



Western Electric

Monday, May 23, 1977

news briefs background

Kansas City Works Wins President's Safety Award

The Kansas City Works has been named the winner of the President's Environmental Health and Safety Award for 1976. WE president Donald Procknow announced the winner at the company's annual conference last week and will visit the location on June 8 to present the award.

The President's Safety Award is given annually to the Western location judged to have made the greatest contribution to the progress and development of an environmental health and safety program both on and off the job. The judging, which is conducted by an ad hoc committee representing all company divisions, is based on a location's basic safety program. Among the points considered are self-auditing procedures, the originality of the program, the program's impact on the local community, communications programs, and the location's safety record.

Contents

Kansas City Works Wins Safety Honors.....	1
Lightguide Signals Many Services.....	2
WE's 1976 Energy Report Released.....	3
Small College Presidents Meet at CEC....	4
WE Named To Negotiate Saudi Contract....	4
WE Minority Supplier Purchases Up.....	5
MVW Making Low-Power TI Repeaters.....	5
No. 1 ESS Gets Nod For Long Distance.....	6
N.J. Bell Opens Center at Gateway II.....	6
Kearny Works Making New Data Test Set....	7
WE Arranges New Car Rental Contract.....	8
Sloan Fellowship Winners Selected.....	8
CEC Reports On 1976 Activities.....	9
WE People.....	10
Subcommittee Hearings Begin Today.....	11
Communications Reform Act Updated.....	12
WE's First Quarter Earnings Impressive..	12
No. 4 ESS Cutover In Columbus.....	12

Kansas City Works' 1976 on-the-job safety record significantly improved, closing the year with a reduction in its total on-job accidents by 70 percent and an 86 percent reduction in its number of lost workday cases. Contributing to the location's successful program has been its special emphasis on communications programs promoting environmental health and safety, in addition to an overall employee-oriented safety campaign.

The first award, then known as the President's Citation for Safety, was presented in 1962 to North Carolina's Greensboro Shops by the late H.I. Rommes, then Western's president, during a two-day companywide safety conference in North Carolina. Since then, the award has been won by Columbus and Allentown Works (both twice), Merrimack Valley, Kansas City (1966), Atlanta East Installation,

Oklahoma City, Shreveport, Reading, the Northeastern Region, Hawthorne and North Carolina Works and, last year, the Eastern Region.

The seven divisional finalists for the 1976 award were the Atlanta Works, the Central Region, Hawthorne, Merrimack Valley, the Northeastern Region, Northern Illinois Works and the Teletype Corporation at Skokie.

Procknow said that the selection of this year's winner was probably the most difficult since the program began 10 years ago because of the number of locations with outstanding safety programs and performance records.

Lightwave Communications System Signals New Manufacturing Methods

The Bell System has begun evaluating the world's first lightwave communications system to provide a wide range of telecommunications services.

Like most signals coursing through the Bell System network, the pulsed-light signals traveling between Chicago's Brunswick building and Illinois Bell's Franklin and Wabash central offices (see News Briefs/Background, January 17, 1977) are carried over a Western Electric-manufactured product.

That product, unlike any other in our century-old existence, is a hair-thin fiber lightguide made at the company's modern wire and cable plant in Atlanta.

An entirely new manufacturing technology is being developed to make this new transmission medium, which may be complementing copper wire in the telephone network in the years ahead.

A summary of the major steps in fabricating the fibers makes the job sound deceptively simple. The process begins with a three-foot tube of quartz glass -- so pure it makes spectacle lenses seem opaque by comparison. Basically, this is what happens:

- 1) Chemicals are added to the inside surface of the tube so that, when it is collapsed (see 2), a solid core is created. This core has a refractive index that bends most of the light entering the fiber back into its center, allowing little to escape;
- 2) The tube is collapsed into a solid rod, called a "preform"; and
- 3) The preform is drawn into a few kilometers of hair-thin fiber so optically flawless that, if the deepest ocean were as clear, one could see the bottom.

