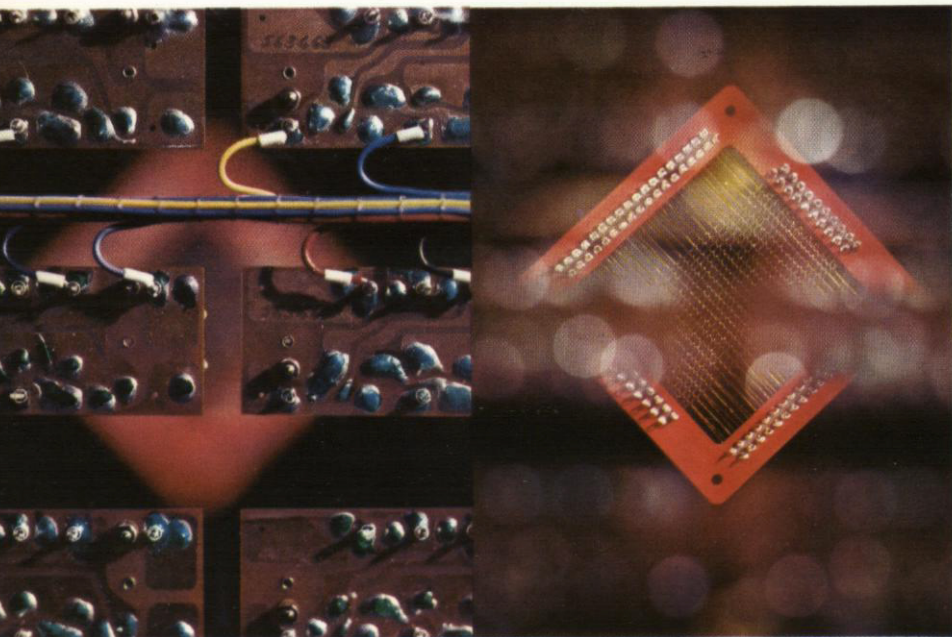


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CORPORATION FILE

39th Annual Report, 1959



International Telephone and Telegraph Corporation



The device in the center of the cover is a ferrite core memory. It can store information of any kind—telephone numbers, account reports, a sketch, a part of an image, the trajectory of a satellite, a written message—in the form of bits of electrical energy, stored in a magnetic field in a little core made of ferrite, an iron oxide having remarkable magnetic properties. Such memories used singly or in large numbers are a symbol of the application of electronics to telephone switching, transmission and processing of data, computing, reservation and banking systems and literally hundreds of other applications where electronics comes to the aid of the human mind. Their accuracy and speed are remarkable: one error tolerated in a billion bits of information, and less than one millionth of a second to insert a piece of new information or recover a piece of stored knowledge.

ITT scientists work on many forms of electronic memories. The photograph on the cover shows the inside of an electronic switching system developed by our Paris laboratories for central office telephone use. The luminous circles among which the core memory appears to be floating are actually the glowing gas tubes that are part of the system. The back cover shows this electronic switching equipment from the rear.

International Telephone and Telegraph Corporation

39th Annual Report, 1959

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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 Busignies.....	<i>Vice President</i>
John G. Copelin.....	<i>Vice President</i>
Frederick R. Furth.....	<i>Vice President</i>
John E. Gingrich.....	<i>Vice President</i>
John T. Jackson.....	<i>Vice President</i>
Herbert I. Miller.....	<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>
Alfred di Scipio.....	<i>Vice President</i>
Henry H. Scudder.....	<i>Vice President</i>
Ellery W. Stone.....	<i>Vice President</i>
C. Douglas Webb.....	<i>Secretary</i>
Paul F. Swantee.....	<i>Treasurer</i>

Transfer Agents for Capital Stock

Office of the Corporation, 67 Broad Street, New York 4, N. Y.
 Continental Illinois National Bank and Trust Company of
 Chicago, Chicago 90, Illinois
 The First National City Bank of New York, Havana, Cuba

Registrars for Capital Stock

First National City Trust Company, New York 15, N. Y.
 Harris Trust and Savings Bank, Chicago 90, Illinois
 The Royal Bank of Canada, Havana, Cuba

Trustee for 3% Sinking Fund Debentures

The First National City Bank of New York, New York 15, N. Y.

Trustee for 4 $\frac{7}{8}$ % Convertible Subordinated Debentures

First National City Trust Company, New York 15, N. Y.

Registrar for 3% Sinking Fund Debentures

The Morgan Guaranty Trust Company of New York,
 New York 15, N. Y.

Registrar for 4 $\frac{7}{8}$ % Convertible Subordinated Debentures

First National City Trust Company, New York 15, N. Y.

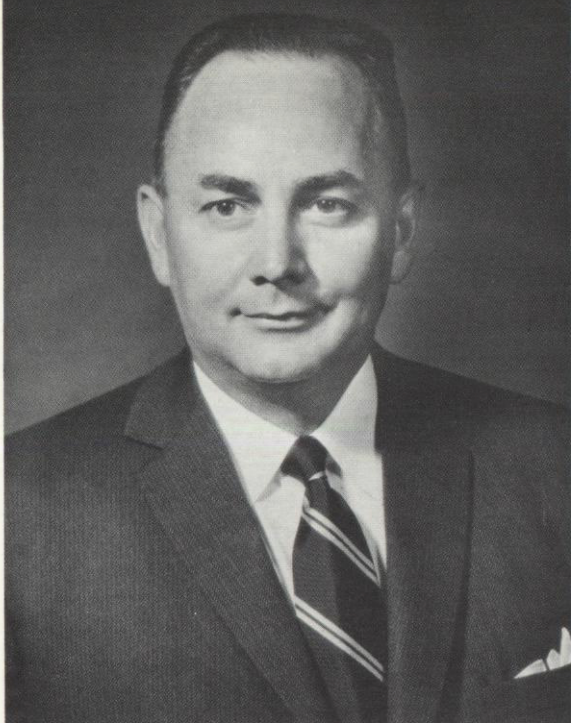
General Offices

67 Broad Street, New York 4, N. Y.

Highlights

	<u>1959</u>	<u>1958</u>
Sales —		
United States	\$306,326,045	\$261,530,146
Foreign	400,085,833	373,622,976
Total sales	706,411,878	635,153,122
Telephone and Radio Operating Revenues	59,228,018	52,298,323
Total sales and revenues	\$765,639,896	\$687,451,445
Net Income	\$ 29,035,688	\$ 26,600,168
Average Shares Outstanding during Year	15,287,468	14,397,848*
Net Income per Average Share	\$1.90	\$1.85*
Dividends per Share	\$1.00	\$.90*
Net Current Assets (Working Capital)	\$222,268,979	\$233,962,786
Ratio of Current Assets to Current Liabilities	1.9 to 1	2.1 to 1
Plant, Property and Equipment, less Reserves	\$355,114,749	\$303,608,585
Stockholders' Equity	\$415,088,256	\$395,738,616
Shares Outstanding, December 31	15,529,830	14,726,436*
Stockholders' Equity per Share	\$26.73	\$26.87*
4% % Convertible Subordinated Debentures Outstanding (convertible into capital stock at \$18.50 per share)	\$ 10,491,500	\$ 22,489,000
Orders on Hand —		
United States	\$217,000,000	\$211,000,000
Foreign	334,000,000	300,000,000
Total	\$551,000,000	\$511,000,000
Telephones in Service	594,405	538,712
Backlog Telephone Demand	301,074	300,897
Number of Employees	136,000	130,000
Number of Stockholders	88,230	67,112

* Adjusted for 2-for-1 stock split.



President's Letter

TO OUR STOCKHOLDERS:

During 1959, ITT and its subsidiaries consolidated had sales and revenues of \$765,639,896. This was an improvement of approximately 11% over the comparable figures for 1958, giving the Corporation the highest revenue year in its history. In addition, despite the situation affecting earnings in Cuba, total net income was at a level of \$29,035,688 or approximately 9% higher than in 1958. This was an earnings record.

During the year \$11,997,500 of our convertible debenture debt was converted into common stock. This increased by 647,384 the number of shares

outstanding, which had the effect of decreasing earnings per share. It has, however, reduced the Corporation debt and increased our equity as a basis for future expansion.

Net earnings per share were affected by several special items. Deductions were made because of devaluation of the Spanish peseta and a number of other items, resulting from a review of policy practices. A profit of \$2,578,392 was gained by sale of our New York headquarters building.

Also, an amount of \$8,728,120 after taxes was written off against consolidated retained earnings representing that portion resulting from the application of these policy practices to prior years, as shown in the financial statements.

Since becoming President in June 1959, I have been reviewing and inspecting the Company's widespread operations in the United States, Europe and Latin America. I have studied particularly the trends and future markets of our traditional product lines, and the Company's organization and managing personnel.

Your Company has established as a basic corporate goal the strengthening of our market planning and marketing activities throughout the worldwide ITT System. The Company's future success will be determined largely by our ability to harness ITT's research, engineering, manufacturing, and management resources into an effective competitive effort in the world's market-places. Considerable attention is being devoted to developing and implementing these marketing policies and programs.

A high percentage of the Company's basic revenues and earnings is still derived from its traditional telephone and transmission equipment manufacturing relationships with telephone and telegraph administrations. This sector of our income represents a relatively secure and growing source of earnings.

Supplementing this important source of income are our telephone and radio utility operations in Latin America and the Caribbean. While under normal conditions these represent stable earn-

ings, their expansion is subject to changing local conditions and to such exterior factors as foreign credit availability.

The third large segment of our operations, broadly speaking, is represented by our defense business in the United States and the industrial components, industrial products and commercial activities (exclusive of telephone and transmission equipment) carried on both in the United States and abroad.

It would appear desirable then to protect our existing good business and expand our operations into other more rapidly growing businesses having higher profit margins. Our first important objective is, therefore, to improve our rate of earnings derived from our present stable product lines by programs of cost reduction, redirected research and engineering, and improved utilization of our assets and facilities, particularly taking advantage of the growing markets in the areas we serve.

Our second but equally important objective must be to add whole new areas of fast-growing electronics and allied commercial product lines in the magnitude necessary to be significant in relation to our present large sales volume in other areas. It will, of course, take some time to develop these faster-growing business areas. Ordinarily, this is a matter of years, not months, although more effective use of our technical abilities and of the potentials of our widely spread world properties and managements should shorten this period.

Both of these objectives involve new organization and redirection of much of our present organization. During the latter part of 1959, our major job was, therefore, to recognize the necessary goals to be set for the Company and to do the basic job of reorganizing our managements, our Company policies and the assignment of, or additions to our personnel in order to develop the bases from which to carry out these objectives. We have created a U. S. Commercial Group and we established in February 1960 our European headquarters management to coordinate activi-

ties in an area that accounts for almost one-half of our volume.

Quicker decisions and more effective on-the-spot administration of growth policies will result from this move. Our New York headquarters group will be an integral part of this European area management group both through administrative procedure and, more important, personal contact. Establishment of our European headquarters will be followed shortly by establishment, in a similar manner, of a South American headquarters, and in turn one for Australia and the Far East. This will increase the effectiveness of our operations and our competitive position in these areas.

Key functional executives have been assigned a worldwide responsibility. The heads of our five area managements — Europe, the Middle East, and Africa; Latin America and the Caribbean; Australia and the Far East; U. S. Defense; and U. S. Commercial — will report directly to the President. Such a management grouping will permit us to make decisions and develop sound policies on the basis of a broad understanding of factors involved in every part of our operations around the globe.

Perhaps it would be well for me to repeat, even if only briefly, something of the nature of our Company that makes this basic change in management philosophy so important to our future, particularly at a time when the potentials of many foreign markets are growing even more rapidly than those in the United States.

I think it is helpful, for example, to remember that the ITT System employs more persons overseas than any other U. S. company. Of our total of 136,000 employees, about 113,000 work abroad. Virtually all these are citizens of countries in which the ITT affiliates are located. We have long-established engineering and manufacturing subsidiaries in all of the Outer Seven countries and in every one of the countries of the European Common Market, except Luxembourg. These are strong companies, some having been established for more than three-quarters of a century. In all,

we operate companies in some 25 countries outside the United States. In addition to our manufacturing operations, we carry on in 10 countries or territories sizable public utility operations in the telephone and radio fields and in long-distance cable and radio communications. We also have sizable companies in the United States. Throughout the world we have at the present time over 17 million square feet of space for active manufacture or research and development.

Regarding important actions of the Corporation during the year 1959, a two-for-one split of the Corporation's capital stock was approved at a special meeting of the stockholders in Baltimore on January 22, 1959, which became effective on February 5, 1959. At its meeting on March 11, 1959, the Board of Directors raised the annual dividend rate to \$1.00 on the split shares, effective with the quarterly dividend payable in April 1959. The new dividend rate would be equivalent to \$2.00 per annum on the old shares, which had been on a \$1.80 dividend basis. The new dividend rate was maintained by 25¢ payments to stockholders on July 15 and October 15, 1959, and on January 15, 1960.

As of December 31, 1959, ITT had 88,230 stockholders' accounts of record, a net increase of more than 21,000 during the year.

In general summary, the operations in the United States of the ITT System's divisions and subsidiaries showed gains in commercial sales without corresponding improvement in earnings. As I have mentioned, specific steps have already been made to improve these results. Both our income and our volume of U. S. defense work were substantially greater than in 1958.

In Latin America the increased yield from our telephone and radio operating properties was more than sufficient to offset the decline in our Cuban Telephone Company's earnings. We continue to work constantly with both our own government and with the Cuban Government to improve the situation in regard to the Cuban Telephone Company, which has remained in a state of "intervention" since March 4, 1959. In common with the situation of other U. S. com-

panies that own properties in Cuba, ours is still without a solution.

In Europe there has been a continued rise in sales and profits of our manufacturing affiliates, accompanied by further investment.

In the Far East — and in general throughout the world's underdeveloped areas — we have faced increasing international competition, not only from our traditional competitors, but also from new sources in Japan and Russia.

I would like to report on the following personnel changes that occurred during the year.

EDMOND H. LEAVEY served as president of ITT until June 10. On that date he was elected Chairman of the Board, a position he held until his retirement on July 31, 1959.

On January 13, 1960 the Board of Directors regretfully accepted the resignation of **CHARLES E. DUNLAP**, senior member of the Board in point of service. The members noted with keen appreciation Mr. Dunlap's contribution to the Corporation over the past quarter century.

DR. L. T. RADER became Group Vice President-U. S. Commercial and a member of the Board of Directors on December 1, 1959. Dr. Rader, Ph.D., California Institute of Technology, has had long experience in fields of commercial electronics. He comes to us from General Electric Company and brings strength to the expected expansion of our commercial markets.

In addition, the following important members of our management team at the corporate officer level have been added during the year to the existing capable membership of our organization:

HARRY G. BEGGS, Vice President and Director, Manufacturing and Facilities, with long operating and consulting experience, comes to us from Cresap, McCormick and Paget, and will be responsible for coordinating and improving the efficiency of our worldwide manufacturing operation. Mr. Beggs joined ITT on July 6, 1959.

HENRI BUSIGNIES, Vice President, General Technical Director, joined the headquarters staff on January 1, 1960. Mr. Busignies assumes worldwide responsibility for technical coordination. He is eminently fitted for this role by his 30

years of service with the ITT System including his presidency of ITT Laboratories from July 11, 1958 to January 1, 1960, a period of many research achievements.

JAMES F. LILLIS, Vice President and Comptroller, who joined ITT on December 16, 1959, has had long experience in finance and accounting. He comes to us from Burroughs Corporation and Price Waterhouse & Co. Mr. Lillis is developing standards for measurement of profit performance and a worldwide basis of financial control. He is also responsible for introducing a system of timely operating performance follow-up needed to place financial administration on a current and effective basis.

WILLIAM T. MARX, Senior Vice President, Administration, assumed his position with us on July 27, 1959. With extensive background in management and organization in the Raytheon Company and Celanese Corporation of America, he has the important assignment of integrating our widespread global staff activities with our area line managements, as well as responsibility for our personnel, planning and organization functions.

M. R. MITCHELL, Vice President-General Counsel, is a 24-year veteran of the ITT System with extensive experience both at home and abroad. He will not only head up the now consolidated legal staff at headquarters but will also have worldwide responsibility for the System's legal position.

ALFRED DI SCIPIO became Vice President, Marketing and Commercial Development, on December 16, 1959. Formerly with the management consulting firm of McKinsey & Company, Inc., Mr. di Scipio has specialized in marketing and business planning for the electronics industry. He will direct market planning and marketing activities throughout the ITT System.

ELLERY W. STONE, a key member of the organization for 35 years, was elected Vice President in 1947 and member of the Board of Directors in 1948. He is acting as Group Vice President-U. S. Defense during reorganization of the defense division. His long experience and background in communications and defense work make him of

inestimable value at this stage of the Group's development.

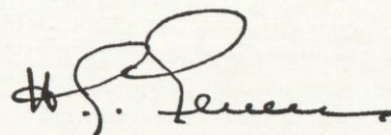
I proposed to the Board, and it was made effective, that only one-third of all options granted after September 1, 1959, will be exercisable after two years, and the remaining two-thirds over two more years, for a total of four years instead of the previous two years, and the length of time of the options was cut to five years. It is felt that these restrictions will be in the best interests of the Company.

I would like to add as a personal note that the efforts of the Company will continue at the highest levels to bring about the accomplishments we seek in the shortest possible time. The traditional strengths of the Company that have created its stable earnings record continue and should expand. I have complete confidence in the abilities of the organization, in the unique potentials of our Company and in the timeliness of the changes being effected.

Our orders on hand throughout the entire ITT System at the end of 1959 were the highest in our history.

To all of the men and women of the ITT System throughout the world and to our suppliers we take this opportunity to express our appreciation for their contribution to the Corporation's efforts and accomplishments during 1959.

