COMSAT CORPORATION

TODAY

FEBRUARY 1987 VOLUME 2 NO. 2

Quality: What Role at COMSAT?

Quality is sometimes elusive, at other times obvious but seldom ignored. Like excellence, quality has been embraced by the business world as a way to compete successfully in a tumultuous marketplace.

Quality—whether of people, of service, or of product—is more than a state of mind; it's a state of being.

At COMSAT Corporation, quality means different things to different people. For Space Communications Division President Joel Alper, it's a systematic approach to keeping the customer satisfied.

"We listen to our customers," says Alper, "determine what they want, make sure we understand their needs and design a system that works for them the first time. Quality is making sure the customer is happy, because a happy customer is the best advertising you can have. We pay attention to our customers and we're responsive to them."

Another factor in the quality chain, says Bob Kinzie, president of COMSAT's Communication Services Division, is affordability. "You must design the product or service to have the reliability that the customer needs without unnecessary or unaffordable gold plating," Kinzie says.

Bill Perigard, president of COMSAT Technology Products, is convinced that, more than ever before, quality of service will be the major difference between companies that succeed and those that fail.

"We've always been quality-conscious at COMSAT," according to Perigard, "but we'll have to devote even more attention to it in the future.

"Today's customers—increasingly these are end-users—are accustomed to the responsiveness of AT&T and IBM," Perigard says. "Companies

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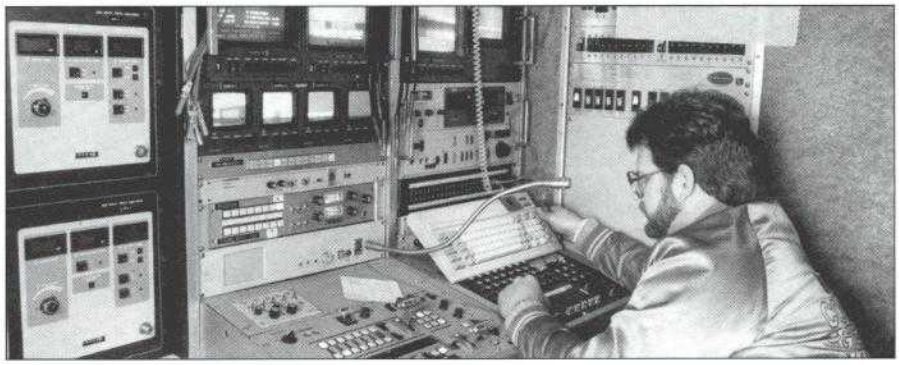

As COMSAT Corporation shareholders voted to approve the company's proposed merger with Contel Corporation, employees were able to view the special shareholders meeting live via satellite courtesy of COMSAT General's "Skybridge" satellite news gathering service, which was operated by TT&C engineer Rich Luhrs.

Employees Persevere Despite Weather

Approximately 12 inches of snow fell in the Washington, D.C. area on January 22, causing most area government agencies, schools and companies, including COMSAT Corporation, to close early.

The following Monday, January 26, a new storm dropped close to another foot of snow. COMSAT Corporation closed the Plaza, Clarksburg and Fairfax offices that day. But not all employees got a day's respite from the job.

Maritime Services' telex switching center, located at the Plaza, continued full operation. It did so with a reduced staff and a can-do attitude. "Thursday evening's operator got snowed in, so the day shift operator

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Published by Public Relations Department, Internal Communication Staff

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that are going to succeed in today's marketplace will have to measure up. Quality of service will be used to differentiate, and COMSAT will be judged on its ability to respond."

In the stories that follow, we'll show you how quality plays a role at COMSAT Corporation. These are only a few examples of quality at work in the world's most experienced satellite communications company. Future issues of *TODAY* will document others. In the meantime, if you have a quality story to tell, let us know and we'll share it with other employees. Call *TODAY* editor Evette Fulton on x6800.

Quality Defined: People

Last year, Towers, Perrin, Forster & Crosby, a communications consulting firm, interviewed members of COMSAT Corporation's senior management team and numerous employees to determine perceived strengths and weaknesses in the company's internal communication process.

