineering, discusses location of equipment for the new Librascope Operational Control System. Sitting in on the LOCS discussion with Clark are: (l-r): Bill Singleton, assistant Production man-

ager; Material manager Marsh Cowan; Harlan Buseth, assistant Glendale branch manager and production manager; and Shelby Drucker, staff engineer in Industrial Engineering. For a closer look at LOCS and what it will do, see page 7.



# Senior Libravet Awards to 58 at Annual Party

Librascope's 1960 Libravet party drew the largest attendance since the organization was founded nine years ago. All told, some 263 Libravets, wives, husbands and friends packed the main banquet room of the Sportsman's Lodge on the memorable night of Oct. 1.

A total of 58 10-year, 15-year, 20-year and 30-year veterans were presented with certificates and service pins in recognition of their years of service, with President W. E. Bratton doing the honors.

IN A BRIEF talk preceding the awards, Bratton paid tribute to the company's veterans, said they formed the hard core of the division's engineering, manufacturing and managerial strength. Then, in a different vein, he praised the contribution of Librascope wives to their husband's efforts.

The women have helped us with a large supply of patience, forbearance and understanding, Bratton observed.

"Those long nights at home without the husband and father, when he is working on crash programs, those deferred vacations, the days and even weeks when he is absent on company missions. . . . I want you to know that Librascope appreciates those sacrifices," Bratton said.

"It's not easy to run a household under those conditions. Believe me, you have our gratitude."

The lone 30-year service award of the evening went to M. L. (Lindy) Lindahl, Librascope's vice president and treasurer. He shares the 30-year status with George Kucks, Purchasing, who received his 30-year pin last year. Both served with GPE companies before coming to Librascope.

**TWENTY-YEAR AWARDS** went to R. I. (Skip) Case, staff engineer, Jerry Snella, Contracts Administration, Bob Dietrich, director of technical planning, and A. C. (Andy) Krein, Aerospace's new controller, a recent transfer from GPE Controls.

Awards also went to eight 15-year veterans, who are:

Mildred Huggins, assistant controller; Ed Forgey, Los Angeles district sales representative; Les Bentley, manager, Special Devices branch; Marsh Cowan, director of materiel; Dave Pobst, Model Shop; E. W. (Bud) Silvertooth, foreign technical representative; Tommy Thompson, machine maintenance foreman; Clarice Flynn, Machine Shop.

Forty-five 10-year veterans also received service pins. They are:

Howard Applegate, Ship br; Barry Kurnick, Spec-Dev; John Buckens, Mach-Shop; Maury Kimmel, Burbank br; Kay Small, Ass'y; George Poppa, Mach-Shop; Dick Bates, Spec-Dv br; Bill Wichman, Spec-Dev br; Bill Cloninger, Ship br; Constance Callaghan, Mach-Shop; Jim Park, Insp; Ralph Johnston, Ass'y; Nettie Stone, Acct'g; Louise Morton, Prod-Control; Ann Lovell, Ass'y; George Johnson, Mach-Shop.

Also, Vern Mayelin, Standards; Frank Cople, Prod-Eng; Marietta Ripley, Mod-Shop; Bill Walker, Mil-Sales; Bill Bigby, Mach-Shop; Mary Barnes, Ass'y; Wally Tyler, Adj'g; Ted Donley, Elec-Meth; Charlie Blake, Mach-Shop; Margaret Baumgarten, Ass'y; Jack Nelson, Prod-Control; Harold Newbanks, Mach-Shop; Bill Roxbury, Prod-Control; Edwin Heminger, Mod-Shop; Thole Isebrands, Mach-Shop; Don Utie, Ship br; Carl Frain, Mach-Shop.

Also, Harry Garrison, Mach-Shop; Joe Merchasin, SUBROC; Erich Stewart, Insp; James Walsh, Mod-Shop; Lorraine Thompson, Acct'g; John Felts, Aerospace br; Woody Lewis, Ass'y; Hal Hamilton, Adv Res; Jack Klosterman, Burbank br; Phil Hiner, Publications; Dave Conway, Mod-Shop.

**THE ROLL OF 71 5-year Libravets**, who had received their award certificates and service pins earlier in the year, also was read before the gathering.

General Chairman of the party was Charlie Cole, Assistant Production Superintendent, a 19-year Libravet. Aiding him in planning the event were George Poppa, Bill Bietsch, Mary Barnes, Les Blanchard, Virginia Kelly, Keith Kinnaid, Paul Kane and Jim Manley.





## Financial Stimulus Provided Under New Writing Program

A program carrying substantial financial and editorial assistance, designed to stimulate employees to write articles about Librascope for outside publication, or to prepare technical and scientific papers for delivery before professional societies, was announced this month by President W. E. Bratton.

## Krein Joins Aerospace as New Controller

A one-time classical scholar who built a structure of modern financial corporation management on top of a knowledge of ancient history, Latin and Greek, to rise from bookkeeper to treasurer with a former employer, is Andrew C. Krein, Jr., newly-appointed controller of Librascope's Aerospace branch.



Known familiarly as "A.C." or "Andy," Krein comes from GPE Controls in Chicago, where he was a 20-year veteran. Starting as the company's lone bookkeeper, he held jobs as officer manager, personnel manager, purchasing agent, and contracts officer, before assuming the duties of treasurer-controller and assistant secretary.

Andy acquired his cultural and professional education at Loyola University, Chicago, a renowned Jesuit institution. All told, he spent seven years in those academic surroundings, much of them in night courses in law and accounting, while holding down a full-time job with GPEC.

The new branch controller is married to the former Miss Mary Jane Markus and they have three sons, Andrew Jr. and Arthur, 18-year-old twins and 12-year-old Charles. They make their home in Granada Hills.



DICK HANNAHAN, cost analyst in Estimating, holds his prize-winning poodle, Hannahan's Silver Smoke, at recent Pasadena Dog show. "Smokey," the son and grandson of champions, also has won best-of-breed cups this year at the Santa Monica, Azusa and Santa Barbara shows. He is valued at \$5,000. (Ludwig photo.)

The program will pay from \$25 to \$150 to the authors of articles accepted under the program, or to the writer of a paper read to a professional group. All other fees usually paid to writers or speakers also will go to the employee.