For the Board of Directors,

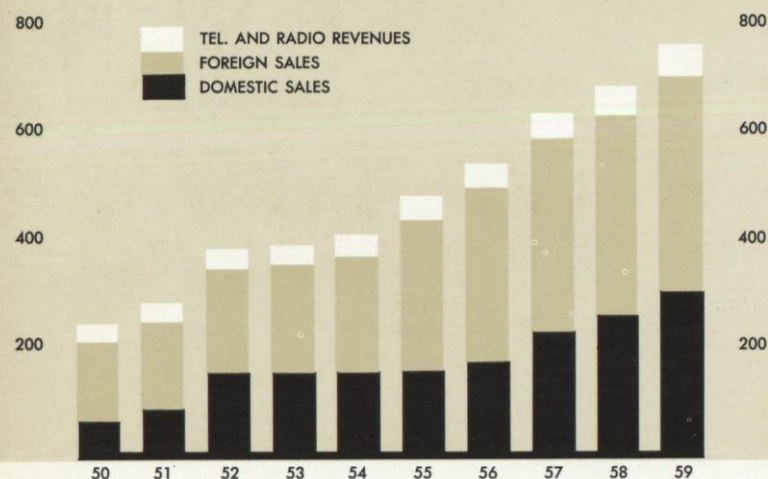


President

March 18, 1960

Sales and Revenues

IN MILLIONS



Financial Summary

SALES AND REVENUES

Worldwide sales and revenues in 1959 reached a new high of \$765,639,896, an increase of \$78,188,451 or 11% over 1958.

Total sales of the subsidiaries and divisions operating in the United States aggregated \$306 million representing 43% of the total sales for the year as compared with 41% in 1958. The 17% higher sales in 1959 reflected chiefly the results of the Corporation's increasing participation in research, development, production and service in communications and related fields for the military agencies of the United States.

Volume of sales of most of the foreign manufacturing units also increased over 1958. Total sales of this entire group of \$400 million resulted in a 7% increase over the previous year.

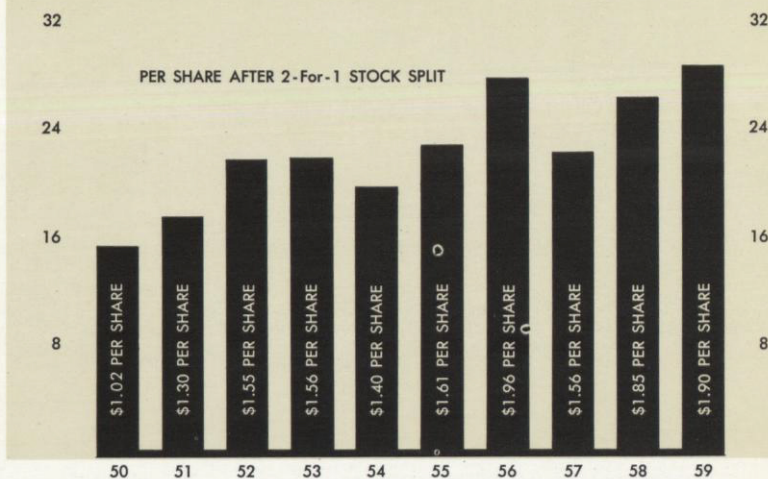
Revenues of approximately \$59 million were derived from the operations of System telephone and radio companies, an increase of 13% over 1958.

NET INCOME

Consolidated net income from worldwide operations rose to \$29,035,688, also a new high, \$2,435,520 or 9% over 1958. Net income per average share outstanding in 1959 amounted to \$1.90 as compared with \$1.85 per share in 1958. The comparative earnings per share reflect the increase in 1959 of 803,394 shares of stock outstanding, principally due to conversions of 4% Debentures. Net income for the year 1959 reflects certain non-recurring items: a loss resulting from the devaluation of the Spanish peseta, profit from the sale of our Headquarters Building, and certain adjustments resulting from the adoption of revised accounting policies referred to in the third quarter report. The over-all net effect of these items on profits for the year was not significant. Except for certain

Consolidated Net Income

IN MILLIONS



commercial operations in the United States which sustained heavy charges in the introduction of new products as well as other non-recurring expenses, all groups showed an increase in earnings over the previous year. The telephone and radio operating companies maintained net income at the 1958 level despite a reduction of approximately \$1,100,000 in our equity in the profits of the Cuban Telephone Company. The status of this company is more fully explained in other sections of this report. The operations of the Chile Telephone Company continued to produce good results, its net income again showing an increase over the previous year.

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

DIVIDENDS

Dividends of 25¢ per share were declared on the capital stock of the Corporation during each quarter of 1959, or a total for the year of \$1.00. This compares with 90¢ per share for 1958.

CHARGES TO CONSOLIDATED RETAINED EARNINGS

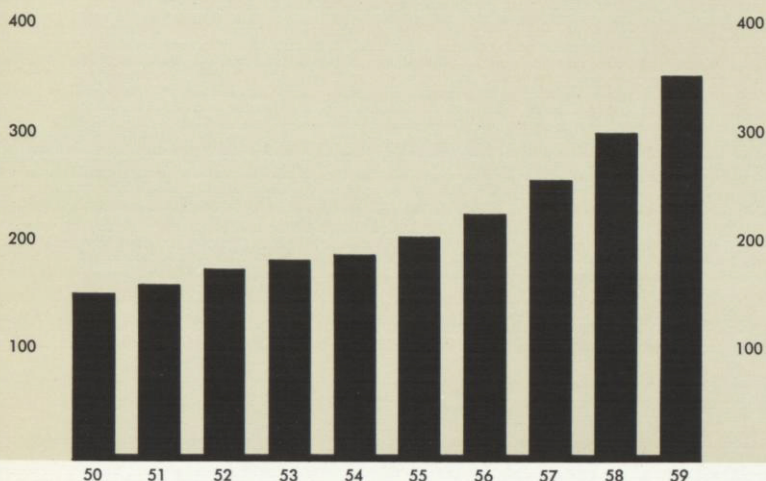
In connection with a study made during 1959, revised accounting policies were adopted with respect to the valuation of inventories and the establishment of reserves for contractual commitments and other contingencies. Such study also indicated that certain unprofitable product lines should be abandoned. As a result, provisions and charges, aggregating \$8,728,120 after related income taxes, and not applicable to 1959 operations, have been charged to consolidated retained earnings. Further details are included in Note 7 to the Financial Statements.

PLANT AND EQUIPMENT

Total outlays for plant and equipment amounted to \$87,000,000 of which \$35,000,000 was expended by manufacturing and research units and \$52,000,000 by telephone and radio operating subsidiaries. This com-

Property, Plant and Equipment—less Reserves

IN MILLIONS



compares with total expenditures in 1958 of \$72,000,000, of which \$47,000,000 was expended by the telephone and radio operating subsidiaries. Total outlays in 1959 exceeded the depreciation charge for the year by \$60,000,000, and included the following major projects:

In Germany, capital expenditures of \$6,378,000 included purchase of a factory at Mannheim-Käfertal, a plant at Rastatt, and land at Gunzenhausen as a site for future construction. New factories were completed in Brazil, South Africa and Belgium, and new laboratory and factory units in England. In the United States \$5,900,000 was expended on the Project Turnkey leased to the U. S. Post Office at Providence, R. I. Production of electronic components was commenced at the new Roanoke, Va. plant. Modernization and expansion programs were carried out at other System production and laboratory facilities.

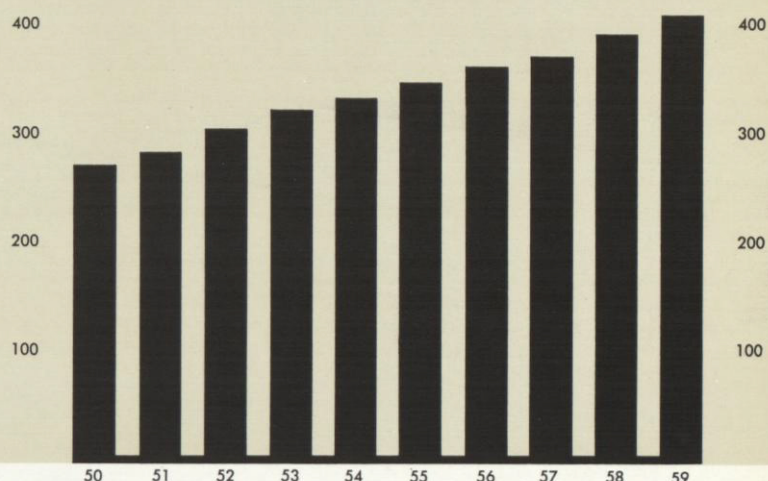
In the telephone and radio operating companies, expansion programs commenced in prior years were continued, resulting in an increase of more than 55,000 telephones, in addition to the installation of submarine cables between Florida and Puerto Rico. To the extent possible, the capital requirements of this group will be provided without resort to the further use of the Corporation's credit, through the sale of securities of the individual companies.

FINANCIAL POSITION

Consolidated working capital of the Corporation as of December 31, 1959 amounted to \$222,268,979, a decrease of \$11,693,807 from the same date last year. A major part of the increase in accounts receivable is related to the higher sales level and the remainder is temporary, pending the definitization of an important contract with the United States Air Force. The reduction in cash and marketable securities reflects the increased demand for cash in our expansion programs, coupled with our objective of minimizing to the extent

Stockholders' Equity

IN MILLIONS



possible the employment of additional outside capital in certain areas of our operations.

Major financing programs completed during the year included the sale by International Standard Electric Corporation of 50,000,000 Swiss franc 15-year 4% Debentures, equivalent to \$11,570,000. Standard Elektrik Lorenz A. G. secured long-term bank loans of 31,000,000 Deutschemark, equivalent to \$7,400,000 at interest rates ranging between 5% and 7½%. Cuban Telephone Company increased its long-term 6% U. S. dollar borrowings from the Export-Import Bank by \$5,270,000 through the utilization of the remainder of the credit arranged in 1958, largely used in payment for telephone equipment delivered in 1959. Radio Corporation of Puerto Rico sold \$5,000,000 of 25-year 5½% Debentures.

It was not necessary in 1959 for the Corporation to utilize the \$50,000,000 term loan agreement entered into in 1958. Our financial plans indicate the need for a portion of this loan in 1960. As we presently see our longer term requirements, no additional equity financing is contemplated by the Corporation.

One of our major immediate objectives is the improvement of financial and accounting controls and the achievement of greater ratios of turnover of assets. Stockholders' equity at December 31, 1959 increased over 1958 by \$14,393,597 from conversions of debentures and exercise of stock options for an aggregate of 803,394 shares and by \$4,956,043 from a net increase in consolidated retained earnings.

FINANCIAL STATEMENTS

The consolidated financial statements of the Corporation and its subsidiaries and the opinion of our independent public accountants are shown in a later section. In addition, a ten-year summary of the financial highlights of the Corporation and its subsidiaries consolidated follows thereafter.



Research and Development

The principal business of your Corporation is to provide the finest communications that the electronic arts make possible throughout the world. The success of our business in 1959 was, and in future years will be, built in large measure on the international research and development program of the ITT System. This program involves the cooperative efforts of scientists and engineers in many companies. It continues to be carried forward in our laboratories in Europe and the United States.

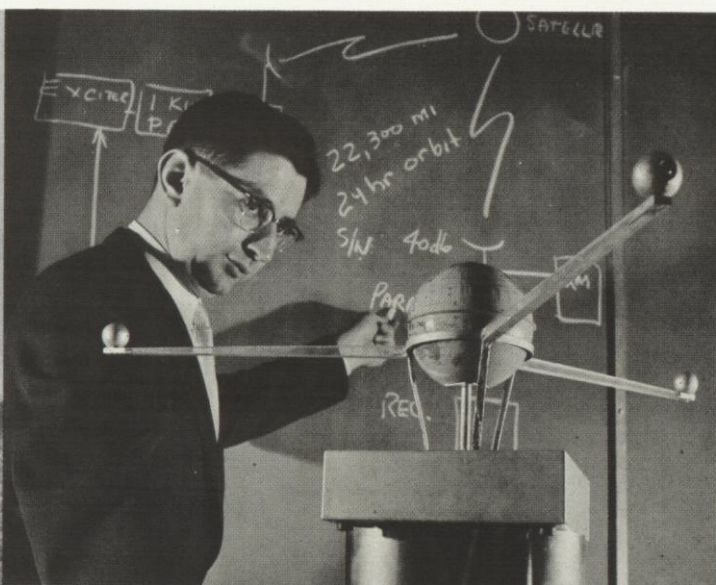
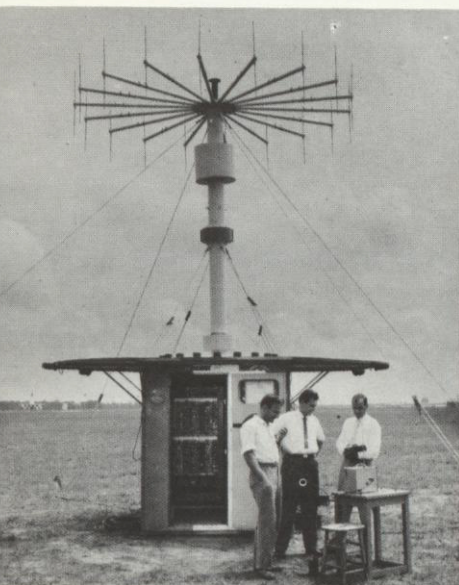
Broadly speaking, the aims of ITT research and development are fourfold: to develop new means and channels of communication; to improve existing facilities; to explore new uses for systems and devices that are now available; and to develop new products and materials.

In 1959, for example, Laboratoire Central de Télécommunications, ITT's French research associate, demonstrated and put into regular operation in Paris a 240-line fully electronic private telephone exchange. The control circuit of this new switchboard operates 10,000 times faster than the electromechanical exchanges now used

throughout the world. Here is an example of a *new means* of communication now being developed by engineers of the ITT System that promises to play an important role in the advancement of worldwide telephony (see cover story).

Our continuing endeavor to *improve existing facilities* is exemplified by the development in the past year of two new airborne units used in the tactical air navigation system known as *Tacan*. This system, developed for the U. S. Navy by ITT in 1953, has been adopted by NATO. The commercial adaptation of the distance-measuring portion of *Tacan*, called DMET, has been recommended by the International Civil Aviation Organization as the international standard for short-range navigation. The new and improved *Tacan* equipment will now function at higher altitudes over longer distances, and will be considerably lighter — always a prime factor in airborne electronic devices — than the equipment it replaces.

Scientists of the ITT System have been alert through the years to possible *new uses* for electronic products already in being. In 1959, for instance, the electronic spectroanalyzer, brought out by the Corporation in 1957, showed great promise for application in a variety of fields. The spectroanalyzer makes use of infrared techniques to analyze chemical compounds. During



the past two years we have been cooperating with the Sloan-Kettering Institute in New York to discover the best way to use this technique in medical research, with special emphasis on the detection and analysis of cancer.

High on the list of new applications for computers was the use during the year of our Stan-tec-Zebra to calculate the amount of equipment required to handle anticipated traffic in new telephone exchanges. In one instance, between three and four million mathematical operations were accomplished in about 100 hours. This would be the equivalent of approximately five years' work for a manually operated machine.

Typical of our *new product development* and application is the parametric amplifier, which increases the volume of a desired radio signal without creating or amplifying other sounds that would interfere with the signal. It has been applied to over-the-horizon (O/H) transmissions as well as to other major communications systems. During the year our research program also developed a process known as "flameless fusion" whereby a few cents' worth of rust-like substance can be transformed into a nearly perfect ferrite monocrystal — a *new material* that opens promising avenues in further research in microwave and many other fields.

The high degree of accuracy of the commutated-antenna direction finder developed by the ITT System in England, left, has brought increased safety to air operations.

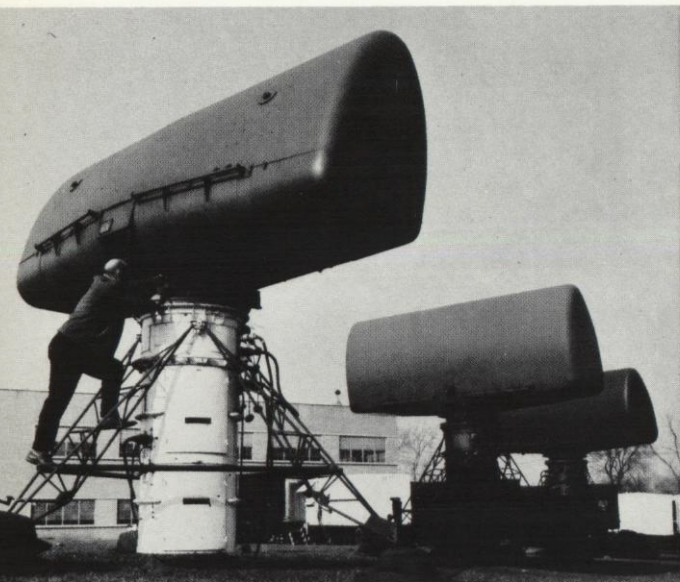
A mock-up of 24-hour active satellite communication system proposed by our U. S. laboratories for worldwide telephone-telegraph-television-facsimile service, center. With suitable ground networks, it could serve the entire world.

ITT's DIGICOM, right, automatically seeks fastest message path and reroutes message if lines become damaged.

Our licensing of du Pont to use the ITT-developed silane gas process is furthering efforts to obtain the world's purest silicon for use in the semiconductor field. This has led to additional work with the company to explore wide uses of electronics, including the spectroanalyzer, in the chemical industry. The oil industry, too, has expressed interest in studies along these lines.

It has been our experience that this sort of research is fruitful. We find that it leads not only to promising areas of new business, but also to research breakthroughs at many points in the great and growing field of communications.

The term "communications" has a special meaning for electronics engineers. It refers to the transmission of information or intelligence from a source to a destination, regardless of the method used. It may convey information or trigger some kind of action. ITT's fundamental strength and the purpose behind its research and development program are derived from the Corporation's involvement with every aspect of modern



Radar antennas of the Nike missile test site at ITT Federal, Clifton, New Jersey, are used to check out air-attack simulation equipment.



Inspecting Creed Model 75 lightweight teleprinter now in full production at the company plant in Croydon, England. It is in service or on order in 30 countries.

communications. We are concerned with building and extending telephone networks on every continent, and under the seas, as well as with the intricate electronic devices that guide a missile to its target. We operate radar warning systems and manufacture digital computers. We are occupied with the installation of automatic banking systems and the marketing of closed-circuit television.

