With my best wishes to all of you at Librascope this Christmas season go my sincere desire that we may all continue to work and live and grow in a world where "peace on earth" and "good will to men" is in the thoughts of man throughout the year.

May the very happiest of Christmas seasons be yours and the New Year be one of prosperity and good fortune.

W. E. BRATTON

LIBRAZETTE

LIBRASCOPE DIVISION
GENERAL PRECISION, INC.

AN EXCHANGE OF NEWS AND KNOWLEDGE

Vol. 8, No. 6 December, 1960

Aid Club Election Will Name Charities, Officials for 1961

Appropriately timed for the nearing season of generosity and good will, over 3,000 benevolent Librascopers who are volunteer members of the Aid Club will vote Dec. 21 on the distribution of their donations for 1961.

An annual event, the democratic process of choosing which charities are to receive funds, and in what amounts, highlights advantages afforded by the Librascope Aid Club.

THE CLUB donations, automatically deducted from payroll checks in desired monthly amounts, represent an efficient method of collecting funds for annual charity drives.

Closer to home, a portion of the donation derived is available to needy fellow-employees who are recommended for Aid Club in-plant assistance.

The 1961 funds-to-be, as in previous years, will be budgeted to allow 70% of all money collected to go to the voters' choices; 20% to be set aside for in-plant aid, and 10% held in reserve for cases of community emergencies.

ALSO ON the ballot this year, according to Aid Club Chairman C. F. White, are two of the club's six committee seats, held by Steve Jackman, second shift, and Ed Grossman, Bldgs. 1-10-17.

Under present club rules, committeemen are elected for three-year terms, two vacancies arising each year. These six members are responsible for decisions on all in-plant Aid Club applications.

In connection with the committeemen vote, Aid Club members will also ballot on a proposed change in the club's by-laws requesting the committee number be changed to seven. These seven committeemen would then represent all major installations within the company in

(Continued on Page 7)

ONE FOR ALL—Symbolically depicted above are some of the charities which receive funds from Librascopers through the Aid Club. At the top, the Librascope badge represents in-plant aid available to needy employees. Clockwise, the charities are Multiple Sclerosis, Muscular Dystrophy, Red Cross, Heart Fund and Crippled Children; in the center, Community Chest, Salvation Army and Cancer Society.

About Tiny Tots Who Hope To Hear

". . . and children listen, to hear sleighbells in the snow."

For some children there will be no sounds of Christmas this year—no carols, no bells, no laughter. For them every night is silent night.

They are deaf.

THE HOPE of hearing for many young children born deaf lies in the work of organizations like the HEAR Foundation in Los Angeles, named again this year as the beneficiary of Librascope's Christmas Card Charity Drive.

With money donated in this annual drive, people like Dr. Ciwa Griffiths, head of the HEAR Foundation, and members of her staff, and Librascope's own Leonard Ludvigsen, may make hearing possible for these deaf children.

LUDVIGSEN, Glendale branch engineer, who on his own has developed much of the testing equipment used by HEAR, is now completing a new auditory screening device that should be ready by Christmas.

The new device, an expansion on previous Ludvigsen equipment, is designed to screen sound response of children only a few days old.

"Two hospitals have agreed to use our screening equipment on new-born infants next year," Dr. Griffiths explained. "We hope to further substantiate our theory that deafness discovered at a very early age is often the key to successful treatment."

For many children, early treatment of deafness is also the key to learning to speak. Muteness is often the partner of childhood deafness.

DR. GRIFFITHS' program for next year will be to check all children born in the two hospitals and record their response to sound tests. Medical observation that follows will then reveal the relation of these test results to deafness.

"Not only may we learn more about early symptoms of childhood deafness," Dr. Griffiths said. "We also expect to learn how conditions other than deafness are revealed by the failure of the child to respond to auditory screening. These conditions may then be recognized and also treated earlier than they now are."

"Eventually we hope that all children in all hospitals will be screened for sound response soon after birth as part of regular tests," she added.

ACCORDING TO Dr. Griffiths, the HEAR Foundation in Los Angeles is unique in that it is the only institution in the country that has advocated and developed the practice of placing hearing aids on infants as a means of correcting deafness.

In the past many youngsters enrolled in the Foundation's program, including several children from Librascope families, have gained the ability to hear and speak.

Maybe next year, others will hear.

Holiday Observance

Because both Christmas and New Year's Day fall on Sunday this holiday season, each will be officially observed on the following Monday, according to Employee Relations Director C. P. McKeague. Both will be paid holidays.

HERE'S HOW—The worthy cause behind this holiday decoration displayed by Carol Graham (right) and Janice Lorentzson, of Personnel, Bldg. 16, is the Christmas Card Charity, sponsored by the Precisioneers again this year. Instead of exchanging Christmas cards with employees, Librascopers are urged to contribute to the annual fund, the money to be used by the HEAR Foundation of Los Angeles to aid children who are deaf. To each donor goes a colored disc, which, when autographed, is added to decorate the charity tree poster in each department.

Division Adds Staff Positions; Aerospace Changes Revealed

Important new additions to the staff structure of Division headquarters and a new organization chart for the Aerospace branch were made public this month.

R. A. Dietrich, Director of Technical Planning, has established two new groups. One—Advanced Applications—will operate in the area of applications of the advanced research program. T. W. Kampe, formerly staff engineer in the Advanced Projects section of the Glendale branch, has been named to head the group.

TWO NEW functions were set up by W. K. McAboy, who was named Director of Operations Planning. He formerly was Director, Manufacturing. The new groups:

Industrial Engineering, under W. F. Girouard as Director and Value Analysis, under R. I. Case, Director. Case, who has been Staff Engineer to Vice-Pres. D. C. Webster, will continue in that capacity.

With Reliability, under W. J. Picker; Standards, under J. R. Kay, and Quality Control, under D. H. Harrison, the Operations Planning group is now virtually complete, McAboy told LIBRAZETTE.

McABOY ALSO announced a new name for the Standards Laboratory under D. L. Lusk. It will henceforth be known as the Metrology Laboratory and within its structure will also operate the Librascope-BuWeps Secondary Standards Laboratory. This function is not new, but the title is a recognition of its official Navy rating for capability and excellence, McAboy said. Lusk reports to Harrison.

Value Analysis, under Case, will work with the branch engineering and manufacturing groups to effect reductions in cost and product improvement.

H. W. Norris, Aerospace branch manager, released an organization chart showing six staff offices, a manufacturing section, three project groups and one technical support group.

In the staff offices are:

CONTROLLER—A. C. Krein, Jr.; Contracts Administration — G. R. Gibbs, Manager; Quality Control—W. D. Hibbard, Manager; Branch Services—P. E. Bender, Manager; Customer Relations — Charles Foodim, Manager and Personnel — W. P. Sertic, Manager.

The chart shows Norris with the additional function of Chief Engineer and A. E. Davis as Supervisor of Manufacturing.

Project directors are R. E. Bible, heading up the Building Block Com-

(Continued on Page 8)

W. F. Girouard, Drucker Shift

W. F. Girouard, who was named this month to be Director of the newly-created Division Industrial Engineering section, is no stranger to Librascope or industrial engineering.

For the past two years Girouard, a steeple-tall, vastly communicative personality from New England, who still retains his Down East twang, has been a Librascope consultant to Glendale Production's industrial engineering department. Working with IE manager George Clark, he made the basic study of Production's paperwork structure which led to the organization of the Librascope Operational Control System.

Girouard now is a Professor of Industrial Engineering at the University of Southern California, and has been chairman of the graduate study committee of the School of Engineering. He holds a BA degree from Oberlin College and a BS Degree from USC. He is about to complete his work for a Master's degree in Industrial Engineering.