ALL EMPLOYEES at Librascope are eligible to apply for enrollment in the Article Writing Incentive Plan. Applications will be screened by an Editorial Committee, which will rule on the individual's eligibility and the suitability of subject matter. And all employees invited to deliver papers before outside groups should first consult with the Editorial Committee about their assigned topics.

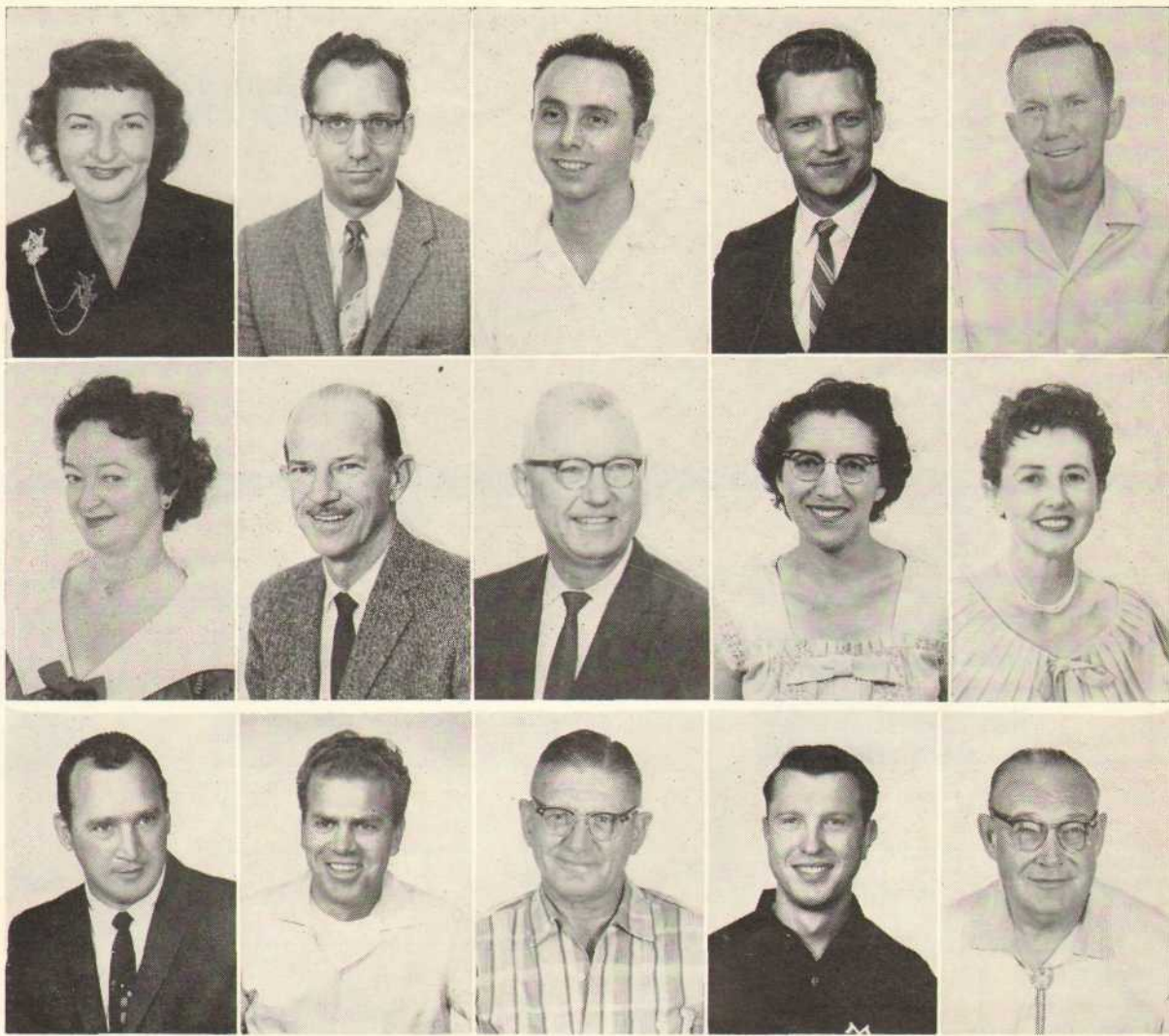
The Editorial Committee will be composed of a Chief Engineer or Department Head, or their designated representative; the Director of Public Relations and the Public Relations editorial manager.

Purpose of the program is to increase public, technical and professional awareness of Librascope's position and capabilities and, at the same time, provide material recognition to the employee-writers. Publication of the articles also should enhance the status of the employee in his profession or other field of operation.

THE PROGRAM will be administered by the Public Relations department, which will offer editorial assistance in the planning and writing phases, photographic or art illustration as needed, plus assistance in placing the article.

While Librascope has great interest in articles which demonstrate division and branch achievements in engineering, subject material is not limited to that area, Bratton pointed out. Also open as subject material are the full-range of manufacturing, the professional and sub-professional areas represented in engineering and manufacturing support and in branch and division management. In fact, every aspect of Librascope activities is open to the employee who can write interestingly and authoritatively about his subject.

Full details of the plan's workings are available from Jim Robinson, Editorial Manager of Public Relations, in Bldg. 3.



RECENT MEMBERS — Shown above are the Librascopers who recently became five-year Libravets. From left to right, top row: LaVonne Cobb; Andy Cook; Vincent Coppola; John Gustafson; and Floyd Hodges.

Middle row: Virginia Kelly; Don Knox; Art Pederson; Carolyn Pollina; and Florence Zellner. Bottom row: Alan Werner; Cliff Barnes; George Abele; Joseph Pleso; and Earl Wolfe.

## Reliability Promotions to Meyer, Rado and Rudie

Announcement of three promotions in Reliability was made recently by Reliability Manager Walt Picker.



Herbert Meyer, senior engineer, was appointed Reliability Analysis Supervisor. His major responsibilities will be operation of the failure reporting and follow-up system and reliability analysis and prediction. Before coming to Librascope a year ago, Meyer was with Radioplane Division of Northrop Aviation as a unit engineer supervising the reliability analysis of data processing.

Previously associated with Lockheed Aircraft Missile System Division and Bell Aircraft, Meyer holds a B.S. in physics from Columbia University and has done additional work in electronics, engineering and business at the University of Buffalo and the University of California Extension, Los Angeles. He lives in La Crescenta with his wife and two children.

