

## GET ON THE BOND WAGON!

### MELPAR'S BOND DRIVE IS UNDERWAY.

Sign up with your representative for payroll deductions - the painless way to build up a nest egg for yourself! Payroll deductions may be as small as \$3.13 per pay period. This deduction will buy a \$25.00 Bond in six pay periods. Don't put it off! Sign up today! GET ON THE BOND WAGON!

### MOST FREQUENTLY ASKED QUESTIONS:

Millions of Americans own U. S. Savings Bonds. They enroll in the Payroll Savings or Bond-A-Month Plans and allow their savings to accumulate automatically as a reserve for emergencies or such special occasions as weddings, vacations, retirement and education.

Often Savings Bonds owners have questions about their holdings. Here are some of the questions with the answers.

**Q.** I own a number of Series E Bonds bought through the years. Would it be to my advantage to cash the older Bonds and put the money in the current issue E Bonds now paying  $5\frac{1}{2}\%$  interest when held to maturity?

**A.** No, for two good reasons. First, the rate you mentioned applies to all E Bonds held to maturity or beyond. It works this way. Series E Bonds purchased on or after 1 June 1970, when held to maturity of 5 years and 10 months, earn  $5\frac{1}{2}\%$  annual interest from date of issue to date of maturity. Your E Bonds which have not reached first maturity receive a  $\frac{1}{2}\%$  increase in yield for semiannual interest periods, beginning on or after 1 June 1970, payable as a bonus at maturity.

Second, your E Bonds which have reached first maturity or are extended beyond first maturity while the bonus is in effect will have the  $\frac{1}{2}\%$  credited at the end of each semiannual interest period, beginning on or



SIGN UP NOW - YOU SELECT  
THE DATE YOUR DEDUCTIONS START

### HOW WILL MELPAR LOOK?

Latest figures from LTV Electrosystems, Inc., show the following rates of participation by employees in buying Bonds:

Donaldson, Greenville, S. C.	100.0%
Corporate Staff, Dallas	100.0%
Greenville Division, Texas	99.8%
Garland Division, Texas	98.6%
Memcor Division, Indiana	92.2%

Even if it's only \$3.13 per pay period, let's all participate so we won't be low division on the totem pole.

(continued on reverse)

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MOST FREQUENTLY ASKED QUESTIONS: (cont.)

after 1 June 1970 through their next maturity. The bonus on these Bonds is payable whenever they are redeemed. There is a good reason not to redeem your Bonds in this category. If you cash in your older Bonds, you are required to report the gain in value for Federal income tax purposes during the current year, thus reducing the amount available for purchasing newer Bonds. The  $\frac{1}{2}\%$  bonus coming at maturity and beyond is an incentive to retain your Bonds.

Q. There are two widely separate dates stamped or typed on the face of my Savings Bonds. How can I determine when they started to earn interest?

A. U. S. Savings Bonds earn interest from their "issue date" (the first day of the month in which they are purchased.) Below the issue date is a space for the issuing agent's dating stamp showing actual date the bond is issued. This latter date has no effect on interest accruals or the waiting period for redemption. Thus a Savings Bond bought on 29 January 1971 would bear the issue date of January 1971 while the agent's dating stamp would read 29 January 1971. Your interest would accrue from 1 January; and, if necessary, the bond could be redeemed as early as 1 March 1971.

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INDESTRUCTIBLE SAVING SECURITY:

We are warned not to fold, spindle or mutilate those computer-punched cards that we handle almost everyday. There's one kind of card, however, that is "indestructible", thanks to the Department of the Treasury.

It is the U. S. Savings Bond which can rise "as the phoenix, from the ashes", probably in even better shape than the fabled bird. Although the original punched card (or early paper Bonds) may be lost and gone forever, the Bond owner continues to earn interest. His replacement Bonds will carry the same issue dates as the originals.

Behind the Savings Bonds reputation for "indestructibility" is the staff of the Treasury Department in Chicago and Parkersburg, W. Va. Staff members, while accepting credit for handling Bond claims efficiently and courteously, point out that many supposedly lost Bonds turn up within two months of their reported loss. They suggest thoroughly checking the area where Bonds were kept before making a claim. One man's missing Bonds later were found in a block of ice in the family freezer. How they became "frozen assets" remains a mystery.

Keep your Bonds in a secure place such as a safe deposit box. Maintain in another location a list of the Bonds, including serial numbers, denominations, and dates issued. To make a claim, write the Department of the Treasury, Division of Loans and Currency Branch, 536 S. Clark Street, Chicago, Ill. 60605. Be sure to provide as much information as possible about the lost, stolen, damaged or destroyed Bonds.

