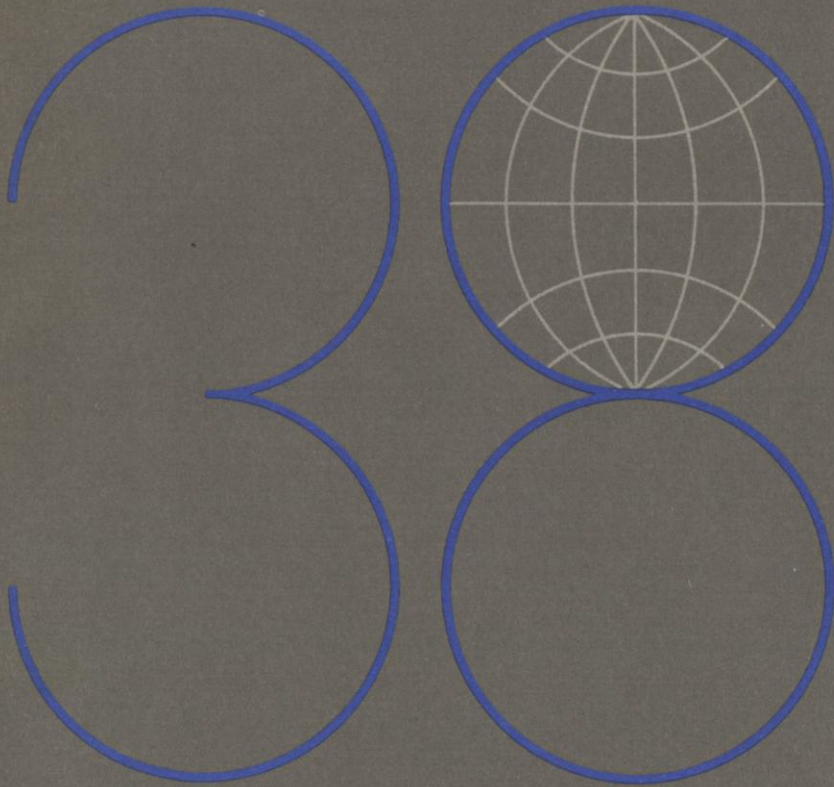


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*report*

*1958*

International Telephone and Telegraph Corporation



**International Telephone and Telegraph Corporation**

**38** *th annual report, 1958*

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<b>Directors</b>	Robert F. Bender George R. Brown Charles E. Dunlap Fred M. Farwell Arthur M. Hill Charles D. Hilles, Jr. Allan P. Kirby	Hugh Knowlton J. Patrick Lannan Edmond H. Leavey Robert McKinney Richard S. Perkins Warren Lee Pierson Ellery W. Stone
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<b>Executive Committee</b>	George R. Brown Arthur M. Hill Allan P. Kirby Hugh Knowlton	J. Patrick Lannan Edmond H. Leavey Robert McKinney Richard S. Perkins
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<b>Officers</b>	Edmond H. Leavey..... <i>President</i> Charles D. Hilles, Jr..... <i>Executive Vice President</i> Fred M. Farwell..... <i>Executive Vice President</i> Robert F. Bender..... <i>Executive Vice President</i> John G. Copelin..... <i>Vice President and Comptroller</i> Frederick R. Furth..... <i>Vice President</i> John E. Gingrich..... <i>Vice President</i> John T. Jackson..... <i>Vice President</i> Eugene Le Baron..... <i>Vice President</i> Herbert I. Miller..... <i>Vice President</i> Sydney Morrell..... <i>Vice President</i> John T. Naylor..... <i>Vice President</i> Edward D. Phinney..... <i>Vice President</i> Henry H. Scudder..... <i>Vice President</i> Ellery W. Stone..... <i>Vice President</i> M. Richard Mitchell..... <i>General Attorney</i> C. Douglas Webb..... <i>Secretary</i> Paul F. Swantee..... <i>Treasurer</i>
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<b>Transfer Agents for Capital Stock</b>	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
--	---

<b>Registrars for Capital Stock</b>	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
-------------------------------------	--

<b>Trustee for 3% Sinking Fund Debentures</b>	The First National City Bank of New York, New York 15, N. Y.
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<b>Trustee for 4% Convertible Subordinated Debentures</b>	First National City Trust Company, New York 15, N. Y.
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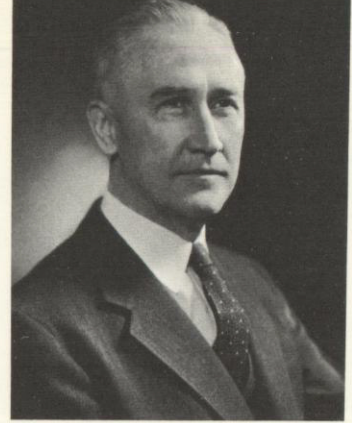
<b>Registrar for 3% Sinking Fund Debentures</b>	J. P. Morgan & Co., Incorporated, New York 8, N. Y.
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<b>Registrar for 4% Convertible Subordinated Debentures</b>	First National City Trust Company, New York 15, N. Y.
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<b>General Offices</b>	67 Broad Street, New York 4, N. Y.
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## Highlights

	1958	1957
Sales—		
United States	\$261,530,146	\$230,962,633
Foreign	373,622,976	361,864,624
Total	\$635,153,122	\$592,827,257
Telephone and Radio Operating Revenues	\$ 52,298,323	\$ 45,841,668
Net Income	\$ 26,600,168	\$ 22,412,814
Net Income per Share		
After 2-for-1 Stock Split	\$ 1.85	\$ 1.56
Dividends per Share		
After 2-for-1 Stock Split (\$1.80 before split)	\$ .90	\$ .90
Net Current Assets (Working Capital)	\$233,962,786	\$200,827,946
Ratio of Current Assets to Current Liabilities	2.1 to 1	1.9 to 1
Plant, Property and Equipment, less Reserves	\$303,608,585	\$260,249,674
Stockholders' Equity	\$395,738,616	\$375,439,888
Stockholders' Equity per Share		
After 2-for-1 Stock Split	\$26.87	\$26.16
Orders on Hand—		
United States	\$211,000,000	\$204,000,000
Foreign	300,000,000	281,000,000
Total	\$511,000,000	\$485,000,000
Telephones in Service	538,712	495,114
Backlog Telephone Demand	300,897	291,381
Number of Employees	130,000	128,000
Number of Stockholders	67,112	65,642



## To Our Stockholders:

The year 1958 was one of the most successful in the 38-year existence of International Telephone and Telegraph Corporation. Consolidated net sales of our manufacturing, laboratory, and service units set a new high for the twelfth consecutive year. Gross operating revenues of our consolidated telephone and radio subsidiaries set a new record for the fifth consecutive year. Consolidated net income of ITT and its subsidiaries in 1958 was the second highest on record. Quarterly dividends to stockholders were maintained at the same level as in 1957. Detailed financial information is shown in the financial section immediately following this letter. Orders on hand at the end of 1958 surpassed the previous high mark, set in 1956.

The strong and improving position of ITT affairs as a whole led the Board of Directors to recommend in December 1958 a two-for-one split of the Corporation's shares. This was approved at a special meeting of stockholders in Baltimore, Maryland, on January 22, 1959, and became effective on February 5, 1959. At its meeting on March 11, 1959, the Board raised the annual dividend rate to \$1.00 on the split shares effective with the quarterly dividend payable in April 1959, in accordance with its previously declared intention. 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.

ITT carries on an international business in communication research, engineering, manufacture, and operations. It is also engaged in the development and management of missile and space-system projects. Outside the United States it employs more persons than any other U.S. company. It is estimated that in 1958 ITT's foreign manufacturing organizations had greater sales in their field than any of their European competitors. Its international telegraph associate, American Cable & Radio Corporation (58% owned), is the largest U.S. company in its field and the only one to operate by both cable and radio. In 1958 ITT's U.S. business volume rose 13% to a new peak.

Now, more than ever, the over-all strength of ITT derives in great measure from two factors—the *geographical scope* and the *diversity* of its operations. Companies of the ITT System operate in North America, South America, and the Caribbean; in Australia and the United Kingdom; and throughout Western Europe. These units, working together, can bring an unprecedented variety of services and technical skills to any assignment they undertake in any given area. It is their combined resources that give the entire ITT organization its unique capacity to perform tasks on a global scale.

Our diversified operations give the ITT System a strength and resilience that enable it to compensate for localized downturns of business in one area or another, or a temporary slackening of activity in certain industries.

Abroad, sales by our research and manufacturing units in 1958 were above those for 1957. In addition, two developments of importance for the future have recently appeared. Both hold the promise of appreciable benefits for ITT.

The first of these developments is the European Common Market inaugurated in January 1959. The Common Market should open the way to new and lasting benefits to ITT through consolidation and strengthening of the European economy. In the past year significant numbers of American companies have been thinking in terms of forming overseas units, anticipating an increasingly favorable industrial output and business climate in Europe. For many years ITT has been solidly established in every Western European country with the exception of Luxembourg. Some of these ITT units have been in business for three-quarters of a century, and all are manned one hundred per cent by nationals of the countries involved. Thus, ITT finds itself already in an excellent position to take advantage of the many opportunities the Common Market offers.

The second encouraging development abroad, particularly in Europe, is the trend toward freer convertibility of currencies. If this trend is main-

tained, it cannot help but increase the value of present investments and add to the investment of new American capital overseas. Its widespread operations will place ITT in a position to profit from the opportunities that freer trade and increasing prosperity in other parts of the world afford.

In Latin America, the economic problems now besetting certain areas are less important over the long run than are the great natural resources, the vigor of the people, and the rapid growth of industrialization, which will mould the future. Latin America therefore has an important place in the Corporation's long-term plans for manufacture and for the operation of telephone and telegraph networks.

During 1958 ITT continued to play a great and growing role in creating and operating global communications for the U.S. Armed Forces. In the United States, ITT was awarded very substantial military contracts during 1958, one for a worldwide communication and control network for the Strategic Air Command, another for mission and control subsystems for the Air Force F-108 Interceptor. In February of this year, ITT as a prime contractor was awarded, in association with others, a contract for the long-range modernization and expansion of the entire Air Force global communication system. ITT, as the senior partner of the team, has responsibility for the over-all development, design, and master planning of this system.

Outside the military and communications fields, ITT was recently awarded a contract from the U.S. Post Office Department to build in Providence, Rhode Island, the first fully automated post office in this country. This post office, to be completed in 1960, will be leased to the U.S. Government for 20 years. It will be equipped with mail-handling apparatus developed by ITT, and is designed to perform the twin functions of a working post office and a laboratory for the testing of advanced techniques and equipment. Automation of mail handling opens

a vast new field of opportunity to the ITT System in the United States as well as abroad.

In a corporation of this size and composition, problems always exist and new ones constantly arise. We do not minimize them; rather, we take them into full account in the preparation of our reports and our estimates. The detailed description of our operations contained in this Annual Report mentions, in appropriate places, the more important ones that exist today.

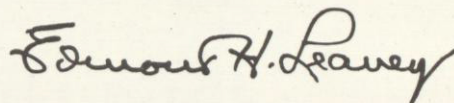
The Corporation strengthened its financial position in 1958 by the sale of \$28,692,000 of 4 $\frac{7}{8}$ % Convertible Subordinated Debentures, the first public issue of its securities since 1930. In addition, a \$50,000,000 line of credit available over an extended period was established with a group of banks.

Labor relations in the United States and abroad were generally excellent in 1958. Continued expansion of our U.S. operations has required increased employment of technical and scientific personnel, as well as intensified efforts to train executive and administrative employees for the increasingly important work involved.

On December 10, 1958, the Board of Directors of the Corporation accepted with regret the resignation from the Board of Charles Edison, former Governor of the State of New Jersey, whose wise counsel helped guide it for more than a decade.

To the 130,000 men and women whose work contributed so much to the success of ITT in 1958, we take this opportunity of extending our sincere appreciation.

For the Board of Directors,



President

March 31, 1959

## Financial

Consolidated net sales in 1958 attained a new high for the 12th consecutive year, \$635,153,122 compared with \$592,827,257 in 1957. Gross operating revenues of the consolidated telephone and radio operating subsidiaries set a new record for the 5th consecutive year, \$52,298,323 compared with \$45,841,668 in 1957.

Consolidated net income of ITT and its subsidiaries in 1958 amounted to \$26,600,168, or \$1.85 a share, compared with \$22,412,814, or \$1.56 a share in 1957, based on the average number of shares outstanding in those years after giving effect to the recent two-for-one stock split, and was equivalent to \$3.70 and \$3.12 a share, respectively, on the basis of the old shares.

Dividends of 45 cents a share were declared on the capital stock of the Corporation in each quarter of 1958, making a total of \$1.80 a share for the year before the stock split—the same amount as in 1957.

Outlays for plant and equipment during 1958 totaled \$72,000,000, of which \$25,000,000 was expended by the manufacturing and laboratory divisions and subsidiaries, and \$47,000,000 by the telephone and radio operating subsidiaries. Comparable expenditures in 1957 totaled \$57,000,000, of

which \$29,000,000 was spent by the manufacturing and laboratory units and \$28,000,000 by the telephone and radio operating subsidiaries.

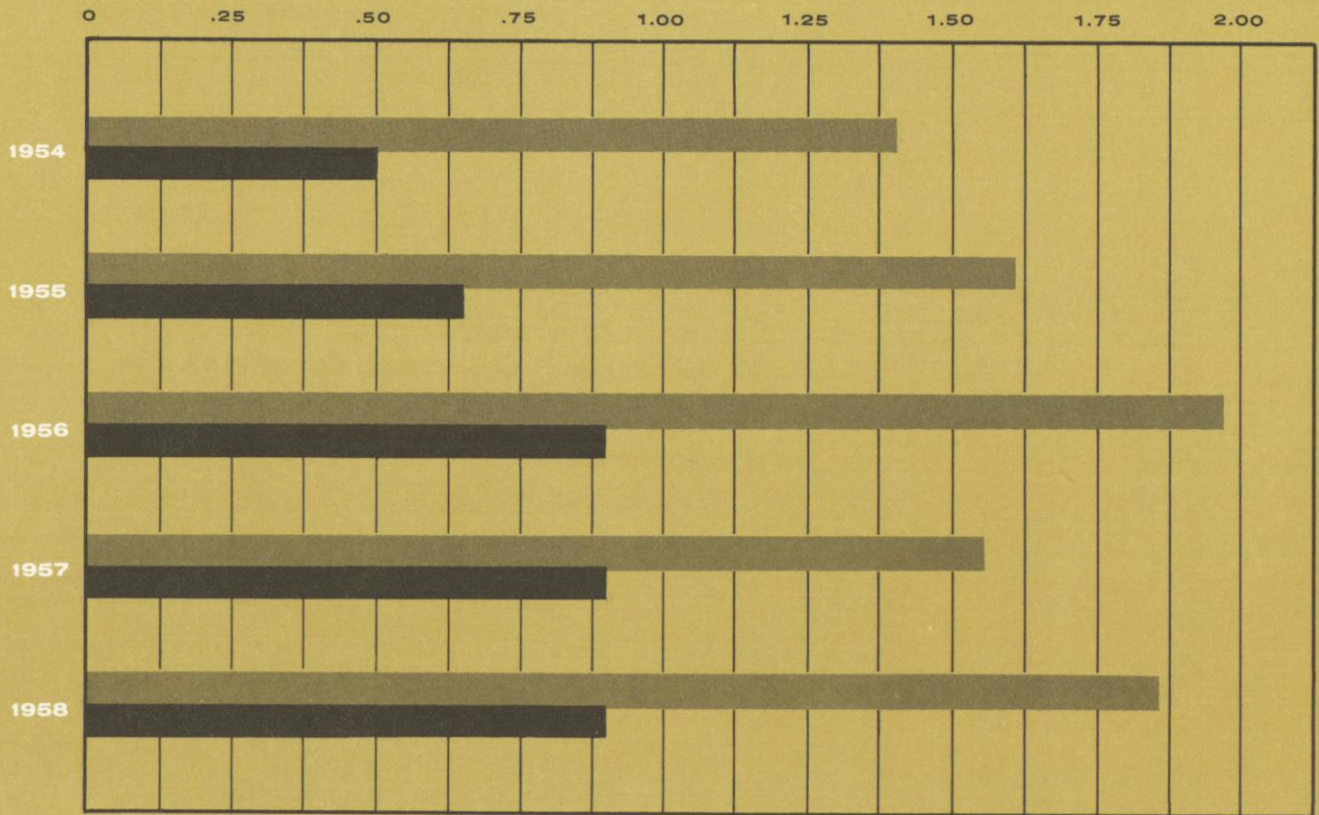
In May 1958, the Corporation sold \$28,692,000 of 4<sup>7</sup>/<sub>8</sub>% Convertible Subordinated Debentures due May 15, 1983, on which rights were issued to stockholders. These rights were exercised to the extent of 95.36% of the issue, and the unsubscribed debentures were sold publicly at a premium. By December 31, 1958, \$6,203,000 of these debentures had been converted, and 167,171 shares of capital stock, as constituted prior to the two-for-one split, had been issued in exchange therefor.

