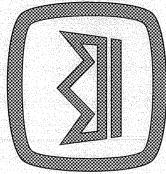


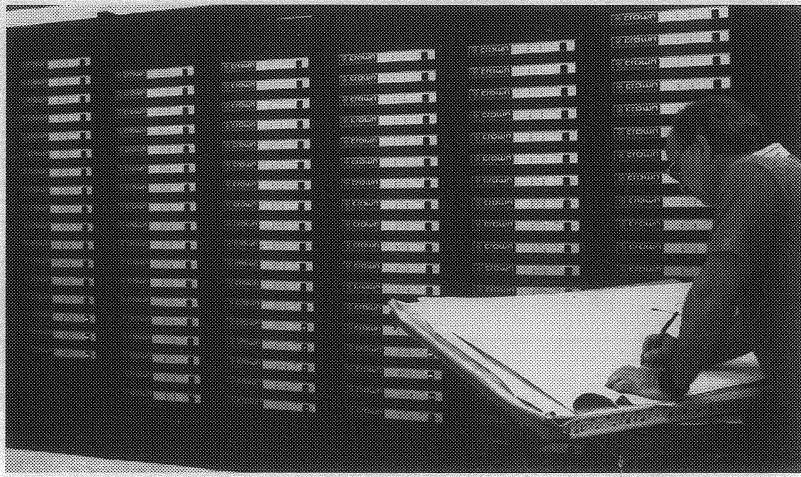
In November we focus on:

**C**  
**R**  
**O**  
**N**  
**E**



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## QUALITY ACTION AT COBO HALL

by Libby Marshall

One hundred forty-two Crown Com-Tech™-400 amplifiers neatly line the ceiling level control room midway between four exhibit halls at Detroit's Cobo Hall.

The newly named Cobo Conference/Exhibit Center was nearing completion in September when a Crown team was called into action for modifications to the new Com-Tech amplifiers.

Dennis Badke, Ernie Bird, Randy Glanders, Myron Miller, Jack Frank, Roger Myers, Randy Van Orman and Bob Zook modified 164 amplifiers in 10 hours on September 18. Lonnie Ervin, owner of Multi Communication Systems of Livonia, Michigan remarked that, "This was a job which could be done only by great team effort. We are glad we chose Crown." They removed each amp from the rack, modified it, tested it with the new PIP-ATN and re-racked each of them.

Multi Communication Systems won the original bid for this sound system after a year of negotiations. When the project began on Sept. 1, 1989 as part of the \$200 million expansion of Cobo Hall it was designed to provide audio for 600,000 sq. ft.

feet of contiguous exhibit space, the largest convention facility of its kind in the United States. Plans called for the sound system to serve each of four halls individually, plus to have the capability to serve them as a whole when dividing walls are removed.

The "value engineering" concept was complemented by locating the power in one convenient location as pictured above. Running at 70V in the dual-mono mode and producing 225W per channel, Crown Com-Tech™ 400s supply the system's required 63.9kW. Com-Tech™ 200 amplifiers provide sound for 84 second and third level meeting rooms. They save operating costs over Cobo's original carded-style, 200W amps without affecting performance. Cobo operating staff, Multi Communication Systems and Turner Construction representatives visited Crown In'l to evaluate the Com-Tech™ before the purchase.

The modification team returned tired but proud to have contributed to one of Crown Int'l's most impressive audio installations.

*The CROWN CRIER thanks the Crown Division for the contributions of two departments, Technical Publications and the Mail Room. Graphics Editor David Harris gave us the design from which to work and suggestions along the way. Jenny Bartlett scans photos into the TOPS network and helps us make them look as good as possible.*

*Sherry Hochstetler counts out over 600 CROWN CRIERS each month and delivers and mails them to our readers.*

# Milestones - Mary Miller



by Libby Marshall

Hard plastic parts bubbled in dye on the stove, dust balls curled up on the floor with the sawdust, and cobwebs dangled here and there. Mary Miller said, "You didn't go there every day!" Visions of Halloween? No; a memory of one of Mary's Stockroom jobs which was to tend the boiling parts on the stove. White plastic receptacles and sockets had to be dyed just the right shade to fit in with the back panels on amplifiers. She learned the parts. She impressed Max Scholfield, Chief Engineer at the time, when he came to her with a part in his hand. She promptly gave him the part number and location and told him how it was used.

The stove, a Moore family cast-off, was found,

often with lumber and tools on top of it, in a maintenance area where woodworking was done. In spite of this, Mary, Verne Searer and others used it to bake pizzas and food for carry-ins. It came in handy.

