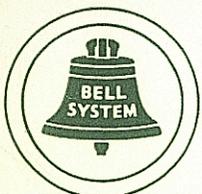


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American Telephone and Telegraph Company



Annual Report 1962

**THIS REPORT** reviews the work of the American Telephone and Telegraph Company and its associated companies in the Bell System. Annual reports of the principal telephone subsidiaries of the A. T. & T. Company, and of Western Electric, manufacturing and supply unit of the System, are available on request. The System furnishes service in 48 states and the District of Columbia, and its lines connect with other telephone systems in all 50 states of this country, and throughout the world. A list of the Bell System companies is given on page 32.

For share owners who are blind, the report is available in Braille and on talking records. Kindly address requests to the Secretary of the Company. Copies will be distributed with the assistance of the Telephone Pioneers of America, the organization of long-service employees who work with the blind as one of their community service activities.



**INFORMATION SERVICE.** Our cover girl represents 26,000 Information operators who furnish about eight million numbers a day. No personal service to telephone users is more important. Today, customers can call direct to Information operators in distant cities, as well as locally. We make particular effort to have the numbers of newly connected telephones at each operator's finger tips as quickly as possible. Most calls to "Information" are being answered faster. And when customers can give only limited details about the names and addresses they want to reach, the operator tries her best to solve the puzzle. Now and always, "Information" stands for courtesy and helpfulness.



# Annual Report 1962

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## **Annual Meeting**

*The seventy-eighth annual meeting of the share owners will be held on April 17, 1963, at the Kingsbridge Armory, 29 West Kingsbridge Road, The Bronx, New York City. The meeting time will be 2 p.m.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

195 Broadway, New York 7, N. Y. Telephone: Area Code 212 393-9800

## DIRECTORS

### **WILLIAM C. BOLENIUS**

Vice Chairman of the Board

### **LLOYD D. BRACE**

Chairman of the Board  
The First National Bank  
of Boston

### **EDWARD B. HANIFY**

Partner, Ropes & Gray

### **HENRY T. HEALD**

President, The Ford Foundation

### **J. VICTOR HERD**

Chairman of the Boards  
The Continental Insurance Companies

### **WILLIAM A. HEWITT**

President, Deere & Company

### **FREDERICK R. KAPPEL**

Chairman of the Board

### **JAMES R. KILLIAN, JR.**

Chairman of the Corporation  
Massachusetts Institute of Technology

### **JOHN L. McCAFFREY**

Retired Chairman of the Board  
International Harvester Company

### **JOHN J. McCLOY**

Partner, Milbank, Tweed,  
Hadley & McCloy

### **EUGENE J. McNEELY**

President

### **J. IRWIN MILLER**

Chairman of the Board  
Cummins Engine Company, Inc.

### **WILLIAM B. MURPHY**

President  
Campbell Soup Company

### **THOMAS F. PATTON**

President  
Republic Steel Corporation

### **MONROE J. RATHBONE**

President  
Standard Oil Company (New Jersey)

### **GEORGE F. SMITH**

Consultant, formerly  
President, Johnson & Johnson

### **JAY TAYLOR**

Owner  
Jay Taylor Cattle Company

### **WILLIAM WHITE**

President  
The Delaware and Hudson Company  
and Chairman, The Delaware and  
Hudson Railroad Corporation

## OFFICERS

### **CHAIRMAN OF THE BOARD**

Frederick R. Kappel

### **PRESIDENT**

Eugene J. McNeely

### **VICE CHAIRMAN OF THE BOARD**

William C. Bolenius

### **EXECUTIVE VICE PRESIDENTS**

Paul A. Gorman  
James E. Dingman

### **VICE PRESIDENTS**

Henry T. Killingsworth  
George L. Best  
James W. Cook  
Sanford B. Cousins  
Horace P. Moulton  
Edward B. Crosland  
John J. Scanlon  
Gordon N. Thayer  
Wellington Powell  
Walter K. MacAdam  
Prescott C. Mabon  
Lloyd S. Miller  
Claude M. Blair  
Richard R. Hough  
Lowell F. Wingert

### **VICE PRESIDENT AND SECRETARY**

Allen G. Barry

### **VICE PRESIDENT AND COMPTROLLER**

Alexander L. Stott

### **TREASURER**

L. Chester May



**TELSTAR** *The joyful gesture of Bell Laboratories' director of satellite communications signals the historic moment when, for the first time, Telstar received a television picture and sent it back to earth. The time—the night of July 10, 1962. The place—our Space Hill satellite control station at Andover, Maine.*

1962

THE YEAR

*Operating Revenues and Other Income**Operating Expenses**Taxes**Interest Deductions**Net Income**Applicable to Minority Interests**Applicable to A.T.&T. Stock***NET INCOME PER A.T.&T. SHARE**

\*Based on 239,587,000 average shares in 1962 and 232,627,000 in 1961.

● **Earnings** on A. T. & T. stock of \$5.79 per share were 27 cents a share better than in 1961. The average number of shares increased about seven million. Dividends totaled \$3.60 a share.

● **Construction expenditures** reached nearly \$3 billion, the largest amount in history. They were made to take care of new business; to modernize equipment and provide new services; to make service more dependable against emergencies; and to replace and move facilities in accordance with customers' needs. These expenditures were financed from depreciation funds, earnings retained in the business, and new capital.

● **New capital** obtained by the Bell companies exceeded \$1.4 billion. This included nine debt issues totaling \$955 million. Employees purchasing A. T. & T. stock made payments of \$330 million.

● **Taxes** on the Bell System were \$2,103,000,000. This sum was equal to \$8.47 per A. T. & T. share, compared with \$8.18 a share in 1961. It was also equal to \$33 per average telephone in service. In addition, customers paid \$730 million in Federal excise taxes; these discriminate heavily against telephone users and in our view should be discontinued. In 1962 Congress voted to remove the excise tax from certain private line services to business, but again extended the tax on local telephone service to June 30, 1963.

● **The Cuban crisis** brought instant response to Government requests for special military communications. Round-the-clock action put switchboards, telephones, and thousands of miles of communications channels into operation at record speeds.

● **Telstar**, our experimental communications satellite, has been a great success. Hundreds of tests have been made of voice, television, data, and facsimile communications. The satellite has continuously reported on the effects of radiation and the condition of its components. From late November to January 3, its transmitter did not respond to radio commands, but methods were devised to restore full active use. *Telstar* has provided basic assurance that the design of commercial satellites can be undertaken as a straight engineering project.

## AT A GLANCE . . .

1962	1961
\$9,147,840,000	\$8,592,860,000
\$5,305,037,000	\$5,012,790,000
\$2,102,901,000	\$1,971,687,000
\$306,950,000	\$282,796,000
\$1,432,952,000	\$1,325,587,000
\$44,777,000	\$41,001,000
\$1,388,175,000	\$1,284,586,000
<b>\$5.79*</b>	<b>\$5.52*</b>

● **Growth in business** fully met expectations. The gain in telephones was 2,799,000, including 1,061,000 residence extension phones. Long distance conversations increased 7.9 per cent and overseas conversations 14 per cent.

The new Wide Area Telephone Service for business customers (WATS), which provides long distance calling at a fixed monthly rate, is growing fast. So too are private line services. Our TELPAK customers, to whom we furnish long distance highways for communications of many kinds, are already using the equivalent of 10 million miles of voice channels.

"Data-Phone" services have expanded greatly with the introduction of new data communication sets that work with many kinds of electronic computers and other business machines.

● **Service quality**, convenience, and dependability had first attention throughout the year. Nearly seven of every ten residence telephone users now have individual lines, compared with three out of ten a decade ago. About 18 million customers can now dial nationwide without an operator coming in on the line to request the calling number. Many more will have this improved service in 1963. We are keeping constant watch over the Direct Distance Dialing network to make it increasingly dependable. Our goal is to make long distance dialing just as easy, convenient, and sure-fire, every time, as calling across the street.