In August 1958, the Corporation entered into a term loan agreement with a group of banks, establishing a \$50,000,000 line of credit over an extended period. The agreement does not affect the Corporation's freedom to borrow additional amounts to meet current requirements for working capital. This line of credit has not been utilized to date.

Early in March 1959, ITT sold its New York Headquarters Building at 67 Broad Street. The Corporation has occupied a large part of the building since 1929 and will continue in its present quarters under a lease from the new owners.



### Dollars per Share

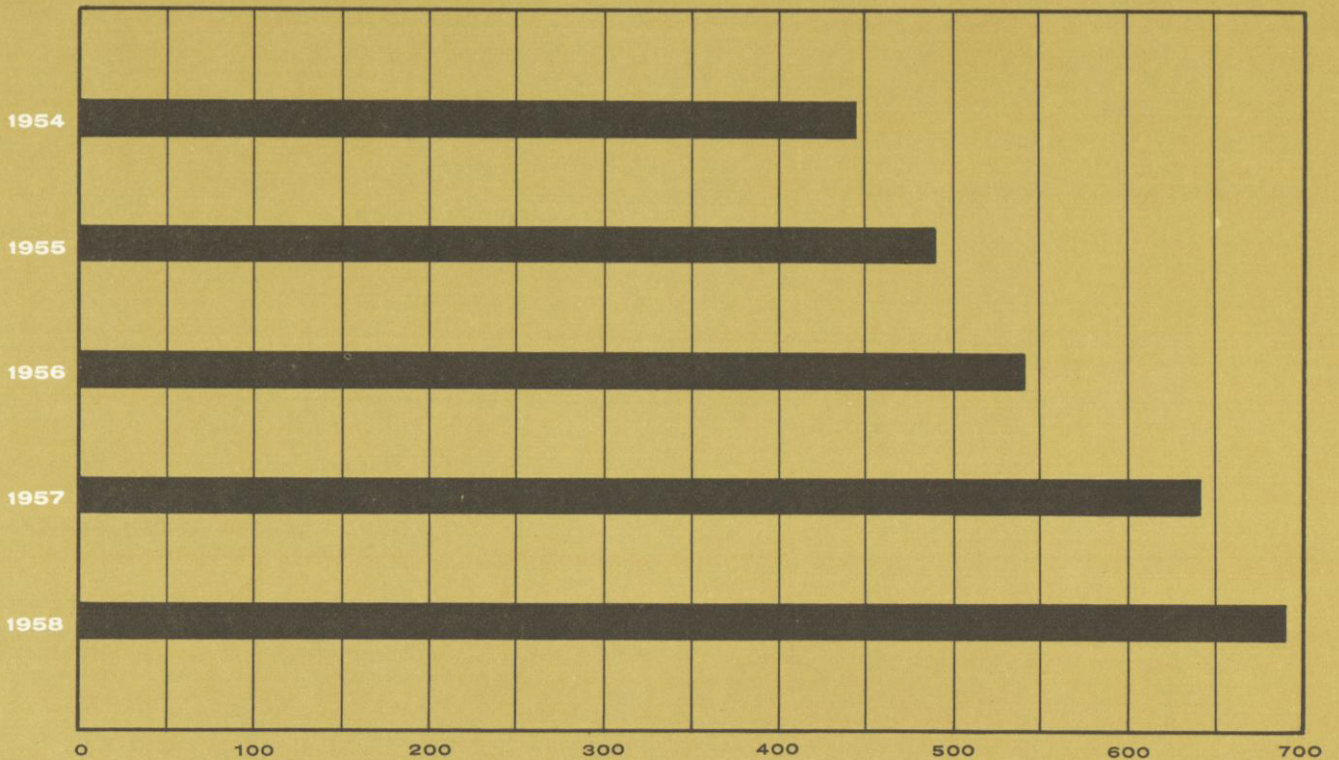


Dollars per share after 2-for-1 stock split.

Consolidated Net Income

Dividends

### Consolidated Sales and Revenues



Millions of Dollars

## Consolidated Balance Sheets

<b>Assets</b>	<b>1958</b>	<b>1957</b>
<b>Current Assets</b>		
Cash, including \$19,747,032 and \$13,397,840 in foreign currencies	\$ 42,816,230	\$ 33,973,987
U.S. Government securities	14,000,000	600,000
Accounts and notes receivable, less reserves	162,830,009	158,758,480
Inventories	235,192,084	238,376,820
	<b>454,838,323</b>	<b>431,709,287</b>
 <b>Miscellaneous Investments, Deferred Receivables and Other Assets</b>	 <b>62,217,999</b>	 <b>42,015,824</b>
 <b>Investments in Subsidiaries Not Consolidated and Other Companies, at cost</b>	 <b>48,341,058</b>	 <b>65,898,265</b>
 <b>Plant, Property and Equipment, at cost</b>	 494,205,375	 437,203,687
Less—Reserves for depreciation	190,596,790	176,954,013
	<b>303,608,585</b>	<b>260,249,674</b>
	<b>\$869,005,965</b>	<b>\$799,873,050</b>

as at December 31, 1958 and 1957

<b>Liabilities and Stockholders' Equity</b>	<b>1958</b>	<b>1957</b>
<b>Current Liabilities</b>		
Bank loans and current maturities of long-term debt	\$ 63,550,375	\$ 78,870,804
Accounts payable and accrued charges	122,437,016	118,878,352
Accrued taxes	31,577,535	29,904,624
Dividend payable	3,310,611	3,227,561
	<b>220,875,537</b>	<b>230,881,341</b>
<b>Deferred Liabilities</b>	<b>42,770,458</b>	<b>42,877,278</b>
<b>Deferred Income and Miscellaneous Reserves</b>	<b>10,104,056</b>	<b>14,681,465</b>
<b>Long-Term Debt (page 11)</b>	<b>158,962,645</b>	<b>97,293,138</b>
<b>Minority Equity in Subsidiaries Consolidated (page 11)</b>	<b>40,554,653</b>	<b>38,699,940</b>
<b>Stockholders' Equity</b>		
Capital stock—		
Authorized—15,000,000 shares, without par value (stated value \$20 per share)		
Issued—7,363,218 and 7,176,677 shares	147,264,360	143,533,540
Capital surplus	96,211,235	93,248,534
Retained earnings invested in the business	152,263,021	138,657,814
	<b>395,738,616</b>	<b>375,439,888</b>
	<b>\$869,005,965</b>	<b>\$799,873,050</b>

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

**Consolidated Income** for the years ended December 31, 1958 and 1957

	1958	1957
<b>Sales and Revenues</b>		
Net sales	\$635,153,122	\$592,827,257
Telephone and radio operating revenues	52,298,323	45,841,668
Dividends, interest and other income	15,559,234	14,800,555
Total income	<b>703,010,679</b>	<b>653,469,480</b>
<b>Costs, Expenses and Taxes</b>		
Cost of sales and operating expenses	593,044,966	551,579,624
Provision for depreciation	24,516,140	23,047,910
Interest and other financial charges	12,422,475	10,711,980
Taxes—		
U.S. Federal income tax	6,140,000	2,672,000
Other (includes income taxes to foreign governments)	36,269,587	38,785,866
Loss on foreign exchange—net	513,055	826,930
Total costs, expenses and taxes	<b>672,906,223</b>	<b>627,624,310</b>
Net income before minority equity	30,104,456	25,845,170
Minority common stockholders' equity in net income	3,504,288	3,432,356
<b>Net Income</b>	<b>\$ 26,600,168</b>	<b>\$ 22,412,814</b>

**Consolidated Retained Earnings Invested in the Business**

<b>Balance</b> — Beginning of year	\$138,657,814	\$129,157,128
<b>Add</b> — Net income for the year	26,600,168	22,412,814
	165,257,982	151,569,942
<b>Deduct</b> — Dividends declared—\$1.80 per share outstanding	12,994,961	12,912,128
<b>Balance</b> — End of year	<b>\$152,263,021</b>	<b>\$138,657,814</b>

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

## Long-Term Debt—December 31, 1958

### Corporation

Fifteen Year 3% Sinking Fund Debentures, due 1961 (\$1,500,000 due in 1959)	\$ 18,000,000
4½% Convertible Subordinated Debentures, due 1983	22,489,000

### Subsidiaries Consolidated

<b>BELL TELEPHONE MANUFACTURING COMPANY (Belgium)—</b>	
3½% to 7% long-term bank loans, due 1960-66 — BF 319,210,625	6,384,212
<b>CUBAN TELEPHONE COMPANY —</b>	
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 1960-75	12,180,000
<b>FABBRICA APPARECCHIATURE PER COMUNICAZIONI ELETTRICHE STANDARD S.P.A. (Italy)—</b>	
8% long-term bank loan, due 1962-63—IL 2,000,000,000	3,200,000
<b>INTERNATIONAL STANDARD ELECTRIC CORPORATION—</b>	
Six Year 3½% Swiss franc Debentures, due 1960 — SF 15,000,000 (guaranteed by the Corporation)	3,495,485
Sixteen Year 4% Swiss franc Debentures, due 1970 — SF 60,000,000 (guaranteed by the Corporation — amortization payments of SF 5,000,000 due annually from 1964 to 1969)	13,981,940
Five Year 6% long-term bank loan, due 1963 — DM 10,541,600	2,509,955
Three Year 4½% long-term U.S. dollar bank loan, due 1961	3,000,000
<b>KELLOGG CREDIT CORPORATION (United States)—</b>	
Ten Year 5% long-term bank loans, due annually to 1968	4,440,000
<b>LE MATERIEL TELEPHONIQUE (France)—</b>	
3¾% to 6% Debentures, to be retired in annual lots to 1977 — FF 1,040,628,602	2,081,257
<b>PUERTO RICO TELEPHONE COMPANY—</b>	
Twenty-Five Year 4¾% Sinking Fund Debentures, Series A, due 1978	4,900,000
Twenty-Five Year 4¾% Sinking Fund Debentures, Series B, due 1981	5,000,000
<b>STANDARD ELEKTRIK LORENZ A.G. (Germany)—</b>	
Twenty Year 6½% Debentures, due 1964-78 — DM 35,000,000	8,333,500
4% to 9% long-term bank loans, due 1960-69 — DM 77,104,918	18,358,681
<b>STANDARD TELEPHONES AND CABLES LIMITED (England)—</b>	
5½% Ten Year Note, due 1963 — £400,000	1,120,000
6½% Twenty Year Note, due 1978 — £1,500,000	4,200,000
6¾% Twenty Year Note, due 1978 — £1,500,000	4,200,000
<b>STANDARD TELEPHONES AND CABLES PTY. LIMITED (Australia)—</b>	
6½% Mortgage Loan, due 1960-69 — A£1,750,000	3,920,000
<b>OTHER SUBSIDIARIES</b>	4,186,735
	<hr/> 160,980,765
LESS— Amounts due within one year included in current liabilities	2,018,120
<b>Total Long-Term Debt</b>	<hr/> <b>\$ 158,962,645</b> <hr/>

## Minority Equity in Subsidiaries Consolidated—December 31, 1958

### Preferred Stock

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

### Common Stock and Surplus

<b>Total Minority Equity in Subsidiaries Consolidated</b>	<hr/> <b>\$ 40,554,653</b> <hr/>
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The accompanying notes to the financial statements are an integral part of the above statements.

## General Grouping of Net Income and Net Assets

Net Income for the Year 1958	CONSOLIDATED
Net income of subsidiaries consolidated and divisions before loss on foreign exchange and interest to parent companies	\$28,029,526
Deduct—Loss (profit) on foreign exchange—net	513,055
Net income of subsidiaries consolidated and divisions before interest to parent companies	<b>27,516,471</b>
Dividends and interest received in the United States from foreign subsidiaries consolidated	—
Total, including undistributed income of foreign subsidiaries consolidated	<b>27,516,471</b>
Add—Other dividends, royalties and other income received in the United States—	
Foreign sources	5,316,029
United States sources	1,162,525
Income before expenses, interest and taxes of parent companies	<b>33,995,025</b>
Deduct—Expenses (net of fees) interest and taxes of parent companies (exclusive of divisions)	7,394,857
<b>Net Income</b>	<b>\$26,600,168</b>
<b>Net Assets as at December 31, 1958</b>	
Net current assets—working capital	\$233,962,786
Miscellaneous investments, deferred receivables and other assets	62,217,999
Investments in subsidiaries not consolidated and other companies	48,341,058
Plant, property and equipment—net	303,608,585
	<b>648,130,428</b>
Deduct—	
Deferred liabilities, deferred income and miscellaneous reserves	52,874,514
Long-term debt	158,962,645
Minority equity in subsidiaries consolidated	40,554,653
	<b>252,391,812</b>
<b>Consolidated net assets—represented by stockholders' equity</b>	<b>\$395,738,616</b>

by Location of Principal Operations

Foreign Manufacturing, Sales and Laboratories

Telephone

UNITED STATES	BRITISH COMMONWEALTH	WESTERN EUROPE	LATIN AMERICA	JAPAN	LATIN AMERICA
\$ 5,313,097	\$ 2,246,566	\$ 11,174,818	\$ 1,750,531	—	\$ 7,544,514
(38,468)*	18,978	743,362*	1,397,933*	—	(1,608,750)
<b>5,351,565</b>	<b>2,227,588</b>	<b>10,431,456</b>	<b>352,598</b>	—	<b>9,153,264</b>
16,100,285	(3,372,235)	(5,937,008)	(921,592)	—	(5,869,450)
<b>21,451,850</b>	<b>\$ (1,144,647)</b>	<b>\$ 4,494,448</b>	<b>\$ (568,994)</b>	—	<b>\$ 3,283,814</b>
5,316,029	<b>\$ 211,646</b>	<b>\$ 1,501,489</b>	<b>\$ 289,977</b>	<b>\$ 1,510,378</b>	<b>\$ 1,802,539</b>
1,162,525					
<b>27,930,404</b>					
7,394,857					
<b>\$ 20,535,547</b>					
\$ 92,537,322	\$56,330,706	\$ 80,695,242	\$ 7,141,612	\$ —	\$ (2,742,096)
7,679,379	3,309,838	24,112,962	6,191,181	—	20,924,639
26,438,823	2,263,027	12,150,193	777,350	6,002,794	708,871
38,336,556	21,816,288	56,579,941	8,729,676	—	178,146,124
<b>164,992,080</b>	<b>83,719,859</b>	<b>173,538,338</b>	<b>22,839,819</b>	<b>6,002,794</b>	<b>197,037,538</b>
14,308,940	17,631,177	17,758,340	289,002	—	2,887,055
66,326,380	13,440,000	39,623,289	1,196,538	—	38,376,438
—	—	10,487,217	4,625	—	30,062,811
<b>80,635,320</b>	<b>31,071,177</b>	<b>67,868,846</b>	<b>1,490,165</b>	—	<b>71,326,304</b>
<b>\$84,356,760</b>	<b>\$52,648,682</b>	<b>\$105,669,492</b>	<b>\$21,349,654</b>	<b>\$6,002,794</b>	<b>\$125,711,234</b>

\*After reversal of available credits of \$535,727 (United States), \$1,057,507 (Western Europe) and \$1,066,000 (Latin America).

## 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, 1958 by \$7,045,772; its equity in income for the year 1958 amounted to \$799,258, of which \$608,042 was received in dividends.

The net income of the Corporation amounted to \$19,859,778 and \$15,158,379 for the years 1958 and 1957, respectively. Its retained earnings at December 31, 1958 were \$63,201,227. 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 payment of dividends and to taxes payable on declaration of dividends.

A general grouping of net income and net assets by location of principal operations is shown on pages 12 and 13.

### 2. Pledged Assets

Assets pledged by subsidiaries to secure their indebtedness other than mortgage loans amounted to approximately \$21,400,000.

### 3. Inventories

Inventories are stated generally at the lower of cost or market and have been reduced by progress payments on contracts in progress.

