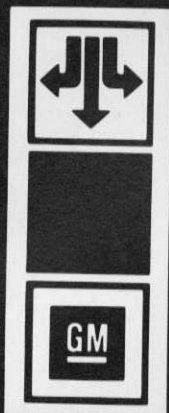


## Headed for the sky

**Ron Dearth**, CV (continuous vulcanizer) operator in Dept. 322, sets the throttle control in his airplane before takeoff. Dearth estimates that Packard's Warren Operations has about 50 recreational flyers including himself. (Story on pages 4 and 5)



PACKARD ELECTRIC

# Cablegram

Volume 47, Number 2

April, 1985

## Packard conference emphasizes strategic planning, management

Nearly 200 of Packard Electric's managers received a message on the subject of strategic planning and strategic management with specific focus on Packard's four strategic business units (S.B.U.s) and the New Products Planning Team at the division's spring management conference last week.

Elmer E. Reese, Packard general manager, included in his management message the division's newest objective: "To strive for and ultimately achieve excellence in everything we do."

Five of the division's directors outlined current and anticipated activities within the division's four

S.B.U.s — Ignition, Wire and Cable, Wiring Assembly and Component — and the New Products Planning Team.

### Strategic management

Reese set the tone of the conference by stressing to the managers that strategic management is a dynamic working tool that will help Packard

Electric to achieve its objectives. He described strategic management as a fundamental but essential self-analysis process. "Strategic management is the answer to these questions: Who are we? What do we want to be?" he explained. "If who we want to be is different from who we are — we have identified a gap — this process is called 'gap analysis.'"

He explained that closing "gaps" becomes a process of identifying objectives, establishing strategies, determining goals and developing a plan. "Finally, we implement the plan," said Reese. "That's strategic management."

### Strategic planning

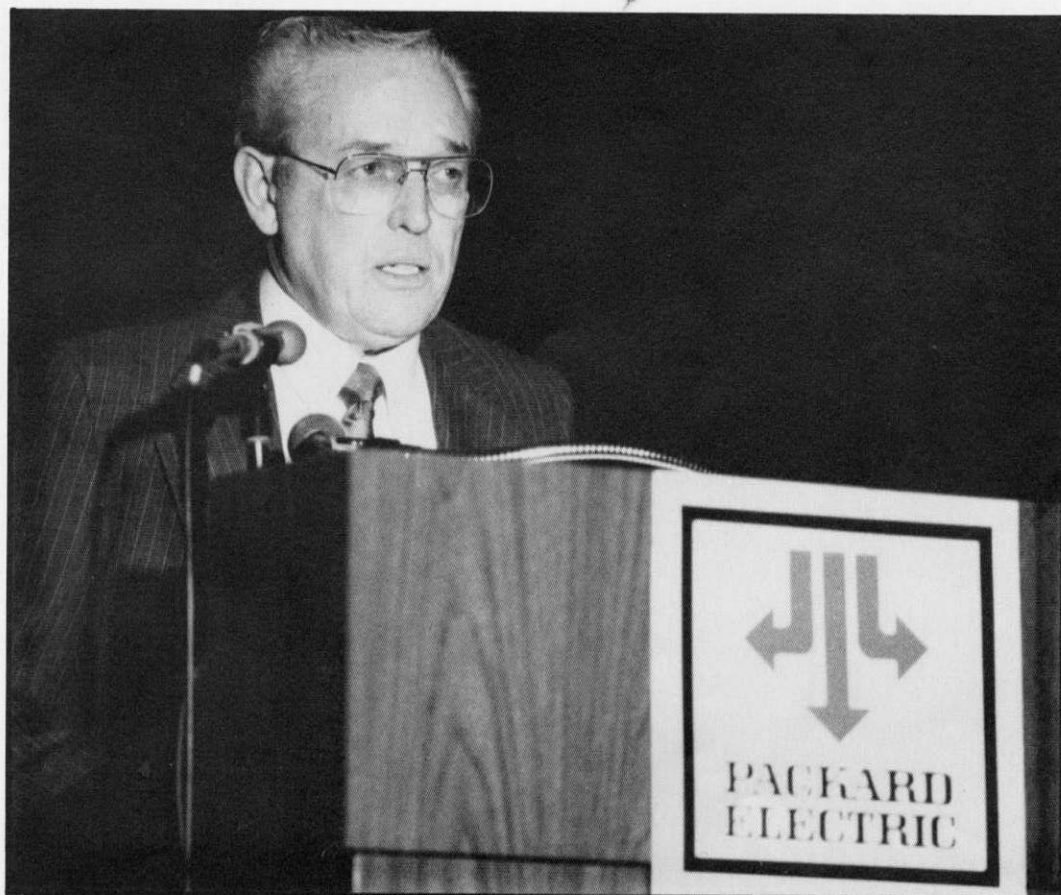
He noted that implementing a plan involves reacting and adjusting to change. Reese explained to the managers that strategic planning at Packard Electric can be impacted by internal forces over which the division has control, or external forces which cannot be controlled.

Some of the external forces affecting the division, according to Reese, are changes in corporate direction and policies.

"They've (General Motors) streamlined the operations side of the business, sharpened their technological edge and sought new business opportunities," said Reese. "All of these changes will fundamentally alter the way we do business," emphasized Reese.

The streamlining Reese referred to is the recent reorganization of GM's North American Automotive Operations being divided into B-O-C (Buick, Oldsmobile and Cadillac) and C-P-C (Chevrolet, Pontiac and GM of Canada).

He described the sharpened tech-



**Elmer Reese**, general manager, addresses Packard Electric managers at the division's spring management conference last week.

(Continued on Page 2)



## Information Briefs

### Deadline near for uncashed profit sharing checks

The deadline for Packard employees to submit their uncashed 1984 GM profit sharing checks to hourly/salary Personnel to receive a vehicle discount certificate is Monday, April 8. The vehicle discount certificate increases the profit sharing check by 25 percent toward the purchase of a new 1985 or 1986 GM vehicle delivered anytime this calendar year.

Vehicle discount certificates may be redeemed by returning them by Jan. 31, 1986 along with proof of purchase of a new 1985 or 1986 GM vehicle.

### U.S. industry sales rise

Sales of new, American-made automobiles rose 5.1 percent in the March 11-20 selling period for GM, Ford, Chrysler, American Motors, Volkswagen of America and American Honda. Half of the domestic companies offered financial incentives throughout the period.

### Chevy drivers are getting younger

Chevrolet reports that the average age of its customers dropped from 42 to 39 in the past model year. The division reported that nearly 66 percent of Camaro buyers last year were less than 35 years old.

### U.S. is nation of travelers

According to recent figures presented by Hertz Corporation, in 1984 Americans traveled an average of 33.4 miles a day — over 2.8 trillion miles total — and spent nearly \$887 billion (\$3813 per person) in the process. The mileage was logged in cars, trains, aircraft, trucks, ships, buses and taxis.

### GM bits and pieces

Changes due for the 1990 F-bodies (Camaro and Firebird) include front-wheel-drive and unit-construction underbodies covered in plastic exterior skins, like the Fiero.

The Cadillac Pininfarina-designed convertible scheduled for 1987 production will be called Allante. The two-seater will be assembled at GM's Hamtramck assembly plant.

