Librazette

September 1992

Librascope Corporation, Glendale, California

All remaining hardware accepted and delivered in place . . .

Canadian Plasma and Triton Program Review

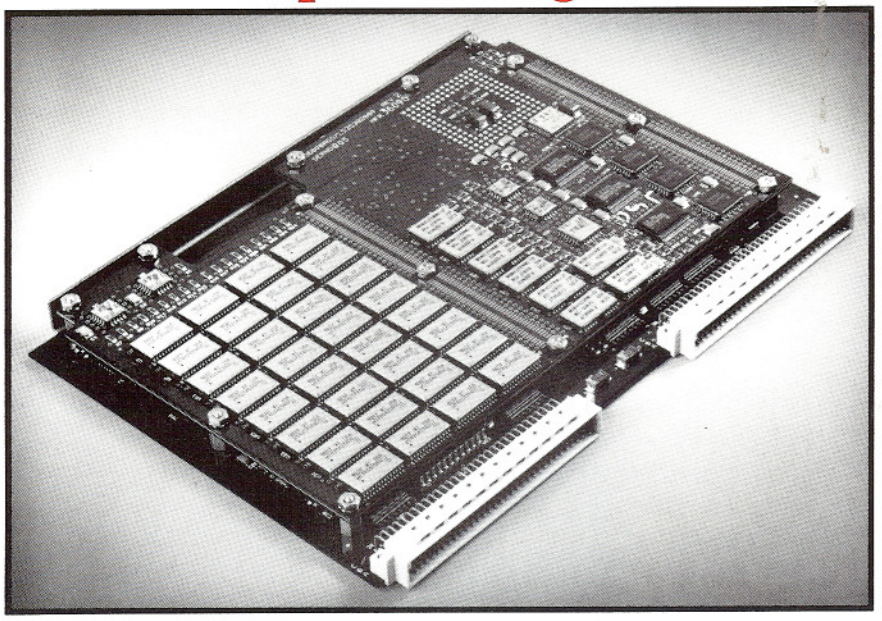
Command Display Console
Submarine Fire Control System Mk 1

A major program milestone was reached this month on the Canadian Plasma and Triton Program with the acceptance and delivery of all remaining hardware. System Performance and Verification Test (SPVT) is scheduled for January. Part of the equipment sold was the first Single Module Graphics Engine (see story on Pg. 2).

Acceptance was part of a highly successful program review conducted by the Program Office, Director Submarine Requirements, Commander Submarine Squadron, Commander Naval Engineering Unit Submarines, Fleet Software Support Center Submarines, Director of Procurement and Supply Maritime, and Director of Research and Development Maritime. The group was delighted both with Librascope's progress on the program and with the expected end results.

"Several of our visitors commented very favorably on the cooperative team approach that has been developed between Librascope and Department of National Defence," said Larry Fox, Program Manager. "This represents an outstanding job by the Engineering and Manufacturing personnel involved in this program." ◆

First Delivery of Single Module Graphics Engine



Single Module Graphics Engine

A significant milestone was achieved this month with the delivery of 7 Single Module Graphics Engines (SMGE) which are the first production surface mount card assemblies sold by Loral Librascope. The single card slot VME modules were sold as part of the buy off of hardware for the Canadian Plasma upgrade for the Mk1 Fire Control System (story on page 1).

The SMGE was developed as a product on IR&D during 1991 and 1992 and is Loral Librascope's first entry into the field of surface mount design. An additional advanced state-of-the-art feature of the SMGE is the use of a 'mezzanine' card assembly technique which effectively doubles the parts density in a single card slot by using a two card sandwich. With all graphics functions contained on the upper card, input and output interface hardware contained on the lower card can be modified for specific applications with greatly reduced schedule and cost impact.

Available in both rugged and full mil versions, the SMGE was designed as a low cost alternative for medium performance graphics applications for displays, terminals, and work stations. This Rev 0 VME based assembly can drive parallel interfaces, such as used for the 1728 x 1280 pixel Plasma display for Canada, or a variety of standard RGB interfaces for displays up to 1280 x 1024 pixels. The Rev 1 version, used on the Portable Shipboard Control Unit (PSCU), currently under development at Loral Librascope for use on the new Seawolf class submarines for the U. S. Navy, has serial input interface and can drive both color and monochrome 640 x 480 pixel Liquid Crystal displays.