In fact, each of these steps incorporates many other steps, and none is simple. Making a preform with the proper index of refraction, for example, requires that dozens of precisely controlled layers of germanium-doped silicon dioxide be applied to the inner wall of the glass tube, which is heated to 1800 degrees centigrade by a hydrogen-oxygen torch. Each layer is only a few millionths of an inch thick.

The process takes several hours, and the slightest variation can turn an expensive piece of fine quartz glass into something having all the value of an ordinary jar. If a tube is collapsed too fast, it can bubble, twist into a gnarled walking stick, or become elliptical. Although elliptical preforms can be drawn into lightguide, the lightguide would also be elliptical -- and unusable.

Then, too, consider the problem of controlling the lightguide's diameter during the drawing process. Unlike wire, whose

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Editor:
Bob Dugan

For information, call
Cornet 222-2765
or 212-571-2765

Ed. Asst:
Kathy Smiouskas

For circulation, call
Cornet 222-2603
or 212-571-2603

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diameter can be controlled by diamond dies, the diameter of lightguide is a function of many critical factors, including the speed at which it is drawn, the speed at which the preform is gently nudged into a furnace, the temperature and cleanliness of that furnace, and the uniformity of the preform. The slightest variation in any of these could result in a spool of fiber better suited for catching fish than for carrying hundreds of telephone conversations.

The Engineering Research Center helped make the problem manageable by devising an ingenious laser device that not only optically measures the lightguide as it is being drawn, but also automatically regulates all the factors affecting its diameter.

For the engineers at Atlanta and at the ERC, the goal was to come up with manufacturing equipment that can be operated in a factory environment by non-technical employees. Simply stated, this meant transforming the vast body of knowledge and processes born at Bell Labs into a practical lightguide production line -- a transformation that has been achieved in virtually record time.

Matt Calls WE's Energy Use In 1976 'Disconcerting'

"During 1976, Western Electric consumed more energy than in 1975. This is a disconcerting reversal of the trend of the reduction in energy consumption achieved in 1974 and 1975."

The statement is from Paul Matt, Jr., general manager of Corporate Engineering and Quality Assurance, who is responsible for coordinating the company's energy conservation efforts.

Following his report on energy consumption location by location in all divisions, including subsidiaries, Matt called for a

five percent reduction in Western's 1977 energy consumption compared with last year. And he urged personal involvement in the conservation program by all location heads.

The 1976 report lists, among other items, energy usage in British Thermal Units per square foot of floor space. One BTU represents the amount of energy necessary to raise the temperature of one pound of water by one degree Fahrenheit.

Lowest usage per square foot was the Montgomery, Ala., Material Management Center with only 48,200 BTUs. Highest was Nassau Recycle in Staten Island, N.Y., with 2,081,200 BTUs. Of course, the type of operation and, to a lesser extent, the climate, produce great and understandable disparities. The Montgomery MMC is a warehousing operation, while Nassau uses energy to refine copper and other metals (a conservation effort itself). Nassau's increase over 1975 was only 1.6 percent; whereas the MMC's usage increased over 23 percent. (The company-wide increase was 2.8 percent.)

Manufacturing Divisions' energy reductions in 1976 included Buffalo and North Carolina Works (both with phaseouts of activity), Oklahoma City, Columbus, Northern Illinois, Allentown and Kansas City Works. In Bell Sales Divisions, reductions were reported for regional headquarters at Ballwin, Mo., Cockeysville, Md., Rolling Meadows, Ill., Gateway II in Newark, and Aurora, Colo. Reductions by service centers and other locations were Kent, Wash., Portland, Ore., Illinois, Miami, Cincinnati, Northern Calif. & Nevada, Kansas City, King of Prussia, Pa., Salt Lake City, Nashville, Watertown, Mass., College Point, N.Y., New Jersey and New Orleans. Teletype had reductions at its Skokie, Ill., and Little Rock, Ark., plants and Headquarters at 222 Broadway and the Engineering Research Center in New Jersey also had reductions. All other locations in the Matt report used more energy last year than in 1975.

Small College Presidents Attend Business Seminar At CEC

Twenty-one presidents of small colleges -- generally those with enrollments of 1,000 or fewer -- spent two days at Western Electric's Corporate Education Center in mid-April to learn from Western representatives how industry's public relations practices might be translated for and used by their institutions.

