

File



LIBRAZETTE

AN EXCHANGE OF NEWS AND KNOWLEDGE

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JUNE, 1962

NEW BUSINESS

C-141 Contract

A contract totaling almost \$2,000,000 for the production of nine ASN-24 airborne digital computer systems, was awarded to the Aerospace branch by the Aeronautical Systems Division of the U.S. Air Force Systems Command at Dayton, O., this month.

The contract contains an option for 32 additional systems, at a price advantageous to the government, to be exercised by December of this year. And, depending upon Librascope's rate of delivery and the competitive situation, additional contracts for more systems are a good possibility, according to Branch Manager H. W. Norris.

The computer systems will be part of the navigation and command equipment of the giant C-141 transport and cargo plane being produced by Lockheed-Georgia for the Military Air Transport Service.

"Support of the flight test program by Engineers Tom Zander and Harry Payne at Dayton on the earlier models of the ASN-24, provided excellent understanding and experience in the use of this

type of computer in air navigation systems," Norris told LIBRAZETTE.

"This experience greatly contributed to our effectiveness in winning this important contract. Continuous follow-up with Aeronautical Systems Division personnel by Dewey Nichols, Manager of the Division Customer Relations office at Dayton, also was of great value in our being selected for this program," Norris said.

Elsewhere in this issue, LIBRAZETTE presents the full story of the ASN-24, from its earliest days of design to the present.

A \$270,000 Share

Librascope's Data Processing Systems branch has a \$270,000 share in the \$1,800,000 contract just awarded GPI for work to be done on the air traffic control data processing and display equipment at the FAA National Aviation Facilities Experimental Center at Atlantic City.

DPS, when it was our Special Devices branch, developed and built the data processing portion of the FAA's Air Traffic Control System at Atlantic City.

The GPI contract calls for putting into operational readiness equipment which has been undergoing evaluation.

808 WESTERN

Burbank Bifurcated

Decentralization was carried a step farther last month when two new branches were created out of what had been the Burbank branch. The new organizations:

The Data Processing Systems branch, headed by L. H. Bentley, and the Components and Special Devices branch, headed by M. C. Hirsh. Bentley had been Operations Manager of Burbank and Hirsh was Manager of Components and Subsystems Applications.

As branch managers, Bentley and Hirsh will report to Group Vice President R. E. Hastings. In announcing the new branches Hastings said:

"We decided to functionally separate the data processing systems activities from the components and special devices activities because of the need for each group to more adequately concentrate on its particular fields of endeavor.

"We feel that separate authority and responsibilities in each area will result in increased sales and profits and, in general, a more efficient operation.

"My assignment as Vice President and General Manager of GPI's new Commercial Computer Division will increase Librascope's efforts in data processing systems. You can look for some interesting developments in this connection in the near future."

As spelled out by Hastings, the Data Processing Systems branch will be active in the design and manufacture of large scale commercial and military data processing systems, such as the 473L program, for which Librascope received an Air Force contract last month. Hastings said, the DPS branch also will design and build small and medium size computers and computer systems, for the new GPI Commercial Computer Division.

The Components and Special Devices branch will continue to produce the more than 200 standard items in its catalogue and also will design and produce custom items and subsystems as well. It currently is working with the Otis Elevator Corp. on the development of an adaptive device to control elevator traffic in tall buildings.

Among the CSD products are many types of analog-to-digital converters, servo amplifiers, mini-servos, sine-cosine



CHARTER DAY—President W. E. Bratton receives the charter for Explorer Scout Post 28 from G. W. Pontius, district executive of Boy Scouts of America, Verdugo Hills Council. The charter names Librascope the official sponsor for the Glendale Explorer Post. R. L. McCollum, Librascope committee chairman for Post 28 (second from right), and R. B. Hubbard, member of the Boy Scout executive committee, San Rafael, look on at the presentation.

LIBRAZETTE

**GENERAL
PRECISION**

LIBRASCOPE DIVISION
GENERAL PRECISION INC.
GLENDALE 1, CALIFORNIA

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Bifurcated Burbank (cont.)

mechanisms, ball and disc integrators, shaft-to-position digital converters and the Decision Master, a semiautomatic component tester.

The CSD branch expects to expand its sales efforts and shortly will open a Washington office.

New Branch Assignments

Bentley and Hirsh each have announced preliminary organization structures, in preparation for the formal dissolving of the Burbank branch on July 1.

Reporting to Bentley in the Data Processing System branch are:

Chief Engineer, L. L. Wolman; Production Manager, H. F. Warner; Customer Relations Manager, E. W. Kyle; Controller, B. F. Young; Product Assurance Manager, J. M. Stevens; Product Support Manager, W. L. Chase; Manager, Contracts, E. J. Resor; Planning, Jack Lin.

Reporting to Hirsh in the Components and Special Devices branch are:

Chief Engineer, W. J. Wichman; Controller, H. J. Luth; Acting Sales Mgr, D. L. Marshall; Acting Production Mgr, J. R. Cawthorne and Quality Control Manager, R. H. Ericson.

Certain functions and services will be shared by the new branches. Named Director of these activities by Hastings, is Maurice Kimmel, who previously was Personnel Manager of the Burbank branch. John R. W. Batten, former wage & salary analyst, has been named Personnel manager for the two branches. In his new position, Kimmel will be responsible for:

Employee relations, communications, office services, coordination and publica-

tion of branch policies, coordination of space allocation, plant maintenance and travel control.

Both branches will continue to have their main offices in Bldg B-09, at 100 East Tujunga avenue, Burbank.

New Marketing Director

Robert O. Vaughan, well-known figure in west coast electronics marketing, has been appointed Director of Marketing for Librascope. He resigned his post as Vice President-Marketing for the Electronics Division of Dresser Industries, Inc., to accept appointment by President W. E. Bratton.

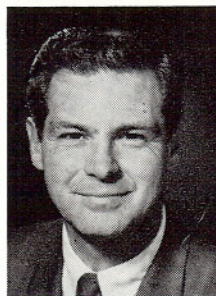
Vaughan succeeds Sterling E. Babcock.

In his new post Vaughan directs activities of Librascope's field offices, marketing planning, advertising, Division Office applications engineering and Division Office marketing administration. He reports to Vice President R. M. Brunson.

Vaughan, a native Pennsylvanian, attended Pennsylvania State University and Drexel Institute of Technology, where he majored in electrical engineering.

The new marketing director brings a wealth of varied experience to Librascope. During 17 years with RCA, Vaughan was an engineer, design engineer, assistant product manager, Washington representative, Manager of radar and sonar sales and Manager of RCA's defense products division's west coast marketing operations.

