

FILE COPY  
RESERVE COPY  
STATISTICAL DEPT.  
*new*

# LING-ALTEC ELECTRONICS, INC.

*Annual Report 1959*

CLEVELAND PUBLIC LIBRARY  
BUSINESS INF. BUR.  
CORPORATION FILE





# TO THE STOCKHOLDERS



JAMES J. LING  
*Chairman of the Board  
and Chief Executive Officer*



CAMERON G. PIERCE  
*President*

In keeping with your Board of Directors' original decision to develop your Company into one of the prime factors in the nation's electronics industry, two continuing phases of expansion and growth have been carried out; the programming of a strong research and development team to fulfill the need of rounded-out product lines in each of the individual Ling-Altec operations and the initiation of a planned schedule of acquisitions supplementing the companies that form this group. Again in 1959, substantial gains have been made in both of these important areas. This two-fold approach to our continuing growth will be pursued in the future.

During the past year, your Company was substantially strengthened by the addition of Altec Companies, Inc. and subsidiaries, University

Loudspeakers, Inc. and Continental Electronics Manufacturing Company to the Ling organization. Altec has long been recognized as one of the leaders in the acoustical and service industries; University further improves our position in the development and manufacture of loudspeaker systems and standard and specialized transducers; Continental, during the past decade, has become a major factor in super power electronics. These acquisitions have not only introduced many new products, strengthening our marketing and sales operations, but have also added materially to our technical and engineering force and have expanded total facilities for future growth.

To further stimulate your Company's growth, an expanding research and development program has been initiated, through the establishment of Ling-Altec Research Division headquartered in Anaheim, California. This program is predicated upon the market potential of those lines of equipment and services for which the Company is especially qualified. The Research Division's responsibility is not only to refine existing product lines, but also to explore and develop new products which will complement those already in existence, thus enabling us to enjoy a stronger position in the various markets which we now serve and insuring our position of leadership in the electronic markets of the future.

Both of these programs contributed to our over-all strength in today's market, and place the Company in a strategic position to take the fullest advantage of the ever increasing market potentials now developing throughout the electronics industry.



In recognition of the industry-wide reputation enjoyed by Altec Companies, Inc., our stockholders voted to change the Company's name to Ling-Altec Electronics, Inc. This move likewise changed the Company's accounting year from one beginning August 1 to a calendar year.

Because of this change in accounting period and due to the subsequent acquisitions of University Loudspeakers, Inc. and Continental Electronics Manufacturing Company whose operating results are included from dates of acquisition, a direct comparison of our 1959 results with those of 1958 would not be meaningful. There was phenomenal growth in your Company during the past year, and these gains coupled with the newly acquired operations resulted in an all time high volume of \$48 million, with earnings after taxes in excess of \$1.8 million equivalent to \$1.31 per share on an average of 1,426,722 shares outstanding, before giving effect to dividends paid on preferred stock which was called for redemption during the year and dividends declared by Altec Companies, Inc. prior to acquisition.

The year's operations included costs of a non-recurring nature resulting from moving the operations of Ling Electronics Division from Culver City to Anaheim, costs incurred in the acquisitions mentioned previously and costs involved in redemption of the Company's 5¾% debentures and preferred stock. These costs were partially offset by non-recurring profits from the sale of capital assets.

The forthcoming year is supported by a substantial backlog of in excess of \$50 million again indicating a greatly improved profit potential for 1960.

One of the most substantial developments during the past year, and certainly significant recognition of your Company's position in financial circles, was the private placement of \$5 million in long-term Senior Notes with prominent insurance companies and other investors. These funds, in addition to lines of credit established with leading banks, provide adequate working capital to insure the successful completion of the Company's expansion program.

Capital expenditures for the year amounted to \$1.3 million, which included the new 50,000 sq. ft. plant now housing Ling Electronics Division at Anaheim, California and 21,000 sq. ft. purchased and constructed for The Calidyne Company, Inc., in Winchester, Massachusetts.

It is with sincere regret that we report the death during the last year of two of the Company's distinguished directors, G. L. Carrington and Charles A. Rice. Mr. Carrington founded Altec Companies, Inc. and served as that firm's chairman, while Mr. Rice was the long-time president of United Electronics Company. Two outstanding Company men were elected to the vacancies of the Board of Directors. They are James O. Weldon, president of Continental Electronics Manufacturing Company, and Lee D. Webster, executive vice president, secretary and treasurer of Ling-Altec. Both of the new directors also were elected to the Executive Committee.