Chevrolet is tentatively scheduling production of a soft-top Corvette next spring, with bodywork performed in part by American Sunroof. Production will be limited to about 5000 units a year.

Production will cease at the end of the 1985 model year on the Oldsmobile-built 4.3-liter V-6 and 5.7-liter V-8 diesel engines. According to **Ward's Automotive Reports** production of the V-6 is about 150 units a day, only about 10 percent of capacity.

### Packard Electric Cablegram

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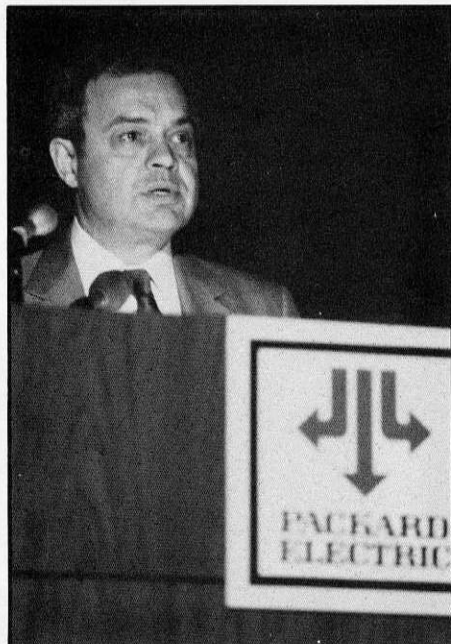
Phone: 373-3029  
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*'It is a commitment to excellence!'*

## Reese identifies new objectives

(Continued from Page 1)

nological edge as GM's investments in plants and new equipment. "We must stay on the cutting edge and seek technological supremacy," emphasized Reese. "Because if we don't, you can bet the Japanese auto industry will!"



**Tony Andreatta** discusses activities within the Ignition S.B.U.

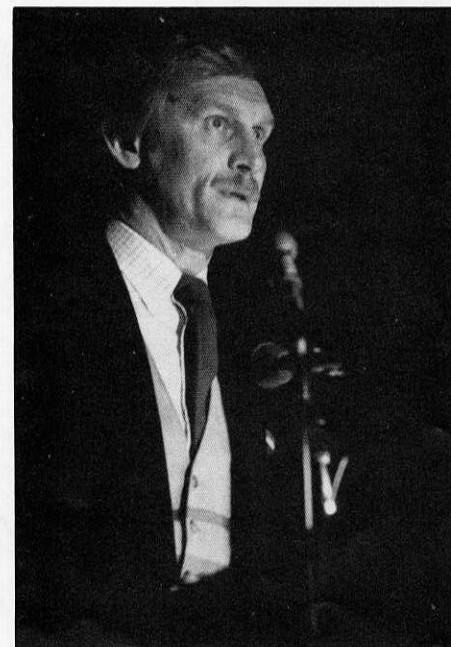
Reese pointed to Saturn as a prime example of one of GM's new business opportunities on the horizon. "Saturn rose out of a clean sheet of paper," said Reese as he quoted GM Chairman Roger B. Smith. He noted that the new Saturn vehicle represents a totally new concept "to create a new car without the predictable responses of the traditional car maker."

Reese noted that GM's acquisition of Electronic Data Systems (EDS) will represent more business opportunities to the corporation. He added that EDS will also play an important role in designing operating systems for the Saturn plant.

### Mission, Objectives and Strategies

Reese told the managers that due to the extensive changes initiated last year at the corporate level, along with important internal divisional forces, Packard's executive committee recently met offsite to review the division's Mission, Objectives and Strategies. He explained that the review was primarily to insure that Packard is still "on the right track."

He hastened to add that Packard is not starting over in its strategic planning and management concept. "We're merely **fine tuning** what we already have to ensure our goals are congruent with those of the corporation."



**Bill Wehmer** plans for a high-growth year for the Component S.B.U.

### Excellence

Reese told the managers that perhaps one of the most important developments at the executive committee offsite meeting was the identification of a new objective.

"This new objective is where we **must begin** and where we **must end** if we are to survive in today's competitive market," stressed Reese. "It is a commitment to **excellence!**"

Reese concluded, "We want to be the finest provider of power and signal distribution systems in the world today. We must make the name Packard Electric synonymous with excellence! How do we do that? It's doing **everything** right the first time — **every time** — in **everything** we do."

He added that Bill Wehmer, director, Reliability and Quality Control, is heading a committee to establish direction for Packard Electric in the pursuit of excellence. Wehmer's committee is comprised of representatives of each staff area. The findings of this committee will be submitted to the executive committee soon.

### Roadblocks

Reese explained that another important development came out of the executive committee offsite meeting. "We generated a list of internal issues



**Bill Turner** predicts new product opportunities for Packard.

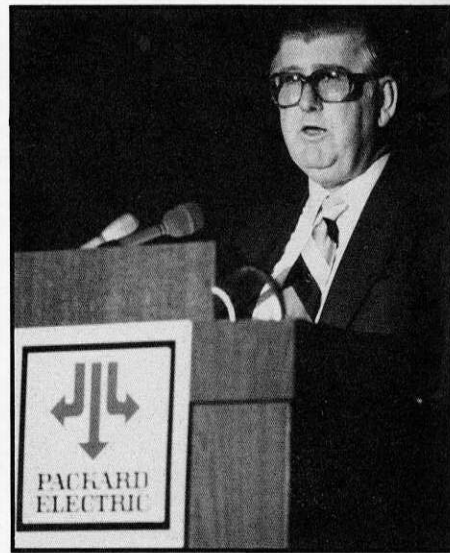
which impede us from fulfilling our mission and objectives. We agreed to address these internal issues because we can deal with them here at Packard."

Four of the most important issues are: employee behavior, burden and super burden, process capabilities and training.

Reese noted that Don Dedow, General Manufacturing manager, has responsibility for developing special efforts designed to deal with employee behavior at Packard. Reese explained that the solution represents producing cultural change. "We recognized it was probably the most difficult one of the four."

Ray Connolly, divisional comptroller, will head the effort to help the division understand and control burden and super burden. "That's you and me," said Reese as he explained the terms. "It's the fringe benefits, special tools and more. It's what we spend."

Tony Andreatta, director, Manufacturing Engineering, will head the effort in process capability. Reese reiterated his plan to follow the corporate lead and keep Packard Electric "on the cutting edge" in this area. "It is clear to us that we must continue to expand that capability."



**Ray Connolly** discusses the future of the Wire and Cable S.B.U.

The fourth issue, headed by Bill Wehmer, director Reliability and Quality Control, is identifying job requirements and training. "Our people are the key to our success," Reese stressed to the managers. "We must specify the job requirements — what we expect from our people, and then train them to do it."

### New Products Planning Team

Bill Turner, General Sales manager and co-chairman of the New Products Planning Team, explained that his group is responsible for developing a "vision of the future" for Packard Electric products.

"We look for product programs to improve our automotive electrical component product lines," explained Turner, "and pursue new market and business opportunities in non-traditional business areas."