Girouard will be assisted by Shelby Drucker, former Supervisor of the Methods Improvement and LOCS groups of Glendale branch industrial engineering. Drucker is a graduate in Industrial Engineering from USC, a former production manager, quality control and industrial engineer with Southern California electronics firms.

The new section will help organize industrial engineering sections in the branches and will coordinate the use of all production facilities. Among its functions will be a continuing study of new manufacturing techniques and processes.

Danger Lurks During Holiday

The packed highways and freeways of Southern California always rank high on the national list of traffic injuries and fatalities. But at no time does the driver and pedestrian find the going more treacherous than during the month of December.

Here are a few of the awesome statistics compiled by Safety Engineer Bob Lee on what awaits us on the road during the holiday season:

- During 11 months of the year, drinking is a factor in approximately 30% of all fatal accidents. In December, the figure jumps to a devastating 55%.
- The "social drinkers" are a greater menace than commonly believed, as their critical judgment is impaired with a fairly low alcohol concentration and they outnumber the obviously intoxicated drivers.
- Two cocktails (about 0.04% of alcohol in the blood) may reduce visual effectiveness as much as wearing dark glasses at night.
- And, finally, drinking to any extent reduces the ability, judgment and self-control of any driver —**even you!**

Lindahl Elected

M. L. Lindahl, Librascope Vice-President and Treasurer, has been elected to the GPI Board of Directors, it was announced by D. W. Smith, GPI President. Lindahl, President W. E. Bratton and Vice-President D. C. Webster now form the Librascope representation on the GPI board.

PRIZE WINNER—Fourth-year apprentice Paul Bevis (center) is congratulated by Model Shop superintendent C. R. Cole (left) for placing second in the state-wide apprentice contest. Harold Compton, secretary of Librascope's Joint Apprenticeship Committee, holds the letter announcing the winners of the one-day contest.

NEW EQUIPMENT—Manufacturing Planning Supervisor Ivan Franklin (left), and Industrial Engineers Jack Leighton and Chuck Keesling inspect the new, numerically controlled Burgmaster turret drill press and the Hughes positioning controls. The new equipment was delivered and installed early this month.

'Numerically Controlled' Equipment in Production

"Numerically controlled" production equipment, the most recent advancement in time-saving and cost-reducing machinery, came to Librascope this month in the form of the Burgmaster turret drill press, model 2BHTL, equipped with Hughes numerical positioning controls.

Three days following delivery, the equipment was installed and in operation, precision drilling at a remarkable rate the module plates for the Mk 53 attack console.

THE NEW EQUIPMENT, as the term "numerical control" implies, is operated by numbers. Blueprint dimensions are converted to numerical values and these values are delivered to the control unit of the machine-tool by punched tape.

The tape, which is read optically with a photo cell, tells the machine the area where work is to be performed on a part and the proper tool to use.

It also tells when to turn the coolant on or off and when to blow metal chips from the work area. Feeds and spindle speeds are manually entered during set-up.

The work transmitted to the NC equipment is prepared by the Methods section of Industrial Engineering, which assigns numbers to each machining operation performed. The Methods group programs the type of work, the location of the part where the work is to be performed, as well as tools and machining speeds.

AFTER THE WORK has been programmed, the information is then transferred through the use of a Flexowriter onto a punched tape. The tape then becomes one of the tools of the machine.

A second piece of NC equipment, a Fosdick model 54P jig borer, is expected to be delivered in mid-January, according to Ivan Franklin, Supervisor of Manufacturing Planning.

The equipment was purchased, Franklin explained, after careful study and consideration. Something had to be found, he said, to help meet the growing requirements and exacting tolerances specified by our engineering groups. The numerically controlled machine tools seem to be the answer.

TOM HUMPHREYS, machinist—special from the drill press group, has been named as operator for the Burgmaster equipment.

Among the many advantages of NC machinery, according to Franklin, is the sizeable reduction in set-up time due to simpler holding fixtures and the fact that the tape, containing the control information, is prepared prior to release of work to the shop.

There will also be a savings through a reduction of scrap and rework. The machine will be able to repeat the command given it by the tape within the specified tolerances of the equipment and controls. These tolerances are well within those specified for the work being programmed.

BUT PERHAPS the major advantage of the equipment, according to Franklin, is the ease with which it can receive and incorporate any last minute engineering changes. With the new machinery, most changes—unless they are major ones—can be made with a simple change of tape in minutes. Even major changes can be reworked in a matter of hours.

"Numerically controlled equipment is the most modern tool in the field of production," Franklin stated. "We feel that with the installation of such equipment at Librascope, we are enhancing our competitive position in the electronics industry."

Name Gallop to Sighting Project

New associate engineer Donald G. Gallop, an August graduate of the University of Oklahoma, has joined the Aerospace branch and has been assigned by Project Manager Ron Spriestersbach to the Remote Sighting Sextant project. He will work under Project Engineer Wayne Davis on electrical circuit design.

Gallop, a native of Weatherford, Okla., first attended Southwestern Oklahoma State College, then served four years in the Air Force as a navigator-bombardier, before taking a BSEE degree at the University. He is married, the father of a two-year-old daughter and makes his home in North Hollywood.

Blood Donation Encore Planned Here, Dec. 28

A chance for Librascopers to bank their blood against a rainy day emergency comes again Dec. 28 when the Red Cross Bloodmobile makes its second swing of 1960 through the Glendale plant.

THE GIFT of blood, banked with the Red Cross, has proven one of the wisest donations Librascopers can make—the pint bottles of life invariably return to Librascope to help fellow-employees and their families.

Sponsored by the Precisioneers, the drive this month is again headed by Blood Bank Chairman Charles McKallor, Property Accounting.

SAID McKALLOR: "As much of a need exists for blood now as ever, in spite of our first yearly drive in May and the fine turnout we had then. We urge an all-out participation in the December drive, to keep our Blood Bank balance in the black."

Mary Snyder, Plant Nurse, and accountant for Librascope's Blood Bank, reports that of the 164 pints of blood donated during the drive in May, already 88 pints have been used by employees and their families. Nine pints have been donated since the May campaign.

Cost to the Red Cross to process and store each pint of blood is $6.

Total cost to the Red Cross to process and store the 173 pints of blood donated by Librascopers for Librascopers in 1960 was $1,038.

Librascope's total donation to the Red Cross in 1960 via the Aid Club was only $445.

The temporary blood collection center for the Dec. 28 drive will again be set up in the fieldhouse in Griffith Manor Park, just east of Bldg. 2 on Flower Street.

Hours of operation will be from noon to 4:30 p.m. A roster and schedule will be prepared by the Benefits and Services Office, and each donor will be notified in advance when to leave work and report to the center.

Loberg Assigned To Sertic's Staff

Philip W. Loberg, former engineering writer with Convair Astronautics in San Diego, has joined the Librascope Engineering Employment Staff of Supervisor W. P. Sertic as an employee interviewer.

A native of the Los Angeles area, Loberg attended USC and Pasadena City College, majoring in business administration, and studied Personnel Administration at California Western University in San Diego.

He has been an employee interviewer at Astronautics and Convair's Air Frame Division, and as a technical writer with Douglas Aircraft Co., Santa Monica.

During World War II, he was a Pharmacist's Mate Second Class with the Navy in the South Pacific theater.