Before shifting to Houston for Dresser Industries, Vaughan was Western Re-



gional manager for the company's government operations. Earlier he was Vice President and General Manager of National Aircraft's electronics division in Burbank.

Vaughan is a member of the West Coast Electronics Mfgs Assn, the Aerospace Industries Assn, the American Ordnance Assn, the American Society of Naval Engineers and the Armed Forces Communications Electronics Assn.

Married and the father of two, Vaughan is moving his family from Houston to Pasadena, hopes to build a home in his favorite area, La Crescenta.

See-Square-Dee

West coast operations of GPI's new Commercial Computer Division will be shifted from two Hollywood locations to new quarters at 101 West Alameda street, Burbank.

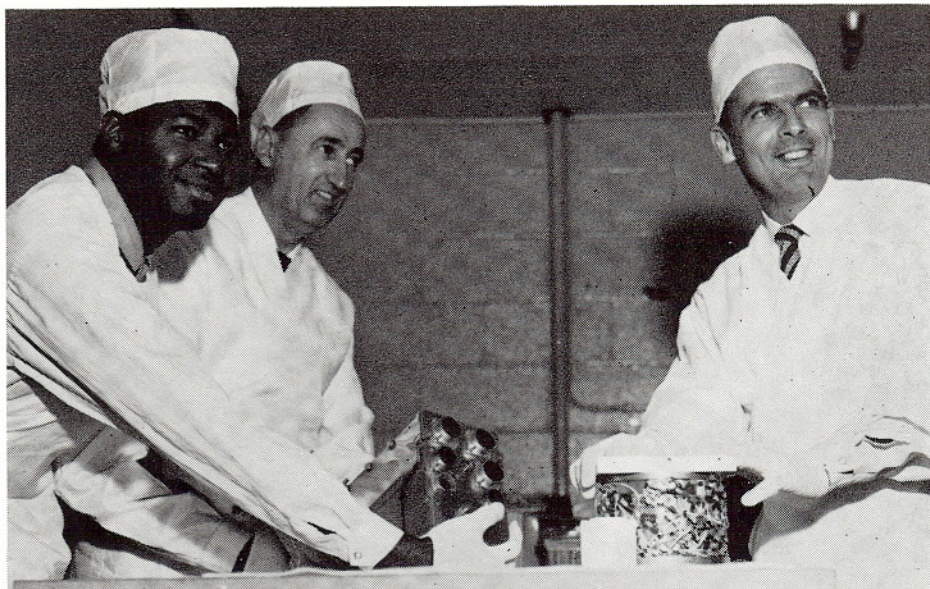
The move, affecting 35 former employees of the Royal McBee Corp., who

GPI's new Commercial Computer Division already has an affectionate nickname amongst Librascopers. All took a look at the initials — CCD — and immediately gave them a mathematical tag C'D, pronounced see-square-dee.

sold and serviced computers produced by Librascope, will take place by July 1, according to R. E. Hastings, Librascope group vice president and Vice-Pres & Gen-Mgr of CCD.

In charge of the various CCD operations are:

M. H. Haffey, sales; Paul Anderson, district service; A. N. Briner, computer service; F. C. Flannel, programming and Bruce Reid, publications.



ALL IN ORDER—J. W. Juni, Air Force Quality Control representative (center), inspects equipment for the Centaur computer with Ted Reynolds, Glendale Electronic Inspector (left), and Bill Dempsey, Centaur project QC engineer, Aerospace branch. Reynolds is holding the Centaur input-output chassis, while Dempsey holds the computer's memory drum. The photo was taken in the dust-free area in A-02.

CCD's field service school for technicians who service Librascope equipment in the field, will be shifted from Chicago to the Burbank location.

G. C. Ensslin, Vice-Pres, Sales, and L. R. Foley, treasurer, continue to operate from GPI headquarters at Tarryton, N.Y.

Scientific Advisory Group

R. R. Williamson, technical assistant to Pres. W. E. Bratton, has been named a member of General Precision, Inc.'s scientific advisory group, as the representative of Librascope division.

Purpose of the group is to guide basic and applied research of GPI and its divisions in advanced fields of science and engineering, and to encourage development of new programs and products.

Chairman of the group is Dr. Coleman duPont Donaldson, noted aeronautical scientist. Dr. R. L. Garman, Vice President and Chief Scientist of GPI is vice chairman. Other members include:

Dr. W. A. Baum of Mt. Palomar observatory; Prof. G. F. Carrier, Hard university; Prof. E. A. Frieman, Princeton university; Prof. E. J. McCluskey, Jr., Princeton university; Prof. R. L. Sproull,

Cornell university and Prof. W. H. Surber, Jr., Princeton university.

H. W. Ziebolz, assistant to the vice president-engineering of General Precision Equipment Corp., is secretary of the group.

Division representatives in the group, other than Williamson, are:

Dr. B. F. Berger, GPL director of research; Robert Langford, director of research, Kearfott division and Dr. John Hunt, vice president and technical director, Link division.

The group holds its next meeting at Librascope on July 12 and 13.

China Lake Dedicates Burroughs H. S.

Nineteen years ago, when Rear Admiral S. E. Burroughs became the first commanding officer of the Naval Ordnance Test Station at China Lake, he faced many problems. To build up the station to accomplish its wartime missions was the primary one, but an important secondary mission was to provide proper educational facilities for the children of civilian employees and naval personnel.

Before he left in 1945 for a new assignment, Admiral Burroughs had vastly enlarged the station and had established an elementary school. He also had helped lay the groundwork for a high school which opened shortly after he departed. Appropriately, that institution was named the Sherman E. Burroughs high school.

Last month Admiral Burroughs, now retired from the Navy and a Vice President of Librascope, took a day off and journeyed to China Lake with Mrs. Burroughs to attend a special ceremony.

The occasion was the formal dedication of a new high school in handsome, well-equipped buildings, which serve the northeastern part of Kern County as part of the Kern County Unified School District. Its students come from NOTS, Ridgecrest, Inyokern and other desert communities.

The new school's old quarters are now the new home for the station's elementary school. But the name was not left behind; it is the proud adornment on the facade of the new school. Admiral Burroughs was the honored guest at the dedication ceremonies.

LIBRAZETTE (whose staff heard about all this via the grapevine and the Public Information Office of NOTS at China Lake, because Admiral Burroughs, not given to personal publicity, said nothing about it at Librascope) interviewed the "Veep" after it was all over. He was voluble about the school and the achievements of its students.

