

JANUARY, 1938

LISTEN



A 5 Page Advertisement of the Radio Corporation of America

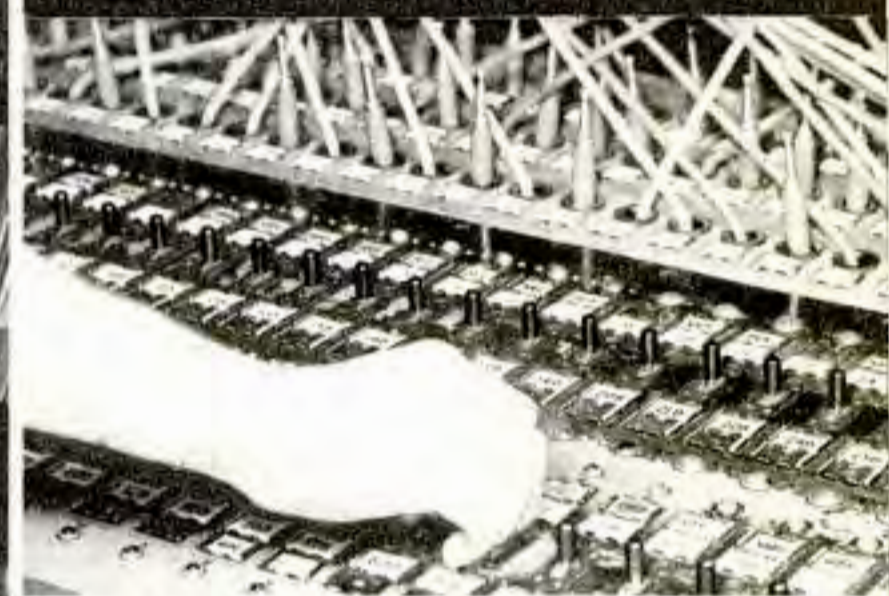
No. 6



INTERNATIONAL HOUSE SENDS NEW YEAR GREETINGS

This photo shows students who live at New York's famed International House, on a recent visit to RCA Communications' Offices at New York. These students joined the thousands who are filling the air with New Year greetings radioed to friends all over the world "Via RCA."

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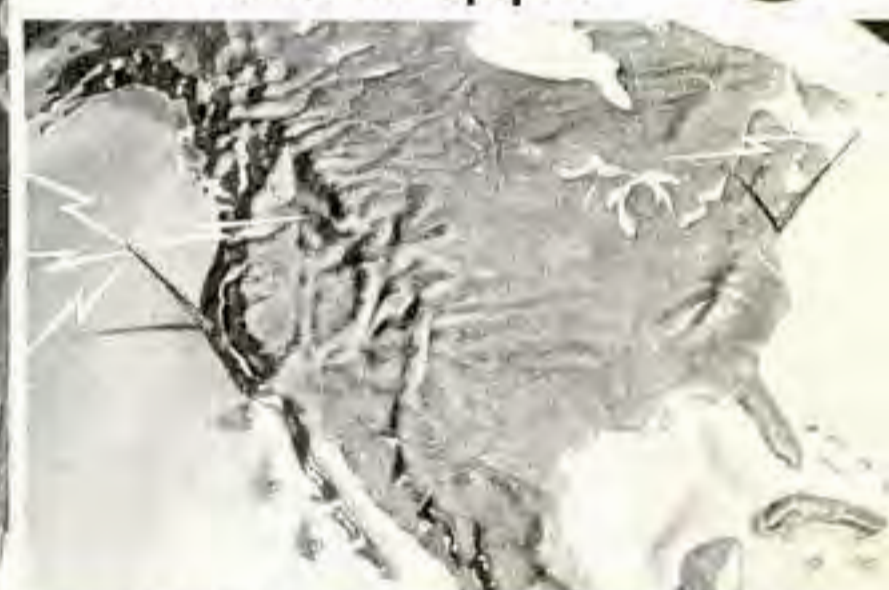
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AN INTERNATIONAL BUSINESS THAT NEVER SHUTS DOWN



SPEEDING WORDS ACROSS THE WORLD

In all the world there is no other business more international in its scope than that of RCA Communications—the radio message service of Radio Corporation of America. Twenty-four hours of every day RCA Communications is in continuous contact with both hemispheres.