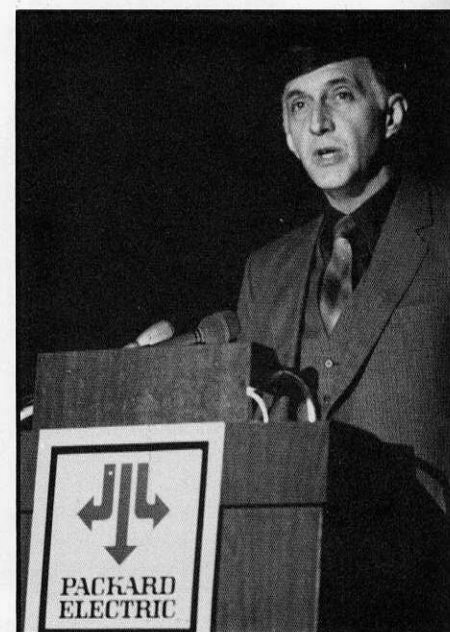
He added that two product lines — electronics and fiber optics also fall under the business planning responsibility of the New Products Planning Team. Turner expects data transmission applications of fiber optics, as well as beamed optics, to be major product opportunities for Packard Electric.

### Ignition S.B.U.

Tony Andreatta, director of Manufacturing Engineering and co-chairman of the Ignition S.B.U., identified his group as having responsibility for high-voltage ignition products for sale to original equipment manufacturers (O.E.M.) and for aftermarket.

Andreatta presented the goals for his S.B.U. as improving quality, increasing the technological lead in products and processes and improving Packard's competitive position.

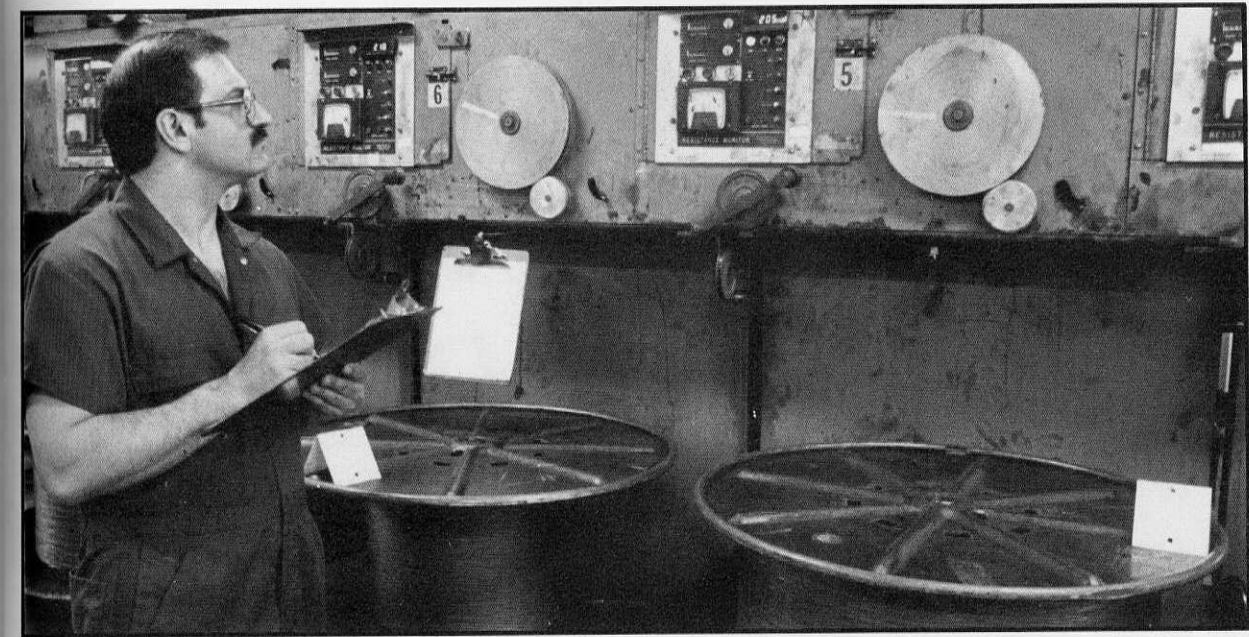
(Continued on Page 8)



**John Martin** emphasizes growth potential for the Wiring Assembly S.B.U.



# Quality teams focus on future



by Mark Rollinson and Patricia Reilly

This is the final segment of a three-part series outlining Packard's Quality Improvement Plan which is comprised of 12 action teams. This segment focuses on the divisional systems-related action teams—Cooperative Involvement, Just-In-Time (JIT), Statistical Process Control (SPC) and Suppliers.

The goals of Packard's Quality Improvement Plan include a significant reduction in field warranty problems by the 1988 model year, and 100 percent conformance to specifications by late this year.

**Al Rotunno**, graphic oven operator in Dept. 320, uses an SPC chart to log readings which measure the resistance of oven core. Oven core serves as the conductor for Packard ignition cable. Rotunno is the SPC coordinator for Dept. 320, the first Plant 3 area to use SPC charting.

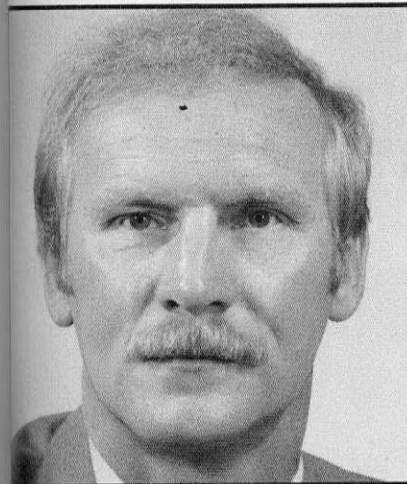
## Cooperative Involvement

Cooperative involvement is a relatively new concept to Packard Electric. Nonetheless, under the ownership of Bill Wehmer, director of Reliability and Quality Control, it is represented as one of four systems-related Quality Improvement Plan areas.

The purpose of the Cooperative involvement action team, according to Wehmer, is to participate with Packard customers in the areas of product design, wiring installation, packaging and training. He added that a secondary purpose is to gather performance information.

Wehmer noted that the goal for his action team is to improve customer satisfaction by reducing corporate electrical-related problems to 95,000 incidents per million vehicles by 1988 from the current level of 620,000. He added that his action team also has a goal to reduce warranty claims on GM vehicles from the current 425,000 incidents per million vehicles to 15,000 by 1988.

Jerry Gilley, staff Reliability engineer, has been working within Packard's cooperative involvement activities function for nearly three years. He explained that results of a study



Wehmer

conducted with Packard customers in the early 1980s provided the basis for the division's cooperative involvement approach of today.

### Change of focus

The study revealed that only 30 percent of the division's warranty problems stemmed from Packard quality items. The other 70 percent were discovered to be design or system problems at the customers' assembly plants.