The rapid growth of the Company, discussed in the foregoing paragraphs has resulted in an integrated organization with ownership spread among approximately 12,000 stockholders, and employing 2,500 people at 11 subsidiaries and 6 divisions located throughout the United States. The oldest subsidiary of Ling-Altec was founded 31 years ago, two others are 21 years old and the average age of the combined divisions and subsidiaries is 14 years.

The major products of Ling-Altec are centered in the high power electronics and communications fields and include specific markets in environmental testing, sonar, radar, sound and radio frequency transmission of signals, and electronic components for industry. Under the present management concept, the Ling-Altec companies cooperate and supplement each other in the production of equipment and rendering of services, yet they maintain greater independence in the areas of design and merchandising than generally exists in a company of this magnitude.

To meet the production requirements of the Company and to facilitate efficient service to customers, eight plants are strategically located throughout the United States. These facilities, governed by a closely coordinated manufacturing program, enable the Company to produce a high quality product at a competitive price for each market it serves.

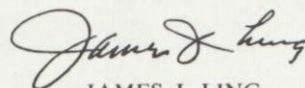
The Ling-Altec organization includes two electrical contracting companies and a nation-wide service organization to serve the installation and maintenance requirements of Ling-Altec products,

particularly in communications, environmental testing, broadcast and television systems, theater and sound systems.

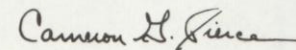
The vitality and stability of any company can be measured by the caliber of men drawn to it. Ling-Altec personnel realize rare opportunities for achievement based on self-expression and creative freedom. Alert, vigorous men dedicated to research and development ideals are drawn to the Ling-Altec companies, and a personnel policy based on development within the organization assures us of a stable operational group which can assume a position of leadership in today's and tomorrow's electronics. Ling-Altec enjoys an exceptionally low personnel turnover.

The Management of Ling-Altec is keenly aware of its responsibility to the economic welfare of the Company, and its obligations and indebtedness for the privilege of participating in the free enterprise of a democracy. The Management is dedicated to making major contributions to industry and the defense program, and insuring the further progress of Ling-Altec.

The success enjoyed by Ling-Altec is attributable to loyal customers, employees, stockholders and associates, and we are sincerely grateful. With your continued support, we are confident that an exceedingly bright future awaits us.



JAMES J. LING  
*Chairman of the Board  
and Chief Executive Officer*



CAMERON G. PIERCE  
*President*



# LING-ALTEC

## DIRECTORS

*Members of the Company's Board of Directors,  
pictured from left to right:*

**LEE D. WEBSTER\***

Executive Vice President, Secretary and Treasurer,  
Ling-Altec Electronics, Inc.

**A. A. WARD\***

President, Altec Companies, Inc.

**D. C. HICKSON**

Vice President, Bankers Trust Company

**JAMES O. WELDON\***

President, Continental Electronics  
Manufacturing Company

**CAMERON G. PIERCE\***

President, Ling-Altec Electronics, Inc.

**JAMES J. LING\***

Chairman of the Board and Chief Executive Officer,  
Ling-Altec Electronics, Inc.

**JOHN E. GRADY**

President, Grady-Ling Electric, Inc.

**V. A. DAVIDSON, M.D.**

Real Estate and Investments

**ROBERT C. LEWIS**

President, The Calidyne Company, Inc.

**FRANK D. ROSE**

Investments

**PAUL HALLINGBY, JR.**

Partner, White, Weld & Company

**O. G. VILLARD, JR. (lower photograph)**

Professor of Electrical Engineering,  
Stanford University

*\*Members of the Executive Committee.*



## and OFFICERS

**JAMES J. LING**, *Chairman and Chief Executive Officer*

**CAMERON G. PIERCE**, *President*

**LEE D. WEBSTER**, *Executive Vice President, Secretary and Treasurer*

**G. EMERSON PRAY**, *Vice President*

**C. R. ANDERSON**, *Controller*

TRANSFER AGENTS — Mercantile National Bank, Dallas, Texas  
Bank of America N. T. and S. A., Los Angeles, California

REGISTRAR — Mercantile National Bank, Dallas, Texas

LEGAL COUNSEL — Turner, White, Atwood, McLane & Francis

AUDITORS — Ernst & Ernst



**O. G. VILLARD, JR.**



# LING-ALTEC ELECTRONICS

*... a dynamic process of growth has given the organization a unique dual capability which serves the needs of the nation, science, commerce and the public, while exploring the markets of tomorrow*

In keeping with the challenging character of the times, Ling-Altec has grown steadily and surely since its inception. That pattern of growth has been a dynamic force—consistent movement toward a diversified but fully integrated organization, in accordance with a carefully-formulated plan. One division after another has joined the parent company—each adding its special skills and well-established leadership in its field to the organization's strength. Today, Ling-Altec, while placing heavy emphasis on the fields of high power electronics and communications, offers such a diversity of products and services that the effects of its work are felt in almost every facet of the national economy.