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**New bonus interest rate.**  
**Buy U.S. Savings Bonds.**



# melpar-a-graph

MELPAR A Division of LTV ElectroSystems, Inc.

Volume 16, Number 3

April 1971

## First Quarter New Business Activity Exceeds \$8,000,000

First quarter bookings for the Melpar Division of LTV ElectroSystems, Inc., exceeded \$5,000,000. In addition, Melpar has been authorized by customers to

perform an additional \$2,250,000 of effort on current programs, and has negotiated and is awaiting the placement of orders totalling another \$750,000.

## LTV ElectroSystems Shows Gains

### FLASH — 1st Qtr '71 Report

John W. Dixon, chairman of the board and president, said the company had sales of \$38,367,000 and earnings of \$512,000, amounting to 10 cents per common share, for the three months ended March 31, 1971. For the 1970 first quarter, sales were \$46,462,000 and earnings were \$476,000, or 10 cents per share, as there were no provisions for preferred dividends.

Earnings of \$2,839,000 or 56 cents per share, on sales of \$199,656,000 were reported by LTV ElectroSystems, Inc. for the year ended Dec. 31, 1970.

"Essentially, we achieved the goals we set at the beginning of the year," Mr. Dixon said. "We made a profit each quarter, paid dividends of 7½ cents per common share in the third and fourth quarters, increased shareholder equity through sale of new preferred stock and substantially reduced our bank debts."

Another major highlight of the year was the acquisition of Melpar, which substantially improved the company's capabilities in highly specialized research and development.

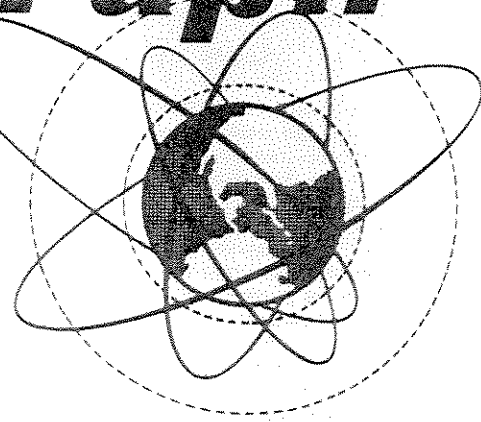
Greater diversification is an objective in 1971, Mr. Dixon said.

According to the 1970 Annual Report, new business development is receiving high priority attention and will be a key factor in corporate progress at LTV ElectroSystems, Inc. The company policy is to proceed with caution, to evaluate with extreme care both immediate and long-range profitability before corporate resources are committed while continuing to pursue what we know best — U. S. Department of Defense programs.

"In short, our goal is increased profitability in 1971," Mr. Dixon said. "I believe our track record in 1970 is a basis for confidence."

## Wickersham Represents Melpar on West German Trade Mission

L. B. Wickersham, Marketing Services Director, participated in a specialized electronics trade mission to West Germany in April. The mission, under the auspices of the Virginia Division of Industrial Development, was led by Governor Linwood Holton and included representatives of Virginia's electronics and instrumentation industries. The two week mission visited West German electronics industry leaders in Stuttgart, Munich and Frankfurt.



## RICHTER COMPLETES PhD REQUIREMENTS

Project Engineer William J. Richter completed his last requirement for the PhD degree in Electrical Engineering at Catholic University 19 March 1971. The degree will be conferred at exercises in May.



He has been taking an average of 6 semester hours of graduate courses since 1964 under Melpar's Tuition Reimbursement program.

He passed the doctoral comprehensive examinations in April 1968 and began work on his thesis in September 1968.

A leave of absence of two months in the summer of 1970 enabled him to accelerate the work on his thesis, "Signal Design and Error Rate Analysis of a Polar Baseband Impulse Noise Communications Channel".



**SURPLUS MELPAR EQUIPMENT BENEFITS HALIFAX HOSPITAL** ... Patients at the Halifax Community Hospital of South Boston, Virginia will soon benefit from Melpar X-ray equipment donated through the Virginia Hospital Association.

The General Electric Maximar 250 IIIA is pictured here as it was presented on February 5th by J. P. Chambers, Melpar's president, to Dr. A. L. Burkholder, (left), executive director of the hospital and P. O. Conner, (right), member of the hospital's board of directors.

The equipment will be used to treat hundreds of patients for cancer, arthritis, bursitis and skin diseases. It upgrades present outmoded equipment which has been in use by the hospital for over twenty years.

## *The Printed Circuit Shop*

Melpar's Printed Circuit Shop was set up in 1969 primarily to support engineering on developmental jobs requiring quick reaction, often as short as four hours from artwork to finished board.