The seminar combined talks by experts in areas such as long-range planning, community relations, opinion research and marketing with intensive question and answer periods.

The seminar was arranged jointly by the Council for the Advancement of Small Colleges (CASC), the company's Public Relations Division and Headquarters' Organizational Development Department.

So far as is known, it marked the first time a corporation has tried to provide its managerial expertise to institutions of higher education other than on an individual basis.

Gary Quehl, president of CASC, has scheduled a meeting June 3 to determine whether similar seminars, on subjects such as purchasing, improved utilization of computers, energy conservation, personnel and labor relations, could benefit CASC-member colleges, and whether these could be offered by other companies in addition to Western Electric.

In a letter to Robert Ehinger, vice president of Public Relations, who spoke at the seminar, Quehl expressed "deep appreciation" to the company "for sponsoring an excellent public relations seminar for CASC college presidents." He expressed his conviction that "my colleagues went away with renewed energy and confidence in their abilities to lead small colleges, despite the difficulties of this responsibility."

One of the participants, Sister Ann Kennedy, president of Silver Lake College

in Wisconsin, wrote, "It is most encouraging to us as educators to know that there are corporation business leaders who are not only interested in the small independent colleges but are also willing to share their expertise to help us further our goals."

WESTERN ELECTRIC SELECTED FOR SAUDI ARABIAN CONTRACT NEGOTIATIONS

Donald Procknow, Western Electric president, has announced that the company has been selected by Saudi Arabia to negotiate a contract to build a major microwave communications project in that country.

According to James Herbert, executive vice president, Government and International Sales, who has been directly engaged in discussions with Saudi officials, the project, known as the Intra-Kingdom Microwave Project, calls for the engineering, furnishing and installing of approximately 300 radio relay (microwave) stations to provide telecommunications services throughout Saudi Arabia. Western Electric will be joined in the project by Collins Systems International, Inc., as the major subcontractor.

Herbert said: "We are very pleased to have this opportunity to assist the Kingdom of Saudi Arabia in the improvement and expansion of its telecommunications system. We believe that our long experience, both as a manufacturer and supplier for the Bell System and as prime contractor on major government telecommunications projects around the world, will be of considerable value in this Saudi Arabian project."

The project value is estimated to be in excess of \$400,000,000. Western Electric was one of the five teams from the U.S., Europe and Japan that bid on the project. Herbert said negotiations on the contract are expected to begin soon.

WE Report On Minority Suppliers Cites 17 percent Increase

WE purchases from minority suppliers in 1976 totaled \$40 million from 620 suppliers and represented a 17% increase compared with the previous year's \$34.2 million. This year-ending award total is a record high for the company.

Lee Green, Purchasing's Supplier Development Section Chief, said, "Our results show that Western continues to have one of the best minority purchasing programs of any firm in the country.

"Our success can be attributed to the commitment and emphasis that our management gives to the program," Green said. "Our personnel continue to work very hard in identifying minority suppliers who have the potential to provide the products and services that we purchase."

One solution to the identification of new minority suppliers has been our participation in minority trade fairs, an idea originated by Western in Chicago in 1968. The trade fairs involve corporate buyers occupying booths and meeting minority suppliers who call on them. The company's buyers participated in 11 such fairs during 1976.

Low-Power T1 Repeater Costs Less To Transmit Voice-Data Signals

Bell Labs people at Merrimack Valley and Reading have developed a new T1 repeater which regenerates digital signals that have become weak during transmission. With its new silicon and thin film integrated circuits, the new repeater uses 70 percent less electrical power than its T1 predecessor. The low-power repeater also costs less to manufacture than previous T1 repeaters.

Manufactured at the Merrimack Valley Works, T1 systems are widely used by operating companies to transmit digital voice and data signals over wire-pair cables between

central offices in metropolitan and some rural areas. Repeaters are needed about every 6,000 feet to regenerate the weakened signals.

The low-power characteristic of the new unit is particularly important to operating companies in rural areas. Repeaters get their primary electrical power from central offices. But if a T1 route extends more than 17 miles on standard 22 gauge pulp-insulated cable, intermediate power stations are needed for the repeaters now in use. The new low-power repeater allows a route to extend 37 miles before an intermediate power station is needed, with the same type of cable, saving operating companies from investing in land, construction and equipment.