While each division spearheads the search for advances in its specialization, it is actively engaged in work which complements the work of others. The Ling-Altec Research Division assists these efforts and guides research and development programs into areas where co-operative efforts may yield rewarding results. In addition, the Research Division assumes the major responsibility for research and development of products for the future.



Ling-Altec enters the new decade a fully-integrated organization with a broad range of activities and demonstrated ability to design, develop and produce electronic components and systems. Moreover, it is unique in that it combines with its electronics capabilities an impressive record of electrical construction for both the government and private enterprise. Thanks to this dual capability, Ling-Altec can first, build large, complex systems—radar, sonar, environmental testing systems, for example—and then install them wherever desired. Close co-ordination from the inception insures a timely and successful completion of the project.

#### **LING-ALTEC DIVISIONS AND SUBSIDIARIES ARE LOCATED ACROSS THE NATION**

**LING ELECTRONICS DIVISION, *Anaheim, California:*** High-power electronics for environmental testing, sonar, and long-distance communications.

**LING-ALTEC RESEARCH DIVISION, *Anaheim, California:*** Research and development of new electronic products, assistance to individual research and development programs.

**CONTINENTAL ELECTRONICS MANUFACTURING COMPANY, INC., *Dallas, Texas:*** Super Power electronics for long-distance communications, radar, sonar, broadcast and television transmitters.

**ALTEC LANSING CORPORATION, *Anaheim, California:*** The Altec Lansing Corporation produces sound systems and components for military, commercial and consumer use, acoustic equipment for environmental testing, and products for telephone and scientific use.



**PEERLESS ELECTRICAL PRODUCTS DIVISION, Los Angeles, an Altec Division :**  
Provides transformers, reactors and power supplies for electronic, missile and scientific apparatus.

**THE CALIDYNE COMPANY, Winchester, Massachusetts:** Electrodynamic shakers and controls for vibration testing systems.

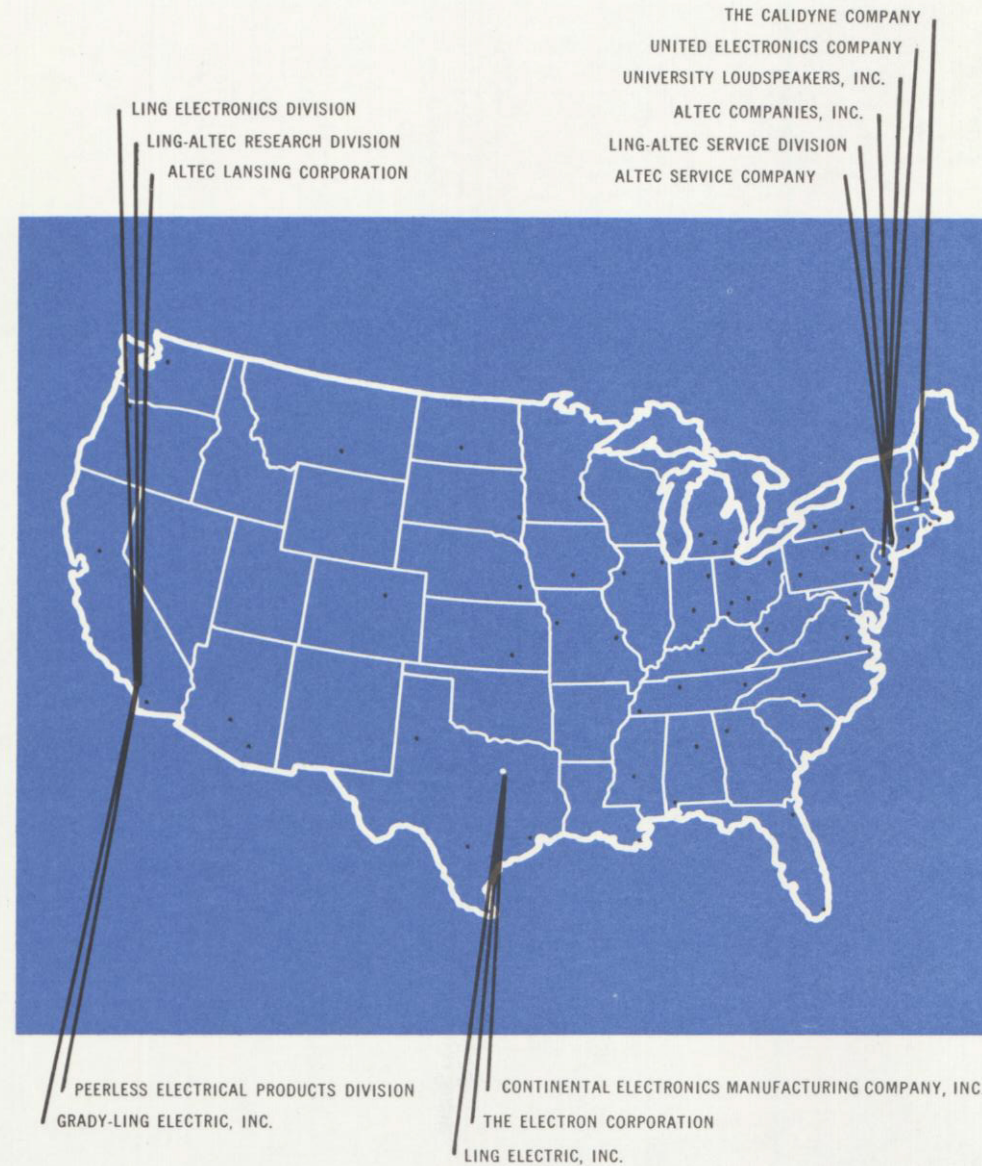
**UNITED ELECTRONICS COMPANY, Newark, New Jersey, a Calidyne division:**  
High power vacuum tubes for standard and specialized military and commercial applications; high temperature ceramic variable capacitors.