Leonard Rado, senior engineer, was appointed Component Applications Supervisor. He will continue to provide service to design groups on component application problems and make recommendations to Purchasing on sources of supply. He also will provide solution of difficulties involving processes, components and systems required by Engineering, Production and Quality Control.

Previous to joining Librascope, Rado spent several years with Westinghouse as component engineer, project engineer and senior engineer in reliability. He was also with the New York Naval shipyard as a designer on fleet carrier conversion projects. He holds a BSME from City College of New York and a Johns Hopkins certificate in business administration and management.



James Rudie, engineer, was appointed Test Laboratory Supervisor. His major responsibilities will continue to be providing ambient and environmental testing services to all Engineering, Quality Control, Manufacturing, Standards and Production Engineering.

Before joining Librascope in March, Rudie was with Westinghouse as senior engineer in charge of technical direction for environmental testing. Prior to this he served as an airborne electronics maintenance officer in the Air Force. Rudie holds a BS degree in aeronautics from St. Louis University.

## Design Award to IE Analyst Brown

Robert C. Brown, material handling analyst in Industrial Engineering, walked away with double honors in the recent competition of the Society of Packaging and Handling Engineers.

Brown's entry, a container for the handling of circuit boards, replaces the heavier plywood box formerly used, and has reduced cost of handling the circuit boards from \$9.14 to \$2.25.

The newly designed container, a modular kraft fibreboard box with metal-stayed edges and inserts, permits more than one type and size of circuit board to be handled in one container. Since put into use, damage incidence with the new container during handling has been reduced from 5% to 0% to date.

A second entry in the competition was a double-purpose sub-assembly shipping fixture. An electronic assembly is built up on the fixture at an out-of-town plant. When the assembly is completed, it is placed in a test corrugated carton and shipped to Librascope. The assembly is then removed and the fixture returned for reuse.

## A Night to Howl(owen)

Tattered clothes and torrid music will highlight the Precisioneer Halloween costume dance at the Burbank Elks Lodge, 145 E. Palm Ave., on the night of Friday, October 21.

Theme for the costume-dance is one of "hard times." Jim Manley and his "hobo ensemble" will provide the music, featuring song stylist Winnie Wilson.

The affair will get underway at 9:00. Price of admission is \$1 per person. Remember the date — Friday, October 21, for the Precisioneer's "Hard Time" costume party.

## Imm Honored at Special Dinner

The men and women who work at Librascope are among the prime assets of the company, Lewis W. Imm, retiring president, told a group of Librascopers old and new, at a Precisioneer dinner in his honor last month.

"I'm proud of all of you and it has been a wonderful experience working with you," Imm declared.

"I feel rather like a father bidding farewell to a son who is leaving home," Imm observed about his departure from the firm he founded 23 years ago. But, he said, he felt that any 23-year old son should be able to get along on his own without father!

Imm described the Precisioneers, which he launched 12 years ago, as a unifying force tying together employees and management in a mutually happy relationship. The close bond between company and employee is responsible, he said, for the low turnover in employees and for attracting high-calibre people to the company's staff.

High point of the dinner, held at the Carriage House in Burbank, was the presentation of a plaque to Mr. Imm, by Precisioneer President Jim Studdard. Inscribed were these words:

"To Lewis W. Imm, in sincere appreciation of his many years of personal interest, aid and concern for the benefit and welfare of the employees of the company and this organization, which he founded.

"The Precisioneers"



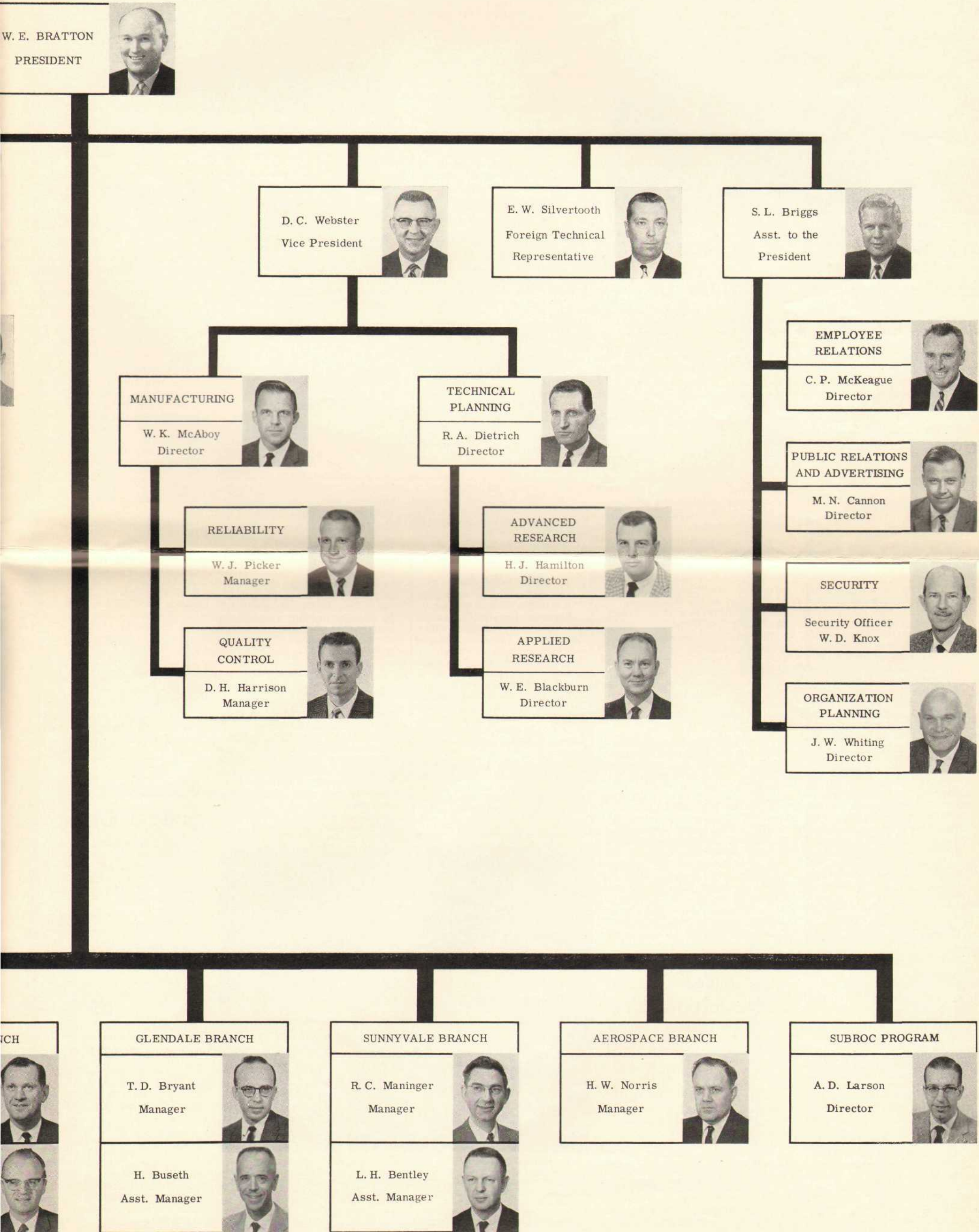
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graph TD; Root[ ] --- EB[EASTERN BRANCH]; Root --- PRB[PUERTO RICO BRANCH]; Root --- SDB[SPECIAL DEVICES BRANCH]; Root --- BB[BURBANK BRANCH]; EB --- EB_T["R. V. Barnett  
Vice President  
and Manager"]; PRB --- PRB_T["C. Brandon  
Manager"]; SDB --- SDB_T["L. H. Bentley  
Manager"]; BB --- BB_T["R. E. Hastings  
Vice President  
and Manager"]; BB --- BB_T2["C. K. Krill  
Plant Manager"];
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The organizational chart is a hierarchical diagram with a single root node at the top, branching down into four main categories. Each category is represented by a rectangular box. The boxes are arranged horizontally, connected by a vertical line on the left and a horizontal line at the top. Each box contains a title for the branch and a portrait of the person in charge, with their name and title listed below the portrait.