● **Research and development** continue to produce results of immediate utility and future promise. New transmission and switching systems designed around the transistor are leading to new and improved services. Under development are electronic control equipment that will increase the versatility of existing dial systems, and ocean cables of much greater capability. Research has recently discovered a new principle using ultrasonic waves to amplify communication signals; magnetic memories that store more information and supply it faster; and lasers that can generate and amplify a wide range of light waves, both visible and invisible.

As new developments emerge from Bell Laboratories, Western Electric is applying laboratory methods to spearhead attack on production problems. This *process research*, given fresh emphasis at Western's new Engineering Research Center near Princeton, N. J., has been immensely fruitful and promises far-reaching improvements in manufacturing technology.



*On the alert around the clock, we watch over communication lines serving military needs. Several "status rooms" take reports of any interruption of intercity service—ascertain promptly if military circuits are affected—and make certain that service is restored at once. The wall panels represent defense networks; in case of any failure lamps automatically signal the need for swift action.*

# Annual Report 1962

Of all our work in 1962, none was more significant than that attending the Cuban crisis.

We were called on in many places, most urgently in Florida and in areas near Washington. The need was for additional communications for national strategic military command; the response—immediate.

In Florida, for example, Bell System people added hundreds of long distance channels linking Miami, Homestead Air Force Base, and Key West. They added hundreds more by building and equipping a microwave radio relay system over an alternate route. They did this job in eight days.

They flew 21 switchboards from Miami down the Keys and had them all working in from one to three days.

They put in several dial systems at military locations, installed hundreds of telephones and teletypewriters, and met 5,000 orders for private lines and other services.

These were some but not all of the urgent jobs completed on the double.

To get them done engineers produced designs and specifications on the spot. Supply forces organized and expedited rush

delivery of the materials. Western Electric chartered 22 planes to help speed tons of equipment from eight factory and warehouse locations. Trucks rolled day and night. Craftsmen installed and tested a vast amount of electronic apparatus. Construction crews placed and spliced miles of cable.

## **Four Fundamentals**

This all-out undertaking again calls attention to several facts:

1. Meeting big assignments requires a big organization with wide resources.
2. In our business, the unification of operations, manufacture, and supply is indispensable to superior performance. Not alone in Florida, but throughout the country, good results depended on the highest possible degree of coordination. The people on the job, from all branches of the business, knew what was needed, knew the equipment, and were trained for instant action. It was also necessary that all elements of the systems provided should be of requisite quality and fully compatible with each other. On all counts, unification is essential.

## “Electronic switching is leading to new communication services and many service refinements.”

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3. “In communications, defense of the nation comes first.” This Bell System policy was spelled out in our report a year ago. The events of last October underscore its importance.

4. Human effort, competent and dedicated, is the sole source of achievement. This needs to be emphasized over and over again, for the very reason that technological advances in communications are coming so fast.

### **New Era in Communications**

To discuss this last point further, it is true that technical advances, largely generated by our own research and development, are giving immense new scope to communication services. Modern devices and systems have much greater capabilities than those of even the recent past. *Telstar* is one evidence of this. Nationwide dialing, and, in the very near future, transatlantic dialing by operators, are evidences also. So too is electronic switching, which in the next decade will lead to many service refinements and new services. And present ability to send information in so many forms, so fast, and for so many purposes, testifies that a new era in communications is upon us.

Perhaps it is not yet generally understood that the communication needs of the modern world can *only* be met by intelli-

gent use of highly complex machine-systems. These permit a speed, convenience, and universality of service otherwise unattainable. Equally important, this advancing technology is essential for reasons of cost. On a plain dollars-and-cents basis, the service people want today cannot be provided without it.

At the same time, however, we are keenly aware that service so provided will be unsatisfactory to whatever degree it falls short of pleasing the individual user. When people dial long distance, for example, more than nine times out of ten they get much faster, more convenient service than ever before. But this in itself makes any service failure, if one occurs, less tolerable. We are the more determined, therefore, to perfect the service—and we are making progress. Direct Distance Dialing service was substantially better at the end of 1962 than when the year began.

### **Service That Pleases**

But we consider this only a beginning. While people want and must have service that is fast and accurate, they also want something more. They want service they can really enjoy. This means among other things that it ought to be as simple and easy to use as possible. So we are working hard to make it simpler—much simpler.

For instance, to simplify dialing we now



*More than 60 thousand users of teletypewriter exchange service (TWX) can now make connections three times faster by dialing directly through the nationwide network. At the same time, operators are always ready to help in case of difficulty or when the call is of a special nature requiring some assistance. This switchboard is one of 16 where operators serve TWX customers.*

**“The goal of technical progress is always to make service more simple, convenient, and pleasant to use.”**

---

have two kinds of automatic dialers available and a third is on the way.

Another simplifying step in view is “Touch-Tone” calling, using push-buttons on the telephone instead of a dial. This will take time and money, for the system requires costly additions to telephone central offices, as well as different telephones. But the improvement in speed and ease of use will be substantial.

Still further ease of usage will come with electronic switching. Electronic systems for private branch exchanges (PBX's) are already under trial. The first full-scale electronic central office is scheduled for 1965 and others will follow rapidly. Such developments will make possible, among other advantages, abbreviated dialing—the ability to reach frequently called numbers by dialing a couple of digits, or by pressing a button or two.

These examples lead to an interesting point.

### **Technology and The Individual**

It is often said that modern technology tends to diminish a person's sense of identity and individuality. And certain it is that communication service must not develop in ways that cause people to feel caught, so to speak, by the requirements of the communication machine.

But—the evidence is strong that in com-

munications, technical progress through the years has tended to give the individual *more* freedom and personal identity. Years ago, for example, when the telephone system was quite simple—almost primitive by present standards—one had to shout to be heard and strain to listen. This was indeed being tangled in the machine. Today, however, over circuits infinitely more complex, telephone conversation is as easy and natural as talking face to face.

We are determined to make it just as easy and pleasant to reach any number, anywhere, as it usually is to talk and listen once the connection has been made. To do this we must create still more “sophisticated” systems, but their effect will be to increase, rather than reduce, the individual's personal command of the situation.

This discussion started from the comment that human effort is the sole source of achievement. It may seem paradoxical to pursue the point by speaking of the development of even more complex technical apparatus. But there isn't really any paradox. The basic requirements are human ability to discern what is needed, human dedication and competence to bring it about, and a spirit of service that is rooted in human understanding of how people want us to serve. While the need for improving technology is unquestionable, still the first consideration in its use

**“The *Telstar* satellite has opened the way to  
development of a commercial satellite communication system.”**

---

must always be the wants, the preferences, the personal satisfaction of individual customers, one by one.

And as technical advances proceed, and we are able to do more, more will be expected—not simply of our machines, but more importantly, of us. As tools become more versatile, we must increase our human ability to comprehend and organize their most effective use. As the possibilities for serving customers grow, more insight is required to pinpoint what will serve each person best. In short, with every technological advance, more responsibility, not less, will rest on telephone people.

#### **Pioneering Steps Ahead**

This has been a year of great progress in many fields. The *Telstar* experiment was a notable first for the United States—and for business enterprise—in the peaceful use of space. The launching of the satellite for us at our expense by the National Aeronautics and Space Administration was, likewise, a pioneering step in government-business cooperation.

Notable too is the fact that Congress has voted overwhelmingly for a communications satellite corporation that will be organized for profit. This action, we are happy to say, strongly reaffirms the principle of private business enterprise under public regulation.

The satellite corporation is to be owned up to one-half by the communication companies that are authorized by the Federal Communications Commission to participate. The investing public will own the balance. President Kennedy has appointed the incorporators who are responsible for getting the corporation organized, and for its initial financing. We are most hopeful that the corporation's policies and plans, as they develop, will justify our making an appropriate investment and sharing in use of the organization's satellite facilities as the Commission may authorize. Our desire is to do everything we can to help make communications by satellite work well—and soon.