**UNIVERSITY LOUDSPEAKERS, INC., White Plains, New York:** Loudspeakers and systems, standard and specialized transducers for commercial, industrial and military applications.

**THE ELECTRON CORPORATION, Dallas, Texas:** Closed Circuit Television systems for military, industrial and educational applications, competitive priced low-power VHF and UHF broadcast and television stations, a newly-developed translator system.

**LING ELECTRIC, INC. of Richardson, Texas and GRADY-LING ELECTRIC, INC. of Glendale, California:** Complete electrical design, engineering and installation for government or private enterprise, working independently or in support of the Ling-Altec electronics programs.

**LING-ALTEC SERVICE DIVISION and ALTEC SERVICE COMPANY, Headquarters, New York:** Service and Maintenance on electronics products and commercial and consumer products respectively, through 71 offices located in strategic cities, plus an overseas group. These are divisions of Altec Companies, Inc.



\*ALTEC SERVICE AND MAINTENANCE OFFICES ARE LOCATED IN 71 CITIES AND OVERSEAS.





# LING-ALTEC CAPABILITIES

## SUPER POWER ELECTRONICS AND BROADCAST EQUIPMENT FOR COMMUNICATIONS

Broadcast Transmitters and Systems for standard, long wave, medium wave and short wave • Transmitter Remote Control Equipment and Systems • VLF Transmitters and Systems • HF Transmitters and Systems • Underwater Communications and Systems • Scatter Transmitters and Systems • Airborne 10 Kilowatt VHF Communications Transmitters • Closed Circuit Television Systems for military, industrial and education application • Low and medium power VHF and UHF Television Studio Equipment and Stations • Amateur Television Equipment and Stations • Amplifying and Monitoring Systems for Radio and TV • Audio Consoles for Radio and Television Studios • Translator Systems for Television Broadcasting.

## SOUND SYSTEMS, COMPONENTS AND MEASUREMENT DEVICES

Missile-Site Announcing Systems • Public Address Systems for military, commercial and industrial applications • Loudspeakers and Systems; weatherproof, submersion and explosion-proof types • Theater Sound Systems • Portable Sound Systems • Air-Modulated Loudspeaker Systems • High Intensity Sound Measurement Systems • High Fidelity Sound Systems for commercial and home use • Microphones.

*The broad spectrum of company activities is best described in terms of five product areas, a research and development function, electrical engineering and contracting service supported by two service organizations*



**CORPORATE  
CO-ORDINATION**

**RESEARCH AND  
DEVELOPMENT**

**SONAR AND RADAR  
COMPONENTS AND SYSTEMS**

Sonar Transmitters and Systems for surface, sub-surface, airborne applications • Super Power Radar Transmitters and Systems for military and scientific applications • Radar Telescopes • Missile Tracking Systems.

**ENVIRONMENTAL TESTING  
SYSTEMS AND COMPONENTS**

Vibration Testing Systems, including electronic driving equipment and electro-dynamic shakers • Acoustic Testing Systems, including audio driving equipment, plane wave tubes, progressive wave tubes, reverberant chambers, transducers, air modulated drivers.