Outstanding advantage of RCA radio message service is its directness. Radio is indifferent to international boundaries, leaps directly to its destination with the speed of light. Through RCA, Americans communicate with the world over their own radio system. On their swift flight to 42 foreign countries RCA messages encounter no bars of censorship, pass through no other hands.

Interesting to business is the economy that has resulted from RCA world-wide radio. Conservative estimates are that since the start of its service in 1920, the economical rates established by RCA have saved business men of the United States and other nations no less than one hundred million dollars.

To handle outward bound service from New York RCA maintains scores of transmitters on some 6,000 acres of land at Rocky Point, Long Island. Incoming messages, and foreign programs for re-broadcasting, are handled at Riverhead where the RCA plant is capable of receiving nearly a hundred different radio messages simultaneously. Similar equipment near San Francisco takes care of the trans-Pacific traffic. The third RCA Communications plant in importance of operations is at Manila, in the Philippines.

Further radio service to and from ships at sea is provided by 16 coastal stations operated by Radiomarine, another member of the RCA family.

RCA Communications' direct circuits with 42 nations can bring radio entertainment from practically anywhere. Ninety-four foreign "pick-ups" which have been heard on the RCA Magic Key program during the past twenty-seven months have reached the NBC Blue Network via RCA Communications.

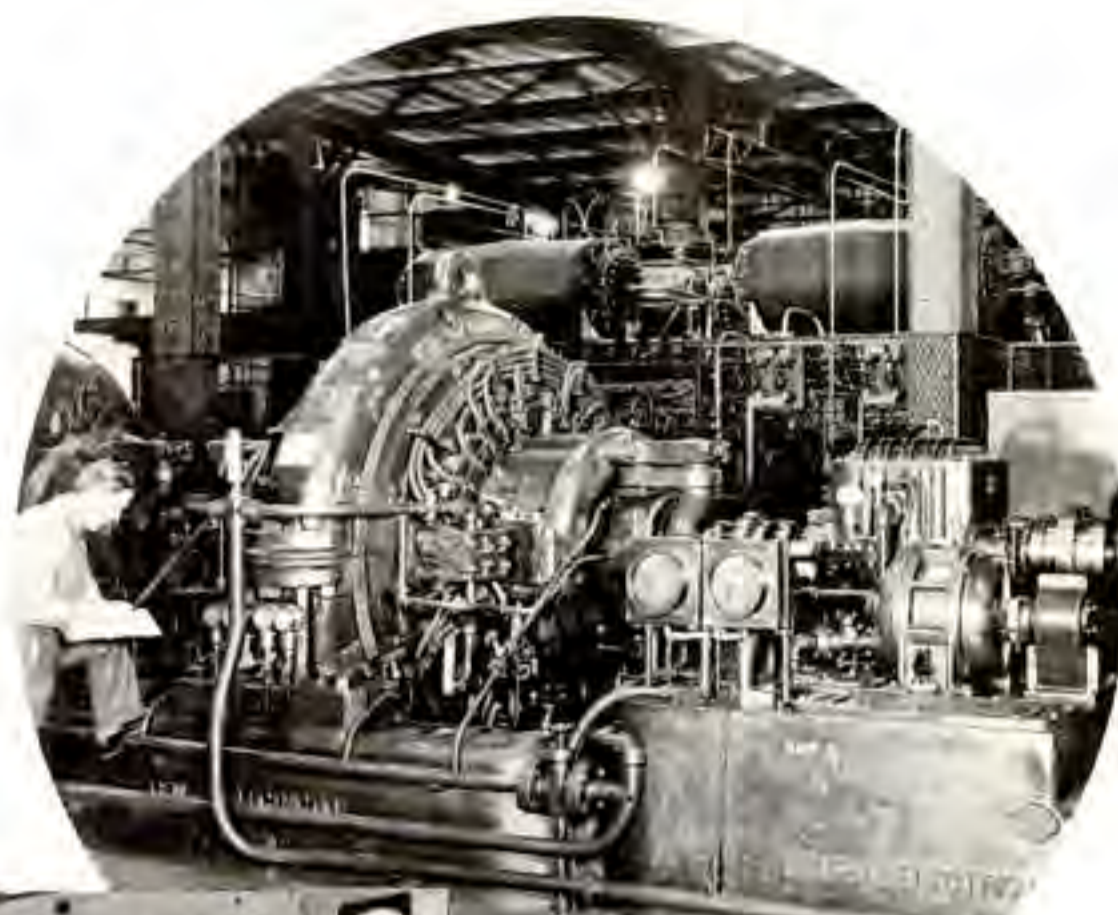


The cross roads of nations. This busy scene shows a corner of the message room of RCA Communications at 66 Broad Street in New York. The traffic which flows through this room plays an enormous part in world business, in diplomatic and other governmental messages and in the personal affairs of people the world over. Millions know that "via RCA" means swift, dependable message service to every part of the world. Millions who enjoy the fine quality of RCA Victor radios also benefit from RCA research and activity in all fields of radio.



WHEN RADIO MESSAGES LEAP OCEANS

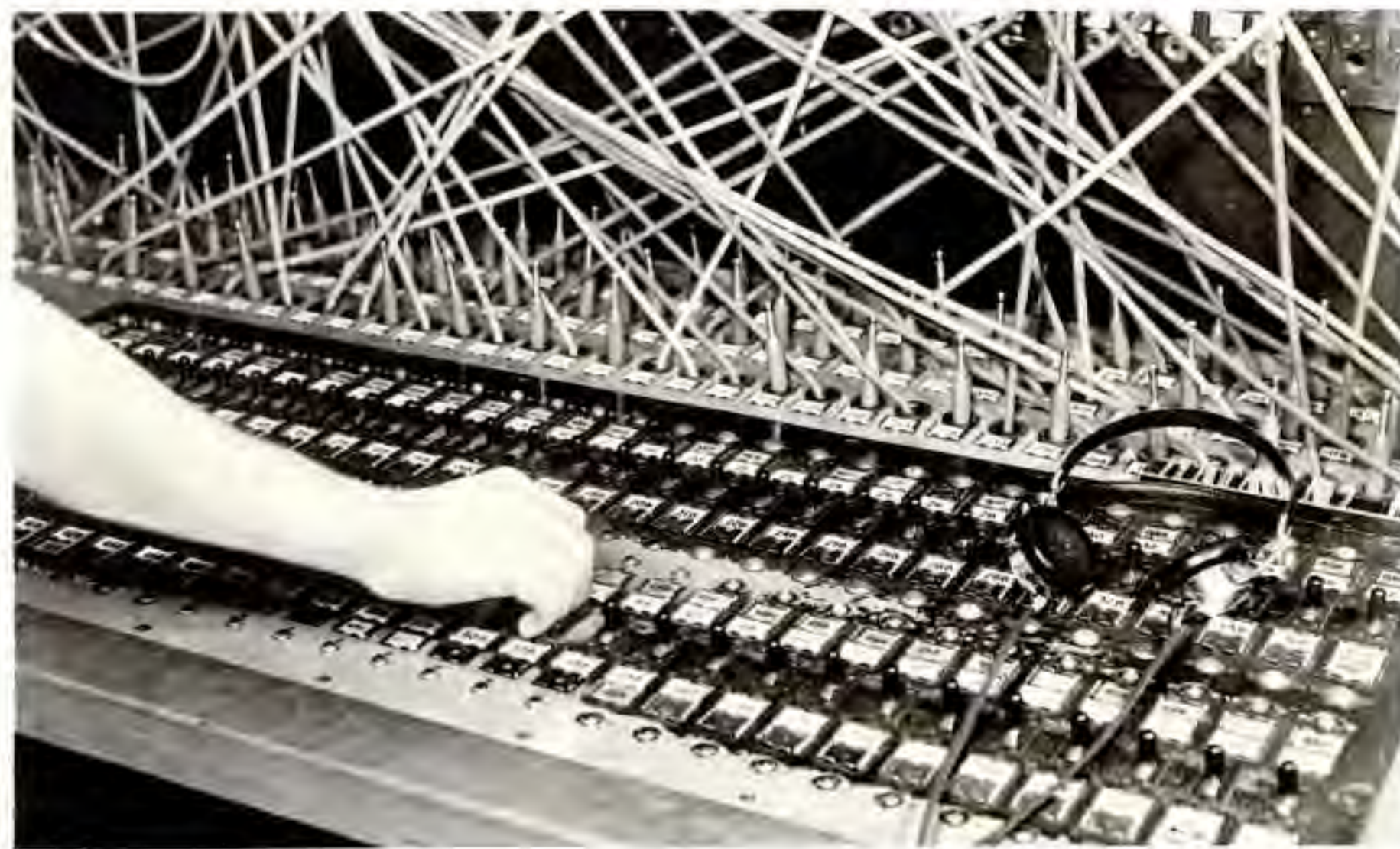
Some go out from here. This is an Alexanderson Alternator in the RCA transmitting station at Rocky Point, Long Island, N. Y. This device converts ordinary power line electricity into frequencies used in long wave radio. This particular alternator is now retired from ordinary duty, except when occasional magnetic storms hamper short wave message transmission. Then with a hum and a chatter the big machine goes to work, sends out radio waves several miles long, gets its messages through in spite of ether churned up by electrical high jinks. This equipment is always ready, although needed a very small part of the time.



