



**40th Annual Report: 1960**

**International Telephone and Telegraph Corporation  
New York City**

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**Directors**

George R. Brown	J. Patrick Lannan
Harold S. Geneen	Robert McKinney
Arthur M. Hill	Richard S. Perkins
Charles D. Hilles, Jr.	Warren Lee Pierson
Allan P. Kirby	Louis T. Rader
Hugh Knowlton	Ellery W. Stone

**Executive Committee**

George R. Brown	Hugh Knowlton
Harold S. Geneen	J. Patrick Lannan
Arthur M. Hill	Robert McKinney
Allan P. Kirby	Richard S. Perkins
	Warren Lee Pierson

**Officers**

Harold S. Geneen . . . . .	<i>President</i>
Charles D. Hilles, Jr. . . . .	<i>Executive Vice President</i>
William T. Marx . . . . .	<i>Senior Vice President</i>
James F. Lillis . . . . .	<i>Vice President and Comptroller</i>
Harry G. Beggs . . . . .	<i>Vice President</i>
Henri G. Busignies . . . . .	<i>Vice President</i>
John G. Copelin . . . . .	<i>Vice President</i>
Alfred di Scipio . . . . .	<i>Vice President</i>
Frederick R. Furth . . . . .	<i>Vice President</i>
M. Richard Mitchell . . . . .	<i>Vice President</i>
John T. Naylor . . . . .	<i>Vice President</i>
Edward D. Phinney . . . . .	<i>Vice President</i>
Louis T. Rader . . . . .	<i>Vice President</i>
Henry H. Scudder . . . . .	<i>Vice President</i>
Ward B. Stevenson . . . . .	<i>Vice President</i>
Ellery W. Stone . . . . .	<i>Vice President</i>
Ted B. Westfall . . . . .	<i>Vice President</i>
Edward J. Whalen . . . . .	<i>Secretary</i>
Paul F. Swantee . . . . .	<i>Treasurer</i>

**Transfer Agents for Capital Stock**

Office of the Corporation, 67 Broad Street, New York 4  
Continental Illinois National Bank and Trust Company of  
Chicago, Chicago 90

**Registrars for Capital Stock**

First National City Trust Company, New York 15  
Harris Trust and Savings Bank, Chicago 90

**Trustee for 3% Sinking Fund Debentures**

The First National City Bank of New York, New York 15

**Trustee for 4% Convertible Subordinated Debentures**

First National City Trust Company, New York 15

**Registrar for 3% Sinking Fund Debentures**

The Morgan Guaranty Trust Company of New York,  
New York 15

**Registrar for 4% Convertible Subordinated Debentures**

First National City Trust Company, New York 15

**General Offices**

67 Broad Street, New York 4

# Highlights

	<u>1960</u>	<u>1959*</u>
Sales —		
United States	\$ 328,946,386	\$ 307,686,546
Foreign	437,822,420	397,870,721
Total sales	<u>766,768,806</u>	<u>705,557,267</u>
Telephone and Radio Operating Revenues	<u>44,679,901</u>	<u>36,202,414</u>
Total sales and revenues	<u>\$ 811,448,707</u>	<u>\$ 741,759,681</u>
Net Income (Excluding Special Item below)	\$ 30,569,938	\$ 27,529,574
Per Average Share	\$1.96	\$1.80
Special Item — Net Profit on Sale of Investments	\$ 7,902,032	—
Per Average Share	\$ .51	—
Dividends per Share	\$1.00	\$1.00
Average Shares Outstanding during Year	15,580,226	15,287,468
Net Current Assets (Working Capital)	\$ 269,324,247	\$ 231,238,209
Ratio of Current Assets to Current Liabilities	2.0 to 1	2.0 to 1
Plant, Property and Equipment, less Reserves	\$ 288,461,409	\$ 258,272,889
Orders on Hand —		
United States	\$ 181,000,000	\$ 213,000,000
Foreign	442,000,000	336,000,000
Total	<u>\$ 623,000,000</u>	<u>\$ 549,000,000</u>
Telephones in Service	430,391	402,991
Backlog Telephone Demand	244,871	228,892
Number of Employees	132,000	125,000
Number of Stockholders	87,818	88,230

\* 1959 restated to exclude Cuban operations in conformity with 1960.

## President's Summary

**THE EXPANDING STRENGTH** of ITT as one of the world's major growth companies is shown by its record for 1960.

New highs were reached in sales and revenues and net income, and important steps were taken toward the Company's goal of broadening its marketing activities throughout the worldwide ITT System.

To approach this goal successfully, we have effected a sharp turn-around in corporate direction—from the holding-company concept of management to that of a dynamic, commercially oriented business. We have organized our management, manufacturing, and research and engineering resources into a practical, System-wide program for competing more effectively in the world's market places.

At the same time, while we have been building for future improvement, we have been equally concerned with our year-by-year growth. I, personally, feel as important an obligation to our near-term earnings as I do to the attainment of our long-term goals, and the performance of one insures the other.

Since this 1960 Annual Report is our first accounting to you of how we have been getting on with this job since taking it in hand a year ago, I will summarize here the highlights of the progress we have made.

**ITT AND ITS SUBSIDIARIES** consolidated had sales and revenues of \$811 million for the year, a gain of 9 per cent over 1959 and the highest in our history. Included in this total are the revenues from our operating companies (excluding Cuba), which rose from approximately \$36 million to \$45 million, a gain of almost 25 per cent over 1959.

Total consolidated net income in 1960 was \$30.6 million—an increase of 11 per cent over 1959 and equivalent to \$1.96 per share.

This figure does not include Cuban operations, which contributed approximately 10¢ per share in 1959 and which were completely deconsolidated in 1960; neither does it include a special net credit to income principally from the sale of our stock in the L. M. Ericsson Telephone Company in May, at a price of approximately \$22 million, which after applicable taxes, resulted in a capital gain of \$9 million. Partially offsetting this was a \$1.1 million net loss from the liquidation of our unprofitable radio tube operation in England. This

\$7.9 million net special credit to income, reported separately in the financial statements, amounted to 51¢ per share.

The Ericsson sale was part of your new management's policy to review for alternative uses all of our holding-company type of investments, such as this, in which we have no opportunity to participate in management and which do not contribute to ITT System growth.

In addition, we disposed of a portion of our holdings in Nippon Electric Company in early 1961, which reduced our holdings to a working ownership of 15 per cent. The net results of this transaction will be reported in next year's Annual Report.

**DURING THE YEAR** we completed organization of new area management staffs for our three broad operational areas outside the United States—Europe, Middle East, Africa; Latin America; and Far East and Pacific. Our companies in these three areas, together with those of our two domestic areas—U. S. Defense and U. S. Commercial—finished a projection of marketing and business plans extending through 1965. These plans now constitute the basis for orderly development of each area's business, product line by product line, and collectively they form an over-all, System-wide business expansion program.

The initial result of this new operation has been the emergence of a coordinated sense of System purpose and a cross-fertilization of products, techniques, and responsibility for manufacture and sales, from one area to another. This increased activity has generated a momentum of change that is a vital factor in the Company's efforts to achieve its new, higher standards and objectives.

**MANY OF OUR SYSTEM COMPANIES** have products possessing worldwide, or Common Market-wide, or export potentialities. These have not been sufficiently developed in the past.

Our progress has been encouraging. Our European orders on hand at year-end in 1960 rose 25 per cent over the 1959 figure. Rapid expansion of this activity continues and it should show even better results in 1961.

**A PROGRAM OF PRODUCT REALIGNMENT** and earnings recovery brought our domestic commercial business over to the profit side of the ledger for the first time in years and established a trend for increased expansion and improved earnings in 1961 and future years.

Contributing to this performance were the swing of our ITT Kellogg division into a profit position, improved performance by our other domestic divisions, and extensive management strengthening throughout. Our Components Division was strengthened in January by an agreement between the Corporation and Texas Instruments Incorporated for the exchange of non-exclusive patent licenses and technical information on semiconductor devices and components.

Also in 1961 we made arrangements for acquiring Jennings Radio Manufacturing Corporation of San Jose, California. Jennings is the world's leading manufacturer of high-power vacuum capacitors and switches, and its acquisition will open to us a new field for development in this country and abroad.

We entered the rapidly unfolding field of peacetime space work with the National Aeronautics and Space Administration, and we continued our greater participation with the U. S. military in their missile work.

We also continued during the year as a major supplier of military electronics to our government, with sales increasing approximately \$35 million.

**WE INCREASED EARNINGS** as well as revenues from our telephone and radio operating companies in Latin America and the Caribbean, and we invested \$25 million in expansion and improvement over and above reinvestment of depreciation.

We took another major step forward in our business expansion program by organizing our research and engineering efforts for the development of specific product lines to meet requirements of new market opportunities in our special fields of telecommunication and electronics. Since these are not only the fastest-growing fields in modern technology but also those in which our activities are centered, they represent special growth opportunities for the Corporation.

**A BASIC FACTOR** in our new program has been the reorganization of our management, which in turn has called for the assignment of new or current personnel to key posts. Most of these changes were made in 1959. Subsequent appointments include, in 1960: Ward B. Stevenson as Vice President - Public Relations, formerly President of General Public Relations, Inc., a subsidiary of Benton & Bowles, and prior to this Director of Public Relations at The Pillsbury Company; Ted Westfall as Vice President and Area General Manager - Latin



America, formerly Executive Vice President of the Grace Line, Inc.; and Edward J. Whalen as Secretary of the Corporation, formerly Director of Contract Administration for ITT Laboratories and ITT Communication Systems, Inc. Early in 1961 Marc A. de Ferranti, formerly with the International Group of General Electric and prior to that General Manager of a GE department, was appointed President of ITT Europe, Inc., and European Area General Manager.

I would like to call your attention to the section of this Report following, in which we present a gallery of informal portraits of 16 of our European Managing Directors. Later Annual Reports will present managers in our other areas of operation throughout the world.

Our progress in 1960 would not have been possible without the efforts of the men and women of the ITT System and its suppliers. I take this opportunity to express my appreciation to them for their contribution to our achievements during the year.

For the Board of Directors

President

March 8, 1961

## They Manage the ITT Stronghold in Europe

*Pictured here are 16 of the men who direct our European operations, which are contributing significantly to the growing strength of the ITT System. Our European orders on hand at year's end rose 25 per cent over 1959.*



**HERMANN ABTMEYER**  
*Standard Elektrik Lorenz AG*  
*Stuttgart, Germany*

Mr. Abtmeyer is President of his company and has been associated with ITT since 1928. He is Chairman of the Central Association of the Electrotechnical Industry in Württemberg, and holds the Grand Cross for distinguished service.



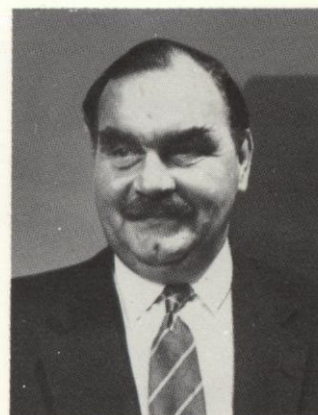
**AMUND BRAATEN**  
*Standard Telefon og*  
*Kabelfabrik A/S*  
*Oslo, Norway*

A member of the ITT family since 1929, Mr. Braaten became Managing Director in 1953. He is Vice President of the Norwegian National Committee of the International Electrotechnical Commission.



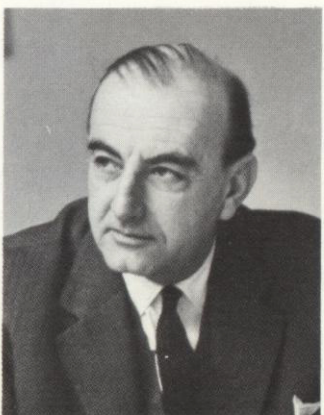
**EINAR CHRISTENSEN**  
*Standard Electric A/S*  
*Copenhagen, Denmark*

Mr. Christensen has been with the ITT System for 38 years and became Managing Director of his company in 1957. He is a Knight of the Order of Dannebrog, and a member of the board of the Federation of Danish Industries.



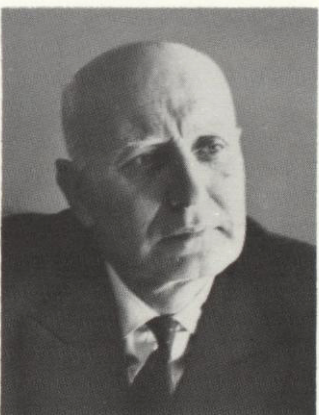
**F. CLAUDE DAUBNEY**  
*Creed & Company Limited*  
*Croydon, England*

Group Captain Daubney is a Commander of the Order of the British Empire. He was appointed Managing Director of Creed & Company Limited in 1957. Prior to that time he served three years as General Manager.



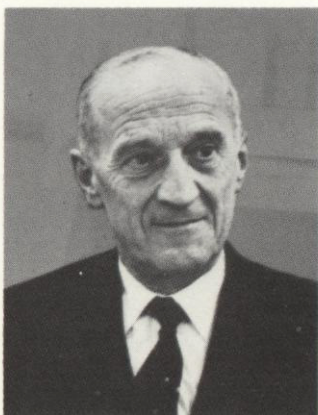
**FRITZ W. MAYER**  
*Standard Telephon*  
*und Telegraphen AG*  
*Czeija, Nissl & Co.*  
*Vienna, Austria*

Mr. Mayer was named General Manager in 1960. He is on the boards of the Federation of Austrian Industrialists and the Association of the Austrian Electrical Industry.



**MANUEL MARQUEZ MIRA**  
*Standard Eléctrica, S. A.*  
*Madrid, Spain*

With his company for 32 years, Mr. Márquez Mira became Executive Vice President and Managing Director in 1957. He is President of the Association of Telecommunications Engineers, and was a member of Parliament in 1959.