The Librazette

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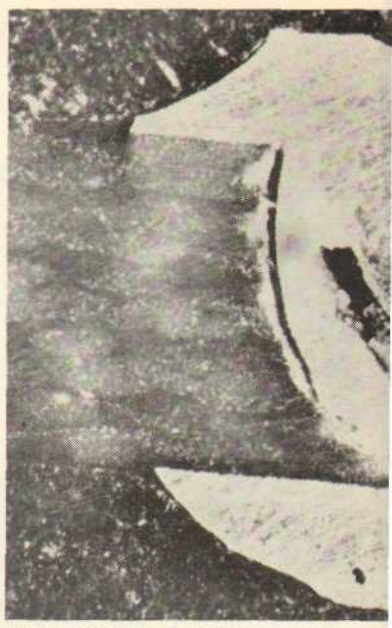
'Twas A Dance Before Christmas, 1960

LibraGraphic

news in pictures

'TIS A SEASON TO BE JOLLY—The only Librascopers who might not have had a wonderful time on the night of December 3, were those who didn't attend the annual 1960 Christmas Dinner-Dance held at the swank Biltmore Bowl. To a man—and woman—the entire evening was a whale of a party. It officially began with a cocktail hour, followed by a sumptuous prime rib dinner and then an evening-full of dancing to the music of Bill Steers and his orchestra. The photos above indicate a small sampling of the merriment at the yuletime party, attended by over 450.

IS IT RELIABLE?—Reliability Director Walt Picker (center) discusses with Herbert Meyer (left) and Leonard Rado the magnetic drum assembly from an airborne computer. Meyer is Supervisor of Reliability Analysis, while Rado heads up the Component Applications group.



NOTHING TOO SMALL—Picture a eyelet. The sample eyelet, ground a void shown above. Such imperfectio in circuitry and failure of a printed the microscopic as well as the man-

Reliability: A New Din

Professional educators may disagree, from time to time, over teaching methods, but they concur on one point—they all work with the "3 R's." Recently, however, engineers have started to add a fourth R. It stands for Reliability.

To say that something is "reliable," is to imply that it is "trustworthy" or "dependable." At least it was that simple in the pre-missile age.

Now, Reliability has come to mean considerably more. Not only is it as important a criterion as efficiency, speed, accuracy or other performance factors in shots-to-the-moon, but it has even come to play a very important part in consumer products as well.

Reliability requirements are on a continual upswing within military specifications and requests for quotation. Every indication points to all government-purchased products being handled in this manner in the immediate future.

What, then, is Reliability as it is known today? The men whose business it is to know, define it as "the probability that equipment will operate in the manner in which it is intended, under specified conditions of use, and for as long as it is supposed to operate."

A group at Librascope which wholly subscribes to this new definition is the Reliability Section, headed by Director Walt Picker.

Reliability Function

"Our engineers and technicians of the Reliability Section have two basic functions to fulfill," Picker told LIBRAZETTE. "First of all, we must assess the reliability of our designs and products. And secondly, we must assist responsible design and manufacturing personnel in reaching optimum reliability by supplying highly specialized engineering skills and services. In other words, we help to design reliability 'into' each of our products. Actually, however, the ultimate responsibility for inherent design reliability still centers squarely on the design engineer."

The need for such a staff function was dramatically stated during World War II, when it was realized that the cost of maintaining armed services equipment was a tremendous expenditure.

As late as 1952, the need for a corrective course of action to remedy the extreme cost of maintenance still existed. In a report of that year, the Air Force disclosed that it was costing two dollars per year to maintain every dollar's worth of airborne electronic equipment. It was further established that during the life of the equipment, somewhere between eight and ten times its original cost was being spent on maintenance. In a word, much of the equipment was unreliable.

It was due to such staggering statistics that the field of Reliability came into being. Not only was there a need for accurate, on-the-button predictions as to the life expectancy of a part, component or system, but there was also the need for a scientific appraisal—a decision from qualified engineers based on statistics, analysis, and environmental testing—that a particular part could best serve a particular purpose. In other words, was there maximum reliability?

Librascope's Reliability Section was formed in May, 1959, to perform the reliability work that had previously been done on an informal basis in the various engineering departments. Picker, former Westinghouse engineer, was named to manage the new section.

One of Picker's first duties was to establish—to set the tone—as to just what the Librascope Reliability Section would do, and what other Librascope engineering and manufacturing groups could expect from it.

"The basic purpose of the Reliability Section is to assist engineer and design groups to achieve optimum reliability in Librascope products," Picker stated.

To achieve this goal, Picker organized Reliability into three groups, each with its own precise function, yet all contributing directly to the overall performance of a top-flight reliability team.

SECURING FOR SHOCK—Aerospace engineer Bob Hohenstein (left) and Reliability technician Jack Cooper are seen instrumenting for shock test on Aerospace computer ASN-24. During testing, it will be dropped from varying heights into the box of sand as a simulation of environmental conditions.

The groups comprising the Reliability framework include: Reliability Analysis group, which predetermines reliability and assesses failures for remedial action; Component Applications, which provides application information regarding any and all parts and components; and the Test Laboratory, which provides the environmental testing for parts and systems.

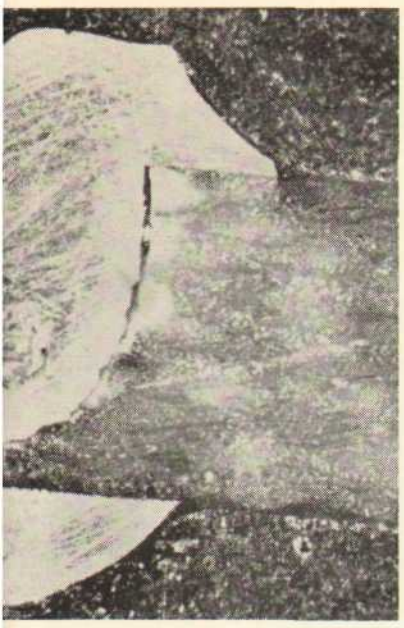
Reliability Analysis

This group, headed by Supervisor Herbert Meyer, is the collection and collation agency for the section. The group, consisting of both engineers and technicians, collects data regarding all failures that occur during functional testing, particularly on systems. Having placed this data into a form suitable for data processing, it is then tabulated, summarized and passed on to interested sources such as project design and quality control engineers.

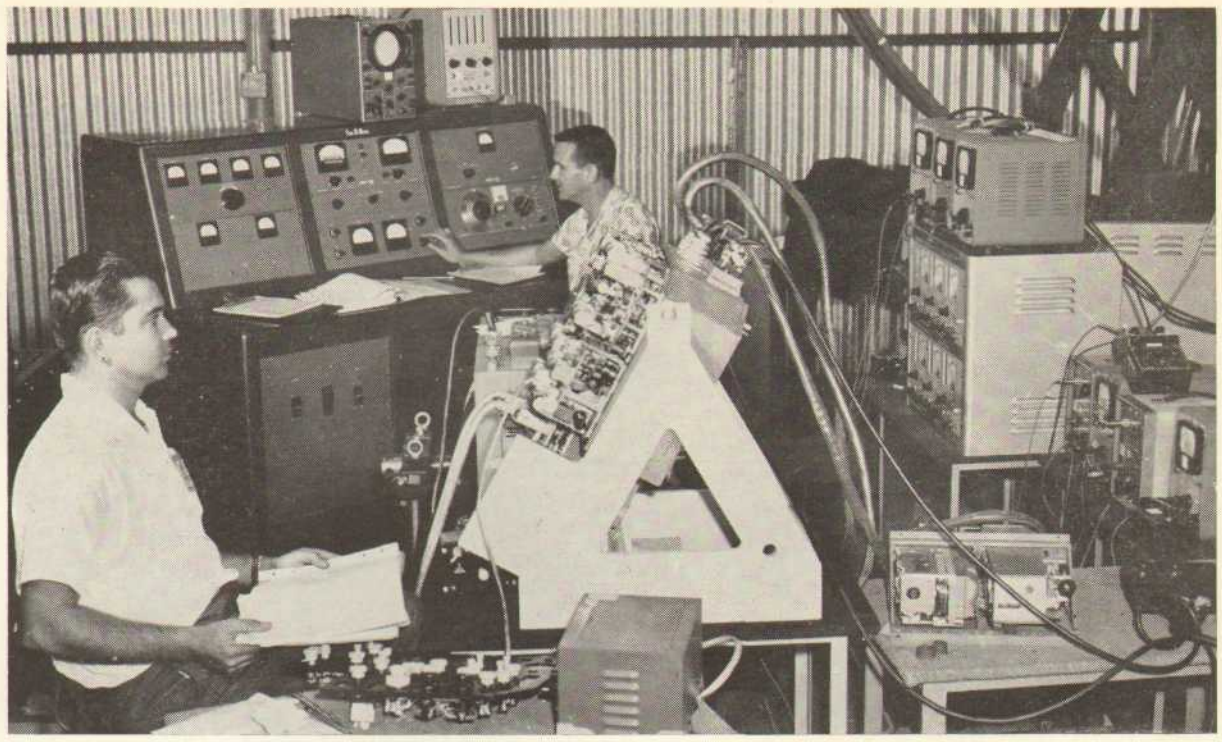
From the analysis of the problem provided by Meyer's group, the engineer has a detailed account of the failure, the repetitive pattern of the failure and an account of the defective part as it is broken down and dissected under microscope inspection. In addition, the group makes recommendations for corrective action to the responsible sources both in and out of the company.