*Telstar* itself has continuously reported vital information from space, even when its “command” circuit was temporarily unable to turn on the satellite's communication receiver and transmitter. Bell Laboratories engineers traced the difficulty to the effect of radiation on a few transistors, reproduced the situation in the laboratory, and devised ingenious methods to restore full operation.

While the development of a commercial satellite communication system still presents many problems, we are sure these can and will be solved. *Telstar* has opened the way. It has demonstrated high-quality, versatile performance, and we have al-

## **“Operators will soon be dialing calls direct to distant telephones in Europe and Australia.”**

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ready learned how to make component devices much more resistant to radiation. Also, launching of a second *Telstar* satellite this spring will provide scientific data from a much higher orbit, where radiation is expected to be considerably less severe.

The demand for international communications keeps growing very fast. Last year telephone service was opened to Basutoland, Bechuanaland, Burundi, French Guiana, French Somaliland, New Hebrides, Sarawak, and Swaziland. Service now extends to 175 countries and territories and the number of overseas calls in 1962 reached 5,000,000.

We are intent as always on meeting the needs for overseas service promptly and effectively. Time is pressing and the requirement for more voiceways will not wait. This year our new cable ship *Long Lines*, most modern in the world, will lay another transatlantic cable. This will reach from New Jersey to Cornwall, England, with the route lying south of major trawling grounds. The cable and its underwater amplifiers are of a new design developed by Bell Laboratories and initially will handle 128 conversations at a time. The new design also makes possible, for the first time, a cable of such length—3,500 miles. Cable development is moving ahead rapidly and systems of far greater efficiency and capability are on the way.

A cable system is now being built from Florida to Jamaica and thence to Panama. Colombia will be reached from Panama a little later. Another cable, in 1964, will extend from Hawaii (already connected with the mainland) to Japan. In the spring and summer of 1963, operators will start dialing calls straight through to distant telephones in Great Britain, Germany, Italy, France, and Switzerland. This has been done for some time over the cables to Hawaii, Alaska, Puerto Rico, and Bermuda, and it speeds up service markedly. Later in the year operators will be dialing calls to certain other European countries, and to Australia over a British Commonwealth cable system that will extend from Canada to that country by way of Hawaii. These are long steps toward worldwide direct dialing.

Teletypewriter exchange service (twx) was converted to nationwide dial operation last summer after two years of preparation. The average time needed to make connections is only about a third of what it was before. The change also paves the way for future improvements in twx service.

A new telephone system we call “Dial-Pak,” serving medium-sized businesses, is having a splendid reception. New equipment that will greatly increase telephone convenience in hospitals, for both patients and hospital staff, will be tried out this



*Sea-going telephone cable of new design, made by Western Electric in Baltimore, has a steel core for strength, then a copper conductor, then plastic insulation—here being sized or shaved to almost perfect diameter. Later, an outer conductor and plastic jacket are applied.*

## **“Data communication services are growing fast and improved systems are under laboratory development.”**

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year. We are providing more communication channels to school systems for educational television and the need for such service appears to be growing fast. For travelers, more than 900 hotels and motels today provide the most modern “guest-dial” telephone convenience in some 200,000 rooms.

There have been important developments in “Data-Phone” service. Data sets that work with a wide range of business machines can send information over the nationwide telephone network at speeds up to 300 letters (or numbers) a second. A telephone call is all that is needed to set up the connection. One of the new sets permits facsimile transmission—of maps or drawings for example. A special-purpose set we expect to have ready this year will transmit heartbeats to produce electrocardiograms at distant locations, for examination by specialists in diagnosing heart conditions.

Needs are emerging for very fast data transmission over “wideband” communication channels. One example is a network serving seven computer centers for the exchange of information at 15,000 characters per second, or nearly a million a minute. Each center can be connected to any other through a dial switching system.

To improve data communication services further, we are working to develop new

systems that will use the same electronic switching techniques that are under development for voice communications.

### **A Long-Range Improvement**

We are now on the threshold of a program made possible by a combination of economic and technical developments. Through the years, as telephone users have moved from one address to another, we have constantly had to rearrange the layout of wires in local cables. This has been necessary to make economical use of the plant, although the job of rearrangement is itself costly.

Today the situation is beginning to change. Party lines, which have complicated the problem, are on the wane. Also, the proportion of all households that have service is far higher than in the past, and there is more likelihood that when a telephone-using family leaves its present address, the family that moves in will want service also. In addition, new types of telephone cables now permit more economical methods of distributing the wires to homes, apartments, and places of business.

The upshot is that we now look forward to the time when most local telephone lines can be permanently assigned to specific addresses. This will be a very gradual process. The change in concept may seem simple but it will accomplish

**“Western Electric’s performance is an important factor in holding down prices for telephone service.”**

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important operating savings and, in many cases, faster handling of customers’ orders.

This nuts-and-bolts program has none of the glamour of, say, satellite communications. But it is extremely important. Operating efficiency is always of the utmost concern and this will help it materially.

Two related, seemingly “little” developments bear on the same point. One is a new test set, the other a new technique for connecting or splicing wires. As long as outside lines must be rearranged, millions of pairs of wires must be tested each year. And each year, craftsmen make about 250 million splices. The new test set will permit faster, easier testing. The new wire connector will make better connections at lower cost. Each of these new tools will in time produce operating savings of several million dollars a year.

#### **Western Electric in 1962**

As emphasized in previous reports, cost reduction is a way of life in Bell System manufacturing as well as in telephone operations. Last year the Western Electric Company accomplished manufacturing cost reductions of \$22 million annually, as well as further savings in its purchasing, distribution, and repair operations. Western Electric’s continuing “war on costs” has contributed greatly to its ability to reduce prices to the Bell telephone com-

panies on the products it manufactures. Reductions made in 1962 will save the companies more than \$40 million annually. The price level for Western Electric products made for the Bell System is now 12 per cent lower than in 1950—a remarkable showing and an important factor in keeping the price of telephone service lower than it would otherwise need to be.

Western Electric earnings in 1962 were \$135,216,000 compared with \$122,244,000 in the previous year. Total sales were \$2,762,000,000 compared with \$2,608,000,000. Sales to the Bell companies were \$2,153,000,000, well above the record set in 1961. Most of the balance was in sales to the Government.

To make its services to the telephone companies even more responsive to their needs, Western Electric is reorganizing certain of its long-standing functions in a new service division. This brings together, on a regional basis, supply and repair services and the engineering and installation of central offices and much other equipment. A couple of figures will help to show how closely this work ties in with daily telephone operations. Last year Western Electric employees who install central office equipment worked on 75,000 job assignments in 7,400 cities and towns; and in distributing houses, some ten million telephone sets were repaired.

## “Bell Telephone Laboratories has recently opened its large new laboratory facilities at Holmdel, New Jersey.”

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Western Electric works constantly with Bell Laboratories to shorten the time required to bring new developments into production, and it works likewise with the telephone companies to reduce the time needed to deliver the goods they order. These close working relationships are very effective and produced excellent progress in 1962.

To help meet Bell System needs Western Electric last year bought \$1.2 billion of raw materials, supplies, equipment, and services from more than 40,000 concerns all over the United States, most of them small businesses.

It may also be noted that in creating the *Telstar* satellite and the ground station at Andover, Maine, the System enlisted the help of nearly 2,000 companies.

### **Research and Development**

From *Telstar* to test sets, the story of research and development has already had a large place in this report.

A point of general importance about electronic switching, already mentioned, deserves further emphasis. We have very much in mind that in the years ahead, electronic techniques will be applied to enhance the usefulness of existing electromechanical dial systems, so that these as well as full-scale electronic central offices can be employed to provide new

services. To accomplish this will require development work on a large scale, but the task is now well begun and the outlook is excellent.

Last year Bell Laboratories opened its new laboratory facilities at Holmdel, N.J., where scientists and engineers are now carrying forward much of the work on electronic switching and related developments, as well as radio research and long-range study of the possibilities for some day sending communications over waves of light.