Throughout the world, rapidly expanding populations, more mobile and articulate than ever before in history, are sending and receiving great masses of information. Traditional avenues of communication are hard put to handle this traffic load. Telephone and cable lines, and radio frequencies and television channels, are crowded. Thus, a major purpose of ITT research is to develop new and better ways of transmitting and receiving knowledge.

Many of the developments described in this report aim at compressing more and more information into smaller and smaller packages, and transmitting it in less and less time. This must be done at reasonable cost, and the information must reach the destination precisely as intended by the originator.

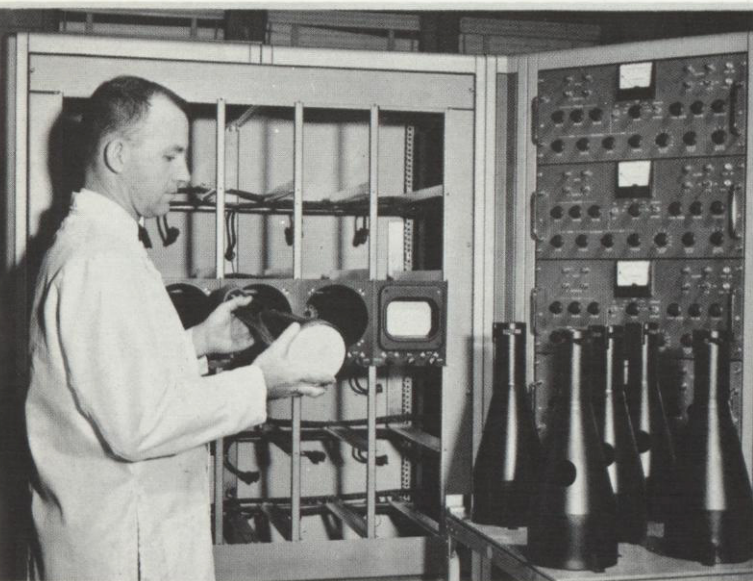
A major field of study concerned with these matters is that of *automatic switching*. The fundamental principles of switching, developed

originally for telephone systems, are applicable today to virtually every form of electrical communication system. This concept is a key to long-range development projects such as the expansion and modernization of the Air Force's global communications system now being undertaken by ITT. Switching devices enable the Air Force to communicate with any unit on the ground or in the air by voice or by record communications.

The electromechanical switches that are the heart of telephone switching systems have many uses. One application is the central operation of automatic tools and industrial processes. Traffic concentrators capable of reducing the number of exchange cables by a ratio of five-to-one were introduced by one of our French companies during the year.

Development continued in 1959 on STRAD, the world's first fully electronic and automatic telegraph retransmission system, whereby incoming traffic is examined, arranged by destination and priority, and then automatically retransmitted with a minimum of delay, or stored until lines are free to accept it. Our British affiliate has completed the first two STRAD installations, and worldwide interest in them has resulted in additional orders.

In the same field, one of our British subsidiaries



A cathode ray tube is inserted into the display system of an optical satellite tracker at our Fort Wayne facility. It uses 25 telescopes to record the path of a satellite.

participated with other manufacturers and the British General Post Office in the design and manufacture of an experimental electronic telephone exchange.

An advanced switching technique that permits reduction in internal office communication-links employs the time-sharing principle (as opposed to spatial switching). This concept is being studied by our Belgian company. Another application of this principle, known as pulse code modulation, was originated by laboratories of ITT as early as 1938. Now this discovery is receiving increased attention due to the availability of new components, particularly improved semiconductor devices. Tests of pulse-code-modulation multichannel equipment designed in England are proceeding in cooperation with our Spanish company.

Applications of the most advanced switching techniques are numerous in our U. S. laboratories. A new electronic switchboard utilizing both space-sharing and time-sharing was developed for the U. S. Army Signal Corps.

In addition to handling voice circuits, this unit can accept information from a computer and switch it to the user in the field. For purposes of logistics, it can in one second handle and feed up to 25,000 items of information on such matters, for example, as ammunition, food supplies, and the availability of spare parts.

During the year we delivered to the Signal Corps two other important systems of military communication. One was a versatile radio relay system that equips troops in combat areas with virtually every type of two-way communication service. The other is a digital communication system known as DIGICOM, an all-electronic complex that automatically bypasses damaged lines and reroutes messages over the fastest available path.

ITT engineers in the United States also made rapid progress in 1959 on the project called BIX (the letters stand for "binary information exchange") — a telegraphic switching complex under development for the U. S. Government.

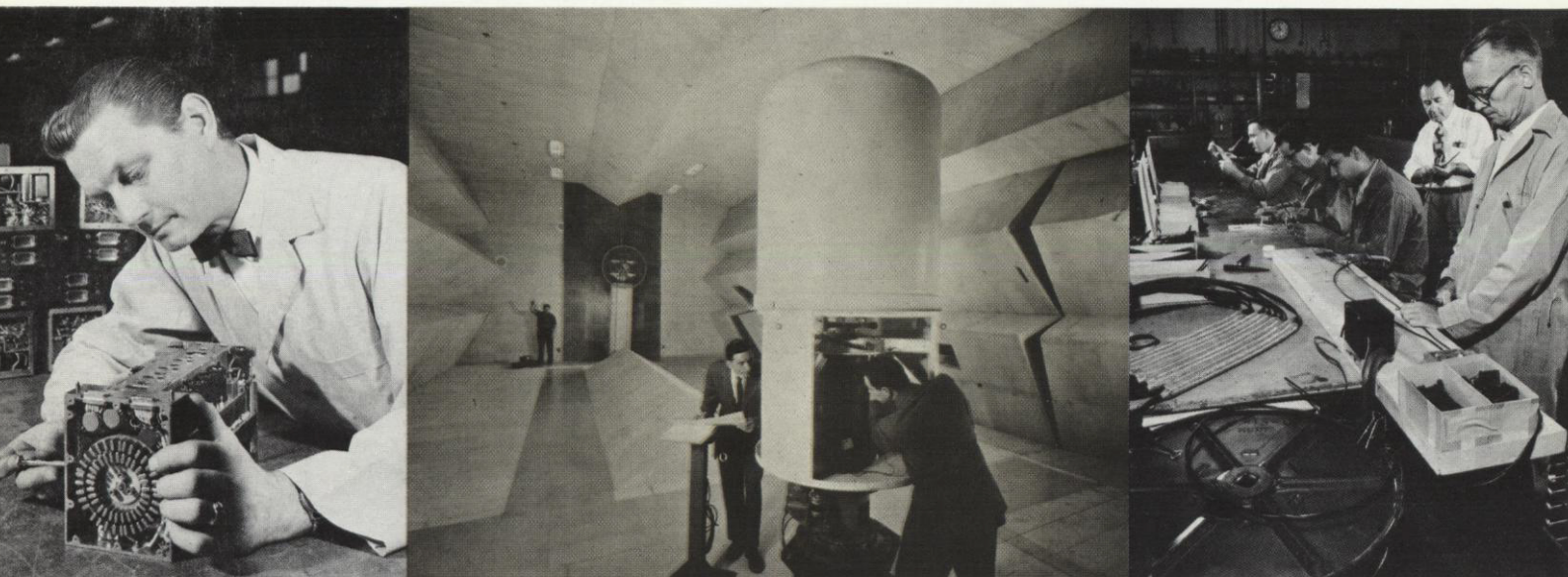
Not all studies assume that telephone exchanges must be entirely electronic. The combination of electronic controls with modified electromechanical switching equipment gives many of the advantages of fully electronic systems and does not require replacement of subscriber sets already in use. This technique is being advanced by our German affiliate.

The U. S. Post Office Department has awarded ITT a second-phase research and development contract to study a process of potentially great interest to the American public. It calls for the exploration of the possibilities of high-speed electrical transmission of facsimile mail.

A number of the research and development activities we have cited so far are based on principles of automatic switching. ITT and its affiliates are engaged in many other projects of equal significance. Although some of the following developments make use of switching techniques, they are more readily classified under other headings.

In the past year, for instance, our associated companies were active in developing communications for *missiles and space systems*. Work of a classified nature was carried out in connection with Polaris, Bomarc and Lacrosse missile programs. ITT was able to solve a troublesome problem relating to the blackout in communications from missiles re-entering the earth's atmosphere. Thermal ionization of the surrounding air consistently knocked out the transmission of data from these missiles before engineers at our laboratories in Nutley, N. J. devised a re-entry telemetry system to neutralize the effect.

To aid in the research connected with the burgeoning field of *space and satellite communica-*



tion, we are installing a 40-foot parabolic antenna that will be used to track artificial satellites even in oblique or erratic orbits, and also to further investigation of the possibility of international communications by a satellite relay. We have also developed a satellite tracker that operates on heat detection rather than by the usual optical or radio devices.

Also in this field, we received a major contract awarded by the Signal Corps for ground equipment associated with a projected globe-circling worldwide satellite communication system. In addition, our scientists have continued to explore a plan for using a satellite in stationary orbit for round-the-clock communications by telephone, telegraph, television, and facsimile.

We have continued development work throughout the year on *air navigation aids*. For example, our German affiliate's VOR transmitters are specially designed to fulfill Federal Aviation Agency (FAA) requirements for installation outside the United States. These have found wide acceptance during 1959, over 100 having now been sold for installation in more than 20 countries. The FAA has placed evaluation orders for our British affiliate's new radio altimeter, which has successfully passed a test of more than 4,000 fully automatic landings. Numerous orders for the new commutated-antenna direction finder developed by the same company were received during the

year, and a transportable version was demonstrated in Canada and the United States.

ITT System companies were increasingly active during the year in the development of *computer* and *data-processing equipment*. Major problems under study related to complete data-handling systems. Several projects in this field involve extensive collaboration of specialized technical groups from many ITT units. Other research efforts were directed toward simplifying data-processing equipment. Computers and data-processing units offer exceptionally strong prospects for growing commercial use in banking houses and production control. We will spend more money on research in this field in 1960 than we have at any time in our history.

Our European companies and laboratories pursue research in all elements of *long-distance communication*: wire lines, land and submarine cable systems, microwave radio relays and over-the-horizon radio. During 1959 our British affiliate developed a technique whereby standard-diameter coaxial cable systems may be used to handle as many as 2,700 speech channels on two coaxial tubes. New techniques in the sheathing of trunk and subscriber cable with aluminum and plastic were employed to prevent electrical interference from high-voltage power lines. Our British and Norwegian companies are equipped to produce such cables.



Many new areas of *component development* were investigated in the United States and in Europe during 1959. We put into pilot manufacture more than 100 new semiconductor products. Our plant in Clifton, N. J. introduced new rectifier products for the radio-television distributor market and expanded production of industrial power tubes, including vapor-cooled models that operate under new extremes of temperature.

Our laboratories in England and the United States have done further research on the tunnel diode principle originated by the Japanese scientist Esaki, and have realized promising new structures that will find valuable applications.

Our atomic clock project, described last year, is now backed by the U. S. Navy. The 1958 model was reduced in volume during 1959 to one and one-half cubic feet, an eighth of its original size, so that this clock may now be installed in aircraft and space vehicles for the first time.

In line with policies described in the President's letter, a reorganization of our laboratories in the United States took place during the year, resulting in more centralized administrative control. We continued to build up our professional staff. Some 300 new engineers and scientists joined ITT System companies in the United States and Canada in 1959. Meanwhile we continued to expand our laboratory facilities. A new laboratory building was dedicated at Nutley, N. J. The labo-

ITT Federal's compact radio assembly, opposite left, is the distance-measuring part of airborne *Vortac*. The system has been recommended as the international standard for short-range air navigation.

Production-line testing of antennas is conducted by ITT in interference-free anechoic chamber, opposite center.

Assembly at ITT Laboratories, opposite right, of coaxial cable designed for payout by helicopter at speeds up to 100 miles an hour in continuous 10-mile lengths.

Testing missile fuzes at our Fort Wayne astrionics laboratory by rolling a metal ball along the large spiral wave guide, above left. The ball, a moving short circuit, simulates a target closing in on a missile. The sensitivity of the fuze to the simulated target is recorded graphically for analysis.

Gas jets lick elements of giant electronic power tube, above right, as technician makes delicate glass-to-metal seal.

ratories in England were moved to larger, specially designed premises at Harlow in Essex.

It is difficult to tell when development is completed and production begins. As we indicate on the following pages, development frequently continues until time of delivery. Production models based on the needs of a particular customer are often still in the realm of research. Hence, a number of projects and products are covered in this report in both their development and production stages.

In many instances it will be difficult, if not impossible, to attribute a given research accomplishment to one laboratory, since the facilities of many companies may have contributed directly or indirectly to the project.



United States and Canada

Our Corporation's group of manufacturing, research and service companies in the United States comprises the youngest part of the ITT System. Although our operations here are largely the product of the last twenty years, by 1959 the activities of this domestic group had increased to the point where they now account for about 40 per cent of our total sales and revenues.

The major share of our business in the United States and Canada is in the field of national defense. However, as may be seen on the following pages, we are also doing an important amount of commercial business in the United States. It should be added that the Corporation remains at all times alert to the possible commercial applications of military developments.

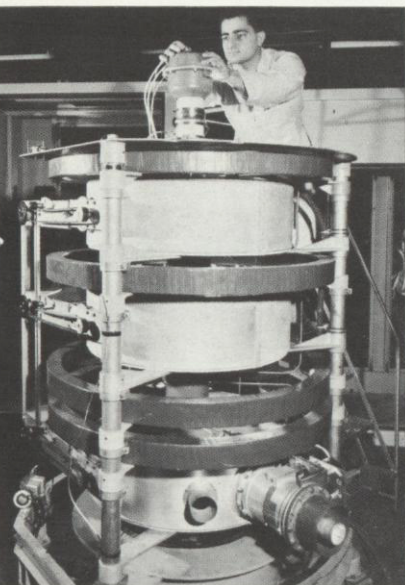
Commercial

ITT units in North America continued to expand their commercial capabilities during 1959. *Kellogg Switchboard and Supply* division leased an

additional plant in Chicago for its Systems Engineering group, and completed staffing of the carrier-microwave plant at Raleigh, N. C. *ITT Laboratories'* new building at Nutley, N. J. houses commercial as well as government avionics and radio communication. The *Components Division*, in accordance with the Corporation's long-range plan for substantial growth in the electronic components industry, leased a new plant in Roanoke, Va. for production of special-purpose electron tubes.

The demand for silicon semiconductors is increasing at a very rapid rate, exceeding that of any other component in the electronics field. We now offer one of the most extensive lines of these products in the industry.

Components are the small basic units in any electronic system. The ideal component would be of zero size and weigh nothing, and it would produce no heat. These aims, of course, are unattainable, but improvements of the components that now exist all work toward them. The silicon



A powerful radio amplifier employed in missile guidance and produced by ITT Federal, above left. Another model, used in the SAGE network, guides manned aircraft as well.

Construction in progress at Providence, R. I., above right, site of the nation's first automated post office. The new facility is being built and equipped by our Intelix Systems.

semiconductor is in demand because it is smaller and lighter, and gives off less heat than the selenium or vacuum tube rectifier it replaces.

Similar miniaturized units—the zener diodes produced by our Clifton, N. J. plant and the tantalum capacitors produced at our factory in Palo Alto, Calif.—offer growing possibilities for ITT in component manufacture.

Sales of our principal line of telephone sets established a new record in 1959 for the second successive year. Kellogg's rural subscriber carrier equipment, which enables minimum wire facilities to provide maximum service at low cost, went into operation in 225 U. S. communities.

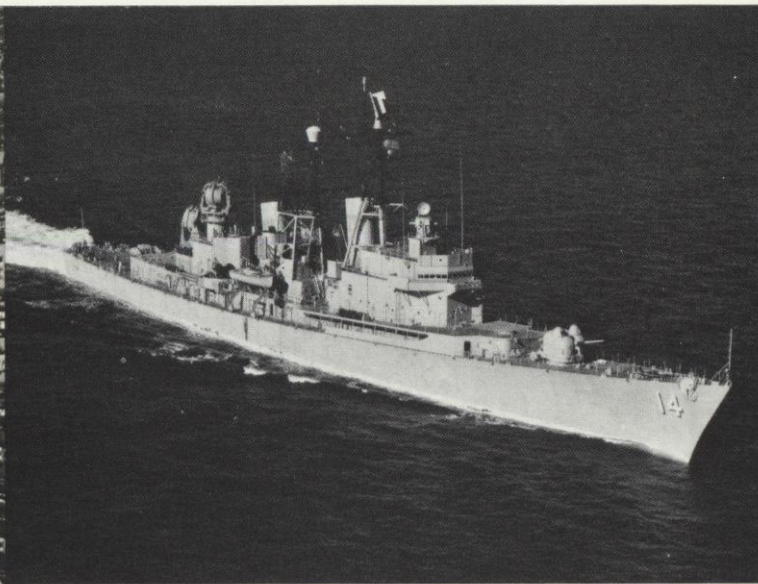
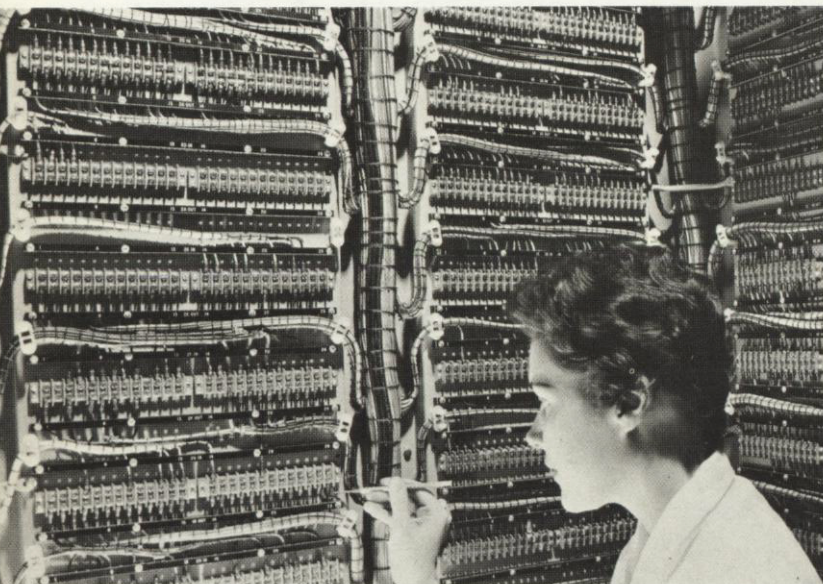
The Bell System as well as independent telephone companies completed successful tests of Kellogg's short-haul trunk carrier, which utilizes the same techniques to provide increased channels between telephone exchanges. The first production models were placed in service in six states. Switching equipment was engineered, manufactured, and installed in 101 exchanges from coast to coast and in Alaska and Puerto Rico.