The heart of this low-power repeater is a custom silicon IC, made at our Reading Works, that contains all of the active circuitry. In the standard-power repeaters, four ICs perform the functions now carried out by one in the new repeater.

A thin film circuit made at Merrimack Valley provides the precise component values needed to meet the requirements of the new T1 repeater.

Four variations of the new repeater will serve all Bell System T1 needs, which now require 10 types of standard-power repeaters. The new repeater also has much greater immunity to electrical noise caused by 60 hertz induction from commercial AC power lines. This is often a problem in rural areas where telephone and power lines run parallel.

From concept to manufacture, the repeater was the product of cooperation among Bell Labs and Western Electric people.

After 1975-76 field tests were held in Massachusetts in conjunction with New England Telephone, Western Electric-manufactured low-power T1 repeaters were installed last September in the Memphis area by South Central Telephone, with cooperation from Bell Labs engineers from Merrimack Valley.

The first span -- which is 30 miles long -- is about 75 percent longer than possible with standard-power T1 repeaters. Although more than 900 repeaters were installed in an area known to have AC induction problems, all 33 lines in the span were ready for service on time with no substantial problems.

New Breed of ESS No. 1's Handles Long Distance Calling

The first of a new breed of No. 1 Electronic Switching Systems -- designed to handle both local and long-distance calls with equal ease -- has been put into service in Sioux Falls, S.D.

The new version of No. 1 ESS owes its versatility and efficiency to a unique feature developed by Bell Labs engineers.

It uses a four-wire switching technique that changes the impedance of long-distance calls from high to low as they pass through the switch. With this feature, No. 1 ESS for the first time becomes a member of the long-distance switching family.

Special conversion circuits in some No. 1 ESS offices now change four-wire signals to the two-wire format and vice versa. The new equipment eliminates the need for signal conversions, improves transmission quality, and is expected to reduce operating and maintenance costs significantly. Also, the new hardware costs no more than equipment now in use, yet takes only half as much floor space and installation time.

In recent years, a growing need has developed for electronic switchers capable of handling both local and long-distance traffic simultaneously, particularly in sparsely populated areas where demand for long-distance switching is growing, but is still too small to warrant a separate office. With four-wire equipment, a No. 1 ESS can use part of its switching capacity for local calls and part for long-distance, and in many situations do both more

economically and efficiently than separate switching systems.

The new feature is now being used with No. 1 ESS and plans call for use with No. 1A equipment during the first quarter of 1978. This flexibility allows the equipment to serve a wide-ranging market, from as few as 15,000 busy-hour calls to more than 200,000. The No. 1A ESS machine has more than twice the capacity of the No. 1 ESS.

Also being developed are retrofit procedures for existing No. 1 and 1A ESS offices. As many as 200 new or existing offices could be using the four-wire feature by 1985.

Initial manufacturing process development was done at Northern Illinois Works; future manufacturing will be at the Dallas Works. Pre-cutover testing of the first installation was conducted by Bell Labs engineers both in the laboratory at Indian Hill and on-site at Sioux Falls.

At cutover, Bell Labs engineers monitored the office remotely in our Product Engineering Control Center (PECC) No. 1 ESS Diagnostic Center at Indian Hill. Eight additional cutovers of new offices using the new feature are scheduled in four operating companies during 1977.

N. J. Bell Communications Center Opens Doors At Gateway II

A small group of New Jersey Bell (NJB) people recently moved into the Executive Communications Center (ECC) on the second floor of Gateway II.

Designed and constructed by the Northeastern Region's Service Center and Regional Headquarters Planning organization, the ECC represents New Jersey Bell's most recent approach to merchandising sophisticated communications systems to businesses whose needs are growing more complex by the day.

The center includes a reception area, conference room, staff offices and a highly sophisticated audio/visual presentation room. Also there is a WE Product Display Room which was configured, installed and is maintained by Account Management and other Regional support organizations.