"This year's graduating class contains the first group of students whose entire education was gained at China Lake,"



Rear Admiral S. E. Burroughs (USN Ret) Vice President of Librascope, receives gold plated, student body card from student body president Jeff Besser, at dedication ceremonies of the Sherman E. Burroughs high school at China Lake. Admiral Burroughs, while commanding officer of the Naval Ordnance Test Station at China Lake, led the community effort which resulted in the establishment of a public school system at the station. (USN photo)

Admiral Burroughs related. "Every student going on to college has been accepted by the school of his choice. . . and a high percentage are going to college on academic scholarships. I think this is a real accomplishment by the students and their instructors.

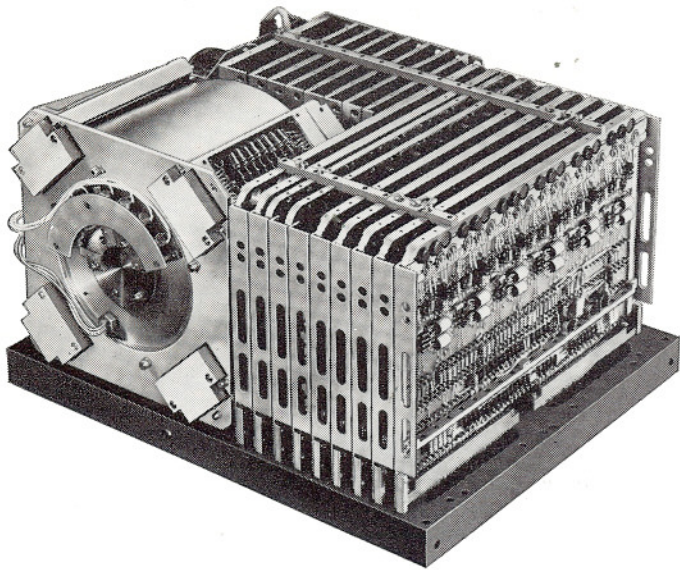
"Burroughs High is a public high school, not a navy-operated dependents' school and this status is something which both Navy and civilians sought from the start. We did not want it to be a separate part of the community."

The high school, Admiral Burroughs believes, will probably rack up a lot of academic records in the future, too.

"There are many bright, intelligent youngsters out there and the teaching staff is first rate. And the scientists on the NOTS staff take a paternal interest, lending a hand wherever possible. Each year, for instance, the top students get the privilege of spending 10 days in the Michelson Laboratory, working with some of the finest minds in the country."

Some of this year's graduates are ticketed for Harvard, Stanford and California-Berkeley. This makes the Admiral happy. But you get the idea that he'll be happier still when some of a new crop of grads go on to the U.S. Naval Academy at Annapolis.

ASN-24: Good Things Come in Small Packages



research program in component development opened new avenues in logical design and circuit development.

Confident of a long and prosperous life for the infant computer (originally named the "Minimal Computer"), Dietrich, Williamson and Bible took to the road in early 1956, visiting a host of Air Force installations. They tried to find out what was wanted or required in the way of an airborne navigational computer system.

Their travels and investigations convinced the trio that the Minimal Computer would be of interest to the Air Force, and a formal presentation was made to the Weapons Guidance Laboratory at Wright Air Development Center, Dayton, Ohio. The result was a sole source contract for the development of a lightweight navigation computer system in May, 1957.

What was the Minimal Computer officially became AN-/ASN-24.

To the men who had pioneered its development, the versatile little (32 lbs., 0.55 cu. ft.) computer had now come of age. What was formerly a Librascope funded project now had official Air Force sponsorship, and full engineering and support teams were assigned to the job.

The names of people involved in the development of the diminutive computer now read like the Airborne/Aerospace roster, which in fact, it was. The project had become a full-fledged team effort.

In May, 1958, a supplemental agreement was made with WADC for a second experimental model of the ASN-24 — the TRACALS version — using redesigned displays and indicators. The first computer was delivered in August '58, while the second model was shipped to Dayton in November of the following year. To the complete satisfaction of both Librascope and the Air Force, the units successfully passed extensive laboratory and flight testing.

The next giant step for the tiny computer was aimed at space. It was in competition for the Centaur space-probe. Discussions were started with Convair Astronautics in the summer of 1958, with a formal presentation submitted the following February. Outlasting stiff competition, the Aerospace branch received the contract for the Centaur guidance computer. It would be placed in a new space-designed package, but internally, it was still the ASN-24.

And now a new future unfolds for our mighty mite computer. Under Air Force contract, San Marcos will produce nine units, designated AN/ASN-24(V), for use in the C-141A, the giant turboprop freighter now being produced at Lockheed's Georgia Division.

Since its inception, the ASN-24 has grown in reputation and its creators in experience. Who is to say that it is not just the beginning?

(Both in time and experience, Librascope engineering effort has come a long way since the early research into the development of a lightweight, general purpose, airborne digital computer. The result, following several years of modification and refinement, is the AN/ASN-24, now scheduled for use aboard the newly developed C-141 jet-powered transport aircraft. The following account is a brief history of the computer and of the individuals and groups who made it possible.—Ed.)

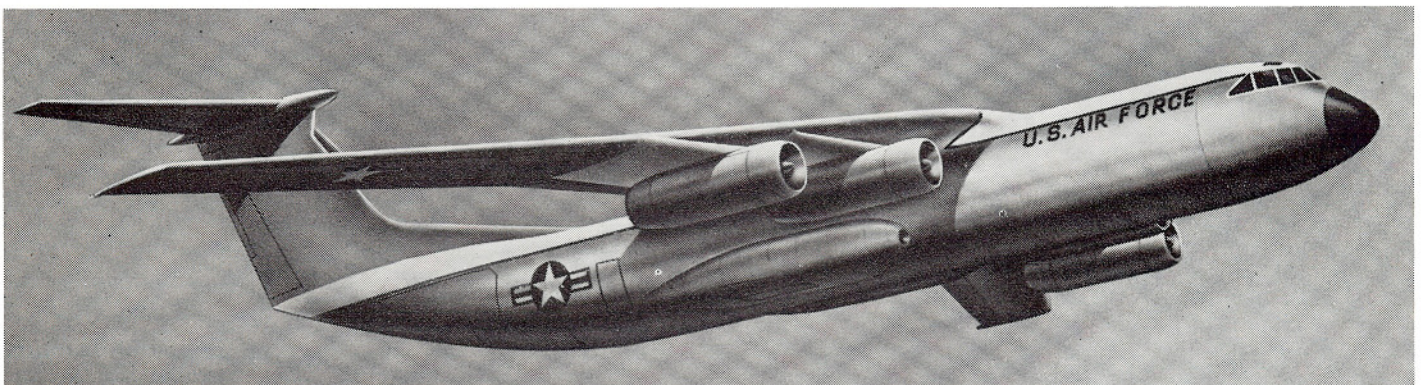
It is only seven years since the first steps in the development of the ASN-24 computer, but in the rapid march-of-time in the electronics industry, 1955 now appears to be a dusty page out of ancient history.