The study's results were categorized and assigned to the appropriate staff functions for resolution.

"When we reviewed the employee task force's training recommendations, we found a recurring request—that managers receive training to enhance their management skills," says Linda McQuaid, corporate consultant, management training.

As a result, a training series known as "Leadership" was introduced at COMSAT Corporation. The series is designed to help managers, supervisors and other individuals in leadership positions enhance or develop skills necessary to be effective leaders.

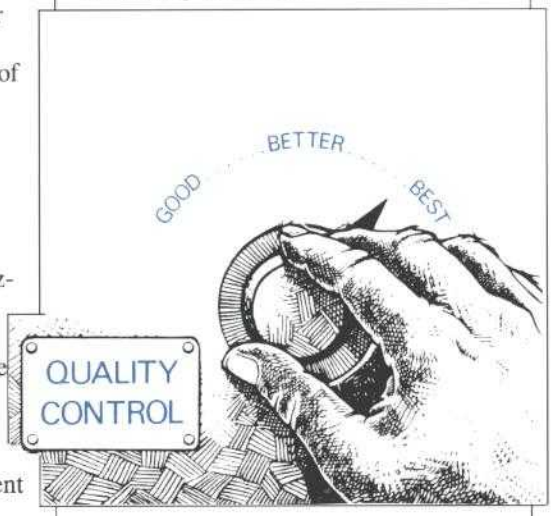
"Leadership focuses on building skills which get business results by involving and motivating employees." says McQuaid. Sample topics include interpersonal skills, managing change and innovation, developing team performance and making organizational impact.

Another component of Leadership is the *Management Support Role,* designed to help executives at the director level and above become effective coaches for employees.

This year, McQuaid plans to broaden the corporate curriculum by adding marketing and sales training courses.

"Last year, the corporation announced it was striving to become more market-driven. These courses help support that goal," says McQuaid.

Plans for the new courses have not yet been finalized. But McQuaid envisions a part of the marketing curriculum being well-suited for non-marketing employees. It would explain how to develop a marketing and strategic plan, and the significance of various marketing elements like advertising and market research. More specialized topics will be aimed at the experienced marketing audience.



The sales training course will focus on building professional selling skills and presentation skills for sales groups. McQuaid hopes to use some of the company's own marketing and sales experts to help teach the courses.

Quality Defined: Service

"There are several well-established companies who've been providing international communications services for quite a while," says George Brush, director of quality assurance, COMSAT International Communications, Inc. "We were created two years ago. To make an impact on the marketplace, we're making quality service a hallmark of COMSAT International."

To the company's credit, in two year's time it has garnered an impressive list of clients: Citibank, Merrill Lynch, S.W.I.F.T., the U.S. Department of State and the Arabian American Oil Company, among others.

CICI's commitment to quality service is demonstrated in the design and operation of the company's communications network and by the high level of customer support that it provides.

High-quality digital circuits, rigorously tested before use and monitored continuously thereafter, handle customer transmissions. "Many of our customers are international financial organizations," says Brush. "Often they are conducting transactions amounting to hundreds of thousands of dollars, sometimes millions, over our circuits. We simply cannot tolerate any decrease in quality of service."

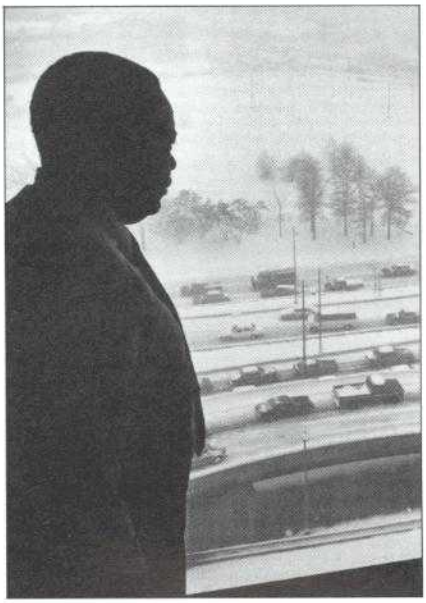
Another network feature, built-in redundancy and restoration capabilities, ensures reliability—another measure of quality. The capabilities allow the network to automatically reroute traffic if service interruption occurs. "Our stated objective is to offer the customer 99.9 percent availability or better," says Harry Gross, vice president, operations at CICI.