Mary commented that one of the big changes after the fire in 1971, when there was a hodge-podge of buildings, was the sleek, modern building that was built. But Verne and Mary reminisced about the ten gallon drum kept by Dave McLaughlin's office to catch the rain water which showered all those who came by on their way to get their paychecks. New and old parts of the building didn't quite come together there.

Mary worked in Fabrication and Production then took a year off, married, had a child and moved to Florida. She kept in touch with Crown. In a year her husband was hired as an engineer and Mary started working in the Production Office. This led to a position in the Accounting office under Mrs. Hunsberger where she did invoicing and secretarial work. In the Sales Department since 1976, Mary has been Lit Room supervisor, sales secretary and now handles order entry.

The personal touch will always be missed by those who experienced it when Clarence Moore hired the employees. Mary said he took a genuine interest in their lives and families and talked to them regularly. It seems to have been the Midas touch that has kept Mary and many others on board long enough to reach milestones at Crown Int'l.

## Milestones

*To recognize employees with 20 years or more of service with Crown Int'l.*

# Milestones - Verne Searer

by Libby Marshall

"After I graduated from Purdue I looked at Shure and Ampex, but Clarence [Moore] said, 'No. You'll come back to Crown!' I did," Verne said.

He had started in 1962 on the production line making tape recorders during high school summers. He graduated to Line Tech and went to Purdue for his engineering degree. He supervised the engineering people and then managed the Engineering Department together with Gerald Stanley and Don Eger. Don later moved to Crown Sales Department where he formed the Techron group and Gerald headed the technical engineering activities. Verne became Director of Engineering.

Verne has been involved with the development of the Crown products which have "turned particular markets on edge! I feel privileged to have been involved with the DC300®, PZM®, TEF®, M600, ISA amps, Micro-Tech® and Macro-Tech® series."

Verne's title is now Product Line Manager for the new Crown Division, which sometimes causes

confusion in the field. It is not a common industry term and does not indicate the technical experience and expertise nor the market savvy which Verne draws upon every day. For example, troubleshooting a new product which has a different type of problem frequently involves using the telephone to guide the hands of the dealers or contractors.

Verne is good at explaining technical product information even to a group of French dealers. Amcron's French importer arranged a seminar and retreat for media representatives and dealers in Senegal on the west coast of Africa. Verne gave them two hours a day of intensive training on Crown products.

While they stayed to enjoy the resort, Verne hurried back to the U.S. for his sons' BMX bicycle races. Wes, who is now 14 was #2 in the world in his age group last year. Verne showed video clips of races at several assemblies at Crown Int'l. Blake, age 11, also races well and both boys are

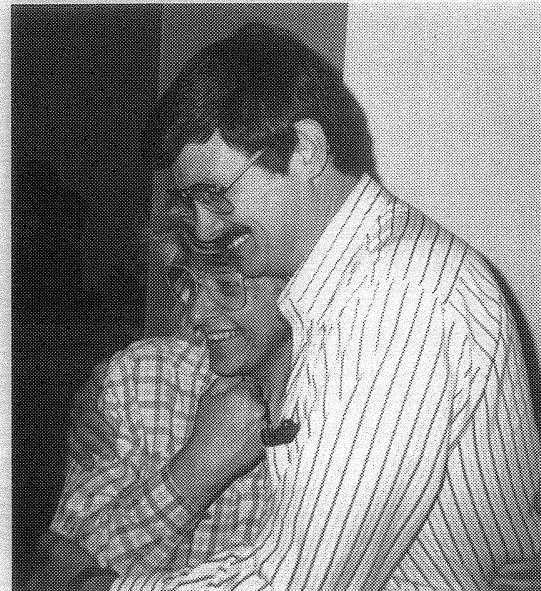
## ND to U of Miami in a Day!

All in the course of the job, Dennis Badke, Crown Applications Engineer, installed software on the IQ system at the Notre Dame ACC Thursday morning, Oct. 11, then flew to Miami, Florida, to troubleshoot problems with the IQ installation at the University of Miami on Friday. Actually Friday began as a vacation day until Verne Searer called him for help at 2:30 p.m. At 5:30 p.m. Dennis boarded a plane to Miami and had the IQ system fine-tuned before the football game Saturday night.

Dennis did it all in record time. It might seem tiring but we think he thrives on the challenge.