New Jersey Bell Marketing uses the ECC to host product and industry sales seminars for current and prospective business subscribers, while Western Electric consultants use the product display room to provide hands-on technical presentations to New Jersey Bell personnel and, at NJB's request, to business subscribers. The equipment on display represents the latest PBX, key, station and data products which are tariffed and presently offered by New Jersey Bell. Among them are the Com Key* Systems, the Touch-a-matic® family, the Dataspeed® 40 Sets, the new family of data sets, the Transaction telephone, and of course, the Dimension® PBX.

Tom Carter, Western's Revenue Systems Manager for the New Jersey Bell account, reports: "New Jersey Bell people said they have already hosted over 800 representatives from some 300 companies and the demand for its resources grows daily. The center provides a first-rate environment for telephone company account reps to bring business customers to discuss needs and offer systems solutions to their communications problem."

**Trademark of AT&T*

Kearny Works Making New Data Test Set

The Kearny Works is manufacturing a new data test set which will make testing Bell System data services a fast, easy operation for telephone company personnel using the suitcase-size computerized test set developed by Bell Labs engineers.

The compact, 32-pound microcomputer-controlled unit -- called the 921A Data Test Set -- is the newest in a family of portable testing equipment. It's an all-purpose set, designed for installation and maintenance testing.

At the heart of the 921A are plug-in modules and the microcomputer, which work together to test all parts of a data link. The new set can even test itself.

Because of its advanced modular design, the 921A has the capability of meeting the testing needs of new data services as they are offered.

On the front panel is a 20-button keyboard, a 32-character alphanumeric display, and Light Emitting Diode (LED) indicators that reflect the status of connections.

To initiate tests, a craftsperson enters appropriate two-digit "command" codes via the keyboard. These "command" codes and descriptions of their testing functions are outlined in the operator's manual that accompanies each unit. The microcomputer then performs the tests specified, processing and interpreting the measurement data, and an alphanumeric display indicates the test results.

The new unit is built for fast test set-ups. Testing tables and an operational flow chart are attached to the inside top cover for quick reference. The cover also provides storage space for testing accessories, such as cables, clip leads and adaptors.

Personnel from AT&T, New England Telephone, New York Telephone, Southern Bell, Illinois Bell, Wisconsin Telephone and Pacific Northwest Bell worked together with Bell Labs engineers to ensure that the 921A incorporates a comprehensive range of testing features.

New Three-Year Car Rental Contracts Effective June 1

Western Electric has announced new contracts with major car rental firms for customers throughout the Bell System. The new, three-year contracts become effective June 1.

The contracts, with National and Avis, establish a flat fixed daily rate for each car class (compact, intermediate, full-size, etc.) with unlimited mileage. The flat rates do not include gas and are not discountable. The rates for Bell System customers will be the same across the nation, unlike in the past when a uniform Bell System discount was applied to rates that differed depending upon the geographical location of the rental.

WE's transportation organization anticipates that the new contracts will provide savings estimated to reach \$800,000 in the first year.

To demonstrate the difference between the old and new contracts, transportation used as an example a three-day rental of an intermediate car, with mileage of 70 miles per day. Under the old contracts, the average charge in this situation would have been \$90; with the new contracts, the charge in the same situation will be about \$70, including gasoline.

There are further intangible savings expected from the new contracts, mainly in administration, accounting and auditing throughout the Bell System. These savings will come from the fact that the new contracts establish one rate only for each class of car for each firm, instead of the many kinds of rates and discounts that formerly were available.

In addition, transient auto rentals in foreign nations have been included in the new contracts, and these will be subject to certain discounts depending upon the country in which the car is rented.

There are slight differences between the contracts with National and with Avis, but

they are not significant enough to warrant recommending one over the other for the average rental. However, renting a car in one city and dropping it in another city or keeping a car for six days or longer are special cases and should be checked out with transportation people to determine whether National or Avis would be more economical in each situation.

WE SLOAN FELLOWSHIP WINNERS NAMED

Two Western Electric employees have been named to participate in the 1977-78 Sloan Fellowship programs, which lead to a degree of Master of Science in Business Management. Robert Egan, assistant manager of Production Control at Hawthorne Works, will attend the 12-month program starting this June at Massachusetts Institute of Technology; in September, William Marx, Jr., manager of Account Management Development at Northeastern Region, will begin the nine-month program at Stanford University in California.