But in spite of the great leaps forward in the state-of-the-art, you can't outdate top-flight engineering concepts and design — the built-in qualities of the ASN-24.

The idea for a lightweight airborne computer took place in a Librascope department that no longer exists; it was developed further in a thesis for a Master's degree by an engineer who is no longer with us.

The department was Airborne Engineering (later to become Aerospace) headed by Bob Dietrich, now Director of Technical Planning. His chief engineer was Hank Norris, now branch manager. The graduate thesis on a general purpose computer was the work of Bob Bible, who has since left the company.

Teaming up with Dietrich, Norris, and Bible during the -24's birth and infancy, was a third Bob — Bob Williamson, now Technical Assistant to the President. Another key figure in the computer's early design stage was Hal Hamilton, whose



ARTIST'S RENDERING OF C-141
On Course With the ASN-24

(Lockheed-Georgia Photo)

ENGINEERING

All Ready to Go

Award of the C-141 contract found the Aerospace engineering management team assigned to the program ready to swing into immediate action, Project Manager P. J. Wyels told LIBRAZETTE. The group had been organized and staffed in anticipation that Librascope would be awarded the contract; and intensive design effort has been underway since February of this year.

Seven of the program's engineering, management and supporting functions report directly to Wyels; five others re-

Location of management offices of the Aerospace branch will shift from Bldg D-12 at Glendale to the San Marcos location on July 2, Branch Manager H. W. Norris announced this month.

Norris, Controller A. C. Krein, Jr., and Customer Relations Manager H. E. Beatty, will be established in new offices by the July date. A. R. Park, Manager of Product Assurance, W. P. Sertic, Personnel Manager, Chief Engineer D. L. Farr and A. E. Davis, Supt of Manufacturing and their personnel, have already shifted their operations.

port to Project Engineer Lee Tillman, who reports to Wyels. In turn Wyels reports to Ass't Chief Engineer R. E. Berri.

Functioning in a staff capacity to Wyels is Project Administrator Wayne Ferguson, whose primary responsibility is the administration of the contract.

Responsible to Wyels are the following group heads:

Production Engineering—V. J. Lees; Purchasing—B. E. Roper; Field Services Training—J. T. Sturges; Product Assurance—A. R. Park; Publications—George Cassell; Manufacturing—A. E. Davis.

Responsible to Tillman are these group heads:

Systems Integration—R. M. Schofield; Electronic Design—G. M. Petrov; Mechanical Design—F. M. Kirr; Programming—H. D. Stanard and Engineering Support—D. R. Frederick.

Most of the engineering work will be performed at the Aerospace Glendale facilities. Major portion of manufacture, except for portions which will be subcontracted—will be performed at San Marcos, Wyels said.

Q-11 Project Organizes

Manpower and functional assignments to the engineering/management team assigned to the Air Force contract awarded to the new Data Processing Systems branch, have been announced by L. H. Bentley, branch manager.

(Previously referred to by its overall Air

Force designation of 473L, Librascope's portion of the contract is now known as AN/FYQ-11. In the DPS it will be called the Q-11 project, says Manager Bentley.)

Bentley, who also will function as Program Director, has established what is virtually a separate organization within the branch to carry out the project.

Librascope is committed to deliver a complete data processing subsystem by May 2, 1963, Bentley said.

"We have the deadline and we have the organization to do the job. Q-11 will be installed in the Pentagon and ready to operate on May 2, 1963," Bentley told LIBRAZETTE.

Named as Technical Director of Q-11 is L. L. Wolman, chief engineer. Reporting to Wolman as heads of groups are:

W. E. Stupar, systems engineering; J. P. Casey, rotating memory; Clifford Moore, mechanical support; M. E. Ettinghoff, electronic equipment, and Herbert Jacks, reliability.

Also reporting to Wolman are members of the technical coordination group dealing with the Systems Projects Office of the Air Force, which awarded the Q-11 contract. In this group are L. M. Schmidt, DPS branch; Ralph Singman, consultant and Alan Bloch, Librascope engineering representative in Boston.

Other managerial assignments on the project:

Manufacturing—H. F. Warner; Quality Control—J. M. Stevens; Purchasing—Hugh Smith. E. J. Resor has been designated business manager. Reporting to Resor are J. M. Jett, contracts; W. J. Sieber, program planning; Dow Swain, documentation and R. B. Mothersbaugh, logistics.

Engineering staff members assigned so far, are:

Senior Engineers, P. R. Hickey and James Lowry, and Engineers L. D. Brown, J. M. Conway, Charles Drescher, J. A. Fogle, Norton Markin, D. K. Parker, Peter Tults and W. H. Glaister.

Mathematician William Beck is responsible for the project's programming.

The major portion of Q-11 is composed of "off-the-shelf" designs, such as the L-3055 data processing system, already proven in performance. However, a certain amount of new engineering is required to fit the designs to Air Force needs.

Initial dollar amount of the Q-11 contract is \$1,700,000, but follow-on capability, support and programming is expected to bring the total contract amount to approximately \$3,700,000.

A Job Well Done

Glendale Engineering has been lauded by Rear Admiral Levering Smith, Chief of the Navy's Bureau of Weapons, for "its fine cooperation" in recent tests of the Mk 84/Mk 113 fire control systems interface.

In a wire to A. D. Larson, Chief Engineer, Admiral Smith complimented Librascope for the "cooperation given to Control Data Corporation" in the test program, called our work a "credit to Librascope's team spirit."

Singling out Senior Mathematician R. D. Binz and Project Manager R. E. Simpson for credit, Admiral Smith said Librascope's assignment "was most competently handled."



ACHIEVEMENTS

Professional recognition of achievement came this month to Paul A. Chesney, internal auditor on the staff of Division Director of Audits R. L. Clancy, with word that he has been elected to membership in the American Institute of Certified Public Accountants. J. N. Cronk and M. M. Olson of the Glendale branch and Frank Clerk of Sunnyvale branch are Chesney's fellow CPAs at Librascope.