- EASTERN BRANCH**
  - R. V. Barnett  
Vice President  
and Manager
- PUERTO RICO BRANCH**
  - C. Brandon  
Manager
- SPECIAL DEVICES BRANCH**
  - L. H. Bentley  
Manager
- BURBANK BRANCH**
  - R. E. Hastings  
Vice President  
and Manager
  - C. K. Krill  
Plant Manager



# Organization Chart—1 October 1960



GLENDALE BRANCH

T. D. Bryant  
Manager



H. Buseth  
Asst. Manager



SUNNYVALE BRANCH

R. C. Maninger  
Manager



L. H. Bentley  
Asst. Manager



AEROSPACE BRANCH

H. W. Norris  
Manager



SUBROC PROGRAM

A. D. Larson  
Director







**PLANNING CONFERENCE**—Audio Visual Supervisor L. B. "Ike" Eisenhower (center) confers with film writer-directors Lee Strosnider (left) and Bob Duff on scene sequence of a future script. Currently underway in the Audio Visual group are films on Engineering Standards and LOCS.

## ASN-24 Gains Stardom in Audio Visual Feature Film

"The camera pans through a star field. It comes to rest and the stars in the Libra Constellation brighten. The scales form and the name Librascope dissolves on . . ."

So opens the shooting script on the new sound motion picture, filmed in color, on Aerospace's ASN-24 computer, filmed, edited, produced and directed in its entirety by L. B. "Ike" Eisenhower's Audio Visual Services Group.

**THE FILM FOOTAGE**, originally part of a series of pictorial progress reports for the Air Force, was rescheduled as Librascope's first full-length film in late 1959.

The film's hero is the 32-pound, 10-inch cube—the ASN-24 airborne digital computer. On a simulated trip from New York to Paris, the audience is given a close-up view of the efficient workings of the lightweight computer as it calculates a course across the Atlantic.

As the plane wings its way to France, the camera moves from the computer in action to animated diagrams of the trans-Atlantic trip. Through the courtesy of TWA stock film footage, the plane is seen soaring over broad expanses of water, concluding the trip with its landing at Orly Field in Paris. Two other film clips, showing missile launches and an F-104 in flight, were provided by Convair Astronautics and Convair San Diego, respectively.

**THE MAIN SUPPORTING** role in the movie is that of the navigator, played by Reid Keimert of Publications. Working from a mock-up navigator's station built for the movie, Keimert is seen using the

airborne digital computer which has simplified, yet increased the accuracy of modern navigational techniques.

Although no personal credits appear on the film, there are many worth mentioning. Group Supervisor Eisenhower did most of the filming and doubled up as Producer, while Audio Visual staffer Bob Duff researched, wrote and directed the 40-minute effort.

**TWO FORMER DISNEY** employees—chief animator Sam James and assistant John Mildenberger—created the animated effects so effectively used throughout. Film conforming, or the substitution of the original for the work print, was handled by Lee Strosnider.

The movie, geared primarily for a technical audience, is expected to have wide circulation among airline and military groups. A copy of the script has already been cleared by USAF's Air Research and Development Command for dubbing in a foreign language sound track for export abroad.

The number of prints and distribution of the film are still undecided, according to Eisenhower. "We will let demand dictate the supply," he said.

**CURRENTLY, PLANS** are scheduled for a placement of the film in the Institute of Aeronautical Science's catalog for distribution to technical audiences.

Close on the heels of the ASN-24 film is a film nearing completion on Librascope's Engineering Standards Group. A third Audio Visual movie dealing with the Librascope Operational Control System (LOCS), is just getting underway.

## First College Course Comes to Librascope

The first university-accredited course in Librascope history began this month in Classroom A of Bldg. 3.

Listed in the "400" series in the UCLA catalogue, the course is an 18-meeting Engineering Optics class, with college physics and trigonometry listed as the prerequisites.

Instructor for the 3-unit course is Walter Wallin, President of the Wallin Optical Systems, Inc., and Engineering Lecturer at UCLA.

Course fee is \$40, plus a textbook and a set of lecture notes. The cost, however, is reimbursable under the Educational Refund Plan.

# The Kearfott Story...

(The following article is the initiation of a new, three-part series, in which LIBRAZETTE will look at the operations of the sister divisions of Librascope within the GPI family—Kearfott, Link, and GPL.—Ed.)