**PAUL QUEFFELEANT**  
*Compagnie Générale de*  
*Constructions Téléphoniques*  
*Paris, France*

Mr. Queffeleant was named General Manager of his company in 1960. He has been with ITT for 33 years. He is a past President of the Engineer Association of France and a Chevalier of the Legion of Honor.



**GUY RABUTEAU**  
*Le Matériel Téléphonique*  
*Paris, France*

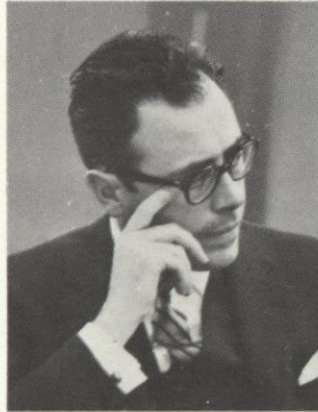
Mr. Rabuteau has been Managing Director of Le Matériel Téléphonique since 1950 and a member of the ITT family for 31 years. He is an Officer of the Legion of Honor and a past President of the French Institute of Radio Engineers.





**E. MAURICE DELORAINE**  
*Technical Director, ITT Europe  
Brussels, Belgium*

Dr. Deloraine, with the ITT System since 1925, is also President of two of our French companies. He is an Officer of the Legion of Honor, an elected member of the Institution of Electrical Engineers, and a Fellow of the IRE and of the AIEE.



**ANTONIO A. de CARVALHO FERNANDES**  
*Standard Eléctrica, S.A.R.L.  
Lisbon, Portugal*

Mr. de Carvalho Fernandes joined his company in 1944 as an electrical engineer. He became Managing Director in 1957. He is also Professor of Applied Electronics at the Technical University of Lisbon.



**FRANK ADOLF HAMMAR**  
*Standard Radio & Telefon AB  
Stockholm, Sweden*

Mr. Hammar joined the ITT System in 1939 and was named Managing Director in 1952. He is a Member of the Board of Directors of the Swedish Association of Radio Industries, and Knight of the Vasa Order.



**PAUL HARTMANN**  
*Standard Téléphone  
et Radio S. A.  
Zurich, Switzerland*

Mr. Hartmann became Managing Director in 1957, culminating 20 years of service as Radio Engineer, Chief Transmission Engineer, and Technical Director. He is a member of the Swiss Electrotechnical Society.



**CARLO RODA**  
*Fabbrica Apparecchiature  
per Comunicazioni  
Elettriche Std. S.p.A.  
Milan, Italy*

Dr. Roda was named Managing Director in 1959. He holds a doctorate in Electrotechnical Engineering and is a Commander of the Order of Merit of the Italian Republic.



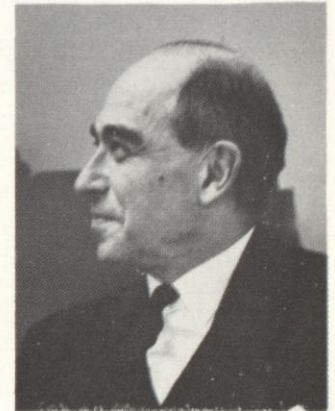
**JAN SCHOO**  
*Nederlandsche Standard  
Electric Maatschappij, N. V.  
The Hague, Netherlands*

Mr. Schoo has been General Manager of his company since 1945. Prior to this time he was associated with The Commercial Cable Company for 25 years, having joined that organization in 1920.



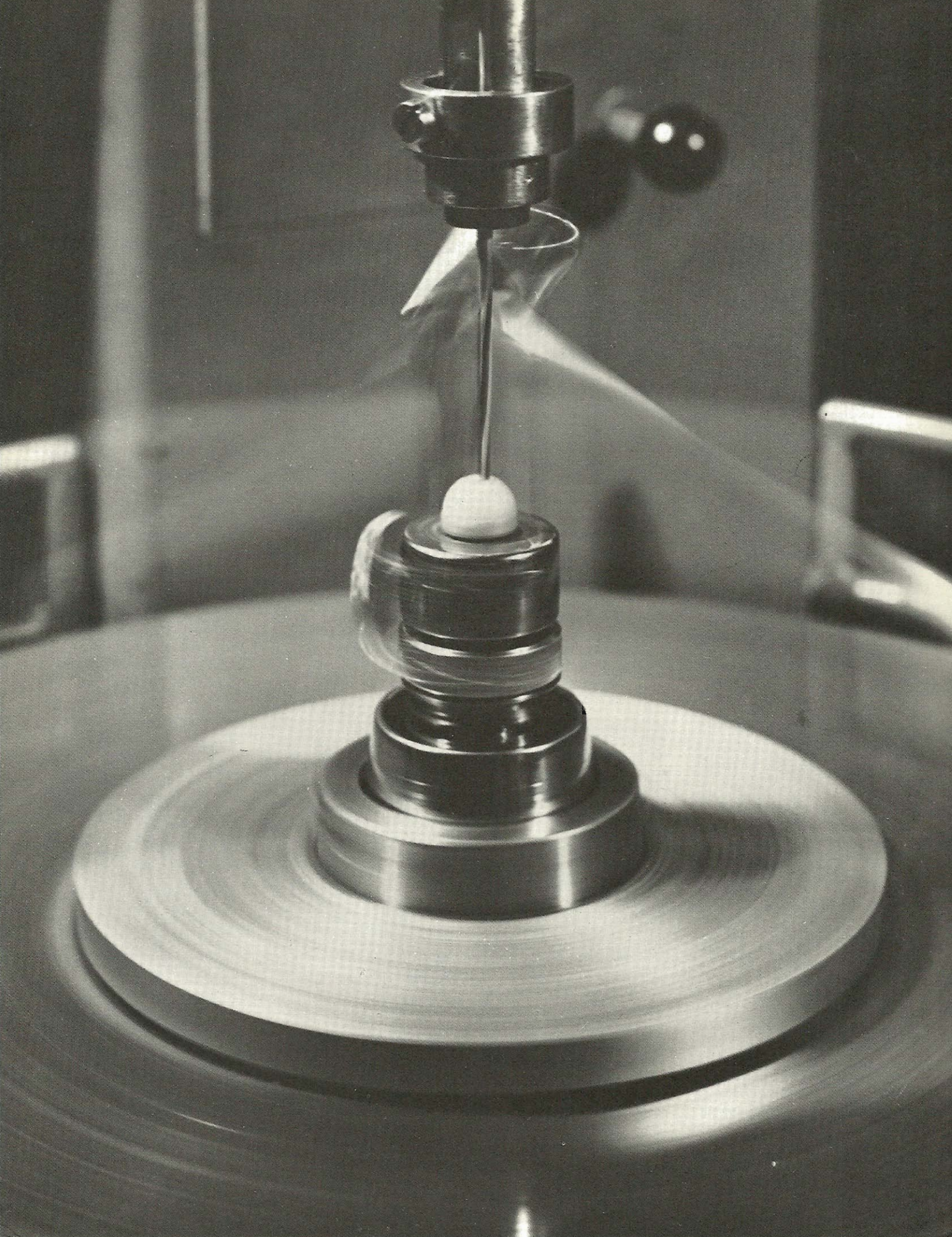
**CORNEILLE VAN ROOY**  
*Bell Telephone  
Manufacturing Company  
Antwerp, Belgium*

Mr. Van Rooy has been with the ITT family since 1925 and has been Managing Director of his company since 1957. He is President of the Institute of Technology of the Royal Association of Flemish Engineers.



**FRANK C. WRIGHT**  
*Standard Telephones  
and Cables Limited  
London, England*

Mr. Wright joined Standard Telephones and Cables in 1925 and became Managing Director in 1958, after serving as Assistant Director. He is a Fellow of the City and Guilds Institute of London University.



*Efficient production and competitive prices for ITT cable and wire products reflect our widespread use of modern machinery such as this high-speed tape-winder for cable cores in our German company, Standard Elektrik Lorenz.*

## **ITT 1960**

The following pages report our principal 1960 accomplishments by product line. This is significant because it is the way ITT's business is now organized, System-wide. Our business plans, financial reporting, and even most of our research and development have been geared to the distinct characteristics of the products we make. We therefore present this year's Annual Report to you on the same basis.

It was a good year, with a solid record of achievement. But the progress we have made is only the beginning of the long task your Corporation has set out to accomplish.

The year showed the short-term results the President stressed in his summary when he spoke of "an obligation to our near-term earnings" as being no less important than "the attainment of our long-term goal."

Many of the steps we took during the year, however, were essential to continuing expansion. They were based on what the President described as a "System-wide business development program" stemming from a "cross-fertilization of products and techniques." They were conducted on a coordinated basis throughout the worldwide ITT System. They included the reshaping of our sales strategy, the development of new production techniques, the modernization and expansion of our productive capacity, and the development of new product lines — all aimed at broadening our commercial products, expanding our sales, and increasing our earnings.

Results of these efforts have now begun to emerge. Penetrations of new areas in our fundamental fields of telecommunication and electronics resulted from steps taken in 1960. These gains foreshadow still greater penetrations of our traditional markets in the United States and abroad, as well as of the growing markets in underdeveloped areas throughout the world. Meanwhile, new products added this year for industrial and consumer markets, whether by development within the System or by acquisition, indicate growth that should begin to show results in future years.

### **Telecommunication Equipment and Systems**

Your Corporation's strong position in the worldwide marketing, research, and production of telecommunication equipment and systems was notably improved in 1960.

The Pentaconta crossbar telephone switching system, developed by our Compagnie Générale de Constructions Téléphoniques (CGCT) in France, has achieved remarkable acceptance since its introduction in 1954. Over 600,000

lines of this equipment have been installed or are on order in 36 countries.

In 1960, Pentaconta was made one of our two standard telephone switching systems for export. We are standardizing its production throughout the System. We anticipate substantial savings from cost reductions achieved in this way.

The first Pentaconta automatic long-distance

exchange to incorporate four-wire switching, a large number of automatic fault-detector recording facilities, and a device for continuous checking of actual traffic went into service in Spain last June. Other notable Pentaconta installations were completed in 1960 in Argentina, Australia, Chile, France, Italy, and New Zealand.

Emphasis on Pentaconta supplemented but did not supplant the continuing sale and installation of other established ITT types of telephone switching equipment. Our company in The Hague is at work on an order from the Netherlands administration for 119,000 lines of our 7E Rotary system, and also installed a demonstration model of the same system at the Technical University of Delft. Our companies elsewhere throughout Europe continued to manufacture, market, and install the various types of switching equipment favored by their respective government administrations and other customers.

A cooperative effort by our Far Eastern and European areas resulted in a significant penetration of the Indonesian market for telephone switching equipment, with the signing of a contract for installation of several thousand lines to be produced by our Standard Elektrik Lorenz in Germany.

More than 1,000 Pentaconta line-concentrators were built in 1960 by Le Matériel Téléphonique, another of our French companies, for the French administration and the export market. Providing great economy in use of cables, the concentrators are particularly valuable in areas where the number of cables is insufficient to satisfy growing demands for service.

In the United States, ITT Kellogg is introducing a telephone-answering device with high sales potential, and is developing a fully electronic 100-line private automatic telephone exchange that will supply the increasing do-

mestic market for compact installations.

In December 1960 our Bell Telephone Manufacturing Company (BTM), Antwerp, extended the new Brussels international long-distance telephone center to provide direct subscriber dial service from Brussels to the Netherlands and, in February 1961, to Germany and Switzerland. Early in May 1961 the whole of Belgium will have direct dial telephone access to those three countries.

BTM also cut over the Brussels automatic telex (telegraph exchange) center in February 1961. With projected expansion the new exchange will be the largest as well as the most modern on the Continent.

Both of the above centers contain equipment permitting automatic billing of subscriber calls—equipment that BTM was the first in Europe and probably in the world to develop. BTM is now building a 600-line extension to the Amsterdam telex center, which will be the first where international calls within the Continent of Europe are set up on a fully automatic basis, and intercontinental calls on a semi-automatic basis. BTM's new orders for telephone equipment exceeded its 1959 total by approximately 25 per cent.

ITT System companies around the world are among the largest producers of telephone handsets. During 1960, new models were introduced in Belgium, Germany, and the United States.

We rank second in the world in production of teleprinters, with companies in England and Germany manufacturing this equipment for domestic and export sale. In 1960, our Creed & Company Limited, Croydon, equipped with its Model 75 teleprinters the message center of the world's largest inter-island aeronautical radio communication network, at Seawall Airport on the B. W. I. island of Barbados.

Our companies in France and England col-

laborated to build the first permanent combined telephone and television super-high-frequency microwave radio link to span the English Channel. This and the first link of a 490-mile Swedish telecommunication network between Sundevall and Boden were put in operation early in 1960. Our Italian company manufactured and installed the single-sideband radio equipment on the great liner **Leonardo da Vinci**, which made her maiden voyage on June 30. Our company in the Transvaal installed the first broadband microwave system in South Africa during 1960. Also in Africa, one of our British companies supplied the complete amplifying and simultaneous interpretation system for the Legislative Assembly of the newly independent Federation of Nigeria.

A dramatic illustration of the importance of our manufacturing facilities to far-off lands occurred when the Chilean earthquake devastated a third of the country in May 1960. During the crisis our Compañía Standard Electric, S.A.C., Santiago, furnished the Ministry of the Interior with a very-high-frequency radio link that became the means of establishing communication with a flooded area near Valdivia. Our company also lent two transmitters to the Post Office and arranged shipment of vital replacement parts in order to maintain Chile's communication system. In spite of difficulties caused by the disaster, our Chilean manufacturing company's total sales increased by 21 per cent over 1959.

## **Industrial/Commercial**

Our basic communication skills underlie ITT's ability to design and make systems and equipment for the industrial/commercial market. In Europe, our activities in this field have long been a source of marketing strength. In the United States, they are the focus of an inten-

sive expansion effort by all our units.