More and more of Melpar's work requires Quick Reaction Capability (QRC) and because of this the PC shop has been updated and expanded to its present level of producing in excess of 200 boards per week. Fast response is the byword of the PC shop and their performance has helped in a big way to make numerous QRC programs successful.



Yvonne Crutchfield does touchup on PC boards prior to solder plate operation.

## *The Mail Room*

Under the direction of Security Manager H. G. Goare, mail room activities are handled by Mail Room Group Leader Walter Rader, shown here bringing in an average morning's mail of four bags full plus parcel post. One bag contains first class mail, two bags have 3rd and 4th class mail, and the fourth is filled with classified mail.



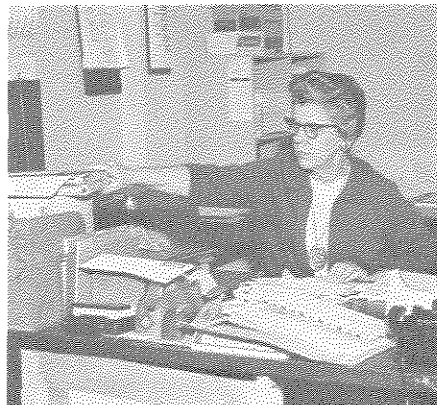
## *Where the Action is!*



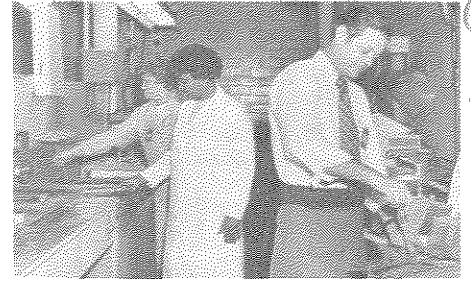
Foreman John Schwier observes Elizabeth Howerton operating the photo resist developer.



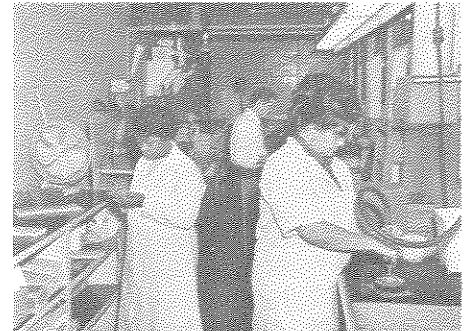
Barbara Mullins applies dry photo resist to make board photo sensitive.



Control Clerk Eunice Beauch opens mail to identify its proper destination. Many envelopes are received simply marked "Melpar" and must be opened to determine where they should be routed.



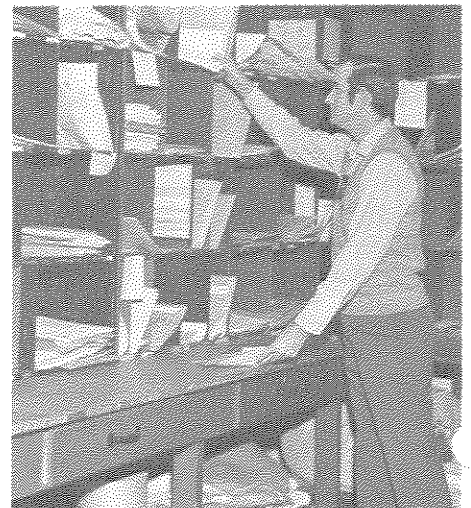
Nora Kirby, Lorraine Dabney and Carleton Gammon operating soldering and copper plate line.



Lorraine Dabney and Bernice Eagle at scrub station readying board for copper plate.



Florine Smith drills holes in boards in preparation for plating.



Walter Rader separates the mail for in-plant distribution. Two deliveries and pick-ups are made daily.



## Habits Can Help — Or Hurt How Are Yours?

One of our managers stopped by recently to ask why so many people were lined up at the North Door time clock at 4:40 P.M. on a Thursday afternoon.

A person standing nearby said, "Oh, that's not unusual. It happens every day — just habit. Everyone wants to be first out."

Multiply five minutes by five days each week by 52 weeks and you will have 1300 minutes or 21.67 hours. Ten people can bring this to 216.7 hours and at an average of \$3.00 per hour this is \$650.10 per year in wasted effort. This figure represents the profit on \$20,000 worth of contracts if we're fortunate enough to earn 3% net profit after taxes.

Obviously this is only one side of the coin. There are many more people who go out of their way to give the job 110% of their effort each day and certainly they carry the 90 per center — or less — to a certain extent. But no one can really carry another's job for him.