**ELECTRONIC COMPONENTS  
AND SYSTEMS**

Miniaturized High Altitude Power Supplies • Super High Voltage Power Supplies • Semi-Conductor Power Generators • High Power High Vacuum Tubes • High Voltage Ceramic Variable Vacuum Capacitors • Transformers and Reactors for special purposes • Wave Guide Hybrid—450 MC Band • RF Power Supply for accelerator for nuclear study • Ultra High Frequency Coaxial Water Load (to 100 KW continuous) • Medium Frequency Water Load (to one megawatt continuous) • Wave Guide Load (above one megawatt continuous) • Loud-speaker Driving Accessories • Missile Nose Cone Microphones for re-entry boundary layer studies • Audio Amplifiers and Preamplifiers • Telephone Repeaters and Amplifiers • Microphones for Broadcast and Recording.

**ELECTRICAL ENGINEERING,  
DESIGN AND INSTALLATION**

**GOVERNMENTAL**

Aircraft Hangars • Aircraft & Engine Test Facilities • Airport Taxiway Lighting • Chemical Plants • Armories • Ordnance Warehouses • Base Exchanges • Hard Base Missile Launching Facilities.

**COMMERCIAL AND INDUSTRIAL**

R. & D. Laboratories • Missile Test Facilities • Radio & TV Stations • Universities • Medical Centers • Banks & Hotels • Shopping Centers.

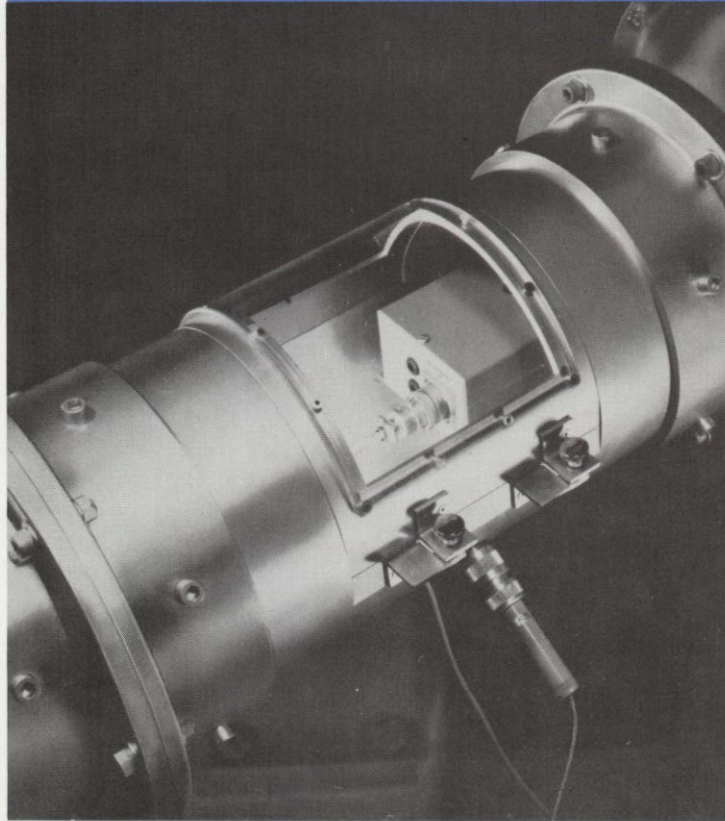
**FIELD SERVICE AND  
ENGINEERING**

Two nation-wide field service and engineering organizations for all Ling-Altec products.



## RESEARCH AND DEVELOPMENT

*Ling-Altec's co-ordinated approach to this vital function, led by the Ling-Altec Research Division, brings the full resources of the company to bear on any project*



*High Intensity Sound Plane Wave Tube*

In pursuit of its long-range objectives, Ling-Altec conducts an aggressive and ever-expanding research and development program which covers the broad range of divisional specialties and adventures deep into the needs of the future.

The scope of company interests is broad, reaching from the depths of the sea to the outer reaches of space. Important experimental work is going forward throughout this broad spectrum—from sonar to space communications, from high power sound systems to scatter transmission, from acoustic advances to environmental testing, from television systems to electronic components.

The Ling-Altec Research Division is responsible for the development of new electronic products, while coordinating and supplementing the research activities of the various divisions and subsidiaries.