The Kearfott Division of GPI is a recognized leader in airborne inertial navigation and guidance systems, gyroscopes, gyro platforms and servo components.

**STARTING WITH** a handful of employees in 1917 as a marine equipment firm, Kearfott today numbers more than 6,500 employees working in the development, production and sales of equipment for the most advanced aircraft, missile and space probes.

In 1932, Fred D. Herbert, Jr. (now Kearfott president), and a group of associates developed the first successful airborne automatic radio direction finder. In this fashion Kearfott entered the aircraft instrument business, which forms a large part of total volume.

**SHORTLY AFTER** World War II, Kearfott developed its famed N-1 Gyro Compass Navigation System which the Air Force soon installed as the standard navigation reference in all heavy aircraft.

Organized principally into an Avionics Operations Group of product-line divisions and support and service groups, Kearfott has developed and produced a component or system for nearly all major aircraft and missile programs in the nation's arsenal.

Currently on the Kearfott agenda is research and development contracts in infra-red and celestial guidance and navigation for missile, space vehicle and other advanced applications.

**HEADQUARTERED** in Little Falls, N. J., Kearfott also has plants in Clifton and Paterson, N. J.; Asheville, N. C.; Van Nuys and Pasadena, Calif. Plants of Kearfott Semiconductor Corp. and Herten Electric Co., Kearfott subsidiaries, are in West Newton, Mass., and Cleveland, Ohio, respectively.

### Just Like Ice

The best place for skating is still a frozen pond or ice rink.

Recently, however, a few of the Librascope corridors have been serving the same hazardous purpose, with an occasional misguided puddle of coffee on the floor.

An unsuspecting traveller, particularly one of the high-heeled set, suddenly finds herself emulating Sonja Heine in not-so-graceful fashion when encountering the slick splash on the floor.

There is a very simple solution—don't spill. And the easiest way to insure this is to put a cap on your coffee cup before transporting it back to the building.



**NEW PLANT**—The two-story building pictured above is the newest plant of the Kearfott Division of GPI. The 104,000-square-foot facility is the headquarters for Kearfott's Systems, Electronics, Marketing and Customer Service and Parts Division. It went into operation in February of this year.

### New Manual

Distribution of the new Supervisors Manual, compiled and issued by Personnel, has started and should be completed shortly. Completely rewritten and revised, the manual contains much new material to aid supervisors in performing their personnel duties. Distribution is being handled through the office of Wayne Strong, Personnel's training director.

## 26 Attend New Course

An extensive, 18-week course, looking into the many aspects of purchasing, began last month with 26 Librascopers enrolled.

The course, initiated by Materiel Manager Marsh Cowan and Purchasing Agent C. M. "Red" Brown, is being conducted by Arthur Pearson, Purchasing Specialist for Lockheed Missiles and Space Division.

**PEARSON**, an instructor at UCLA and formerly at Dayton for Air Force personnel, has geared the course to the overall picture of purchasing activities by use of actual case studies. From initial purchasing specifications and scheduling, the course will conclude with the follow-up and administration of contracts.

Seven members from Purchasing at the Burbank branch will attend the course. They include: Laird Houston, Jim Bretzing, Wally Jobe, John Williams, Ken Thompson, Ellis Haire, and Bill Murray.

From Outside Manufacturing—Glendale, nine staffers will sit in on the course. They include: Joe Frieberg, Paul Kliebert, George Kucks, Al O'Millian, Tom Parker, Phil Rousseau, Karl Sorrell, and Richard Walsh.

**PURCHASED COMPONENTS** will be represented by the following: Phil Cohen, Jack Derry, Larry Fatz, Bob Glasser, Casey Innocenti, Margaret Jarnagin, Loren Maxfield, Byron Roper, and Roland Smith.

One member of Procurement Follow-up—Bill Shaneyfelt—will also be in attendance.

## McGiven to Special Devices

Paul McGiven has joined the Military Sales Department in the staff position of representative for Special Devices, Bob Williamson, Director of Military Sales, announced recently.

**McGIVEN** retired last year from the U. S. Army after 20 years of active duty. His rank at retirement was Lt. Colonel in Artillery.

Prior to retiring, McGiven was Chief of Guided Missile Planning and Programming at Headquarters, First Region, U. S. Army ADC, Fort Totten, N. Y. He was responsible for planning and coordinating the deployment of Army air defense missile units defending the Northeastern states.

A combat unit commander in the South Pacific during World War II, McGiven joined the Army in 1939 after receiving a BSME from the University of Utah.

A native of Salt Lake City, McGiven now resides in East Pasadena with his wife, two daughters and three sons.

## Dwyer Joins SUBROC Group

O. Scott Dwyer, retired Navy commander, joined Librascope recently as senior engineer in SUBROC. His responsibilities will



include the performance and monitoring of administrative functions of SUBROC production.

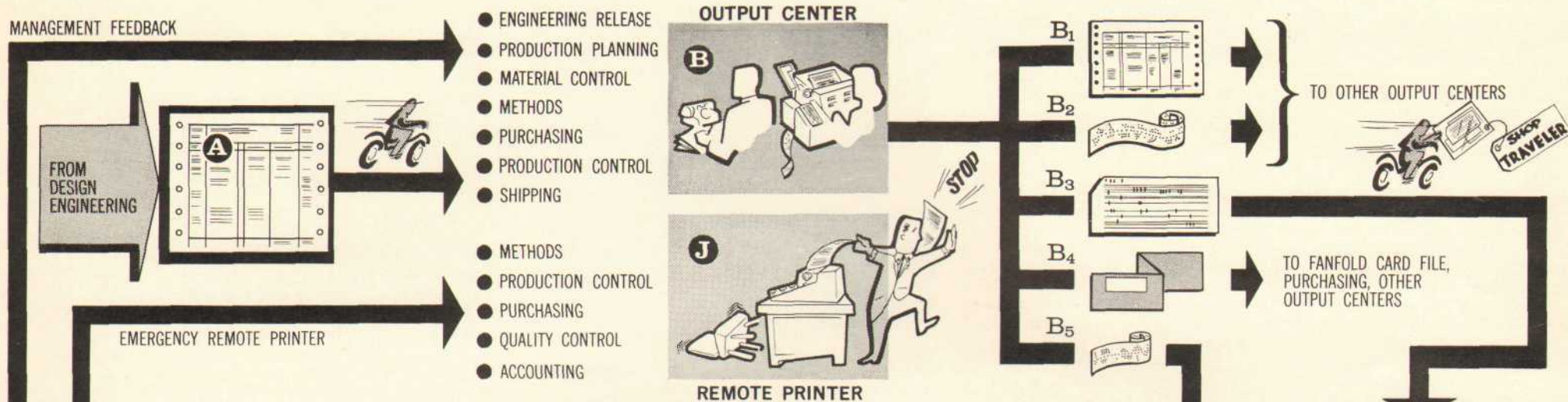
A graduate of the U. S. Naval Academy (BS-EE), Dwyer served aboard Destroyers 386 Bagley and 857 Bristol during World War II. His later commands include a destroyer escort, a destroyer and a frigate. He also served on various engineering projects during his naval career.

