

MELPARTICULARS

Volume 6, Number 6

E-Systems Melpar Division

October 1985

IMPROVEMENT IDEAS A LA CART

During the last ten years, E-Systems has systematically worked towards being one of the nation's leaders as a cost-effective, quality and timely contractor for our customers.

Continuing in the tradition of efficiency and quality at E-Systems, a Cost Avoidance/Reduction Program has been implemented company-wide. The program is a direct result of our cost-conscious attitude and it stresses savings in material, labor and overhead through improved processes, techniques, procedures or management without sacrificing required quality, reliability, or schedule.

A Cost Avoidance/Reduction Team (CART), chaired by Don Gibbs, Vice President of Finance, has been formed at Melpar to evaluate and implement the division's cost reduction suggestions that are presented. A plan for cost avoidance/reduction was established and the committee decided on five areas of primary concern at Melpar where it was felt they could achieve cost effective reductions. Three focus groups (communications, personnel productivity, and equipment utilization) have been formed to make in-depth studies of various cost reducing ideas. Their responsibilities

include periodic progress reports to the CART committee. Two other focus groups (facility utilization and logistics support to manufacturing) will be incrementally activated.

One of the mainstays of CART is the Employee Suggestion Program. The purpose of the suggestion program is to improve quality and efficiency throughout the division. All Melpar employees are eligible to participate in the program and suggestions

may be submitted individually or jointly. If the suggestions are positively evaluated, the individual (or group) is then eligible for a cash award or certificate of appreciation.

The procedures involved in the suggestion program are as follows: suggestions are submitted on a special form and presented to an evaluation committee, chaired by the Employee Relations Personnel Manager. This

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RELOCATION PROGRESSES IN NEW EXTENSION



From left to right: Vice President of Finance Donald R. Gibbs; Landlord Alan J. Forte, Vice President and General Manager Talbot S. Huff, and Director of Facilities John L. Grizzard gathered for the inauguration of the new extension of the Falls Church facility.

MELPAR RECEIVES \$2 MILLION CONTRACT FROM U.S. ARMY

The Melpar Division of E-Systems has received a development contract valued at \$2 million from the U.S. Army Belvoir Research and Development Center, Fort Belvoir, Virginia.

Under terms of the contract, Melpar will provide various deception products and services in support of the U.S. Army. Prototype tactical deception materials will be supplied for field testing and evaluation by Army personnel.

E-Systems Chairman and Chief Executive Officer John W. Dixon said the contract award helps Melpar achieve goals of diversification and growth, representing business in a new product area. "This business area offers significant future potential for Melpar. Future contracts are anticipated," Dixon said.

Facilities, under the leadership of Director John Grizzard, has efficiently moved various divisional groups to the 3rd and 4th floors of the new Falls Church facility extension. This space provides a bright and airy new atmosphere for many E-Teamers.

The following Groups are on the 3rd floor of the new addition: Quality

Assurance (Q0); Field Engineering and Technical Support (E32); Systems Management (E2); and Operational Support Programs (E30). Relocated on the 4th floor are Inventory Control (F52) and all of Technical Services (T2) except Configuration Management (T22), which is on the 4th floor of the Annex.

LOCAL COUNTY TEACHERS TOUR MELPAR



Supervisor of Computer Maintenance Ronal Butler shows the Fairfax County teachers the test lab on their tour of the Melpar plant.

This summer, Melpar hosted a tour and presentation for 10 junior and senior high school teachers. This marked the fourth year in a row that Fairfax County's Department of Career Resource Development Services asked Melpar to participate in the summer program for teachers. The purpose of the visit was to show the math and science instructors how their subjects apply at Melpar.

The morning of the visit began with a welcome from Evy Lowenstern, Personnel Representative of Employee Relations, and an overview of E-Systems Melpar given by Ed Isbell, Vice President of Systems Development. Next, the teachers toured the VAX computer laboratory where they were briefed by Marilyn Zett, Software Development Supervisor. According to Marilyn, one area of importance within mathematics is structured logic for use in symbolic logic and Venn diagrams. Also essential to programming are advanced algebra and calculus. For applications which require maps, spherical geometry and trigonometry are necessary. Probability and statistics also play a part in analysis of program requirements.