Another important aspect of Meyer's Reliability

LIFE TESTING—Senior technician Jim Franklan (right) makes installations on a transistor life tes During this test, rated power will be dissipate



ove is a microphotograph of a solder an angle, revealed the black solder are capable of causing discontinuity ircuit board. It is to the perfection of ized that Reliability addresses itself.



TESTING ANNEX—The small, all-metal building adjacent to Bldg. 7 is an extension of the Reliability testing facilities. Conducting a vibration test on a CP-209 computer are Aerospace field technician Phil Campbell and senior Reliability technician Jim Frankland.

nension in Engineering

Analysis group, is the prediction of reliability from a functional analysis of design on both assembly and system level. It is their job to consider redundancy or simplification of design in order to reduce probability of failure.

From data acquired from the Reliability testing group, they can accurately assign a "life expectancy" to a system based on statistical analysis.

The term which Reliability uses in assigning a life expectancy is "Mean-Time-Between-Failure." The MTBF factor is a most critical part of the operation since it is a criterion for the provisioning of spare parts and forecasts the expected maintenance and repair that will be encountered.

Component Applications

The second major division of the Reliability Section is the Component Applications Group, headed by Supervisor Leonard Rado.

A primary purpose of Component Applications is its role as a consultant group. By evaluating and testing components, the group is able to make specific recommendations on component applications, capabilities and approved suppliers.

Rado's group also maintains contact with suppliers in order to stay current with new components which may have computer or other Librascope applications.

However, the job of keeping fully abreast of every piece of hardware that comes onto the market was found to be an impossible task without some outside assistance. "We found the answer," Supervisor Rado stated, "with the formation of the Interservice Data Exchange Program."

READY FOR TEST—Senior environmental technicians Dick Piety (left) and Frank Haskins are seen preparing a humidity test on diodes in Reliability humidity chamber.

IDEP, a reliability informational exchange program of component test reports with all major contractors in every Army, Navy and Air Force ballistic missile program, was initiated in June of this year. Still in its infancy, it is already averaging some 300 test reports each month. Analysis of these IDEP reports by Reliability is expected to realize considerable savings both for Purchasing and Reliability in reducing the need for testing.

A second exchange program is the Electronic Component Reliability Center (ECRC). In conjunction with twelve other major companies and NASA, Librascope provides full test reports on all but its proprietary components. The Battelle Institute of Columbus, Ohio, compiles the data and produces a report summarizing the results of all testing within the contributing groups.

Still another informational exchange handled by Component Applications, is Design Aids, the Reliability newsletter. It is distributed to engineers in all departments and deals with specific problems encountered on various projects and the solution as viewed by Reliability. It also covers information on new, externally made products that engineering personnel might find valuable.

From the amount of input received from its many sources, Rado's Component Applications group is able to work with engineering supervision in properly setting up integrated test programs that consider the requirements of all Librascope branches. Thus, they are able to eliminate any unnecessary testing and can obtain optimum test results with available funding. Extensive use is made of the Reliability statistician, who uses "Design of Experiment" techniques to statistically plan the proposed tests.

Test Laboratory

The Reliability group that provides the shake, rattle and roll, is the environmental test lab. Over the past year, the lab engineers and technicians have completed over 300 tests, ranging from analysis of materials to complete computer systems evaluation.

Under conditions of outer space, of the many component tests performed, approximately one-third have been of a major nature, accomplished through a complete test on a large number of component samples. The data taken during such testing is statistically reduced, analzed and placed in the form of a Reliability Report.

Testing programs on delay lines, potentiometers, tantalum capacitors, semiconductors and many other component types fall into this category. The test results, in addition to guiding Purchasing in vendor selection help various engineering groups set realistic specifications for components and systems.

To keep abreast of the most recent strides in the field of ambient and environmental testing, the Reliability lab has designed and built its own test equipment as the need has arisen.

One of the most recent Reliability designed-and-built pieces of test equipment is the Component Open-Short Monitor (COSMON). This device allows one man to check 50 components for opens or shorts while they are being environmentally tested. Prior to COSMON, each device to be tested had to be individually connected to an oscilloscope.

The three primary factors treated in lab testing are vibration, shock and temperature. A piece of equipment is subjected to a combination of one or all three during what is termed a "life test." The test continues until some sort of malfunction occurs.

The test completed, data is then collected by the Reliability Analysis group and the "whys" of the malfunction are then analyzed. Thus, the Reliability cycle is complete; the functional chain running from test to analysis to application is fulfilled.

through a transistor for 1,000 hours. At left, technician Joe Parisi is seen preparing a wiring harness which will enable the test panel to have a greater capacity.

Precisioneers:

Mixing Business and Pleasure at Librascope

Just precisely what is the Precisioneers may be a bit of a baffler to Librascope newcomers and a partial puzzler to many of the grizzled old-timers.

Yet, everyone at Librascope, irrespective of position, is a member in good standing of this organization.

DUES-FREE and undemanding of time for the majority, the Precisioneers are in continual operation offering something of value and interest to almost everyone.

Precisioneers is an inclusive non-profit employee organization in which membership is awarded automatically upon joining the company.

Its purpose, as stated in the Precisioneer Articles of Incorporation, is "to promote and foster a spirit of cooperation and of good fellowship among the employees at Librascope, and to that end, to conduct and coordinate the social, recreational and athletic activities of such employees."

PRIMARILY a social club at the outset 14 years ago, through the years the Precisioneers has expanded to also encompass most of the employees' recreational, welfare and charity projects as well.

Currently the annual activities include the summer picnic, Christmas dinner-dance, children's Christmas party, Blood Bank Drive, the Christmas card charity drive, company raffles, and usually three other seasonal dances.

The organization also sponsors Librascope's athletics program and is, in varying degrees, the financial benefactor for the various sports and activity clubs.

THE PRECISIONEERS operates the Discount Store and acts as the company representative to send flowers in times of sickness and death.