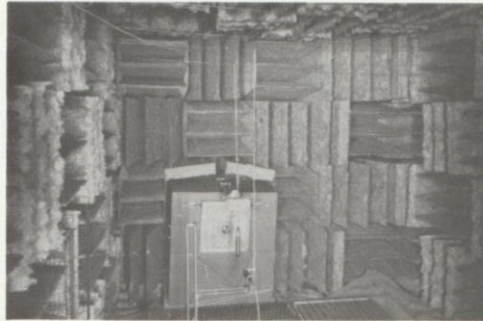
This closely co-ordinated program puts all the talent within the company toward the solution of a given research problem. No time is lost on critical projects through duplication of effort—work advances effectively at an accelerated pace.



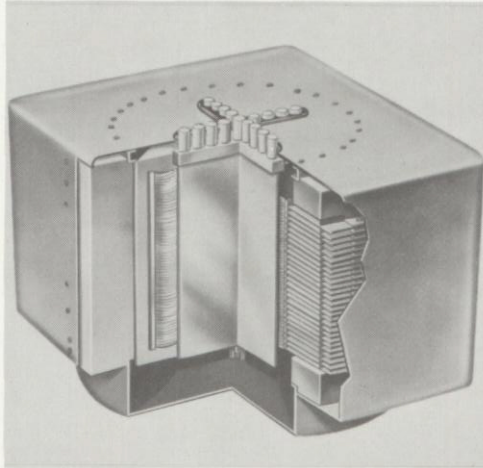
The calibre of the men who administrate the program is vital to its success, and in this respect, Ling-Altec excels. The company's progressive policies attract men of stature and scientific attainment who constantly move toward new research goals.