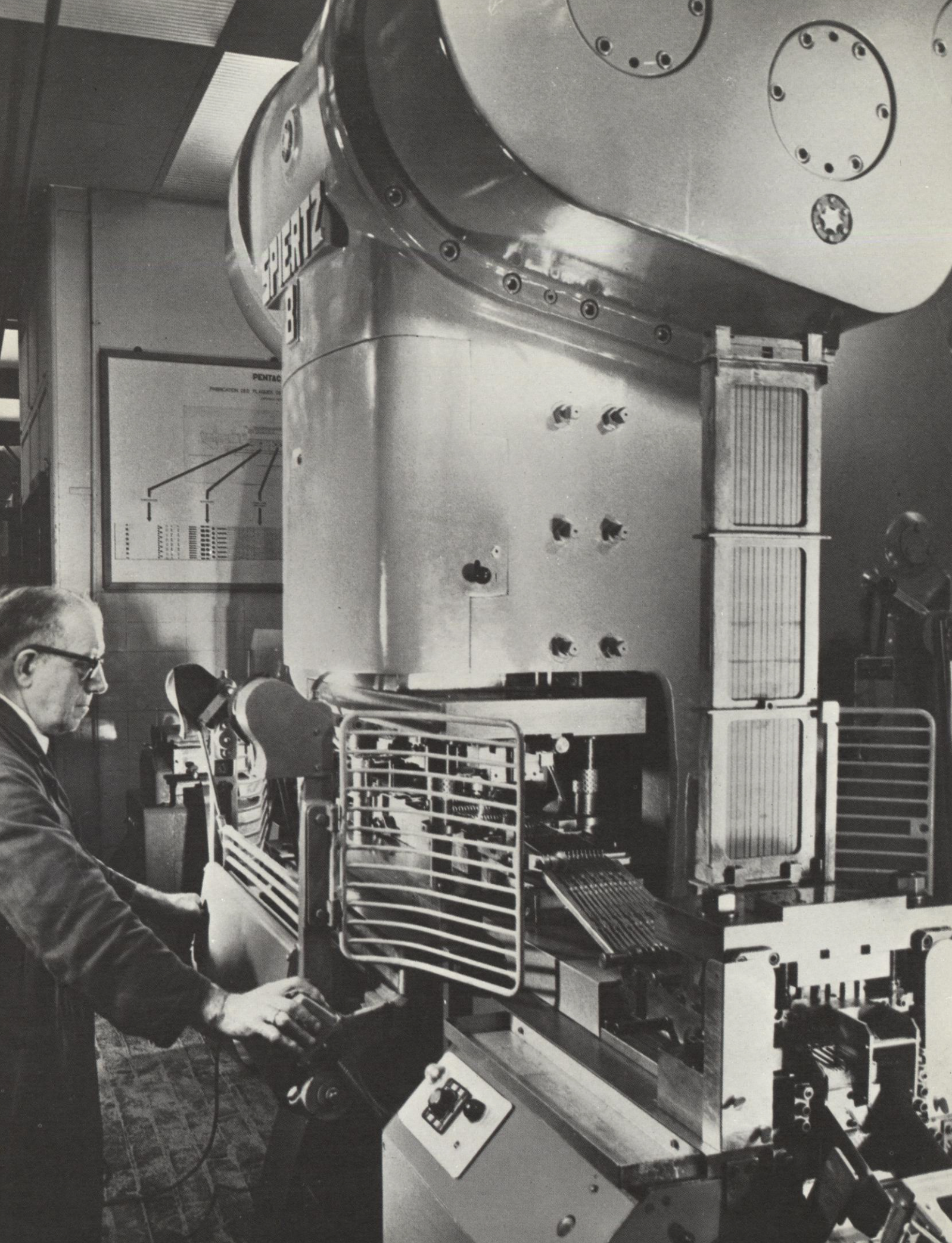
Our ITT Federal Laboratories (ITTFLL) has improved its position as a leading producer of electronic air-navigation equipment. Production continued on a \$30 million program with the U. S. Federal Aviation Agency for ground transmitters, antennas, and control systems to implement the FAA's new coast-to-coast Vortac network for civil and military aircraft. For civil aircraft we also produced distance-measuring equipment.

Our Brazilian subsidiary Standard Eléctrica, S. A., obtained a contract from the Air Ministry for the supply and installation of 25 complete VOR units. This contract is the largest ever awarded in South America and its completion will add substantially to the safety of air traffic across and within Brazil.

"Business systems" — automatic equipment that speeds repetitive clerical tasks — can be considered in one sense as an extension of communications competence. Two such systems were introduced in 1960.

First, our Creed & Company Limited, Croydon, developed and installed DORIS (Direct Order Recording and Invoicing System) for a major petroleum firm. DORIS is the world's first push-button office machine for the processing of orders and related paperwork that relies entirely on electromechanical action and, consequently, can be produced at exceedingly low cost.

Second, two of our other companies joined forces across the Atlantic to install an electronic and automatic check and document handling system for Arizona's largest bank, Valley National Bank of Phoenix. Our Belgian company is supplying the equipment and ITT Intellex Systems Division is installing it. Five machines were delivered to the bank during 1960 and 37 more are scheduled for delivery early in 1961.



*Dependability and economy of Pentaconta switching equipment is largely achieved by ultramodern machines such as this, for making multiswitch spring assemblies at Compagnie Générale de Constructions Téléphoniques in France.*

The world's largest airline, Air France, has contracted with one of our French companies, which will be supported by our German company, for the development of a completely automated worldwide seat reservation system, believed to be larger and more comprehensive than any similar system yet announced. The new system operates on a truly centralized basis, keeping track of all seat bookings for many thousands of flights by means of a set of digital computers at the central control office in Paris. It also makes use of a greater number of data-transmission channels than have previously been assembled into one system.

The system is ingeniously designed so that most of the inquiries and answers are automatically sandwiched into the teleprinter traffic on the airline's regular channels. Thus, Air France will be obliged to rent only a few channels besides those it now uses for normal teleprinter traffic. When a customer at an outlying Air France office, such as Rome, makes an inquiry concerning a flight between two points served by the line, the existing teleprinter circuits between the Rome office and central headquarters in Paris are momentarily seized to pass the inquiry to the central computers and return the answer at high speed. Within a few seconds the circuits are back to normal, and the teleprinters have resumed the printing of their briefly interrupted message. The agent in Rome, however, is now able to give the customer a firm booking on the spot—a factor of great value in the highly competitive airline business.

Creed & Company Limited has designed a new reperforator punch believed to be the fastest available. This punch receives messages at very high speed from a computer or from a high-speed data-transmission system and records it in the form of punched tape, which can later be played back, as required, by a number of teleprinters operating at lower

speeds. It is capable of punching 300 characters a second, a rate that corresponds roughly to 3,000 words a minute.

A source of traditional ITT marketing strength—long-distance control of railways, power plants, and distribution of electricity—was highlighted in 1960 by the opening of the great Kariba hydroelectric project in Rhodesia. The control center of this power plant, equipped by our Standard Telephones and Cables Limited, London, houses some of the most comprehensive control and communication equipment anywhere.

One of our Canadian companies, IT&T Electronics Service Company of Canada Ltd., has taken steps to expand the calibration facilities of both its mobile and in-plant standards laboratories to serve the commercial field.

In the United States, acquisition by our Industrial Products Division of the electromagnetic vibration equipment business of the L. C. Miller Company of Los Angeles has enabled us to begin production and marketing of shaker and calibration systems for the testing of electronic equipment and components.

## **Military/Space**

We integrated our military engineering and manufacturing operations in the United States in 1960 by joining ITT Laboratories to ITT Federal to form a single division known as ITT Federal Laboratories (ITTFL). As a result we are providing a more cohesive engineering and production establishment geared to the increasingly complex military needs of the U. S. Government.

Among the first programs to draw upon the integrated talents of this new division was the

multimillion-dollar Project 465L. This is the U. S. Air Force Strategic Air Command's world-wide control system that will increase the speed and accuracy of the military decisions essential to the planning, execution, and positive control of America's airborne strategic force. Our International Electric Corporation, system manager for 465L, completed the project's intricate test facility in 1960, assembling under one roof a system that automates for the first time functions required by SAC for instantaneous command and control.

Another of our companies, ITT Communication Systems, Inc., made rapid progress during the year in development, design, and planning for a related long-range program known as 480L, to expand and modernize the U. S. Air Force global communication system, AIRCOM.

ITTFL is building improved airborne Tacan navigation sets designed to meet the requirements of high-speed jet aircraft, as well as a Tacan ground beacon of reduced size for mobile use.

ITT produces the elaborate mechanisms that control missiles on take-off and re-entry, and guide them in flight. We made long strides in 1960 on a number of major missile-guidance and satellite contracts at military bases throughout the United States. ITTFL received several new contracts for the development of proximity and contact fuzes for various missile programs including Terrier and Sparrow, and for the airborne electronic radio control equipment for Lacrosse. By year's end, ITT Kellogg was providing complete ground-support communication systems at 11 Atlas missile bases, with negotiations in progress for supplying similar equipment to the remaining Atlas intersites in continental United States.

Kellogg also continued to provide complete ground-support communication for all missile and space programs at Vandenberg Air Force

Base in California. Further ITT space-age work took place during the year at Edwards Air Force Base in the same State, where we completed a new device for data-testing of rocket engines designed for manned and unmanned space vehicles of the future.

ITTFL completed in 1960 its contract with the U. S. Air Force for the instrumentation of the Eglin Gulf Test Range, a missile-testing complex rimming the Gulf coast of Florida. Our Federal Electric Corporation's prime contract to operate and maintain the Pacific Missile Range's electronic instrumentation and communication facilities was renewed in 1960 for a three-year period. Other major FEC defense projects included wire communication studies at 18 Air Force bases, and installation of 18 ground-to-air transmitters for the Air Force Bomarc and SAGE systems.

ITT's greater participation in missile/space business during 1960 is further exemplified by entry into the missile-base activation program and into peacetime space work for the U. S. National Aeronautics and Space Administration. Our FEC has been awarded the contract for the complete activation of an Air Force Titan missile base at Larson Air Force Base in the State of Washington. It is doing field engineering work for NASA at the Atlantic Missile Range, as well as feasibility studies for NASA's Command Center at Anacostia, Maryland.

NASA contracted with Kellogg during the year for the development and manufacture of a homing receiver that is expected to be used in locating the first astronaut as he returns to earth. Our Industrial Products Division was chosen to develop and build the power system for NASA's Ranger satellite.

We also intensified our service activities for the military during 1960: FEC extended its operation and maintenance of North America's warning sentinels, the radar stations of the



DEW Line, to the new Greenland section known as DEW East. The new sites will be manned almost wholly by Danish technicians. A second FEC contract, covering Project DEW Drop, provides for operation, maintenance, and supply of the radio communication system in the relay center at Thule Air Force Base, Greenland, and at a station remote from that base.

New microwave communication projects, both line-of-sight and tropo-scatter (over-the-horizon), spearheaded much of our 1960 defense activity.

An ITTFL contract in the Pacific area calls for construction of what may be the world's longest tropo-scatter microwave link — some 500 miles — for the U. S. Army Signal Supply Agency. A shorter system is being built to link Army installations in New York City with posts in the Catskill Mountains near West Point, while an experimental 165-mile system, also in New York State, will be used to investigate a new method of obtaining clearer reception through "angle diversity," the simultaneous employment of several transmitting and receiving paths.

Our continuing research in submarine communication was marked by ITTFL's completion of a prototype very-low-frequency antenna system for the U. S. Navy's Polaris fleet during the year. The system is now in operation on the submarines **George Washington**, **Patrick Henry**, and **Theodore Roosevelt**, and was used by the radar picket submarine **Triton** on its 1960 underwater circumnavigation of the globe. Our engineers are currently developing special techniques for the detection, location, and identification of submerged submarines.

Other military/space achievements in 1960 included:

(1) the complete ground communication and control equipment, developed in cooperation with the U. S. Army Signal Corps, for the

Courier "talking satellite" launched on October 4 — a possible forerunner of teleprinter and live television service on a worldwide scale;

(2) an advanced satellite-tracking station for use in a worldwide doppler navigation system;

(3) a supersensitive multiple-television device known as "Facet Eye," operating like the compound eye of a giant insect scanning outer space for astronomical information;

(4) the first all-electronic-scan star tracker, a new instrument incorporating an ITT multiplier phototube that eliminates the disturbing forces normally associated with mechanical scanning devices. An ITT star tracker of this type is to be installed early in 1961 for use along the Atlantic Missile Range.

Outstanding among ITT's coordinated communication efforts for the military is our role in NATO's Project ACE HIGH, which extends 8,450 miles from Norway to Turkey with a spur to the British Isles. Ten ITT producing companies and one engineering-management company participate in ACE HIGH, bringing together our capabilities in Belgium, Denmark, England, France, Germany, Italy, Norway, Turkey, and the United States. Progress in 1960 included constructing and equipping new tropo-scatter sites in England, Greece, Italy, and Turkey.

ITT companies outside the United States supplied communication and electronic equipment of various types to the armed forces of our allies in the free world during the year, in addition to their collaboration on the ACE HIGH project.

IT&T Electronics Service Company of Canada Ltd. became a major contributor of technicians to the Royal Canadian Air Force calibration program during the year, while continuing to provide depot-level maintenance and calibration of test equipment for Canadian sectors of



*Consumer electronic products of ITT System companies employ miniature components of our own design and manufacture. Shown here, the Schaub Lorenz transistorized, detachable, portable car radio, so popular in Germany.*

the DEW Line. The company was also awarded a contract by the National Research Council of Canada to operate and maintain a new satellite-tracking facility near St. John's, Newfoundland—the first to be established in Canada.

Our Standard Telephones and Cables Limited, London, equipped the British aircraft carrier **HMS Hermes** with a commutated-antenna direction finder, the company's wide-aperture system of very great accuracy and freedom from site error. Our Standard Telephones and Cables Pty. Limited, Sydney, completed a mobile very-high-frequency ground-to-air communication system for the Royal Australian Air Force. The system is completely housed within four shelters that are transportable by motor vehicles or aircraft and serve as transmitter and receiver huts. Our manufacturing company in Buenos Aires completed delivery to the Argentine Army of nearly 300 communication receivers.