The Sloan Fellowships were originated in 1938 to provide selected individuals with a comprehensive academic grounding in the techniques of business management. Participants are primarily from business, but there are also representatives of government and other non-business institutions.

The Western Electric participants in the 1976-77 programs are Daniel Carroll (M.I.T.) and David Allan (Stanford). Upon completion of the current sessions, Carroll will be assigned to Bell Sales West, Rolling Meadows, as Engineered Systems manager, and Allan will become assistant manager of Centralized Production Control in Manufacturing, Switching Equipment, at Hawthorne Works.

Corporate Education Center Reports on 1976 Activities

A total of 9,915 management and professional personnel completed Corporate Education Center courses in 1976, according to the CEC's annual report. Of these, 43.4 percent of the students attended courses at the CEC's Princeton, New Jersey, facility, while 56.6 percent took advantage of the CEC's expanding curriculum offered at field locations or through Extension Services.

The CEC's review of 1976 also reports that enrollment at courses in Princeton closely mirrored WE's general business picture during the year. Abnormally low first quarter enrollments reflected the bottoming out of recession effects on the company. This was followed by successively higher enrollments in the second and third quarters with final quarter enrollments reaching the highest level since 1974. By the end of the year, total enrollment in the courses offered at Princeton showed a gain of ten percent over 1975.

This increase in total enrollment occurred in spite of a small reduction of company supervisors and professional employees from 1975 to 1976. During 1976, 9.1 percent of the management universe attended courses at the CEC -- an improvement over the rate of participation in 1975.

One factor accounting for higher student enrollment is that CEC produced 49 new courses in 1976, all of which were based on current needs analyses. The updating of total curriculum and rate of new course development continues to be a significant factor in CEC's relevancy and vitality. As an example, 64 percent of the students enrolled in Management Education attended courses that have been developed since September 1975.

In 1976, the Management Education staff trained 1,363 students at Princeton and 151 students at field locations. The staff also produced the largest single year to year increase in total curriculum

by adding ten new courses. Five of these new programs reflect the realities faced by an experienced supervisory force attempting to gain higher levels of performance under rapidly changing business conditions. These five new supervisory courses offer advanced training in specific areas of human resource management, such as motivation, conflict management, work design and job enrichment and performance appraisal.

The Business Management curriculum was strengthened by adding a course focusing on in-process inventory control and a middle management course in resource management. Additionally, the Business Management staff responded to specific short-term requirements by coordinating and helping to run an AT&T Public Policy Seminar on current federal legislation and regulatory activities. The staff also worked with the newly formed Product Line Planning organization in the development of training courses.

Attention was also given to other areas of management concern. An intensive course, "Urban Minorities Workshop," which provides insights into the nature of discrimination, the black experience, and urban problems, as well as the company's affirmative action policy, joined the curriculum in 1976.

Management Education staff also undertook a number of long-range studies to determine ways to align future education efforts consistent with the findings of the Corporate Education Task Force. (See News Briefs/Background, January 3, 1977). This included preliminary planning for a comprehensive middle management curriculum in modern business principles and techniques.

Technical Education

Strong demand for courses in small computer technology, efficient use of batch and time-sharing computer systems, the newest ESS and processor designs, and project costs analysis was a major reason for the 2,938 total enrollment in CEC's technical courses at Princeton, which represents a 13 percent increase over 1975.

The Graduate Engineering and Information Systems staff produced 29 new courses to keep pace with rapidly changing technologies. The staff also responded to specific field requests for "tailored" technical education at Oklahoma City, Allentown, Gateway II and 222 Broadway, as well as developing special educational programs for Industrial Hygiene, Technical Publications, Account Management and Material Management organizations.

Of the total technical enrollments last year, more than 20 percent can be attributed to the very high demand for courses in micro- and minicomputer technology. CEC responded quickly by adding three new courses, greatly expanding the capabilities of the small computer labs and by year's end, the center had provided 48 calendar weeks of education into this schedule.