Within the realm of science, Zett stressed physics. Physics is used in programs which relate to radios and

transmitters and to analyze signal and flight characteristics. Additionally, since weather plays an important role in military systems, meteorology can be a valuable body of knowledge.

The group then visited the Computer Support Lab with Ronal Butler, Supervisor of Computer Maintenance. Butler showed the teachers the test lab where the division's contract-purchased computers are sent for repairs. The teachers were impressed with the RAMTEK color graphics systems and the IRSS (Instant Recall Signal Storage) Digital Recording Test Station.

The last stop on the tour was the Very High Speed Integrated Circuit (VHSIC) laboratory with Larry Conroy, Electrical Engineer, who exhibited advanced signal processing equipment. Conroy stressed the importance of trigonometry and calculus as well as the necessity for engineers to have superior spoken and written English language skills.

The summer teachers' program of the Fairfax County Schools is called "Business Partnerships for Educators." The program is designed to bring teachers and industry together for mutual gain. This spring and summer, over 400 instructors and 85 businesses participated in the program

Security Spotlight

It is important to always be aware of security measures that should be implemented to avoid being placed in compromising situations. Do not be the target of an espionage agent because of carelessness, ignorance, or weakness. Adherence to the following simple rules can be the best defense against the threat of espionage.

The most important factor is to be security-conscious 24 hours a day, every day. Also, know all instructions and rules regarding the proper handling and storage of classified documents and materials. Never discuss classified information with unauthorized persons. Be especially careful over a telephone or in any place where you may be overheard.

The avoidance of any kind of public or private conduct that might place you in any type of compromising situation is very important to keep in mind at all times. Another factor to remember that is most vital to security... never attempt to do any "counterintelligence" work on your own.

Bearing all these points in mind, immediately report any suspicious or founded security problems to your security manager.

MELPARTICULARS

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in a variety of ways, including training courses, seminars, and tours similar to the one Melpar hosted. The teachers participate on a volunteer basis and do not receive pay for the time spent in the program. They do, however, receive "non-college" credit which counts toward merit pay increases and teacher recertification. The teachers who participated during the summer months are required to write papers describing how they plan to incorporate what they have learned into their classrooms.

This program, and others similar to it, is another informal, but effective method of generating an interchange between industry and the education community.

Library Up-date

The Technical Library has access to two on-line information retrieval systems which can provide useful information to Melpar employees.

The first system is the Defense Technical Information Center's (DTIC) Defense Research, Development, Test and Evaluation On-Line System (DROLS). The technical report file of DROLS is used to identify documents in the DTIC collection. Searches can be done by subject, personal or corporate author, accession document (AD) number, or title. A variety of information about a document can be obtained on-line, including AD number, title, author, report date, and contract number. Documents of interest can be ordered for you from DTIC by the librarian.

The other on-line system accessible by the library is DIALOG, a commercial information retrieval system consisting of more than 220 databases covering a wide range of subjects. DIALOG can be used to retrieve citations to articles of a particular topic or to obtain other types of information. A DIALOG search can be the first step in obtaining articles of interest. After a search has retrieved bibliographic citations to articles, one can first check to see if the library

has the journal cited. If not, the librarian can try to obtain a copy of the article through an interlibrary loan.

Some of the databases available through DIALOG which may be helpful to Melpar employees in their work are:

- COMPENDEX: The Engineering Index on-line
- INSPEC: Physics Abstracts, Electrical and Electronic Abstracts, and others on-line
- COMPUTER DATABASE: covers many aspects of computers, telecommunications, and electronics
- MICROCOMPUTER INDEX: indexes 50 microcomputer journals
- D&B—DUN'S MARKET IDENTIFIERS: current address, product, financial, and marketing information for more than 2,000,000 U.S. business establishments
- MOODY'S CORPORATE PROFILES: descriptive and financial information on important publicly-held U.S. companies
- MAGAZINE INDEX: covers more than 435 general interest magazines

If you would like more information about either of these services, please stop by the library or call Peggy Simon on extension 2157.