SAN MARCOS ACTIVITIES — Bob Freeman (center), first president of the Librascope "Aeronauts" — the newly formed San Marcos employee recreation group — discusses forthcoming social calendar with club director Bob Smith and sec'y-treas Donna Lawton. A Spring dance, the club's first official activity, was held May 19, in Escondido. Plans are now underway for an employee picnic to be held Saturday, August 18.

'Twisters' Turn Out for



The annual Precisioneer Spring Dance, attended by better than 200 people, proved to be the vehicle for a special celebration this year: our twenty-fifth year as a company.

Titled the "Silver Anniversary F..." Librascopers with wives, husbands, and friends, had a fun-filled evening dancing to the music of Al Harding's orchestra at the Biltmore Ballroom.

This year's dancing proved to be a little



Precisioneer Spring Dance



of the ordinary, however. It was the
ht the "twist" came of age at a Pre-
ioneer function (see accompanying pic-
es). Those with less flexible sacrum
iliums confined themselves to the more
nventional" dance steps.

Next event on the Precisioneer social
endar, according to president Louise
erton, will be a Halloween costume dance,
be held at the Los Angeles Breakfast
b on Oct. 27.

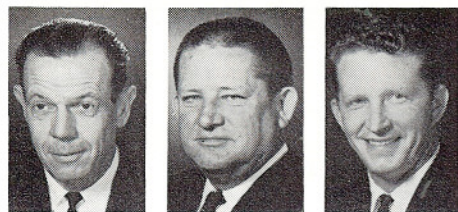


GLENDALE

Glendale MFG Changes

A special proposal unit to handle requests for quotes on the manufacture of ground support equipment for the Minuteman missile program, has been established by Glendale manufacturing, and O. H. Shoemaker has been named Manager of the group.

The Minuteman program is one of the largest of the Air Force's missile pro-



SHOEMAKER GLOYD CULVER

jects and is on a "crash" basis. Requests for Librascope participation are coming from The Boeing Company, Seattle, one of many prime contractors on Minuteman.

Assisting Shoemaker on the proposal team are J. S. Nelson and J. R. Snella.

J. D. Gloyd, previously Production Project Coordinator on FRAM, has been named Manager of the Production Projects staff, to succeed Shoemaker, and Carl Culver, Jr., previously General Foreman in Glendale Assembly, has shifted to Gloyd's staff. He has assumed Gloyd's previous assignments.

"Let us not argue to see who will get the blame for mistakes. Instead, let us always try to determine who will receive the credit for correcting them." —Anon



26-39-18 — Guard Ezra Perkins works the combination lock on his security pouch as he delivers some classified documents to Marilyn Futscher, Division Contracts. All classified material at Librascope are transported by armed courier Perkins in this special bag. In addition to inter-plant documents, Perkins also acts as courier between our security office and local military installations, transporting classified material when time does not permit the use of registered mail.



NEW FACES

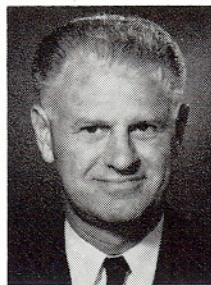
A New Controller

Bruce F. Young has joined the newly formed Data Processing Systems Branch as controller, reporting to L. H. Bentley, Branch Mgr.

Young comes to Librascope from Babcock Electronics Corp., where he served for one year as director of material. He was formerly with American Electronics Inc and Rheem Mfg Co as division controller for both firms. With Ryan Aeronautical, San Diego, he was manager of the cost department.

Young is an engineering graduate from Stanford, later received an MBA from the Harvard Graduate School of Business.

A Navy supply officer during World War II, Young is married, has one child and presently makes his home in Fullerton.



Cohen, Brown to OES

Glendale expanded its Operations Evaluation Section last month with the addition of Senior Industrial Engineer Kenneth P. Cohen and Industrial Engineer Joe S. Brown. They report to Supvr. R. E. Awbrey.

Cohen comes to Librascope from Plastimayd Corp., Portland, Ore., where he



COHEN



BROWN

was plant manager. He is a graduate of Washington University, (BS/IE) and St. Louis University, St. Louis, where he took post graduate work in hospital administration.

A World War II Marine Corps veteran, Cohen is married and the father of three youngsters.

Brown, who spent four years with Aero-jet-General at Sacramento as an industrial engineer before joining Librascope, holds a BS/IE from Georgia Tech. He spent four years with the Air Force as a flight mechanic before enrolling at Georgia Tech, from which he graduated in 1958.

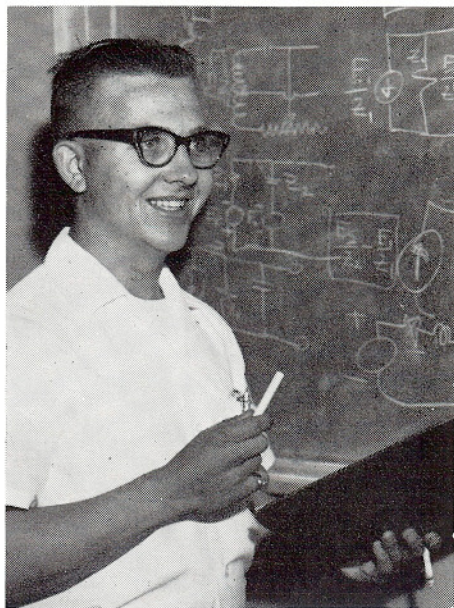
Brown is married, the father of two and makes his home in Granada Hills.

Return From Leave

Even though piped-in music filled his Army barracks and a spacious swimming pool was just across the street, it is still "good to be home," according to Hal Whitworth, San Marcos senior electronic technician.

For the past two years, Whitworth has been a member of Co. "B" Ordnance Group at Redstone Arsenal, Huntsville, Alabama.