*400 Megacycle Hybrid Junction*



*Anechoic Test Chamber*



*Electro-dynamic Shaker Development*

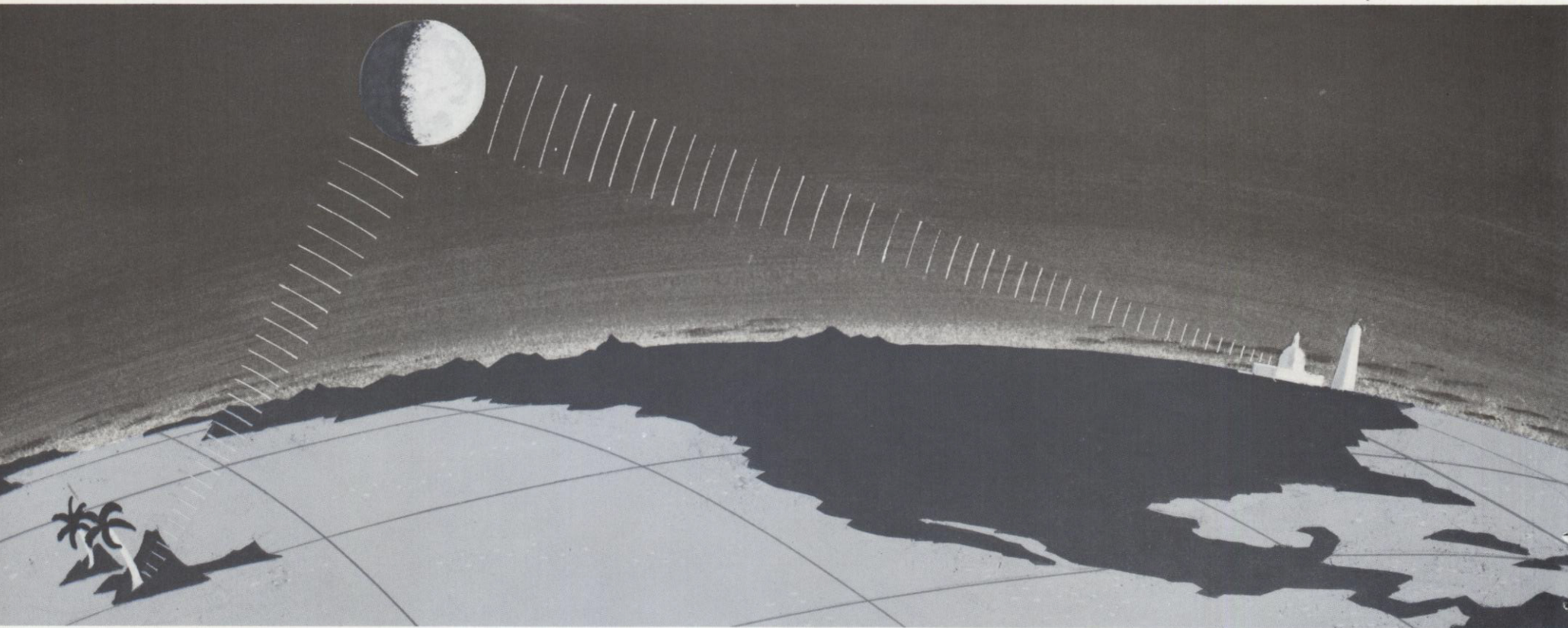


*Vacuum Tube Development*



*High Power Electronics Development*





*Moon Relay System*

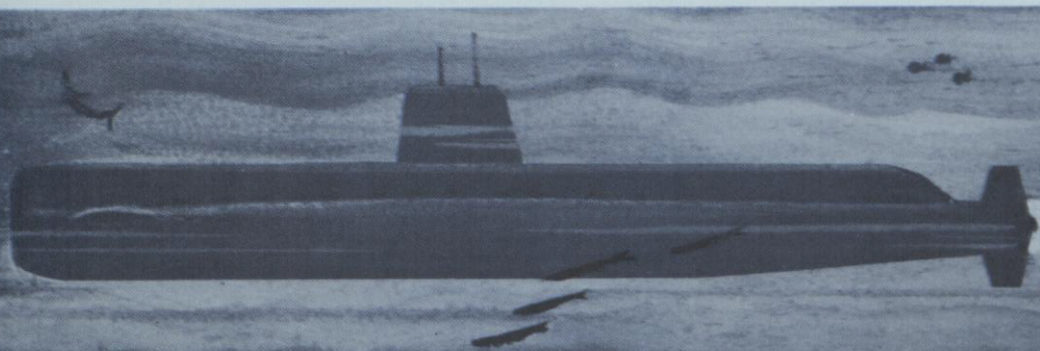


# LING-ALTEC

*...a strong voice in*

## COMMUNICATIONS

Taken in its broadest sense, most of Ling-Altec's work is concerned with communications. The mutually complementary work of all divisions is contributing to the advancement of communications in three dimensions—on earth, in the sea, and in space. Ling-Altec equipment now finds application in almost every area of communications as we know it—for the company supplies components and systems for such familiar communications mediums as the telephone and ranges toward the future with the highly sophisticated systems required in underwater and space communications. Ling-Altec developments in super power and high power electronics merit special consideration. Divisional and company-wide co-operation are leading to such achievements as those listed on the next pages.

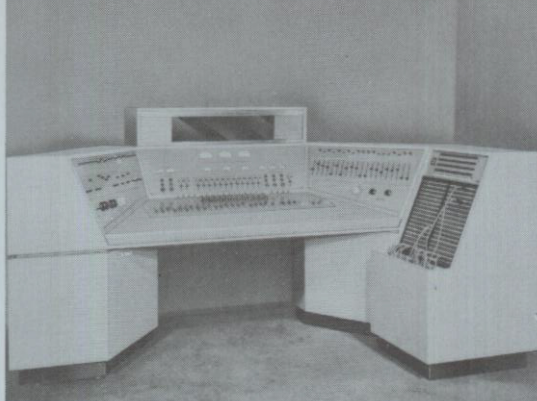




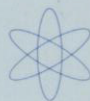


**THE WORLD'S LARGEST VLF TRANSMITTER** The world's largest transmitter facility, located in Maine, was designed and is in the process of installation by Continental Electronics for the Navy. The installation, which provides 2 million watts of continuous power at very low frequency, permits communications with naval units throughout the world, even with submerged submarines. Continental is prime contractor for this project, responsible for the installation of a vast antenna system covering an area equivalent to the ground space of 11 Pentagon buildings, with 26 towers from 800 to 1,000 feet high.

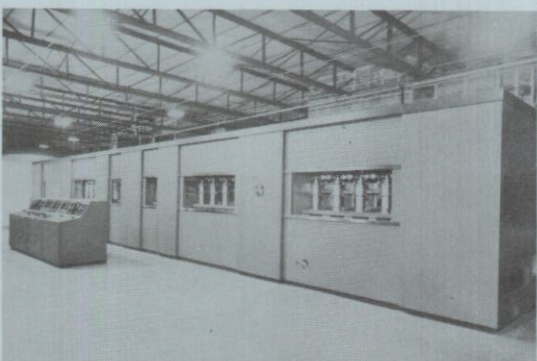
**SUPER-POWER TRANSMITTER FOR THE MOON RELAY SYSTEM** Continental Electronics designed, manufactured and installed for the Navy super power transmitters to be used in its moon relay system, with terminals in Washington, D.C. and Hawaii.