"We offer an end-to-end service," explains Gross. "That means that if any system within the network fails, whether it's ours or not, we're responsible to the customer."

Recognizing this fact, CICI takes a highly participative approach in its relationship with Postal, Telegraph and Telephone (PTT) agencies. (PTTs regulate and sometimes operate telecommunications services in countries outside the U.S.) "Sometimes PTTs have different standards than ours. We can't dictate that they accept our standards. So we've developed an approach where we meet with many of them regularly and work out issues cooperatively," says Gross.

Brush denotes a final way in which the company shows a concern for quality—through customer service. "COMSAT Corporation engineers and technicians install and maintain circuits for our customers, and they do an excellent job," says Brush. He should know. He polls

(See Quality, page 6)



A.R. ("Mac") McNeill, Corporate Services, surveys a traffic snarl from the Plaza's Early Bird Room. COMSAT Corporation employees were sent home early January 22 and the facility was closed on January 23 as the year's worst storms so far dumped up to 20 inches of snow on the Washington metropolitan area.

(Weather, from page 1)

worked a double shift—16 hours," says George Wilson, supervisor. "I came in about 11 p.m. and worked until 10 a.m. Friday. The mid-shift (midnight to 7:30 a.m.) operator came in Thursday night as scheduled. On Monday, everybody reported to work." Some of the people working in the telex switching center live up to 25 miles away.

"We're a revenue-bearing, service-oriented work center," says Wilson. "Closing is not an option for us."

Tim Iqbal of Corporate Services also worked the day COMSAT offices were closed. "I came in Sunday evening to check on the pipes to make sure none were frozen," says Iqbal. "I ended up sleeping on mats at the facility and working Monday too."

COMSAT International employees Bob Levitt and George Brown each worked more than 24 hours straight providing round-the-clock coverage at CICI's technical operations center.

Leamon Lucas, Charles Barber and Bruce Henry, employees who work in COMSAT General's System Control Center, were snowed in at the Plaza during the first storm. Lucas and Barber worked rotating shifts Thursday through Friday evening to relieve Henry who had worked the previous shift. The second storm caught Lucas and Barber at work again, along with another colleague, Jerry Corbin.

Howard Haines and Ernie Smith shoveled snow at the Clarksburg facility for most of the day Monday.

Cheryl Ellington, in ISS television operations, worked 26 hours during the first storm. Rique Johnson worked for 16 hours in ISS television operations January 25-26. All other personnel scheduled to work January 26 reported to duty.

In the ISS network coordination center, Rudy Otho worked 13 hours on January 22. Dave Shiden worked the following 12½ hours in the center. All shift workers scheduled to work on January 26 did so at their normal hours.

Several COMSAT Corporation staff members also reported to work on these days.

On January 26, Chuck Wanamaker, Roy DeLawder, George Corbin, Ray Sprong, Kevin Christopher, Barry Bielsker, Steve Smith and Jack Lee worked at Fairfax.

Lee had guard duty Sunday. He didn't return home until three days later. The roads to his Front Royal, Va. home were impassable until then.

Lee came close to matching what may be a company record for number of days an employee is snowbound. In 1978, employees at the Southbury, Conn. coast earth-station were trapped for 48 hours by a storm which deposited over three feet of snow. The crew was "rescued" by the town's volunteer fire department which used a fire truck to plow through to bring in a relief crew and transport a weary bunch home.

Editor's Note: Employee Relations urges employees to call 863-6000 for information concerning office closings during inclement weather. Employees may also tune in to (Washington, D.C. area) radio station WMAL 63 AM as early as 5 a.m. that day for an advisory.