Drafted in 1960, Whitworth found Redstone duty instructive and enjoyable. As an E-4 (a corporal by earlier designa-



HAL WHITWORTH
"It's Good to Be Back"

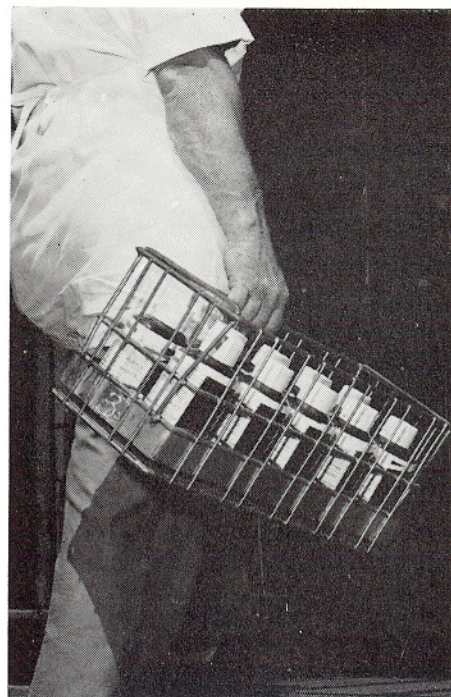
tion), he was assigned to the maintenance program for the NIKE air defense missile. He also spent six months as an instructor at the Ordnance Guided Missile School, teaching electronics and missile maintenance.

Toward the end of his two-year stay in Alabama, Whitworth was pleasantly surprised to receive a phone call from two fellow Librascopers. Lee Gurfein from our Huntsville office and Phil Ingalls, technical assistant to the chief engineer, San Marcos, saw his military address in a recent issue of LIBRAZETTE, and paid him a call. The result was a dinner invitation gratefully accepted by E-4 Whitworth.

Before entering the service, Whitworth was a leadman in Glendale Inspection for nearly two years, then transferred to Aerospace as a senior electronic technician two months before being drafted. He is presently assigned to the CP-209 authentication project, reporting to L. J. Tillman.

"The key to expanding opportunities in the new job frontier of the '60s will be found in education and training. . . . The untrained or uneducated will not be able to design, produce, install, service or operate the machinery of the future."

Seymour Wolfbein
Ass't Sec'y of Labor



FIRST-TIMER—Beverly Gruwell, Glendale Office Services (right) is seen a moment after her first donation at the May 23 Blood Bank, sponsored by the Precisioners. Mrs. Virginia Wise, R.N., applies the gauze bandage to Beverly's arm, as Mrs. Sydney Jones, volunteer staff aide, receives the young lady's donation. In photo at right, Beverly's pint of blood along with those of other fellow employees was placed in the special refrigeration unit in the Red Cross Bloodmobile. It will then be processed and placed in our own special account for use by Librascopers or members of their families in time of need.

Our Bank Account Enriched...

As in the past nine years, Griffith Manor Park, adjacent to Bldg A-01, was the site of the annual employee Blood Bank, sponsored by the Precisioners. And like its predecessors, Librascopers responded generously. By day's end, Blood Bank chairman Fred Killips was able to tally 138 pints of blood deposited to our Red Cross account.

While donations fell slightly below our hoped-for quota of 150 pints, the bank was still termed a "success" by chairman Killips.

An earlier-than-usual starting time may account for the slight drop-off in donors, according to Killips. "Our usual starting time had been at noon, but this year we opened at 9:30, and our attendance was a little thin during the early hours," Killips said.

Those Librascopers who missed the May Blood Bank will have another chance this year, when the Bloodmobile returns to Griffith Manor Park some time in November.



HONORS

James R. Kay, Division Director of Engineering Standards, and Dennis L. Wilson, Reliability Engineer, have been named to the board of governors of the Standards Engineer's Society, Los Angeles Section, for the 1962-63 period. Kay was elected chairman for the local chapter, and Wilson will direct publicity.

Keep Records Current

Are your insurance records up to date? Notify Group Insurance or Personnel of all changes in beneficiaries, your own and their home addresses.

Avoid delays in disability insurance payments by getting the proper forms from Group Insurance or Personnel at an early date—and have your doctor fill them out as soon as possible. Payments cannot be made until the forms are received from the doctor.

1962 Roll of Honor

Almgren, Roy E.
Anderson, Curtis L.
Anderson, Richard J.
Andree, Fred T.
Arredondo, Isabel N.
Atteberry, Logan W.
Aumann, William A.
Ballardini, Joseph G.
Barbaro, Rocco F.
Baxa, Victor F.
Beavers, Betty J.
Brinkley, Stephen H.
Brown, Joe S.
Brown, Shirley R.
Calley, Jeannette D.
Carey, Frank R.
Carpenter, Mel J.
Christopherson, Cora L.
Clemmons, Edith T.
Cohen, Kenneth P.
Collum, Eugene R.
Considine, Everett L.
Coulter, William L.
Coven, Don L.
Culver, Carl J.
Danna, Eugene
DeMay, Lorraine H.
DeYoung, Peter
Doolittle, Carl T.
Doyle, Thomas I.
Earley, James M.
Fido, Joe
Forrest, Marilyn J.

Frankenberg, Herbert J.
Fr es, Fred R.
Gammel, Marvin R.
Gee, Truman D.
Gil, Manuel H.
Gilmer, William R.
Goergen, Violet J.
Greene, Patrick F.
Gruwell, Beverly A.
Gunderson, William E. Jr.
Hagerty, Leland H.
Harrison, David H.
Heinz, Leo J.
Henshaw, Gerald R.
Henton, David E.
Henze, Fred W.
Hesse, Richard T.
Hoehn, Vera R.
Holmes, James H.
Jackman, Stephen E.
Johnson, Dennis R.
Kaneyski, Richard Y.
Kata, Michael P.
Kelly, Donald F.
Killips, Frederick J.
Koenig, John D.
Lacher, Francis J.
Lake, Eugene S.
Leers, Olga Sandra
Lederer, Sharon P.
Leighton, John G.
LeLong, Barney R.

Lincoln, John G.
Linsley, Clarence R.
Lis, Albin S.
Lovejoy, Robert H.
McClanahan, Louvena F.
McCorkle, Frank Kirk
March, Charles W.
Marshall, Frank B.
Matten, Betty J.
Megee, Robert L.
Mielkus, John A.
Miller, Carl A.
Miller, Howard A.
Monasterio, Ramon A.
Montgomery, Ronald Y.
Nash, Gordon F.
Nelson, Paul
Newbanks, Harold J.
Newman, Ellsworth D.
Newman, William E.
Nolton, Angelo
Northcutt, Charles M.
Novielli, Carl W.
Oishi, Fred A.
O'Millian, Albert J.
O'Toole, John J.
Otto, Berdella L.
Paddock, Patricia D.
Palkovic, Elizabeth R.
Perry, Charles D. Jr.
Peterson, Robert D.
Phillips, Anthony E. Jr.
Price, Richard H.