## Consumer Products

One of the least known sections of your Corporation's business is the consumer products of several of our companies in Europe, Latin America, and Australia.

In Germany, Standard Elektrik Lorenz manufactures under its Schaub Lorenz trademark a complete line of television, radio, and high-fidelity phonograph equipment and combinations, both monaural and stereophonic. This company's new transistor automobile radio, which is detachable and portable, captured over 50 per cent of the 1960 German portable radio market in its price class. The demand for this radio outruns our manufacturing capacity, notwithstanding the recent completion of a new plant in Rastatt.

In Belgium, our company has the major share of that country's market for commercial re-

frigerators and refrigerator equipment. It is a leading producer of television and radio receivers, phonographs, and radiophonograph combinations. It is steadily increasing its share of the television market with its highly ingenious receivers, designed to bring in clearly two different transmission standards—819 lines (French and Walloon) and 625 lines (European and Flemish).

In the United Kingdom, the Kolster-Brandes division of our Standard Telephones and Cables Limited enjoys a proud and long-established trade name. It produces a complete line of television, radio, and phonograph instruments, including portables and combinations, and in 1960 increased its share of the television market despite erratic market conditions, scarcity of local labor, and a rising wage level. Kolster-Brandes also produces two highly successful models of its well known hearing aid—a basic one for the Ministry of Health, and a deluxe type for the commercial market.

Television and radio sets are being exported by these factories to other European countries and also to the Middle East and Latin America. In 1960 we obtained a major share of the market in Iran.

In Argentina our subsidiary, Standard Electric Argentina, and our 50%-owned associate, Capehart Argentina, together have gained 20 per cent of the local market for consumer electronic products. In addition to a full line of television, radio, and phonograph instruments, including transistorized and portable models, we market refrigerators and other household appliances.

In Brazil, our Standard Eléctrica also produces a wide range of consumer electronic products and is a recognized leader in high-fidelity phonographs. Its record players are marketed both under its own trademark and those of other companies.

Our company in Australia, Standard Telephones and Cables Pty. Limited, produces the most complete line of consumer goods of all ITT System companies: television and radio receivers, phonographs, record players, refrigerators, air conditioners, vacuum cleaners, and floor polishers. The company maintained its share of the Australian consumer products market in 1960, notwithstanding severe competition. The recent addition of window air conditioners will strengthen STC-Sydney's position.

The marketing techniques that have been applied with such success to the sale of our consumer goods are being applied with equal success to increase the sale of telephone handsets in some countries. Advertising campaigns, direct mail, point-of-purchase displays, and attractive packaging, to say nothing of the addition of color to the sets themselves, are being used to merchandise the telephone direct to the user, with marked success.

As part of the further development of our worldwide radio and television receiver manufacturing, we are entering into an agreement with the Wells-Gardner Electronics Corporation of Chicago, whereby they will supply us with engineering and manufacturing assistance. We have acquired a stock interest of approximately 10 per cent in Wells-Gardner.

## **Cable and Wire**

With factories for the manufacture of cable and wire in Argentina, Belgium, Germany, Great Britain, Norway, Spain, and the United States, and a substantial interest in similar facilities in Australia—soon to be expanded to New Zealand—your Corporation was able in 1960 to score some notable achievements in this field.

Years of research and development on submarine cable repeaters, and the construction of new plants for their manufacture and that of submarine cable as well, again paid off handsomely for our Standard Telephones and Cables Limited (STC), London, early in 1961 when it received orders exceeding \$25 million for 2,800 nautical miles of submarine cable, 242 repeaters, and 38 equalizers for the new Vancouver-to-Sydney underwater telephone cable. The order covers one-third of the cable, three-fourths of the repeaters, and all the equalizers for the project.

Indicative of cable jobs already undertaken or currently in production by STC are: United Kingdom-Sweden, Florida-Puerto Rico, United Kingdom-Belgium, and United Kingdom-Canada. STC will have an active part in the planned linking of the British Commonwealth by telephone cable, at an estimated capital outlay of \$245 million. This and other major forthcoming projects point to a bright future for STC as one of the world's main suppliers of submarine cable systems.

A contract with the New Zealand Government, providing for the establishment of a cable factory in Christchurch by Austral Standard Cables Pty. Limited, in which ITT has a substantial interest, was made in 1960. Ground was broken in November, and the new factory will supply 90 per cent of the New Zealand Post Office requirements for telephone cable over a ten-year period.

## **Components**

Components, the basic units of electronic equipment and systems, are developed in many of our laboratories and made in most of our factories. They include capacitors of the latest types, standard and controlled silicon rectifiers, selenium rectifiers, transistors, varistors, deposited-carbon resistors, diodes,

quartz crystals, receiving and other electronic tubes, high-fidelity and radio-television components, relays, contacts, magnetic counters, and appliance controls.

The wide range of ITT components is matched by their high quality, and several of our European houses are working three shifts in order to meet demand for these products. Our agreement with Texas Instruments Incorporated, touched on in the President's Summary, has given all ITT companies access to a rich fund of designs and techniques, as well as to a valuable source of semiconductor devices and components.

Developments by our own companies in these fields are of great value. Our Standard Telephones and Cables Limited, London, has introduced a new form of planar transistor that provides substantial economies by permitting rejects to be found and culled out at an early stage.

The same company's expanded line of high-quality capacitors has found ready acceptance at home and abroad, promising major growth in the future. Capacitors of the latest types are also important to our companies in Germany, Italy, Switzerland, and the United States.

During 1960 our Components Division in the United States completed development and began pilot production of a line of dry electrolyte tantalum capacitors with ratings up to 35 volts. This line supplements the wet electrolyte tantalum line that went into production earlier in the year, and puts us into competition in a market where the available business in 1961 is expected to reach \$31 million.

The Components Division also completed development of a general-purpose metal and ceramic triode for use as an amplifier or oscillator. A complete line of "off-the-shelf" fixed-focus traveling-wave tubes for marketing

through this division is currently being engineered by our ITT Federal Laboratories (ITTFL).

The versatile parametric amplifier, recently developed at ITTFL to virtually eliminate internally generated receiver noise, proved its flexibility during 1960 through successful operation in a variety of systems. The performance of the ground-station equipment for the Army's Courier satellite project was greatly improved by the device, as was a traffic-control radar unit of the Canadian Government in a recent test.

One such parametric amplifier receiving unit is also the key to our Pacific tropo-scatter microwave span. When employed in this type of system, the parametric amplifier can be used either to increase range or reduce power requirements. Tests continue to reveal further practical uses for this device.

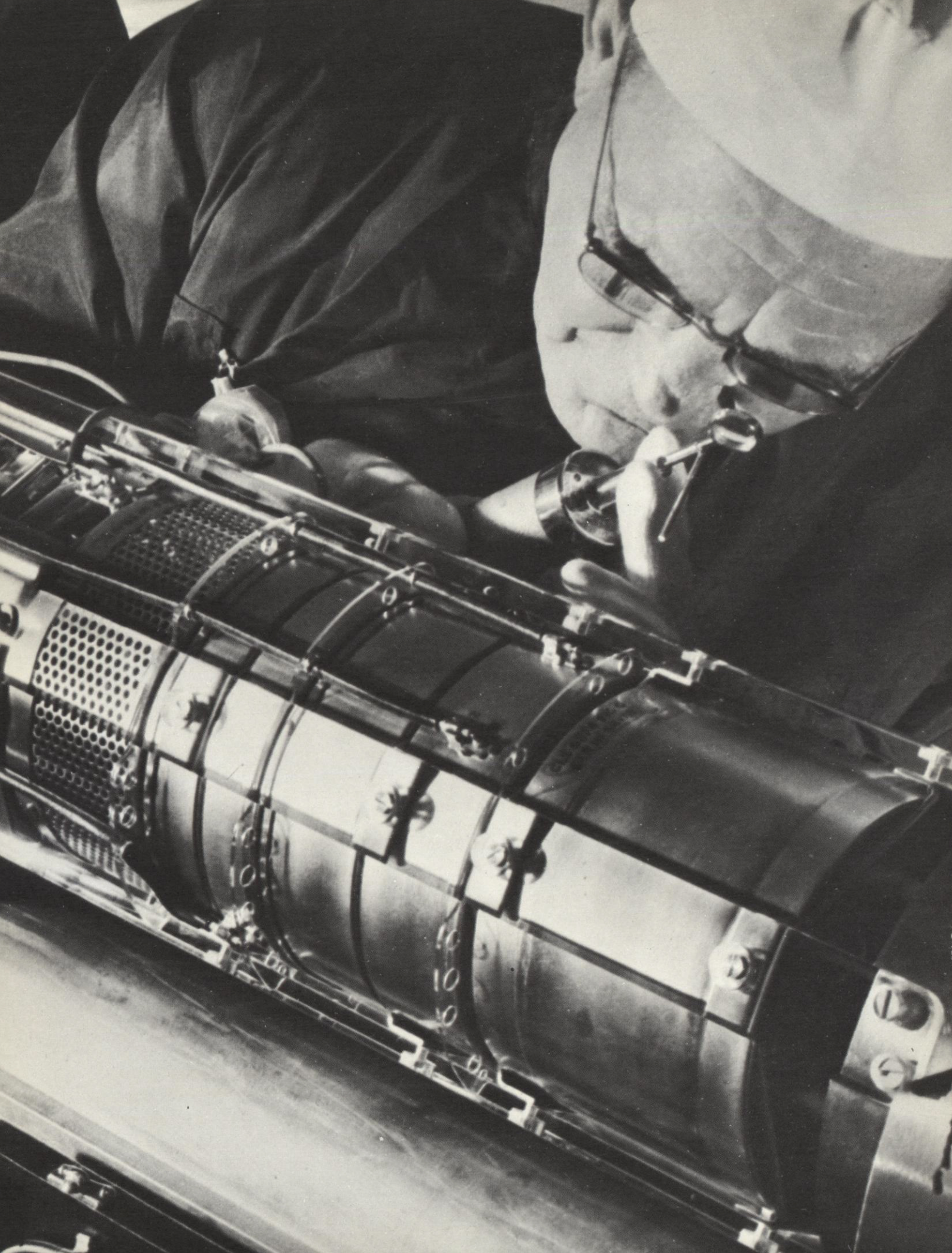
The Australian demand for power rectifier equipment has continued to grow. Despite an increasing number of companies actively engaged in manufacturing silicon rectifiers, our Australian company has been successful in securing a sizable portion of the market in the low and medium power ranges.

## **Research and Advanced Development**

Your Corporation's activities center on the two fastest-growing areas of modern technology—communication and electronics. In 1960 we geared the major part of our research and development efforts to market opportunities by seeing to it that specific engineering projects were underwritten by specific product lines.

Substantial funds are allocated to engineering within the ITT System, including more than \$40 million annually to the development of commercial products.

All of our effort is now directed from New York



*Submerged repeaters, developed and manufactured by our Standard Telephones and Cables in England to highest standards of precision and surgical cleanliness, are used to boost telephone and telegraph signals through submarine cables.*

headquarters. The aim is maximum return for each dollar invested. Many of the results obtained are recorded in other sections of this Report.

In addition to research and development in connection with specific products, and to our extensive program of advanced work for the U. S. Government, it is essential that inquiries of a yet more fundamental nature be carried on by the Corporation to maintain and improve its competitive position in the long run. Such inquiries are directed toward our most important fields of activity. In communication: electronic switching, satellite communication, data switching and processing, high-speed memories, microwave components, coherent light, waveguide transmission, low-loss cables. In electronics in general: air-traffic control and anticollision systems, sensing elements and systems, control devices, solid-state physics, semiconductors. In nuclear physics: a new investigation of nuclear fusion. Among these fields a number of projects have been here selected to illustrate the promising results that have recently been achieved.

**Air-traffic control and collision prevention.** Additional studies have been carried out to further the safety of navigation through a proper combination of anticollision and air-traffic-control capabilities. Concepts designed for convenient addition to planned navigation facilities have been worked out and are being presented to the appropriate administrations of principal countries.

**High-speed memories and fast logic-circuits.** Developments in this field permit the handling of a mass of information for communication or analysis at speeds ten to one hundred times greater than heretofore.

**Pulse-code modulation.** This fundamental ITT invention has been applied to telephone and television transmission to save cable costs between telephone exchanges. The new sys-

tem offers a tenfold increase in the number of telephone circuits possible over junction cables in towns and cities. In many cases it will also give improved transmission with a minimum of background noise. Extensive field trials on a working cable link in Madrid were undertaken during 1960 in cooperation with the National Telephone Administration of Spain. Four ITT companies are involved.

**Wave-guide transmission.** Our scientists in 1960 further developed this technique, whereby many hundreds of telephone, television, and microwave radio signals can be carried inside a single cylindrical guide a few inches in diameter. The method greatly reduces attenuation losses and should prove invaluable on dense traffic routes where the use of additional coaxial cable or radio relay links is impractical.

**Communication cable systems.** Cables and repeaters for long-haul high-capacity communication systems have been studied and new concepts investigated to decrease total cost of material and components involved, and to facilitate installation.

**Satellite communication.** Studies in this field, including intercontinental television, will now be furthered by a versatile new research facility installed by ITTFL during 1960: a powerful radiotelescope that reaches far out into space. Known as the ITT Space Communications Center, this new facility has been licensed by the Federal Communications Commission to track satellites and space probes, and to bounce signals off the moon—for propagation and component testing in anticipation of intercontinental communication by this means. This is the first allocation of radio frequencies to private industry by the U. S. Government for such a purpose.

**New techniques in communication.** Our work in high-speed data transmission and switching, facsimile, slow-scan television, industrial

television, and data and picture display, is opening new frontiers in commercial and military communication. Two of our major projects mentioned earlier (465L and 480L) involve the application of these new techniques to worldwide programs for the U. S. Air Force.