NELSON CORCORAN RECEIVES CORPORATE AWARD FOR TECHNICAL PAPER

Nelson R. Corcoran, Senior Software Analyst, was selected as runner-up for the E-Systems technical paper of the year.

The award was presented to Corcoran at a reception held at the Garland Division during the annual IR&D Meeting. Corcoran's paper was entitled "The Expound Relational Database Management System", and he presented it at the 23rd Annual Technical Symposium of the Washington, D.C. Chapter of the Association for Computing Machinery (ACM), as well as the IEEE sponsored conference on "Database Trends and Applications".

The topic of the paper focused on Expound relational database management systems (DBMS) being developed by the Melpar Division for Department of Defense applications. The paper contained an overview of the Expound DBMS and a description of the ADA language interface, file structure, query optimizer and concurrency control.

Corcoran was pleased with this recognition from E-Systems corporate offices. "An incentive like this for publishing papers is good for the company in several ways," Corcoran explained. "It promotes creative ideas, and you learn a lot from writing papers and presenting them at conferences. Publishing papers also creates recognition for the company amongst customers and for prospective employees."

Credit Union News

ATTENTION:

The Melpar Employees Federal Credit Union has a SPECIAL 60 day offer for credit union members! For the months of October and November the percentage on all **new** car loans will be reduced by 1-1/2%. These are the following loan percentage figures for the selected 60-day time period: — 10.5% for 36 months; 11.0% for 42 months; and 11.5% for 48 months.

A.B. DEPASQUALE PROMOTED TO VICE PRESIDENT OF EMPLOYEE RELATIONS



Anthony B. DePasquale has been promoted to Vice President of Employee Relations, reporting to Vice President and General Manager Talbot S. Huff.

As Vice President of Employee Relations, his responsibilities include the administration of all personnel functions as well as overseeing division employee services and safety.

A native of Point Marion, Pennsylvania, he earned a BS degree from Indiana University of Pennsylvania in 1952 and an MA degree from George Washington University in 1954. He currently resides in Oakton, Virginia with his wife and children.

Holiday Schedule

For Remainder of 1985

THANKSGIVING DAY

Thursday, November 28

DAY AFTER THANKSGIVING

Friday, November 29

WINTER HOLIDAYS

Wednesday, December 25

Thursday, December 26

Friday, December 27

Monday, December 30

Tuesday, December 31

(FIRST HOLIDAY OF 1986)

Wednesday, January 1, 1986

CUSTOMER TRAINING — A PLUS FOR MELPAR

During the past several months, a number of customer technical training programs have been developed and conducted at Melpar. In essence, technical training courses are designed to facilitate the operation and maintenance of both deployed and new systems developed and produced by our division. The principal engineer responsible for the creation of these technical programs, Dave Jackson, described them in one word — "successful". But, true to the nature of many educators, he stressed that there will always be room for improvement.

The importance of training becomes evident whenever each system undergoes technical and operational evaluation. In certain instances, the quality of the training programs can be the determining factor in whether a future production contract is won or lost. Jackson explained, "If the government evaluation team cannot operate a system effectively, or perform the required maintenance, the system will receive a lower evaluation." Therefore, cases do exist where quality training can tip the odds in favor of a positive system evaluation.

The success of these training programs is directly attributable to the instructors who are responsible for teaching the course. "The people

dealing with students on a daily basis have a profound influence on our customer personnel," Jackson said. "It is imperative that we make our training programs a positive experience."

The organization of Melpar's customer training programs is developing. Currently the E2 Group has the responsibility for planning, analysis, curriculum development, as well as instructor selection and training, according to Jackson. "Since many of the courses are only conducted once, instructors are typically chosen from the engineering organization responsible for the system's design. The key here is to find an articulate and knowledgeable person who is able to present the material effectively," he said. When a course is taught several times, however, it is generally more cost-effective to train a qualified instructor. The E Group has already formed an instructor staff.

The overall response from customers and students to training programs has been favorable. As business grows, customer training programs will become increasingly multi-faceted. Jackson concluded by noting that future training developments will rely on closer coordination between hardware/software designers and educational technologists.

FLEXCOMP ENTERS THIRD YEAR

This fall, Melpar employees will be enrolling in the FlexComp program for the third year.