Dwyer's last assignment before coming to Librascope was at the Naval Ammunition Depot in Oahu, Hawaii. The father of three girls, he now makes his home in Somis, in Ventura County.



**NEW TIMEKEEPERS**—Chief Timekeeper Moe Boase (left) checks with Time Control clerks Penne Freebairn and Herleen Blankley on operation of new timekeeping "tub files." A total of six such files have been installed throughout engineering areas as part of a new time control method on engineering work authorization (EWA). Prior to initiation of the new system, Boase had to prepare and conduct a 120-hour course of instruction for the new girls assigned to EWA.





## LOCS: What it is, What it Does

Wrapped around these words like string on a package, is a schematic drawing showing symbols for people, machines, paper forms, punched paper tape and the jagged, lightning flash of electricity.

The drawing is intended to show, in simplified form, how LOCS—which stands for Librascope Operational Control System—will operate in our company.

LOCS, a complex of Burbank-produced data processing equipment and other electronic devices, is Librascope's answer to a serious problem which has many parts. The most important of these: how to cope with the mountains of paper generated in the many steps of the manufacturing process; how to streamline the administrative processes which support the manufacturing and managerial operation.

For example, once upon a time a single production order could start—and carry through to completion—a typical Librascope product. Once upon a time a quick manual count on the production line could produce a status report.

Those days are gone forever. Today because what we make is far more complex it takes oceans of paper to cover the vastly increased number of steps in the manufacture of any Librascope product. It takes a staggering amount of effort—and paperwork—to produce a status report on a multifaceted project.

To cope with these situations we need the high-speed capabilities of an electronic data processing system to come up with the timely,

accurate reports that management needs to have in order to know exactly where a project stands.

The new system will initially handle some 500,000 transactions a month, most of which are now performed manually and are repetitive in nature.

In three years, it is estimated, these transactions will swell to more than 1,000,000 a month, greatly increasing chances for errors and delays if performed manually.

In the words of President W. E. Bratton:

"We need LOCS to properly cope with today's business—and to continue to grow. And grow we must if we are to carry out the important defense tasks that our government has assigned to us.

"Furthermore, we compete for our business with other electronics firms and the competition for business becomes more intense every day. Products become more sophisticated and the ways and means to manufacture them are ever more complex. Only the efficient producer survives in today's market. We believe LOCS will help us to be more efficient."

LOCS is scheduled to be in full operation at Glendale by March of 1962, but it will be phased-in gradually to avoid disrupting the normal flow of operations. Some portions of it are already in operation in Engineering Release and Purchasing.

Basically, LOCS has been developed to streamline Librascope's production paperwork, so that the

information it contains can be acted upon without delay. LOCS harnesses the speed-of-light capabilities of the RPC-9000, its accessories and associated machines to:

1) Provide management, from Supervisor to President, with timely, meaningful reports, designed for fast scanning and readability.

2) Rapidly collect a wide variety of critical information on costs, schedules, materials and parts.

3) Provide an element of predictability upon which accurate forecasts as to manpower, material and machine-capacity needs can be made. Increased planning efficiency, maximum use of facilities and a stabilized job situation should result from this.

4) Place Librascope, as a result, in an even better position to sell its products and to service its present and future customers.

In charge of the LOCS program is the Industrial Engineering Department of Manufacturing, headed by George Clark. In January of this year, after several months of intensive study on a total operations control system, Clark and Shelby Drucker, Supervisor of IE's Methods Improvement section, organized a special group to make LOCS an actuality.

The LOCS group, headed by Supervisor Wally Kruse, immediately set to work to develop the system. The group is now staffed with industrial engineers, systems analysts, programmers and training specialists.

(Continued on Page 8)

### Key to LOCS Flow Chart

A simplified LOCS flow chart is shown on this page. Here are the basic steps:

A. Information supplied from Design Engineering is delivered to the first of seven Output Centers, Engineering Release. From Engineering Release, which activates the production operation, the information is sent to the other six Output Centers—Production Planning, Material Control, Methods, Purchasing, Production Control, and Shipping. Each center gathers information pertinent to its functions.

B. From the Output Centers plan, the information flows through two channels: By punched paper tape (B-5) to the computers in the Operational Control Center for processing and storage; and by manually and semiautomatically prepared documents (B-1), paper tape (B-2), data cards (B-3), and fan-fold cards (B-4) to fabrication and assembly areas and to other output centers, such as purchasing.

C. At the manufacturing locations, the information (from shop orders and data cards) are acted upon.

D. The manufacturing results—from the task undertaken to the time expended—flow electronically from a transactor located in each shop area to compilers, located in the Operational Control Center.

E. The compilers check the accuracy of the information received, rejecting inaccurate data and calling it to the attention of a compiler operator

for appropriate action. The accepted information is punched onto paper tape, which is linked directly to the computer.

F. The RPC-9000 computers (F-1 and F-2) process and file the information received. The computers, located in the Operational Control Center, have 10 tape drives for (storage and processing??)

G. RPC-9450 line printers, on command, present the information in quickly readable reports and trend lines for management to act upon.

Running parallel with this flow is an emergency remote printer system, which reports shortages, breakages, and other mishaps (see J).

H. Management receives reports and trend lines for decision making. Examples of the many reports:

1. Daily reports on emergencies such as delivery delays, on normal departmental operations, and on other routine matters.