Conclusion — A healthy company making a profit all adds up to a lot of people, each one doing his part. Bad habits often hurt co-workers more than they hurt the person with the habit.

American industry lost 10 billion dollars last year due to absence from the job. Ten billion dollars could make a lot of new jobs — and we all know more jobs at this time would be a welcomed turn for the better.

## PROFESSIONAL SERVICES JOBS LEAD

Professional services jobs led all other occupational categories in a study recently published by the U. S. Bureau of Labor Statistics concerning educational attainment of workers.

57% of the work force in professional services were college graduates compared with a median educational level of 12.4 years for all U.S. workers.

Lowest educational attainment was found in the lumber industry where only 37% of persons employed had received 12 years of education which is equivalent to a normal high school graduate.

The educational level of men in the U. labor force equalled women for the first time in 1970.

Unemployment rates continue to relate to educational levels. Highest unemployment is found among the groups with 8 years of schooling or less and those with 1 to 3 years of high school.



**EFFICIENT READING COURSE . . .** 22 Melpar employees are attending a televised reading course presented by WETA/Channel 26. The course began on March 22nd and consists of twelve half-hour television lessons. Personnel Representatives Louise Hobbs and Ethel Lorenzo are monitoring the classes.

The objectives of the course are to increase reading rate, comprehension and word power; to improve perceptual skills and to develop the complementary skills of listening, speaking and writing.

The course will provide employees with new skills in communication which will be of value in performance of their present and future duties.

Participating in the class are: (seated, left to right) Donna Davis, Sandi Ferrante, Sophie Payne, Cathy Harty, Mary White, Marge Bryant, Virginia Milton, Sylvia Blount and Willie Dingus. Back row, left to right: Gertrude Evans, Jean Jarvis, Mary Townsend, Betty Owens, Esther Pastrick, Jeanine Heath, Rozelle Neely, Marie Yawornicky, Charlotte Layne, Carol Snyder, Mary Walker and class monitors, Louise Hobbs and Ethel Lorenzo. Cindy Lukowski and Joyce Reed were not available for the picture.

## Keep Smiling . . Things May Be Better Than We Think

It is easy to get an exaggerated impression of the current unemployment situation in the U.S. with the constant press releases and TV commentary.

Many at Melpar can remember two other recent periods when national and local unemployment was higher than now.

During the 1957-58 period the U.S. unemployment rate grew from 4% to 7.5% during a 15-month sag in the economy. From the 7.5% level the rate dropped over the next nine months to about 5%.

In 1960-61 from a level of just under 5% unemployment rose in 15 months to 7%, then dropped during the following nine months to about 5.5%.

In the current situation unemployment has grown from 3.5% to just over 6% in 13 months and is now dropping gradually.

Latest March figures for the state of Virginia show unemployment at 3.6% of the work force in the Old Dominion.

Employment levels (total number of workers) in the state have reached new records each month for the last 121 months.

If this all sounds theoretical or perhaps too philosophical, Melpar's turnover rate from all causes has never been lower than in the first quarter of 1971 — .8%.

It is also a happy fact that we had no lay offs in March, only one in February, and none in January.

## ECONOMIC INDEX MISLEADING

A study published in March by the Machinery and Allied Products Institute, Washington, D.C. reveals that a widely publicized economic index of real spendable average weekly earnings is misleading. Average 1970 pay of production and nonsupervisory workers in U. S. non-farm private jobs was no higher than in December 1964 according to the erroneous index of a governmental agency.

This conclusion is not supported by the actual experience of industry where pre-tax corporate profits in 1970 fell to their lowest level since 1963. Also difficult to understand is the fact that real national income now stands 17% above the 1965 level.

The apparent inconsistency between these data is partly explained by the entrance into the U. S. work force of large numbers of women and younger workers who are lower paid and many of whom work only on a part-time arrangement.

Actually, average wages and salaries per worker when corrected to constant (1957-1959) dollars show an 8% gain since 1964.

Based on the above figures plus detailed study of the total report, it is clear that real earnings of the average worker today are definitely above what they were six years ago.

Figures show that average employee income moved from well under \$5,000 per annum in 1964 to a figure of almost \$6,000 by the end of 1970.

## Family Affairs . . . On the Dais . . .

The Charles Wood and the Charles Forbes families welcomed the arrival of new sons recently. For the Forbes, it was their 6th child. "Cheaper by the half-dozen," Charlie said. The Al Garnett's and the Jerry Rand's welcomed baby girls.

Rarene Helderman is recuperating nicely after recent major surgery.

Evelyn Berry has returned to work following surgery at Prince William Hospital.