### 4. Investments

Investments at December 31, 1958 and 1957 were represented by:

	1958	1957
American Cable & Radio Corporation— 58% owned	\$26,238,823	\$26,238,823
Teléfonos de México, S. A.— Common stock (sold in 1958)	—	12,224,589
Debentures (included in Miscellaneous Invest- ments in 1958)	—	6,067,520
L. M. Ericsson Telephone Company, Ltd.— 23% owned	9,348,780	9,348,780
Nationalized companies, \$11,222,546 fully reserved	—	—
Other companies	12,753,455	12,018,553
	<u>\$48,341,058</u>	<u>\$65,898,265</u>

### 5. 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.



## 6. Capital Stock

Under the Corporation's Stock Option Incentive Plan, approved by the Stockholders in 1956, employees of the Corporation and its subsidiaries may be granted options to purchase an aggregate of 150,000 shares of Capital Stock of the Corporation as constituted prior to the stock split referred to below. Options granted under the Plan are exercisable in whole or in part by such employees after two years, but not more than seven years, from the date granted. 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. Of 21,500 shares available for options at January 1, 1958 and 2,500 shares made available by cancellation of options previously granted, options were granted in 1958 for 14,500 shares at \$32.375 per share and for 8,500 shares at \$45.125 per share, leaving 1,000 shares available for future options at December 31, 1958. Options were exercised in 1958 for 19,370 shares, leaving 129,630 shares issuable under outstanding options at December 31, 1958.

Under the conversion provisions of the 4 $\frac{7}{8}$ % Convertible Subordinated Debentures, at December 31, 1958, 608,288 shares of the unissued Capital Stock of the Corporation as constituted prior to the stock split were reserved for conversion of such Debentures. During 1958, 167,171 shares were issued in exchange for \$6,203,000 principal amount of these Debentures.

As approved by the Stockholders, the Charter of the Corporation was amended effective February 5, 1959, to increase the authorized Capital Stock to

30,000,000 shares, without par value, and to change each of the issued shares into two fully paid and nonassessable shares, without thereby changing the total stated value. The number of shares of Capital Stock stated in the preceding paragraphs with respect to options and conversions (and related option and conversion prices) have been adjusted subsequent to December 31, 1958, as a result of the Charter amendment, to give effect to such 2-for-1 stock split.

## 7. Capital Surplus

Changes in capital surplus during the year are shown below:

Balance—January 1, 1958 . . . . .	\$93,248,534
Add—Credits arising from—	
Conversions of debentures . . . . .	2,709,997
Exercise of stock options . . . . .	252,704
Balance—December 31, 1958 . . . . .	<u>\$96,211,235</u>

## 8. Contingencies

On March 4, 1959, the Cuban Government enacted a law which cancelled the revised concession agreement signed March 14, 1957, and appointed an interventor who, in accordance therewith, assumed administration of the affairs of Cuban Telephone Company, a subsidiary in which there is a 35% minority interest, substantially all of which is held by the Cuban public. The effect of such governmental action on future operations in Cuba is not presently determinable.

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, 1958, 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, except that 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, 1957. Financial statements of certain foreign subsidiaries included in the consolidated statements were not examined by us but we were furnished with reports of other auditors thereon.*

*In our opinion, based upon our examinations and upon the reports of other auditors, the accompanying consolidated balance sheets and related statements of consolidated income and consolidated retained earnings invested in the business present fairly the financial position of International Telephone and Telegraph Corporation and its subsidiaries consolidated as of December 31, 1958 and 1957, and the results of their operations for the years then ended, and were prepared in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.*

*Arthur Andersen & Co.*

New York, N. Y.,  
March 5, 1959.



a review of our worldwide operations in electronics and telecommunication

## Research and Development

The ITT System total effort in research and development was close to \$55,000,000 in 1958. Some \$23,000,000 of this was provided by the Corporation and its subsidiaries, the remainder by contracts from various governments of the free world, primarily the U.S. Government.

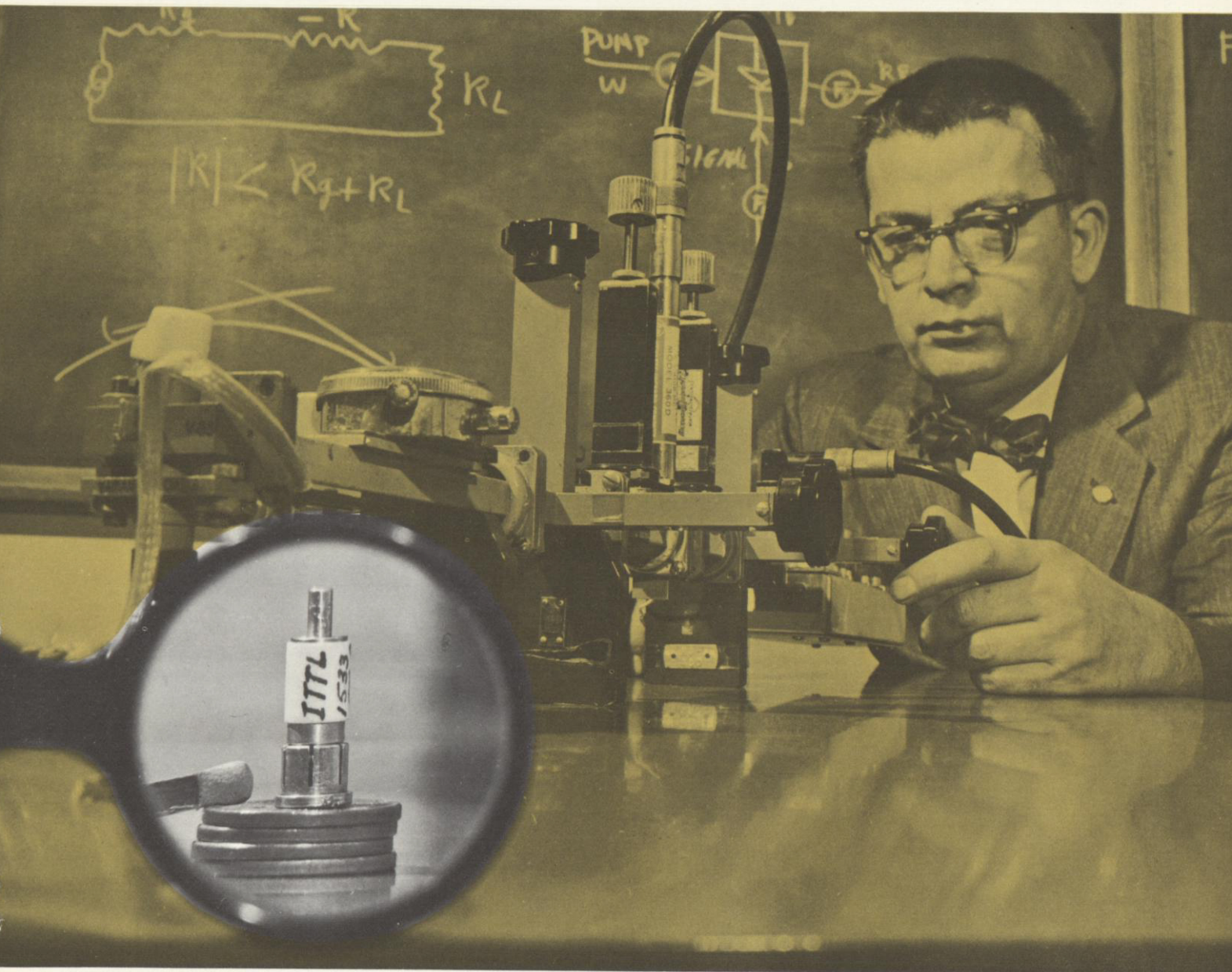
### UNITED STATES

The year 1958 was marked by the consolidation of Federal Telecommunication Laboratories with the research units of Farnsworth Electronics Company to form a new division known as *ITT Laboratories*. Integration of these units made possible the more efficient use of their human and physical resources. A new laboratory building in Nutley, New Jersey, further strengthened ITT's principal research center by adding 100,000 square feet of floor space and the most modern equipment to its facilities.

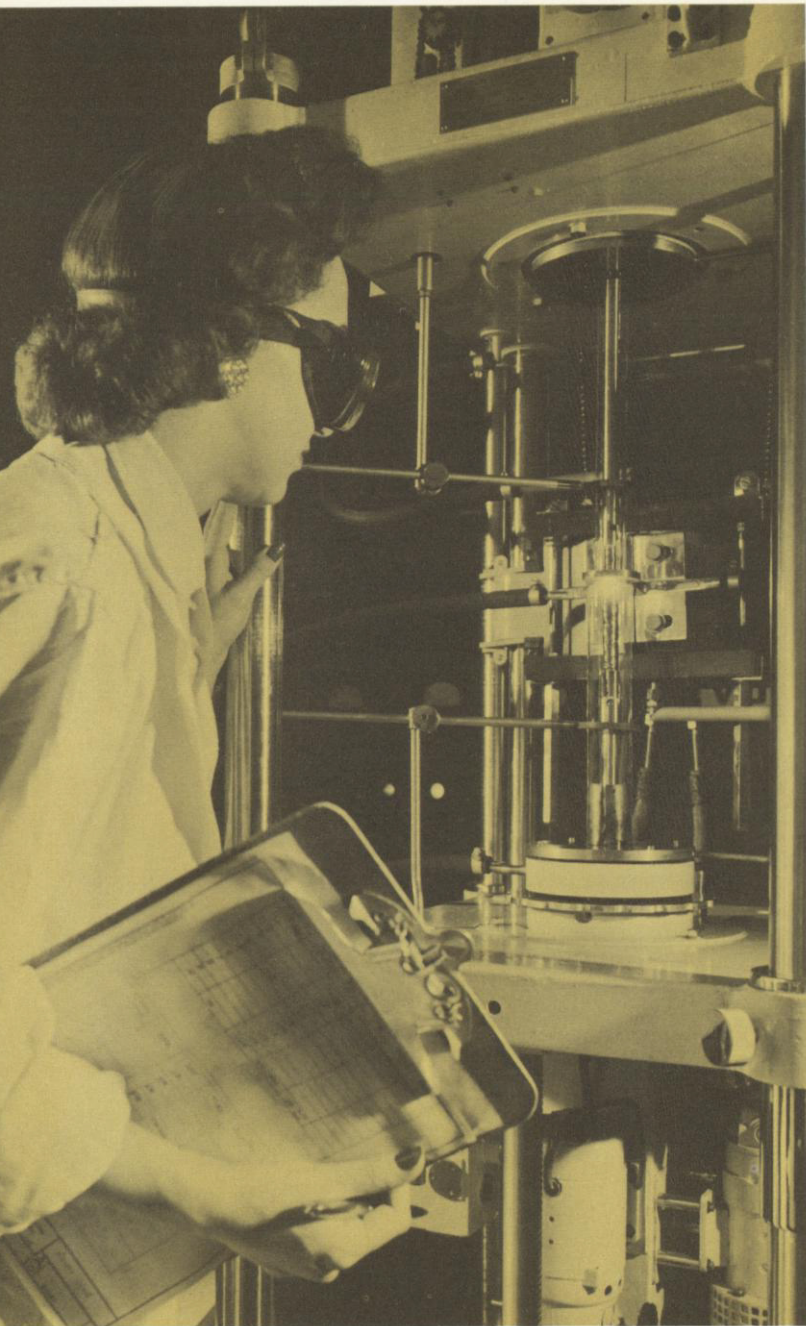
### Communication Techniques and Systems

At ITT Laboratories, research and development during the year resulted in several major technological advances. One was the successful application of solid-state "low-noise" amplifiers to microwave frequencies, promising greater range and reliability for communication, radar, and radio astronomy systems through the development of a tiny silicon diode, heart of the new low-noise amplifiers.

A major advance in telephone carrier design was accomplished late in the year, when terminal equipment that can expand two voice-channels to as many as 24 was announced. Known as K-24, this development of the Corporation's Palo Alto, California, branch laboratory requires no additional cable between exchanges to provide for expanded channel facilities. Earlier in the year the same research group



A significant increase in the signal-to-noise ratio of microwave radio has been achieved by ITT Laboratories. Heart of new "low-noise" amplifier is the ITTL silicon diode shown in inset, mounted on base of one-cent pieces.



Crystal-growing machine developed by our Standard Telecommunication Laboratories, London, reduces impurities in silicon to one part in a billion.

completed the development of rural subscriber telephone carrier equipment, with provision for expanding channel requirements for wire communication systems in outlying areas by greater use of existing line facilities.

A development in process, with special application to wire communication, provides for the filing and routing of incoming telegraph messages. The pilot model of this important project is being designed for the reception and switching of more than 100 incoming line messages to as many possible destinations. Full utilization is made of transistorization techniques, modular design, and new high-speed tape recording of digital information.

In addition to design of a new military field-cable for the U.S. Signal Corps, ITT Laboratories devised methods for laying this 48-channel wire from a helicopter at speeds up to 60 miles an hour, enabling Army field commanders to establish or re-establish reliable communication with their outlying posts regardless of terrain conditions.

The award to ITT of a large contract for a worldwide Strategic Air Command communication and control system, referred to in the President's letter, resulted in important research work for ITT Laboratories in electronic data-processing, handling, and display. A closed-circuit television link between SAC headquarters in Omaha, Nebraska, and the Pentagon is under development.

In line with the increasing demand for a global communication system employing one or more fixed satellites as relays, ITT Laboratories has submitted a proposal to the U.S. Air Force outlining a research and development program for a complete global network utilizing microwave techniques and satellite repeaters for voice, telegraph, and data transmission.

#### **Missile and Space Systems**

Development continued on the ground and airborne control-system for the *Lacrosse* surface-to-surface artillery missile. ITT Laboratories was awarded the system management and design of the Eglin Gulf

Test Range off the western coast of Florida. In conjunction with ITT's Kellogg Division and Federal Electric Corporation, the Laboratories will design, install, operate, and maintain radar equipment, safety devices, telemetry and optical tracking systems, data transmission equipment, count-down systems, and a wide range of support equipment necessary for testing the capabilities of various Air Force missiles.

Development of a *Nike* missile training device that simulates the complete operation of a missile against an enemy aircraft was also announced. The simulator, which occupies a 20-foot van, eliminates the need for real aircraft and actual firing for training operations.

Long-range contracts have been received for the study of guidance systems and techniques for extraterrestrial landings.

Evaluation of engineering concepts of the DEW (distant early warning) Line of radar stations in northern Canada and Alaska was completed by ITT Laboratories engineers during the year. Another defense project calling for design and test installation of a powerful new radar chain, providing additional precious minutes for the nation's ICBM defense, has been undertaken. With ranges far in excess of present early warning radars, the system will also utilize ITT's vast experience in basic communication and data-transmission techniques.

### Aids to Navigation

The Laboratories contributed further refinements to the *Tacan* (tactical air navigation) system, the U.S. military navigational aid, through the design of mobile systems; further developed *Vortac* equipment for common civil-military use; and continued the development of long-range aids and improvements of the *Loran* (long-range navigation) system for the U.S. Coast Guard. Lightweight, modular DMET (distance measuring equipment, *Tacan*), designed by the Laboratory for compatibility with *Tacan* and *Vortac*, was put into production at ITT Federal Division for installation on the new jet-age

airliners, on orders received from several U.S. airlines.

### Physical Sciences and Components

An atomic clock that may be used in future space travel was also announced during the year. The clock provides a very precise frequency standard, and, thereby, a measure of time so accurate that it is estimated to vary only three seconds in 1,000 years. The expected final design will be compact and light enough for airborne installation in missiles, satellites, and supersonic aircraft.

A series of advanced sensing devices—Iatron or bright-image tubes, infrared devices and electronic storage tubes—has been made available for production. In addition, work continues on many aspects of physics and chemistry for better and smaller electronic components.

### Countermeasures Systems

The electronic countermeasures research group, shielded from the publicity and acclaim that attend many other projects, is continuing its vital task of coping with the latest known electronic weapons of a potential enemy, anticipating those not yet disclosed, and designing measures of our own to discourage and thwart possible enemy action.

### ABROAD

ITT System research and development activities abroad are carried on in the central laboratory companies, *Laboratoire Central de Télécommunications* (LCT) in France, and *Standard Telecommunication Laboratories* (STL) in the United Kingdom, as well as in the laboratory groups of all principal factories.