China Joint Venture Announced

COMSAT Corporation continues to facilitate the expansion of worldwide satellite communications use.

In its latest move, the corporation and two Australia-based companies, Parry Corporation and ICOM, Ltd., reached an agreement with China Central Television to join together in designing, developing and operating the first international broadcast exchange center in the People's Republic of China.

The $50 million dollar complex, to be located in Beijing, will include a communications center equipped with satellite transmission facilities, a state-of-the-art local area network, radio and television studios, and production and editing facilities. A 300-room hotel, convention center and 100-unit apartment complex will also be housed in the center.

Construction is scheduled to begin in March 1987, and completed in time for the Asian Games, which Beijing will host in 1990.

Joel Alper, president of Space Communications Division, COMSAT Corporation, was present at the agreement signing ceremony.

COMSAT Corporation will be responsible for providing and installing all telecommunications facilities within the center. The corporation plans to install equipment to handle mobile telephone and paging services and private satellite networks. The effort is valued at several million dollars, exclusive of equipment and installation costs.

ICOM, a division of Parry Corporation, will plan and equip the radio and television production and editing facilities.

Parry Corporation will focus on the design and construction of the overall hotel and apartment complex.

The joint venture will be directed by a board, with Parry Corporation, COMSAT Corporation and China Central Television participation.

ISDN: What Does It Do?

Telecommunications experts foretell of technology capable of delivering communications services to homes and offices without many of the lines required now. They call this new technology Integrated Service Digital Networks or ISDN.

If today's telephone lines are single-lane "information pipes," ISDN will create super-highway conduits. Instead of carrying telephone or data traffic, ISDN will handle voice, data and video simultaneously.

For businesses that rely on dozens of telephone lines to support employees and computers, a single-line integrated digital network could offer a number of advantages:

- ISDN would enable companies to consolidate their many lines into few.
- Communications lines could be used at peak efficiency. (Digital transmission, which is not sensitive to the type of communications being sent or received, would permit companies to transmit any combination of voice, data or videoconferencing at any one time.)
- Important for banks, insurance companies and other businesses that rely on fast-moving data, ISDN would speed information from computer to computer at rates almost seven times faster than today's.
- Incompatibility problems that can arise when companies look to integrate various kinds of data and communications devices would be overcome.
- And last, but certainly not least, the quality of transmissions is expected to be excellent.

Late last year, McDonald's restaurant became the first U.S. corporation to try out ISDN. The system provides simultaneous voice, data and video services. McDonald's hopes the system will enable it to consolidate most of its more than 20 existing networks into a few for cost-saving efficiencies and improved service.

Ultimately, proponents say, ISDN could become a telecommunications standard that could lead to a worldwide digital network. A network that erases the barriers that have long hindered communications because of incompatible standards.

With an acceptance of standards for ISDN, independent networks could ultimately wind up operating in harmony.

But actually achieving a worldwide network remains in question—not for technical reasons, but because there are difficulties in agreeing on the standards.

A branch of the International Telecommunications Union, the International Telegraph and Telephone Consultative Committee (CCITT) met in 1984 to approve initial technical ISDN digital standards. Members are to meet again in 1988 to continue the standards-setting process.

Original proposed standards called for time delays of no more than a quarter of a second. Such a proposal would have kept satellites, which have a one-half second time delay, out of the ISDN loop. COMSAT Corporation worked closely with CCITT to ensure provisions were made for satellite service in ISDN specifications.

"You have to put satellites in, or restrict the scope of the network," says Mark Neibert, senior enigineer, digital standards, Intelsat Satellite Service unit. "A lot of countries will find it too expensive to put in fiber optic cables. If they are to be part of a worldwide network, they will have to rely on satellites, which provide the only digital transmission to places where fiber doesn't go."

This spring, COMSAT Corporation, working with British Telecom, Inc. plans to perform the first ever intercontinental demonstration of ISDN service. The demonstration will link computers, video terminals and data banks in the U.S. and Britain via satellite.