Our scientists last year invented new optical masers, or lasers, that can generate and amplify light at many different wave lengths. In another field, they used crystals of a new material, yttrium iron garnet, (YIG for short) to convert radio waves into ultrasonic waves, and they also succeeded in amplifying ultrasonic waves in certain solids; these accomplishments may lead to new and simpler forms of electronic equipment. They also devised an extremely sensitive microphone employing a silicon transistor; produced an improved wire insulation of foamed polypropylene that will reduce the cost of telephone cables; and set up in the laboratory an experimental system to help guide work on picture-phone development.

These are examples from a broad range of effort. One more instance will indicate



*A Western Electric buyer examines electronic equipment made for the Bell System by Abilities, Inc. Virtually all Abilities employees (about 400) have physical handicaps. The concern is one of more than 40,000 which furnished us \$1,200,000,000 of supplies, equipment, and services last year. Our suppliers do a fine job for us, and Bell System progress, in turn, means much to them.*

**“We have taken many important defense measures on our own initiative and at our own expense.”**

---

how *product* and *process* research complement each other. Tiny “thin film” circuits developed at Bell Laboratories require a deposit of tantalum, ten-millionths of an inch thick, on a glass base. Such circuits have a potential use in the millions in electronic switching systems. But their mass production presented a problem since the film of tantalum must be deposited in a high vacuum. Nevertheless, Western Electric engineering research has developed a machine for this process that permits continuous flow of materials into and out of a vacuum chamber.

#### **Defense and Space Activities**

The telephone companies, Bell Laboratories, and Western Electric continued to do a great deal of work for the nation’s defense. The blast-resistant underground cable now being built from coast to coast has already been completed from the East Coast to the Middle West. Other protective measures include establishment of alternate telephone operating headquarters, underground control centers for service restoration, and underground storage of records at remote locations. We have carried forward all these undertakings on our own initiative and at our own expense.

The Nike Zeus anti-missile missile system under development for the Army last year

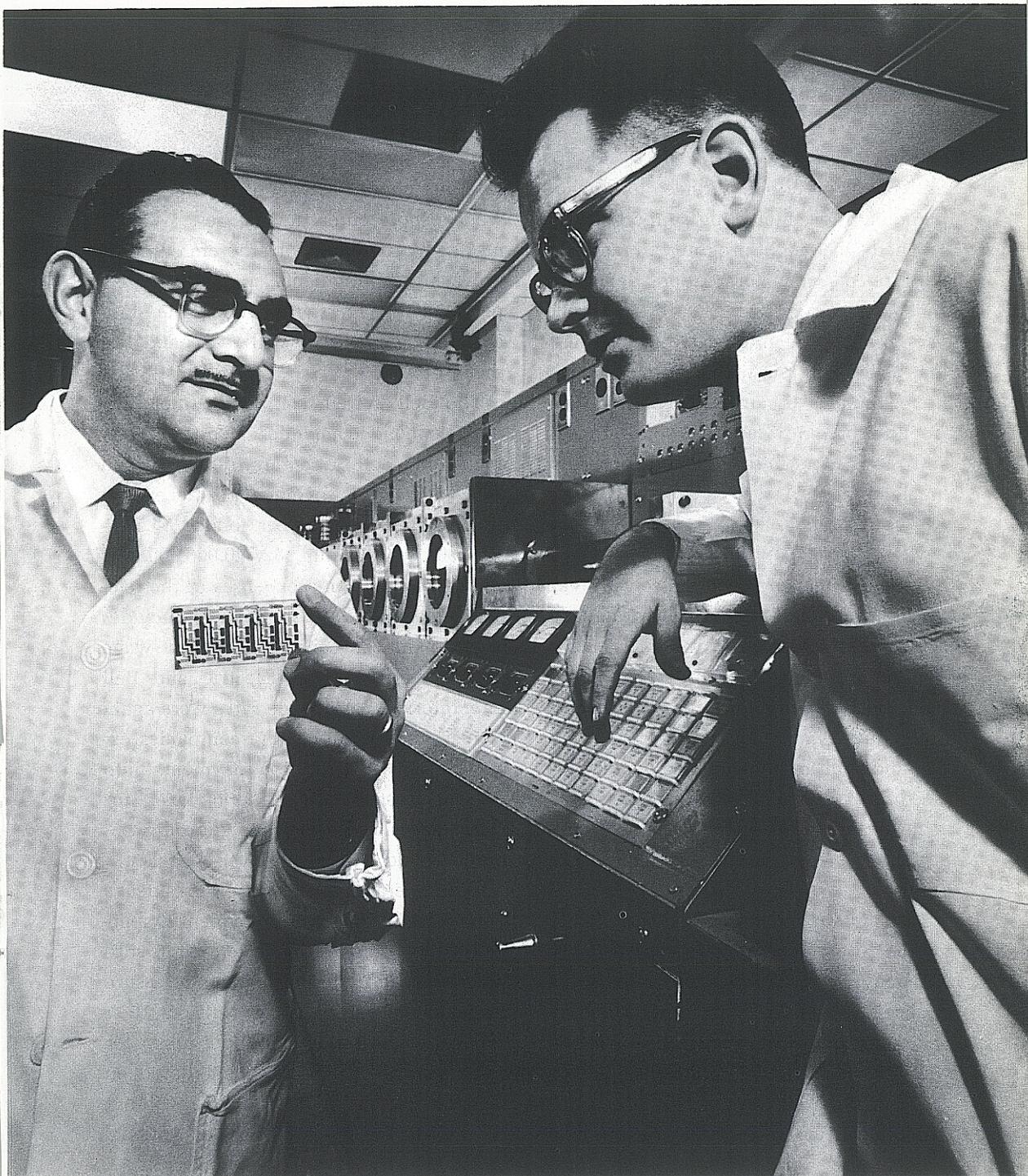
successfully intercepted targets launched by Atlas boosters. Current research and testing put special emphasis on ability to distinguish targets from decoys. Western Electric also continues to have overall development and production responsibility for the Nike Hercules anti-aircraft system.

The third and final section of the communication network for the Ballistic Missile Early Warning System is under construction from England to North American Air Defense Command headquarters in Colorado. The SAGE air defense system has now been virtually completed but Western Electric continues to assist the Air Force in supervising improvements. In Alaska, Western has built a direct distance dialing system used by the Air Force for military command and control. Sandia Corporation, a Western Electric subsidiary, for the thirteenth year continued to manage the Atomic Energy Commission’s ordnance laboratories.

The Mercury network for communicating with the nation’s astronauts in orbit was built by an industrial team headed by Western Electric. It has performed well.

The command system for rocket guidance, Laboratories-designed and Western-made, has successfully guided more than 100 launchings, including that of *Telstar*.

In 1962 the National Aeronautics and Space Administration requested the Bell



*Engineers inspect a "thin film" circuit, on metallized glass, that contains numerous electrical components. To help make such circuits in huge quantity for electronic equipment, Western Electric engineering research has developed a remarkable machine (pilot model in background) that continuously processes materials moving through a high-vacuum chamber.*

**“Nearly 730,000 Bell System employees have worked with will and skill to make 1962 a year of fine progress.”**

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System, as a public service, to provide planning and engineering support for the manned space flight program. In response, we formed a new corporation, Bellcomm, Inc., owned jointly by A. T. & T. and Western Electric and located in Washington. Under contract with the space agency Bellcomm has organized to assist in the Apollo program to land men on the moon and return, and missions beyond the first lunar landing.