**Electronic switching.** Basic work has progressed on semiconductor control-circuits and reliable switch-points. A completely electronic private automatic exchange has been experimented with and a prototype of a pulse-amplitude-modulation system for central-office switching has been successfully tested.

**Ultraviolet communication.** A prototype model of an ITT communication system that hitches as many as 100 conversations to a beam of invisible ultraviolet light was demonstrated in 1960. Unlike earlier light-transmission systems, which were limited to low-frequency modulation and hence to a single channel, the new, portable equipment employs high-frequency modulation and can handle many messages simultaneously. It has been developed to transmit information from many sources, including teleprinters, tape readers, computers, and voice and telemetry systems.

**Three-dimensional display.** A unique three-dimensional display system with broad application to air-traffic control, missile tracking, and antisubmarine warfare was developed by ITTFL in 1960. To attain the three-dimensional effect, a translucent screen is rotated around a vertical axis at a speed that renders the screen invisible. Pinpoints of light representing aircraft, missiles, satellites, or submarines move through the display as directed by a computer. The observer is able to view the display from all sides and above. If he were in the ground control center of an airport, he could assess air traffic at a glance and make the necessary decisions.

**Controlled fusion.** Dr. Philo T. Farnsworth, our distinguished scientist who invented the

fully electronic television system now used universally, has been working for several years on a revolutionary method for harnessing the power of the nuclear fusion reaction — that of the hydrogen bomb — and applying it to the production of low-cost energy. On October 8 the first full-scale experiment to test his theory was performed. This experiment and subsequent measurements have shown high promise. Work will be expanded in 1961. This research is pushing back the frontiers of basic knowledge and could have a profound technical influence on our traditional fields of activity.

\* \* \* \* \*

These and the many other inventions of ITT engineers are protected by approximately 22,500 patents filed in 46 countries. The important ITT trademarks and designs are covered by about 2,000 filings in 76 countries.

## Telephone/Radio/Cable Operations

In August 1960 your Corporation's investments in its telephone subsidiaries in Chile, Peru, and Brazil were transferred to its 100%-owned subsidiary, ITT Sud America, for the purpose of developing broader European and Western Hemisphere financing for those companies on a self-sustaining basis. Your management is confident of the increasing soundness of investment opportunities offered by Latin America.

ITT subsidiaries provide local and long-distance telephone service within Puerto Rico, the Virgin Islands, Chile, and the States of Paraná and Rio Grande do Sul in Brazil. Local telephone service is furnished the capital city of Lima, Peru and 21 neighboring municipal districts, with long-distance service to the remainder of the country provided through interconnection with two independent companies.



Our Cuban Telephone Company, which had been under the control of a government-appointed Interventor since March 1959, was seized in August 1960, along with other American-controlled companies, under a Cuban decree of expropriation.

Other ITT subsidiaries provide international communication services in Argentina, Bolivia, Brazil, Chile, Cuba, and Puerto Rico. Radio Corporation of Cuba continues under our management, but no U. S. citizens are employed by it in Cuba. Our international radio companies in Bolivia and Brazil also provide internal communication services.

Cuban American Telephone and Telegraph Company, jointly and equally owned by ITT and American Telephone and Telegraph Company, continued to provide the submarine telephone cable routes and, through lease from Radio Corporation of Cuba, the tropo-scatter radio facilities between Cuba and the United States.

Demand for additional telephone service continued unabated throughout Latin America and the Caribbean during the past year. Not including Cuba, ITT telephones in service at the end of 1960 totaled 430,391, an increase of 27,400 for the year.

Work on all phases of Puerto Rico Telephone Company's major expansion and improvement program was aggressively carried forward during the year. Important additions were made to long-distance facilities, including new multi-channel microwave systems between San Juan and other major cities on the Island. Recognizing the importance of telephone service to Puerto Rico's growing economy, the company has advanced its expansion program wherever possible.

During 1960 our Virgin Islands Telephone Corporation more than fulfilled commitments made upon acquisition of the telephone system in 1959 for interim upgrading and extension of telephone service pending conversion to dial

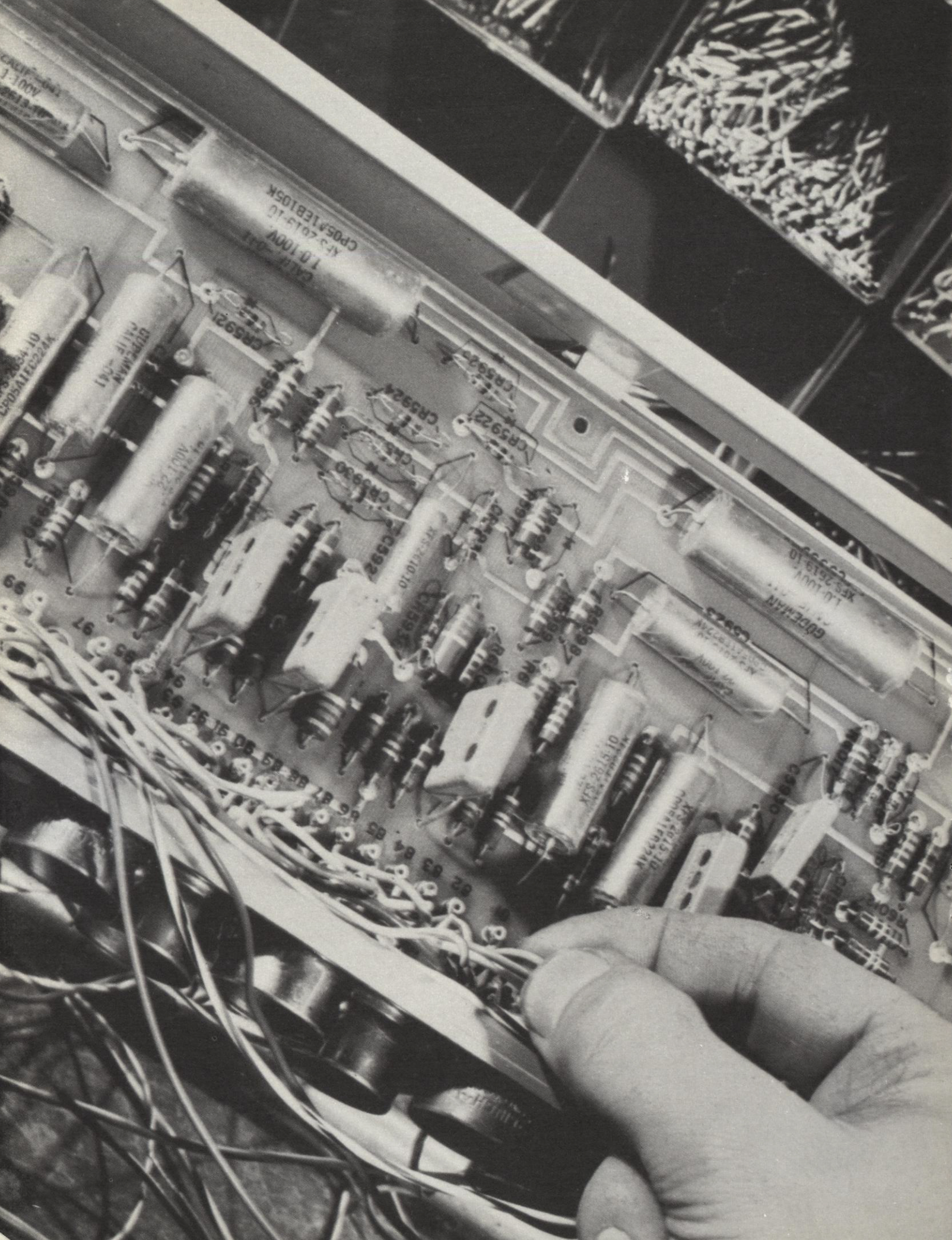
operation. Further service improvements are scheduled for 1961. Meanwhile, the program for dial conversion is proceeding on schedule. In accordance with the 1959 franchise, increased local service rates were placed in effect on November 1, 1960.

Compañía de Teléfonos de Chile continued its major expansion and improvement program, undertaken pursuant to its 1958 agreement with the Chilean Government. Capital expenditures in 1960 approximated \$11,479,000. Telephone service was maintained during the severe earthquakes in southern Chile in May 1960. The company made substantial contributions of manpower, materials, and time in relieving the afflicted regions.

In Brazil, although fundamental franchise and rate problems are under negotiation and earnings continue at an unsatisfactory level, Companhia Telefônica Nacional obtained certain increases of local and long-distance rates that helped offset increased costs.

Efforts of Compañía Peruana de Teléfonos Limitada, Lima, have been concentrated on establishing a satisfactory rate position in order that the company's program for expanding telephone service may be resumed. That program was suspended at the end of 1958 when vital provisions of the 1956 Presidential Resolution were abrogated. In August 1960, the government issued a Presidential Resolution acceptable to our subsidiary and the two other major Peruvian telephone companies, and an implementing decree was submitted to the Peruvian Congress. Enactment of appropriate legislation would of course provide a sound basis for additional investment and service expansion.

In general, the radio operating subsidiaries showed continued growth and significant improvement in earnings. In Argentina, Brazil, and Chile, additional international telex (automatic telegraph exchange) circuits were estab-



*Skilled hands of ITT workers in many lands contribute to the defense of the free world in many ways. Shown here, final assembly of radar module for intricate Nike missile trainer at ITT Federal Laboratories, Nutley, N. J.*

lished and new customers added, while telephone service also increased and volume of regular telegraph service was maintained.

In order to increase efficiency and provide for additional growth, Compañía Internacional de Radio, S. A. (Argentina) acquired a site in downtown Buenos Aires for erection in 1961 of a headquarters building in which to consolidate equipment and operations now handled from three separate rented premises.

The twin submarine telephone cables between Florida and Puerto Rico, which are jointly and equally owned by Radio Corporation of Puerto Rico and American Telephone and Telegraph Company, were inaugurated on January 26, 1960. The 1960 volume of traffic handled between Puerto Rico and the mainland increased by more than 100 per cent over 1959. New terminal equipment to be added during 1961 will substantially increase the circuit capacity of these cables.

In March 1960 our South American radio companies, in conjunction with the local telephone companies, played an important and widely recognized role in providing special communication facilities, including direct circuits to Washington, during President Eisenhower's official visits to Argentina, Brazil, and Chile.

#### **American Cable & Radio Corporation**

ITT ownership of 57 per cent of the outstanding stock of American Cable & Radio Corporation is carried as an investment on the ITT consolidated balance sheet. Accordingly, the consolidated income account reflects only the dividend received from AC&R and not ITT's equity in its net income.

The principal subsidiaries of AC&R are All America Cables and Radio, Inc., The Commercial Cable Company, Mackay Radio and Telegraph Company, and Globe Wireless Ltd. The integration of Globe, acquired on June 1, 1960, into the AC&R System is benefiting

AC&R's position, primarily in the Pacific area, where Globe has provided point-to-point and ship/shore communication for many years.

The dividend of 30¢ per share on the common stock of AC&R Corporation declared in December 1960 and paid in January 1961 yielded ITT \$608,042. Net income of the AC&R System for 1960 was \$1,168,388 compared with \$1,800,662 for 1959. Financial details for 1960 are presented more fully in AC&R's separately issued Annual Report, copies of which will be mailed to stockholders upon request.

The highly competitive market in which AC&R's services are sold requires that a strong technical position be maintained. AC&R's research laboratory, constantly engaged in the design of improved equipment, developed and put into operation a number of new components during 1960. In addition, 16 additional telex connections with overseas points were opened. Plans were initiated for the installation of automatic switching equipment in the System's New York and San Francisco telex terminals, a move that will effect economies and increase efficiency.

On January 9, 1961 the Federal Communications Commission approved AC&R's application to lease a voice-frequency circuit between New York and San Francisco. This will provide facilities for message traffic, telex, leased-line services, and data transmission, and will bring improved service and enlarged capacity at lower operating cost.

A change in AC&R's operations in Colombia became effective on April 1, 1960: All America continues to maintain and operate its cable station at Barranquilla, while all other operations within Colombia, including the radio-telegraph circuit with Mackay Radio, are being conducted by the government-operated Empresa Nacional de Telecomunicaciones. On November 1, The Commercial Cable Company



*One reason why the ITT System is among the world's largest producers of telephone handsets is the mass production made possible by machines such as this one for automatic thermoplastic injection moulding at our Belgian Company.*

opened communication with the Belgian administration over jointly leased circuits provided by the transatlantic coaxial telephone cables. These changes resulted in the inauguration of telex service with both Colombia and Belgium, and also made available new facilities for leased-channel operations.

On February 27, 1961 the Federal Communications Commission approved, with certain modifications and conditions, a proposed agreement between Western Union and American Securities Corporation relating to divestment of Western Union's international telegraph operations. Such divestment was required by the Communications Act at the time the act was amended to permit Western Union's merger with Postal Telegraph. The matter has been the subject of extensive proceedings before the commission, in which AC&R has participated. The commission's approval of the proposal was made subject to certain conditions to ensure that there will be an actual separation of Western Union's domestic and international operations as required by law. American Securities was afforded 20 days within which to advise the commission whether its agreement with Western Union as modified and conditioned by the commission's order is acceptable to it.

As in the past, AC&R will continue its support of proposed legislation that would permit merger of U. S. international telegraph carriers.

### **Marine Radio**

The integration of the Mackay and Globe Marine Divisions during 1960 provides AC&R with a total of eight coastal stations—seven in the United States and one in Manila—for ship/shore telegraph communication. The sales and service functions of both divisions were also combined. Marine headquarters are located at Clark, New Jersey, where the laboratory and manufacturing facilities of the division are maintained.

At the close of the year the Marine Division was licensee of and had under service or rental contract 758 shipboard radio stations. Mackay Marine retained a leading position in contract awards to supply and install communication equipment and electronic navigation devices on new ocean-going U. S. vessels.