### Communication Techniques and Systems

For some 15 years the diameter and general construction of the coaxial tubes used extensively in long-distance cables for national and international circuits have remained practically unchanged. However, the quality and uniformity of such cables have been improved continuously, with the result that the



New techniques developed by ITT Laboratories permit laying of its improved field-wire by helicopter.

number of telephone channels that a pair of such tubes can handle has increased from a few hundred to more than a thousand, the only additional cost being that of spacing closer together the repeaters needed to amplify the signals along the way. Spectacular results have been achieved in the past year by the ITT System's principal British subsidiary, *Standard Telephones and Cables Limited* (STC), through the development of a system capable of 2,700 speech channels over two coaxial tubes, operating with a 12-megacycle bandwidth. The frequency band thus made available can be divided so as to provide simultaneously a television channel and 1,200 telephone circuits over the same coaxial tubes. Orders have been received from customers in both England and Sweden as a result of this development.

One consequence of the development of cable systems of very large capacity is that a lesser number of circuits is required. For circuits of lower capacity, substantial savings can be obtained by employing a pair of cables with less than half the diameter of the standard type, newly developed by the same company to handle up to 300 telephone circuits. Fully transistorized repeaters of rugged design have also been developed. Orders for this new cable system have already been received from customers in England and Italy.

Meanwhile, transistorized circuitry for existing carrier terminals has reduced power requirements and effected economies both in initial cost and space requirements.

At the end of January 1959, STL demonstrated long-distance transmission by waveguide to the British Institution of Electrical Engineers. Waveguides are potentially capable of carrying a large number of television channels as well as several times 10,000 telephone channels.

The demonstration marks an important stage in the practical realization of these systems. One of the many problems to be solved has been the detrimental

effect of curves in the waveguide, which are almost inevitable in the laying and working of a system under operating conditions. These difficulties have been greatly reduced by the development of a pipe in the form of a long, closely wound helix of wire, which has proved much more tolerant of curves than a plain tube and forecasts a practical solution to the problem. At the demonstration, visiting engineers saw the first public presentation of actual television pictures transmitted over a long waveguide.

ITT companies in Europe have carried on several parallel experiments since 1947 in order to establish the relative merits of new electronic switching techniques and existing electromechanical techniques in automatic telephone central offices. In order to field-test one new design, LCT has developed a fully electronic automatic private branch exchange that will be connected to the telephone network in Paris.

#### **Aids to Navigation**

ITT System laboratories abroad continue active in the development of electronic aids to navigation, especially those for aircraft. STC has evolved airborne equipment performing the combined functions of radio communication, instrument landing, and navigation. Ground direction finders, capable of establishing the position of approaching planes accurately from the ground by means of a new principle, have been developed by the ITT System's German subsidiary, *Standard Elektrik Lorenz A.G.* (SEL).

#### **Data Processing**

Many problems calling for electronic processing of information have been solved successfully by our companies abroad, using principally the techniques and components developed for telegraph and telephone switching and transmission. An example is the air travel reservation system developed recently by SEL and installed in Scandinavia, where it gives all connected ticket agencies immediate information on availabilities for all routes of a given airline sev-



Cancer research has been furthered by electronic spectro-analyzer developed by ITT Laboratories for Sloan-Kettering Institute.





Top: ITT miniature radio proclaimed *Vanguard* satellite missile's successful flight into space.

Bottom: ITT device trains crews in operation of *Nike* anti-aircraft missile by simulating enemy attack.

eral days ahead. Over 100 ticket agencies are connected with this system, whose central unit receives, stores, and transmits information as required.

Much data-processing equipment requires very high-speed recording and reading on punched tape. A recorder operating at 3,000 characters a minute has been developed by an ITT System subsidiary in the United Kingdom, *Creed & Company, Limited*, and a reader capable of similar speed has been designed by SEL in Germany.

The fourth edition of *Reference Data for Radio Engineers*, scientific handbook compiled by engineers of the entire ITT System, completed its second year of publication in November 1958 with the record sale of 65,000 copies. Another ITT book, *Electronic Avigation Engineering*, went on sale for the first time in 1958. It is recognized as the foremost work in its field.

## PATENTS

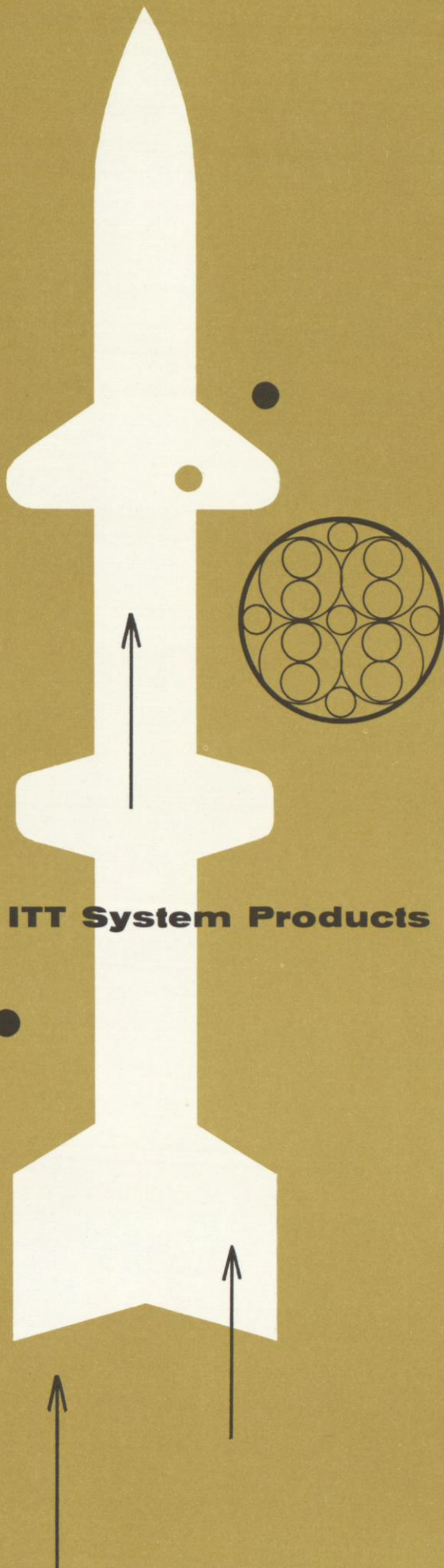
The Corporation, including its subsidiaries, had in force on December 31, 1958, about 22,400 patents in 47 countries and 1,800 trademarks and designs in 63 countries.

ITT's rights to two very important U.S. patents covering the basic principles of hyperbolic navigation systems such as *Loran* (long-range navigation) and the British *Gee* were established in 1958. Veiled during the war by reasons of security, the patent applications underwent a prolonged scrutiny by the patent tribunals before the patent rights were verified. Another important U.S. patent by ITT in the radar field is applicable to cases where any selected part of a display on one oscilloscope is shown enlarged on another oscilloscope.

A new process for the manufacture of silicon of extremely high purity, developed by Standard Telecommunication Laboratories in the United Kingdom, was licensed during 1958 to E. I. du Pont de Nemours & Co. for use in the United States, Canada, and Great Britain.

<b>CANADA</b>	2 Factories, 140,000 sq. ft. 250 Employees
<b>CHILE</b>	1 Factory, 40,000 sq. ft. 1 Telephone Company 1 International Radio Company 3,400 Employees
<b>ARGENTINA</b>	3 Factories, 606,000 sq. ft. 1 International Radio Company 3,350 Employees
<b>BOLIVIA</b>	1 International Radio Company 80 Employees
<b>PERU</b>	1 Telephone Company 1,000 Employees
<b>BRAZIL</b>	1 Factory, 208,000 sq. ft. 1 Telephone Company 1 National and International Radio Company 5,350 Employees
<b>CUBA</b>	1 Factory, 34,000 sq. ft. 1 National Telephone Company 1 International Radio Company 5,050 Employees
<b>PUERTO RICO</b>	1 Telephone Company 1 International Radio Company 1,300 Employees
<b>U. S. A.</b>	33 Factories and Laboratories, 3,400,000 sq. ft. 16,100 Employees
<b>AUSTRALIA</b>	3 Factories, 638,000 sq. ft. 3,100 Employees

In the 23 countries indicated on this map, the ITT System has: 29 manufacturing and research divisions and subsidiaries with 101 principal plants and 16,900,000 square feet of floor space in 20 countries. • 11 telephone, radiotelephone, and radiotelegraph operating companies in 7 countries. • 2 marine radio companies in 2 countries. • 130,000 employees. This figure includes personnel of the ITT Service Organization and the American Cable & Radio Corporation, which are not shown on the map above.



## Principal ITT System Products

### wire communication

Central office and private branch telephone and telegraph exchanges.  
Toll dialing and switching systems.  
Electronic telegraph switching systems.  
Intercommunication systems.  
Telephone and telegraph carrier systems.  
Power-line carrier systems.  
Coaxial cable systems.  
Telephone sets.  
Teleprinters and facsimile equipment.  
Multiconductor telephone cable.  
Submarine telephone and telegraph cable and repeaters.

### radio communication

Microwave systems, both line-of-sight and over-the-horizon.  
Point-to-point systems.  
Broadcast transmitters and studio equipment for audio and video use.  
Mobile systems.

### radar and radio aids to navigation

Radar.  
Direction finders.  
Air and marine navigation systems.

### electronic systems and equipment

Guided missile controls.  
Electronic countermeasures.  
Electronic computers.  
Analog-to-digital converters.  
Data-processing systems.  
Automatic mail-culling, letter-facing, and letter-sorting equipment.  
Infrared detection and guidance systems.

### components

Vacuum and gas tubes.  
Picture tubes.  
Rectifiers.  
Semi-conductor devices.  
Capacitors.  
Transformers.  
Fractional horsepower motors.  
Microphones and loudspeakers.

### other products

Power cable.  
Pneumatic tube systems.  
Control and signaling equipment for railways and power distribution.  
Airport control equipment.  
High-frequency welding equipment.  
Public address systems.



**UNITED KINGDOM**

18 Factories and Laboratories, 3,923,000 sq. ft.  
1 Marine Radio Company  
25,600 Employees

**NORWAY**

2 Factories, 558,000 sq. ft.  
1,950 Employees

**SWEDEN**

3 Factories, 207,000 sq. ft.  
1,300 Employees

**DENMARK**

1 Factory, 79,000 sq. ft.  
400 Employees

**THE NETHERLANDS**

2 Factories, 107,000 sq. ft.  
750 Employees

**BELGIUM**

6 Factories, 1,391,000 sq. ft.  
10,500 Employees

**GERMANY**

14 Factories, 2,789,000 sq. ft.  
20,200 Employees

**AUSTRIA**

1 Factory, 195,000 sq. ft.  
1,400 Employees

**SWITZERLAND**

2 Factories, 165,000 sq. ft.  
1,650 Employees

**ITALY**

1 Factory, 451,000 sq. ft.  
3,550 Employees

**FRANCE**

5 Factories and Laboratories, 1,063,000 sq. ft.  
7,900 Employees

**SPAIN**

2 Factories, 888,000 sq. ft.  
1 Marine Radio Company  
7,300 Employees

**PORTUGAL**

1 Factory, 70,000 sq. ft.  
700 Employees



## Manufacturing, Service, and Sales Activities

During 1958, the reorganization of ITT's domestic units, which resulted in the formation of ITT Laboratories described in the preceding section, also brought about the union of Federal Telephone and Radio Company and Farnsworth Electronics Company in the ITT Federal Division. Consolidation of our manufacturing facilities for communication was also completed at our Kellogg Switchboard and Supply Division. This regrouping of the domestic organization contributed to the improved financial showing of our U.S. units, and was a major influence in the receipt of some important contracts in both defense and commercial electronics.

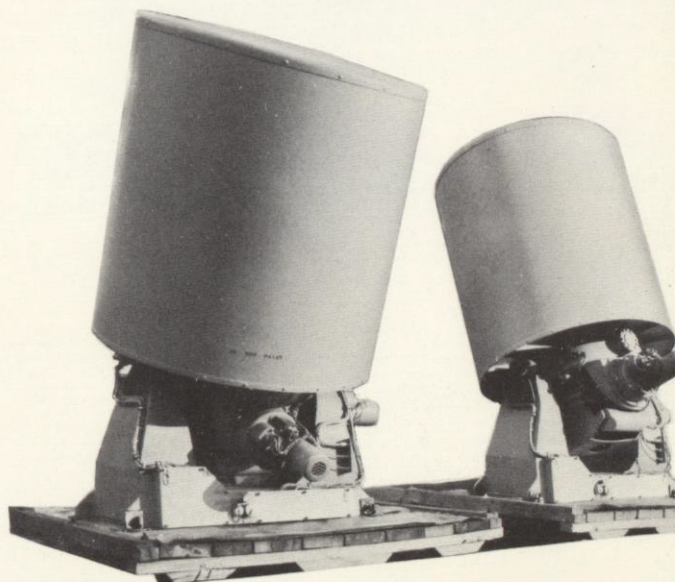
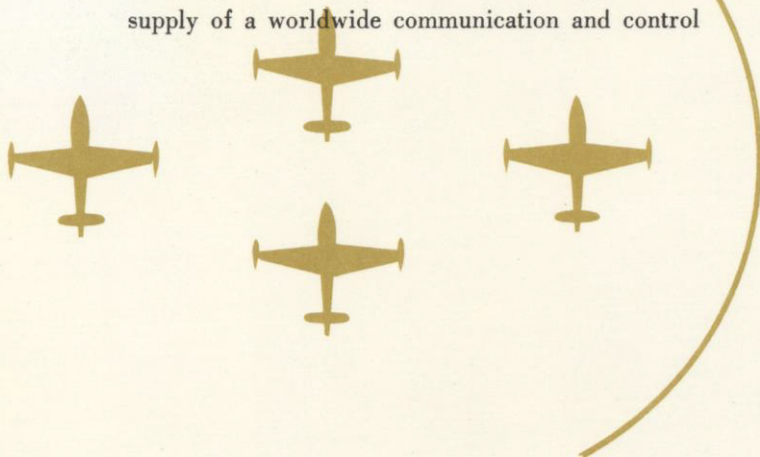
### Defense Activities

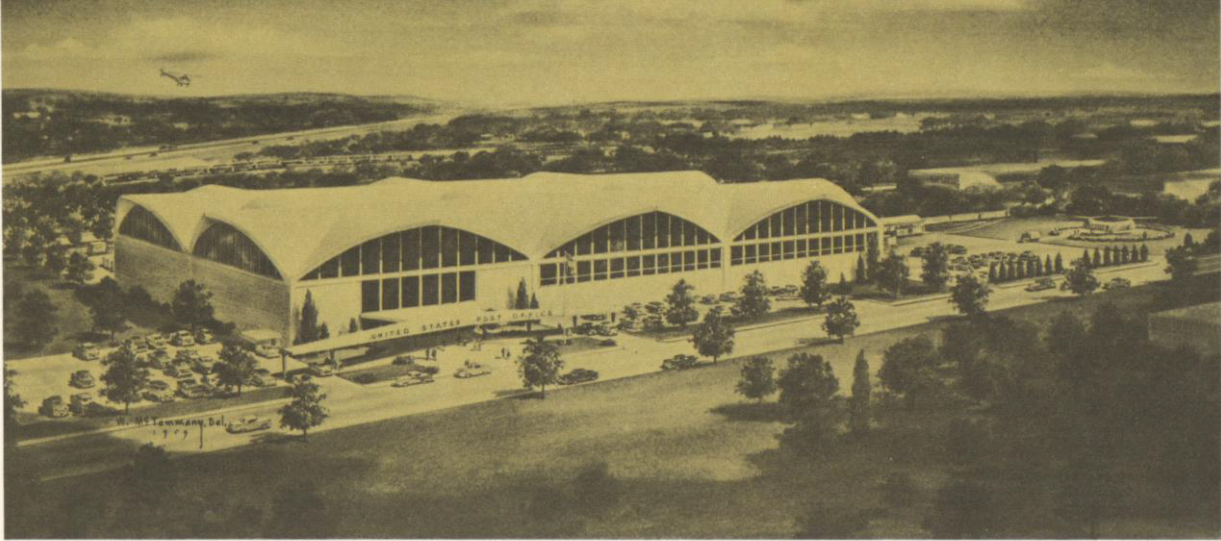
One of the largest of the defense contracts received by ITT in 1958 was for the development and supply of a worldwide communication and control

network for the Strategic Air Command (SAC) of the U.S. Air Force, as previously noted. A subsidiary, *International Electric Corporation*, was activated to handle this contract. Another new subsidiary, *ITT Communication Systems, Inc.*, was formed in February 1959 to handle the Air Force global communication contract referred to in the President's letter.