#### **Vitality for The Future**

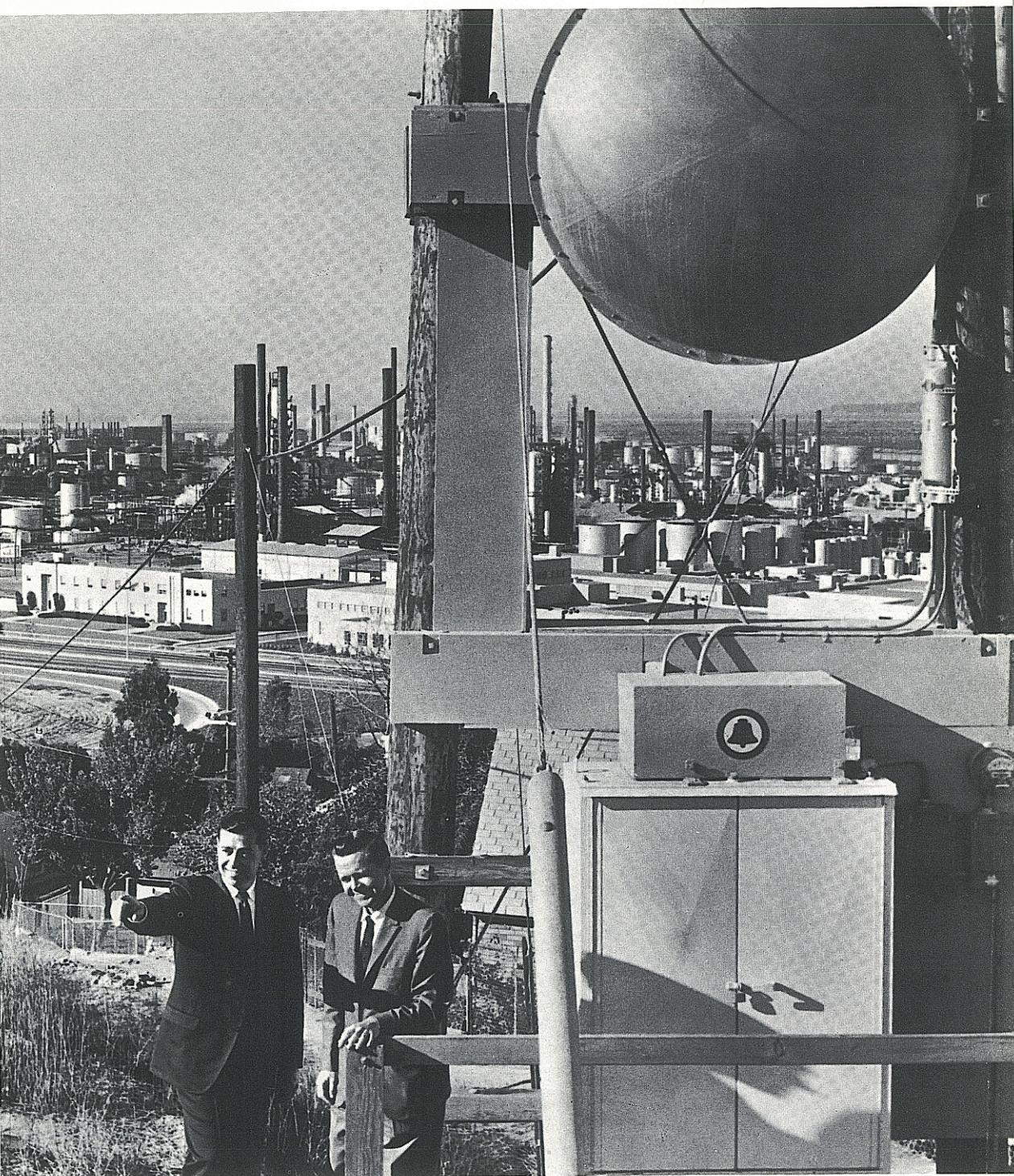
Twenty-one employees received Vail Medal awards last year for individual acts of outstanding service in emergencies. Another Vail award honored the service rendered by a group of three. Everywhere in the business, employees responded with will and skill to the many challenges they faced. This alone made possible the record achieved in science, in service, in improved efficiency, and in good financial progress.

To maintain and strengthen this vitality for the future is a primary responsibility of management. Training programs stress quality of workmanship, understanding of customers' wants, and ability to sense what is needed and act ahead of it. We are also trying all the time to do a better job of identifying managers who can take on increasing responsibility. This is a pro-

cess that ought to begin at the beginning, when people enter the business. We are making particular effort therefore to improve hiring judgments, and also to give potential managers, right from the start, challenging jobs that will rouse and test them.

The Bell System companies, including the telephone companies, Western Electric, and Bell Laboratories, employed 728,978 men and women at the end of 1962. Wages for the year totaled \$4,538,000,000. Of this sum, \$2,740,000,000 was charged to operating expenses of the telephone companies. The balance includes wages paid for construction, and wage payments of Western Electric and Bell Laboratories. Basic wage rates were again increased. In addition, the companies expended \$509,000,000 for payments into pension trust funds, Federal taxes for Social Security old age and disability insurance, and other employee benefits.

In cooperation with the President's Committee on Equal Employment Opportunity, the Company and several of its subsidiaries have undertaken plans to assure continuing progress in carrying out their policy to provide equal opportunity for employment and advancement, based on the qualifications of the individual without regard to race, creed, color, or national origin.



*This microwave radio system serving a large oil company was engineered and installed under leadership of a telephone manager specially assigned to help the company meet all communication needs. The system sends high-speed data between computers at the refinery and in San Francisco. Throughout the country, Bell System account managers keep alert to fast-changing requirements of industry and government.*

**“Good profit is just as vital to the service we render as it is to the interests of our share owners.”**

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The vigorous and growing programs of the Telephone Pioneers of America bring together in fellowship more than 220,000 men and women, active and retired, who have served in the industry 21 years or more. In telephone service and community service, in social events, and in projects for personal development, they share and foster a pride of accomplishment that is one with the spirit of the business. The long and lively traditions of the Telephone Pioneers are continuously helping to build strong foundations for the future.

#### **Good Earnings for Economic Growth**

Last year public interest in *Telstar* and satellite communications focused attention on our business to an unusual degree. At such a time it is more than ever clear that public confidence in the Bell System depends on our daily performance in every community, our willingness to commit ourselves to aims that genuinely serve the public interest, and our continuous demonstration that we have the ability as well as the intention to realize such aims.

This ability depends in turn on profits that will generate real progress. The Bell System is under continuous close surveillance by the Federal Communications Commission, and our intrastate business is regulated by commissions in the various states. Today more commissions are per-

mitting earnings at or near the levels needed for vigorous service progress and good economic performance than was the usual case some years ago. However, commissions generally, in determining earnings, do not yet permit deductions for depreciation that would recover the full purchasing power of the dollars originally invested in plant and equipment. Nor are such deductions permitted for income tax purposes. We continue to urge regulatory and taxing authorities to allow depreciation deductions that would take into account the decline in the purchasing power of the dollar and afford a true measure of this important element in the cost of doing business.

Public understanding of the need for good profit is just as vital to the service as it is to the interests of our share owners. Only profitable operation makes possible sound financing and sustained capital expenditures now in the order of \$3 billion a year. And it is this that enables us to build well for the future; to introduce improvements with speed; to maintain employment; and to increase efficiency; in short, to contribute much more, and more evenly, to the nation's economic welfare.

We are convinced that to assure outstanding economic performance, the Bell System should be allowed earnings on equity capital that are comparable with

## From Coast to Coast for One Dollar After 9 P. M.

Beginning about April 1, 1963, telephone users will be able to make three-minute interstate calls between any two points in the continental United States for \$1 or less, during the hours from 9 p.m. to 4:30 a.m.

Reduced rates for station to station interstate calls during these hours are being introduced by the Bell System following discussions with the Federal Communications Commission.

The lowest previous rate from coast to coast was \$1.75, and this continues to be the charge for a three-minute station to station call from 6 p.m. to 9 p.m.

Residence customers especially will benefit from the new "After Nine" rates, which we are introducing to encourage increased use of the nationwide long distance network during the night hours.

those of a broad cross-section of well managed companies in nonregulated industry. The Administration has repeatedly emphasized that the nation needs to step up its economic progress and make better use of all its human and material resources. In our business as in others, this requires vigorous research, continuous innovation, and willing acceptance of risk. It calls for energetic development of new and improved communication services that will aid all industry and help make the total effort more effective. But all of this depends, as we have indicated, on regulation that takes a forward-looking view, understands the need for venturesome action, and permits earnings that support and encourage it. We hope and believe there is growing awareness among regulators themselves that severe limitations on earnings are inconsistent with the national effort to attain a more dynamic economic growth.