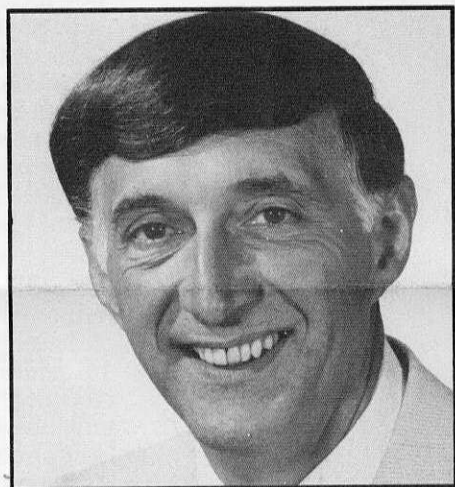
"By only focusing internally we were only addressing 30 percent of the problem. We very quickly saw that we had to change our focus from internal to external and look at the problem from our customers' viewpoint," Gilley said.

(Continued on Page 6)

## JIT

Just-In-Time (JIT), a manufacturing system where only the number of parts required for an operation are delivered at the time the parts are needed, is not a new concept to world industry.

John Martin, director of Material Management, is owner of the JIT



Martin

action team within the division's Quality Improvement Plan. He noted that during the past two years the division has adopted JIT manufacturing and inventory principles in selected areas as well as with many of the division's suppliers and vendors.

"I don't believe that every one of our manufacturing operations today at Packard Electric can convert or should convert to JIT," said Martin. "JIT will work in some areas and will result in tremendous savings." He estimated about 60-70 percent of the division's operations could receive measurable benefits from JIT in improved quality and reduced costs from the division's current JIT level of about five percent.

While progress has been gradual, Martin is quick to note that JIT has already had measurable positive effects on Packard Electric.

He explained how within the last two years Packard Electric has, through a special program with local suppliers, reduced its inventory by about \$1.6 million. This program has grown from 20 to 40 suppliers in the last year.

He sees the best way for Packard to adopt more JIT operations is to have the division develop a better understanding of its many facets. According to Martin the first step is already well under way.

### JIT Steering Committee

He explained that a JIT steering committee was recently formed at Packard. Don Dedow, General Manufacturing manager, and Tony

(Continued on Page 6)

## SPC

"Statistical Process Control applies to everyone at Packard," declared Tony Andreatta, director, Manufacturing Engineering, and co-owner of the SPC quality action team. "The SPC function is one that requires the efforts of the whole division."

The team's mission is to proliferate SPC throughout the division in order to help Packard Electric attain World-Class Quality, he said.

"Ideally we should apply SPC principles to everything that we do, while striving for and attaining excellence," Andreatta continued. "That's a difficult task, but it has to be our objective."

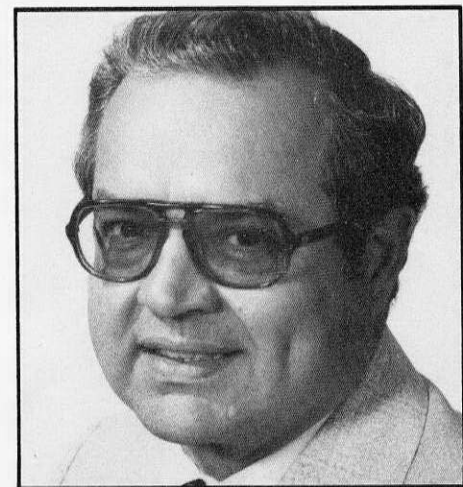
SPC principles can help Packard to find the most effective ways to perform particular tasks. These principles then define those tasks so that employees can duplicate them every time.

### Process certification

"Frequently we can accomplish something in a laboratory once or twice, but that doesn't make the process excellent," Andreatta pointed out. "Our goal is to apply SPC principles to all major processes at Packard and to subsequently have all those processes certified."

According to Andreatta, Packard has identified thus far 79 processes for the 1986 model year that need to be certified. The quality action team will identify and measure the characteristics of each process, and then will assign a value to the process. The division currently labels its processes with the designations 'A' through 'D' to indicate how effective they are. An 'A' process would be most efficient, with 'D' the least efficient.

Process certification is a means of identifying variables in a process and



Andreatta

trying to minimize or eliminate them. "SPC and process certification go hand-in-glove," Andreatta explained. "We're pursuing it with our people, but

(Continued on Page 6)

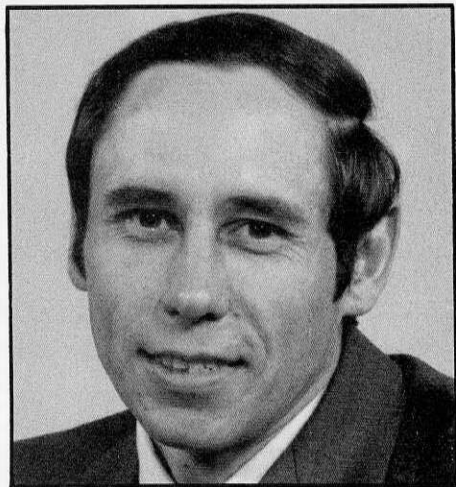
## SUPPLIERS

No man is an island unto himself, and neither is Packard Electric when it comes to attaining World-Class Quality in all its operations. Thus Packard's Quality Improvement Plan addresses not only internal quality problems, but those associated with suppliers as well.

"Our mission is to increase our quality performance from our supplier base to attain World Class leadership by 1988," said Tom Shepherd, Purchasing administrator. "We currently are measuring our vendors' overall performance, reflecting quality delivery and service."

Jon Anderson, Purchasing manager, and "owner" of the suppliers quality action team, intends to accomplish the following objectives by 1988:

- to work as a team with suppliers from the inception of any Packard Electric Division program



Anderson

- to reduce the number of suppliers so that buyers can better develop each vendor's capabilities
- to place a greater amount of business with elite suppliers

### Ship to production

"Our goal is to bring suppliers to a state whereby they can ship to production, bypassing receiving inspection," he said. "This means material is good enough to come directly from their plant to our floor—the first time and every time."

Packard has already approved five vendors for ship-to-production, and expects to approve 22 more by the end of 1985. Anderson expects this to generate savings through reduced inventories.

The quality action team will ensure that eventually quality will be measured and controlled at the suppliers' facilities rather than at the division's receiving inspection areas. Reliability's Supplier Quality Systems (SQS) is a program designed to help establish quality at the source.

(Continued on Page 6)





**Jim Fogarty**, index line operator in Dept. 1439, receives clearance to land at Youngstown Municipal Airport.

# Wings Packard fir view fr

by Patricia Reilly

Anyone who has ever been caught in a traffic jam, driven behind someone who's out for a Sunday drive, or had a flat tire may have wished they could fly. Who needs to stay on the ground, anyway?

Not Ron Dearth, Dept. 322 CV operator, who received his private flying license in 1972, and who had dreamed of one day owning and flying his own airplane.

That dream came true two years ago when he spotted a shabby-looking airplane parked in the high grass area at Warren Airport. Dearth and a friend split the \$4800 purchase price of the run-down Cessna 150, and soon began renovations.

"The interior was a shambles," Dearth recalled. "The radio was out. The exterior was dull and badly in need of paint. A pair of tires were flat, and we even found two birds' nests in the engine compartment!"

*"I have a real love of flying. You're in your own world up there."*

However, the control cables and connections remained in good shape, which was crucial to the plane's ability to fly. Dearth and his partner spent ten hours sanding and preparing the plane before painting it. They then replaced the interior and purchased a new radio, including a set of headphones.