A major commercial development of 1959 was our delivery of all radio equipment for the Florida City terminal of the 186-mile over-the-horizon microwave system between Florida and the Bahamas. This first link in a radio communication network for the islands began operation on January 17, 1960.

Our *Industrial Products Division* approximately doubled its sales in 1959 and established positions in a number of new business areas. Promising commercial and government markets are developing in the field of large-screen oscilloscopes, a major IPD product. The division meanwhile is developing, manufacturing, and marketing power-conversion equipment, industrial closed-circuit television devices, electronic precision measuring instruments, and mobile radio-telephone equipment.

Continued also was a development-production project under a large contract with the Federal Aviation Agency covering ground transmitters, antennas, and control systems for the Agency's new *Vortac* program. Airborne requirements of the program—DMET (distance measuring equipment-*Tacan*)—are being supplied for the Boeing 707, the Lockheed Jetstar, and the Convair 880 jet airliners, as well as for executive planes and the FAA's own fleet of aircraft.

Work is progressing on the first fully automatic U. S. post office, under construction in Providence, R. I. by *Intelix Systems Incorporated*, as



well as on the fully transistorized data-processing and document-handling banking systems that Intelix is supplying to First National City Bank of New York and Valley National Bank of Phoenix, Ariz. Intelix also expanded its U. S. market for telephone cable and teleprinter equipment. The Intelix subsidiary, *Airmatic Systems Corporation*, increased its sales of automatic, semi-automatic, and manual pneumatic tube systems. Several fully automatic systems with electronic routing and switching were installed in banks and hospitals.

Royal Electric Corporation's sales volume reached a new high in all its lines, including insulated wire and cable, electric cord sets, power-supply cords, electric fuses, and wiring devices.

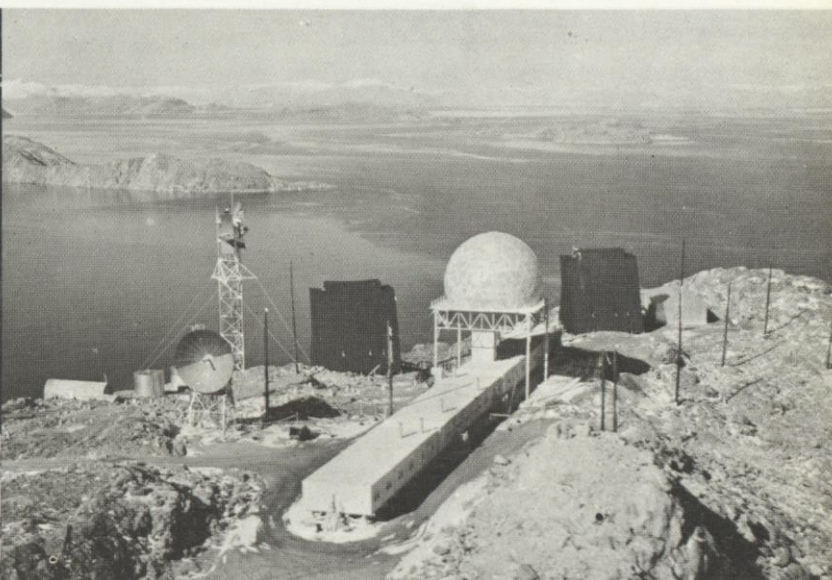
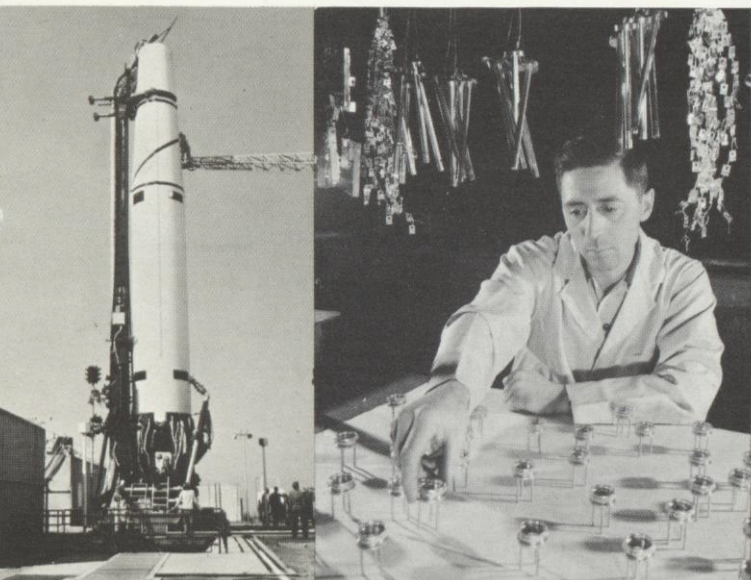
The position of ITT units in Canada was strengthened during the year. *Royal Electric Company (Quebec) Limited* expanded its production of wire, cord sets, and fuses, and *Standard Telephones & Cables Mfg. Co. (Canada) Ltd.* showed a sales increase of 25% over 1958. The company was awarded a defense order for *Tacan* air navigation equipment during the year. Sales of teleprinters manufactured by our German company mounted with the demand from the growing Canadian telex network. Sales of components and of telephone switching and data-processing equipment rose in the past 12 months.

Defense

ITT expanded many of its defense projects during the year, and acquired important new contracts. One of these was for maintenance and operation of the electronic systems at the U. S. Navy's Pacific Missile Range facility, Point Arguello, Calif.

The System's two largest operation and maintenance contracts, the Distant Early Warning (DEW) Line and the White Alice communication system, which are the responsibility of *Federal Electric Corporation (FEC)*, were renewed by the U. S. Air Force for the fiscal year that began July 1, 1959. The DEW Line is a 3,000-mile chain of early warning radar stations north of the Arctic Circle, and White Alice in Alaska is the world's largest over-the-horizon communication system. During 1959 FEC's Canadian subsidiary, *IT&T Electronics Service Company of Canada Ltd.*, stepped up its role of providing depot-level maintenance and calibration of electronic test equipment for Canadian sectors of the DEW line. An Alaskan subsidiary of FEC, *Northern Services, Inc.*, furnished non-electronic support to the White Alice project.

Our *Kellogg* division provided complete ground communications for the firing of Titan and Thor ballistic missiles and Discoverer and Samos space satellites at Vandenberg Air Force Base. At



Vandenberg and outlying inter-sites this company's area of responsibility for the Atlas ICBM embraces nine separate systems for communication, control, maintenance and checkout, countdown, voice-recording, and fire alarm — all functioning as an integrated machine.

Two major U. S. Air Force communication programs advanced during the year by the ITT System were: a worldwide communication and control complex for the Strategic Air Command and a ten-year program to expand and modernize the U. S. Air Force global communication system. The contract for the latter project was received in February 1959 and a new corporation, *ITT Communications Systems, Inc.*, was formed to handle the tasks of development, design and planning.

ITT participation in the SAGE (semi-automatic ground environment) air defense warning system includes the supply of ground-to-air duplex amplifiers, which permit the Bomarc missile and manned interceptors to be integrated with SAGE, and complete communications facilities required to link SAGE sites with independent telephone companies.

Other contracts awarded during the year call for the construction of an inter-communication system for the National Aeronautics and Space Administration's rocket launching site at Wal-

Inspection of missile electrical launching equipment at our Federal plant, opposite left, requires use of dental mirror.

Missile-carrying *USS Dewey*, opposite right, another U. S. destroyer equipped with ITT degaussing system as shield against magnetic mines and homing torpedoes.

Thor missile, above left, before launching of Discoverer satellite at Vandenberg Air Force Base, where Kellogg has provided the communication system and allied equipment utilized in such space and ballistic launchings.

Jewel-like gold-plated units, above center, are vital elements of the electronic guidance system produced by ITT Federal Division for the super-accurate Lacrosse missile.

DEW Line station, above right, one of about 60 operated and maintained by our Federal Electric Corporation.

lops Island, Va., and the building and equipping of a U. S. Navy microwave installation in the San Francisco area.

Progress on instrumentation of the 450-mile Eglin Gulf Test Range in Florida, work for which *ITT Laboratories* is prime contractor, indicates that this sensitive missile tracking and telemetry system will be in operation by the middle of 1960. A countdown system employing the advanced technique of magnetic logic was designed for the Eglin Base during 1959.

First deliveries of new portable communication units to the U. S. Marine Corps were made in the latter part of the year. Designed for mounting in jeeps, this rugged equipment will provide Marine detachments with complete radiotelephone and teleprinter service.



Europe, the Middle East and Africa

also the chairman of ISE. The group of companies that make up ISE constitute one of the world's largest producers of electronic and communication equipment. These companies comprise manufacturing and laboratory units situated in 19 foreign countries and employing approximately 96,000 people. Their activities are described at various points of this report, principally on pages 21 through 29.

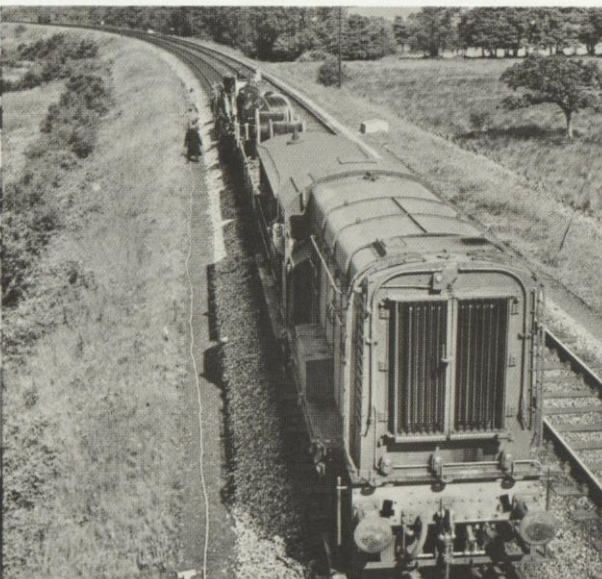
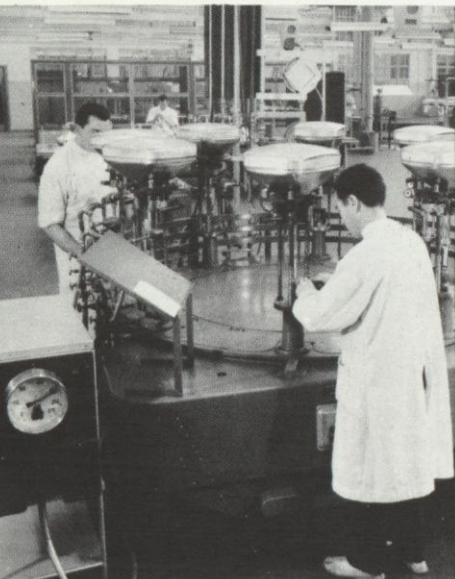
ISE maintains a worldwide network of sales companies, distributors, and field representatives. The Export Department of ISE supplies foreign governments as well as ITT System companies and other customers outside the United States with raw materials and finished products, principally of U. S. origin.

The year saw the formation of a new ISE unit, *International Standard Engineering, Inc.*, for design and installation of the SHAPE-NATO Norway-to-Turkey command network under the ACE HIGH contract.

Economic growth in Europe during 1959 continued at a high rate, and this growth was reflected in broadened activities and increased sales for our companies in that area. Telephone equipment continues to represent the System's

International Standard Electric Corporation

ITT research, manufacturing, sales, and licensing activities outside the United States are directed by *International Standard Electric Corporation* (ISE). This is a wholly-owned subsidiary with headquarters in New York. The chief executive officer of the parent company, ITT, is



largest category of manufacture and sales in Europe. In this category, as well as in most others, income rose during the past year. The highest rate of sales growth took place in the fields of automation, data-processing and components. It is in these fields that a marked increase in our European research and sales efforts will take place in the coming year.

The European Common Market has as yet had no effect on our main lines of business nor is it likely to do so during the coming year. Nevertheless, we believe it will inevitably give impetus to business in the years ahead, and steps have therefore been taken to integrate System activities in Europe more closely.

Manufacture and Sales

During 1959, our Austrian manufacturing company supplied switching equipment to the government telephone administration and increased its sales of automatic telephone systems to other national departments as well as to private customers. Special long-wave transmitters were delivered to the Austrian Government, and amplifying and monitoring equipment was completed on four broadcast transmitting stations.

Technicians use sealing machine to finish 17- and 21-inch television tubes at our manufacturing plant in Spain, left. The new cathode-ray tube shop began production in 1959.

Small-diameter coaxial cable, product of our principal unit in England, being laid below ground alongside track as part of British Railways' modernization program, above center.

An outstanding achievement of our Paris laboratories is this 240-line fully electronic private automatic branch exchange, above right.

In Belgium, our *Bell Telephone Manufacturing Company*, Antwerp, introduced an identification service that permits automatic ticket-recording of toll calls and high-speed call tracing. It established a nuclear energy department for the development of reactor control instrumentation and related equipment.

The company is presently manufacturing automatic banking systems, and mail-handling equipment for the automatic post office being built in Providence, R. I. by one of our U. S. subsidiaries.

Sales of consumer products continued to show substantial increases over 1958: radio and television sets and refrigerators all moved ahead in sales. A new factory, begun last year in Ghent, has been completed.

Orders received by our Danish company ran 65% above those of last year. The first entire telephone network equipped with crossbar rural exchanges was completed, and sales of private automatic branch exchanges more than doubled



Fire alarm and control center of the new *Bremen*, largest passenger ship of the North German Lloyd Line. The complete system was supplied by our German company.

Our Italian company's *Tacan* and coaxial cable, on display at a Milan fair, typify ITT's prowess in radio aviation aids and in telephone, telegraph, and television cables.

those of 1958. A new and lower-priced mobile radio has been developed.

In France, our growth continues. *Compagnie Générale de Constructions Téléphoniques* had sales 20% higher than in 1958. Wide acceptance of the "Pentaconta" crossbar switching system for both public and private exchanges increased sales internally and trebled export sales. The company installed an electronic remote-control system for the French National Railways on the Paris-Lille electrified line, and received a second order for this type of equipment for another line. A new factory near Paris is under construction.

Le Matériel Téléphonique had a notable year. Among the highlights were exchanges supplied to the Paris and Marseilles networks as well as equipment for the French National Railways; transistorized printed-circuit mobile radio equipment delivered to the French police and specialized radio equipment to the French armed forces; and a contract for an automatic flight-reservation system for Air France.

The company received orders for the supply of *Tacan* equipment to the French Navy and also

for export during 1959. It also increased substantially its activity in the broadcast receiver field and in switching and radio equipment. Early in 1960 the installation of a television and multi-channel telephone link across the English Channel, performed in cooperation with one of our British companies, was completed for the French PTT and the British General Post Office.

In Germany the year's activity is also impressive. Sales of *Standard Elektrik Lorenz Aktiengesellschaft* and its divisions increased over 1958 by more than 16%, and orders on hand by nearly 70%. Besides the 13 plants existing at the end of 1958, three new properties were acquired.

All of this company's divisions moved forward: *Mix & Genest* produced a new telephone set, the "Assistent," featuring technical improvements and modern design. It will be manufactured jointly with our Belgian subsidiary. This division has begun deliveries of public exchanges to Iran, and has put into service the first of five automatic exchanges in Greece.

Lorenz division's sales of railroad signaling equipment increased 30% and work began on transmitters, including complete antenna equip-

ment, for the extension of the German television network.

Schaub's total sales of television and radio broadcast receivers increased more than 18%, while export sales rose 32%. An important development was a fully transistorized very-high-frequency portable radio with four wave ranges, suitable for automobile use.

Informatik, manufacturers of electronic data-processing equipment, completed installation of its automatic flight-reservation system for Scandinavian Airways System with the cooperation of our company in Denmark. The success of this installation, which has been working on a 24-hour schedule since its opening in February 1959, has brought orders from other airlines.

The year in Italy marked the 50th anniversary of *Fabbrica Apparecchiature per Comunicazioni Elettriche Standard, S.p.A.*, and was accompanied by an increase of 10% in sales over 1958. The company installed locally manufactured air navigation aids at four airports in Italy, and remote-control equipment for the Italian and Chilean national railways. Other activities included installation of a small-diameter coaxial cable network in Sardinia, connected to the mainland by a submarine cable; and development of a transistorized carrier system ordered by the Italian Government, and of a new radio link system for a network in Sicily. The company shared in the growing Italian export business and supplied telecommunication equipment to customers in no fewer than ten countries.

In the Netherlands, our company participated in the increased demand for telecommunications and electronic products, and sales and orders on hand for 1959 were higher than in 1958.