Eager to tap ISDN's profit potential, some foreign telecommunications agencies, the Bell Operating Companies, other common carriers and equipment manufacturers companies, have begun developing their own versions of ISDN.

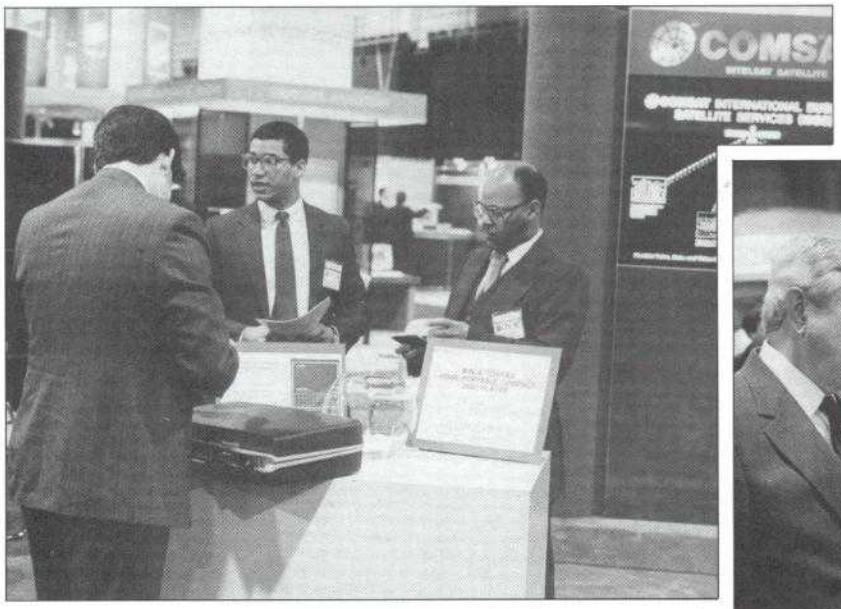
The Bell Operating Companies view ISDN as a competitive must if they are to keep major corporate customers from bypassing them for long-distance carriers. Their challenge is to prove to customers that ISDN service will mean greater cost-effectiveness and higher quality than that available from companies selling by pass services.

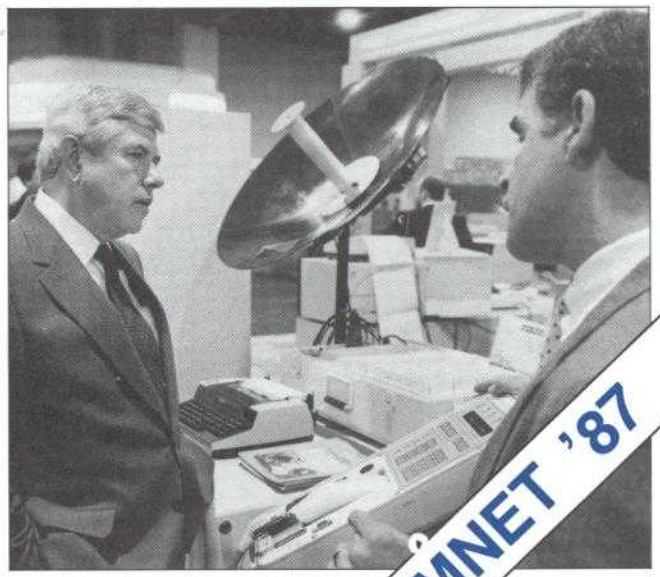
British Telecom has led the world in implementing ISDN with a working system in the United Kingdom, according to Neibert. Neibert says that West Germany, France and Japan are also close to completing ISDN networks, but it's hard to predict just how fast ISDN will become a reality in the U.S.

Intense competition in the U.S. could speed ISDN's implementation, or result in a lot of separate networks that can't talk to one another. COMSAT standards engineers are striving to ensure a single international standard compatible with the INTELSAT system.

Several callers asked about charging their time on "snow" days. In general, if *COMSAT Corporation* decides to delay opening or to close a facility, the time is charged to "General and Administrative." if an *employee* decides not to come to work, or to leave early, the time is charged to vacation, supplemental holiday or leave without pay.