"We put many hours of time and effort into our project, but we have also received many hours of flying enjoyment from our plane," he said. "Including repairs, we had invested only half the price of a new car into the plane, and I figured today it would be worth \$6000-\$6500."

Dearth noted that at least 40-50 people within Packard Electric are associated with flying.

"The average person at Packard probably couldn't afford to fly if he or she wanted to. It isn't an expense that would be beyond their reach," he said. "My secret is sharing the expense with another person. It makes a tremendous difference in your ability to fly on the weekends or whenever you like."



**Fogarty** (left) and **Dearth** check weather reports on a computer for their intended flight paths.

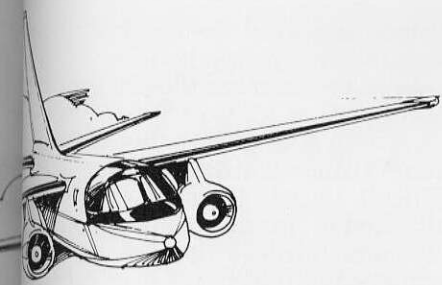


**Airplane maintenance** is critical. **Dearth** checks the oil level in his two-seat Cessna 150.

**Dearth** receives taxi clearance in his Cessna Skyhawk. ▶







# ts prefer above

other means of keeping the expenses down  
join a flying club. Jim Fogarty, Dept. 1439,  
line operator is head of a flying club at the  
Youngstown Municipal Airport.

According to Dearth, some of the best months  
they include March, April, May, October and  
November.

He does photography from the air if someone  
wants pictures taken," he added. "We've had people  
photograph golf courses, excavation projects —  
they get some very nice shots because the plane's  
windows are above the windows so the visibility is  
excellent. Also, the plane can fly as slow as 42  
miles per hour."

Jim Dearth keeps himself current by flying  
as often as possible. He stresses that pilots need  
to maintain their skill levels, attain familiarity with  
the controls and ensure that their aircraft are  
ready to fly. All pilots should know their personal  
limitations, as well as those of their planes.

The important thing is the practical knowledge  
they pick up along the way," he said. "You should  
be able to interpret weather reports and recognize  
when are the best times to fly. It's also your job  
as a pilot to keep up on FAA regulations."

Jim Dearth and his partner recently increased the  
investment in their pastime by selling their two-  
passenger plane and purchasing a newer four-passenger  
Cessna Skyhawk. The Skyhawk's 130-135 mile per  
hour cruising speed will enable them to fly longer  
distances more easily.

The partners also decided to form a corporation  
specializing in aerial photography and contract  
work. "It was a tax advantage for us to form a  
corporation and become co-owners," Dearth  
explained. "It wasn't that hard, really. It just  
involved some paperwork."

Isn't the business aspect that most interests  
him, however.

"I have a real love of flying," he said. "You're  
in your own world up there. There's a feeling of  
complete freedom. I wanted to take the challenge  
of learning to control an aircraft myself, and I did  
once you attain that skill, it stays with you."

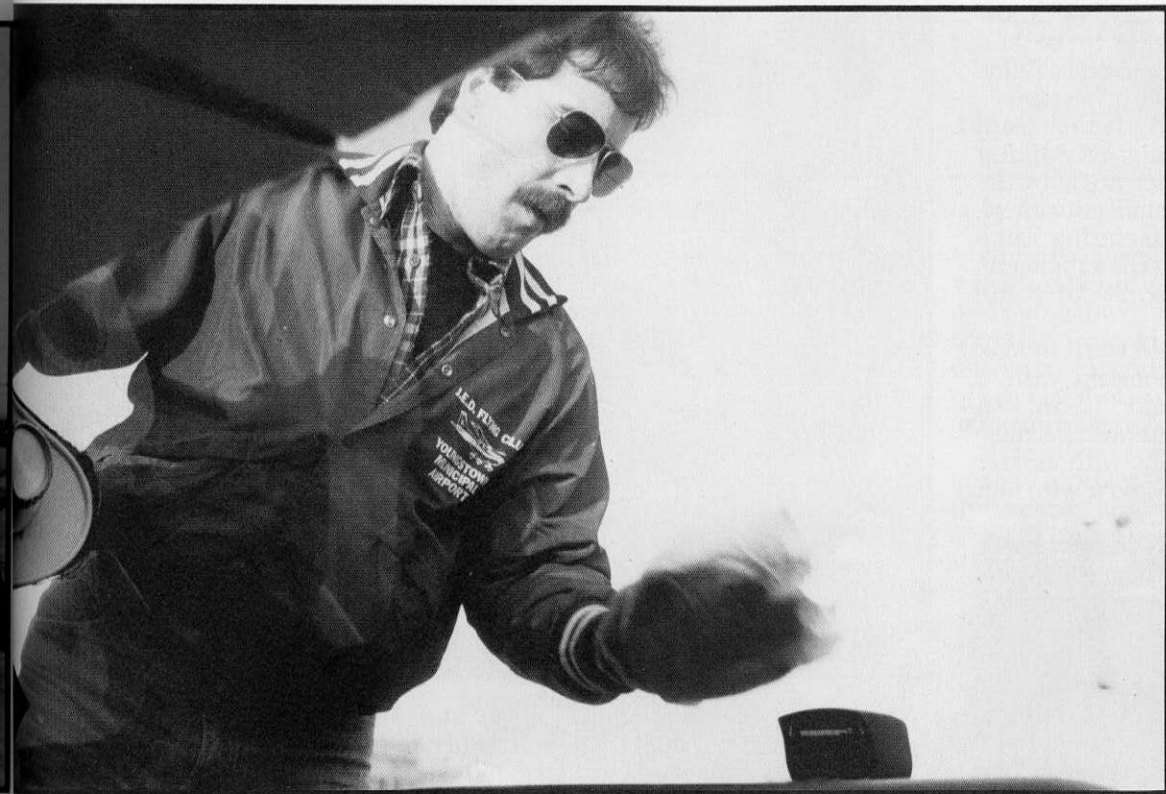


**Visibility** from Fogarty's Cessna Skyhawk is 12 miles at an altitude of 3,000 feet as the sun sets near Warren.



**Fogarty** (above) performs a preflight cockpit check.

**Acting** as his own service station attendant, Fogarty (below) cleans the windshield of his plane before takeoff.



## More to piloting than meets the eye

Learning to fly is a little like learning to ride a bike. Once you've got the ability, you don't lose it. The similarity between the two pastimes ends there, however, as learning to fly involves considerably more training, expense and motivation.

Jim Fogarty, Dept. 1439 index operator, and licensed instructor, heads a flying club based at the Youngstown Municipal Airport. The club takes on both new members and people who simply wish to learn to fly.

The Federal Aviation Administration requires a minimum of 40 hours of flying time before it will license a pilot. Fogarty estimates that a person may need as many as 55-60 hours of flight before sufficiently mastering the skills to become a pilot.

Students must eventually pass a 60-question written exam covering navigation, regulations and weather. Fogarty teaches a course at Kent State University's Trumbull Campus to help students prepare for the test.

"After passing the test and fulfilling the minimum hourly requirements, I will sign the student off to take a check ride with an FAA examiner," Fogarty said. "The examiner will conduct an oral exam, and then the student will demonstrate his or her skills in the air."