In the more traditional large computer area, the year 1976 saw increasing demand for advanced level courses especially those designed to increase operating and programming productivity and to provide more effective and efficient data base administration. CEC's Computer Center was upgraded to permit students to have access to all major WE consolidated computer facilities.

Growing interest in No. 4 ESS engineering and design was fortified by linking CEC to the operational No. 4 ESS at Bell Sales Division Training Center via trial use of the new 212 Data Sets.

The telephone communications curriculum was increased by nine new courses with heavy emphasis on software engineering and the latest concepts in digital switching and transmission.

This curriculum also attracted 60 percent of all Bell System participation in technical courses at the CEC; especially popular were the ESS and microwave transmission courses.

Extension Services

The Correspondence School had 1,500 active participants during 1976 including a sig-

nificant increase in operating companies' participation. Six new courses were developed relating to professional engineering licensing, computer languages, quantitative techniques, and written communications.

Supervisory Education Plan (SEP) distributed 7,500 modules to the field during 1976, added four new modules and revised three of the existing 100 module curriculum. Also, an AT&T program, "Supervisory Relationships Training," was tested for Western Electric use, and the CEC Extension Services cooperated with AT&T Marketing in developing a training module for account representatives who handle newspaper accounts.

WE People

The WE Board of Directors has accepted EMIL DEUTSCHLE's resignation as secretary and treasurer of the company, effective June 30. Deutschle will also retire at his own request on this date. His last day in the office will be June 7.

Reorganization--June 1: ROBERT EHINGER, vice president of Public Relations, will become vice president of Public Relations and Acting Secretary and on July 1 will become vice president of Public Relations and Secretary.

Moving--May 16: T.H. THOMPSON, general manager of Station Equipment Product Line Planning and Management, became executive director of Station Systems and Data Terminals (a new organization), Bell Laboratories. Thompson reports to S. J. Buchsbaum, vice president of Network Planning and Customer Services. The organizations that reported to Thompson are reporting temporarily to Paul Zweier, vice president of Manufacturing - Station Equipment.

June 1: J. F. WALTON, manager of Special Project, Finance Division, will become regional comptroller of Northeastern Region, Bell Sales Division-East, succeeding J.W. ABBOT, JR. Walton will be located

at Gateway II, Newark, and will report to R. E. Cowley, Jr., general manager of Northeastern Region.

July 1: D.P. KELLEY, Division Patent Attorney (Engineering Research Center), will become Division Patent Attorney (Atlanta), succeeding A.C. Schwarz, Jr. M. PFEFFER, General Patent Attorney, Teletype Corporation, will join the company as Division Patent Attorney (Engineering Research Center), succeeding Kelley.

Subcommittee Hearings Set

The next step in the proposed revision of the Communications Act of 1934 is scheduled to begin today when the House Interstate and Foreign Commerce communications subcommittee initiates hearings on a wide range of telecommunications issues.

The hearings follow release by the subcommittee staff of a voluminous "options papers" report dealing with issues in nine subject areas.

Subcommittee hearings (preliminary hearings were covered in News Briefs/Background, March 28, April 11.) -- which will include two weeks in September and October on domestic common carriers policy--are scheduled to run through the end of October. The subcommittee's goal is to have a first legislative draft by January 1.

The subjects to be discussed in the first hearings will be options for FCC structural and procedural reform and Congressional oversight.

In preparing the options papers, the staff's purpose was to review the issues and outline, without recommendation, some of the alternatives that Congress may take in restating national telecommunications policy. The nine areas reviewed were: 1) improving the use of the frequency spectrum; 2) broadcasting; 3) public broadcasting; 4) safety, special, and mobile radio communications; 5) domestic common carrier; 6) international communications; 7) cable television; 8) impact of technology on

the right to privacy; and 9) structural and procedural options for regulation of telecommunications.

Of particular interest is the 93-page section dealing with domestic common carrier policy, which observes that "it is not generally perceived...that competition is only one of many issues currently under consideration and that a Congressional policy statement on competition would leave many key issues unresolved. However, the debate over competition should serve to focus attention on issues long neglected in the regulated monopoly environment."