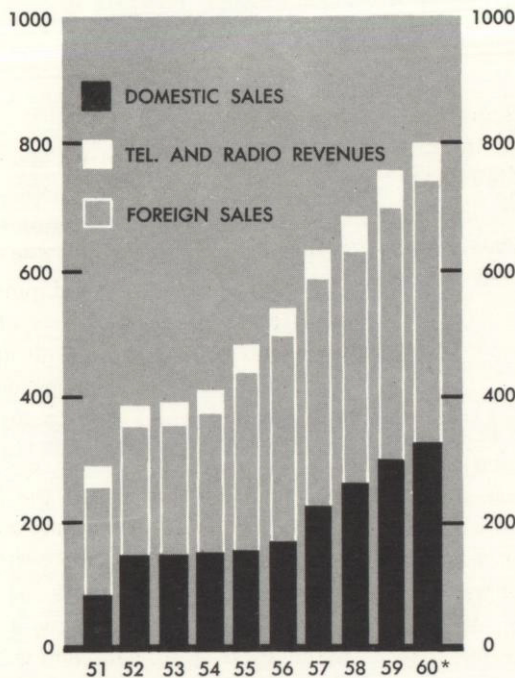
The year's work for ITT's International Marine Radio Company Limited, Croydon (England), ranged from major lighthouse and weather-ship radiobeacons to radiotelephone equipment for large yachts. The company installed 18 complete shipboard radio stations, some with radar and some with echo-sounding equipment, and made radar installations on several Cunard liners already equipped with IMRC radio stations. It also built transmitters for three Iranian Government coastal stations.

ITT's marine radio company in Spain, Compañía Radio Aérea Marítima Española, S.A., supplied radio equipment to the Spanish merchant and fishing fleets during 1960.

# Financial Summary

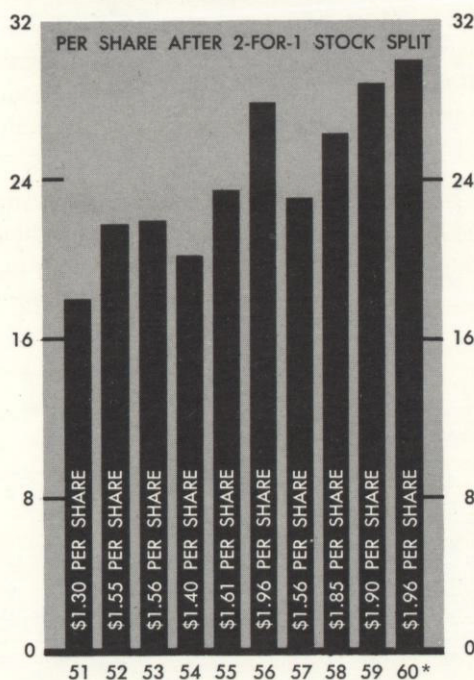
## Sales and Revenues

*in millions*



## Consolidated Net Income

*in millions*



\*Excluding Cuban subsidiaries

## Income at record levels

Consolidated worldwide sales, revenues from telephone and radio operations, and net income in 1960 again established new records for the Corporation.

During the year our more important Cuban operations were expropriated by the incumbent Cuban Government, and sales and net income of all our Cuban operations have been eliminated from our 1960 results. For the purpose of comparison Cuban operations have likewise been eliminated from the 1959 financial statements as shown in this Report. A provision to fully reserve our investment in Cuba has been charged to retained earnings in 1960 with no effect on net income for the year.

Sales and revenues reached \$811,448,707, an increase of \$69,689,026 or 9 per cent over 1959. Consolidated worldwide net income of \$30,569,938 represents an increase of \$3,040,364 or 11 per cent over 1959. In addition, and not reflected in these figures, we realized a net profit, after applicable taxes, of \$9,045,522 from the sale of our investment in L. M. Ericsson Telephone Company, Ltd. and incurred a loss of \$1,143,490 net of tax relief from the liquidation of our investment in an unprofitable radio tube operation in England. The net profit from these two items amounted to \$7,902,032 or 51¢ per share, which is shown as a special item in the income statement and is not included in the earnings of \$1.96 per share.

## Increase in all geographic areas

All areas in which we operate contributed to the increase in sales in 1960. In the United States, total sales of our subsidiaries and divisions amounted to \$328,946,386, an increase of \$24,548,888 over 1959, and in both years represented 43 per cent of our total sales. This increase in domestic sales continues to reflect the results of our intensified effort to strengthen these operations in the military and commercial fields through increased research and development as well as improvement of our manufacturing and marketing methods.

Most of our overseas manufacturing units also showed increased sales in 1960. Total sales of this group were \$437,822,420, representing an increase of \$36,662,651 or 9 per cent over 1959 and establishing a record high. Significant sales increases were achieved by our Argentine, British, French, German, and Norwegian subsidiaries. The British and German companies each had sales in excess of \$100,000,000 — the latter for the first time. Telephone and radio operating revenues amounted to \$44,679,901, an increase of \$8,477,487 or 23 per cent over the preceding year.

## Net income above \$30 million

Consolidated worldwide net income of \$30,569,938, or \$1.96 per average share outstanding for 1960, exceeded that of the previous year for the third consecutive year, and attained a new high. In 1959 we earned \$27,529,574 or \$1.80 per share, after exclusion of \$1,506,114 earnings from Cuban operations. Including Cuba our net income in 1959 was \$29,035,688 or \$1.90 per share on

292,758 fewer average shares outstanding. The 1960 net income is exclusive of the \$7,902,032 net special credit referred to on page 28.

All areas of activity contributed to the increase in net income. In particular, our commercial operations in the United States were successful in overcoming many of the problems that kept profits down during the preceding year. While there are still many problems to be solved, we are confident the progress made in 1960 will result in more satisfactory profits in 1961 and future years. Our military activities in the United States improved their net income largely through increased efficiency, resulting also in lower costs to the government. In Europe, our manufacturing units in general continued their moderate but steady improvement in earnings. Substantial improvement was recorded in most of our Latin American activities. The several catastrophes that beset Chile in 1960 delayed until the end of the year an adjustment of our rate structure required to earn a fair return on our important Chilean telephone business.

A tabulation of net income by general source is shown in Note 1 to the Financial Statements.

#### Dividend payments

Dividends of 25¢ per share were declared on the capital stock of the Corporation during each quarter of 1960. The total per share for the year was \$1.00, the same amount as for the preceding year.

#### Cuban investment

As previously noted, our major Cuban properties were expropriated by the incumbent government during 1960. No action was taken by that government in connection with Radio Corporation of Cuba or Cuban American Telephone and Telegraph Company. However, we have seen fit to fully reserve for all of our investments in and receivables from Cuban companies by a charge against consolidated retained earnings. Under present legislation we are unable to obtain adequate tax relief for the major portion of these investments, and are able only to offset them against profits from the sale of investments, so that the net effect is a recovery through tax savings of only 25 per cent of the cost of these investments. Furthermore, relief is limited to the cost of our investments and no statutory provision exists for the recovery of their full value. Details concerning the amount of losses and applicable tax relief are included in Note 2 to the Financial Statements.

#### Plant and equipment

Plant and equipment outlays amounted to \$67,000,000 of which \$26,000,000 was expended by manufacturing and research units, \$31,000,000 by telephone and radio operating subsidiaries, and \$10,000,000 on equipment for lease to customers. This compares with total expenditures of \$87,000,000 in 1959, including Cuba. Among major projects undertaken in 1960 were:

In Germany a major extension of manufacturing and plant installations at Stuttgart and Essen was completed, and a new factory wing was added at Nuremberg for production of components. Other

significant plant additions and extensions were made in Belgium (Ghent), England (Newport and Southampton), France (Massy), Italy (Maddaloni), and Australia (Sydney). Total capital outlays in Europe exceeded \$19,000,000. Construction was begun on an 82,000 sq. ft. new plant in Corinth, Mississippi to increase our manufacturing capacity for telephone handsets. Modernization and expansion programs were carried out at other System production and laboratory facilities.

In the telephone and radio operating companies, demand for whose services continued at a high level, we invested during the year a total of \$31,000,000, resulting in an increase of more than 27,000 telephones.

#### Financial position improved

Total consolidated cash and marketable securities at the end of 1960 amounted to \$56,036,310, an increase of \$17,842,652 over the previous year. Of this total \$26,179,612 was temporarily invested in time deposits and short-term marketable securities in the United States.

The consolidated working capital as of December 31, 1960 amounted to \$269,324,247, an increase of \$38,086,038 over the same date last year.

It was again unnecessary in 1960 to utilize the \$50,000,000 revolving credit agreement entered into in 1958. As a result, this agreement was terminated early in 1961 in favor of establishing lines of credit of \$65,000,000 with several major banks to meet temporary cash requirements that may arise.

During 1960 our subsidiaries completed several outside financing programs, among which were:

#### International Standard Electric Corporation

4½% debentures due 1970-78	
Swiss francs 50,000,000	\$11,610,000
4¾% debentures due 1965	
Swiss francs 18,000,000	4,179,600

#### Intelex Systems Incorporated

5¼% first mortgage notes	
due annually to 1980	15,000,000

#### Puerto Rico Telephone Company

6¾% cumulative preferred stock	4,000,000
6% sinking fund debentures	
due 1984	8,000,000

#### International Telephone and Telegraph Corporation, Sud America

7½% debentures due 1977	5,519,000
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#### Financial statements

The consolidated financial statements of the Corporation and its subsidiaries and the opinion of our independent public accountants are shown in the following pages. A ten-year summary of the financial highlights of the Corporation and its subsidiaries consolidated is included.

**Consolidated Balance Sheets** *as at December 31, 1960 and 1959*

<b>Assets</b>	<u><b>1960</b></u>	<u><b>1959</b></u>
<b>CURRENT ASSETS</b>		
Cash, including \$13,568,824 and \$13,236,481 in foreign currencies	\$ 29,856,698	\$ 31,093,658
Temporary U. S. cash investments	26,179,612	7,100,000
Accounts and notes receivable, less reserves	225,722,161	191,121,521
Inventories	<u>261,101,366</u>	<u>233,952,741</u>
	<u>542,859,837</u>	<u>463,267,920</u>
MISCELLANEOUS INVESTMENTS, DEFERRED RECEIVABLES AND OTHER ASSETS	<u>49,819,445</u>	<u>54,498,116</u>
<b>INVESTMENTS IN SUBSIDIARIES NOT CONSOLIDATED AND OTHER COMPANIES, at cost</b>		
American Cable & Radio Corporation—57% owned Cuban companies, \$24,901,173 in 1960 fully reserved	26,238,823	26,238,823
L. M. Ericsson Telephone Company, Ltd.—sold in 1960	—	24,494,078
Other companies, including nationalized companies \$11,002,601 and \$11,008,266 fully reserved	<u>16,564,229</u>	<u>13,799,081</u>
	<u>42,803,052</u>	<u>73,880,762</u>
PLANT, PROPERTY AND EQUIPMENT, at cost	483,274,069	435,849,423
Less — Reserves for depreciation	<u>194,812,660</u>	<u>177,576,534</u>
	<u>288,461,409</u>	<u>258,272,889</u>
	<u><u>\$923,943,743</u></u>	<u><u>\$849,919,687</u></u>

*The accompanying notes to the financial statements are an integral part of the above balance sheets.*



<b>Liabilities and Stockholders' Equity</b>	<u><b>1960</b></u>	<u><b>1959</b></u>
<b>CURRENT LIABILITIES</b>		
Bank loans and current maturities of long-term debt	<b>\$ 81,104,982</b>	\$ 58,931,719
Accounts payable and accrued charges	<b>162,813,438</b>	142,518,461
Accrued taxes	<b>25,698,909</b>	26,699,848
Dividend payable	<b>3,918,261</b>	3,879,683
	<u><b>273,535,590</b></u>	<u>232,029,711</u>
<b>DEFERRED LIABILITIES</b>	<u><b>54,252,792</b></u>	<u>47,869,710</u>
<b>DEFERRED INCOME AND MISCELLANEOUS RESERVES</b>	<u><b>7,458,298</b></u>	<u>13,150,961</u>
<b>LONG-TERM DEBT (page 33)</b>	<u><b>148,477,963</b></u>	<u>132,816,791</u>
<b>MINORITY EQUITY IN SUBSIDIARIES CONSOLIDATED (page 33)</b>	<u><b>24,405,272</b></u>	<u>18,085,160</u>
<b>STOCKHOLDERS' EQUITY</b>		
Capital stock —		
Authorized — 30,000,000 shares, without par value (stated value \$10 per share)		
Issued — 15,681,478 and 15,529,830 shares	<b>156,814,780</b>	155,298,300
Capital surplus	<b>102,985,694</b>	101,748,752
Retained earnings invested in the business	<b>156,013,354</b>	148,920,302
	<u><b>415,813,828</b></u>	<u>405,967,354</u>
	<u><b>\$923,943,743</b></u>	<u>\$849,919,687</u>

**Consolidated Income** for the years ended December 31, 1960 and 1959

	<u>1960</u>	<u>1959</u>
SALES AND REVENUES		
Net sales	\$766,768,806	\$705,557,267
Telephone and radio operating revenues	44,679,901	36,202,414
	<u>811,448,707</u>	<u>741,759,681</u>
COST OF SALES AND OPERATING EXPENSES, excluding provision for depreciation	704,291,409	645,703,260
	<u>107,157,298</u>	<u>96,056,421</u>
Dividends, interest and other income	14,022,690	13,187,558
INCOME BEFORE CERTAIN CHARGES	<u>121,179,988</u>	<u>109,243,979</u>
Provision for depreciation	25,066,309	23,855,905
Interest and other financial charges	13,146,270	11,702,558
U. S. and foreign taxes	50,266,377	43,657,983
	<u>88,478,956</u>	<u>79,216,446</u>
NET INCOME BEFORE MINORITY EQUITY	<u>32,701,032</u>	<u>30,027,533</u>
Minority common stockholders' equity in net income	2,131,094	2,497,959
NET INCOME	<u>30,569,938</u>	<u>27,529,574</u>
SPECIAL ITEMS—Profit (loss) on sale of investments— net of applicable income taxes:		
L. M. Ericsson Telephone Company, Ltd.	9,045,522	—
English radio tube business	(1,143,490)	—
NET INCOME AND SPECIAL ITEMS	<u>\$ 38,471,970</u>	<u>\$ 27,529,574</u>

**Consolidated Retained Earnings Invested in the Business**

BALANCE—Beginning of year, as previously reported	\$157,219,064	\$152,263,021
DEDUCT—Undistributed earnings of Cuban subsidiaries deconsolidated	8,298,762	6,792,648
BALANCE—Beginning of year, as restated	<u>148,920,302</u>	<u>145,470,373</u>
ADD (DEDUCT)—		
Net income and special items	38,471,970	27,529,574
Dividends declared—\$1.00 per share	(15,588,395)	(15,351,525)
Provisions to fully reserve for investments in Cuban companies—net of applicable income taxes	(15,790,523)	—
Extraordinary adjustments for re-evaluation of inven- tories and contractual commitments, etc.—net of applicable income taxes	—	(8,728,120)
BALANCE—End of year	<u>\$156,013,354</u>	<u>\$148,920,302</u>

The accompanying notes to the financial statements are an integral part of the above statements.