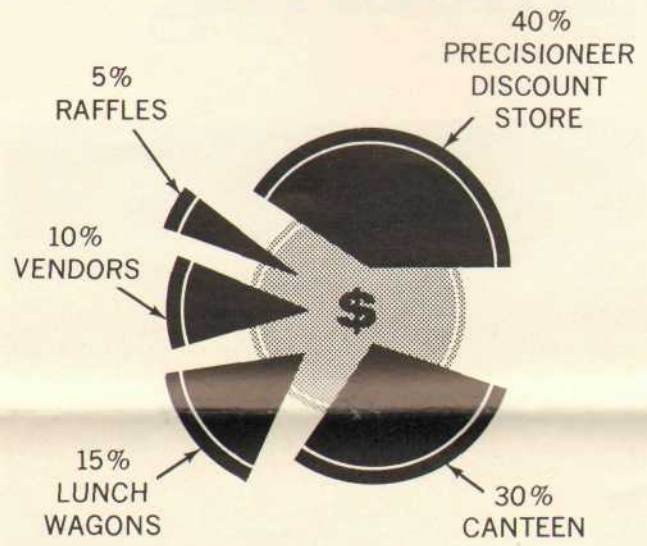
To finance the huge, growing list of activities each year, Precisioneers derive funds from income percentages paid by the Precisioneers store, canteens, lunchwagons, raffles and vending machines.

The store, operating on a cost plus five per cent basis, is the major source of income, or almost 40% of the total, according to Eileen Brown, store manager and Precisioneer treasurer.

APPROXIMATE percentages from Bob Bruce's canteen add 30%; the lunch wagons, 15%; vending machines, 10%; and Precisioneer-sponsored raffles, 5%.

This income is then allotted to the various projects and includes the partial underwriting of the Christmas dinner-dance and almost total subsidization of the summer picnic and the children's Christmas party.

PRECISIONEERS officers who have led the organization through 1960 are (seated, from left), Charles McKallor, Director at Large; Jim Manley, Bldg. 26; Jim Studdard, President; Eileen Brown, Treasurer; and Shirley Eiler, Bldg. 11. Standing, from left, are Dick Kennerknecht, Bldg. 10; Chuck Guran, Bldgs. 21 & 22; Joe Fido, Bldg. 3; George Poppa, night shift; Howard Little, Bldg. 14; Charles Sparkes, Bldg. 17; Bill Bell, Bldg. 3; and Al Akins, Bldg. 12. Absent when the picture was taken were Pat Hansen, secretary; Bob Garrett, past president and advisor; Bud Edwards, Bldg. 16; Rudy Almeida, Bldg. 17; and Bob Gonzales, Bldg. 15.



THE INCOME DOLLAR for the Precisioneers operation is derived in the above approximate percentages. The more Librascopers buy from in-plant facilities, the more they get back in the way of Precisioneer-sponsored activities.

To handle an operation as complex and large as the Precisioneers has become, President Jim Studdard has assistance from his staff of vice-president (office now vacant), secretary Pat Hansen; treasurer Brown, and Bob Garrett, past president acting in an advisory capacity.

Building directors and representatives from all of Librascope complete the president's staff.

ALL OFFICES are elective except for Eileen Brown's position as treasurer and permanent manager of the discount store. Elections are held annually in January.

Organized in 1946 on an idea promoted by the founder and former president of Librascope, Lewis W. Imm, the Precisioneers was originally a social club operated by three senior employees of the company.

Precisioneers was incorporated in 1958 under President Bob Sommerville.

Precisioneers Club Line-Up; What's Your Pleasure?

Through the years, some of the clubs within the Precisioneer organization have gained a large membership and active participation in approximate proportion to Librascope growth.

Others have not. Some are now gaining impetus toward re-establishment and are in need of new members and increased interest to be of substantial service and enjoyment.

Precisioneer and club officers feel that, considering the expanding personnel within Librascope ranks, many of the inactive or struggling clubs could well be revitalized and membership increased.

Towards that end, the current status of Precisioneer clubs, their activities and principals are outlined.

GOLF CLUB—Headed by Otto Gelormini, the Golf Club is the most prolific, currently 130 members strong, and one of the more active organizations within Librascope.

An annual out-of-town tournament, followed by a trophy banquet, highlights the club's yearly program.

Regular handicap league play is conducted usually from May through August with an average of one match every two weeks. A championship play-off late in the fall, featuring top finalists in the annual out-of-town tournament, completes the year's activities.

Annual membership fee for the Golf Club is $5. Members wishing to join should contact Gelormini, ext. 1874.

GUN CLUB—Second largest club in the company and planning for expansion is the Gun Club under President George Cassell. Currently 40 Librascopers are active members.

In the near future plans are to open membership to husbands and wives of Librascope employees, Cassell said, and weapons will be acquired for use by club members.

In addition to monthly tournaments for all caliber weapons, the Gun Club, an affiliate of the National Rifleman Association, participates in Department of Civilian Marksmanship contests. In these DCM events, guns and ammuntion are furnished to NRA members by the department in exchange for score cards.

Early in December, the club sponsors its annual Turkey Shoot for all Librascopers, regardless of membership. This year the shoot was held at the Juniper Tree Range, Soledad Canyon.

Other activities include informal discussions on hunting areas and rules and information on proposed sales of government weapons. A complete training program for new members is provided by the club.

Initiation fee, including liability insurance, is $2, plus nominal charges for NRA membership. Interested Librascopers can reach Cassell at ext. 2056.

DANCE CLUB—Struggling for revitalization at Librascope is the Dance Club. Lenore Alasko, ext. 1620, is currently compiling a list of prospective members.

Proposed activity for the club includes a weekly dance session, with instructions, and a general dance planned approximately each month. The Voe & Saco Studio in Glendale could be used as the site for the meetings, according to Lenore, and members would be able to bring guests as part of the activity.

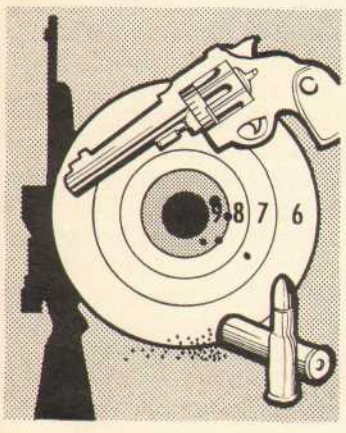
SKIN DIVING CLUB—A fledgling organization now sprouting wings at Librascope. Frank Collins, a certified diver, reports the club is in the conversation stage among several divers in the company and plans and personnel are in need at this time.

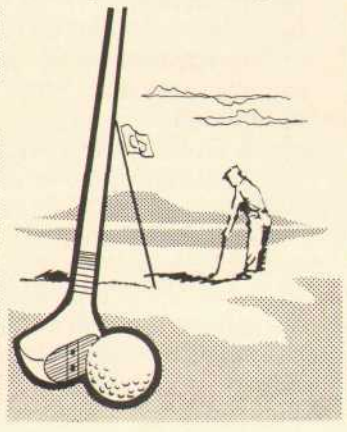
Collins assures prospective members of the club that he can obtain equipment at discount prices, a garage-shop for maintenance, and instruction courses in diving procedure. Collins can be reached at ext. 1379.

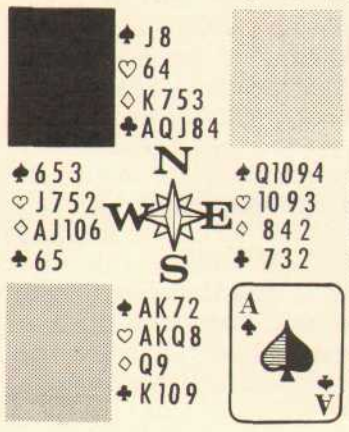
BRIDGE CLUB—Among the present inactive clubs, the Bridge Club formerly met every week or two and featured four or five tables of duplicate bridge play and some informal instruction.