In Norway, 1959 sales of *Standard Telefon og Kabelfabrik A/S* reached a new high, rising 7% over 1958. During the year the company produced cable for the Norwegian Telephone Administration, employing its newly developed aluminum-sheath technique, and completed the manufacture and laying of oil-filled submarine power cables across the Oslo Fjord. Also completed was a notable submarine cable crossing in the north of Norway, making a total of 1,170 tons of submarine cable laid during 1959. The company received an order for two instrument landing systems in 1959, making a total of seven such systems ordered for Norway's airfields. Orders

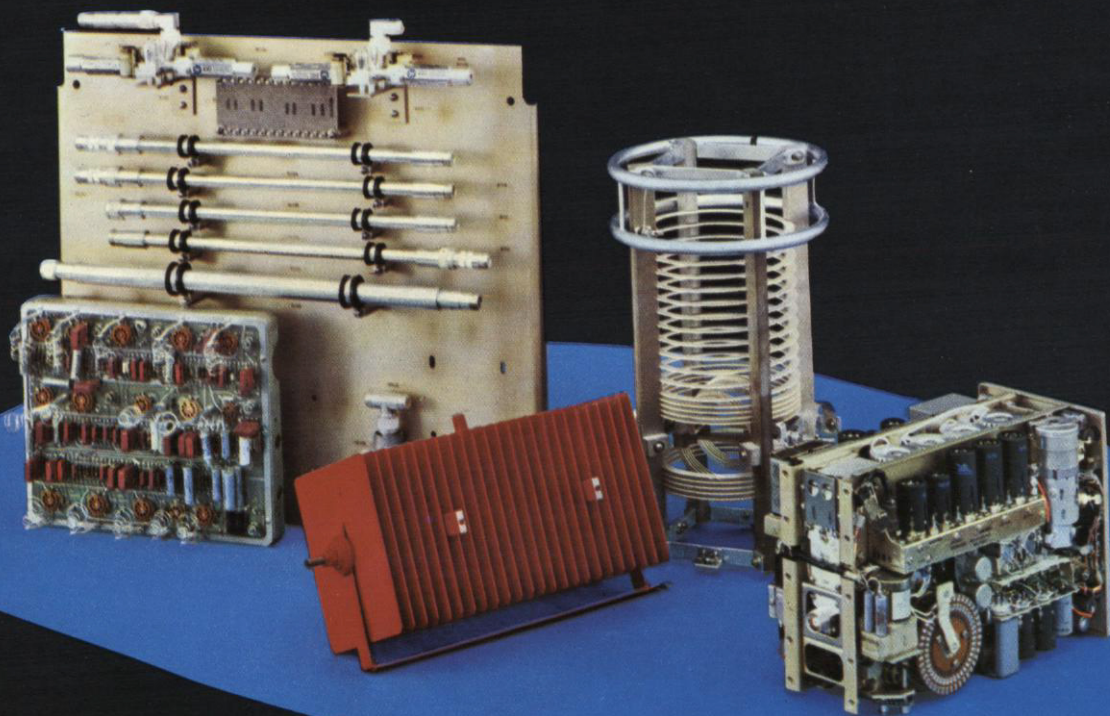
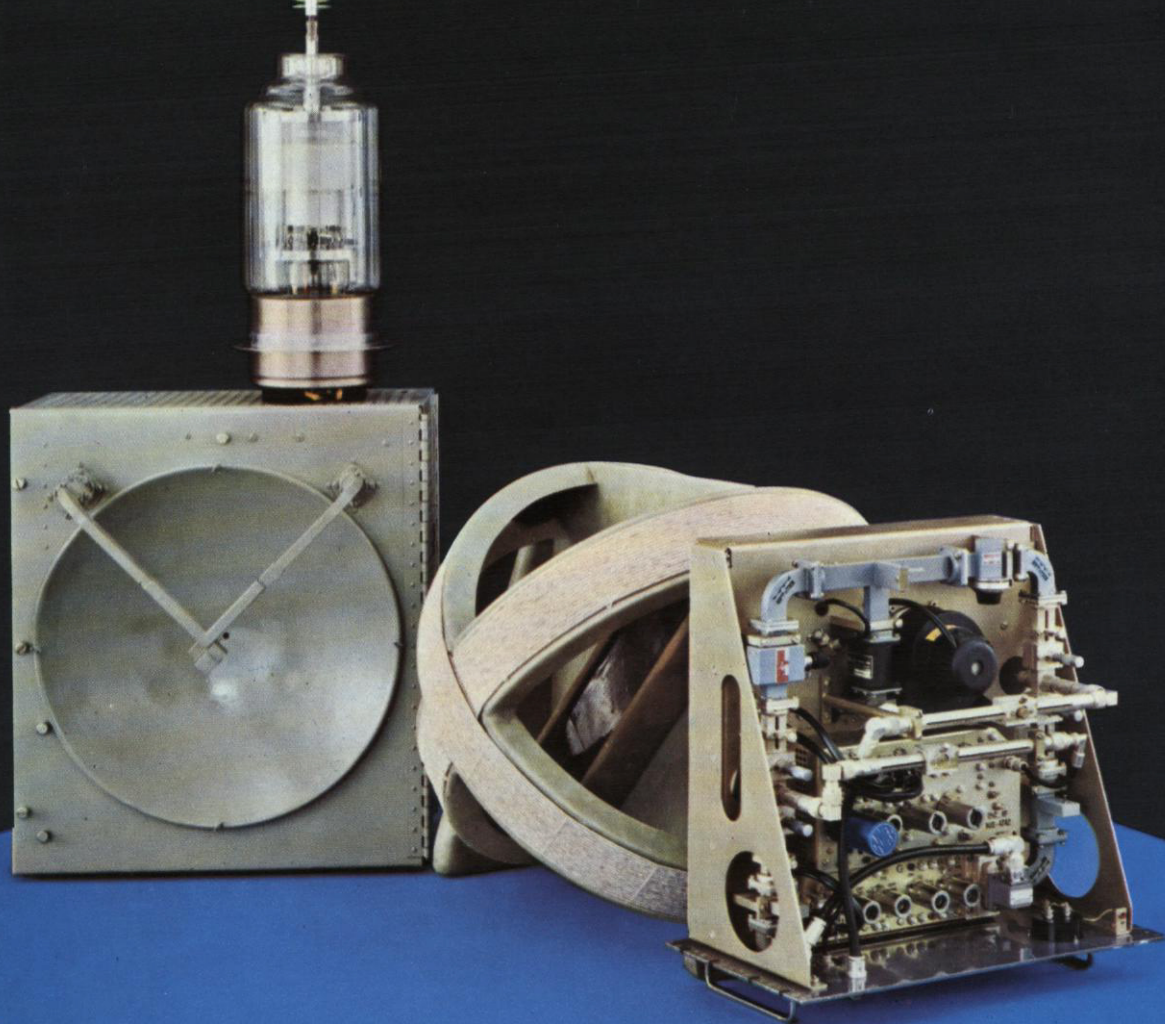
On the two following pages, some of the components and sub-assemblies produced by ITT are presented in settings that befit their unusual grace and beauty. Precision in design and manufacture created the symmetry and, more important, the dependability required of these highly functional devices.

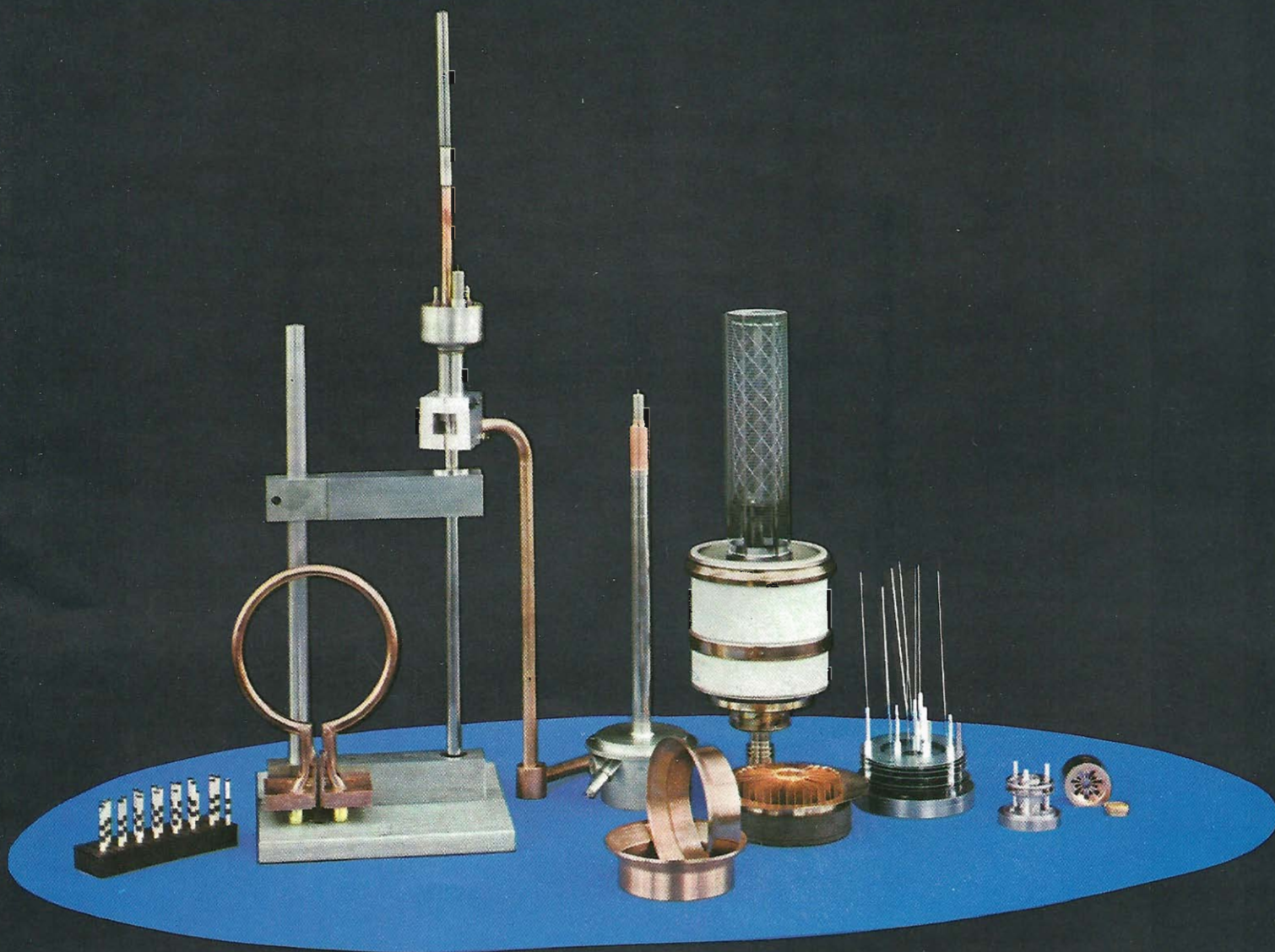
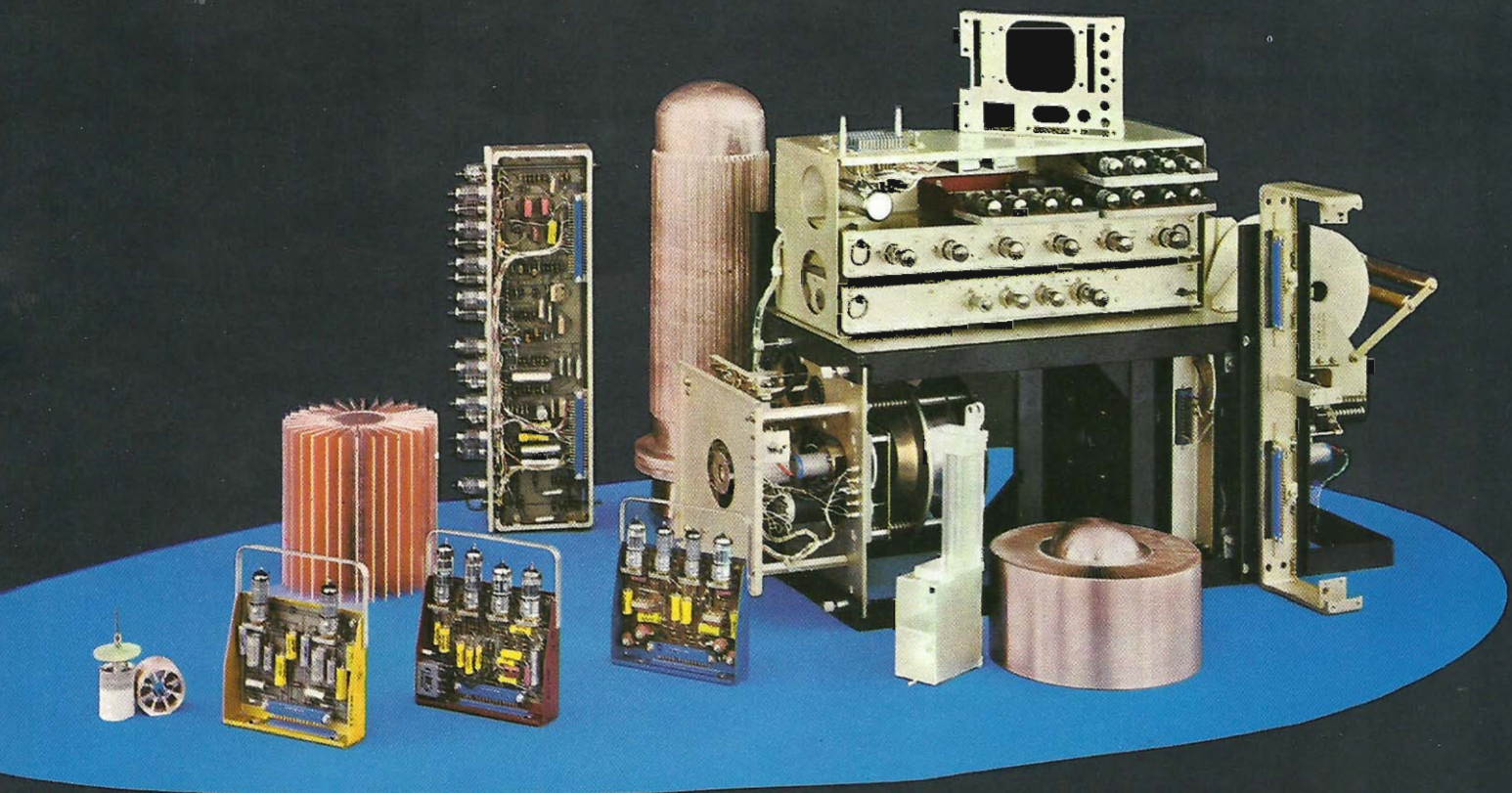
Grouped in the photograph, upper left, are portable microwave communication equipment surmounted by a hydrogen thyratron tube, a loop antenna, and in the foreground, a parametric amplifier, which builds up very weak microwave signals to a usable level.

Tacan (tactical air navigation) test equipment, a filter panel for missile control, a bright red selenium rectifier, a tuning coil used in Loran navigation equipment, and an airborne *Tacan* unit are shown, lower left.

Pictured, upper right, are tube parts, missile trainer modules, power-tube anodes, radar interference simulator, and silver tuning cavity used in microwave receiver sets to select a desired radio signal.

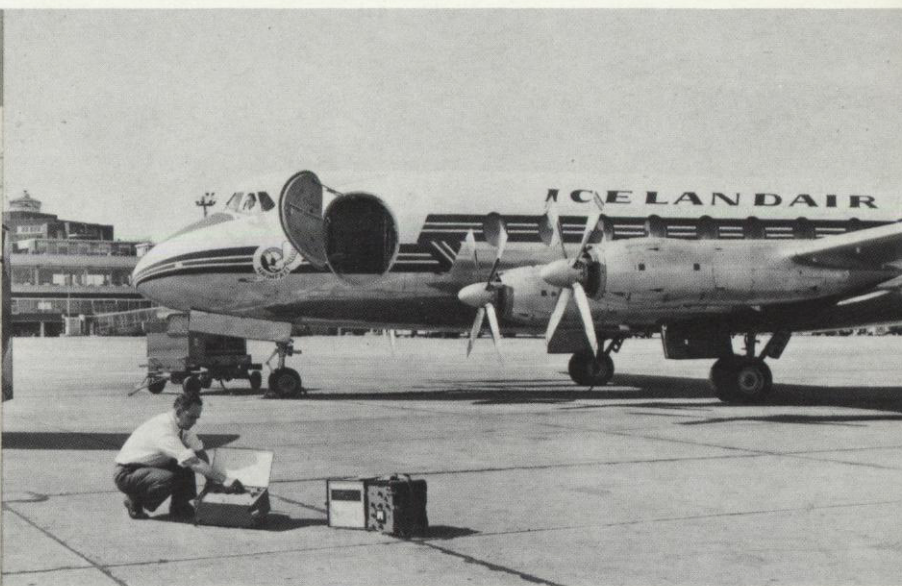
Vacuum-tube parts, together with a jig and copper induction heating loop used in tube assembly, make up the grouping, lower right.







Operators follow train movements on track diagram of train-describer equipment produced by ITT System in England and installed in Midland Region of British Railways.



STC's aircraft radio service unit, based at London Airport, checks out the company's air navigation equipment aboard an Icelandair Viscount during the aircraft's brief stopover.

also have been received for the electronic portions of antisubmarine weapons.

Our Portuguese company maintained its 1958 sales level. The company increased its sales of automatic private branch exchanges, and of low-power radio transmitting and receiving equipment. Sales of radio transmitters, loading coil cases, and rectifier equipment ran higher than in 1958. Transformers and carrier equipment for power companies, a new field for the Portuguese company, also showed good results.

Spain's *Standard Eléctrica, S. A.* increased sales over 1958; export sales doubled, accounting for much of the increase. Export of the company's lead-sheathed cable to the United States rose considerably over the previous year. The company continued its development of a new rural transistorized carrier system for its major customer, the national telephone entity.

Military communications and electronics, in addition to a large order for data-processing equipment, accounted for most of the 13% sales increase over 1958 reported by *Standard Radio & Telefon AB* in Sweden. The company also reported orders on hand at an all-time high. Sales of consumer products manufactured by other of our companies for sale in Sweden also increased.

The year 1959 marked an important milestone in Swiss telephone history: the last manually operated telephone exchange was replaced by an automatic exchange, making the Swiss telephone network 100% automatic. Our company there attained a 6% increase in sales over 1958. Orders were received for extensions of the Zurich, Lausanne, and Geneva coaxial terminals, and important sales were recorded for signal receivers, audio frequency and telegraph equipment, microwave radio links, and industrial materials and components.

In the United Kingdom *Standard Telephones and Cables Limited* (STC) sales rose slightly despite restricted government appropriations for telephone equipment, and intense competition in exports. The year saw notable technical achievements: completion of two major microwave radio link systems, supply of submerged repeaters and terminal equipment for the second transatlantic telephone cable, and manufacture of 715 miles of deep-sea cable for the new Puerto Rico-Florida link.