Each full-time employee is provided with a certain number of Flex dollars based on benefit costs and family status. These Flex dollars can be used to purchase medical, dental, cancer, weekly accident and sickness benefits, accidental death and dismemberment, dependent life insurances, SEEA, T-CAP, and extra vacation. The money used for any of these provisions reduces taxable income, thereby resulting in tax savings to the individual.

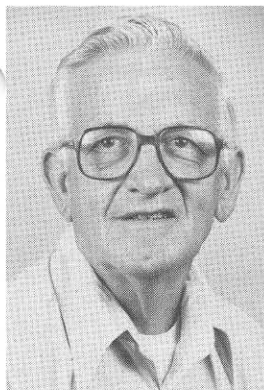
October is the month for FlexComp enrollment. Industrial Relations will be providing presentations for those employees hired in 1985 so they will be able to better understand the options provided by FlexComp. We are using a new enrollment form and booklet designed to make it easier for the employee to pick and choose his options. Question and answer periods will be set up at all facilities for employees who need specific information.

Please note that a change has been incorporated into our optional insurance coverage. Prudential has replaced the Wabash Life Insurance Company in providing this coverage.



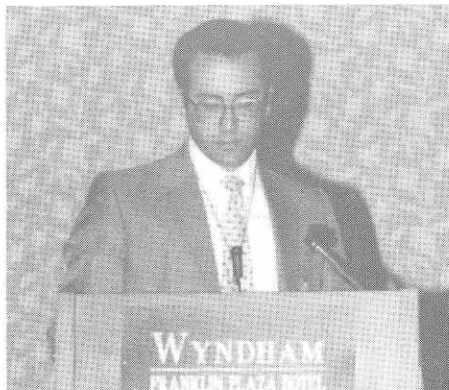
Instructors and students from the AN/GPS-16(V) customer training course. From left to right, front row: Robert Seavey, Sandia National Laboratories; A1C Alberto Velazquez; A1C Timothy L. Hukill; SSgt. Aaron A. Kahl; Sgt. Jose L. Gutierrez; Charles Morrison, E-Systems (Instructor). Second row: Harry Johnson, E-Systems (Instructor); Richard Poppe, E-Systems; Jerry W. Bell, Air Training Command; SSgt. John T. Kenny, Jr.; TSgt. Robert L. Brammer; Tom Clark, E-Systems; George Wagner, Sandia National Laboratories.

RETIREE



Edward D.
Carbaugh
6 Years

RICK FOLEA PRESENTS PAPER AT SYMPOSIUM



E-Systems Electrical Engineer Rick Folea presented a paper based on several years of work done in Melpar's Physical Security Laboratory at the First Annual Physical and Electronic Security Symposium held in Philadelphia, Pennsylvania.

The theme of the Symposium was "State of the Art; Technology Challenge to Security". The objective of the forum was for academia, industry, and government to discuss and exchange information of recent developments in security.

The paper Folea presented was titled "A Foliage Penetration Range-Gated Pulse Doppler Sensor for Detecting Intruders in Dense Windblown Foliage". The paper was based on IR&D work undertaken over the past several years by the laboratory to expand our capability to provide a broad range of micro-based intrusion detection sensors to the Department of Defense. The Melpar Foliage Penetration Sensor (FPS) will extend security surveillance capabilities into and beyond the tree line bordering protected areas, adding yet another line of defense and security awareness.

Melpar has designed and produced the AN/GPS-15 and the AN/GPS-16 to provide intrusion detection for vaulted chambers and the AN/GSS-36 which works in large, open chambers such as aircraft hangars. Another model, the AN/GSS-35, operates in open, busy areas such as active airfields to provide security to high-value or sensitive, parked aircraft.

Folea's paper was very well received. The presentation generated numerous questions from the floor and a number of after-session inquiries. The Symposium was sponsored by the Philadelphia Chapter of the Armed Forces Communications and Electronics Association (AFCEA).