The SMGE also supports the Texas Instruments Graphics Architecture (TIGA) which significantly simplified the creation of software to implement X Windows work station capabilities on the Rev 0 assemblies for Canada. The current Rev SMGEs and future custom interface versions will give a competitive edge to Loral Librascope when bidding on current and future rugged and full mil display, terminal, and workstation requirements. ◆

First of Two Mk 96 Mod 0 Weapon Launch Consoles Shipped . . .

The first of two Mk 96 Mod 0 Weapon Launch Consoles (WLCs) was shipped to the Navy. This completes refurbishment and modification, incorporating ADCAP torpedo capabilities, into the first unit. The second unit is now being refurbished. The contract to refurbish and modify both WLCs is being completed on time and within budget. In addition to the first two units, NAVSEA has funded Librascope to purchase the necessary materials for two additional units.

"The success of refurbishing the WLCs establishes Librascope as a viable source for consideration by the government for similar tasks in the future," said Barry Commons, Project Manager. "We are all aware of the direction military spending is headed. Cost savings in maintaining the equipment already in the field can be realized by the military sustaining readiness through refurbishment programs similar to the WLC." ◆

LORAL

News Briefs

❑ Loral Contributes to Hurricane Relief Effort

Loral Data Systems (LDS) Sarasota, Florida, recently presented the Sarasota Chapter of the Salvation Army with a check for $14,366. The cash donation to the relief efforts for Hurricane Andrew victims represents employee contributions, which were matched dollar-for-dollar by the division. In addition to the money, two truckloads of food and paper products were collected by employees and donated to the Salvation Army for distribution to those hardest hit by the storm. ◆

TQM

by Carl Sorensen
V.P. Quality & Information Systems

What is TQM?

For some time now we have talked about Total Quality Management (TQM) as though everyone understood what it meant. When asked to explain TQM though, people normally have difficulty. For DoD, TQM started as a mid-1980's initiative for continuously improving performance throughout DoD's areas of responsibility. DoD's initiative was based on improvement techniques and management principles that Dr. W. Edwards Deming successfully taught the Japanese in the 1950's.

The main idea of TQM is that the company pursuing it must continuously strive for excellence in every process it performs. Once implemented, TQM uses a bottom-up approach that emphasizes patience, and deploys employee teams to examine processes and look for improvements. Concern for customer satisfaction and employee input are central to the method. To guide the TQM process, and to assure that it is all done within the framework of the company's strategic plan, a top-level TQM Steering Committee is appointed and a TQM Plan is developed.

The term "Total Quality Management" is somewhat misleading because it implies that it is a Quality Assurance program that is, therefore, associated with the products a company produces. In fact, TQM is the management of a company-wide process improvement methodology. The "management" of this methodology is focused on improving the "quality" of the "total" organization's (i.e., Loral Librascope's) processes. Thus the term "Total Quality Management." Note, the day-to-day management of TQM is the responsibility of the empowered team members, not "management and supervision." The teams do, however, receive strategic guidance from the TQM Steering Committee.

It should be stressed that TQM is a never ending methodology. No matter how great a process may be today, it can always be made better in the future. Thus, when people talk about TQM, they will invariably talk about "continuous process improvement." It must also be stressed that TQM not only applies to the manufacturing process, but also to the various business processes used by Finance, Marketing, Engineering, et al.

TQM Tools and Techniques -

As part of the TQM methodology, many different tools and techniques are used by employee teams to analyze processes. These tools and techniques include flow charts, brainstorming, Parato charts, cause and effect diagrams, histograms, scatter diagrams, and control charts. Note, control charts are used for what is commonly referred to as Statistical Process Control (SPC). SPC is not new, in fact it was used during World War II. SPC involves the recording of data and the application of statistical techniques to facilitate the control and thereby the eventual improvement of a process.

Why do TQM? -

First of all, TQM will, if properly managed, improve our profitability which will in turn enable us to invest and grow. Equally important, more and more of our customers now expect their suppliers to have it and several of them require it. For similar reasons, most of Loral's 30 plus other divisions now have or soon will have a TQM program.