The company also put into service Malaya's first microwave trunk telephone network during the year, and is now working on similar systems for Newfoundland and the United Kingdom.



Antwerp communication center fully equipped by our Belgian company provides instant contact with police vehicles and automatically identifies caller's telephone.

Two coaxial cable systems were put into service in Sweden, and installation of the London-Birmingham system in England is proceeding. These are the first systems of 2,700-channel capacity to be installed anywhere in the world.

Automatic exchange equipment was exported to Canada, Ceylon, Eire, Malta, and New Zealand, and electronic register equipment to the United States.

Sales of airborne radio equipment were high, with increasing emphasis on transistorized equipment now in production for the major airlines. STC's new radio altimeter and aircraft radio direction finder evoked widespread interest. Sales of STC's precision-approach radar increased in 1959 as the British Ministry of Aviation's installation program advanced. Orders for 17 systems of localizer, glide-path, and marker-beacon instrument-landing transmitters were received, with the first permanent installation due for completion at a London airport early in 1960.

Sales by *Creed & Company Limited* leveled off after the upswing of the previous three years. Orders for teleprinter equipment from the British Post Office declined, but purchases by private users increased, as did orders for data-processing and computer equipment.

Creed has installed airborne teleprinters that are operating successfully aboard transatlantic aircraft of British Overseas Airways Corporation. The company's very compact transistorized teleprinter receiver for aircraft use, introduced in 1959, has attracted important attention. Steps toward commercial production of Creed's new mosaic high-speed printer were undertaken following successful demonstration of a prototype at the Hanover Fair in April and at the Automath Exhibition in Paris in June. The company is now nearing full-scale production of this equipment.

In data-processing, Creed has nearly completed the first installation under contract from a major petroleum company covering a completely integrated system to replace manual clerical processes in delivery depots.

Kolster-Brandes Limited produced more than 100,000 television receivers, representing an increased share of the larger 1959 British market. The company is now firmly established as a maker of transistor hearing aids, having supplied over 20,000 to the National Health Service during the year. Emphasis is also being placed on the manufacture and marketing of transistor radio receivers.

ITT System interests are represented in virtually every country in the Middle East and Africa, either by independent distributors or by sales subsidiaries, branch offices or resident engineers under the direction of our companies in Europe. Through these channels, ITT stands ready to participate in the increased integration and expansion of telecommunications expected in those areas.

STC-London's progress on a major coaxial network for northern Egypt was one of our significant 1959 activities in the Middle East. Operations in India were highlighted by the same company's completion of the Delhi-Agra coaxial network for the government postal service. *Standard Electric Iran A. G.* completed installation of the first of a series of telephone switching centers for several of Iran's smaller cities, equipment being supplied by our German affiliate.

Standard Telephones and Cables (South Africa) (Proprietary) Limited became a fully operating ITT System subsidiary in the Union of South Africa on January 1, 1959. A new factory near Johannesburg houses the entire organization.



Latin America and the Caribbean

Manufacture and Sales

A combination of developments affected the ITT System's 1959 manufacturing and sales record in Latin America and the Caribbean. We refer to the stabilization of Argentina's political climate, the Chilean fiscal and economic reorganization, general improvement in the Peruvian economy, and the persistence of unsettled conditions in some of the other countries. The emerging overall picture, however, is one of progress—progress that may well be speeded by the evolution of a South American common market patterned along the lines of the European Common Market.

In Argentina, the government's decision to liberalize trade and abolish certain import restrictions permitted our manufacturing company to improve its plants and equipment and increase its sales. The company sold substantial amounts of telephone switching equipment to ENTEL, the Argentine Government telecommunications



Antenna near a Caracas hotel at 7,000-foot altitude helped demonstrate feasibility of commercial O/H radiotelephone circuits to Venezuela in ITT's 540-mile tests last year.

ITT System activities in Brazil include manufacture as well as operation of telephone and telegraph networks by landline, cable, and radio. Above, our new factory in Rio.

enterprise, and special telephone and telegraph carrier, train dispatching, and teleprinter equipment to the national railways. The latter project was financed jointly by the Export-Import Bank and the ITT System. A "first" for the company is the manufacture of a new line of plastic-insulated, lead-sheathed telephone cable, now being produced for the first time in Argentina.

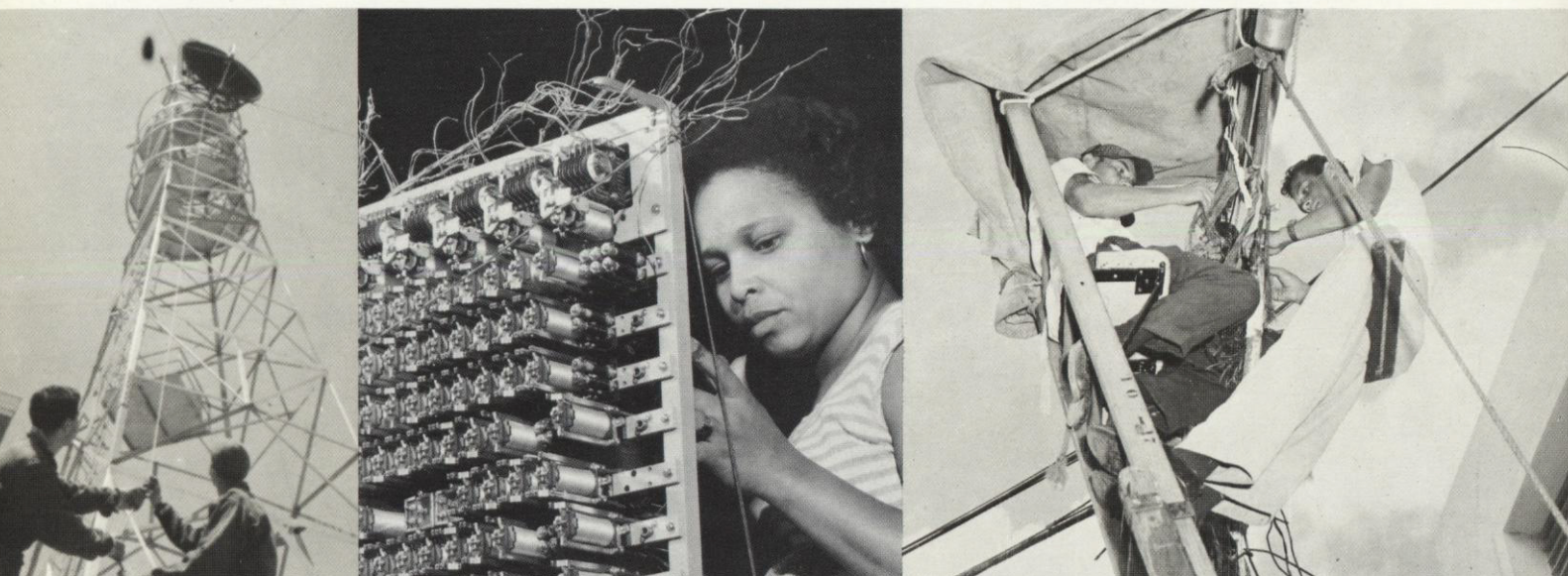
In April, our Brazilian manufacturing company completed a new factory which is now in operation. The switching business of this subsidiary was reduced during 1959, and will continue to be, until the country's largest telephone operating company and the ITT-owned *Companhia Telefônica Nacional* are successful in concluding certain contract and rate cases. Important additions of central office telephone equipment were delayed pending a settlement. However, the radio and transmission field is expected to show an increase in business during 1960 owing to expansion programs of the country's long-distance

telephone networks and the national railways. Current construction of new television stations is expected to increase the demand for our company's TV sets.

In Chile, sales of our manufacturing subsidiary rose by 50% over 1958. This increase, while reflecting some change in price levels, stems principally from stepped-up production due to the expansion program of our Chilean telephone operating company.

Telephone and Radio Operations

Telephone operating subsidiaries of the Corporation provide local and long-distance service in Chile, Cuba, Puerto Rico, the Virgin Islands, and the States of Paraná and Rio Grande do Sul in Brazil. Local exchange service is also furnished in the capital city of Lima, Peru, and its suburban districts.



Viña del Mar terminal of Santiago-Valparaíso microwave radio system, left, of our Chilean operating company. The new system has an ultimate capacity of 120 channels.

Private automatic branch exchanges, center, assembled at Standard Eléctrica, S.A. serve Brazilian industry. Telephone operations of ITT companies in Brazil began in 1908.

Completing cable splice in San Juan's Miramar section, right, a scene duplicated often in Puerto Rico as our telephone company proceeds with expansion and improvement.

Radio operating subsidiaries of the Corporation in Argentina, Bolivia, Brazil, Chile, Cuba and Puerto Rico provide international communication services. In Brazil and Bolivia internal domestic communication services are also furnished. During 1959 the Corporation launched a coordinated program integrating the activities of all its radio operating subsidiaries — a move that is expected to increase efficiency and revenue materially.

The Corporation and American Telephone and Telegraph Company each has a 50% interest in the *Cuban American Telephone and Telegraph Company*, which operates the submarine telephone cable routes and over-the-horizon microwave telephone and television facilities between Cuba and the United States.

The demand for additional telephone service in 1959 continued heavy throughout Latin America and the Caribbean. The following table indicates growth and the extent of unfilled demand on file with our companies as of December 31, 1959:

	Telephones in Service		Unfilled Telephone Demand
	Total	Increase During Year	Total
Brazil	70,603	3,229	53,252
Chile	175,981	16,540	80,424
Cuba	191,414	21,322	72,182
Peru	77,010	6,822	67,338
Puerto Rico	75,957	4,340	27,090
Virgin Islands	3,440	3,440*	788
	<u>594,405</u>	<u>55,693</u>	<u>301,074</u>

*Acquired.

Gross revenues for the year were \$59,228,018 and net income \$8,813,354. The Corporation's equity in this income totaled \$7,717,517.

In October 1959, the Corporation organized a new subsidiary, the *Virgin Islands Telephone Corporation*, to accept the award of a franchise granted by the Government of the Virgin Islands to own and operate the telephone system extending throughout the Territory. Three exchanges and all outside plant and related facilities were acquired, serving the islands of St. Thomas, St. Croix, and St. John.

The first two years of operation of the Virgin Islands Telephone Corporation will entail extensive rehabilitation and some growth, with conversion to dial scheduled for 1961 and telephone development expected to reach approximately 9,000 telephones by 1964.

A joint and equally owned project of *Radio Corporation of Puerto Rico* and AT&T provides 48 voice channels over twin submarine cables between Florida and Puerto Rico. One of our British companies supplied substantial portions of the new cables. They provide high-grade transmission and direct operator dialing between the United States and Puerto Rico, and significant increase in usage volume is resulting. Service from the United States to the recently organized Virgin Islands subsidiary of ITT was also improved by the submarine cable addition, which now connects with microwave facilities spanning the short distance between San Juan, Puerto Rico and St. Thomas, Virgin Islands.

During the year, Radio Corporation of Puerto Rico conducted various tests in the Caribbean directed toward general upgrading of transmission and circuit capacity throughout the area. Connections to Jamaica, Haiti, the Dominican Republic, and Venezuela were involved. These tests are continuing in 1960 with prospects of expansion in over-the-horizon or high-frequency facilities where justified.

In March 1959, the Public Service Commission of Puerto Rico granted the *Puerto Rico Telephone Company* a rate increase and set the allowable return at 8.35%. The company is proceeding with its five-year \$52,000,000 expansion and improvement program that will approximately double the size of the system, fulfill all pending applications for service, and provide for 100% dial operation.

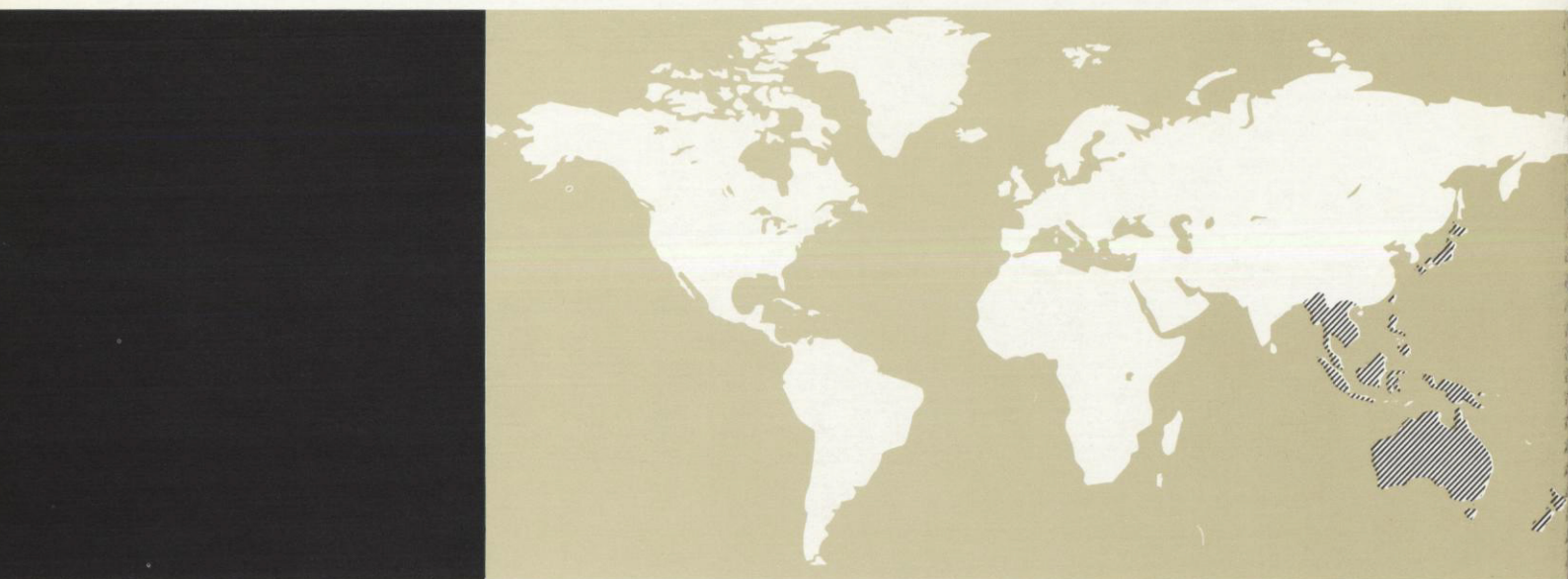
Under its coordinated construction program, present rate understandings and the increased toll volume in view, this company entered 1960 with favorable prospects for achieving the Commonwealth's total telephone growth potential. In Brazil, *Companhia Telefônica Nacional* obtained certain increases in toll rates in the State of Paraná during 1959, but action is still awaited from the State government of Rio Grande do Sul and municipal administrations in Paraná on the company's franchise proposals. Future construction programs of both divisions are depen-

dent upon the outcome of pending negotiations with these authorities. *Companhia Rádio Internacional do Brasil*, which operates under federal franchise, showed improvement in growth and earnings during 1959.

Compañía de Teléfonos de Chile is currently in the third year of a major expansion program under its 1958 agreement with the Chilean Government. Marked progress was made during the year with the installation of 17,000 new lines of central office equipment, with associated outside telephone plant and toll facilities. The 1959 station growth totaled 16,540 telephones. A 24-channel microwave system was added between the capital city of Santiago and the principal seaport of Valparaíso. Some 20,500 miles of additional telephone circuits were installed throughout Chile.

The expansion program of *Compañía Peruana de Teléfonos Limitada* was arrested during 1959 as the result of a Presidential decree dated December 23, 1958, abrogating vital sections of a franchise agreement reached in 1956. It was necessary in May 1959 to institute proceedings to test the validity of the 1956 franchise contract in the Peruvian courts. The outcome of this action is pending.

In March 1959 the Cuban Government repealed the rates authorized in 1957 under a contract between the government and the *Cuban Telephone Company*, on the basis of which the company had agreed to undertake its projected expansion program. Rates in force prior to 1957 were re-established, and a government-appointed Interventor took over all power theretofore vested in the management. ITT holds 65% of the outstanding common stock of the Cuban Telephone Company, the remainder of such stock being held chiefly by the public in Cuba. In the absence of recognition of the company's management, ITT in its position as majority stockholder has filed a formal presentation and petition with the government of Cuba. ITT meanwhile has endeavored to secure the restoration of normal operating conditions and adequate rate levels. Efforts have been made to convey to the government an understanding of its mutual interest with ITT in providing adequate telephone service. The general political circumstances and the existence of severe import and exchange controls have hampered importation of needed equipment.

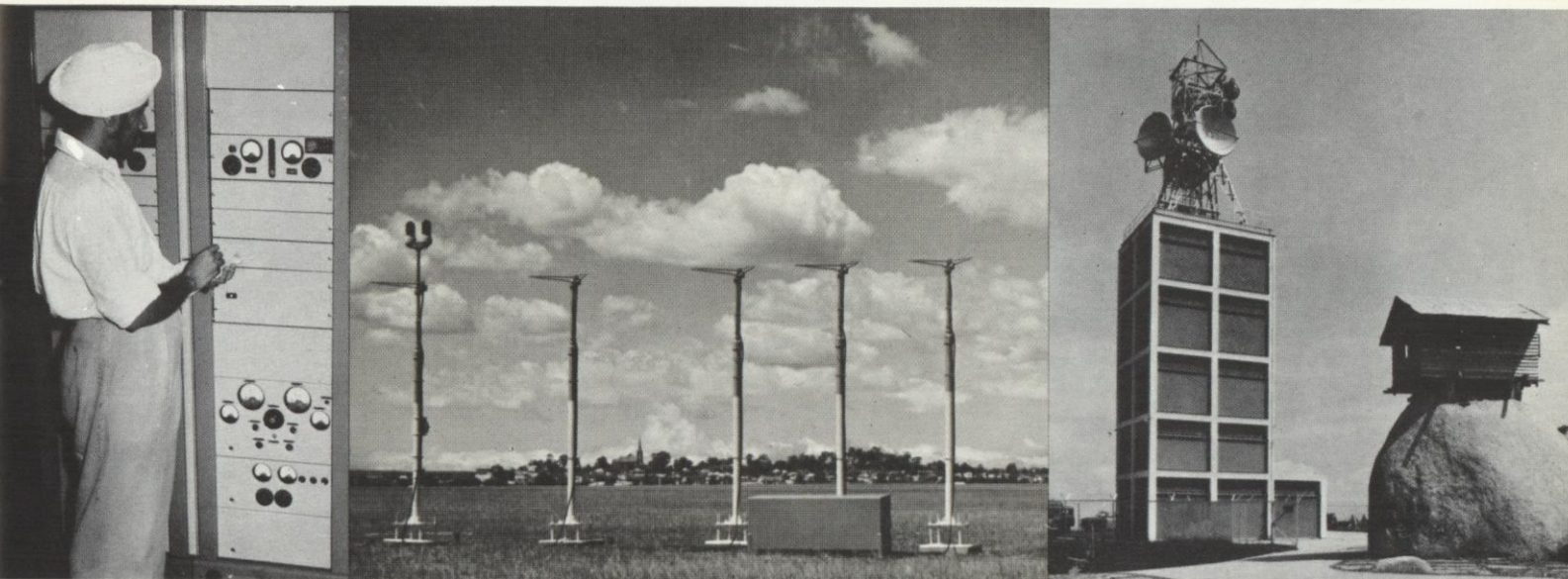


Australia and the Far East

ITT System companies in Australia, headed by *Standard Telephones and Cables Pty. Limited*, Sydney, again attained a record level of sales. Outstanding among 1959 events was the receipt of orders for two automatic telegraph switching centers for the Australian Army, one in Sydney and one in Melbourne. Known as STRAD, the equipment is manufactured by STC-London.