2. Weekly reports on status of a project.

3. Monthly reports on long-lead items and on the status of complete systems.

All reports—whether daily, weekly, or monthly—are completely updated by the computers, giving management up-to-the moment information.

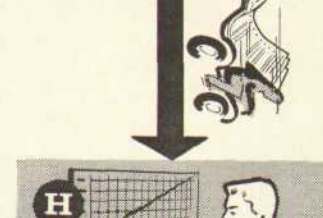
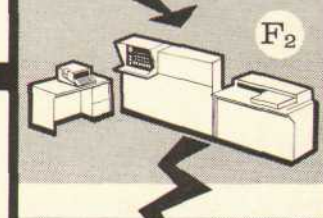
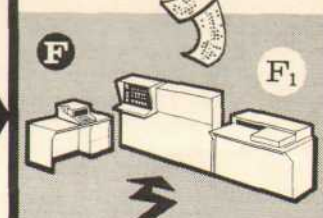
Trend lines are used by management for future planning.

Management decisions are relayed to the Output Centers (B).

J. Methods, Production Control, Purchasing, Quality Control, and Accounting, notified of emergencies by the remote printer system, take corrective action.



25 TO 30 LOCATIONS



OPERATIONAL CONTROL CENTER

EMERGENCY REMOTE PRINTER

MANAGEMENT FEEDBACK



# Cost Cutting

(Continued from Page 1)  
additional personnel and with an annual estimated savings of \$146,000, based on current output.

Cost-reduction here was achieved by a process suggested by Bagley and Foreman Charles Dellner. The process involved the substitution of a different eyelet, scores of which are inserted into each board to provide passage of component lead-in wires from one side of the board to the other. Connections sometimes proved faulty because the molten solder in which the boards are dipped, after component mounting, formed air bubbles around the old eyelets.

USE OF THE new eyelet, which involves a slight change in tooling, plus solder-plating, allows the molten solder to flow freely around the eyelet on both sides of the board. The result is a perfect electrical connection and the elimination of a time-consuming hand-bonding operation.

The Bagley-Dellner-Henshaw suggestion was proved out by Roy Johnson of Methods Improvement, working with the aid of Supervisor Len Rado of Reliability. Quality Control Supervisor Bill Hibbard, Supervisor Jim Kay of Standards and Production Engineer Al Alexander collaborated to write procedures which sold the process to the customer.

These major savings, coupled with others of lesser amount but of equal functional importance, bring potential dollar savings in circuit board manufacture and assembly to \$408,564, Clark's report stated.

SAVINGS IN TIME consumed by various in-process checking procedures, now made simpler, shortened or eliminated altogether by the new developments, are not reflected in the claims for dollar savings, Clark reported. However, the report indicates that increased rates of production have already resulted because of time-savings.

## Footage Increase

Keeping pace with its increasing workload, Librascope has scheduled addition of 71,000 square feet to its present facilities by January, 1961.

With the inclusion of the newly established service facility in Elmsford, New York, and Airborne's new 25,000-square-foot building in San Marcos, the total area will come to 640,000 square feet.

## The Librazette

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## Disability Insurance

Librascopers were reminded this month by Art Pederson, Supervisor of Employee Benefits and Services, that claims for disability insurance must be filed with the Insurance Office of the branch where they are employed—NOT with the State Dept. of Employment.

Employees at Solana Beach should file their claims with George Hoffman; those at Sunnyvale with Bob Raschen. Burbank employees file with the Burbank personnel office. All others should place their claims with the Insurance Office in Bldg. 3, Glendale.

Unnecessary delays in receiving payments result if employees' claims are not properly filed, Pederson pointed out. Librascopers are covered by a voluntary insurance plan, NOT connected with the State, he said, and the Insurance Office handles all paper work connected with the filing of claims.

## Guys and Dolls Nip Libra Jets In Trophy Duel

by Fred Killips

Summer Bowling League competition, drawing more players than any other event in Librascope sporting history, wound up the year with both league winners vying for the Bob Bruce trophy.

The duke went to Capt. Wally Winstead's Guys and Dolls quintet, who downed Mickey Ching's Libra Jets by the slim margin of 46 pins. The final score: 2,391 to 2,346.

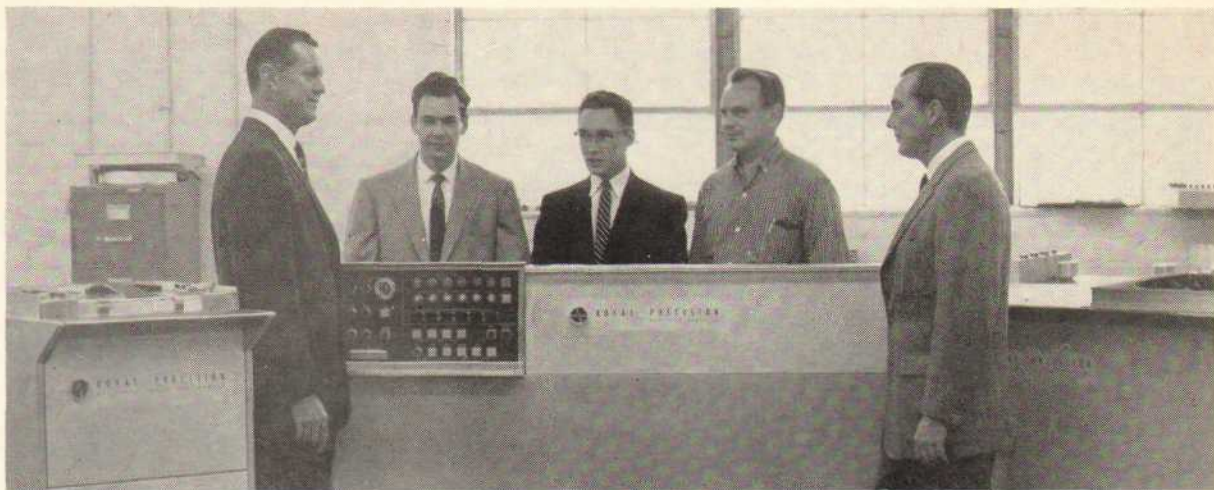
With 90 bowlers taking part in the season play, competition was divided into two leagues, one of 10 teams, the other of 8. Play was vigorous, the competition was keen and everybody had a good time.