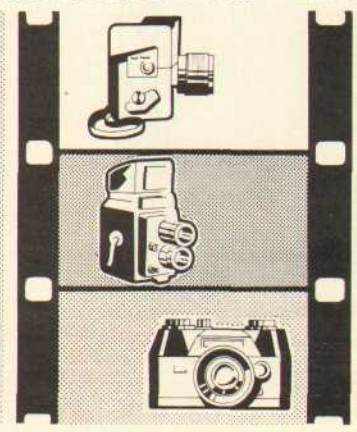
Information on possibilities of reorganization can be obtained by calling Dick Kennerknecht at ext. 2228.

CAMERA CLUB—Another inactive club. Before transfers and terminations depleted the club's ranks, Pres. Sam Zatkin and members were active in field outings and camera group discussions on techniques and procedures. Zatkin asks that persons interested in helping reorganize the club contact him at ext. 1031.









Aid Elections (cont.)

(Continued from Page 1)

defined areas, decided according to needs and services required.

Voters also will be asked to name on a write-in basis their respective building representative for a one-year term.

AN ADDED feature in the voting for the 70% major charity amount allows write-in votes for donations to any worthy organization not listed on the ballot.

"Write-in percentages must represent at least half of the individual's total donations if the charity is to receive funds," White said. "This assures an amount sufficient to be of real value to the charity."

Following the desires expressed on member's ballots, Aid Club each year donates the total amounts designated to the major charities during their respective fund drives.

SINCE ITS organization in October 1953, Aid Club donations at Librascope have reached a total of $147,868, Evelyn Robideau, Club Secretary-Treasurer, reports. Of this amount, $17,839 has been used for in-plant aid cases.

According to the November treasurer's report, 1960 donations are expected to exceed $40,000. Percentages and dollar amounts as voted in last December's elections for 1960 donations were:

Cancer Society, 21.3%—$5,921; Heart Fund, 12.1%—$3,363; Salvation Army, 8.5%—$2,363; Mental Health, 6.8%—$1,890; Community Chest, 5.2%—$1,445;

Muscular Dystrophy, 5%—$1,390; March of Dimes, 4.8%—$1,334; Arthritis, 4.8%—$1,334; City of Hope, 4.6%—$1,279; Multiple Sclerosis, 4.2%—$1,167;

Tuberculosis, 4.1%—$1,140; Hear Foundation, 3.6%—$1,001; Cerebral Palsy, 3.3%—$917; Epilepsy, 1.7%—$473; Red Cross, 1.6%—$445; Diabetes, 1.4%—$389.

THE REMAINING 7% was allocated for miscellaneous charities as designated by write-in votes and amounted to $1,945.

The grant of in-plant Aid funds is usually initiated by a designated building representative, White explained. Aid committee members then examine the application, and if a true need exists and an emergency seems imminent, Aid funds will be granted.

"Cases of extended illness and accidents are primary reasons for in-plant aid," A. R. Pederson, Club Advisor, said. "Mis-management of family funds is often reason for rejection."

AID CLUB officers cite as approved cases for assistance:

The female employee, mother of seven children, whose husband disappeared one week-end with the weekly pay check and the family auto. With very little cash on hand, the mother was faced with delinquent house payments and other debts, until Aid stepped in. Her husband was later discovered, suffering from amnesia.

The recent double tragedy that struck the family of a Librascope employee. The employee had undergone an emergency operation, the other family member was involved in a serious automobile accident. Quick Aid Club committee action granted assistance within five days after the two near-fatal mishaps.

AN EXAMPLE of a rejected application concerns an employee, single, who had moved his residence and was unable to complete a transfer of bank funds before the week-end. Carrying with him his entire savings, he went to the beach on Saturday. While at the beach and needing a place to secure his stuffed wallet, our friend buried his savings in the sand. His actions, however, were not unnoticed and he returned to find his money gone.

Aid Club Seeks Funds, Members

A special invitation to join Librascope's organization of the Golden Rule, the Aid Club, will go out to employees this month from Chairman C. F. White.

To the over 3,000 Librascopers who are already members, White's appeal will be for increased donations to help bolster the club's efforts in 1961.

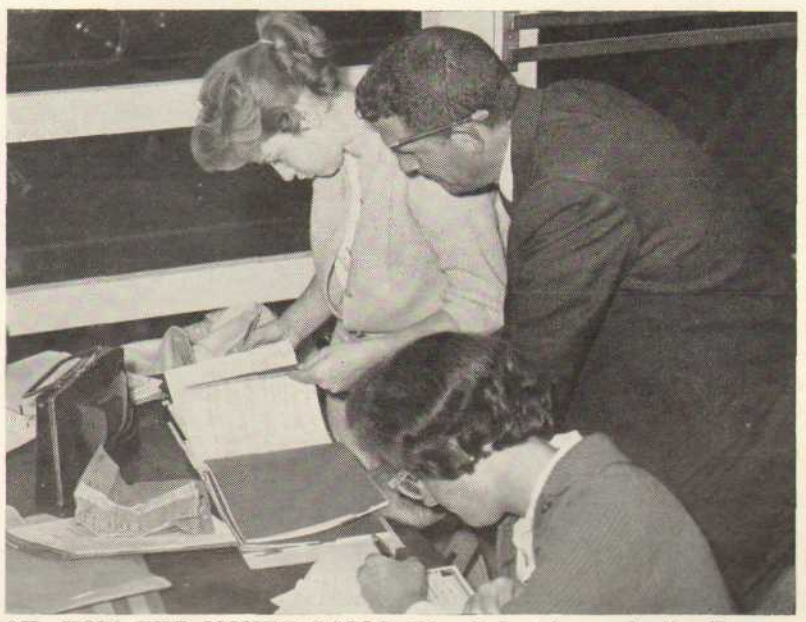
THE AID CLUB, organized in 1953, provides group assistance to major charities and to fellow workers hit by personal misfortune. Tax-deductible donations are automatically taken out of payroll checks each month in amounts prescribed by members.

"The purchasing power of the dollar has decreased in many areas of medical research and charitable assistance," White explained, in his appeal for larger donations. "We in the Aid Club hope Librascopers will respond to the call this year and help us to be of greater benefit to the work the charities are doing."

WHITE TOLD of new methods in data processing that will accommodate deduction amounts less than even dollars for the coming year. Before, all donations were in amounts of $1, $2, $3, etc.

The first deductions under the new method will be effective in the final pay period of February, White said.

In addition, Aid Club officials offer as a guide to donors the "Yardstick for Giving," a chart pro-rating suggested donations against income.



OH, HOW THE MONEY ROLLS IN — Industrious members of the Librascope-sponsored Chop-A-Block Junior Achievement Company busy themselves in the production of this year's product, a walnut and maple, steel-reinforced chopping block at the JA Hall in Burbank. Above left, member Mike Burns takes care of the drilling process, while at right, Charles Blake, Production Foreman, advises Lloyd Williams, Dennis Naylon, and Patrick McAdam on proper assembly procedure. Below at left, Joe Fido helps Pat Stephan and Linda Robbins of the sales staff handle the bookwork, and at lower right, the sawing crew of John Griffin and Dick Peterson swings into action.

Jr. Achievers Group To Tour Branches in Glendale, Burbank

Student members of the Chop-A-Block Junior Achievement company will be guests of Librascope President W. E. Bratton Dec. 21 for a tour of Glendale and Burbank plant facilities.

A LUNCHEON at the Five Horsemen Inn in Burbank is also scheduled during the day's visit.

Attending the luncheon with Bratton will be S. L. Briggs, Assistant to the President; Harlan Buseth, Glendale Branch Assistant Manager; and Mildred Huggins, Assistant Controller.