(See Open Line, page 6)





At presstime, the Communications Networks Conference was under way at the Washington, D.C. Convention Center. Top, the corporate exhibit included displays by COMSAT Technology Products, COMSAT International Communications, Inc., and COMSAT Government Systems, Inc. Above, Bill McKee (L), ISS account executive and Cal Harriot, ISS manager of technical assistance, talk to a customer at the Intelsat Satellite Systems booth. Right, Contel President and Chief Executive Officer John Lemasters talked with CTP account executive Jack Martins on opening day at COMNET '87. Watch for a TODAY supplement for all the details on COMNET '87, coming soon to an in-box near you.

COMNET '87

(Open Line, from page 4)

Employee Bulletin No. 87-1, available from Human Resources, gives full details about timesheet reporting during inclement weather.

One employee asked about direct deposit procedures with the COMSAT Credit Union and other financial institutions. As a result of his call, a new policy is now in effect whereby *both* the credit union and COMSAT's payroll department will accept requests to change or initiate payroll deductions for the credit union.

Another caller asked if COMSAT Corporation would be involved with the 1988 Olympics in Korea. The company has bid a land-based network control system, along with two portable antennas to augment total capacity. We'll report on the result of that bid after the Koreans have made their decision.

Two employees called to complain about secondary cigarette, cigar and pipe smoke and asked if the company was planning to issue a "smoking policy." Human Resources is working on a policy covering smoking, and it is expected to address where and what types of smoking will be permitted.

One caller from the Plaza said the acoustics in the Plaza Theatre were "unbelievably bad" and suggested upgrading the facility. Corporate Services has budgeted money for improving the facility, with a target date for completion of June 1987.

Another employee suggested installing sinks near the coffee break areas at the Plaza so that cups, pots etc. could more conveniently be cleaned. In general, water sources on each floor are located too far from the break areas for this to be feasible. In some cases, where break areas are near a water source, it would cost about $1,000 to tap into the source. This caller is invited to contact Corporate Services' Alan Duncan, x6662, to explore the issue further.

(Quality, from page 2)

customers weekly by telephone for feedback regarding CICI service. He also produces monthly reports which show circuit performance and customer calls or complaints.

CICI Operations has an escalation procedure which goes into effect if a customer's service isn't restored in an hour's time. When implemented, the procedure forces the problem up through CICI's management chain until the problem is resolved.

Technical Operations Center personnel are also trained so they'll have the skills to isolate a problem and restore service quickly and at the same time, handle customers courteously.

"Attention to customers' needs permeates our organization," adds Susan Sirmai, CICI manager of sales support and service expansion. "Pursuit of customer satisfaction takes place at all levels here." Brush agrees.

"There's no selling short the COMSAT name. It's well-respected and always has been associated with quality. We've got an excellent base on which to build," concludes Brush.

Quality Defined: Product

Product quality is a high priority within the corporation. Just ask Charles Busby, senior quality engineer at COMSAT Technology Products, Inc.

Busby and the rest of CTP's Product Integrity team make sure the company's very small aperture terminals meet or exceed stringent quality standards.

"Quality begins at the conceptual stage of a product," says Busby, "long before anything is ever built." CTP operates by this philosophy. Its Quality Assurance staff begin the quality process by analyzing engineering designs, reviewing test plans and procedures and finally, developing technical specifications.

After specifications are set, prototypes are built to detect potential problems in the manufacturing process. The prototypes are then subject to various tests, such as temperature stress and operation simulation to solidify further the product's quality.

The next step is manufacturing. "Outside vendors supply us with raw materials and some pre-fabricated components," says Busby. "But not just any vendor will do. I visit prospective suppliers regularly to see if they have the capacity and technical capability to match our specifications."

Busby explains just how critical it is that outside suppliers be able to meet specifications. "We have a vendor who has a 100-ton press. He puts sheets of aluminum on it and molds it into a modified parabolic dish. The proportions he's working with are so large and the measurement calculations so precise that it's not an easy thing to do. Can you imagine what would happen if his measurements were off by just a little?" Busby usually travels with a team of design and system engineers who also scrutinize a supplier's capabilities. Those who measure up are given Engineering Services' seal of approval by being placed on its qualified vendor list.