## AES Note

The Audio Engineering Society Standards Committee announced a "life-changing" decision at the AES show in September according to Don Eger. For many years differences in wiring standards have complicated electrical manufacturing for export. The committee agreed on an international standard for the three-pin XLR connector. Crown International uses this connector in many products. The new standard will require some changes in manufacturing, but also will ensure conformance to customer requirements for these connectors.



Shirley and Verne Searer

involved in other sports. Verne and his wife, Shirley, are active fans as well as top-notch pit crew.

Looking ahead for Crown Int'l Verne sees the need to be careful to do two things: (1) educate our representatives, dealers and customers about our products and (2) use our resources to get the best possible product mix into the marketplace.

Education starts right here with one day a month devoted to two seminars for all sales and marketing staff who interact with customers. The technical differences which make Crown products unique must be understood so customers have good reason to buy the best.



## Teltech Information Service

When should you use it? When you have hot spots on transistors? To find a model parameter extraction for SPICE? To know industrial standards for metal surfaces? To find out how to do ultrasonic welding? Tough questions? You bet!

This service put Rick Paradise, Kelly Guin, Dave Hosack, Dave Evans and Jim Downs on speaking terms with experts in these fields to help solve problems. Searching 1000+ data bases for literature related to specific problems is another service of Teltech's Help Staff.

To use the service you need a few simple instructions and a PC with data modem and network status. The computer station in the Communications Department can be scheduled for your use.

Friday, November 16 from 10:00 to 11:30 a.m. and at 1:30 to 3:00 p.m. Teltech representatives will be here to conduct two more training programs for engineers and technicians who may need specific, accurate answers to their technical questions. Sessions will be held in the Large Conference Room in Plant 1.

Call Libby Marshall for more information.



### Employee Committee Financial Report

Balance as of September 13, 1990	\$125.34
<hr/>	
<i>Receipts:</i>	
* Canteen	\$453.84
* Miscellaneous	81.68
Total receipts	535.52
	<u>+535.52</u>
	\$660.86
<i>Expenditures:</i>	
* United Limo	\$300.00
* Holiday Skate	125.00
* Matzke's Florist	39.38
* Baby Gifts	40.00
* Football	21.00
* Misc.	20.00
Total expenditures	\$545.38
	<u>- 545.38</u>
Chiphone Balance 10/14/90	\$115.48

## President Bush Confers with CCCV Representatives

President George Bush stated that enforcement of child pornography and obscenity laws has high priority on his agenda. He and the Attorney General Richard Thornburgh recently met with Edwin Moore of WFRN and Gil Nichols, Crown Div. Mgr., representing Concerned Citizens for Community Values (CCCV) and representatives from the National Coalition Against Pornography (ENCAP) in the old Executive Office Building.

Child pornography is a 10 billion dollar industry run largely by organized crime. Eighty-seven percent of perpetrators convicted of molesting girls and boys admit that pornography was an influence which sparked the desire for their crimes.



## New Employee Profiles



**CHRISTOPHER LERNER** - Customer Service, Service and Parts Material Handler (birthday, June 12) Chris likes to travel and enjoys music, drama and playing baseball. His ambition is to be in a mission field full time.



**RANDY FRY** - Fabrication, Flex-Force (Mar. 11) Music and church activities keep Randy busy.



**SCOTT EDELMAN** - Engineering, CAD Detail/Designer (Jan. 17) Scott came to Crown Int'l through a job placement service. Model railroads are his hobby and he bowls and plays softball.



**PEGGY SCHOLFIELD** - Fab, General Machine Operator (Aug. 27) Peggy returned to Crown Int'l after a few years. Peggy and Brent have a baby boy who now gets most of their attention. Raising Golden Retrievers and Shelties has been their hobby.



**DAVID HOSACK** - Manufacturing Engineering, Part Time (Dec. 8) David is working on a mechanical engineering degree. He enjoys traveling, snow and water skiing. His ambition is to become a successful engineer.



**JIM GOODSEN** - Engineering, New Product Design (Aug. 27) Jim's hobbies and activities are audio, outdoor work, traveling, bike riding and nautilus training.



**DIANA COLLINS** - Modules (July 27) Diana thanks Carol McQueen for telling her of the opening. Diana likes camping, motorcycle traveling, bike riding, swimming and doing things with her little girl.



**W. KURT MANES** - Engineering/Drafting, Designer (Jan. 15) Cars are his hobby and weight-lifting, golf and volleyball his main activities. His goal is to do his best.