Librascope advisors for this year's JA company who will accompany the students on the tour are Shelby Drucker, Industrial Engineering, the business advisor; Ralph Woodward, Machine Shop Foreman, production advisor; Joe Fido, Bldg-Eng administrative assistant, sales advisor; Champ Vance, Operations Planning, and Chuck Blake, Production, both alternate advisors.

CHOP-A-BLOCK sales booths are now set up throughout Librascope buildings to accommodate Christmas purchases. Sale price of the chopping block is $3, including tax.

Because of the large volume of purchase orders already in, gift certificates may have to be issued in some cases until production can catch up, Business Advisor Drucker said.

The JA sales booths will remain in operation here through the school term.

Survey a Success

Communications Supervisor L. G. Cahill says that his survey of employees job locations and telephone numbers drew an unparalleled "almost 100%" response from Librascopers. His staff is now busy compiling them into official record form.

The survey will be repeated at intervals, but he urges all employees to report subsequent building transfers and telephone number changes to Information, Ext. 2361. "For emergency reasons we want to keep this information up to date," Cahill said.

Bristow Guides Press Relations

Frank E. Bristow, well-known Los Angeles newspaperman, has been appointed Press Relations Manager for Librascope by M. N. Cannon, director of public relations and advertising.

An Iowa-born Angeleno, Bristow attended Los Angeles' Belmont High and the Los Angeles Conservatory. He is an Army veteran of World War II, in which he served with a tank-destroyer battalion in the North African campaign and later with the Air Transport Command.

Prior to joining Librascope, Bristow spent 10 years with the Los Angeles Times. He was assistant aviation-space editor when he resigned.

Bristow, who is the author of a number of short stories in the science fiction field, is married and the father of two young sons. He makes his home in Arcadia.

Turkey Takers

Rifleman Chuck Forst came away with top shooting honors and two turkeys in the Librascope Gun Club's Annual Turkey Shoot earlier this month at the Juniper Tree Range, Soledad Canyon.

***Forst won two of three relays* in the .22 caliber rifle event for his pair of prizes, while Bill Stewart won the third relay for his single turkey.**

Other turkey winners were Howie Bennett in the .22 caliber pistol event and Roger Peterson, big bore pistol event.

Forst also turned in the top target of the day with a card of 8 out of 10 bullseyes, firing the .22 rifle at 1-inch targets over the 50-foot range.

Novack Assigned To IE Production

Paul Novack, a graduate electrical engineer from Notre Dame University, has joined the staff of the Industrial Engineering department of Production. He has been assigned to the Methods Improvement group by IE manager George Clark.

Novack, who also holds a degree in Industrial Engineering from Notre Dame, is a native of Decatur, Ill. He now makes his home in Woodland Hills with his wife and two young children.

PRIOR TO joining Librascope, Novack was a manufacturing engineer with Packard-Bell; staff assistant to the works manager of the Crosley Radio Company; industrial engineer with Capehart-Farnsworth Corp., and the Magnavox Company and quality control production engineer with the Foster Transformer company of Cincinnati.

At Packard-Bell, in addition to his regular duties, Novack also taught classes in work simplification.

MAGNET OF MAGNITUDE—This huge 5,200-pound electromagnet, the Varian Model V-4012A, has been acquired by the Applied Research Department. Dr. Herman Graff (left), project manager, and Pat Turner, physicist, examine the equipment and electromagnet which will be used in the department's increasing research in semi-conductor materials. The electromagnet is well-shielded, according to Graff, and is not expected to propose a hazard to watches or other equipment in Bldg. 3.

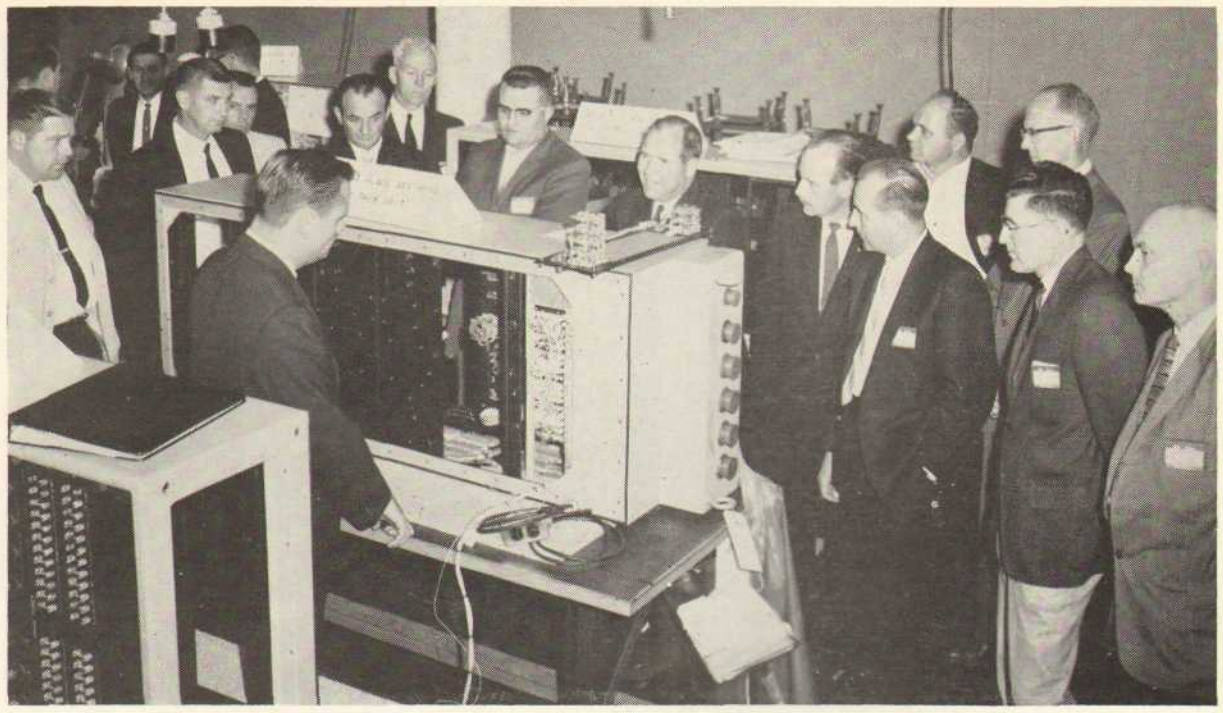
AOA Conducts Fall Meet Here

The often costly field of packaging and handling underwent close scrutiny last month at the fall meeting of the Container Design Section of the American Ordnance Association (AOA), hosted by Librascope and officially welcomed by President W. E. Bratton.

ONE OF THE major points of discussion during the two-day conference was a proposal to reduce duplication by military contractors of expensive specialized weapon systems containers. In many cases, it was pointed out that contractors duplicate expensive containers because they are unaware of those already available.

The result was a proposal for the establishment of a national index of existing containers to be distributed to all military contractors. The proposal is scheduled for submission to AOA headquarters in Washington, D.C., for approval. If the proposal is accepted, it will then be submitted to the Department of Defense.

THE CONFERENCE was attended by 29 AOA members, including members from both the military and industry. Librascope Packaging engineer I. H. Osborn acted as host for the event, held November 21-22.



LIBRASCOPE TOUR—Members of the American Ordnance Association's Container Design Section were given a tour of the Glendale facilities during the two-day fall session hosted by Librascope. The group is seen taking a close-up view of weapon system components in Bldg. 17.

New Staffs . . .