**Long-Term Debt** (including bank loans obtained to finance long-term receivables) — December 31, 1960

<b>INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION</b>		
Fifteen Year 3% Sinking Fund Debentures (\$15,000,000 due May 15, 1961 included in current liabilities)	\$ —	
4 7/8% Convertible Subordinated Debentures, due 1983 (convertible into capital stock at \$18.50 per share)	8,546,300	\$ 8,546,300
<b>UNITED STATES SUBSIDIARIES CONSOLIDATED</b>		
<b>INTELEX SYSTEMS INCORPORATED —</b>		
5 1/4% First Mortgage Notes, Series A, due annually to 1980, on plant and property leased to U. S. Post Office	14,526,833	
<b>KELLOGG CREDIT CORPORATION —</b>		
Ten Year 5 1/2% bank loans, due annually to 1968	4,140,000	18,666,833
<b>FOREIGN MANUFACTURING SUBSIDIARIES CONSOLIDATED</b>		
<b>INTERNATIONAL STANDARD ELECTRIC CORPORATION —</b>		
Eighteen Year 4 1/2% Swiss franc Debentures, due 1970-78—SF 50,000,000	11,610,000	
Sixteen Year 4% Swiss franc Debentures, due 1970 — SF 60,000,000 (guaranteed by the Parent Company) — payments of SF 5,000,000 due annually from 1964 to 1969	13,932,000	
Fifteen Year 4% Swiss franc Debentures, due 1974 — SF 50,000,000	11,610,000	
Five Year 4 3/4% Swiss franc Debentures, due 1965 — SF 18,000,000	4,179,600	
<b>BELL TELEPHONE MANUFACTURING COMPANY (Belgium) —</b>		
2 3/4% to 7% long-term bank loans, due 1962-66 — BF 216,428,604	4,328,572	
<b>FABBRICA APPARECCHIATURE PER COMUNICAZIONI ELETTRICHE STANDARD S. P. A. (Italy) —</b>		
8% long-term bank loan, due 1962-63 — IL 2,000,000,000	3,200,000	
7% long-term bank loan, due 1962-67 — IL 550,000,000	880,000	
<b>LE MATERIEL TELEPHONIQUE (France) —</b>		
3 3/4% to 6% Debentures, to be retired in annual lots to 1977—NF 8,872,209	1,809,931	
<b>STANDARD ELECTRICA, S.A. (Brazil) —</b>		
12% to 18% (effective) long-term bank loans, due 1962-65—CR 396,050,000	1,920,842	
6% Promissory Notes, due 1962-64 — CR 461,682,883	2,239,162	
<b>STANDARD ELEKTRIK LORENZ A.G. (Germany) —</b>		
Twenty Year 6 1/2% Debentures, due 1964-78 — DM 35,000,000	8,389,500	
4% to 8 1/4% long-term bank loans, due 1962-69 — DM 53,086,204	12,724,763	
<b>STANDARD TELEPHONES AND CABLES LIMITED (England) —</b>		
5 1/2% Ten Year Note, due 1963 — £400,000	1,120,000	
6 1/4% Twenty Year Note, due 1978 — £1,500,000	4,200,000	
6 1/2% Twenty Year Note, due 1978 — £1,500,000	4,200,000	
<b>STANDARD TELEPHONES AND CABLES PTY. LIMITED (Australia) —</b>		
6 1/2% Mortgage Loan, due 1962-69 — A£1,600,000	3,584,000	
<b>OTHER</b>	2,194,703	92,123,073
<b>TELEPHONE AND RADIO SUBSIDIARIES CONSOLIDATED</b>		
<b>INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, SUD AMERICA —</b>		
7 1/2% Debentures, Series due 1977 (excluding \$4,481,000 held by Parent Company)	5,519,000	
<b>PUERTO RICO TELEPHONE COMPANY —</b>		
Twenty-Five Year 4 3/4% Sinking Fund Debentures, Series A, due 1978	4,600,000	
Twenty-Five Year 4 3/4% Sinking Fund Debentures, Series B, due 1981	4,900,000	
Twenty-Four Year 6% Sinking Fund Debentures, Series C, due 1984	8,000,000	
<b>RADIO CORPORATION OF PUERTO RICO —</b>		
Twenty-Five Year 5 1/2% Sinking Fund Debentures, Series A, due 1984	5,000,000	
<b>OTHER</b>	1,122,757	29,141,757
<b>TOTAL LONG-TERM DEBT</b> (excluding amounts due within one year included in current liabilities)		<u>\$148,477,963</u>

**Minority Equity in Subsidiaries Consolidated** — December 31, 1960

<b>PREFERRED STOCK</b>		
<b>PUERTO RICO TELEPHONE COMPANY —</b>		
6 3/4% Cumulative Preferred Stock, Series A of U. S. \$100 par value per share — 40,000 shares	\$ 4,000,000	
<b>STANDARD TELEFON OG KABELFABRIK A/S (Norway) —</b>		
4%-6% Non-cumulative Preferred Stock of NK 1,000 par value per share — 5,000 shares	830,055	\$ 4,830,055
<b>COMMON STOCK AND SURPLUS</b>		
Foreign Manufacturing Subsidiaries Consolidated	10,290,425	
Telephone and Radio Subsidiaries Consolidated	9,284,792	19,575,217
<b>TOTAL MINORITY EQUITY IN SUBSIDIARIES CONSOLIDATED</b>		<u>\$ 24,405,272</u>

The accompanying notes to the financial statements are an integral part of the above statements.

## Notes to Financial Statements

### 1. PRINCIPLES OF CONSOLIDATION

The financial statements for 1960 exclude the accounts of the Cuban subsidiaries which are no longer consolidated as a result of the confiscatory seizure of the Corporation's larger Cuban subsidiaries by the Cuban Government. For comparative purposes, the 1959 statements have been restated to exclude the accounts of these subsidiaries. As a result of the restatement, previously reported 1959 consolidated net income has been reduced \$1,506,114.

The accounts of the Corporation's subsidiary, American Cable & Radio Corporation, are excluded from the consolidated financial statements because of the large minority stock interest held by the public. The Corporation's investment in American Cable & Radio Corporation exceeded its equity in the net assets of that subsidiary at December 31, 1960 by

\$6,534,916; its equity in income for the year 1960 amounted to \$660,723, of which \$608,042 was received in dividends.

The net income of the Parent Company alone amounted to \$18,672,518 and \$17,829,789 for the years 1960 and 1959, respectively, and its retained earnings at December 31, 1960 amounted to \$55,093,782. The undistributed earnings of foreign subsidiaries included in consolidated retained earnings should not be understood to represent U. S. dollars immediately available, since the retained earnings of some foreign subsidiaries are subject to certain restrictions on the amount of dividends that may be paid and to taxes payable on declaration of dividends.

A general grouping of net assets as at December 31, 1960, and net income for the year 1960 by location and by principal operations is shown below:

	Consolidated	United States	Foreign Manufacturing, Sales and Laboratories	Telephone and Radio	Other Foreign Investments
<i>(Thousands of dollars)</i>					
<b>NET ASSETS</b>					
Net current assets	269,324	95,091	162,175	8,958	3,100
Miscellaneous investments, deferred receivables and other assets	49,820	7,811	27,951	5,236	8,822
Investments in subsidiaries not consolidated and other companies	42,803	27,031	5,793	600	9,379
Plant, property and equipment—net	288,461	45,854	103,003	139,604	—
	<u>650,408</u>	<u>175,787</u>	<u>298,922</u>	<u>154,398</u>	<u>21,301</u>
Deduct —					
Deferred liabilities, deferred income and miscellaneous reserves	61,711	8,128	50,747	2,836	—
Long-term debt	148,478	27,213	92,123	29,142	—
Minority equity in subsidiaries consolidated	24,405	—	11,120	13,285	—
	<u>234,594</u>	<u>35,341</u>	<u>153,990</u>	<u>45,263</u>	<u>—</u>
Net assets	<u>415,814</u>	<u>140,446</u>	<u>144,932</u>	<u>109,135</u>	<u>21,301</u>
<b>NET INCOME, after allocation of parent company interest and taxes</b>	<u>30,570</u>	<u>6,184</u>	<u>15,390</u>	<u>6,844</u>	<u>2,152</u>

Procedures followed in translating accounts of foreign subsidiaries into terms of U. S. dollars were consistent with those of preceding years. Net assets are translated, generally, at the applicable rates of exchange in effect at the year end, except for property and investment accounts which are translated at historic cost; and the income accounts are translated, generally, at the average rates of exchange prevailing during the year, except for provisions for depreciation which are translated on the basis of the U. S. dollar equivalents of the related net asset accounts at the beginning

of the year. Foreign exchange gains or losses, including those arising from translation of net assets at year end, have been included in consolidated net income.

### 2. INVESTMENTS IN CUBAN COMPANIES

In 1960, the Corporation and its subsidiaries provided in full for their investments in and receivables from Cuban companies, net of related reductions in income taxes, by charging Consolidated Retained Earnings. As a result of deconsolidation of the Cuban subsidiaries (Note 1), the undistributed earnings

## International Telephone and Telegraph Corporation and Subsidiaries Consolidated

of these subsidiaries previously included in Consolidated Retained Earnings and Consolidated Capital Surplus have been eliminated therefrom. A summary of the foregoing follows:

	Investments and Receivables at Cost	Undistributed Earnings
Cuban Telephone Company	\$20,790,586	\$8,940,646
Other Cuban companies	4,110,587	180,256
	<u>24,901,173</u>	<u>9,120,902</u>
Less — Applicable income taxes	9,110,650	—
	<u>\$15,790,523</u>	<u>\$9,120,902</u>

### 3. INVENTORIES

Inventories are detailed below:

	December 31,	
	1960	1959
Manufacturing, sales and laboratories:		
Finished goods	\$ 90,405,123	\$ 83,068,161
Work in process	121,726,610	110,761,126
Raw materials and supplies	51,678,886	45,278,294
	<u>263,810,619</u>	<u>239,107,581</u>
Less progress payments	11,204,495	11,734,771
Net	<u>252,606,124</u>	<u>227,372,810</u>
Telephone and radio: Maintenance and construction materials and supplies, generally at average cost	8,495,242	6,579,931
	<u>\$261,101,366</u>	<u>\$233,952,741</u>

Finished goods and raw materials are stated generally at the lower of cost or market. Work in process includes substantial amounts of costs accumulated under firm telecommunication equipment orders and defense contracts. Under the companies' accounting policies for recording profits on these orders and contracts, the inventory amounts are at or below realizable value.

### 4. CAPITAL STOCK

Under the Corporation's Stock Option Incentive Plans and a Restricted Stock Option, approved by the Stockholders in 1956, 1959 and 1960, a total of 530,000 shares of Capital Stock of the Corporation as presently constituted were made available for options for employees of the Corporation and its subsidiaries. Options granted under the Plans prior to September 1, 1959 were made exercisable in whole or in part by such employees after two years, but

not later than seven years after date of grant. Options granted subsequent to September 1, 1959 have been made exercisable after two years, but only to the extent of one-third of the optioned shares on a cumulative basis for each of the third, fourth and fifth years, and not after five years from date of grant. The price to be paid for the shares covered by each option is to be 95% of the fair market value of the stock on the date such option is granted. A summary of shares subject to options during the year 1960, is shown below:

Balance, January 1, 1960	203,000
Add — Options granted at \$32.25 to \$43.125 per share	91,000
	<u>294,000</u>
Deduct:	
Options exercised at \$15.6875 to \$22.5625 per share	46,750
Options cancelled	2,000
Balance, December 31, 1960	<u>245,250</u>

At December 31, 1960, authority expired to grant options for the remaining 22,000 shares under the 1956 Plan, and 21,250 shares were available for future options under the 1959 Plan.

Under the conversion provisions of the 4 $\frac{7}{8}$ % Convertible Subordinated Debentures, at December 31, 1960, 464,294 shares of the unissued Capital Stock of the Corporation were reserved for conversion of such Debentures. During 1960, 104,898 shares were issued in connection with the conversion of \$1,945,200 principal amount of these Debentures.

### 5. CAPITAL SURPLUS

Changes in capital surplus during the year are shown below:

Balance — January 1, 1960, as previously reported	\$102,570,892
Deduct — Undistributed earnings of Cuban subsidiaries deconsolidated	822,140
Balance — January 1, 1960, as restated	101,748,752
Add — Credits arising from:	
Conversions of debentures	855,939
Exercise of stock options	381,003
Balance — December 31, 1960	<u>\$102,985,694</u>

### 6. CONTINGENCIES

The ultimate liability with respect to pending lawsuits, taxes, claims, guarantees, bills receivable discounted, etc., is not considered to be material in relation to the consolidated financial position.