Last year's earnings, as the financial statements show, are not increased by the investment credit authorized by the Rev-

enue Act of 1962. We feel strongly that the credit should be accounted for as a reduction of the cost of the construction that gives rise to it and not as an increase in profit in the year when new equipment is acquired. Our independent public accountants consider that our view conforms with generally accepted accounting principles. It is also, we believe, squarely in accord with the Act itself and with the intent of the law as expressed by the President, the Secretary of the Treasury, and the Congressional committees concerned. We have therefore asked the Federal Communications Commission to establish such accounting and the Commission is now considering the matter. Meanwhile it has directed us to reduce the provision for Federal income taxes by the amount of the credit, and has temporarily permitted an offsetting reduction in income so that net earnings are unaffected.

During the past year the Commission held hearings on TELPAK service and the proposed Wide Area Data Service (WADS), both of which may be considered

## Bell System Facts in Figures

	1962	1960	1950
Telephones .....	65,986,813	60,735,073	35,343,440
Average Daily Conversations†			
Local .....	231,726,000	209,648,000	136,062,000
Long Distance .....	10,715,000	9,445,000	4,720,000
Net Plant* .....	\$21,964,420	\$18,825,273	\$7,275,277
Operating Revenues* .....	\$8,980,208	\$7,920,454	\$3,261,528
Employees			
Telephone Companies .....	563,861	580,405	523,251
Western Electric .....	151,174	143,352	73,458
Bell Tel. Laboratories .....	13,943	12,009	5,757
A. T. & T. Share Owners .....	2,210,671	1,911,484	985,583

†ON BASIS OF PRESENT CLASSIFICATION BETWEEN LOCAL AND LONG DISTANCE  
\*THOUSANDS OF DOLLARS

competitive with services being provided by others. We are sure, as we said in last year's report, that these new services meet important public needs. The Commission also, in 1962, commenced an investigation of domestic telegraph services, and we have been furnishing to the Commission staff the information they have requested from us. Hearings have not yet been held.

### In Conclusion

The year has been a good one. Looking ahead, there is not only much to do but great challenge to do it better. And it is people in every phase of the business—at switchboards, in our business offices, on construction jobs, installing telephones, designing and producing equipment, meeting emergencies, delivering the goods—it is they who can and will meet this chal-

lenge. We want to be an organization of men and women so competent, so progressive, and so discerning and considerate of the needs of others, that our customers, our share owners, our government, and the public in general will always turn our way with confidence and cheerfully count on us.

We deeply appreciate the support of our share owners who now number more than 2,200,000. To each of you, we pledge our best effort in the years ahead.

For the Board of Directors,



Chairman of the Board

February 13, 1963

# Financial Statements

THE BELL SYSTEM CONSOLIDATED FINANCIAL STATEMENTS on the following pages consolidate the accounts of American Telephone and Telegraph Company and its principal telephone subsidiaries (listed on page 32). These companies maintain their accounts in accordance with the Uniform System of Accounts prescribed for telephone companies by the Federal Communications Commission.

For the companies consolidated, all significant intercompany items are excluded from these statements. Investment in subsidiaries not consolidated as stated in the Balance Sheets includes the proportionate interest in the net assets of such subsidiaries, and the proportionate interest in their earnings is included in the Income Statements.

Western Electric Company, the principal subsidiary not consolidated, manufactures most of the telephone equipment and apparatus used by the companies consolidated and sells to them materials and supplies procured from others. Contracts with the telephone companies provide that Western's prices to them shall be as low as to its most favored customers for like materials and services under comparable conditions. Items purchased from Western by the telephone companies are entered in their accounts at cost to them, which includes the return realized by Western on its investment devoted to this business.

A. L. STOTT

Vice President and Comptroller

## Certificate of Audit

TO THE SHARE OWNERS OF AMERICAN TELEPHONE AND TELEGRAPH COMPANY:

We have examined the consolidated balance sheets of American Telephone and Telegraph Company and its principal telephone subsidiaries as of December 31, 1962 and 1961 and the related statements of income and retained earnings for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and included such tests of the accounting records of each of the companies consolidated and such other auditing procedures as we considered necessary in the circumstances. We did not examine the consolidated financial statements for the years 1962 and 1961 of the Company's principal nonconsolidated subsidiary, Western Electric Company, Incorporated and consolidated subsidiaries, which statements were examined by other independent accountants whose report thereon has been furnished to us. Our opinion expressed herein is based upon our examination and upon the aforementioned report of other accountants.

In our opinion, the consolidated financial statements (pages 25 to 30 and page 32) present fairly the consolidated position at December 31, 1962 and 1961 and the consolidated results of operations for the years then ended of American Telephone and Telegraph Company and its principal telephone subsidiaries, in conformity with generally accepted accounting principles applied on a consistent basis.

New York, N. Y., February 13, 1963

LYBRAND, ROSS BROS. & MONTGOMERY

# Bell System

*American Telephone and Telegraph*

## ASSETS

	(Thousands of Dollars)	
	December 31, 1962	December 31, 1961
<b>TELEPHONE PLANT AND OTHER INVESTMENTS</b>		
Telephone Plant (land, buildings and equipment)—at cost		
In service .....	\$27,291,822	\$25,307,318
Under construction .....	597,181	563,534
Other (principally held for future use) .....	24,743	21,965
	<u>27,913,746</u>	<u>25,892,817</u>
Less: Depreciation reserve .....	5,949,326	5,584,030
	<u>21,964,420</u>	<u>20,308,787</u>
Other Investments		
Investment in subsidiaries not consolidated (a) .....	1,381,361	1,292,970
Other (principally in associated telephone companies)— at cost .....	110,659	130,783
	<u>23,456,440</u>	<u>21,732,540</u>
<b>CURRENT ASSETS</b>		
Cash and temporary cash investments .....	1,819,697	1,516,168
Receivables—less reserve for uncollectibles .....	1,112,014	1,040,565
Material and supplies .....	94,017	95,846
	<u>3,025,728</u>	<u>2,652,579</u>
<b>PREPAYMENTS AND DEFERRED CHARGES</b>		
Prepayments (principally directory expenses and taxes) ...	145,713	134,165
Deferred charges .....	88,655	98,469
	<u>234,368</u>	<u>232,634</u>
<b>Total Assets</b> .....	<u>\$26,716,536</u>	<u>\$24,617,753</u>

For notes, see page 30

# Balance Sheets

Company and its Principal Telephone Subsidiaries Consolidated

## LIABILITIES

	(Thousands of Dollars)	
	December 31, 1962	December 31, 1961
<b>SHARE OWNERS' EQUITY</b>		
American Telephone and Telegraph Company		
Common stock—par value (\$33 $\frac{1}{3}$ per share).....	\$8,103,371	\$7,864,313
<i>Authorized 300,000,000 shares; outstanding at December 31, 1962, 243,101,133 shares.</i>		
Common stock installments (b).....	210,184	418,082
Premium on common stock.....	3,228,199	2,926,828
Retained earnings—see page 29.....	3,872,323	3,298,955
APPLICABLE TO A. T. & T. Co. STOCK.....	<u>15,414,077</u>	<u>14,508,178</u>
Subsidiaries Consolidated—stocks held by public		
Common stock .....	423,429	422,916
Preferred stock .....	17,904	17,904
Retained earnings .....	66,035	56,374
APPLICABLE TO STOCKS OF SUBSIDIARIES HELD BY PUBLIC .....	<u>507,368</u>	<u>497,194</u>
	<u>15,921,445</u>	<u>15,005,372</u>
FUNDED DEBT (c).....	<u>8,224,171</u>	<u>7,270,690</u>
<b>CURRENT LIABILITIES</b>		
Notes payable .....	158,000	42,000
Accounts payable .....	708,136	733,563
Advance billing for service and customers' deposits.....	229,925	210,947
Dividends payable .....	220,248	213,783
Taxes accrued .....	1,072,086	1,028,724
Interest accrued .....	88,248	72,366
	<u>2,476,643</u>	<u>2,301,383</u>
<b>DEFERRED CREDITS</b>		
Unextinguished premium on funded debt—net.....	28,720	22,676
Other deferred credits (d).....	65,557	17,632
	<u>94,277</u>	<u>40,308</u>
<b>Total Liabilities.....</b>	<u>\$26,716,536</u>	<u>\$24,617,753</u>