## Cooperative Involvement

(Continued from Page 3)

"That's when we decided we were going to take our Reliability vehicle coordinators and start focusing them in the assembly plants," he explained. He added that this approach is the basis for Packard Electric's current PEP (Product Evaluation Program) studies.

He added that PEP studies are conducted on all new GM vehicle programs. The study consists of visits to various assembly plants by teams of Packard Electric representatives. Most assembly plants involved in PEP studies have a Reliability vehicle coordinator assigned to them.

Gilley added that the coordinators are very familiar with vehicle assembly plant problems such as damage

caused to Packard products due to packaging and handling, and during installation of harnesses into the vehicle.

"There are other specific Quality Improvement Plan areas — for example, Bulbs, Disconnects, Product Damage, Routing and Harness Protection and to a certain extent Unseated Terminals — where the assembly plants directly cause some of the warranty incidents that occur," he explained.

Gilley added that the PEP studies coordinated by the Cooperative Involvement action team have a significant influence on many other action teams within Packard's Quality Improvement Plan. "The PEP study is one very large resource to all these teams to provide them with very specific information on what's going on with their product problem areas.

We are one of the primary suppliers of incident information."

In addition to finding problems which exist at assembly plants through PEP studies, the cooperative involvement group goes to great lengths to enable the assembly plants to reduce the level of the problems.

### Going to the source

"We involve wiring release engineers, corporate reliability and engineering groups. We talk to whomever we need to resolve problems."

Gilley noted that many problems are design-related. Consequently, the Packard Electric Cooperative Involvement action team sometimes has to contact the designers and engineers who developed the initial part.

"The assembly plants in many cases don't know who to call to resolve the problems," he explained. "Our role is to facilitate — to help get the proper

people involved to resolve these problems."

What progress has the Cooperative Involvement action team made toward its goal of customer satisfaction? Gilley confessed that it is difficult to tell if recent customer satisfaction improvements based on customer surveys can be directly attributed to the efforts of the action team.

"The way we're really going to measure improvement is through our PEP studies," explained Gilley. "It's the most accurate. It also provides us with very specific data. That's one of the keys to the rest of the cooperative involvement plan."

He noted that only 11 PEP studies were conducted last year in comparison with 23 planned for this year. Next year Gilley expects 25 studies to be conducted.

## JIT

(Continued from Page 3)

Andreatta, director, Manufacturing Engineering, head the committee. Serving with them are Lee Crawford, director of Warren Assembly Operations; Bill Dunham, manager of Divisional Industrial Engineering; Glenn Reeser, director of Packard's Mississippi Operations; George Sletvold, manager of Production and Material Control; Bill Wehmer, director of Reliability and Quality Control and Jack Williams, general director of Packard's Mexican Operations.

The steering committee's mission, according to Martin, is to inject the JIT process into the division's manufacturing operations. "Engineering must provide the support which will aid processes which assure quality. JIT will not function without perfect quality. You can only pass on good parts to the next operation."

But quality when discussing JIT can refer to more than just the quality of the product, he stressed. Martin is quick to point out that JIT also includes delivery as well as operations which frequently are not

directly associated with manufacturing.

### JIT delivery program

He noted that Packard is developing a distributor program for GM's 1986 E-K and about half of the H-car (GM 70). The program will involve a warehouse consolidation point near the Hamtramck, Mich. E-K car assembly plant. The warehouse will receive all Packard E-K car product input and then make deliveries to the assembly plant four times daily.

### Quick changeover

Martin noted that within a traditional JIT system only the number of parts which are needed are sent. There is no "batch processing".

"That's where the waste comes in," he emphasized. "It drains and misuses materials, labor, equipment and tools."

He explained that tools, machines and equipment must be designed to be changed over quickly to produce different parts. Flexibility is a key part in a JIT system.

He discussed the advances that Japanese industries are making in rapid changeover of machines. "Their goal is good part to good part in less than 10 minutes."

Martin was pleased to note that Packard's Industrial Engineering department recently became directly

involved in the design and development of quick change tools for JIT.

(Continued on Page 8)



A Just-In-Time shipment is examined at the Plant 11 receiving dock by Don Stark, Dept. 947.

## SPC

(Continued from Page 3)

it involves a lot of work. It takes time and effort to design the system."

The SPC quality action team receives help from staff areas such as Manufacturing Engineering, Reliability, Quality Control and Product

Engineering. These areas will help the quality action team reach some of its chief objectives.

"We are obliged to be 100 percent in conformance with major specifications by the end of 1985," Andreatta said. "We are also obliged to be at World-Class Quality by the 1988 model year."

To reach these goals Andreatta

said the team will implement the following strategies:

- mechanization
  - automation
  - reduction of the human variable
  - use of the best technology available
- "This is the thrust that will get us to World-Class Quality," he stated.

The demand for SPC in Packard's Mississippi Operations rivals the

demand for SPC in the Warren Operations. However, the Mexican Operations have somewhat different needs.

"Most of their operations are final assembly, so even though there is a need for process certification, the general emphasis must be operator training," Andreatta said.

## SUPPLIERS

(Continued from Page 3)

"We have begun this year to ask our suppliers to reach 100 percent conformance to specifications," Shepherd pointed out. "Through SQS we will work with our suppliers and, if necessary, train them and provide them with guidelines on how to establish a solid quality program."

Shepherd noted that Packard invites all of its vendors to attend the division's Quality Training Center. It also provides individual attention on SPC education.

"Packard Electric for the past two years has trained suppliers in Statistical Process Control. SPC is the first step in attaining readiness to ship-to-production," stated Shepherd.

"SPC is not the only answer, but it is a starting point. A supplier can qualify for ship-to-production without taking SPC training," Anderson added. "It will be the buyers' responsibility to bring each one of their suppliers to the point of being able to ship to production."

### Zero defects

Shepherd believes supplier quality problems exist because of previous

low expectation levels. "The standard for quality performance in the past was something less than zero defects," he said. "Today, we know there are many benefits to be had from striving for zero defects, so it has become the new standard."

The suppliers quality action team can reach its goals only by working with a number of other areas in the division, such as Quality Control, Reliability and Manufacturing Engineering, while treating the supplier as an additional arm of the organization.

"That's the way we'd want to look at a long-term relationship with a supplier," Anderson said. "It's in both our and their best interest. Because the suppliers are dealing with us over the long haul, it has to be a win/win situation."

This supplier quality improvement effort will also embrace Packard's Mississippi and Mexican Operations, according to Shepherd. "They are an integral part of the plan," he said. "Our approach will cover all the materials used at Packard Electric, as we help vendors attain our quality standard—and that's World-Class Quality."



Dick Sahr, divisional buyer, (left) and Tom Finta, general supervisor, Supplier Quality, (right) review control characteristics with supplier Robert Gray, general manager, Holmco Industries. Finta uses an SPC gauge to measure dimensions on a door grommet.



*'It's a good beginning'*

## Clinton suppliers form quality plans

It is generally accepted that one of the best ways to insure that a goal is met is to first write it down. The next step usually is to map out a strategy including a timetable leading up to when the goal is expected to be reached.