**JANICE RENEE SIMS** - Modules (May 7) Janice enjoys Christian music and working with the youth at her church. She also plays softball and swims. Her goal is to return to college and get a degree in social work.



**AARON ZOU** - Engineering, Sustaining (Mar. 8) Aaron likes to read and study foreign languages and enjoys ping-pong, racquetball and volleyball. His ambition is to be an excellent manufacturing engineer and contribute to Crown Int'l.



**SANDY RAMSEY** - Modules (Mar. 23) Sandy likes to crochet, do counted cross-stitch and watch and play most kinds of sports. Her current goal is to continue to do well at Crown Int'l.

and

## Personnel Paraphernalia



**LINDA S. RORIE** - Modules (Mar. 29) Linda's hobbies are photography and reading. She plays golf. Her goals are to raise her children and retire.



**ANDREW JACOBS** - Techron, Technician, Flex-Force (June 24) Andrew lives in Berrien Springs and has worked with Crown products since he was 16. He would like to become a permanent member of the workforce. He enjoys music. His goal is to go to heaven.



**CHUCK BUERKE** - Engineering, CAD (Mar. 1) Chuck's activities are golf, bowling and scale modeling.



*C.J. Hartigan and Beryl Moore kneel to the challenge of fitting the pieces in the puzzle of CP'91.*

• • • • •  
• Congratulations:  
• Deann Van Daele and  
• Tom Sneddon are en-  
• gaged to be married in  
• 1991.  
• • • • •

• • • • •  
• Angie Gropp and  
• Steve Butz were mar-  
• ried September 22,  
• 1990.  
• • • • •



*Deann Van Daele and Sherry Hochstetler selected pink and white to decorate Jennifer Juroff's office for her 21st birthday.*



*Concord fan Bob Leininger's office desecrated with Jimmies' crimson and gold!*

• • • • •  
• Valerie Blackburn re-  
• ceived a new outfit for  
• her baby daughter dur-  
• ing assembly in Octo-  
• ber.  
• • • • •

• • • • •  
• Bart and Kelly Stoner  
• have a baby girl. Emily  
• Marlene was born Oct.  
• 13 at 8:26 am and  
• weighed 4.25 lbs. She  
• is 17 3/4 inches long  
• and will stay in an in-  
• cubator until she weighs  
• 4.8 lbs. then she can join  
• her parents at home.  
• • • • •

# Doing It Right

## QIP News and Updates

by Dave McLaughlin

The following example of the Quality Improvement Process at work comes from Lynn Scholfield:

"I was called by three Board Room employees to look at a problem discovered on the output boards at the CNC drill. When I arrived they joined me to discuss the problem. This is what I heard:

1. The problem was detected at the first round and production stopped immediately.
2. One of the employees located the next run of the same part and stopped it from being etched so they could be reworked, if needed, before they reached the point of no return.
3. Both of the screens that could have produced the work were inspected against the artwork and one was found to be .010 off. This screen was reordered.
4. The .010 was not enough to cause the rejects as they appeared on the drill, so the screenprinter was called in. The printer discovered the off contact of the semi-automatic screen printing press was up in one corner. This was the cause of the rejects.
5. Our problem solving seemed to end that day. We developed a quick fix for the in-process boards that made them good and we knew the root cause. But it had not ended.

The following day the screenprinter, who had created the error parts, came to my desk early in the morning to go over the problem with me. He had determined that there was a root cause beyond the cause we had discovered previously. His screenprinting press had been up on one corner because another printer had used it in-between two of his uses on a different shift. He had not anticipated this new usage since production had not called for this to happen before. He said he would no longer trust his machine because two operators now needed to use it. He would run the check each time a shift intervened.

The root cause had been absolutely identified and an effective solution was put into place without my prompting."

This incident demonstrated to the supervisor, and



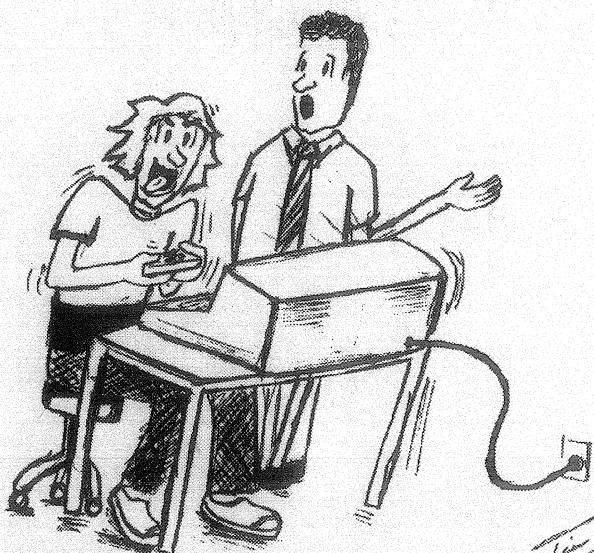
Board Room QWG,  
L to R: John Crume  
IV, Lynn Scholfield,  
Supervisor, Bruce  
Cogswell, John  
Mendez, Scott  
Funkhouser and  
Ronnie Wagers  
(kneeling).