PROMOTIONS — JULY AND AUGUST

	From	To
C.S. Abbot	Assem 1cl	Assem Tech
R. Angel	Facilities Planner	Sr Facilities Planner
A.J. Bartholic	Systems Eng	Sr Systems Eng
R.S. Bonner	Planning Asst	Planner
G.M. Brother	Programmer	Software Analyst
R.H. Brown	Programmer	Software Analyst
W.E. Cafarella	Assem 1cl	Assem Tech
B.J. Clark	Data Entry Op	Asst Govt Prop Admin
B.C. Copeland	Eng Tech	Sr Eng Tech
P. Cove	Software Analyst	Sr Software Analyst
E.V. Cragnell	Assem 1cl	Assem Tech
S.F. Davis	Clerk Typist	Secretary
N.R. Davis	Prin Eng	Eng Supv
L.D. Duvall	Jr. Eng Asst	Eng Asst
R.R. Earley	Prin Cost Analyst	Asst Program Mgr
S.F. Ellzey	Assem 1cl	Assem Tech
G.J. Fitch	Assem 1cl	Assem Tech
N.J. Francis	Secretary	Contract Specialist
T.A. Galioto	Elec Eng	Sr Elec Eng
J.E. Haberle	Programmer	Software Analyst
S.M. Hastings	Drafter	Sr Drafter
J.A. Hoove	Assem 1cl	Assem Tech
E.F. Hutchison	Assem Tech	Assem Tech Grp Ldr
T.B. Ingalls	Detailer	Drafter
Q.Y. Johnson	Cost Analyst	Sr Cost Analyst
E.W. Klein	Software Analyst	Software Supv
P.R. Lawrence	Programmer	Software Analyst
N.P. Lindsay	Sr Software Analyst	Prin Software Analyst
S.S. Machen	Assem	Assem 1cl
M.A. McCann	Elec Eng	Sr Elec Eng
S.L. McDaniel	Assem	Assem 1cl
A.L. Medvecky	Mech Insp Tr	Mech Insp 3cl
F.D. Morrisson	Sr Design Eng	Prin Design Eng
S.T. Myers	Clerk Typist	Sr Clerk Typist
M.F. Newlond	Assem 1cl	Assem Tech
E.L. Peck	Elec Eng	Sr Elec Eng
C.E. Prochazka	Software Analyst	Sr Software Analyst
W.P. Quantrille	Cost Analyst	Sr Cost Analyst
A.P. Reevesman	Planning Asst	Planner
D. Robinson	Computer OP A	Lead Computer OP A
K.L. Russo	Jr Cost Analyst	Cost Analyst
S. Shaffer	Budget Clerk	Jr Cost Analyst
M.D. Speaks	Assem	Assem 1cl
W.H. Storey	Programmer	Software Analyst
R.M. Swift	Prin Eng	Eng Supv
M.A. Thoma	Planning Aid	Planning Asst
R.D. Thomas Jr.	Elec Eng	Sr Elec Eng
P.L. Udell	Drafter	Sr Drafter
C.S. Van Sleet	Report Typist	Sr Report Typist
C.A. Wade	Assem 1cl	Assem Tech
D.S. Wager	Assem	Assem 1cl
R.L. Wilke	Sr Mech Tech	Eng Design Asst
J.J. Williams	Assem	Assem 1cl
L.P. Withers, Jr.	Systems Eng	Sr Systems Eng
R.N. Wright	Elec Eng	Sr Elec Eng

E-TEAMER RECEIVES
COMMUNITY RECOGNITION

An Outstanding Service Award was presented to Marvin Via, General Supervisor at Melpar, in recognition of his participation on the Machinist Apprenticeship Advisory Committee.

Via is actively involved with the Fairfax County Public Schools Adult and Community Education Division. He was selected as a member of the advisory committee formed in May for machine apprenticeships in Fairfax County.

The purpose of the Committee is to plan curricula and to select teachers. Energetic participation and demonstration of innovative ideas earned the award for Via.

Sports Corner

GOLF PLAYOFFS UNDERWAY

The Melpar Golf League drew to a close on September 23 after five months and eighteen rounds of hotly contested, widely participated "hack-ing" on the links of Penderbrook Golf Course. Thirty-six players braved I-66, thunderstorms, poison ivy, sand "sharks", and water "magnets" under the guidance of Melpar's tour directors Brian English, Fred Behrens, and Mike Dutchak.