During the year STC-Sydney developed miniature transistorized communications equipment to meet special requirements of the Australian Post Office, and manufactured telephone dials and rocking-armature receivers for the first time in Australia. The company designed and installed the first high-voltage selenium power supplies in Australia for electrostatic precipitation and cable testing.

High-frequency radio transmitters, new control equipment, and antenna systems were supplied to a large naval communication station, and three medium-frequency broadcast transmitters



Our British firm surveyed, manufactured and installed Federation of Malaya's first trunk telephone network. Project was completed in 1959. Left, turbaned engineer of Malayan Telecommunications Department checks indicator panel at Gunong Palai repeater station. Right, junction station at Tampin houses radio and frequency-multiplex channeling equipment. Hut was left in elevated position by removal of earth during site leveling.

An offset localizer antenna system, center, installed at an airport near Sydney by our Australian company, comprises part of ITT-pioneered ILS (instrument landing system).

equipped with special amplifying devices were delivered to other customers. Sales of rectifier equipment—an increasing proportion employing silicon elements—continued high.

Railway-signaling and train-dispatcher business was increased by an order for supervisory remote-control and metering equipment for the Melbourne Tramways.

In consumer goods, STC-Sydney increased its share of the refrigerator and television receiver markets while maintaining its position in radio receivers and home appliances. Sales of television receivers increased with the inauguration of television transmission in the States of Queensland, South Australia, and Western Australia. Manufacture has begun on a new line of television tubes that permit reduction in the depth of television sets.

STC-Sydney also reports increased sales of its portable transistor radios and radiophonographs.

During 1960 the company will embark upon the manufacture of home air-conditioning units, for which a good market exists in Australia.

ITT companies have for many years been suppliers of telecommunication equipment throughout the Far East, and are represented in most of the major capitals. Projects completed in 1959 include Malaya's first trunk telephone network—surveyed, engineered, manufactured, and installed by STC-London—and the installation of precision-approach radar units at airports in Hong Kong and New Zealand.

In Japan, ITT is sharing in the accelerating growth of that country's electronics industry through its investments in and licensing arrangements with *Nippon Electric Company, Limited*, in which the System has approximately a 22% interest, and with *Sumitomo Electric Industries, Limited*, in which the System has an interest of about 13%.



Submarine Telegraph Cable and Radiotelegraph Operations

American Cable & Radio Corporation

ITT ownership of 58% 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*, and *Mackay Radio and Telegraph Company*. This group of companies constitutes the largest American-owned international telegraph network and offers a combination of both cable and radio facilities unmatched by other U. S. carriers.

Net income of the AC&R System in 1959 amounted to \$1,800,662, a 31% improvement over the \$1,374,005 earned in 1958. The 1958 amount included a special credit of \$291,668, representing

nontaxable profit from the sale of real estate. A dividend of 30¢ a share was declared in 1959, of which ITT received \$608,042.

Operating revenues of the AC&R System in 1959 reached a record high of \$34,014,694, compared with \$31,718,914 in 1958. With message volume in 1959 slightly ahead of 1958, the gain in revenues reflects: rate increases on regular message telegraph traffic both in the United States (effective since August 1958) and in a number of other countries; continued growth of telex (automatic customer-to-customer teletypewriter exchange service); additional leased-circuit usage; and increased cable-ship charter revenues. Operating expenses in 1959 were \$31,235,726, increased from a total of \$29,955,179 in 1958, owing mostly to higher domestic and foreign employee wages and to widespread augmentation of facilities.

Telex service from the United States was ex-

Expansion of facilities, left, in New York enabled AC&R to extend telex service to ten additional countries in 1959.

Young engineers study modern radio and cable telegraph equipment under AC&R's training program, center.

Marker buoys used in deep-sea cable repair, right, shown aboard one of four cablesheips owned by the AC&R System.

tended during 1959 to Bulgaria, Chile, the Dominican Republic, Hong Kong, Israel, Malaya, Portugal, Rumania, Singapore, and Tunisia. International telex calls numbered twice the 1958 volume.

In an important decision rendered on February 24, 1960, the Federal Communications Commission authorized the operation by Mackay Radio of a direct radiotelegraph circuit between the United States and Berne, Switzerland. As a result of this favorable decision, telex and leased channel services are, for the first time, available with that country via the AC&R System.

A decision is currently pending by the FCC on the application filed jointly by AC&R and Globe Wireless, Ltd., for transfer of the control of Globe from its present stockholders to AC&R. The addition of Globe to the AC&R System would benefit AC&R's position in the Pacific area where Globe has served for many years.

AC&R established a \$5,000,000 line of credit with a group of New York banks during the year. Projects to be financed under the agreement include the purchase of equipment for operation of voice channels in the new transatlantic telephone cables, to be used in telegraph service between New York and the United Kingdom and France, and for operation to other countries in Europe and the Middle East; the improvement of the communication network interconnecting New York, Puerto Rico, the Virgin Islands, Ciudad Trujillo, Caracas, and other points in the West Indies; the expansion of telex facilities linking New York with San Francisco, San Juan, Rio de Janeiro, and Buenos Aires, and San Francisco with Tokyo, Manila, and Honolulu; and equipment for a new circuit to India as well as Switzerland.

In May 1959, AC&R management and other interested parties presented testimony before the

Interstate and Foreign Commerce Committee of the U. S. Senate on a bill that would permit merger of U. S. international telegraph carriers. A modified bill reflecting this testimony is expected to be presented to the Senate during the current session. The managements of ITT and AC&R continue to favor such legislation.

Marine Radio

Radio activities embracing manufacture, sale, rental, service, and operation of marine communication equipment are conducted by *Mackay Marine* (a division of the AC&R subsidiary, Mackay Radio and Telegraph Company), and by *International Marine Radio Company Limited* (IMRC) and *Compañía Radio Aérea Marítima Española, S.A.* (CRAME), both subsidiaries of ITT. These three companies design, produce, install, and operate shipboard radio equipment, operate shore stations for communication with ships at sea, and maintain service depots and agencies in most of the world's major seaports.

Results of ITT System marine operations for 1959 are encouraging in spite of the persistence of a world shipping depression. Mackay Marine was a licensee for the radio stations aboard some 741 deep-sea vessels, an increase of 33 vessels over 1958. At the close of the year, the company had received equipment orders for 63% of the total deep-sea vessels now under construction or contracted for in U. S. shipyards, and the backlog of orders was higher than for 1958. These orders include equipment for 19 new ships belonging variously to American Export Lines, American President Lines, and Lykes Bros. Steamship Company, and for two large tankers, of 47,750 dead-weight tons each, being built for Sun Oil Company.

ITT's British marine radio company, IMRC, obtained a number of important contracts in 1959, among them 200 radio stations for new British ships, including the *British Queen*, the largest tanker ever built in the United Kingdom, and two automobile ferries of the British Transport Commission's cross-channel services. Income from radio traffic increased over 1958, as did the number of IMRC-trained marine radio operators serving at sea in the status of ship's officers.

CRAME reported satisfactory results for 1959 in its function as a leading supplier of radar, radiotelegraph, and echo-sounding equipment to Spain's merchant and fishing fleets.

International Telephone and Telegraph Corporation and Subsidiaries Consolidated

Consolidated Balance Sheets

Assets		
	1959	1958
CURRENT ASSETS		
Cash, including \$14,386,483 and \$19,747,032 in foreign currencies	\$ 32,305,704	\$ 42,816,230
U. S. Government securities	7,100,000	14,000,000
Accounts and notes receivable, less reserves	194,670,251	162,830,009
Inventories	237,373,083	235,192,084
	<u>471,449,038</u>	<u>454,838,323</u>
MISCELLANEOUS INVESTMENTS, DEFERRED RECEIVABLES AND OTHER ASSETS		
	<u>55,678,338</u>	<u>62,217,999</u>
INVESTMENTS IN SUBSIDIARIES NOT CONSOLIDATED AND OTHER COMPANIES, at cost		
American Cable & Radio Corporation — 58% owned	26,238,823	26,238,823
L. M. Ericsson Telephone Company, Ltd. — 23% owned	9,348,780	9,348,780
Other companies, including nationalized companies, \$11,008,266 and \$11,222,546 fully reserved	14,439,081	12,753,455
	<u>50,026,684</u>	<u>48,341,058</u>
PLANT, PROPERTY AND EQUIPMENT, at cost		
Less — Reserves for depreciation	558,199,555	494,205,375
	<u>203,084,806</u>	<u>190,596,790</u>
	<u>355,114,749</u>	<u>303,608,585</u>
	<u>\$932,268,809</u>	<u>\$869,005,965</u>

as at December 31, 1959 and 1958

Liabilities and Stockholders' Equity

	1959	1958
CURRENT LIABILITIES		
Bank loans and current maturities of long-term debt	\$ 70,909,854	\$ 63,550,375
Accounts payable and accrued charges	145,641,927	122,437,016
Accrued taxes	28,748,595	31,577,535
Dividend payable	3,879,683	3,310,611
	<u>249,180,059</u>	<u>220,875,537</u>
DEFERRED LIABILITIES	<u>47,923,182</u>	<u>42,770,458</u>
DEFERRED INCOME AND MISCELLANEOUS RESERVES	<u>13,640,662</u>	<u>10,104,056</u>
LONG-TERM DEBT (page 39)	<u>165,512,482</u>	<u>158,962,645</u>
MINORITY EQUITY IN SUBSIDIARIES CONSOLIDATED (page 39)	<u>40,924,168</u>	<u>40,554,653</u>
STOCKHOLDERS' EQUITY		
Capital stock —		
At December 31, 1959: Authorized 30,000,000 shares, without par value (stated value \$10 per share), issued 15,529,830 shares	155,298,300	147,264,360
Capital surplus	102,570,892	96,211,235
Retained earnings invested in the business	157,219,064	152,263,021
	<u>415,088,256</u>	<u>395,738,616</u>
	<u>\$932,268,809</u>	<u>\$869,005,965</u>

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

International Telephone and Telegraph Corporation and Subsidiaries Consolidated

Consolidated Income *for the years ended December 31, 1959 and 1958*

	1959	1958
SALES AND REVENUES		
Net sales	\$706,411,878	\$635,153,122
Telephone and radio operating revenues	59,228,018	52,298,323
	<u>765,639,896</u>	<u>687,451,445</u>
COST OF SALES AND OPERATING EXPENSES, excluding provision for depreciation	660,789,133	593,044,966
	<u>104,850,763</u>	<u>94,406,479</u>
Dividends, interest and other income (including in 1959, \$2,578,392 profit on sale of Headquarters Building)	15,026,512	15,559,234
INCOME BEFORE CERTAIN CHARGES	<u>119,877,275</u>	<u>109,965,713</u>
Provision for depreciation	27,433,260	24,516,140
Interest and other financial charges	13,355,006	12,422,475
U. S. and foreign taxes	45,342,936	42,409,587
Loss on foreign exchange — net (including in 1959, \$1,888,330 write-down of equity in Spanish net current assets to reflect devaluation of Spanish currency)	1,976,626	513,055
	<u>88,107,828</u>	<u>79,861,257</u>
NET INCOME BEFORE MINORITY EQUITY	31,769,447	30,104,456
Minority common stockholders' equity in net income	2,733,759	3,504,288
NET INCOME	<u>\$ 29,035,688</u>	<u>\$ 26,600,168</u>

Consolidated Retained Earnings Invested in the Business

BALANCE — Beginning of year	\$152,263,021	\$138,657,814
ADD — Net income for the year	29,035,688	26,600,168
	<u>181,298,709</u>	<u>165,257,982</u>
DEDUCT — Dividends declared — \$1.00 and \$.90 per share	15,351,525	12,994,961
Extraordinary adjustments for re-evaluation of inventories and contractual commitments, etc. — net of applicable income taxes (see note)	8,728,120	—
	<u>24,079,645</u>	<u>12,994,961</u>
BALANCE — End of year	<u>\$157,219,064</u>	<u>\$152,263,021</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, 1959*

UNITED STATES

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION —		
Fifteen Year 3% Sinking Fund Debentures, due 1961	\$ 15,000,000	
4½% Convertible Subordinated Debentures, due 1983	10,491,500	
KELLOGG CREDIT CORPORATION —		
Ten Year 5½% long-term bank loans, due annually to 1968	4,260,000	\$ 29,751,500

FOREIGN MANUFACTURING SUBSIDIARIES CONSOLIDATED

BELL TELEPHONE MANUFACTURING COMPANY (Belgium) —		
3½% to 7% long-term bank loans, due 1961-66 — BF 187,050,000	3,741,000	
FABBRICA APPARECCHIATURE PER COMUNICAZIONI ELETTRICHE STANDARD S. P. A. (Italy) —		
8% long-term bank loan, due 1962-63 — IL 2,000,000,000	3,200,000	
7% long-term bank loan, due 1961-67 — IL 600,000,000	960,000	
INTERNATIONAL STANDARD ELECTRIC CORPORATION —		
Sixteen Year 4% Swiss franc Debentures, due 1970 — SF 60,000,000 (guaranteed by the Corporation) — payments of SF 5,000,000 due annually from 1964 to 1969	13,884,000	
Fifteen Year 4% Swiss franc Debentures, due 1974 — SF 50,000,000	11,570,000	
Five Year 6½% long-term bank loan, due 1963 — DM 10,541,600	2,526,822	
Three Year 4½% long-term U. S. dollar bank loan, due 1961	3,000,000	
LE MATERIEL TELEPHONIQUE (France) —		
3¾% to 6% Debentures, to be retired in annual lots to 1977 — NF 9,434,419	1,886,884	
STANDARD ELEKTRIK LORENZ A.G. (Germany) —		
Twenty Year 6½% Debentures, due 1964-78 — DM 35,000,000	8,389,500	
4% to 8½% long-term bank loans, due 1961-69 — DM 94,353,513	22,616,537	
STANDARD TELEPHONES AND CABLES LIMITED (England) —		
5½% Ten Year Note, due 1963 — £400,000	1,120,000	
6½% Twenty Year Note, due 1978 — £1,500,000	4,200,000	
6¼% Twenty Year Note, due 1978 — £1,500,000	4,200,000	
STANDARD TELEPHONES AND CABLES PTY. LIMITED (Australia) —		
6½% Mortgage Loan, due 1961-69 — A£1,675,000	3,752,000	
OTHER	2,920,449	87,967,192

TELEPHONE AND RADIO SUBSIDIARIES CONSOLIDATED

CUBAN TELEPHONE COMPANY —		
Twenty Year 4% U. S. dollar Debentures, Series A, due 1965	6,000,000	
Twenty-Five Year 4% U. S. dollar Debentures, Series B, due 1973	9,000,000	
6% U. S. dollar Notes, due 1961-75	17,038,200	
PUERTO RICO TELEPHONE COMPANY —		
Twenty-Five Year 4¾% Sinking Fund Debentures, Series A, due 1978	4,700,000	
Twenty-Five Year 4¾% Sinking Fund Debentures, Series B, due 1981	5,000,000	
RADIO CORPORATION OF PUERTO RICO —		
Twenty-Five Year 5½% Sinking Fund Debentures, Series A, due 1984	5,000,000	
OTHER	1,055,590	47,793,790

TOTAL LONG-TERM DEBT (excluding amounts due within one year included in current liabilities) \$165,512,482

Minority Equity in Subsidiaries Consolidated — *December 31, 1959*

PREFERRED STOCK

CUBAN TELEPHONE COMPANY —		
6% Cumulative Preferred Stock of U. S. \$100 par value per share — 87,805 shares	\$ 8,780,500	
STANDARD TELEFON OG KABELFABRIK A/S (Norway) —		
4% Non-cumulative Preferred Stock of NK 1,000 par value per share — 5,000 shares	830,055	\$ 9,610,555

COMMON STOCK AND SURPLUS

Foreign Manufacturing Subsidiaries Consolidated	9,443,289	
Telephone and Radio Subsidiaries Consolidated	21,870,324	31,313,613

TOTAL MINORITY EQUITY IN SUBSIDIARIES CONSOLIDATED \$40,924,168

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

Notes to Financial Statements

1. PRINCIPLES OF CONSOLIDATION

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, 1959 by \$6,606,340; its equity in income for the year 1959 amounted to \$1,047,445, of which \$608,042 was received in dividends.