Most of the messages are carried by short waves. One of the chief causes of interference with radio messages is ether disturbance related to sun spot activity. Extremely long waves are not much hampered, may even be improved by these magnetic ructions, but require excessively costly antenna and transmitter apparatus, are less satisfactory in other ways. Above is RCA engineer at Rocky Point, explaining world's most powerful short wave radio telegraph transmitter. Though its 200 kilowatt rating is same as the alternator shown above, it delivers a signal 500 times more efficient. Its short waves slip through magnetic storms without great difficulty. Operating on a 30 meter wave, it fools the sun spots about 99% of the time. A 30 meter wave is approximately 90 feet long as contrasted to the multiple mile waves of the Alexanderson Alternator. This transmitter uses RCA radio tubes throughout. Interesting fact is more than 300 million RCA tubes have been sold for home receivers.



Picturesque but passing. Conventional symbol of radio communication is a tall mast such as that shown at left. Actually such towers are no longer built, except for radio broadcasting. Short wave telegraph technique now uses wooden poles or steel towers seldom more than 130 feet high.



MAGIC SWITCHBOARD OF THE WORLD

Heavenly music. At left is picture of the control board of RCA Communications' Riverhead receiving station. Each of the many keys shown will instantly cut in on a loudspeaker the radio tone of incoming messages from stations near and far.

The operator who stands before this board can literally play the music of the sphere. When any one of these keys is turned, he hears a characteristic note of the frequency assigned to a given station. Ingenious operators have discovered that by twiddling the keys in the proper order they can produce an effect somewhat like playing a tune with one finger on a pipe organ.