When production actually begins, CTP uses its FACT failure analysis system as a quality safeguard. Here's how it works. "Quality Control people are on the assembly line inspecting end-products. When problems are found, they fill out FACT tags which come back to Product Integrity," explains Busby. "The information is fed into the computer, statistical analyses performed and a weekly report is generated and distributed to Engineering, Testing and Product Integrity." By reviewing the report, these groups can decide what corrective actions are necessary.

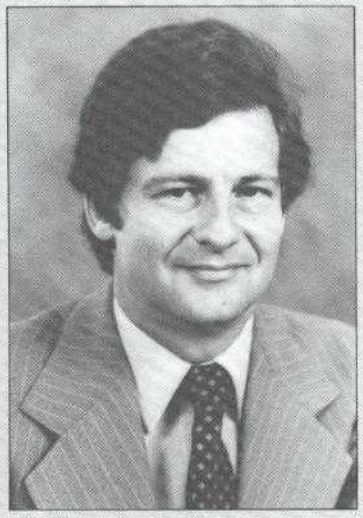
CTP doesn't stop monitoring quality after the VSATs have been delivered to customers either. According to Busby, the automated, fully redundant systems have almost no downtime. However, when failure occurs, the products are designed to assess and report the problems automatically. The data eventually comes back to CTP which uses it to continue refining the product.

"Product Integrity works hard to facilitate the concept of quality through teamwork. It's not a sell job and we're not a police force," says Busby. "People have to believe that a quality product is worth the effort. When they do, they pitch in and do their best."

Broadcasting, to be held February 18 and 19 at Marriott Crystal Gateway Hotel in Arlington, Va.

David Beddow, vice president and general manager, COMSAT Video Enterprises, will speak February 18 on satellite broadcasting. The next morning, Stephen Day, COMSAT General Corporation vice president and general manager of sales and marketing, will discuss flat plate antennas.

David Beddow



Stephen Day

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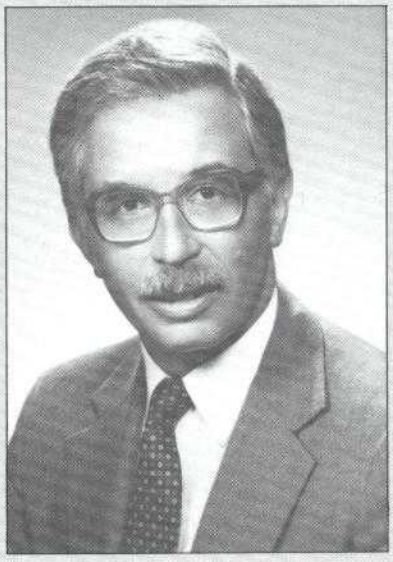
Alper Makes Presentation

Joel Alper, president of the company's Space Communications Division, spoke at the "Communications Policymaking in the 100th Congress: New Directions" conference, held Feb. 4 in Washington, D.C.

As a panelist, Alper discussed the company's role in global telecommunication.



Joel Alper

Alper discussed global telecomunication at a recent Washington, D.C. conference.

Nichols Appears at COMNET '87

COMSAT Corporation Vice President, General Counsel and Secretary Willard Nichols was a panelist at the Communication Networks '87 conference, held at the Washington, D.C. Convention Center February 9-12.

The panel discussed the impact of international telecommunication deregulation.

Goldstein Appearances Scheduled

At press time, arrangements were being made for company Chairman Irving Goldstein to speak before the Town Hall of California in Los Angeles and the World Affairs Council of Philadelphia in March.

Further details will be reported as they become available.

Labs Video Available

COMSAT Laboratories is also speaking out—with a new videotape which describes its history, capabilities and recent technological feats. Copies can be obtained by contacting Rick Wasser, Corporate Public Relations, on extension 6245.