# Bell System

American Telephone and Telegraph

	(Thousands of Dollars)	
	Year 1962	Year 1961
<b>OPERATING REVENUES</b>		
Local service .....	\$5,088,488	\$4,797,528
Toll service.....	3,471,787	3,217,300
Miscellaneous .....	458,659	440,101
<i>Principally from directory advertising.</i>		
Less: Provision for uncollectibles.....	38,726	40,503
<b>Total Operating Revenues.....</b>	<u>8,980,208</u>	<u>8,414,426</u>
<b>OPERATING EXPENSES</b>		
Maintenance .....	1,527,296	1,433,162
Depreciation .....	1,219,007	1,099,940
<i>Representing approximately 4.8% of average investment in depreciable plant.</i>		
Traffic .....	876,708	871,087
<i>Costs, principally operators' wages, incurred in the handling of messages.</i>		
Commercial .....	750,762	713,898
<i>Costs incurred in business relations with customers; public telephone commissions; cost of directories and advertising.</i>		
Accounting .....	316,493	304,564
Development and research (e) .....	74,293	64,795
Provision for employees' service pensions.....	228,624	221,459
Employees' sickness, accident, death and other benefits...	94,870	93,653
Other operating expenses.....	315,127	299,888
Less: Expenses charged construction.....	98,143	89,656
<b>Total Operating Expenses.....</b>	<u>5,305,037</u>	<u>5,012,790</u>
<b>Net Operating Revenues.....</b>	<u>3,675,171</u>	<u>3,401,636</u>
<b>OPERATING TAXES</b>		
Federal income (d) .....	1,285,020	1,215,280
State, local and social security.....	817,881	756,407
<b>Total Operating Taxes.....</b>	<u>2,102,901</u>	<u>1,971,687</u>
<b>Net Operating Income (carried forward)</b>	<u>\$1,572,270</u>	<u>\$1,429,949</u>

For notes, see page 30

# Income Statements

Company and its Principal Telephone Subsidiaries Consolidated

	(Thousands of Dollars)	
	Year 1962	Year 1961
<b>Net Operating Income</b> ( <i>brought forward</i> ).....	\$1,572,270	\$1,429,949
<b>OTHER INCOME</b>		
Proportionate interest in earnings of subsidiaries not consolidated (f) .....	137,128	124,426
Miscellaneous—net (d), (g) .....	30,504	54,008
<b>Income Available for Fixed Charges</b> .....	<u>1,739,902</u>	<u>1,608,383</u>
<b>FIXED CHARGES</b>		
Interest on funded debt.....	289,945	266,942
Other interest .....	17,005	15,854
<b>Net Income</b> .....	<u>1,432,952</u>	<u>1,325,587</u>
<b>NET INCOME APPLICABLE TO MINORITY INTERESTS</b> .....	44,777	41,001
<b>Net Income Applicable to A. T. &amp; T. Co. Stock</b> .....	<u>\$1,388,175</u>	<u>\$1,284,586</u>
<b>CONSOLIDATED EARNINGS PER SHARE</b> .....	\$5.79	\$5.52
<i>Based on average A. T. &amp; T. Co. shares outstanding, 239,586,722 in 1962 and 232,627,389 in 1961.</i>		

## Statements of Consolidated Retained Earnings Applicable to American Telephone and Telegraph Company Stock

	(Thousands of Dollars)	
	Year 1962	Year 1961
<b>BALANCE AT BEGINNING OF PERIOD</b> .....	\$3,298,955	\$2,841,481
Net income applicable to A. T. & T. Co. stock.....	1,388,175	1,284,586
Change in cost basis of Western Electric Co. inventories (h) .....	57,938	.....
Miscellaneous additions.....	1,227	2,118
<b>TOTAL ADDITIONS</b> .....	<u>1,447,340</u>	<u>1,286,704</u>
Dividends on A. T. & T. Co. stock.....	862,512	820,680
Refunds to customers of amounts applicable to prior years, less related taxes .....	8,137	.....
Organization and capital stock expense charged off.....	2,040	4,613
Miscellaneous deductions .....	1,283	3,937
<b>TOTAL DEDUCTIONS</b> .....	<u>873,972</u>	<u>829,230</u>
<b>BALANCE AT CLOSE OF PERIOD</b> .....	<u>\$3,872,323</u>	<u>\$3,298,955</u>

# Notes to Bell System Financial Statements

(a) Comprises at December 31, 1962 and December 31, 1961, respectively, \$853,043,000 and \$887,981,000 representing cost of investments in subsidiaries not consolidated (see page 32), and \$528,318,000 and \$404,989,000 representing proportionate interest in the net assets of these subsidiaries in excess of such cost.

(b) Installment payments and interest applicable to shares under elections to purchase by employees of the Company and its subsidiaries under the Employees' Stock Plan approved by stockholders in 1958. The Plan provides that an employee may cancel his election to purchase in whole or in part at any time and receive a refund which may be taken in cash or applied to the purchase of shares. A total of 36,000,000 shares may be issued under the Plan. At December 31, 1962, 16,706,000 shares had been purchased and installment payments were being made on 6,740,000 shares.

(c) At December 31, 1962 comprises \$218,000,000 maturing from 1964 to 1970, \$1,344,171,000 from 1971 to 1980, and \$6,662,000,000 thereafter.

(d) As directed by the Federal Communications Commission, provision for Federal income taxes has been reduced by \$47,199,000 in 1962 for the investment credit authorized by the Revenue Act of 1962. In the opinion of the companies, this credit should not reduce the provision for Federal income taxes and increase income in the year when the new plant giving rise to the credit is placed in service but should, at that time, be applied to reduce the cost of such plant, thereby reducing depreciation expense and increasing income over its productive life. Our independent public accountants concur in this opinion and consider it to be in conformity with generally accepted accounting principles. The Company has requested rule making from the F.C.C. to provide for this accounting. Meanwhile, as permitted by the F.C.C. on a temporary basis, an amount equal to the investment credit has been deducted from Miscellaneous income and included in Other deferred credits, so that the reduction in provision for Federal income taxes is offset and Net Income and Earnings per share are unaffected.

(e) Principally cost of work carried on for American Telephone and Telegraph Company by Bell Telephone Laboratories.

(f) Includes American Telephone and Telegraph Company's proportionate interest (over 99%) in earnings of Western Electric Company and its subsidiaries amounting to \$134,972,000 in 1962 and \$122,023,000 in 1961 of which \$69,750,000 in each year was received by the Company in dividends.