Packard's Mississippi Operations in Clinton recently asked their integrated suppliers to follow a similar plan of action. Six months ago Packard Electric in Clinton asked each of its integrated suppliers to commit their individual quality plans to paper. Seven owner/operator supplier groups in 12 locations within an 85-mile radius of Clinton responded with quality plans unique to their own plant operations.

Allan Beck, superintendent of integrated suppliers for Packard's Plant 24 in Clinton, explained the purpose of the program. "The product complexity has increased at such a dramatic rate that some of the practices that we had both inside Packard and at the final assembly suppliers turned out not (to be) adequate anymore."

Glenn Reeser, director of Packard's Mississippi Operations, cited another purpose of the program. "We wanted to emphasize to them (suppliers) that we want quality. This way they get 'ownership' in a quality product," he said. "It's a good beginning."

### Quality = more business

There was another very good reason for Clinton's integrated suppliers to take seriously Packard's challenge of developing a quality plan. "We are rewarding our top quality suppliers with more business," said Reeser.

He noted, for example, that one top quality

Mississippi integrated supplier will gain 60 to 70 percent more business from Packard Electric this year over last year based on an outstanding past quality performance. "We recognized his quality," said Reeser.

Suppliers were given free reign in how to develop their quality plans. This, according to Beck, was to prevent Packard Electric from compromising the competitive edge that one supplier might have over another. He noted that the suppliers were not required to address any certain areas in their plan.

What was included in the suppliers' quality plans? According to Beck no two plans were the same. "Generally, they addressed their audit procedures, reject control, preventive maintenance of tools and equipment, training, SPC (in cases where it is being used or anticipated) and employee involvement."

### Supplier reaction

Al Levy is general manager and vice president of three integrated supplier operations located near Clinton which serve Packard Electric.

Levy expects Packard Electric to gain a better product from the integrated supplier quality plan program.

"We want to produce a product that is reliable, durable and performs to the expectations of the customer each time," said Levy. "Although we've not reached perfection, that's our objective. We're sure that we're doing everything from our end to build a harness that is of the highest quality."

Levy noted that the quality plan he submitted to Packard Electric includes emphasis on employee involvement. He explained that he intends to begin

showing videotapes to his employees which illustrate how wiring harnesses operate and how they are installed in cars. In this manner he hopes to increase his employees' understanding for the need of quality.

Another part of Levy's plan calls for not only a 100 percent on-line quality audit but also a 100 percent final end-of-the-line inspection to prevent defects from leaving his plants.

Levy added that his quality plan involves running his conveyors in a "shut-down mode" where defective parts on line will automatically stop production when checked. "They fix the problem right on the spot," he explained.

While his plants do not include it currently, Levy's plan will also feature Statistical Process Control (SPC) training for his employees within the next year.

He noted that his plan involves weekly contacts from his plants to the customers (GM assembly plants) who receive Packard harnesses made in his plants.

### Part of the overall plan

Beck added that the integrated supplier quality plans will be included as a separate section of the Quality Improvement Plan for Packard's Mississippi Operations.

He noted that there will be regular audits of the suppliers' performance in conforming to their own quality plan. This, he explained, would be in addition to the quality checks which Packard routinely makes at the suppliers' plants. "We are going to hold them to it," Reeser emphasized.

## Packard worker beginning program to keep Hispanic youths in school

by Patricia Reilly

Get a degree, get a job and get ahead. This statement serves as an unspoken motto for many of this country's young people striving to attain middle class comfort and more.

Some adolescents, however, jeopardize their odds for success by failing to get that degree, either from high school or college. This is especially true of the nation's minorities, who too often become dropouts out of frustration or in the hope of getting an early start on the job market.

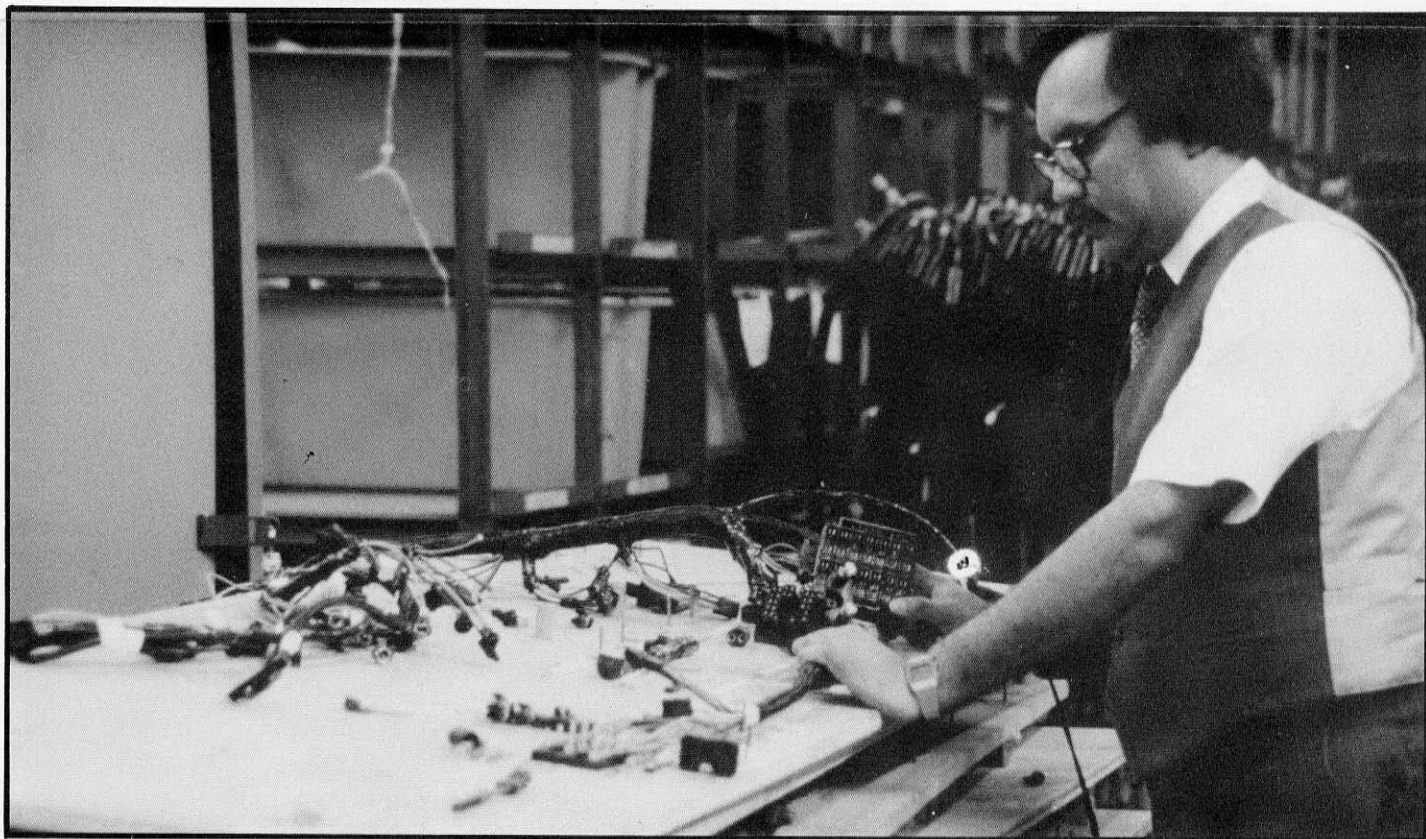
Frank Nolasco, general supervisor, Quality Assurance, wants to do something about that — particularly in the case of young Hispanics living in Youngstown.