*ITT Federal Division* was chosen in 1958 to develop and produce the mission and traffic control subsystem for the Air Force F-108 jet interceptor. This subsystem will provide communication, navigation, identification, and landing devices.

ITT Federal, which produces highly complicated electronic test equipment for "checking out" the Air Force *Bomarc* interceptor missile, has also been assigned the task of developing equipment to





Artist's conception of automated post office to be built and equipped by our Intelix Systems in Providence, Rhode Island, and leased to Post Office Department for 20 years.

## In the United States

test the operation of the defensive electronic countermeasures system of the B-58 *Hustler*, the longest-range bomber now operational in the United States.

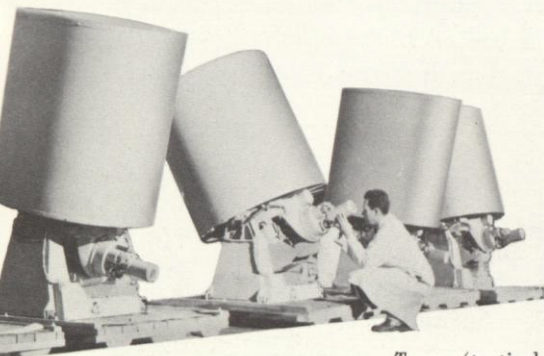
In the field of navigation equipment, ITT Federal continued in 1958 to furnish airborne *Tacan* (tactical air navigation) equipment to the Air Force. It received from the Civil Aeronautics Administration a second contract—the largest ever placed by that agency—for ground equipment in connection with *Vortac*, the new U. S. civil air navigation system. Several major U.S. airlines have placed orders with this division for airborne distance-measuring equipment associated with the *Vortac* system.

Production continued during the year on missile training devices, high-frequency radio transmitters, receivers, and mobile transceivers for the military, and airborne guidance equipment for the *Lacrosse* missile. Degaussing equipment for mine sweepers

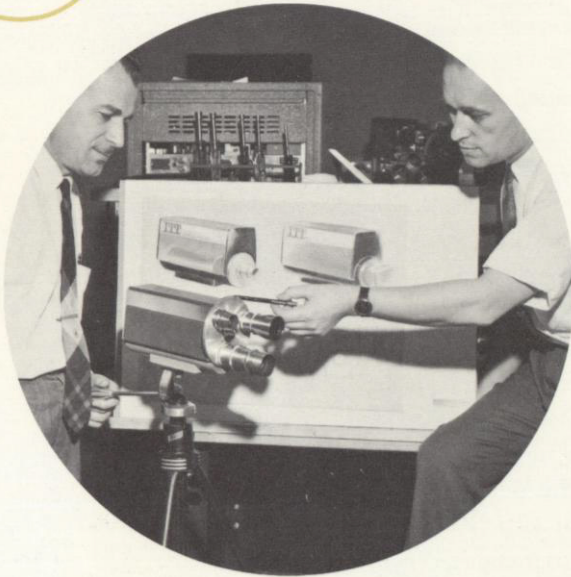
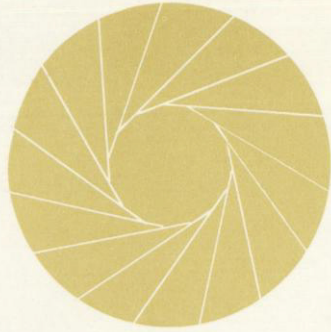
and destroyers, as well as for the nuclear-powered missile-carrying cruiser now under construction, was produced for the Navy Bureau of Ships. The Coast Guard ordered additional *Loran* (long-range navigation) receivers.

ITT's *Kellogg Switchboard and Supply Division* was also increasingly active in defense electronics in 1958. Its semi-electronic crossbar telephone switching equipment (K-60) was chosen for the *Atlas* missile installation at Vandenberg Air Force Base. This installation proved so successful that the Air Force has selected K-60 and other Kellogg equipment for ground communications in *Atlas* and *Titan* missile bases now under construction.

Another defense activity of the Kellogg Division was in connection with the SAGE (semi-automatic ground environment) continental air defense system. Kellogg supplies a complete service, including



*Tacan* (tactical air navigation) antennas for shipboard use have mountings to compensate for roll. These antennas and ground-based types are produced by ITT Federal Division.



New closed-circuit television camera developed by our Industrial Products Division for civilian and military use.

engineering, furnishing, and installing equipment, to independent telephone companies participating in SAGE. Kellogg also supplies field telephone and carrier equipment directly to the Signal Corps, which has further assigned it several development contracts in electronic switching.

### Commercial Activities

In the commercial field, Kellogg received an order for radio equipment for the Miami terminal of the projected O/H (over-the-horizon) link between Florida and the Bahamas. Sales of Kellogg telephone sets in 1958 were the highest on record. The company also entered the field of industrial automation in 1958 with the development and sale of crossbar storage units designed to control the forward and rotating motion of machine tools. Kellogg's commercial sales prospects were strengthened by the rural carrier system developed by ITT Laboratories, and by the supply of telephone cable made by Standard Eléctrica, S.A., an ITT System subsidiary in Spain.

Power-distribution equipment, closed-circuit television, electronic instruments, mobile communication equipment, and other products now under development, are the province of the *Industrial Products Division* of ITT. The first operational launching of a *Thor* missile at Vandenberg Air Force Base on December 17, 1958, was monitored in the Command Post over a closed-circuit television system supplied by this ITT division—the only television system at the Post.

Special-purpose tubes, glass-to-metal seals, capacitors, diodes, and rectifiers are among the products of the *Components Division* of ITT. It continues to be the world's largest producer of hydrogen thyr-



tron tubes, and its "Federal" line of high-vacuum power tubes maintains the reputation of that famous trademark.

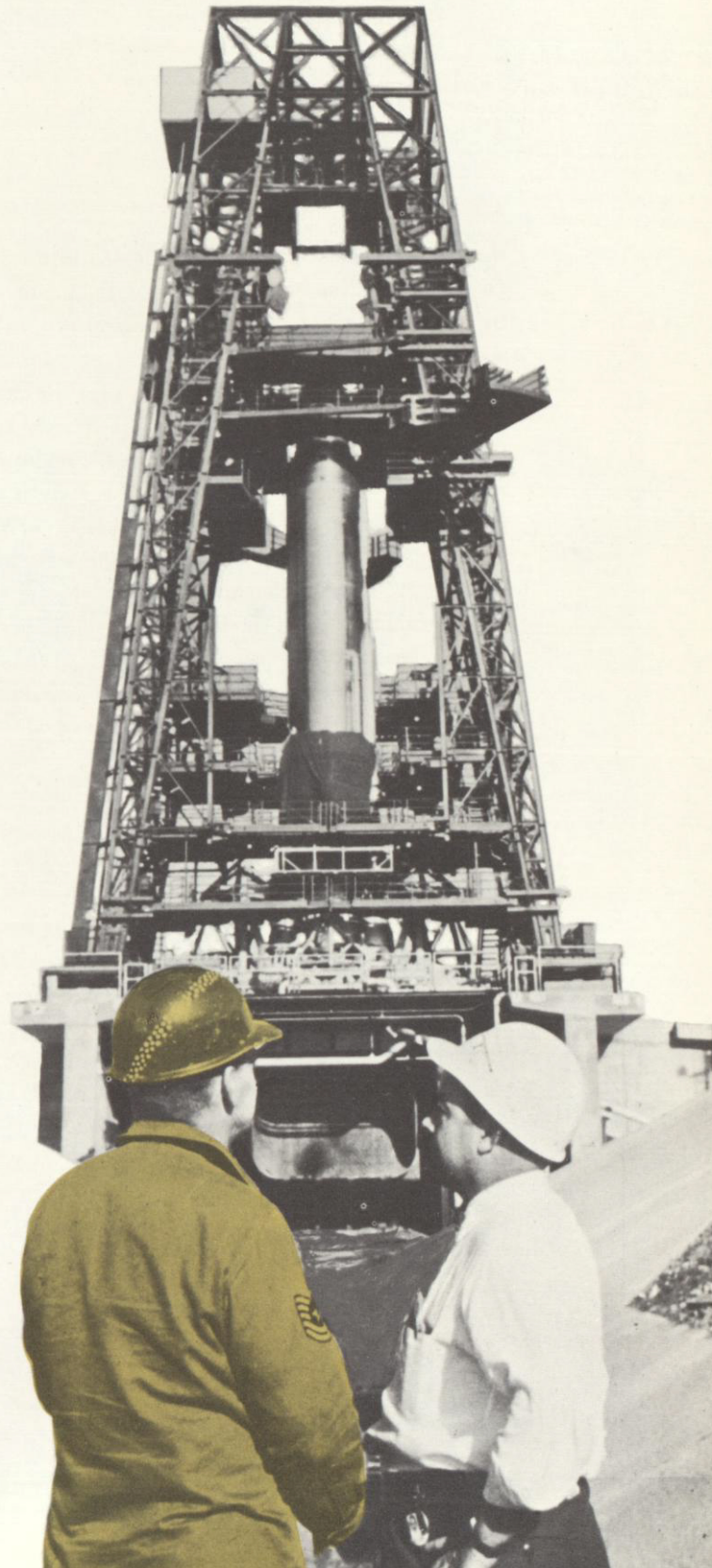
Another established trademark in the ITT System is that of *Royal Electric Corporation*, which produces and markets electrical and electronic wires and cables, power-supply cords, fuses, and wiring devices. In 1958 the company established a subsidiary in Canada, *Royal Electric Company (Quebec) Limited*, to carry on its business in that country.

Demand for ITT products in the United States required expansion into two new manufacturing facilities in 1959—a plant in Raleigh, North Carolina, where the Kellogg Division will produce microwave radio and carrier equipment, and a plant in Roanoke, Virginia, where the Components Division will manufacture special-purpose tubes, including traveling-wave and image-storage types.

ITT's *Intelex Systems Incorporated* continued to find U.S. markets for a number of products manufactured by System associates abroad, including telephone cable from Spain and England, private automatic telephone switchboards from Germany, radio tubes from England, Germany and Japan, and high-fidelity loudspeakers from Germany.

The Intelex-Bell letter-sorting machine developed by the ITT System's Belgian subsidiary, Bell Telephone Manufacturing Company, and installed in the main post office in Washington, D. C., successfully completed its first year of operation. Automatic mail-culling, letter-facing, and stamp-cancelling machinery, made by our Standard Elektrik Lorenz A.G. in Germany, has been installed at the same location and is undergoing test. Intelex will construct and equip in Providence, Rhode Island, a fully automated post office—the first of its kind in

Ground-communication equipment by our Kellogg Division controls firing of *Atlas* and *Titan* missiles at Vandenberg Air Force Base.



Glassless traveling-wave tube developed by our Components Division for use in radio transmission and countermeasures.



the United States—which will be leased to the Post Office Department. Construction of the plant will begin immediately and mail-handling operations are scheduled to begin in 1960.

Electronic clerical control equipment for check-handling operations, designed by ITT System companies and installed by a large U.S. bank, underwent extensive testing that will continue in 1959. Computer equipment for automatic processing of personal loan accounts was delivered to the same bank early in 1959 and is also under test.

*Airmatic Systems Corporation*, a subsidiary of Intelx, developed and installed automatic pneumatic tube systems and other document conveyors during the year, and increased both production and sales.

### ITT Service

ITT's service organization, *Federal Electric Corporation* (FEC), continued to expand in 1958. Among the new projects undertaken were the installation, testing, and publication services on the ITT-manufactured *Vortac* air navigation system, the ITT Laboratories' Eglin Air Force missile test-range instrumentation system, and the ITT Federal Division's missile simulator. Support services for the ITT Fed-

eral Division's Air Force F-108 jet interceptor mission and traffic control subsystem were also initiated.

An engineering study of the U.S. Navy Guided Missile Training and Operations Control Center communications system between the Roosevelt Roads Navy Base and the communication complex at San Juan, Puerto Rico, was completed during the year.

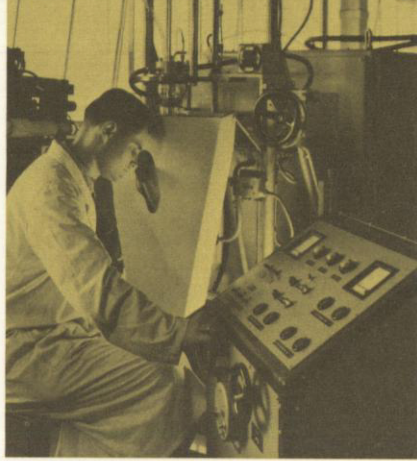
In addition to this new business, FEC continued its operation and maintenance of the DEW (Distant Early Warning) Line of radar posts across Alaska and Northern Canada; of the "White Alice" long-lines communication network in Alaska; and of the "Señorita" tropospheric communication link between Spain and Morocco.

FEC's Canadian subsidiary, *IT&T Electronics Service Company of Canada Ltd.*, has undertaken a depot-level maintenance program for electronic equipment in support of FEC in the Canadian sectors of the DEW Line, and has recently completed a *Tacan* survey for the Royal Canadian Navy. It is now working on a microwave installation program for the Royal Canadian Air Force. A second FEC subsidiary, *Northern Services, Inc.*, was established in Alaska during 1958 to provide logistic support in the operation and maintenance of the "White Alice" System.

Careful inspection helps to insure reliability of every element in *Bomarc* missile test system manufactured by ITT Federal Division.

One of the "White Alice" stations in Alaska, operated and maintained by our Federal Electric Corporation.





Special manufacturing methods for pulling germanium and silicon monocrystals contribute to the extreme precision of semiconductor components manufactured by our German company.

## Manufacturing, Service, and Sales Activities Abroad

### International Standard Electric Corporation and Subsidiaries

ITT System research, manufacturing, sales, and licensing activities outside the United States are directed by International Standard Electric Corporation (ISE), a wholly owned subsidiary with headquarters in New York City.

ISE, through its manufacturing and laboratory subsidiaries in 19 countries, has for many years constituted one of the world's largest and most important producers and suppliers of electronic and communication equipment. It employs approximately 92,000 persons and its products are sold through a worldwide network of distributors, field representatives, and sales companies. The Export Department of ISE supplies foreign governments as well as ITT subsidiaries and other companies outside the United States with raw materials, components, machinery, and equipment, principally of U.S. origin.

Consolidated net sales of ISE in 1958 were slightly above the year before. Consolidated net income, however, was below 1957 figures, due principally to the recession and increased competition abroad.

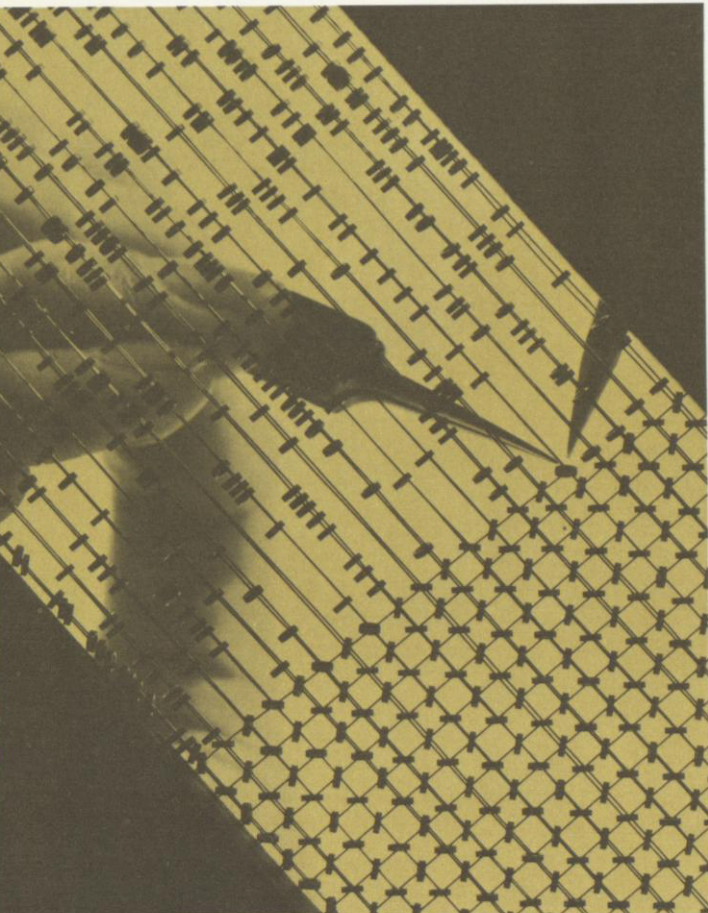
ISE completed three O/H (over-the-horizon) radio communication links in Norway, the equipment for which was produced mainly by ITT Laboratories. After being in successful trial operation for the period required by the contract, the installation was officially accepted by SHAPE (Supreme Headquarters Allied Powers, Europe).