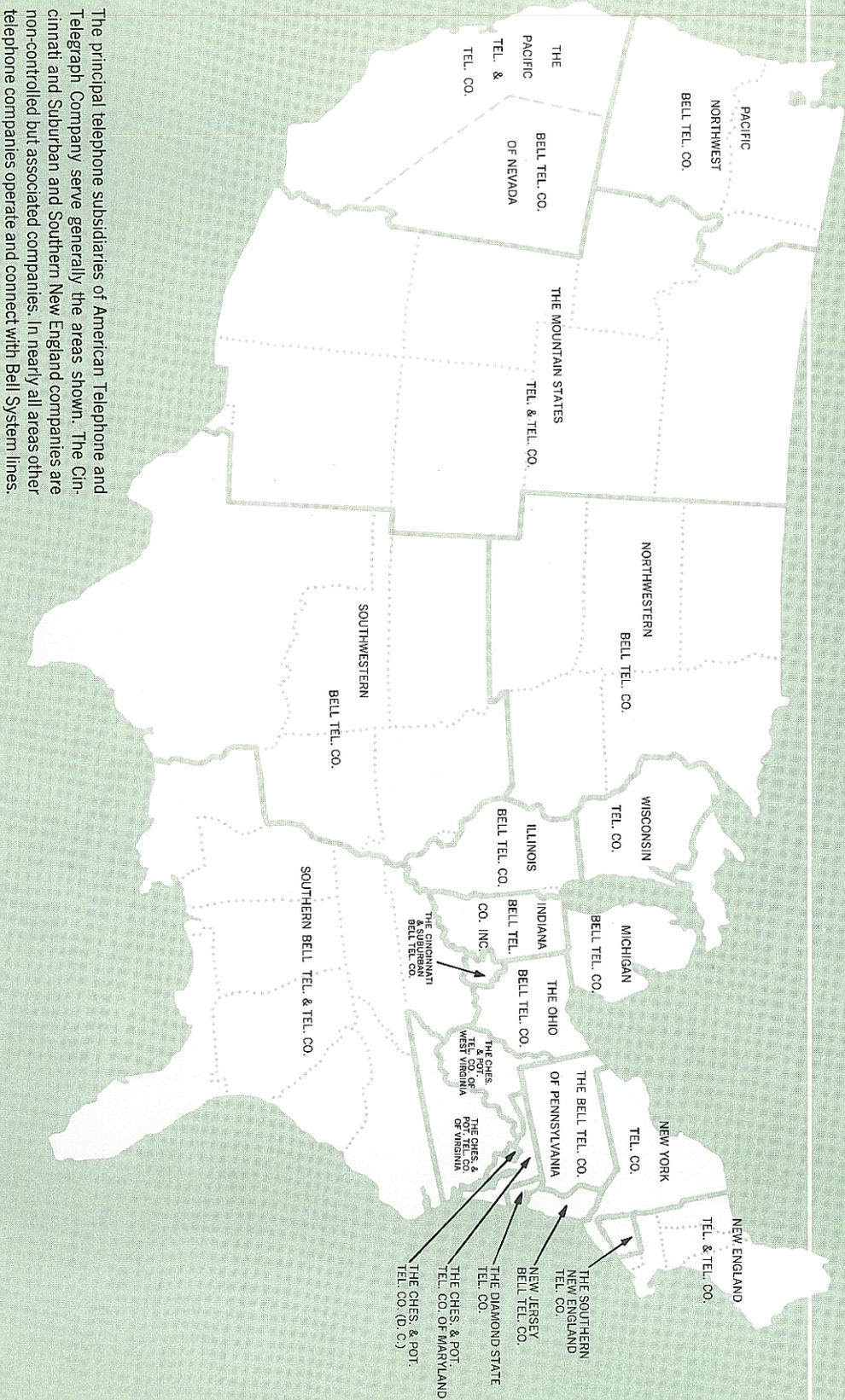
(g) Includes \$29,871,000 in 1962 and \$27,975,000 in 1961 for interest charged construction.

(h) Effective as of January 1, 1962 the method of determining the cost of Western Electric Co. merchandise inventories was changed from a last-in first-out basis to a first-in first-out basis, resulting in an increase in Western's inventories and retained earnings.

---

The Company and its subsidiaries have established trust funds which are irrevocably devoted to service pension purposes. Regular payments are made to such funds pursuant to accrual programs. At December 31, 1962 the pension funds amounted to \$4,018,506,000. Future service pension payments to those now on pension rolls and those now entitled to retire on pensions at their own request are fully provided for by the amounts in the funds. The funds are not a part of the assets of the companies and are therefore not reflected in the balance sheets.

# The Bell Telephone System



The principal telephone subsidiaries of American Telephone and Telegraph Company serve generally the areas shown. The Cincinnati and Suburban and Southern New England companies are non-controlled but associated companies. In nearly all areas other telephone companies operate and connect with Bell System lines.

# Bell System Companies

COMPANIES INCLUDED

December 31, 1962

IN CONSOLIDATED STATEMENTS

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

PRINCIPAL TELEPHONE SUBSIDIARIES	CAPITAL STOCKS Owned by A.T.&T. Co.		Advances from
	% Owned	Equity (a)	A.T.&T. Co. (a)
New England Tel. & Tel. Co.....	69.32	\$ 456,281	\$ 61,000
New York Tel. Co.....	100.00	1,691,445	.....
New Jersey Bell Tel. Co.....	100.00	665,798	31,100
Bell Tel. Co. of Pennsylvania.....	100.00	787,991	53,000
Diamond State Tel. Co.....	100.00	51,623	4,225
Chesapeake & Potomac Tel. Co.....	100.00	114,109	25,000
Chesapeake & Potomac Tel. Co. of Maryland ...	100.00	293,332	36,900
Chesapeake & Potomac Tel. Co. of Virginia.....	100.00	317,785	31,700
Chesapeake & Potomac Tel. Co. of West Virginia	100.00	120,184	6,900
Southern Bell Tel. & Tel. Co.....	100.00	1,641,806	36,800
Ohio Bell Tel. Co.....	100.00	645,116	24,000
Michigan Bell Tel. Co.....	100.00	519,737	26,900
Indiana Bell Tel. Co., Inc.....	100.00	258,783	17,050
Wisconsin Tel. Co.....	100.00	264,836	7,300
Illinois Bell Tel. Co.....	99.32	1,010,030	30,100
Northwestern Bell Tel. Co.....	100.00	578,942	30,700
Southwestern Bell Tel. Co.....	100.00	1,706,319	29,000
Mountain States Tel. & Tel. Co.....	86.75	528,376	83,300
Pacific Northwest Bell Tel. Co.....	(b) 51.04	196,056	30,900
Pacific Tel. & Tel. Co.....	89.62	1,687,318	140,000
Bell Tel. Co. of Nevada.....	(c) ....	.....	.....
<b>Total</b> .....		<b>\$13,535,867</b>	<b>\$ 705,875</b>
<b>SUBSIDIARIES NOT CONSOLIDATED</b>			
Bell Telephone Laboratories, Inc.....	(d) 50.00	\$ 32,500	.....
Western Electric Co., Inc.....	99.82	1,265,469	.....
195 Broadway Corporation.....	100.00	29,051	\$ 5,775
Other (e).....	....	32,961	15,605
<b>Total</b> .....		<b>\$ 1,359,981</b>	<b>\$ 21,380</b>
<b>OTHER COMPANIES</b>			
		Cost (a)	
Southern New England Tel. Co.....	18.75	\$ 36,990	.....
Cincinnati & Suburban Bell Tel. Co.....	29.05	21,065	\$ 600
Bell Tel. Co. of Canada.....	2.86	18,855	.....
Miscellaneous investments (e).....	....	33,149	.....
<b>Total</b> .....		<b>\$ 110,059</b>	<b>\$ 600</b>

(a) Thousands of dollars.

(b) 42.72% (Equity—\$164,105,000) owned by Pacific Tel. & Tel. Co., which also held demand note of \$99,482,000.

(c) Wholly-owned subsidiary of Pacific Tel. & Tel. Co. (Equity—\$53,625,000; Advances—\$700,000).

(d) Remaining shares owned by Western Electric Company.

(e) Includes investments of principal telephone subsidiaries.



*Aloft and underground, new and improved telephone cables reach through neighborhoods across the land. The lineman is connecting a new "ready access" terminal. At the terminal any pair of wires in the cable can be quickly connected to wires that extend to customers' premises.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

195 BROADWAY  
NEW YORK 7, N. Y.

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If your home has more than one A.T. & T. share owner, in keeping with Securities and Exchange Commission regulations we mail a copy of this report to each. This is also the economical procedure. To address a single copy to each household with more than one share owner would require special procedures and additional expense.

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