What is Librascope's Commitment to TQM? -

Bill Hudson clearly stated Librascope's commitment to TQM in his letter to all employees dated 5 May 1992 (see insert). At the Loral TQM Group Meeting that a few of us from Librascope attended earlier this month, it was stressed that the implementation of TQM is not a short-term project, partly because it involves a lot of planning, training, and most significantly some degree of culture change—no more business as usual! Like other military contractors, however, Librascope's TQM implementation challenge is compounded by the realities of a down-turning market. Nevertheless, we have started, and we are making progress.

What is Librascope's Approach to TQM? -

Librascope's approach to TQM is to target strategic areas, and to focus on relatively small, well defined projects which can be successfully completed in a reasonable period of time. We believe this approach will allow our TQM program to build momentum and credibility as we rack up successes. To guide this process, we expect to have a TQM Steering Committee and a TQM Plan in place by year-end.

Current TQM Activities at Librascope

In concert with our strategy and Bill Hudson's TQM Policy statement included with this Librazette, we have initiated several TQM projects so far this year. For example—

- **Bob Duggins** is leading a team to implement Statistical Process Control of several of our manufacturing processes.
- **Terri Miyamoto** is in charge of a plant-wide "right-sizing" project which will completely reorganize, update, and significantly reduce the number of procedures and manuals we have. Furthermore, they will all be accessible and controlled from our Sherpa Data Management System via network terminals. Distribution of these newly reorganized manuals is expected to occur by year-end.

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TQM - Cont.

- **Ken Mandeville** recently led a project to improve our document storage process. As a result, we were able to destroy 32,500 engineering vellums that previously occupied numerous file cabinets and hundreds of square feet of floor space.
- In QA, **Paul White** has been funded to lead a project which will develop a procedure for reducing the cost of our internal (operations) audit process. This will be accomplished by having manufacturing personnel do self-audits under QA's supervision.
- **Bill VanAntwerp**, **Shep Girion** and others are working to improve the productivity of our overall proposal preparation process.
- **Evelyn Matzat** and **Kathryn Nelson** are working as a team to set up a TQM reference section in the Technical Information Center (TIC). The new library section number for TQM is 658.56.
- Representatives from Engineering, Program Management, Operations, and Quality Assurance worked together as a team with the objective of defining an Engineering - Manufacturing process that is consistent with our business and supports a seamless interface between the two functions; i.e., concurrent engineering. A report was prepared.
- At the Loral TQM Group Meeting recently, **Elaine Kelley** gave a paper titled, "SPC Applied to Software Development." SQA and Software Development personnel are now working together to begin implementing some of the ideas that were presented.

Again, these are only some of the TQM projects that have been initiated this year. We will be reporting in more detail on these and others in future issues. ◆

Libravets thru Sept.

20 Yrs: Bob Peters
15 Yrs: Phil Mayers, Dan Cianci, Juanita Tuttle, Greg Gill
10 Yrs: Arthur Corey, Patricia Wright
5 Yrs: Brent Derksen

Promotions

Madeleine Arel, from Inventory Data Analyst to Sr. Inventory Data Analyst; **Casimir Kempski,** from Sr. Field Engineer to Combat System Engineer; **Brent Derksen,** from Tech. Programmer to Programming Systems Specialist; **Linda Lesniak,** from Dept. Clerk to Software Configuration Mgmt. Coord.; **Socorro Lopez,** from Associate Engineer to Engineer; **Floyd Smith,** from Technical Programmer to Programming Systems Specialist; **Lealon Watts,** from Engineer to Sr. Engineer. ◆

Golf Corner

***San Luis** Bay golf tournament participants, from left—standing, Len Culver, Carl Culver; from left—kneeling, Chris Boehm, Bill Brockway.*

The two day September Golf Tournament at San Luis Bay was a big success, according to club president Barry Commons.

Congratulations to the following winners: Greg Snyder (low net 2 days); Jesse Commons (low net 1st day); Howard Metzler (low net 2nd day); Clay Newell (low gross 2 days).

The next tournament will be held at the Simi Hills Golf Course on October 17. The tournament is open to all Librascope employees and their families or guests. If interested, call Tim Cooke, X-1014 prior to the registration deadline of October 6. ◆

New Credit Union Hours

Effective October 26

Mon- Wed - Thurs - Fri
11:00 am to 12:30 pm
1:30 pm to 4:00 pm
(Closed Tuesday)