*all of us, the effect QIP can have in the workplace. Lynn has stressed prevention quality, requirement defined quality, and employee involvement since QES training a year ago. His employees enjoy this approach because it encourages creative problem-solving and is not condemning toward the individual who creates a reject because a requirement was unclear.*

### CORRECTION:

Dale Burnett, Electrical Engineer, is a key member of the TEF-20 team. We apologize for not mentioning him in last month's article.

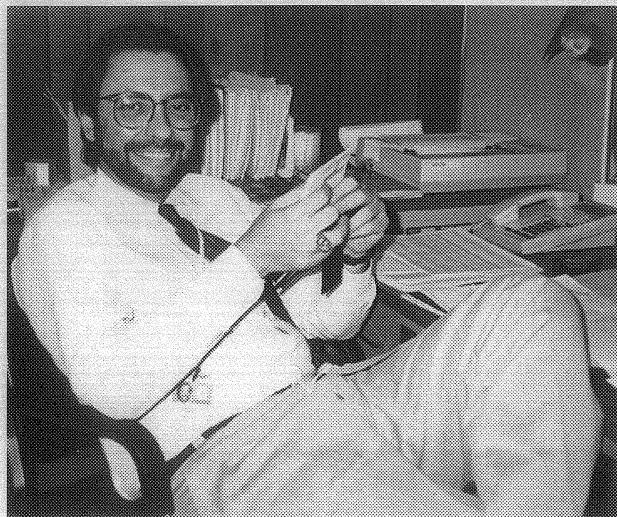
*This is the desired outcome of our QIP. Send your own examples to me in Plant One.*



*"SON, I DON'T CARE IF IT'S IMPROVING YOUR GAME. YOU ARE NOT TAKING THE TEF TO YOUR 'NINTENDO ENRICHMENT SEMINAR'!"*

cartoon by Tim Matteson

# Profile of a Sales Manager: Tony Satariano, Crown Div. Eastern Region



by Tony Satariano as told to Libby Marshall

"I've got the nicest territory. Let me illustrate."

"You go into a customer's store and you're talking about Crown products. This guy is in your face yelling and screaming, 'Your price is too high; your stuff is garbage, blah, blah, blah, blah!' Twelve o'clock rolls around. The guy asks, 'You goin' for lunch?'

Yeh!

'How's your wife? How's the kids? Things good? It's been a long time since I've seen you!'

One o'clock and the buyer is back at the salesman screaming his lungs out.

Similar situation on the west coast...(Tony lowers his voice and quietly says...) 'Everybody's wonderful; we love you. We just don't do business with you.' We have lunch—do quiche—we go back and everything is wonderful. In New York—in the eastern part of the United States—you know exactly how people feel about you. But it's BIZNESS! It ain't personal! There's an intensity in everything that happens in business. Even competitors who during business hours will be fighting tooth and nail to get 'the business' still have very positive, warm outside relationships. And that's what I like about New York and the eastern region. The pace is faster and it's tough. Customers expect a lot out of you and conversely you can expect a lot out of them."

"The 48th Street phenomena" in New York City is "where music happens," according to Tony. Four out of the top ten music retailers in the world do business here including Crown dealer Sam Ash Music, Incorporated, who has three stores on the street. Sam Ash is an example of a long-time Crown dealer. Family-run, professional, and high volume, they are knowledgeable and have strong customer bases, giants in recording contracts and

supply. "The networks shop here." They sell to the 17-year-old guy buying his first guitar as well as to Stevie Wonder or Eric Clapton.

It's not surprising to hear a vehement argument in Crown's hallway when Tony is trying to get the action he needs on an issue. "I never stop teaching—never stop learning. People skills are more important than product skills. Nobody makes junk anymore—those who did have long since gone into the waste can of ruined companies. People and relationships make the difference. I always know where to ask questions and go to get answers."