## Auditors' Opinion

ARTHUR ANDERSEN & CO.

80 Pine Street  
New York 5

To The Stockholders,

International Telephone  
and Telegraph Corporation:

We have examined the consolidated balance sheets of International Telephone and Telegraph Corporation (a Maryland corporation) and its subsidiaries consolidated as of December 31, 1960 and 1959, and the related statements of consolidated income and consolidated retained earnings invested in the business for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. It was not practicable to confirm receivables from certain governments, as to which, however, we have satisfied ourselves by other auditing procedures. Financial statements of certain foreign subsidiaries included in the consolidated statements were not examined by us but we were furnished with reports of other auditors thereon.

In our opinion, based upon our examinations and upon the reports of other auditors, the accompanying consolidated balance sheets and related statements of consolidated income and consolidated retained earnings invested in the business present fairly the financial position of International Telephone and Telegraph Corporation and its subsidiaries consolidated as of December 31, 1960 and 1959, and the results of their operations for the years then ended, and were prepared in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Arthur Andersen & Co.*

New York, N. Y.  
March 1, 1961

## Ten-Year Summary\*

### Results for Year

Sales and revenues  
U. S. and foreign taxes  
Provision for depreciation  
Net income  
Special credit\*\*

### Year End Position

Net current assets  
Plant, property and equipment — net  
Total assets  
Long-term debt  
Stockholders' equity

### Per Share

Net income (average shares)  
Special credit (average shares)\*\*  
Dividends  
Stockholders' equity

### Other Data

Number of shares (in thousands)  
Number of stockholders  
Number of employees

<u>1960</u>	<u>1959</u>	<u>1958</u>	<u>1957</u>	<u>1956</u>	<u>1955</u>	<u>1954</u>	<u>1953</u>	<u>1952</u>	<u>1951</u>
<i>(In thousands of dollars)</i>									
811,449	765,640	687,451	638,669	544,834	489,746	412,619	397,297	388,620	288,585
50,266	45,343	42,410	41,458	45,237	39,781	31,795	32,960	32,023	24,409
25,066	27,433	24,516	23,048	19,203	17,908	15,688	14,652	13,616	12,407
30,570	29,036	26,600	22,413	28,110	23,070	20,069	22,378	22,148	17,992
7,902	—	—	—	—	—	—	—	—	—

269,324	222,269	233,963	200,828	203,945	199,986	180,567	156,294	144,752	136,556
288,461	355,115	303,609	260,250	229,842	208,021	190,489	186,529	177,238	163,211
923,944	932,269	869,006	799,873	760,838	687,452	636,970	602,761	579,706	512,580
148,478	165,512	158,963	97,293	87,841	78,156	72,324	55,904	53,140	55,009
415,814	415,088	395,739	375,440	365,939	350,747	336,971	324,079	308,878	288,707

<i>(In dollars)</i>									
1.96	1.90	1.85	1.56	1.96	1.61	1.40	1.56	1.55	1.30
.51	—	—	—	—	—	—	—	—	—
1.00	1.00	.90	.90	.90	.65	.50	.50	.425	.325
26.52	26.73	26.87	26.16	25.50	24.44	23.48	22.58	21.52	20.86
<hr/>									
15,681	15,530	14,726	14,353	14,353	14,353	14,353	14,353	14,353	13,838
87,818	88,230	67,112	65,642	62,486	58,889	56,937	57,437	57,033	54,912
132,000	136,000	130,000	128,000	122,000	111,000	102,000	96,000	100,000	94,000

\* The above data are as reported for the respective years including Cuban operations for all years prior to 1960, except that per-share amounts have been adjusted for 2-for-1 stock split effective February 5, 1959.

\*\* Net profit on sale of investments.

# International Telephone and Telegraph Corporation

## Principal Divisions and Subsidiaries

### North America

#### COMMERCIAL GROUP

Components Division, Clifton, N. J.  
Kuthe Laboratories, Inc., Newark, N. J.  
Industrial Products Division, San Fernando, Calif.  
International Standard Electric Corporation, New York  
IT&T Electronics Service Company of Canada Ltd.,  
Town of Mount Royal, P.Q.  
ITT Distributor Products Division, Lodi, N. J.  
ITT Intelix Systems Division, New York  
Airmatic Systems Corporation, Rochelle Park, N. J.  
Intelix Systems Incorporated, New York  
ITT Kellogg, Chicago  
Kellogg Credit Corporation, New York  
Royal Electric Company (Quebec) Limited,  
Pointe Claire, P.Q.  
Royal Electric Corporation, Pawtucket, R. I.  
Electric Cords & Supply Corporation, Los Angeles  
Standard Telephones & Cables Mfg. Co. (Canada) Ltd.,  
Montreal

#### DEFENSE GROUP

Federal Electric Corporation, Paramus, N. J.  
International Electric Corporation, Paramus, N. J.  
ITT Communication Systems, Inc., Paramus, N. J.  
ITT Federal Laboratories, Nutley, N. J.

### Europe, Middle East, Africa

#### AUSTRIA

Standard Telephon und Telegraphen  
Aktiengesellschaft, Czeija, Nissl & Co., Vienna

#### BELGIUM

Bell Telephone Manufacturing Company, Antwerp  
ITT Europe, Inc., Brussels

#### DENMARK

Standard Electric Aktieselskab, Copenhagen

#### FINLAND

Oy Suomen Standard Electric AB, Helsinki

#### FRANCE

Compagnie Générale de Constructions  
Téléphoniques, Paris  
Les Téléimprimeurs, Paris  
International Standard Engineering, Inc., Paris  
Laboratoire Central de Télécommunications, Paris  
Le Matériel Téléphonique, Paris

#### GERMANY

Standard Elektrik Lorenz Aktiengesellschaft, Stuttgart  
Divisions:  
Bauelemente Werk S.A.F., Nuremberg  
Informatikwerk, Stuttgart  
Kabelwerk, Stuttgart  
Lorenz Werke, Stuttgart  
Mix & Genest Werke, Stuttgart  
Schaub Werk, Pforzheim

#### IRAN

Standard Electric Iran A.G., Tehran

#### ITALY

Fabbrica Apparecchiature per Comunicazioni  
Elettriche Standard S.p.A., Milan

#### NETHERLANDS

Nederlandsche Standard Electric Maatschappij N.V.,  
The Hague

#### NORWAY

Standard Telefon og Kabelfabrik A/S, Oslo

#### PORTUGAL

Standard Eléctrica, S.A.R.L., Lisbon

#### SPAIN

Compañía Radio Aérea Marítima Española, S.A., Madrid  
Standard Eléctrica, S.A., Madrid

#### SWEDEN

Standard Radio & Telefon AB, Stockholm

#### SWITZERLAND

Standard Téléphone et Radio S.A., Zurich

#### TURKEY

Standard Elektrik ve Telekomünikasyon Limited Şirketi,  
Ankara

#### UNION OF SOUTH AFRICA

Standard Telephones and Cables (South Africa)  
(Proprietary) Limited, Boksburg East, Transvaal

#### UNITED KINGDOM

Creed & Company Limited, Croydon  
International Marine Radio Company Limited, Croydon  
Standard Telephones and Cables Limited, London  
Kolster-Brandes Limited, Sidcup  
Standard Telecommunication Laboratories  
Limited, London

### Latin America

#### Manufacturing and sales

#### ARGENTINA

Capehart Argentina S.A.I.C. (50% owned), Buenos Aires  
Compañía Standard Electric Argentina, S.A.I.C.,  
Buenos Aires

#### BRAZIL

Standard Eléctrica, S.A., Rio de Janeiro

#### CHILE

Compañía Standard Electric, S.A.C., Santiago

#### CUBA

Equipos Telefónicos Standard de Cuba, Havana\*

#### MEXICO

Industria de Telecomunicación, S.A. de C.V.  
(50% owned), Mexico City  
Standard Eléctrica de México, S.A., Mexico City

#### VENEZUELA

Standard Telecommunications C.A., Caracas

#### Telecommunication operations

#### ARGENTINA

Compañía Internacional de Radio, S.A., Buenos Aires



**BOLIVIA**

Compañía Internacional de Radio Boliviana, La Paz

**BRAZIL**

Companhia Rádio Internacional do Brasil, Rio de Janeiro  
Companhia Telefônica Nacional, Curitiba and Pôrto Alegre

**CHILE**

Compañía de Teléfonos, de Chile, Santiago  
Compañía Internacional de Radio, S.A., Santiago

**CUBA**

Cuban American Telephone and Telegraph Company  
(50% owned), Havana  
Cuban Telephone Company, Havana\*  
Radio Corporation of Cuba, Havana

**PERU**

Compañía Peruana de Teléfonos Limitada, Lima

**PUERTO RICO**

Puerto Rico Telephone Company, San Juan  
Radio Corporation of Puerto Rico, San Juan

**VIRGIN ISLANDS**

Virgin Islands Telephone Corporation, Charlotte Amalie

**Far East and Pacific****AUSTRALIA**

Standard Telephones and Cables Pty. Limited, Sydney

**HONG KONG**

International Standard Electric Corporation, Kowloon  
(branch office and warehouse)

**PHILIPPINES**

ITT Philippines, Incorporated, Manila

**Worldwide Cable and Radio Telegraph Operations**

American Cable & Radio Corporation, New York  
All America Cables and Radio, Inc., New York  
Commercial Cable Company, The, New York  
Globe Wireless Ltd., New York  
Globe Wireless Ltd. Philippines, Manila  
Mackay Radio and Telegraph Company, New York  
Sociedad Anónima Radio Argentina, Buenos Aires

**Associate licensees for manufacturing and sales****AUSTRALIA**

Austral Standard Cables Pty. Limited, Melbourne

**FRANCE**

Lignes Télégraphiques et Téléphoniques, Paris

**ITALY**

Società Italiana Reti Telefoniche Interurbane, Milan

**JAPAN**

Nippon Electric Company, Limited, Tokyo  
Sumitomo Electric Industries, Limited, Osaka

**SPAIN**

Marconi Española, S.A., Madrid

\* Cuban properties seized under expropriation decrees of August 1960.

**THE WORLD OF ITT****North America:**

19,000 employees  
34 locations (factories, major laboratories, service units)  
4,000,000 square feet of floor space

**Europe, Middle East, Africa:**

93,000 employees  
87 locations (factories, major laboratories, marine radio companies)  
11,500,000 square feet of floor space

**Latin America (excluding Cuba):**

17,000 employees  
15 locations (factories; telephone, radiotelephone, and radiotelegraph operating companies)  
1,000,000 square feet of floor space

**Far East and Pacific:**

3,000 employees  
5 locations (factories and major warehouses)  
650,000 square feet of floor space

**Total:**

132,000 employees, including headquarters and service personnel in the United States, but not including American Cable & Radio Corporation personnel at home or abroad

141 locations

17,150,000 square feet

Sales representatives in most countries

# Principal ITT System Products

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## Telecommunication Equipment and Systems

Automatic telephone and telegraph central office switching systems  
Private telephone and telegraph exchanges — PAB, PAX  
Carrier systems: telephone, telegraph, power-line  
Long-distance dialing and automatic message-recording equipment  
Switchboards: manual, central office, toll  
Telephones: desk, wall, coin-operated

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Automatic answering and recording equipment  
Intercommunication, paging, and public-address systems  
Microphones and loud speakers  
Microwave radio systems: line-of-sight, over-the-horizon  
Parametric amplifiers  
Data-transmission systems  
Teleprinters and facsimile equipment

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## Military/Space Equipment and Systems

Aircraft weapon systems  
Missile fuzing, launching, guidance, tracking, recording, and control systems  
Electronic countermeasures  
Power systems: ground-support, aircraft, spacecraft, missile  
Radar  
Simulators: missile, aircraft, radar

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Ground and environmental test equipment  
Programmers  
Infrared detection and guidance equipment  
Global and space communication  
Nuclear instrumentation  
Antisubmarine warfare systems  
System management: worldwide, local

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## Industrial/Commercial Equipment and Systems

Distance-measuring and bearing systems: Tacan, DMET, Vortac, Loran  
Instrument Landing Systems (ILS)  
Air-traffic control systems  
Direction finders  
Ground and airborne communication  
Data-link systems  
Inverters: static, high-power  
Power-supply systems  
Altimeters  
Flight systems (autopilot)  
Information-processing and document-handling systems  
Electronic computers

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Analog-digital converters  
Mail-handling systems  
Pneumatic tube systems  
Broadcast transmitters: AM, FM, TV  
Point-to-point radio communication  
Mobile communication: air, ground, marine, portable  
Closed-circuit television: industrial, aircraft, and nuclear radiation  
Instruments: test, measuring  
Oscilloscopes: large-screen, bar-graph  
Magnetic amplifiers and systems  
Alarm and signaling systems  
Telemetry

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## Consumer Products

Television and radio receivers  
High-fidelity phonographs and equipment  
Refrigerators, freezers  
Air conditioners

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Hearing aids  
Incandescent lamps  
Home intercommunication equipment  
Electrical housewares

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## Cable and Wire Products

Multiconductor telephone cable  
Telephone wire: bridle, distribution, drop  
Switchboard and terminating cable  
Telephone cords  
Submarine telephone and telegraph cable and systems

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Coaxial cable  
Aircraft cable  
Power cable  
Domestic cord sets  
Fuses and wiring devices  
Wire, general-purpose

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## Components and Materials

Semiconductors: selenium, germanium, silicon  
Power rectifiers, metallic  
Transistors  
Diodes: tunnel, zener  
Capacitors: wet, dry, ceramic  
Ferrites  
Tubes: power, transmitting, traveling-wave, rectifier, receiving  
Picture tubes  
Relays and switches: telephone, industrial

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Magnetic counters  
Resistors  
Varistors  
Fluorescent starters  
Transformers  
Quartz crystals  
Crystal filters  
Printed circuits  
Hermetic seals  
Magnetic cores