Putnam, Robert W.
Resendez, John E.
Rich, Franklin D.
Robinson, Alden L.
Robinson, Richard L.
Roby, Juanita E.
Roche, Frank C.
Roepke, Richard L.
Rousseau, Philip L.
Ryan, William S.
Saffell, Gerald R.
Sagar, Arthur
Salezar, Elio R.
Schneider, Anton U.
Schnell, Rita F.
Schwartz, Oscar A.
Sites, Eugene R.
Soper, Leonard T.
Spayd, Alice Marie
Stern, Sandra M.
Terrill, Stanley C.
Thompson, Albert E.
Tompkins, Arthur B.
Valerio, Hazel J.
Van Essen, Arthur
Villa, Albert A.
Wandrey, Merten D.
Wells, Ruth M.
Welsh, William
West, Catherine A.
Whiteford, Elaine C.
Whitely, Wesley J.
Yapp, Frank H.
Ysais, Cecelia
Zajack, Joseph F.



STEEN HARALDSTED & MAURICE DELONGFIELD
Foreman & Inventor View "Box of Lights"

Cost reduction comes in many shapes and sizes. At its best, it is the development of a new technique or process, the simplification of a time-consuming task, and finally, the reduction of operating costs through a new and better way of doing things.

The most gratifying form of cost reduction—both to the employee and to the company—is, of course, the idea. It might develop into a major overhaul of existing operations, or it might be a surprisingly simple new technique, heretofore untried. But whatever the method, and whether it is performed by an individual or a committee, if it cuts costs, it is an achievement worthy of recognition.

All of our branches have embarked on cost-saving programs, and there have been significant savings to show for it. Several of the most outstanding ideas have been the result of individuals who, when viewing a particular work situation, have said, "there must be a better way of doing this."

One individual who saw a problem area and proceeded to do something about it, is **Maurice DeLongfield**, leadman in Glendale Assembly.

DeLongfield's contribution to a more efficient Assembly operation is a testing device which he developed on his own time at home, known as "the box of lights."

Because of the pressing deadlines in the fabrication and checkout of engineering and production test cables, DeLongfield set out to find an easier, more efficient way to turn out the cables.

The major bottleneck was in the continuity check of the cables. With the old method, it required two assemblers—one at each end of the test cable—to perform the necessary check.

The solution, as DeLongfield saw it, was to streamline the operation, make it one-man job, if possible. With the right piece of test gear, it could be done. But since there was no such equipment available, DeLongfield proceeded to spend his week-ends and evenings developing just such a unit.

After several months of work, De-

Cost Reduction: Ideas Save Dollars in Branch-Wide Effort

Longfield was satisfied that his garage-built unit would do the job. In a meeting with Assembly Superintendent Herb Darby and General Foreman Les Hey, he outlined the capabilities of "the box of lights".

The supervisors liked what they heard and saw, so much so, that six of the units were ordered to be built for use in the Assembly area.

Since the units have been in operation, the hours needed for fabrication, check-out and inspection of the test cables have been reduced by approximately 40 per cent.



STU ZELDA
A Thin Wafer, A Greater Yield

So, if you happen to be walking through the main bay of building A-17 and see a flock of dime-sized lights blinking from an assembly bench, don't be surprised. It's probably one of DeLongfield's "boxes" flashing its way through a cost-saving continuity check.

* * * *

New and better ways of doing things needn't always be the work of a lone individual. In the Components and Special Devices branch (formerly Burbank) there has been an active program of cost-reduction by committee. And a highly successful one, at that.

One of the committee members is Estimator **Stu Zelda**, who attended a Value Analysis seminar at Glendale a year ago, and has been applying the VA principles and techniques ever since.

Among Zelda's accomplishments: a new method in the pressing process of commutators, the heart of Librascope encoders, that amounts to an estimated annual savings of \$28,336.

Following an investigation of the plating and processing operation, Zelda concluded that with certain equipment modifications, commutator disks could be produced in greater quantity, at greater yield, and at lower cost per unit.

First came a look at the slugs used to impregnate the etched pattern into the commutator disk. The slugs, $\frac{3}{4}$ " thick, were placed on each side of the disk during the pressing operation. Because of the bulky slugs only four commutators could be placed in the dye during each 2½-hour cycle on the platen.

Zelda replaced the slugs with stainless steel wafers and nearly quadrupled the yield. In the normal pressing cycle, 15 commutators were turned out in the time it originally took for four.

In addition, upon Zelda's recommendation, the cost reduction committee added new temperature control devices to the platens, thus ensuring a more uniform pressing operation.

Since Zelda and the CR committee looked in on them, the plating and processing department has never been the same. . . . It is much better than before, and at lower cost.

* * * *

Dollar-saving ideas, however, need not be a new piece of equipment or a major overhaul of an old one. It might prove to be as simple as using both sides of a piece of paper.

Take the idea developed by **Harry Pace**, for example. It isn't in the classification.

(Continued on next page)

HARRY PACE
Stretching the Value of Testing



Cost Reduction (cont.)

cation of a major savings, but it has doubled the use of one of the products we purchase.

Pace, an electronic and mechanical instrument technician in Glendale Adjusting, made a minor modification to a piece of test equipment that doubles the life of the \$8-per-roll recording tape used on it.

The tape, used on the Sanborn 150 test recorder, is a temporary record of tests conducted on various pieces of Librascope equipment. Upon completion, the tape record is analyzed, then consigned to the waste basket. As the man running the tests, Pace decided to stretch the value of the \$8 roll of tape.

By devising a special tape roller and modifying the take-up reel and feed spool on the Sanborn tester, he was able to use both sides of the tape for recording test data.

Thanks to Pace's minor modification, Adjusting now receives \$16 worth of recorded test data for half the price—a substantial saving by any cost-improvement standard.



UP THE LADDER

Richard H. Ericson, who joined the then Burbank branch Dec. 1, 1958 as an electrical inspector, has been appointed Quality Control Manager of the new Components and Special Devices branch.

Ericson, is a veteran of four years in the Air Force, in which he served as an airborne weather equipment operator.

Prior to his new appointment, Ericson was Supvr of electrical inspection in the Burbank branch. Other promotions:

Gaetano Cimo from senior elec-tech to electronic engineering associate, Glendale Elec Eng Design.

Craig W. Hammill from senior engineer to staff eng, Glendale Elec Eng Design.

Linda M. Lanphear from stenographer to secretary, Glendale Contracts.

Don V. Tubbs from designer to sr designer, Glendale Elec-Mech Engineering.

Stuart L. Hager from E&M instrument tech, Adjustment, to Glendale Field Service technician.