The recession in Europe appears to be ending, and the outlook is encouraging for most ISE companies. The formation of the European Common Market, in addition to the long-term benefits it promises for the European economy, offers ISE the opportunity of further rationalizing its research and productive facilities there. The increasing convertibility of various foreign currencies is likewise an encouraging trend. In the Far East, ISE is sharing in the rapid growth of the Japanese electronics industry through its investments in and licensing arrangements with *Nippon Electric Company, Limited*, in which ISE has approximately a 22% interest, and with *Sumitomo Electric Industries, Limited*, in which ISE has approximately a 13% interest.

### Argentina

During 1958 *Compañía Standard Electric Argentina, S.A.I.C.* (CSEA) continued its program of

Officials of Scandinavian Airlines System inspect electronic reservation equipment developed by ITT System in Germany.



Ferrite-core memories for electronic data-processing equipment produced by our German company.

improvement and expansion of plant in order to cope with its increased business. Results were satisfactory in the face of continued economic pressures and other difficulties, which culminated at the end of the year in a complete overhaul of the Argentine system of exchange and import procedures, calculated to stabilize the peso and to encourage the industrial growth of the country.

A large contract was received from the Argentine Telephone Administration for automatic central office telephone switching equipment and associated apparatus. Under the terms of a 1952 contract, the company also continued to furnish substantial amounts of wire and cable to the same customer. The first "Pentaconta" automatic telephone exchange in Argentina, a development of our Compagnie Générale de Constructions Téléphoniques in France, was put in service in the Buenos Aires suburb of San Miguel in July. Substantial exports of CSEA telephone equipment to ITT telephone operating companies in Cuba and Chile continued.

The installation of a 50-kilowatt broadcast transmitter manufactured by CSEA was completed for the Radio Broadcasting Board. A VHF (very high frequency) automatic direction-finder manufactured by Standard Telephones and Cables Limited, an ISE subsidiary in the United Kingdom, was put into operation by the Argentine Air Force during the year.

*Capehart Argentina S.A.I.C.*, which is 50% owned by ISE, showed substantial progress in 1958 in its production of television receivers and components, the Argentine market for which is still expanding.

### **Australia**

*Standard Telephones and Cables Pty. Limited* again showed a marked increase in sales over the previous year, owing mainly to increased demand for its telephone switching equipment and television receivers. The manufacturing program for switching equipment has been increased 33% during the past two years.

An order was received from the Australian Post Office for additional high-power broadcast transmit-

The Brussels International Exhibition in 1958 included displays by ITT System companies in the national pavilions of Argentina, Belgium, France, and the United Kingdom, in the Palace of Telecommunications, and in the Atomium. Our Belgian company also had its own pavilion.



ters. Sales of metal rectifier equipment increased 22% over the previous year. Important orders were received for high-power silicon rectifier equipment and automatically controlled electroplating rectifiers. Production of transistors on a commercial scale was begun, and completion of new facilities in 1959 should double the current production of that item.

The supervisory control system ordered by the New South Wales Railways in connection with their electrification plans was installed and put into service. A telegraph relay system was installed in New Zealand for the Royal New Zealand Air Force. Delivery was commenced on a number of communication transmitters being supplied by Australia to the Indonesian Ministry of Communications under the Colombo Plan.

### Austria

*Standard Telephon und Telegraphen Aktiengesellschaft, Czeija, Nissl & Co.* has supplied an increasing number of crossbar exchanges to private customers as well as to the State railway and telephone administrations. Mail-handling equipment manufactured by the ISE subsidiary in Germany, Standard Elektrik Lorenz A.G. (SEL), was installed in the main post office in Vienna. The SHF (super high frequency) wideband radio link for the Salzburg-Innsbruck route, supplied by SEL, has been installed and successfully placed in service. An important order was also received for Doppler direction-finders.

### Belgium

*Bell Telephone Manufacturing Company* (BTM) experienced another good year in spite of less favorable economic conditions. Activity in all main lines of business remained at satisfactory levels in the face of tightening competition in export markets.

The company participated in the 1958 International Exhibition at Brussels with its own pavilion, where its latest developments in the field of electronics and automation were demonstrated. It also exhibited in the Palace of Telecommunications and occupied a prominent space in the "Atomium," the symbolic structure dedicated to nuclear energy.

Substantial orders for telephone switching equipment were received in 1958 from both the Belgian and Norwegian Telephone Administrations, including repeat orders for recently developed electronically controlled crossbar exchanges. Automatic subscriber dialing service using BTM equipment was inaugurated between Antwerp and the cities of Paris, Amsterdam, and Rotterdam, and included facilities for the automatic recording and billing of charges. Production of loading coils, crystal filters, crystals, and carrier telephone equipment continued to form a large and growing part of the company's business.

BTM's automatic check-processing system, covering all check-handling operations normally required by a banking institution, is finding increasing acceptance. In the postal field, a BTM system capable of processing daily up to six million letters, printed items, and small parcels was installed in the main Brussels Post Office during the year. When in full operation, this will be the most modernly equipped postal center yet built.

The extension of the company's plant in Hoboken, Belgium, has been completed, and the foundation stone for its new factory building at Ghent was laid in September.

### Brazil

Important orders for manual and automatic telephone switching equipment were received by *Standard Eléctrica, S.A.*, from several telephone companies, and sales of radios, phonographs, and television sets continued. Partial manufacture of auto-

matic telephone switching equipment and carrier equipment will begin in 1959, when additions and modifications to the company's new factory are completed.

Although Brazil is currently experiencing economic difficulties, its growing population holds out a long-term prospect of increasing demand for the company's products, and the implementation of the Government's measures to control inflation should provide the climate necessary for continued growth of its activities.

#### Canada

Operating results of *Standard Telephones & Cables Mfg. Co. (Canada) Ltd.*, reflected the reduced defense procurements of the Canadian Government and a low level of plant activity during 1958. The company received orders for test equipment and installation services in connection with the microwave system that crosses Newfoundland and connects it with the mainland. At the completion of the project this company and Standard Telephones and Cables Limited, London, another ISE subsidiary, will have provided some 1,200 route miles of the Canadian coast-to-coast TV network. A large number of teleprinters made by ISE's German subsidiary, Standard Elektrik Lorenz A.G., were supplied to the Canadian National Railways, and sales of switching equipment, high-power transmitters, and components showed improvement toward the end of the year.

#### Chile

Sales by *Compañía Standard Electric, S.A.C.* were up more than 50% over the previous year. Most of the increase was in telephone switching equipment, handsets, and associated apparatus supplied to the ITT telephone company in Chile, whose expansion program is progressing rapidly under its new and improved franchise agreement.

Consumer products are expected to show better results in 1959 because of the company's expanded product line and the implementation of the Government's economic stabilization program.

#### Cuba

*Equipos Telefónicos Standard de Cuba* has undertaken operations in its new factory, which was completed in 1958. It is engaged in the assembly of telecommunication equipment required by the Cuban Telephone Company, whose operations are discussed in another section of this report.

#### Denmark

*Standard Electric A/S* maintained sales at a satisfactory level during the year, in spite of general economic difficulties. The company put a number of rural telephone exchanges into service, and completed installation for a major European airline of an automatic reservation system developed by our Standard Elektrik Lorenz A.G. in Germany. Sales of radio equipment showed an increase of 50%, a substantial part being for export. The company's highly successful 12-channel marine radio communication equipment is being improved to a capacity of 30 channels.

#### France

*Compagnie Générale de Constructions Téléphoniques (CGCT)* reported sales 10% higher in 1958 than in 1957, with orders at year-end ahead by 11%. The company's "Pentaconta" crossbar telephone switching equipment continued to expand its markets around the world, and at the end of the year the number of lines installed and on order were close to 280,000, including both central exchanges and private branch exchanges.

Under an important agreement with a French company, CGCT obtained rights for the manufacture and maintenance of machines used to make



Magnetic servo-amplifiers for anti-aircraft artillery are among the products of our Swedish company.

printing plates by a photographic process. The license covers all machines to be delivered to the European Common Market countries and Switzerland.

*Le Matériel Téléphonique* (LMT) also reported a 10% increase in its sales for the year. Many major installations of rotary automatic telephone switching equipment were put into service in 1958, including the 10,000 line MacMahon exchange in Paris, which was officially inaugurated on the 30th anniversary of the cutover of the first rotary central office equipment installed in the same building by LMT in 1928. The company was praised by the French authorities for its contribution to the establishment of automatic dialing service between Paris and Belgium. During the year some 180 "Pentaconta"-type 50-line concentrators were delivered.

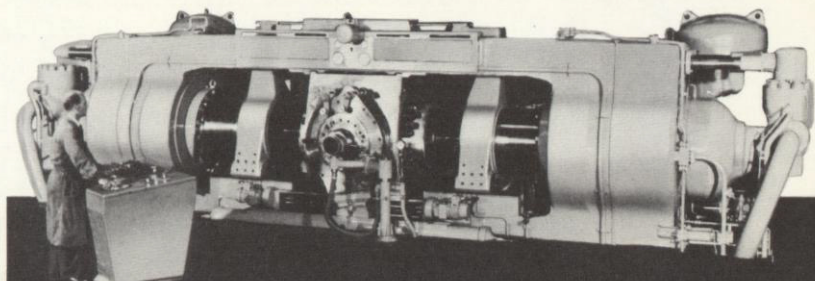
A highly important order was received from the French Air Ministry for the manufacture of *Tacan* ground beacons and *Tacan* airborne units. The French Air Ministry also placed a development order for the study of an electronic simulator for jet aircraft.

### Germany

A corporate reorganization and merger of ISE subsidiaries in Germany was completed in 1958, resulting in the formation of *Standard Elektrik Lorenz Aktiengesellschaft* (SEL). A product-line type of organization has been created to permit the most effective performance by the operating divisions. The company continued its expansion in 1958, with sales up 15% and employees, 6%.

In the Mix & Genest Division, the production of crossbar automatic telephone switching equipment was further increased and a total of 46,200 lines was delivered in 1958 for central exchanges and private branch exchanges.

In the Lorenz Division, an SHF (super high frequency) wideband radio link was supplied to the Austrian Government for television transmission, with relay stations located at elevations as high as 6,000 ft., and a UHF (ultra high frequency) television transmitter was placed in service at Aachen.



This press for the extrusion of aluminum cable sheathing was built to the requirements of our Norwegian company.



The S.A.F. Division has continued to improve its production of high-quality selenium rectifiers and is increasing its production of electronic components, including germanium diodes, silicon rectifiers, and tantalum dry electrolytic capacitors.

The Schaub Division increased its sales of radio and television receivers by 27% over 1957, with nearly one-third of its production for export.

The Cable Division concluded several important contracts with the German Postal Authorities for telecommunication wires and cables.

The Information Division, engaged in the manufacture of electronic data-processing systems, increased its sales considerably and delivered the first computers to German schools and research institutes. Several orders have been received for ticket and space reservation systems.

### Italy

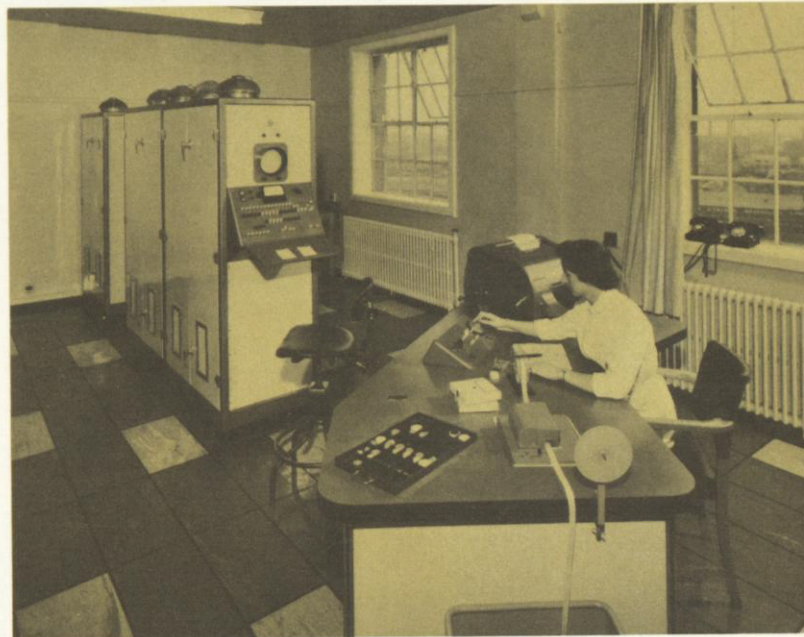
Sales by *Fabbrica Apparecchiature per Comunicazioni Elettriche Standard S.p.A.* again reached an all-time record in 1958, and the number of its employees increased to 3,600. The principal customers were Italian telephone operating companies and the national telephone and defense administrations.

A large number of automatic telephone switching installations were placed in service during the year, including several of the "Pentaconta" crossbar type, the largest of which was the new Bergamo exchange, put into service in November, with initial capacity of 15,000 lines and outgoing and incoming long-distance dialing equipment. The year also saw the completion of the first locally manufactured *Tacan* ground beacon.

In the export field important orders were received for aircraft instrument landing systems for France and Norway. Substantial exports of telephone sets were made to Korea, Venezuela, Portugal, and Tunisia, and of components to Mexico.

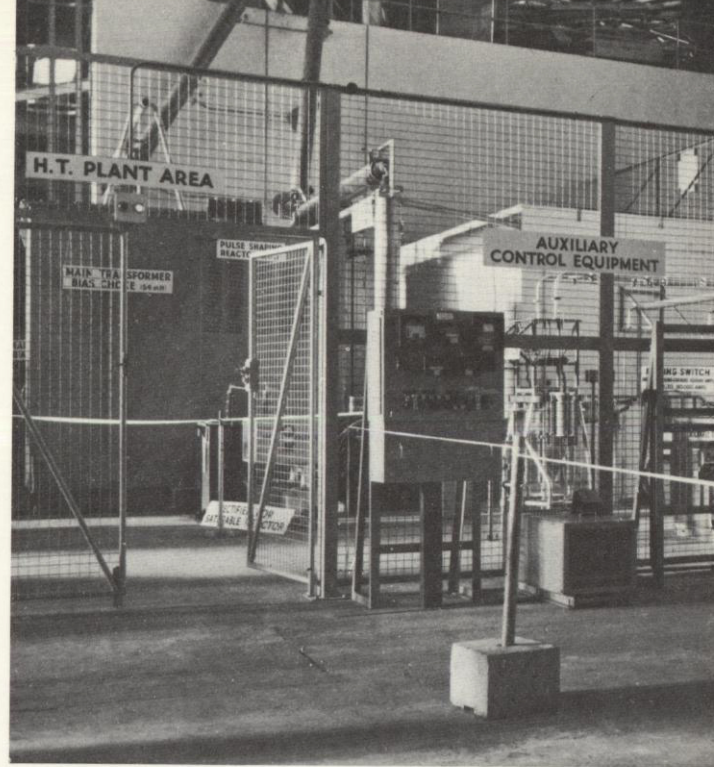
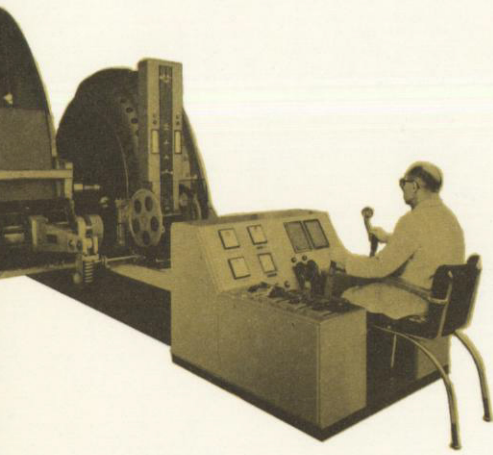
### The Netherlands

Government economies, together with restrictions on investments and expenditures, resulted in



"Stantec-Zebra," the general-purpose electronic computer produced by our principal British company, at work for a customer in Liverpool.