The playoffs are underway as of this writing, but the following Annual Honors can be reported. Low Gross, Bill Breads and Ron Woodruff, 39; Low Net, Bill Breads and Jim McDaniel, 28; Closest To The Hole, Mike Christofferson, 1-1/2' (twice); Low Handicap, Ron Woodruff, 6; Most Consistent, Ron Woodruff, Bob Kent, Jim McDaniel. The first half finalists were Rene Plourde and Mike Dutchak.

CART Cont. from page 1

evaluation committee convenes approximately once a month to research and evaluate the submitted suggestions. If applicable, the evaluation team solicits staff assistance from one of the focus groups. Once the suggestions have been properly researched, they are then recommended to the CART committee. In some cases the recommendations made by the evaluation committee have been given prior review and approval from one of the focus groups. However, the focus groups also operate independently from the suggestion program evaluation committee and provide their own items of consideration to the CART committee.

Formed in April, the CART committee is pursuing an organized program to implement cost avoidance/reductions. Many employees have submitted ideas to the Employee Suggestion Program in the past few months. It was pointed out that the best ideas regarding the improvement of quality and efficiency at Melpar often come from the people that make suggestions directly related to the work they are doing.

Announcements, memos, and poster programs have been used to distribute information about the Cost Avoidance/Reduction Program to employees. Currently, the Cost Avoidance/Reduction Program is moving ahead and producing positive action.

WHAT IT TAKES TO MAKE A CHAMP



As the weather gets colder, sporting enthusiasts envision snow ski trips and ice rink competitions. Before the last brown leaf drifts from its branch, however, let's turn our thoughts one last time to the sunny shores of eastern lakes.

For Gregory Collins, an Associate Systems Engineer at Melpar, water competition is a year-round affair. He has been water skiing since he was five years old, and entered his first competition at the age of 11 in which he placed second! Last year, he ranked fifth in the National Water Ski Championships and 65th internationally. To give an idea of this accomplishment, consider that there are about 10,000 people from all age categories active in competition skiing in the U.S. today.

"Water skiing is the largest growing sport in America," he pointed out. According to Collins, a skier becomes professional when he or she qualifies for the ProTour. "You get a certain rating," he explained, "I received an exceptional performance rating, which meant I could compete in professional tournaments." The ProTour entails over three-quarters of a million dollars in prize money. A top skier can make upwards of \$50,000 just for competing, let alone endorsements.

Professional tournaments consist of three events: slalom, tricks, and jumping, with separate categories for men and women. What is involved in professional tournament skiing? For one, an enormous amount of practice. "During school I worked out three days a week, mostly doing a lot of weight training," Collins said. "But from May to September, we trained eight to ten hours a day." This may seem excessive, but looks can be deceiving. In reality, water skiing is

a difficult sport to master correctly. "There is a lot of hard work involved in competitive skiing because there are so many factors to contend with, such as wind, the boat, the driver, and especially, the type of water," he said. "The depth and consistency of the water is crucial in competition." In a nutshell, professional water skiing involves an incredible amount of agility, speed, strength, style, and precision timing.

Collins has been ranked number one skier in the Eastern Region for the past five years. He won the Grand Prix of Water Skiing award for 1984 and 1985. This award is given annually to top skiers who win the most tournaments and place the highest in competition ranging from regionals to nationals. Of course, now that Collins is working, he is unable to dedicate as much time to the sport but he still gets out on the water as much as possible.

Traveling up and down the east coast and as far as the midwest for skiing events, Collins emphasized that the thing he loved most about skiing was the personal challenge. "I try to better my best each time. If I make a mistake, it's my loss. It's not a team effort like, say, hockey." Obviously he does not make mistakes too often, judging by his competition record. His fame reached new heights when he modeled for the centerfold of World Water Ski magazine a few years ago. He has also designed a timing system for competition ski boats, and has worked on new concept designs for slalom skis.

Greg Collins described his style on water as smooth. "I have a tendency to work more towards perfection and precision than strength. He is currently a member of the O'Brien National Ski Team. Advice for novice water skiers? "Go for it!" he exclaimed with a grin.