Peter G. Fountas from senior elec-tech to electronic engineering associate, Glendale Elec Eng Design.

Constance Negri from dept clerk, Methods, to parts lister "A", Glendale Parts Listing.

Gordon W. Flemming from eng to sr eng, Glendale Elec-Eng Design.

John W. Dolan, Jr., from sr tech illustrator to group leader, Glendale Publications.

Don L. Cowen from sr elec-tech to liaison eng associate, Glendale Liaison Eng.

Nicola D. Constantini from drafting group leader, Test Equipment, to Designer, Glendale Elec-Mech Eng.

Josef Dugas from designer to sr designer, Glendale Elec-Mech Engineering.



"NC"—Part II

Every Tuesday morning for an hour or so, the big numerically controlled machine tools in Bldg A-01 stand strangely silent.

It is during this break in the production schedule that the two Librascopes pictured above might be seen moving about the equipment. They are machinist Wilmor Young (left) and electrician Rolly Thornburgh, applying their special skills and knowledge to make sure that the costly pieces of tape-controlled equipment are in proper running order.

Both Young and Thornburgh, along with Chuck Forst, night shift electrician, were specially trained in both preventive and repair maintenance before being assigned to the NC equipment.

Each one attended a week-long school of special instruction at Hughes Industrial Systems Division, before the first Burgmaster turret drill press was installed at Librascope. A similar period of in-plant instruction, conducted by a Fosdick representative, took place on the automatic jig borer before it became a part of our manufacturing effort.

Since its introduction in December, 1960, tape-controlled production equipment has proven to be a tremendous asset in Glendale Manufacturing. Its continued success depends to a large extent on our behind-the-scenes team of maintenance specialists—the men who make certain the equipment is ready to do the job.

Artists Score at TIMA

Members of Glendale Publications Art Dept received two awards in the Ninth Annual Technical Illustrator's Management Association competition, held at the state museum of Science and industry in Los Angeles.

An eight-page brochure titled "AN/ASN-24, The Aircraft Digital Computer" received second place prize in the sales and promotional literature category. The award-winning entry was designed by Paul Kane, Supvr, Art Services, with

production art by commercial artist Jim Norwood, and Reed Kinert, sr tech illustrator.

A third place TIMA prize went to commercial artists Roy Brown and George Brull for their treatment of an airbrush cutaway illustration in the special applications category.

The prize-winning TIMA entries have been shipped to the Bay area for several public exhibits, including showings at Stanford University and Lockheed-Sunnyvale. Attendance at the annual exhibit exceeded 100,000.

EMPLOYEE ACTIVITIES

Time for an Outing

Mountain Oak Park in La Crescenta is the site for the annual Precisioneer Picnic to be held Saturday, June 30, for employees and their families.

This year's picnic, according to chairman George Poppa, will have all the usual trimmings, along with a few new added attractions.

In addition to food — served up by Bonar Beck, shipping — free pop and the customary nickel beer, there will be cotton candy, four special rides and six ponies at the disposal of the younger set.

An encore from last year's affair is the Tony Roberts' band, which will provide dance music throughout the afternoon.

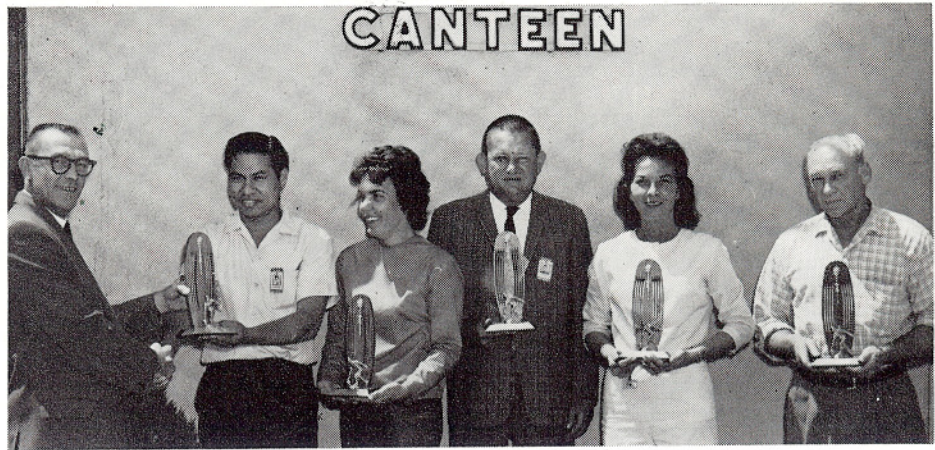
For the athletic set, there is a spacious swimming pool and several baseball diamonds. And if you want to cook your own meal, you can do that, too. There are a host of individual barbecue pits scattered throughout the Mountain Oak facility.

So, mark June 30 on your calendar. The park opens at 10:00, closing time at 5:00.

Ladies Get Together

A "get acquainted" buffet luncheon was held by the San Marcos Wives at the Avocado House in Vista on May 8, with 53 ladies in attendance.

The informal luncheon-meetings, scheduled every three months, are organized by a rotating committee. Chairman of last month's successful gathering was Joanne (Mrs James) Fallet. Other com-



CANTEEN AWARDS — G. W. Salberg, Canteen Manager (left), presents individual trophies to members of the United Nations bowling team, playoff winners of the Librascope 830 Scratch League. On hand to receive the Canteen-sponsored awards are (l-r): John Lincoln, Charlotte Moyle, John Gloyd, Bonnie Granger, and Freeman Done.

mittee members included Jane (Mrs Arthur) Davis, Happy (Mrs Robert) McMurray, Anne (Mrs Walter) Sertic, and Shirley (Mrs Keith) Tattersall.

In addition to the luncheons, many of the Librascope San Marcos wives gather every Monday morning for bowling at the Escondido Lanes.



NEWS BRIEFS

GPI has announced the appointment of Svenska Siemens Aktiebolag as distributor in Sweden for its GPL and Link Divisions. The Swedish company will serve

as distributor for GPL's Doppler navigation equipment and computers, and for Link's commercial and military simulators. SSA already represents Kearfott sales in Sweden.

A major advance in simulated driver training has been achieved by Link Division with the development of a distinctively new automobile driver training machine designed to bring the realism of the highway into the classroom.

The trainer simulates behind-the-wheel appearance and operation through use of special films projected in the student's view, and is equipped with controls which give the feel of starting the engine, accelerating, steering and braking.

RESOLVED :
When in Need of
Capital in '62
To See My ...



CREDIT UNION

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General Precision, Inc.
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Glendale 1, Calif.

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