(Continued from Page 2)

puter development group at Solana Beach; W. F. Scott, in charge of the engineering group working on Air Force and NASA contracts, and R. E. Berri, head of the analog engineering group and operations dealing with the Army, Navy and foreign contracts.

CUSTOMER RELATIONS, under Foodim, is an entirely new operation for Aerospace. It embraces Military Sales, Field Service and Proposal Coordination. Technical Support, headed by Bender, encompasses Engineering Support, under which Engineering Production, Drafting and Design Checking will function.

Ray Rockwell, formerly Director of Service Operations, Engineering Administration, has joined the staff of S. E. Burroughs, Jr., Vice President, Military Relations. As Special Representative for Customer Service and Support, Rockwell will maintain liaison between Division headquarters, the branches and Librascope customers.

Ator To Head New GPI Group

Formation of the General Precision, Inc., Industrial Systems group, to promote sales of industrial process control systems manufactured by Librascope-Burbank and Link division, was announced last month.

Named manager of the new group was J. T. Ator, a six-year Librascope veteran, who has been director of the Industrial Systems Department at Burbank. The new group has its headquarters in the new GPI building in the Stanford University industrial park at Palo Alto.

APPOINTED to Ator's staff were F. C. Schneider, for two years a staff engineer in Burbank's industrial systems department and J. C. Thom and Abe Klein of Link's Palo Alto branch. Schneider is systems sales coordinator; Thom and Klein are staff systems engineers.

Coincident with Ator's appointment, R. E. Hastings, Burbank branch manager and Librascope vice president, announced that J. K. Walker had been shifted from Marketing Director to Staff Advisor on Marketing.

Plant Manager C. K. Krill has appointed W. L. Chase to succeed Ator as Burbank's director of Industrial Systems.

Snell Joins GPI Western Region

James L. Snell, former Librascope senior military sales representative, recently was added to the GPI western area office as Western Regional Representative.

In his new capacity, Snell will gather and provide information pertinent to future bids or contracts that might be considered a package proposal for all of the GPI divisions. He will also arrange for managerial presentations where more than one division is involved.

A former Navy combat information officer, Snell was employed with Cooper Development Corp., in Monrovia and at Cal-Tech's Jet Propulsion Laboratory before coming to Librascope in July, 1959.

He is married, the father of four youngsters and makes his home in Glendale.

Big Game Hunter

A narrated film story of his most recent hunting safari in Africa highlighted Vince W. Eckel's performance before Librascope employees and families here this month.

Eckel, big game hunter from San Luis Obispo, also displayed his collection of big game weapons during the 30-minute film sequence of his encounters with various dangerous animals of Africa. The program was sponsored by the Librascope Gun Club, under President George Cassell.

Eckel, president of the Eckel Valve Company in San Luis Obispo, plans to go on tour with his program following his preview performance at Librascope.

G. F. Roberts Reports

EBW Destined For Rapid Growth

New applications and increased reception of Sunnyvale's Exploding Bridgewire System predict a future of growth for Librascope's northern branch, G. F. Roberts, Sunnyvale Staff Engineer in Advanced Planning, told an engineering seminar in Glendale recently.

THE SUNNYVALE Exploding Bridgewire System, offering a new concept in ordnance safety and reliability for missiles and space vehicles, has now been adopted by military services for many weapon projects, Roberts said.

As a triggering device for rocket engine initiation, missile stage separation, fin separation, auxiliary power unit initiation and warhead initiation, EBW is fast replacing conventional squib or detonator-initiated systems.

To keep pace with the growing demand, Roberts told of Sunnyvale's present work to produce a prototype for pre-packaged EBW systems.

PRIOR TO this time, EBW systems had been custom built to fit the particular specifications and limitations prescribed by the contractor. Once the prototype model is available, missile designers can pre-plan the wiring and weight distribution around what they know the EBW will require.

"At this time, it's not known just what all the uses will be for EBW," Roberts said. "Because of the expense involved, the market is now primarily limited to the military."

"We at Sunnyvale are pursuing the idea that EBW devices could be used for any explosive function including geophysical applications," he said.

UNIQUE AMONG Sunnyvale problems in developing EBW systems are difficulties in ascertaining

proper tests and predictions of performance.

"We are in an empirical situation in that the mechanics of explosions are not generally well known," Roberts explained. "We can look at the results of a test explosion and if it produced the desired end, we say, 'Well, that was a good one.'"

Although early theories on EBW were expressed in publications dating as far back as 1815, Librascope-Sunnyvale has played a preeminent role in the research and development for modern applications.

ROBERTS DESCRIBED the operation of EBW systems as basically this. When a current pulse of rapid rise time is applied to the bridge wire, the wire literally explodes, releasing tremendous amounts of energy.

This energy, released in various forms, can then accomplish the necessary initiation directly or by initiating a secondary explosion which in turn produces the desired reaction.

In keeping with the need for simultaneity, this entire explosive phenomena occurs entirely in less than 10 microseconds.

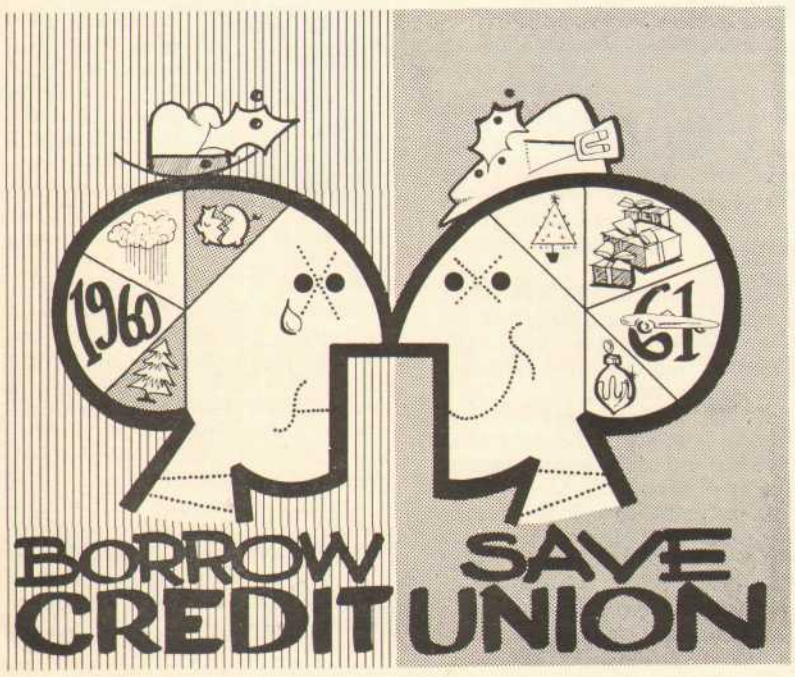
During research on EBW systems, Sunnyvale has developed its own secondary explosive compound, trademarked "Technite." The "Technite" compound is applied in cases requiring additional energy to perform mechanical functions or to ignite other explosive materials.

THE PRIMARY safety feature of EBW is couched in the fact that it must be exploded or triggered by a special electric current, without which premature or accidental firings is impossible. It also eliminates elaborate and weighty safing devices as required by conventional squib or detonator systems.

Roberts also described a new building which now houses the research element of "Sunnyvale's Explosive Business." The building, designed with blow-out roof, a conductive floor, grounded equipment and frame, and rigidly-controlled temperature and humidity precludes extensive damage as a result of an accidental explosion, the engineer said.

Hey Appointed

L. L. Hey, veteran Glendale Assembly foreman, has been appointed General Foreman of the mechanical and wiring assembly on the ASROC, Polaris, FRAM and Mk 56 projects. Hey was appointed by Assistant Factory Superintendent H. J. Darby, to succeed Trent Albizati, who resigned this month.



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First Class Mail