Right: High-voltage rectifier plant for British thermonuclear installation "ZETA" is an ITT System product; so, too, the German telephone communication system for use between mine-shaft cage and engineman, below.



lower sales by *Nederlandsche Standard Electric Maatschappij N.V.* in 1958.

The growing need for telecommunication equipment, which makes prospects for 1959 encouraging, led the company to acquire additional property in connection with its plant-expansion program. Good progress was made in selling to government agencies, scientific institutes, and private companies the "Stantec-Zebra" electronic computers and associated equipment produced by our Standard Telephones and Cables Limited, London.

### Norway

In 1958 sales by *Standard Telefon og Kabel-fabrik A/S* increased approximately 10% over 1957. Telecommunication cables and power cables contributed substantially to this result.

Coaxial cable supplied by the company for the main route between Oslo and Bergen was opened for through traffic early in the summer of 1958. The first 2,100-meter length of the 300-kilovolt oil-filled submarine power-cable for crossing the Oslo Fjord has been manufactured and will be laid during the spring of 1959. The installation of an aluminum extrusion press for the manufacture of aluminum-sheathed telephone and power cables has been completed. Plans for the production of plastic-insulated cables have been carried forward at a rapid pace and several plastic extruders were installed during the year.

The installation of a 10,000-line crossbar exchange at Aasen in the Oslo area is nearing completion and tests have been started. Further orders have been received for crossbar exchanges totaling 16,400 lines.

Complete marine radio installations, including direction finders, were installed on 53 new Norwegian ships during 1958. This figure represents 40% of all new ships under construction for the Norwegian merchant marine in 1958.

Sales of consumer products were increased 34% during 1958 and large orders were taken for commercial freezing equipment.

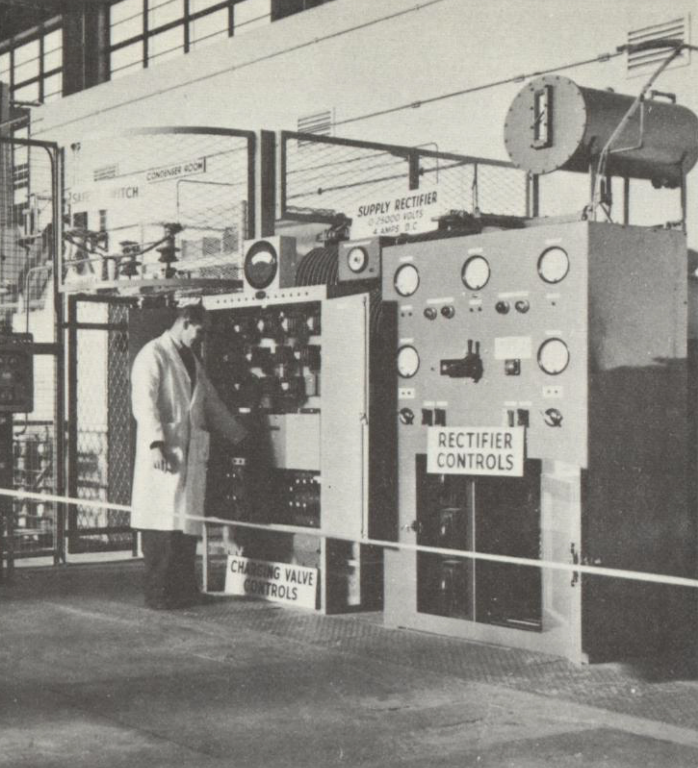
### Portugal

Sales by *Standard Eléctrica, S.A.R.L.* in 1958 were slightly higher than in the previous year. Principal products were automatic telephone exchanges for rural and private use, manual telephone switchboards, radiosondes, radio wind transmitters, and rectifier equipment. The company began manufacture of carrier equipment for power companies in Portugal and its overseas territories.

### Spain

*Standard Eléctrica, S.A.* maintained its sales in the home market practically unchanged in 1957.

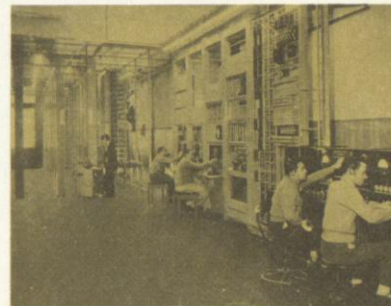
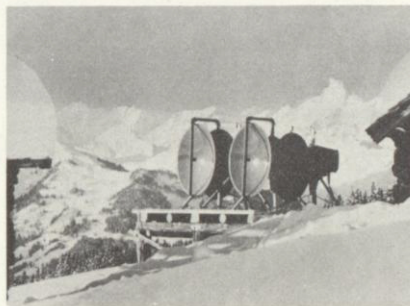
The output of automatic telephone switching equipment was continued at the 1957 level, but output of telephone sets was somewhat reduced from



the previous year. Further progress has been made in adapting transistorized carrier telephone and telegraph equipment for domestic manufacture, and the range of marine communication equipment has been extended by the addition of new types. Eight new radio links were installed for the Spanish Telephone Company during the year. Mobile radio systems at three U.S. Air Force bases were completed, and at the end of the year 100 mobile sets and 14 fixed stations were in service. The production of components for television sets has been accelerated and it is expected that manufacture of 17" and 21" picture tubes will be initiated in 1959.

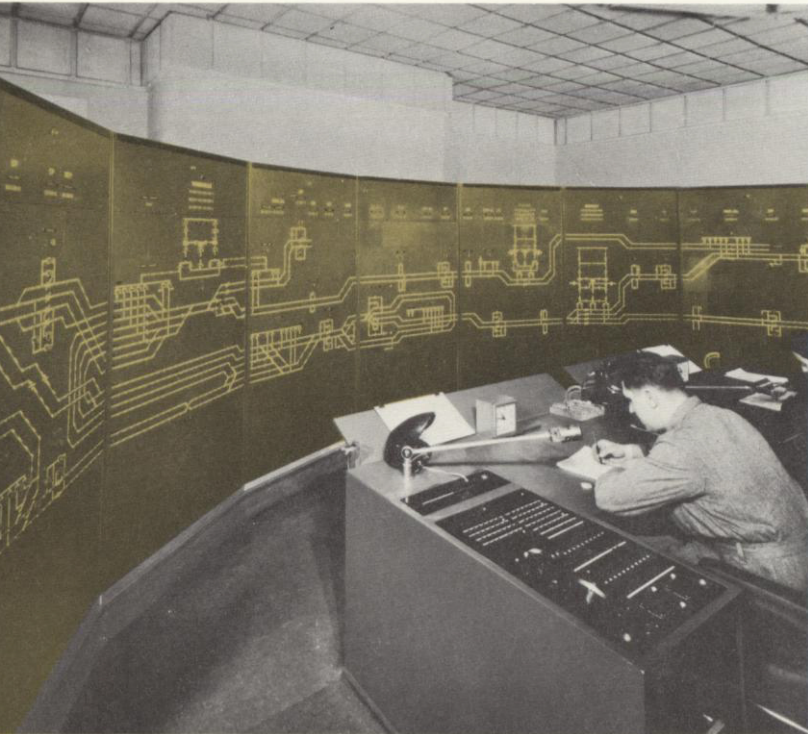
### Sweden

*Standard Radio & Telefon AB* reported a sales increase of 10% over 1957, and orders on hand at the end of 1958 compared favorably with the previous year. Sales of this company's own products were mainly responsible for its improved showing in 1958, while sales of equipment manufactured by ITT subsidiaries in other countries were maintained at the previous level. An important order was received for an extensive SHF wideband radio link system for the main transmission network in northern Sweden, to be manufactured by Standard Telephones and Cables Limited, London. The company more than doubled sales in broadcast and television receivers, with equipment manufactured by Standard Elektrik Lorenz A.G. in Germany.



Portable television units in the Alps (upper left), crossbar telephone switching equipment in Argentina (upper right), and apparatus for the telegraphic communication of computer data anywhere (left) illustrate the diversity of products and worldwide scope of the ITT System.

Metz control center for electrified sector of French National Railways—product of the ITT System in France.



### Switzerland

Switzerland was unaffected by the recent recession, and sales by *Standard Téléphone et Radio S.A.* showed an increase in 1958. Construction of the new factory at Au Wadenswil was begun, with the first stage scheduled for completion in November 1960. Sales of switching, transmission, and other equipment continued at approximately the same levels as the year before. Installation of the Berne-Lucerne-Geneva SHF wideband radio link has been completed and will be put into service in 1959. An order was received for two additional 40-kilowatt single-sideband transmitters to be manufactured by Standard Telephones and Cables Limited, London, and further substantial orders were received from the Swiss Air Force for airborne communication equipment also manufactured by that company. During 1958 an important order was received for broadcast studio equipment to be installed in Lugano.

### United Kingdom

*Standard Telephones and Cables Limited (STC)* marked its seventy-fifth anniversary in 1958. Government economies and generally less favorable economic conditions resulted in reduced sales and profits in both the domestic and export markets. The year was characterized by increased activity in submarine telephone cable systems, coaxial cable systems, SHF wideband radio links, and radio navigation equipment.

The Anglo-Belgian submarine cable, incorporating submarine repeaters for 120-telephone-channel operation, was successfully laid in time to handle the increased traffic stimulated by the Brussels International Exhibition. The Bournemouth-Jersey (Channel Islands) system, with 132 nautical miles of coaxial cable equipped with 10 repeaters for 120 telephone channels, went into service in September. An order was received for a 60-channel system to be laid between England and Sweden in 1960; this joint project of the British Post Office and the Royal Swedish Board of Telecommunications will be the longest in Europe, covering 530 nautical miles and equipped with 31 repeaters. STC also booked an order for more than 700 nautical miles of deep-sea cable and associated special channeling equipment for the 48-telephone-channel system to be established in 1960 between West Palm Beach, Florida, and San Juan, Puerto Rico, as a project undertaken jointly by ITT's Radio Corporation of Puerto Rico and the Long Lines Department of American Telephone and Telegraph Company.

Manufacture and installation of the Lower Egypt coaxial network has been resumed, and cable-laying is also now in progress on the Delhi-Agra coaxial cable route in India. Work on the Lisbon-Oporto coaxial system in Portugal is nearing completion and the system is scheduled for cutover in 1959.

SHF wideband radio systems continue to form a large part of the company's output, and important orders were received from Sweden and Chile. Work on the Anglo-French cross-Channel link, which will provide one television and 600 telephone channels, is almost completed, and shipments are being made

on contracts for wideband links in Australia, Malaya, Newfoundland, and New Zealand. The company also received an order for O/H (over-the-horizon) equipment for the Nassau terminal of the Florida-Bahamas link.

Sales of airborne radio equipment were well maintained and the company's new combined communication and navigation equipment has been ordered by British European Airways for its entire fleet of *Comet* and *Vanguard* aircraft. A large order for STC's ultra-high-frequency commutated antenna direction-finding equipment was received from the British Armed Forces.

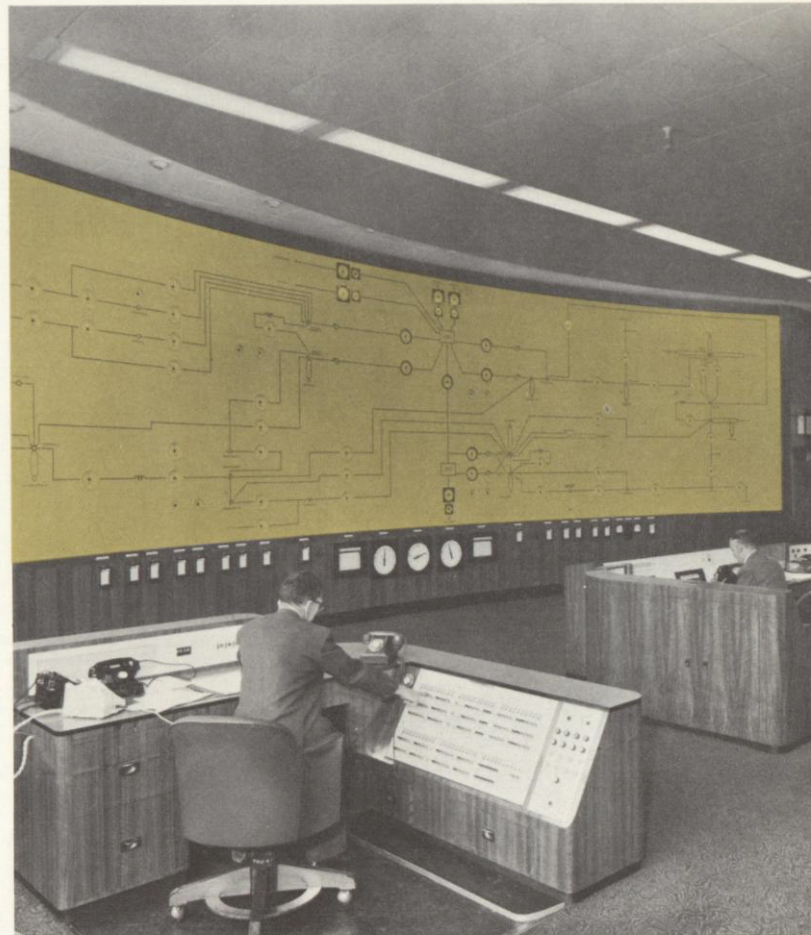
Output and deliveries of "Stantec-Zebra" computers were substantially increased, and a working model was demonstrated at the Brussels International Exhibition, where it was the only British computer on display. Production of quartz crystals has been expanded to the point where STC is now the largest producer in the United Kingdom. It was recently revealed that the high-voltage rectifier plant at the British thermonuclear experimental installation "ZETA" was supplied by STC.

A subsidiary, *Standard Telephones and Cables (South Africa) (Proprietary) Limited*, was established in Johannesburg to take over control of the local factory and sales office formerly managed as a branch of STC London. A formal agreement was concluded between the new company and the South African Post Office for the long-term supply of telecommunication transmission equipment in the Union.

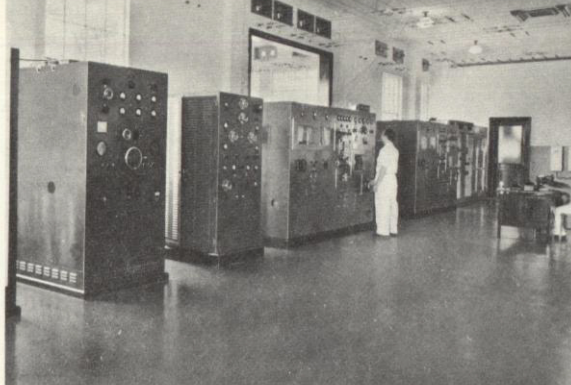
Sales by *Kolster Brandes Limited*, an STC subsidiary, increased substantially over those of the preceding year, in spite of extremely competitive conditions. The company's position in the British market has been well maintained and its current range of television sets has proved successful. While principal sales are of the smaller 17" sets, the company is also making 21" and 24" sets. Increased attention is being given to the growing market for rented sets.

Sales by *Creed & Company, Limited*, continued the strong upswing that has marked its results for the last three years, with corresponding improve-

ment of net income. The company's orders for data-processing and computing equipment increased substantially and are expected to grow further. Two new major products associated with the output of computers will go into production in 1959. One is a paper-tape punch that operates at 3,000 words a minute, the other a printer operating at 1,000 words a minute. In the field of telegraphy, Creed produced and sold 5,000 teleprinters and 4,000 pieces of ancillary equipment in 1958. A contract was recently concluded for the modernization and extension of the complete telegraph system in Nigeria.



Leeds control center for British electric power network—product of our principal British company.



ITT System transmitters at our Brazilian radio subsidiary.

### Telephone Operations

Telephone service is rendered by subsidiaries of the Corporation in Chile, Cuba, and Puerto Rico, in the States of Paraná and Rio Grande do Sul in Brazil, and in Lima, the capital city of Peru, and its outlying districts. Cuban American Telephone and Telegraph Company, 50% owned by the Corporation, owns and operates the undersea telephone cable facilities between Florida and Cuba.

In August 1958 the Corporation sold for \$12,307,723 its entire holdings of 1,589,529 shares of common stock of Teléfonos de México, S.A., which were carried on the books of the Corporation at \$12,224,589. Of the total purchase price, \$2,765,779 has been received and the balance is payable in five annual installments commencing July 1, 1959. At the same time the purchasers, a group of private Mexican investors, also acquired from L. M. Ericsson Telephone Company Limited (Stockholm, Sweden), at the same price and on the same terms, its entire holdings of 1,589,529 shares of common stock of Teléfonos de México, S.A.