MORE "LISTEN" →→→

HOW RCA FLASHES PICTURES AND PROGRAMS ACROSS THE SEA



Photoradio sends pictures through the air. When Japanese aviators sank U.S.S. Panay, the London Daily Express wanted to show its readers how this news was presented to Americans. Above is photograph showing front page of New York Daily News being sent by RCA Photoradio to London. It appeared in the Daily Express within a few hours. Photoradio can transmit facsimiles of practically anything. Fingerprints by Photoradio have led to capture of fugitive criminals. Transmission is accomplished by radio impulses varying as light and shade of picture cause variable interruptions in pinpoint beam

of light. This beam of light passes over surface of picture attached to roller. These fluctuations cause similar changes in a beam of light which traces a spiral that covers entire surface of a sensitized sheet of paper at the receiving end. The delicate variations of the light beam at the sending or "scanning" end, and at the receiver are controlled by a photo electric cell. This cell is an "electric eye" similar to those used for opening doors. Above is the receiving end of RCA Photoradio showing how Daily News front page was received in London. This transmission shown by permission of London Daily Express.



Building good-will with South America. NBC constantly exchanges radio programs with foreign stations. Virtually all such features for any U. S. network come in through RCA Communications. Pictures show sequence of program from Buenos Aires. 1. Station originating program (in this case Transradio at Buenos Aires. Note water-tight first floor due to periodic floods.) 2. Diversity receiver at Riverhead, Long Island, station of RCA Communications. 3. Program Control Board, at 66 Broad Street, New York, Central Operating Office of RCA. 4. Radio City, home of NBC, from which programs go out to be heard in perfection by all owners of RCA Victor radio instruments.



Radio's "Beacon Fires." Newest message transmission development of RCA engineers is an ultra high frequency system, using extremely short waves. Such waves are almost completely free from interference by static, or other forms of atmospherics. Transcontinental radio transmission of the future will probably consist of a series of circuits for sending short radio waves from one strategic point to another. At lower construction cost this will provide unfailing service under all conditions. Thus radio progress offers a modern parallel for the beacon fire

"telegraphy" by which men once flashed news from hilltop to hilltop by the light of bonfires. Picture above shows "stratosphere view" of RCA Communications' UHF circuit between New York and Philadelphia. At New Brunswick and Arney's Mount are two "haunted houses" where RCA automatic equipment receives and re-transmits radio messages on New York-Philadelphia circuit. This machinery, in case of accident, shunts in its stand-by.

See next issue of LISTEN in Life for Feb. 7

RADIO CORPORATION OF AMERICA
RADIO CITY, U. S. A.
 RCA Manufacturing Co., Inc.
 RCA Communications, Inc.
 National Broadcasting Co.
 RCA Institutes, Inc.
 Radiomarine Corp. of America

SEE THIS SENSATIONAL
NEW YEAR VALUE

Electric Tuning

RCA VICTOR RADIO

PUSH A BUTTON
...there's your station!

NOW ONLY \$89.95

SO SIMPLE, A BABY CAN TUNE IT!

In this sensational RCA Victor value, and in every other RCA Victor radio, you get the benefit of RCA's unmatched experience in designing, building and operating the world's largest international communications system.

Quantity production, improved engineering, large-scale purchasing have all helped to make it possible for you to have the sensational model shown on this page at the amazingly low figure of \$89.95*.

You can buy RCA Victor Radios on C. I. T. easy payment plan. Any radio instrument is better with an RCA Antenna System. *All prices f. o. b. Camden, N. J., subject to change without notice. When buying radio tubes, say "RCA"! First in Metal—Foremost in Glass—Finest in Tone!

Listen to the "Magic Key" every Sunday, 2 to 3 p. m., E. S. T., on NBC Blue Network.

This and Your Radio Play Victor Records



RCA Victor Record Player R-93A transforms any modern AC radio into an electric phonograph-radio. Can be attached easily and quickly. You can operate it from your \$19.95* armchair. . .

87K1 OFFERS YOU ALL THESE!

- Electric Tuning—
- Six Stations Automatically
- RCA Metal Tubes • Magic Eye
- Straight-Line Dial
- Superheterodyne Circuit
- 12-inch Dynamic Speaker
- Beauty-Tone Cabinet
- American—Foreign Reception
- Phonograph Connection

RCA ALL THE WAY



RCA Victor

A SERVICE OF THE RADIO CORPORATION OF AMERICA