Teaching and learning the audio business started when 11-year-old Tony received a crystal radio kit (cat's whisker radio). While earning a B.S. in education at the Univ. of Wisconsin at LaCrosse, majoring in broadcasting and drama with minors in English and psychology, Tony worked as a disc jockey for WLSU-FM and program director for a cable TV station in LaCrosse five nights a week.

He became "an original Mr. Kotter" teaching language arts to ninth graders after graduation. He was teaching in Wauwatosa, Wisconsin, when his neighbor, a regional sales manager for Koss Corporation, brought him a head set they were working on. "This is never going to last!" was Tony's evaluation. He ended up going to work at Koss for five years and helping along the invention of the stereo headphone.

Experience with two other companies manufacturing loudspeakers opened the door to the Crown position and opportunity for learning—and teaching—more. "That was why the Special Olympics was so valuable" for Crown Int'l, who coordinated and equipped all the sound venues, both in South Bend in 1987 and at Lake Tahoe in 1989. "In the course of a two-week period we did everything our customers do and encountered the same kind of problems. We gained insight on how to relay to our marketing people how products could be better, or easier to use, or lighter. We could see things and experience first hand what our customers go through."

Tony, who prefers soft levels of sound—delicate listening—from his home Crown system, "...the antithesis of Crown P.A. power...", frequently takes a "busman's holiday" on weekends, using Crown products whenever possible. For example, he spent two days with the Monster of Rock show in Memphis, a major conversion from a competitor, learning how they solve problems in a show of that magnitude. Tony explains, "This carries over into the day-in, day-out business; the only way to know what your product is

*continued page 8*

(continued from page 7)

all about is to put your hands on it and use it. It gives you a real understanding, better than the words that come out of a spec sheet.

The glamour part is minuscule, but I have had a chance to work with people I never would have rubbed shoulders with as a teacher—Frank Zappa, Sting, David Bowie, Sammy Hagar. The real glamour part of this business is that, in essence, we are problem solvers. The bottom line is, someone has a need and we can use our products to satisfy that need, whether that be a 90,000 watt installation or a 155 watt church installation.

What is important is working with the little guy

customers or contractors, or consultants where we get a chance to impact the way they do business, showing them a better way, showing them a way to make a better profit, maybe showing them how to provide for families and employees a little bit better or showing them a more cost effective way to do something."

From the Kennedy Space Center and Disneyworld, to the mics in St. Paul's in New York, from stadium sound systems to somebody's garage band, Crown products are everywhere. "They're all important—all special!" to Crown and Tony Satariano.



## Reporters

Needed: Reporter for the night shift.

Please give your news and notes to your reporters!

# VIRTUOSO MICHAEL QUATRO DEMOS MACRO REFERENCE™

by Bruce Bartlett

At the September 1990 AES Convention, classical/rock musician Michael Quatro performed a live concert in Ocean Way Recording Studios to demonstrate Crown's new Macro Reference monitor amplifier. Listeners were bussed in from the convention to hear the Macro Reference used to monitor the session. The amplifier was impressive for its punch, tight bass, and very low noise.

Quattro and his wife, Connie Cocquyt, sounded like a symphony orchestra as they sang and played on a variety of acoustic and electronic keyboards. Classically trained, Quattro has been playing professionally since he was a child. He put out seven rock albums and played at countless festivals and other events. The duo's sound, picked up by direct boxes and microphones, was fed to the studio control room, where engineer Clif Norrell skillfully mixed live to 2-track. The monitor system for the

mix included the new Crown Macro Reference power amplifier and a pair of Westlake BBSM-12 monitor speakers. The Macro Reference provides a whopping 760 watts per channel into 8 ohms with 20-bit (120 dB) dynamic range.

The Macro Reference reproduced the performance with tremendous impact and clarity. Even though the monitor mix was very loud, the Macro Reference produced no audible hum or hiss when the mixing-console output was muted.

As Crown's Dr. Clay Barclay mentioned in his introductory speech, the Macro Reference sets new standards for power amplifiers in the 1990s. This was amply demonstrated in the real world of the studio.



*It was always fun being a 'mic' man! (Photo taken 1975)*

*Tom Lininger and Bob Herrold, Microphone Chief Engineer and PLM, respectively.*

## CROWN CRIER

The Crown Crier is the monthly newsletter for Crown International employees. Its purpose is to be informative, inspirational and entertaining.

Your involvement is highly prized. Please contact a CC Reporter with any material you would like to see in future issues.

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