"Some Hispanic young men and women are having a hard time making their way through a high school career," he said. "There's a big increase in the dropout rate in the 11th grade. We're trying to originate a program starting in the ninth grade where we have career people, counselors and successful Hispanics talk to them about the perils of not completing a high school education."

Nolasco serves as vice president of the board of directors of the Organization Civic and Cultural Hispanics of America (OCCHA) based in Youngstown. This organization provides a wealth of social services to Mahoning Valley Hispanics, and has recently begun this dropout prevention program with the Youngstown public school system.

"The school system is beginning this project with a visual presentation to the kids," he explained. "The efforts of OCCHA and the school system are already helping to keep some of these kids in school. They've been keeping tabs on the ninth and tenth graders since September."

They are now planning to expand the program by publishing a pamphlet which includes



Frank Nolasco, general supervisor, Quality Assurance, checks a wiring harness assembly on an inspection board.

biographical sketches of successful Hispanics, organizing group forums and scheduling one-on-one or group sessions in which Hispanic students can discuss problems and possibilities with Hispanic professionals.

"Hispanic students tend to withdraw into a shell because their language is not English. This withdrawal keeps them ostracized from the general high school society," Nolasco said. "They get to the point where they wonder why they should go on trying to get an education when they could go out and get a job somewhere."

"What they don't know is how many jobs there are out there. Who's going to hire them without a high school education?"

Nolasco faced similar pressures while growing up in a poor section of Youngstown. His family came to the area from Mexico when he was one year old, and as he got older they placed a strong emphasis on achieving success.

"I've always had an established goal — a professional goal. I worked throughout my collegiate career. I always planned to accomplish something, and that's what motivated me," he said. "I need to pass on this motivation to some of these kids."

Some of his advice to Hispanic students includes:

- ask yourself where you will be five, 10 or 20 years from now
- learn to work, play and socialize under a disciplined environment

- remember that education allows you to exercise more options for success

"We all need motivation. I try to set an example for my son," Nolasco said. "He observes me going to work every day."

Hispanic students thinking of dropping out need role models, he added. The OCCHA program can give them the chance to meet successful Hispanic professional people and tradespeople.

"I want to impress on these kids that they have an opportunity to be successful," he said. "Things are going smoothly with the program. There might be other Hispanic people who want to participate in this, and anyone who is interested can contact me."



## JIT

(Continued from Page 6)

### Ship to Stock

Martin discussed another program closely affiliated with JIT called "Ship to Stock" which he claims will result in additional reductions in time, cost and material handling.

"Ship to Stock is when we bring in material and bypass receiving inspection," explained Martin. He noted that the program requires vendors to

qualify and be validated by Packard Electric as being producers of only quality materials. Following validation their products can be received and placed immediately into Packard's stock without being subjected to a quality inspection. He noted that Statistical Process Control is used to help select Packard's Ship to Stock vendors.

### JIT Benefits

Martin noted that a direct benefit of JIT is a reduction in inventory which takes up valuable space. The floor space concern comes into sharp

focus when Martin estimated that an average of nearly 30 percent of any manufacturing plant's operation is involved in material storage. He further noted that Packard Electric frequently seeks additional floor space to rent which could be made available through continued conversion to JIT.

He pointed to Packard's Plant 44 in Austintown as a model JIT operation. "We have minimum storage of material in the manufacturing area at Plant 44. Everything is delivered on buggies and carts."

While Martin considers JIT as beneficial to the division, he notes a problem in making a total conversion in the near future.

"The problem we have today is that we don't have the processes that provide the quality level necessary to run with JIT. That is the hold up."

Concluded Martin, "The benefits of JIT are staggering. JIT combines a strong competitive edge in terms of quality and cost. It forces perfect quality, enhances productivity and reduces cost through elimination of waste."

# Directors discuss future direction of S.B.U.s



Packard managers enter Champion High School auditorium for the spring management conference held last week.

(Continued from Page 2)

Ray Connolly, divisional comptroller and co-chairman of the Wire and Cable S.B.U., told Packard's managers that his group has responsibility for automotive cable, copper rod and flexible printed circuits.

"Through the end of this decade," said Connolly, "we will continue to experience an increasing demand for

these products."

He predicted, for example, that automotive cable will be converted to miniature size cable to meet vehicle space and weight constraints while providing interconnects for additional electrical and electronic options and monitoring devices.

### Component S.B.U.

Bill Wehmer, director, Reliability

and Quality Control and co-chairman of the Component S.B.U., explained that his group's responsibilities

## EDS head addresses managers

A theme centering on the potential of dedicated workers and excellence in American industry was presented at a banquet last week immediately following Packard Electric's spring management conference by guest speaker H. Ross Perot, a member of the board of directors of General Motors and chairman of the board of Dallas-based Electronic Data Systems Corporation (EDS). EDS was recently purchased by GM.

Perot's anecdote-filled address to Packard's managers at the Packard Music Hall was laced with his philosophies of winning in the marketplace along with many of his personal experiences which included competing against IBM - his former employer before forming EDS.

"Our people understood that if we ever blinked in competition, we would lose."

Perot listed factors which he feels contributed to EDS reaching its current success. Some of the philosophies EDS embraces which are unique to American business include training.

One of the most unique differences, according to Perot, between EDS and GM and most large companies is the lack of established job descriptions. He noted that this situation caused some difficult adjustments for new EDS employees coming in from GM. "I finally said 'take a very broad view of your job and use your initiative.' That's as specific as we ever want to get (about job descriptions)."

He also imparted to the Packard managers his equally unique team concept. According to Perot anything that separates people in an organization tends to make it less effective. That is the reason, Perot said, that he hopes that someday the terms

"management" and "labor" will be dismissed within GM.

"I came from an organization where we had one team," stressed Perot. "And if we had to be called anything, we were all labor because we worked like the devil to go out and whip everybody in sight and win!"

Perot expressed his views of worldwide competition. "We invented the electronics industry - created all these devices and yet nearly all of them are being made overseas and that is a terrible indictment. And we can turn that around."

He described American workers and GM people in particular as being the best in the world. "Of a company that has many strong qualities, its best characteristic is the quality of its people," said Perot. "This leads me to believe that with good quality people anything is possible."

He reemphasized the need for teamwork. "We've got to be a team working together to keep those jobs in this country," said Perot. "At that point we become unbeatable."

Computer technology played a major part in Perot's thoughts as he addressed Packard's managers. "There's a fear that changes in technology eliminate jobs," noted Perot. "All of the evidence is that changes and improvements in technology create new jobs."

Perot acknowledged that excellence, the theme of the management conference, is important to every person within Packard Electric and GM.

"The most important thing is for people in the organization to understand is that to a major extent they determine their future by the quality of work they do," emphasized Perot.



H. Ross Perot, member of the board of directors of General Motors and chairman of the board of Electronic Data Systems Corporation (EDS), addressed Packard's managers at Packard Music Hall.