The report continues: "Certainly, industry-structure policies are important, even critical, because they affect the rate of innovation and the efficiency of a terribly important industry. Industry structure alone, however, does not determine, explicitly or implicitly, the level of residential rates....The two are related in the sense that a particular method of supporting low, averaged residential rates that the industry says developed in a predominantly (though not entirely) monopoly environment may have to be changed if policymakers wish to preserve the existing rate structure.

"...There are profound reasons for reviewing the current rate structure, anyway, so it may well be that rate-structure policies should be changed irrespective of the outcome of the debate over competition. Only if Congress ultimately decides that it wishes to preserve current rate-structure goals and methods does the 'adverse impact of competition' debate become central."

Conceptually, the report suggests, common-carrier issues may be divided into two categories:

1) *Industry structure.* What mixture of competition and monopoly is in the public interest, with what measure of regulation and what degree of participation in competitive markets by the established carriers?

2) *Rate structure.* How should the responsibility for paying for the national tele-

communications system be allocated among the various classes of users? If universal service is to be the goal, how should it be traded off against the goals of rapid and efficient service? If there's to be a program of support or subsidy for residential service, who should be responsible for administering it? To what extent is accommodation between industry-structure policy and rate-structure policy necessary?

Before proceeding to the discussion of legislative policy options, the report reviews the following topics: Congressional policy with respect to domestic common carriers, the present and future of the industry, restrictions imposed by the 1956 Consent Decree, separations and settlements, the "adverse impact of competition" argument, and rate-structure goals and methods.

Policy options for Congressional consideration are outlined in five areas: terminal equipment, inter-city competition, rate structures, depreciation policy, and regulatory federalism.

The subcommittee has invited comments on the staff's report. Future issues of News Briefs/Background will look at options in domestic common carrier policy and other areas to be covered in the hearings.

Communications Reform Act

INDUSTRY BILL NOW SUPPORTED BY
NINE IN SENATE AND 86 IN HOUSE

Since Congress returned from its Easter recess, 10 additional representatives have given their support to the bill. In addition, Rep. John Dent sponsored his fourth bill this session, and Representatives Mendel Davis and John Ashbrook have sponsored their second bills, bringing the total number of bills in the House to 61 with two in the Senate.

New House bills and their sponsors are:

Carlos J. Moorhead (R-Calif.)	HR 6639
Harold C. Hollenbeck (R-N.J.)	HR 6674

Olin E. Teague (D-Tex.)	HR 6740
John H. Dent (D-Pa.)	HR 6766
Joseph S. Ammerman (D-Pa.)	co-sponsor
William F. Goodling (R-Pa.)	co-sponsor
Edward P. Beard (D-R.I.)	HR 6886
Mendel J. Davis (D-S.C.)	HR 7043
Floyd Spence (R-S.C.)	co-sponsor
Ken Holland (D-S.C.)	co-sponsor
John W. Jenrette, Jr. (D-S.C.)	co-sponsor
John M. Ashbrook (R-Ohio)	HR 7104
Bud Shuster (R-Pa.)	co-sponsor

Newsbits

WESTERN INCOME UP--Western Electric's 1977 first quarter earnings report, recently released, showed that sales during January-March period were \$1,866,979,000 compared with \$1,559,869,000 for the same period last year. Net income for the first quarter hit a record breaking \$104,200,000 compared with last year's \$32,286,000.

'SUPER SWITCHER' CUTOVER--Ceremonies were held earlier this month in Columbus marking the cutover of a No. 4 ESS, the most advanced system for switching long-distance communications in the world. Serving jointly as ceremony hosts were R.D. Watson, vice president and general manager of AT&T's Long Lines; J.M. Sullivan, director of Operations, Ohio Bell; C.G. Vath, general manager of the Columbus Works, and J.Z. Menard, director at Bell Labs. Although the unit was manufactured at Northern Illinois Works, the signaling equipment, developed to speed transfer of calls across the nation, was designed and manufactured at Bell Labs and WE facilities in Columbus. Much of the training for Bell System personnel working on No. 4 ESS throughout the country is done at the Bell Sales Division Training Center in Dublin, Ohio.