Guys and Dolls, composed of Wally, Claud and Janet Winstead, Rose Gitomer and Ken Cantrell, were champs of the 8-team league. Second place in that league went to Art Ostroff's Luckies, whose squad was composed of Art, Roland Taussig, Pat Westman, Charlotte Webberson and Henry Valdez.

Ching's Libra Jets finished on top in the 10-team league. He was backed up by Connie Parra, Rudy Jimenez, Cathy Langan and Teddy Wong. Second place went to Team Four, composed of Capt Phil Bolde, Mary Bolde, Frank Clark, Rosemarie Zuzio and Fred Jackson.

A host of trophies went to winners in individual classifications in both leagues.

In the 8-team league the winners were Ken Cantrell, Gigi Diggins, Walt Miller, Erma Brown and Victor Sepulveda. 10-team league winners were Roy Holmberg, Ginger Rapa, Red Brown, Lori Provinse, Bob Putnam and Mary Bolde.



THE RPC-9000 — Data Processing System, shown here with Vice President and Burbank Manager Dick Hastings, (1) and the engineers who designed it, is the heart of the Librascope Operational Control System.

To the right of Hastings are A. J. Pankratz and Howard Stahle, project engineers; Gene Steen, engineering associate, and Frank Hill, director of projects for all Royal Precision products at Burbank.



LOCS GROUP — The group pictured above has devoted its time and energy exclusively to the study and development of the Librascope Operational Control System for the past month. Seated, left to right:

Bob Pena, Jay Tait, Wally Kruse, Jay Wiltsie and Bob Putnam. Back row: Berdella Otto, John Alexander, Joe Rue, Cliff Fuller, Bill Girouard, Charles Abbe, Jim Getzinger and Judy Gerhart.

## LOCS: What it is (cont.)

The RPC-9000 data processing system, which is the heart of the LOCS operation, is the only computer system with a random-access and expandable memory system. Without this computer, developed by Project Director Frank Hill's group at Burbank, a total operations system would be impossible.

Backing up the two RPC-9000's will be a variety of the most advanced industrial data collection and transmission equipment available. The entire system will include 28 transactors, (devices into which information is fed) three compilers, which assemble the information before it is sent to the computers, and 10 complete sets of automatic tape typewriters and computypers.

"Management's decision to launch this project is one of the most important, and far-reaching steps, we have ever taken at Librascope," President Bratton told LIBRAZETTE. "We expect that greater over-all efficiency will result. We also believe we can safely say that greater job stability will be one of the ultimate results."

The computer and compilers will be located in the system's "nerve center," the Operational Control Center. Now under construction in

Bldg. 1, the center will be a showcase for both LOCS and the RPC-9000 data processing system.

The transactors will be operated from "action" areas in Bldgs. 1, 2, 3, 10, 10-A, 17 and 26. The computypers will be installed in Engineering Parts Listing, Purchasing, Production Planning, Methods, Production Control, Outside Processes (Bldg. 2) and Shipping (Bldg. 17).

The bulk of LOCS operations will be focused, initially, in Production, Material and Manufacturing areas, but Accounting, Auditing, Quality Control and some areas of Engineering also will be serviced. The system is so designed that it may perform the same functions for any or all Librascope branches, regardless of geographical location, via telephone line hookups.

Most of the supporting equipment will be installed by December, 1960. The first RPC-9000 is due shortly after the first of the year; the second RPC-9000 is expected by Spring.

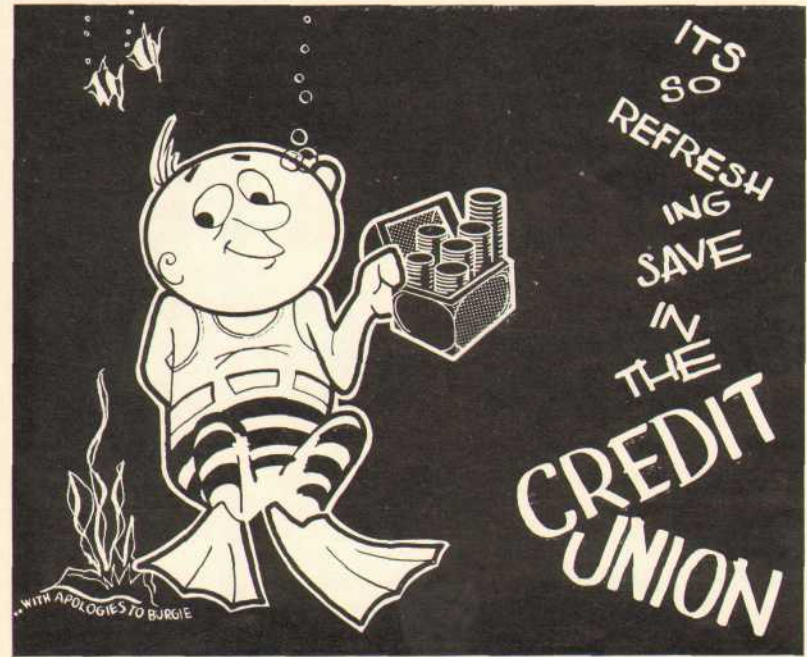
For the record, here are a few of the capabilities of the RPC-9000's and the two-dozen other Royal Precision machines, all designed and built by Burbank, will lend to LOCS:

Magnetic tape storage of more than 1-million digits of information

and, if required, an unlimited number of digits; report-printing at a speed of up to 1,000 line-per-minute, if needed (the average manual typist's speed is around two lines per minute); ability to accept data from paper tape, thus eliminating the need for massive numbers of punched paper cards used in conventional operations control systems; an ability to correct itself; immediate access to any portion of the stored information through its random-access memory system.

To prepare Librascopers for the advent of LOCS, Clark, Drucker, Kruse, Prof. Wm. Girouard of USC's School of Engineering and others of the LOCS team been conducting a series of seminars in which the workings of the system were explained. All told, more than 35 sessions have been held and some 700 Librascopers have been brought into the picture.

LOCS has already created new jobs—and they are being offered first, wherever possible, to Librascope employees. Future openings will be handled the same way, according to C. P. McKeague, Employee Relations Manager. Currently, 11 Librascopers have been transferred to assignments in which they operate LOCS equipment already installed.



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