Demand for additional telephone service continues at a high level in all areas served, and although there was an increase of 43,598 telephones in service during 1958, there remained 300,897 unfilled orders at the end of the year, an increase of 9,516 over the corresponding figure at the end of 1957. The position with respect to telephones in service and unfilled orders at December 31, 1958, is shown below:

	<i>Telephones in Service</i>		<i>Backlog</i>
	<i>TOTAL</i>	<i>INCREASE DURING YEAR</i>	<i>Telephone Demand</i>
BRAZIL	67,374	4,216	47,558
CHILE	159,441	5,397	90,678
CUBA	170,092	18,634	77,675
PERU	70,188	10,143	59,859
PUERTO RICO	71,617	5,208	25,127
	<u>538,712</u>	<u>43,598</u>	<u>300,897</u>

## Telephone and Radio Operations

New central office for our Cuban Telephone Company.



## Brazil

*State of Paraná.* *Companhia Telefônica Nacional* completed the conversion of telephone service in the capital city of Curitiba from manual to dial operation on March 29, 1958. As the tariffs were proving inadequate, an application for rate relief was filed with the appropriate authorities in January 1959. During the year, the existing State toll-contract was amended to provide substantially higher toll tariffs, automatic tariff adjustments in the future, and extension of the company's contract from 1965 to 1986.

*State of Rio Grande do Sul.* Negotiations for a more satisfactory Statewide concession, which have been in progress for some time, were renewed in February 1959 with a proposal designed to meet the State government's desires for expanded local and long-distance telephone service, and incorporating provisions designed to give the company adequate rates for its service. No decision has yet been made.

In general, results from operations in both States continue at an unsatisfactory level.

## Chile

Upon signature of the agreement of January 15, 1958, between *Compañía de Teléfonos de Chile* and the Government, the company proceeded immediately with the expansion to which it had agreed, and more than 5,500 lines of central office equipment of ITT System manufacture were installed by year-end. An additional four-channel radio link between Santiago and Antofagasta, begun in 1958, was placed in service early in 1959. Construction of major microwave radio and toll-office additions serving Santiago and Valparaiso, the two largest cities in Chile, is also approaching completion.

An upward adjustment of tariffs, necessary to maintain the agreed-upon net return on the company's gold peso investment, was approved in Febru-



Annual Stockholders' Meeting of our Peruvian Telephone Company—first of its kind held by a Peruvian company.

ary 1959 and the higher rates were put into effect March 1, 1959.

### **Cuba**

ITT owns 65% of the common stock of *Cuban Telephone Company*, the balance of the stock being held chiefly by the public in Cuba. The \$61,000,000-program of plant expansion and improvement initiated by that company in 1957 continued at a pace consistent with commitments under the March 14, 1957, agreement with the Cuban Government. Substantial quantities of automatic central office equipment, cable, telephones, and associated equipment were supplied by ITT factories. The net gain of 18,634 telephones in 1958 represented an increase of 12.3% over telephones in service at the end of 1957. Message registers were installed on 80,360 subscribers' lines in the Havana area, permitting introduction of measured-service rates in that area on July 1, 1958, in accordance with the above-mentioned agreement.

On March 4, 1959, the new Government issued a decree cancelling the agreement of March 14, 1957, mentioned above, and reestablishing the rates in force under the former concession agreement applicable from 1909 to 1957. The decree also provided for Government intervention under authority granted the Minister of Communications. By this action the Government in effect took over the management of the company, pending an investigation of the cost of service and the establishment of rates.

### **Peru**

ITT owns 67% of the common stock of *Compañía Peruana de Teléfonos Limitada*, the balance being held by the public in Peru. During 1958, the expansion program initiated by that company under the Government decree of January 23, 1956, was carried forward, with a net gain of 10,143 telephones for the year.

During the year the company applied for increased rates under the 1956 decree. At the year-end the Government suspended the applicable provisions

of the decree, pending study by a commission to be named. Representations on the part of the company to obtain favorable action are continuing, and it is believed that a satisfactory solution will be reached.

### **Puerto Rico**

On March 5, 1959, a favorable order was issued by the Public Service Commission on the petition for increased rates originally filed by Puerto Rico Telephone Company in November 1956.

Because of delay in obtaining adequate rates, the 1958 construction program was limited to completion of projects started in 1957. Telephones in service were increased by 5,208 during the year.

The United Packinghouse Workers Union won an election to represent company employees and proposed a new labor contract that is now under study by management. In August and September, the company was served with complaints in two civil actions before the Superior Court of the Commonwealth involving consolidated claims for overtime pay of some 80 persons under individual contracts to operate the service in rural areas, and consolidated claims of some 700 employees for increased vacation pay. Both of these actions, brought under the Commonwealth wage-and-hour laws, relate to the 10-year period between 1948 and 1958, and involve substantial sums. The company has filed answers in both actions, denying liability.

### **Radio Operations**

The Corporation has radio operating subsidiaries in Argentina, Bolivia, Brazil, Chile, Cuba, and Puerto Rico. These companies provide international radiotelephone service and, except in Puerto Rico, international radiotelegraph service. In addition, the Brazilian company operates an internal communication network linking 31 cities, including all State capitals, throughout the country. The Bolivian company also provides certain domestic telegraph and long-distance telephone services.

Emphasis is being placed on the development of international telex (automatic telegraph exchange)



and leased-line teleprinter service by our companies in Argentina, Brazil, and Chile.

Pursuant to a contract signed during the year with the Long Lines Department of American Telephone and Telegraph Company, providing for equal and joint ownership and operation of a submarine telephone cable linking Florida and Puerto Rico, the ITT subsidiary, *Radio Corporation of Puerto Rico*, began construction of the terminal building and associated cable conduit facilities connecting the new building with the cable landing site. Laying of the cable is scheduled to start toward the end of 1959, with facilities to be in service early in 1960. A substantial part of the cable will be supplied by Standard Telephones and Cables Limited, London, as previously noted.

Direct operator-to-subscriber dialing over the radio circuits between Puerto Rico and the United States was begun on a trial basis during the year. Eight additional radio circuits between San Juan and New York were put into operation to meet the continued growth in demand for service over this busy route, and an additional circuit was opened between San Juan and Ciudad Trujillo in the Dominican Republic. Total calls handled in 1958 on all Puerto Rico overseas circuits increased by 18.6% over 1957.

Our South American radio companies received several upward adjustments in tariffs for outgoing traffic to offset the effect of weakening local currencies, and to compensate for wage increases imposed by government decrees.

Operations of the ITT subsidiary, *Radio Corporation of Cuba*, showed substantial improvement in 1958, largely because of revenues from the O/H (over-the-horizon) radio system inaugurated the year before. The company declared its first dividend during the year.

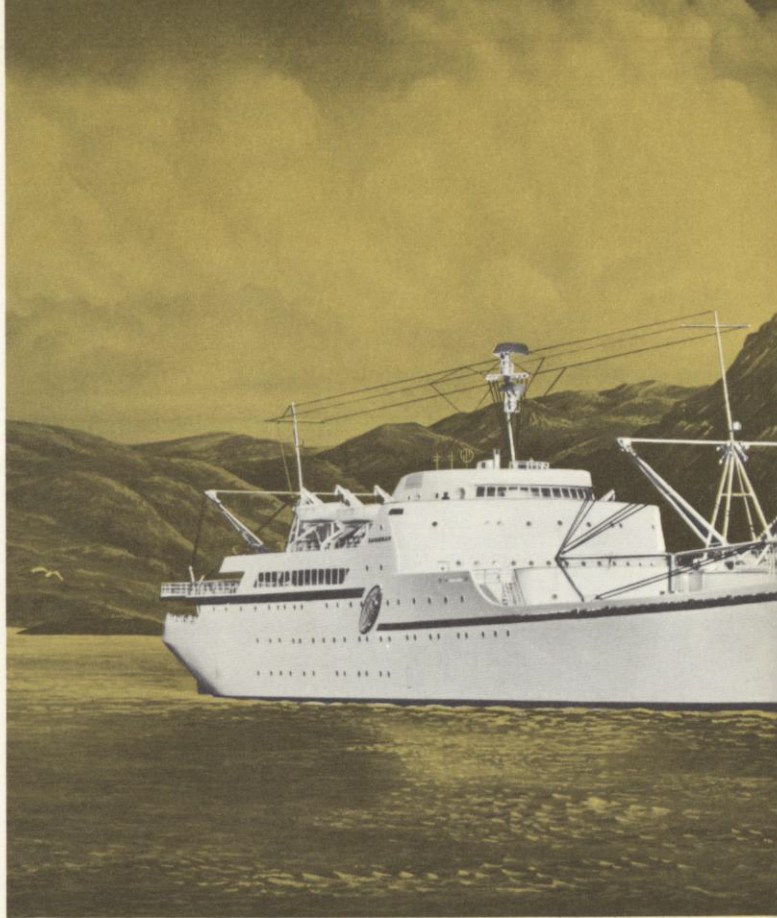
### **United States-Cuba Service**

*Cuban American Telephone and Telegraph Company*, which is jointly and equally owned by

ITT and American Telephone and Telegraph Company, owns submarine cables providing public telephone service between Havana and Key West. Message volume and operating revenues increased substantially during the year. The submarine cables are supplemented by 36 voice channels of the new O/H system, the Cuban terminal of which is owned and operated by the Radio Corporation of Cuba. Television programs to and from the United States are also being handled over this system.

Cable is installed underground by our Cuban Telephone Company to preserve the scenic beauty of Havana.





Mackay Marine will supply shipboard radio station for N.S.

## Submarine Telegraph Cable and Radiotelegraph

### American Cable & Radio Corporation

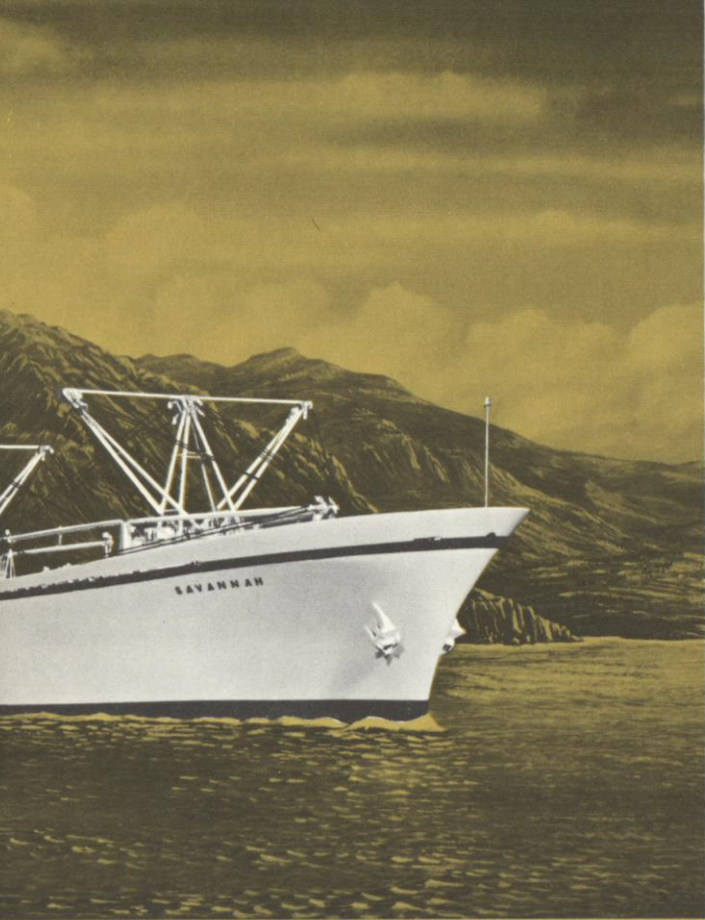
ITT owns 58% of the stock of American Cable & Radio Corporation (AC&R) which is carried as an investment on the ITT consolidated balance sheet. Accordingly, the consolidated income account reflects only the dividend received from AC&R and not ITT's equity in its net income.

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 the only one that offers both cable and radio facilities. In addition, it provides radiotelegraph communication with ships at sea by six marine stations located on the east, west, and gulf coasts of the United States. International radiotelephone circuits are operated from Colombia, Ecuador, Peru, and the Virgin Islands.

Net income of the AC&R System in 1958, together with a special credit of \$291,668 from profit on sale of land, amounted to \$1,374,005, compared with \$1,305,010 in 1957. A dividend of 30¢ a share was declared in 1958, of which ITT received \$608,042.

Total operating revenues of the AC&R System in 1958 were \$31,718,914, compared with \$32,041,166 in 1957. The effect of a decline in message volume of about 6% in 1958 as compared with 1957 was almost entirely offset by increases in message rates and by the continued growth of telex (automatic telegraph exchange) and leased circuit usage. Operating expenses rose from \$29,860,094 in 1957 to \$29,955,179 in 1958, due largely to domestic and foreign wage increases, which were offset somewhat by operating economies and reductions in overtime costs.

During 1958 telex service was extended from



*Savannah*, world's first nuclear-powered cargo vessel.

## Operations

the United States to Brazil, Greece, Italy, Japan, Peru, Puerto Rico, and Vatican City. International telex calls during 1958 surpassed the 1957 volume by 134%. Plant facilities were further expanded and modernized in a continuing program to improve operations.

On August 5, 1958, the Chairman of the Interstate and Foreign Commerce Committee of the U.S. Senate introduced a Bill in the Senate, S. 4231, which would permit the merger of U.S. international telegraph and marine carriers. He stated that "mergers have been authorized in the domestic telegraph field and in the domestic and international telephone fields, but prohibited in the international telegraph field. The recent technological changes and developments in the telecommunications field, both domestically and internationally, have had profound effect on the competitive nature of the various companies engaged in the international telegraph business. It

becomes increasingly apparent that changing world conditions necessitate a fresh look at the status of the American telegraph carriers and their ability to compete in the international field." On March 11, 1959, the Senate Committee announced hearings to commence March 19th on legislation identical with Senate Bill S. 4231.

The management of this Corporation continues to favor legislation that would permit the merger of U.S. international telegraph carriers.

## Marine Radio Operations, Manufacture, Sales, and Service

*Mackay Marine* (the marine division of Mackay Radio and Telegraph Company, a subsidiary of AC&R), and *International Marine Radio Company Limited* (IMRC) and *Compañía Radio Aérea Marítima Española* (CRAME), both subsidiaries of ITT, design, manufacture, install, and operate shipboard communication equipment, operate numerous shore stations for communication with ships at sea, and maintain service depots and agencies in most of the world's great seaports.

During 1958, Mackay Marine completed the installation of shipboard radio stations on 44 new vessels, and at year's end had a good backlog of orders for vessels either under construction or contracted for in U.S. shipyards. Included among the 1958 installations were those for the two new luxury liners of the Grace Line—S.S. *Santa Rosa* and S.S. *Santa Paula*—and several among the world's largest tankers. The backlog includes an important order for the *N. S. Savannah*, the world's first nuclear-powered cargo vessel.

Although the continuing depression in shipbuilding adversely affected sales by IMRC in 1958, operating and maintenance revenues remained stable, and orders for 1959 and 1960 were encouraging. The company's 12-channel very-high-frequency radio equipment was approved by the British Government, and other new items of advanced type are undergoing official trials.

CRAME continued to be an important supplier of radar, radiotelegraph, and echo-sounding equipment for the Spanish merchant and fishing fleets. Operating results held at about the same level as in 1957.

**PRINCIPAL U. S. DIVISIONS**

**Divisions** 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.

**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 Téléimprimeurs, Paris  
 Laboratoire Central de Télécommunications, Paris  
 Le Matériel Téléphonique, Paris

**Germany** Standard Elektrik Lorenz Aktiengesellschaft, Stuttgart  
 Bauelemente Werk S.A.F. (division), Nuremberg  
 Informatikwerk (division), Stuttgart  
 Kabelwerk (division), Stuttgart  
 Lorenz Werke (division) Stuttgart  
 Mix & Genest Werke (division), Stuttgart  
 Schaub Werk (division), Pforzheim

**International Telephone and Telegraph Corporation****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.  
Intelex 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.

## 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

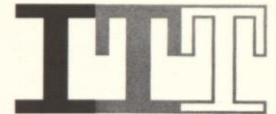
**Sweden** Standard Radio & Telefon AB, Stockholm

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

**Turkey** Standard Elektrik Ve Telekomunikasyon 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

## MANUFACTURE AND SALES

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

**Spain** Marconi Española, S.A., Madrid