Marge Bryant is back at her inspection station following an operation at Fairfax Hospital.

We are glad to see John Kettlewell back "hard-at-it" following his recent illness.

Don't tread on Bess Lee's toes. She was off-her-feet for a while following surgery to her foot.

Angie Watkins is recuperating slowly following two visits to the hospital with a neck injury.

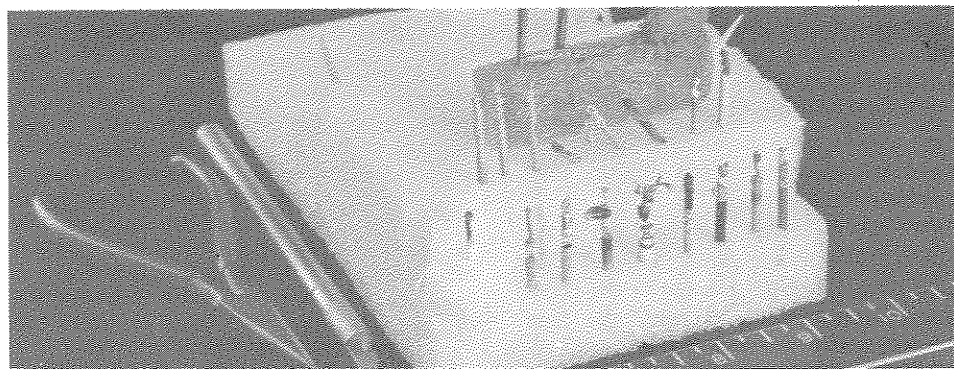
W. V. Goodell and R. V. Nystrom of Melpar's Electro-Optics Laboratory presented a paper at the Virginia Polytechnic Institute and State University, Reston Extension, as part of a 3-day short course on Small Computer Applications given in March.

The title of the talk, a result of work done on a contract in the Electro-Optics Laboratory under the direction of Otis Inge, was "Interfacing a Nuclear Magnetic Resonance Spectrometer to a DEC PDP-8."

\* \* \*

James Wood, son of Melpar's personnel director, presented a paper entitled "System Evaluation Techniques for Image Intensifier Devices," to the Electro-Optics International Convention in Brighton, England the last week in March.

The paper was originally prepared as a result of work done by Jim as a physicist on the Simulation Team, Visionics Technical Area of the Ft. Belvoir Night Vision Laboratory for which he received an Outstanding Performance Award in 1970.



Toothpicks, a little paint, an exacto knife, wire and solder plus a little leisure time and a lot of creative talent is all it takes for Light Assembler 1/C Merle Burke to turn out the artistic creations pictured.

Merle began carving toothpicks in 1964. The finest examples of her work are shown here. All work is done from actual models or pictures. For example, the deer's head was done from a color photo of a deer shot by Tom Bailey.

The bird in the gilded cage was made from copper wire, solder and a metal cutting knife. The other animals were fashioned from silver wire and solder drops . . . in all the right places, of course!



## Promotions . . .

P. E. Tibbs to Sr. Report Typist  
R. C. Smyth to Draftsman  
J. R. Ross to Sr. Design Engineer  
M. E. Gingerich to Jr. Engineer  
W. F. Mills to Draftsman  
A. Sweeney to Draftsman  
J. Solberg to Sr. Physicist  
C. Baker to Reliability Supervisor  
C. J. Hogg to Principal Programmer  
G. Machen to Metrology Engineer  
V. J. Serafino to Principal Engineer

## Planning to Retire?

For a 30-page retirement booklet entitled "Your Retirement Legal Guide" write the American Association of Retired Persons, Fulfillment Department, P. O. Box 199, Long Beach, California 90801. The booklet is free.

## Independent Hospitalization Survey

That Melpar employees have plenty of dependents we never doubted since we process insurance claims to the tune of over 100 per month. But we found some interesting facts about their 1236 dependents in our recent survey of dependent coverage for our group hospitalization carrier.

In every age category for children the males outnumber the females as follows:

Ages 1-10 — 207 males, 195 females

Ages 11-20 — 209 males, 178 females

In age categories above 20, we find wives covered far outnumber husbands.

Ages 21 to 30 — 85 wives, 5 husbands, 17 children

Ages 31-40 — 137 wives and only 10 husbands

Ages 41-50 — 102 wives and 25 husbands

Over 60 — 2 wives, 7 husbands

The category over 60 was the only one showing more husbands carried as dependents. Could this be a new trend with Women's Lib?

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7700 Arlington Blvd., Falls Church, Va.  
Editor..... Jane K. Smith, Ext. 2706  
Photographers..... R. K. Sakamoto  
H. O. Glittenberg