The net income of the Parent Company alone amounted to \$17,829,789 and \$19,859,778 for the years 1959 and 1958, respectively. Its retained earnings at December 31, 1959 were \$57,856,511 of which \$10,567,141 is not available for payment of cash dividends under provisions of the Indenture covering the 4% Convertible Subordinated Debentures. The undistributed earnings of foreign subsidiaries included in consolidated retained earnings should not be understood to represent U. S. dollars immediately available since the amount of such earnings available to the Corporation is dependent, in certain cases, upon the subsidiaries' ability to obtain U. S. dollars. Furthermore, the retained earnings of certain foreign subsidiaries are subject to 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, 1959, and net income for the year 1959 by location and by principal operations is shown here:

	Consolidated	United States	Foreign Manufacturing, Sales and Laboratories	Telephone and Radio	Other Foreign Investments
		<i>(Thousands of dollars)</i>			
NET ASSETS					
Net current assets	222,269	83,800	142,873	(7,110)	2,706
Miscellaneous investments, deferred receivables and other assets	55,678	11,047	27,747	5,692	11,192
Investments in subsidiaries not consolidated and other companies	50,027	26,439	6,110	—	17,478
Plant, property and equipment—net	<u>355,115</u>	<u>38,256</u>	<u>103,695</u>	<u>213,164</u>	<u>—</u>
	<u>683,089</u>	<u>159,542</u>	<u>280,425</u>	<u>211,746</u>	<u>31,376</u>
Deduct—					
Deferred liabilities, deferred income and miscellaneous reserves	61,565	13,636	44,969	2,960	—
Long-term debt	165,512	29,751	87,967	47,794	—
Minority equity in subsidiaries consolidated	<u>40,924</u>	<u>—</u>	<u>10,273</u>	<u>30,651</u>	<u>—</u>
	<u>268,001</u>	<u>43,387</u>	<u>143,209</u>	<u>81,405</u>	<u>—</u>
Net assets	<u>415,088</u>	<u>116,155</u>	<u>137,216</u>	<u>130,341</u>	<u>31,376</u>
NET INCOME, after allocation of parent company interest and taxes	<u>29,036</u>	<u>7,323*</u>	<u>12,093**</u>	<u>7,466</u>	<u>2,154</u>

* Includes \$2,578,000 profit on sale of Headquarters Building.

** After \$1,888,000 write-down of equity in Spanish net current assets.

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. PLEDGED ASSETS

Assets pledged by subsidiaries to secure their indebtedness other than mortgage loans amounted to approximately \$33,600,000.

3. INVENTORIES

Inventories are detailed below:

	December 31,	
	1959	1958
Manufacturing, sales and laboratories:		
Finished goods	\$ 83,098,994	\$ 81,387,639
Work in process	111,134,838	109,393,715
Raw materials and supplies	45,480,368	47,662,726
	<u>239,714,200</u>	<u>238,444,080</u>
Less progress payments	11,734,771	13,542,076
Net	<u>227,979,429</u>	<u>224,902,004</u>
Telephone and radio:		
Maintenance and construction materials and supplies, generally at average cost	9,393,654	10,290,080
	<u>\$237,373,083</u>	<u>\$235,192,084</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. REVOLVING CREDIT

Under terms of a Credit Agreement dated August 15, 1958, the Corporation has available for an extended period a revolving credit of \$50,000,000, which has not as yet been utilized.

5. CAPITAL STOCK

Under the Corporation's Stock Option Incentive Plans, approved by the Stockholders in 1956 and

1959, employees of the Corporation and its subsidiaries may be granted options to purchase an aggregate of 500,000 shares of Capital Stock of the Corporation as presently constituted. Options granted under the Plans prior to September 1, 1959 are 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 are 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 1959, is shown below:

Balance, Jan. 1, 1959		259,260
Add-Options granted at:		
\$29.75 per share	17,000	
34.125 per share	6,000	
35.875 per share	20,000	
37.625 per share	28,250	
38.125 per share	17,500	88,750
		<u>348,010</u>
Deduct:		
Options exercised at \$14.875 to \$17.625 per share	156,010	
Options cancelled	19,000	175,010
Balance, Dec. 31, 1959		<u>173,000</u>

At December 31, 1959, 132,250 shares were available for future options under the Plans.

The Corporation has also granted to an officer, subject to approval by the Stockholders, a Restricted Stock Option for 30,000 shares at \$35.875 per share. Such option is subject to terms as outlined above for options granted subsequent to September 1, 1959.

Under the conversion provisions of the 4% Convertible Subordinated Debentures, at December 31, 1959, 569,192 shares of the unissued Capital Stock of the Corporation were reserved for conversion of such Debentures. During 1959, 647,384 shares were issued in connection with the conversion of \$11,997,500 principal amount of these Debentures.

6. CAPITAL SURPLUS

Changes in capital surplus during the year are shown below:

Balance—January 1, 1959	\$ 96,211,235
Add—Credits arising from—	
Conversions of debentures	5,334,245
Exercise of stock options	1,025,412
Balance—December 31, 1959	<u>\$102,570,892</u>

7. ADJUSTMENT OF CONSOLIDATED RETAINED EARNINGS

In 1959, the Corporation and its subsidiaries consolidated revised their accounting policies with respect to the valuation of inventories in excess of one year's requirements and the establishment of reserves for warranties, damage claims, severance payments and similar contingencies. Provisions required to give effect to the revised accounting policies as at January 1, 1959, together with certain adjustments relating to contractual commitments made in prior years and provisions for anticipated losses on abandonment of certain product lines, net of related reductions in income taxes, have been charged to consolidated retained earnings. It is not considered practicable to allocate the effect of the major part of the revisions in accounting policies on a retroactive basis to prior years. The effect of such revisions in accounting policies on income for 1959 is not considered material. A summary of amounts charged to consolidated retained earnings after related reductions in income taxes is shown here:

Adjustments due to revision of accounting policies—	
Inventory valuations	\$3,853,690
Warranties and damage claims	518,200
Severance pay, etc.	420,200
Anticipated losses on abandonment of certain product lines	1,179,550
Provision for excess costs estimated to be incurred to complete orders accepted in prior years	2,361,774
Settlement of wage claims against subsidiary applicable to prior years	394,706
	<u>\$8,728,120</u>

Of the above amount, \$6,235,224 relates to United States manufacturing, \$2,098,190 relates to foreign manufacturing and \$394,706 relates to telephone operations.

8. CUBAN TELEPHONE COMPANY

On March 4, 1959, the Cuban Government enacted a law which cancelled the revised concession agreement signed March 14, 1957, and appointed an Intervenor who, in accordance therewith, assumed administration of the affairs of Cuban Telephone Company, a subsidiary consolidated in which there is a 35% minority common stock interest, substantially all of which is held by the Cuban public. Such intervention has continued to date. The consolidated balance sheets at December 31, 1959 and 1958 include \$27,518,925 and \$26,171,446, respectively, of net assets of Cuban Telephone Company, and consolidated income for 1959 and 1958 includes \$1,347,479 and \$2,461,387, respectively, relating thereto. None of the income for 1959 has been remitted to the Corporation. The ultimate effect of such intervention or of possible future Governmental action on operations in Cuba is not presently determinable.

9. 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.

ARTHUR ANDERSEN & CO.

67 BROAD STREET
NEW YORK 4

To The Stockholders,

International Telephone and Telegraph Corporation:

We have examined the consolidated balance sheet of International Telephone and Telegraph Corporation (a Maryland corporation) and its subsidiaries consolidated as of December 31, 1959, and the related statements of consolidated income and consolidated retained earnings invested in the business for the year then ended. Our examination was 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. We had previously made a similar examination for the year ended December 31, 1958. 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.

Subject to the ultimate effect of governmental action on operations in Cuba discussed in Note 8 to the Financial Statements, 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, 1959 and 1958, and the results of their operations for the years then ended, and were prepared in conformity with generally accepted accounting principles applied, except for the changes (with which we concur) referred to in Note 7 to the Financial Statements, on a basis consistent with that of the preceding year.

Arthur Andersen & Co.

New York, N. Y.,
March 3, 1960.

International Telephone and Telegraph Corporation and Subsidiaries Consolidated

Ten-Year Summary

	1959	1958	1957	1956	1955	1954	1953	1952	1951	1950
<i>(In thousands of dollars)</i>										
RESULTS FOR YEAR										
Sales and revenues	765,640	687,451	638,669	544,834	489,746	412,619	397,297	388,620	288,585	246,702
U. S. and foreign taxes	45,343	42,410	41,458	45,237	39,781	31,795	32,960	32,023	24,409	20,541
Provision for depreciation	27,433	24,516	23,048	19,203	17,908	15,688	14,652	13,616	12,407	12,419
Net income*	29,036	26,600	22,413	28,110	23,070	20,069	22,378	22,148	17,992	13,259
YEAR END POSITION										
Net current assets	222,269	233,963	200,828	203,945	199,986	180,567	156,294	144,752	136,556	120,237
Plant, property and equipment — net	355,115	303,609	260,250	229,842	208,021	190,489	186,529	177,238	163,211	155,514
Total assets	932,269	869,006	799,873	760,838	687,452	636,970	602,761	579,706	512,580	451,731
Long-term debt	165,512	158,963	97,293	87,841	78,156	72,324	55,904	53,140	55,009	55,950
Stockholders' equity	415,088	395,739	375,440	365,939	350,747	336,971	324,079	308,878	288,707	274,487
<i>(In dollars)</i>										
PER SHARE**										
Net income (average shares outstanding)	1.90	1.85	1.56	1.96	1.61	1.40	1.56	1.55	1.30	1.02
Dividends	1.00	.90	.90	.90	.65	.50	.50	.425	.325	.075***
Stockholders' equity	26.73	26.87	26.16	25.50	24.44	23.48	22.58	21.52	20.86	19.99
OTHER DATA										
Number of shares** (in thousands)	15,530	14,726	14,353	14,353	14,353	14,353	14,353	14,353	13,838	13,732
Number of stockholders	88,230	67,112	65,642	62,486	58,889	56,937	57,437	57,033	54,912	53,808
Number of employees	136,000	130,000	128,000	122,000	111,000	102,000	96,000	100,000	94,000	90,000

* Without giving effect to adjustment of consolidated retained earnings by \$8,728,120, as explained in Note 7 to the Financial Statements.

** Adjusted for 2-for-1 stock split effective February 5, 1959.

*** A stock dividend was also distributed at the rate of 5 shares for each 100 shares held.

International Telephone and Telegraph Corporation



PRINCIPAL U. S. - CANADA DIVISIONS

Divisions	<p>Components Division, Clifton, N. J. Kuthe Laboratories, Inc., Newark, N. J. Industrial Products Division, San Fernando, Calif. ITT Federal Division, Clifton, N. J., and Fort Wayne, Ind. ITT Laboratories, Nutley, N. J., and Fort Wayne, Ind. Kellogg Switchboard and Supply Company, Chicago, Ill.</p>
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AND . . . INTERNATIONAL STANDARD ELECTRIC CORPORATION, NEW YORK, N. Y.

Argentina	Capehart Argentina S.A.I.C. (50% owned), Buenos Aires Compañía Standard Electric Argentina, S.A.I.C., Buenos Aires
Australia	Standard Telephones and Cables Pty. Limited, Sydney Austral Standard Cables Pty. Limited (50% owned), Melbourne
Austria	Standard Telephon und Telegraphen Aktiengesellschaft, Czeija, Nissl & Co., Vienna
Belgium	Bell Telephone Manufacturing Company, Antwerp
Brazil	Standard Eléctrica, S.A., Rio de Janeiro
Canada	Standard Telephones & Cables Mfg. Co. (Canada) Ltd., Montreal
Chile	Compañía Standard Electric, S.A.C., Santiago
Cuba	Equipos Telefónicos Standard de Cuba, Havana
Denmark	Standard Electric Aktieselskab, Copenhagen
Finland	Oy Suomen Standard Electric AB, Helsinki
France	Compagnie Générale de Constructions Téléphoniques, Paris Les Télémprimeurs, 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

OVERSEAS

Argentina	Compañía Internacional de Radio, S.A., Buenos Aires Sociedad Anónima Radio Argentina (subsidiary of American Cable & Radio Corporation), 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

ASSOCIATE LICENSEES FOR

France	Lignes Télégraphiques et Téléphoniques, Paris.
Italy	Società Italiana Reti Telefoniche Interurbane, Milan

AND SUBSIDIARIES

Subsidiaries	American Cable & Radio Corporation, New York, N. Y. All America Cables and Radio, Inc., New York, N. Y. Commercial Cable Company, The, New York, N. Y. Mackay Radio and Telegraph Company, New York, N. Y. Federal Electric Corporation, Paramus, N. J. ITT Electronics Service Company of Canada Ltd., Town of Mount Royal, P.Q. Northern Services, Inc., Anchorage, Alaska Intelix Systems Incorporated, New York, N. Y. Airmatic Systems Corporation, Rochelle Park, N. J. International Electric Corporation, Paramus, N. J. ITT Communication Systems, Inc., Paramus, N. J. Kellogg Credit Corporation, New York, N. Y. Royal Electric Corporation, Pawtucket, R. I.
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WHOSE PRINCIPAL RESEARCH, MANUFACTURING, AND SALES AFFILIATES ARE:

Iran	Standard Electric Iran A.G., Teheran
Italy	Fabbrica Apparecchiature per Comunicazioni Elettriche Standard S.p.A., Milan
Mexico	Industria de Telecomunicación, S.A. de C.V. (50% owned), Mexico City Standard Eléctrica de México, S.A., Mexico City
Netherlands	Nederlandsche Standard Electric Maatschappij N.V., The Hague
New Zealand	New Zealand Electric Totalisators Limited, Wellington
Norway	Standard Telefon og Kabelfabrik A/S, Oslo
Portugal	Standard Eléctrica, S.A.R.L., Lisbon
Spain	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
United Kingdom	Creed & Company Limited, Croydon Standard Telephones and Cables Limited, London Kolster-Brandes Limited, Sidcup Standard Telecommunication Laboratories Limited, London
Venezuela	Standard Telecommunications C.A., Caracas

TELECOMMUNICATION COMPANIES

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
Spain	Compañía Radio Aérea Marítima Española, S.A., Madrid
United Kingdom	International Marine Radio Company Limited, Croydon
Virgin Islands	Virgin Islands Telephone Corporation, Charlotte Amalie

MANUFACTURE AND SALES

Japan	Nippon Electric Company, Limited, Tokyo Sumitomo Electric Industries, Limited, Osaka
Spain	Marconi Española, S.A., Madrid

PRINCIPAL ITT SYSTEM PRODUCTS

Industrial - Commercial Equipment and Systems

Battery chargers
Power supplies
Mobile communications equipment
Closed circuit television
Electronic computers
Analog-digital converters
Data processing systems
Document handling and processing systems
Air and marine navigation systems
Test and measuring instruments
Pneumatic tube systems
Airport control equipment
High frequency welding equipment

Public address systems
Police and fire alarm systems
Railway and power distribution control and signaling equipment
Intercommunications
Traffic control systems
Paging systems
Point-to-point radio communications systems
Broadcast transmitters and studio equipment for audio and video use
Microwave systems, both line-of-sight and over-the-horizon
Amplifiers

Military Equipment and Systems

Guided missile controls
Electronic countermeasures
Global communications systems
Infrared detection and guidance systems
Radar
Direction finders

Air navigation and control systems
Simulators
Data handling and processing systems
Ground and airborne communications equipment
Missile fuzes
Ground environmental test equipment

Components

Vacuum and gas tubes
Picture tubes
Rectifiers
Semiconductor devices
Capacitors
Transformers
Fractional-horsepower motors
Microphones and loudspeakers
Plastic-insulated wire and multi-conductor cables
Power cables
Traveling-wave tubes

Relays
Selectors and switches
Infrared filters
Hermetic seals
Quartz crystals
Ferrites
Magnetic cores
Printed-circuit boards
Fuses
Fluorescent starters

Public Telecommunications Equipment and Systems

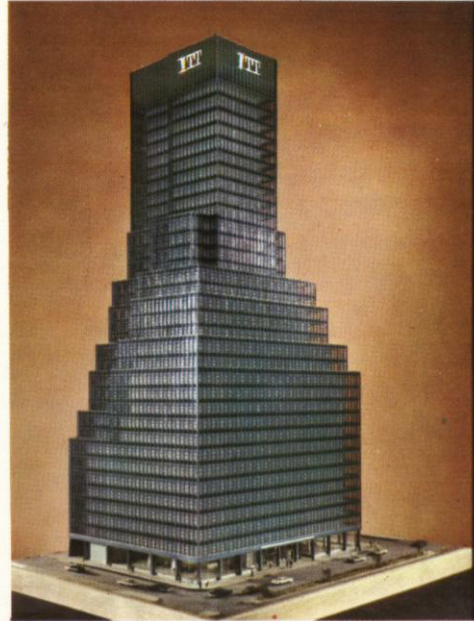
Central-office and private branch telephone and telegraph exchanges
Telephone switching systems
Distance direct-dialing and automatic message recording systems
Electronic telegraph switching systems
Intercommunications systems
Telephone and telegraph carrier systems
Power-line carrier systems
Coaxial cable systems

Telephone sets
Teleprinters and facsimile equipment
Multi-conductor telephone cables
Submarine telephone and telegraph cable and repeaters
Telephone and telegraph test equipment
Radio multiplexing systems
Point-to-point radio equipment
Ship-to-shore radio systems
Microwave links

Consumer Products

Broadcast radios
Television receivers
Record players and high-fidelity equipment
Refrigerators and freezers

Air conditioners
Hearing aids
Traffic appliances
Incandescent lamps



Late this year or early in 1961 ITT will move from 67 Broad Street at the lower tip of Manhattan, the center of our operations for more than a quarter-century, to a new headquarters building now under construction at 320 Park Avenue in midtown New York. Under a 25-year lease the Corporation will occupy nine of 34 floors, and maintain a reception room off the main lobby, in what will be known as the International Telephone and Telegraph Building.

ITT is one of a growing number of major corporations in recent years to establish modern headquarters in the midtown-eastside area. At its new location the Corporation will occupy the 9th floor through the 14th floors, and the 19th, 33rd and 34th (penthouse) floors.

Among the building's interesting features: ITT-manufactured equipment will be installed to provide a closed-circuit television system connecting the executive and board room floors with ITT Laboratories in Nutley, N. J. This circuit will be used for high-level meetings, reviews of technical developments, and the discussion and demonstration of equipment.