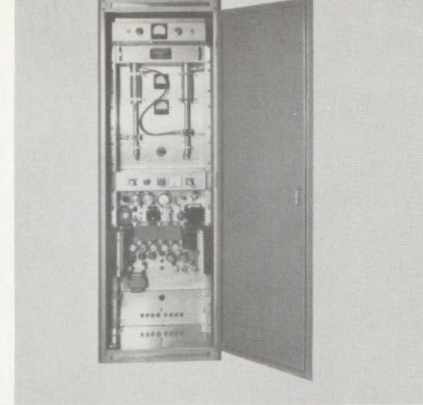
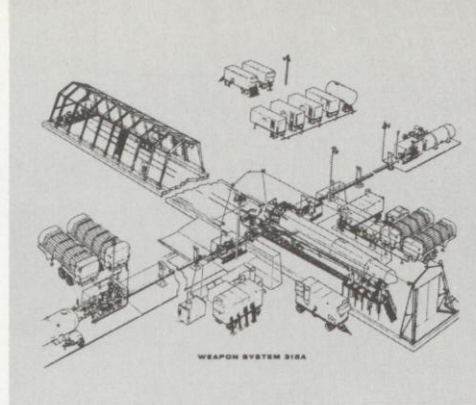
**TELEVISION STUDIO CONSOLES FOR AUDIO CONTROL** One of the largest audio transmission consoles now in use by the television industry, this one-man unit was designed and manufactured by the Altec Lansing Corporation for the American Broadcasting Company for its New York and other studios of the network.



**RADIO POWER TO PENETRATE THE IRON CURTAIN** Continental Electronics supplied the multi-million-watt radio transmitter Voice of America needed to carry programs into the Iron Curtain countries. The transmitters, each capable of delivering 4 million watts peak power output, have the power to override jamming attempts of 1,000 Soviet stations.







**THE WORLD'S LARGEST SINGLE-SIDEBAND TRANSMITTER** Developed by Continental Electronics for the Signal Corps, this high frequency unit is capable of generating 600,000 watts peak envelope power. It is now in operation and will undoubtedly play an important part in defense communications. Both the Signal Corps and the Navy have ordered additional equipment of this type.

**CLOSED-CIRCUIT TELEVISION CAMERA** The Electron Corporation is responsible for the development of the Ling Spectator, a rugged, dependable, high quality television camera which can be marketed at a significant low price, with no sacrifice in quality or function. It has proven useful in many closed-circuit applications including bank and prison surveillance, traffic analysis, scientific analysis. It is also the basis of the Ling-Ad system of product promotion in super-markets, and has been adapted to amateur use in the Ling-Mitter, a complete television station operating in FCC-assigned bands.

**MISSILE SITE AND UNDERWATER COMMUNICATIONS** Altec Lansing has furnished communication systems for Thor Missile Launching sites, while Ling Electronics is engaged in research and development projects relative to underwater communications systems.

**TELEVISION TRANSLATOR SYSTEMS** Electron Corporation supplies the only FCC-approved translator system with a direct reading power meter. The system translates any VHF Channel 2-13 to any UHF Channel 70-83, or translates any UHF Channel 14-83 to any other UHF Channel 70-83. Translates, unattended, without demodulation.

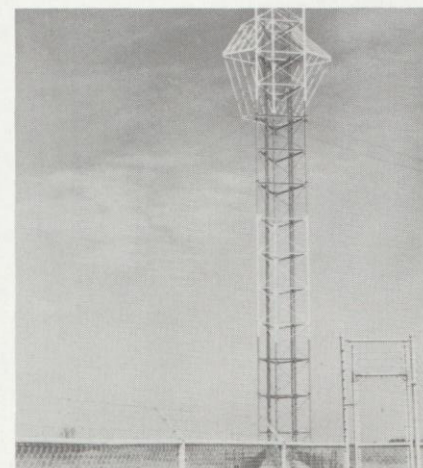
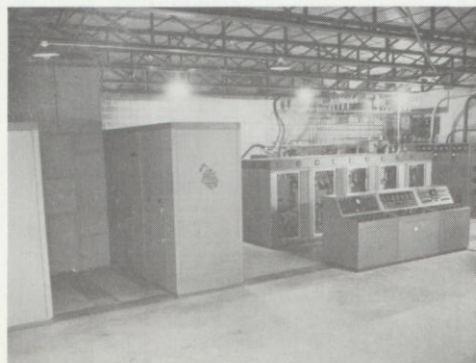


**SPACE AND SCATTER TRANSMITTERS** Continental Electronics super power Transmitters power the systems utilizing the propagation characteristics of ionospheric and tropospheric scatter to transmit maximum distance with reliable continuous records. Other Continental transmitters serve in meteor cloud studies and atomic research.

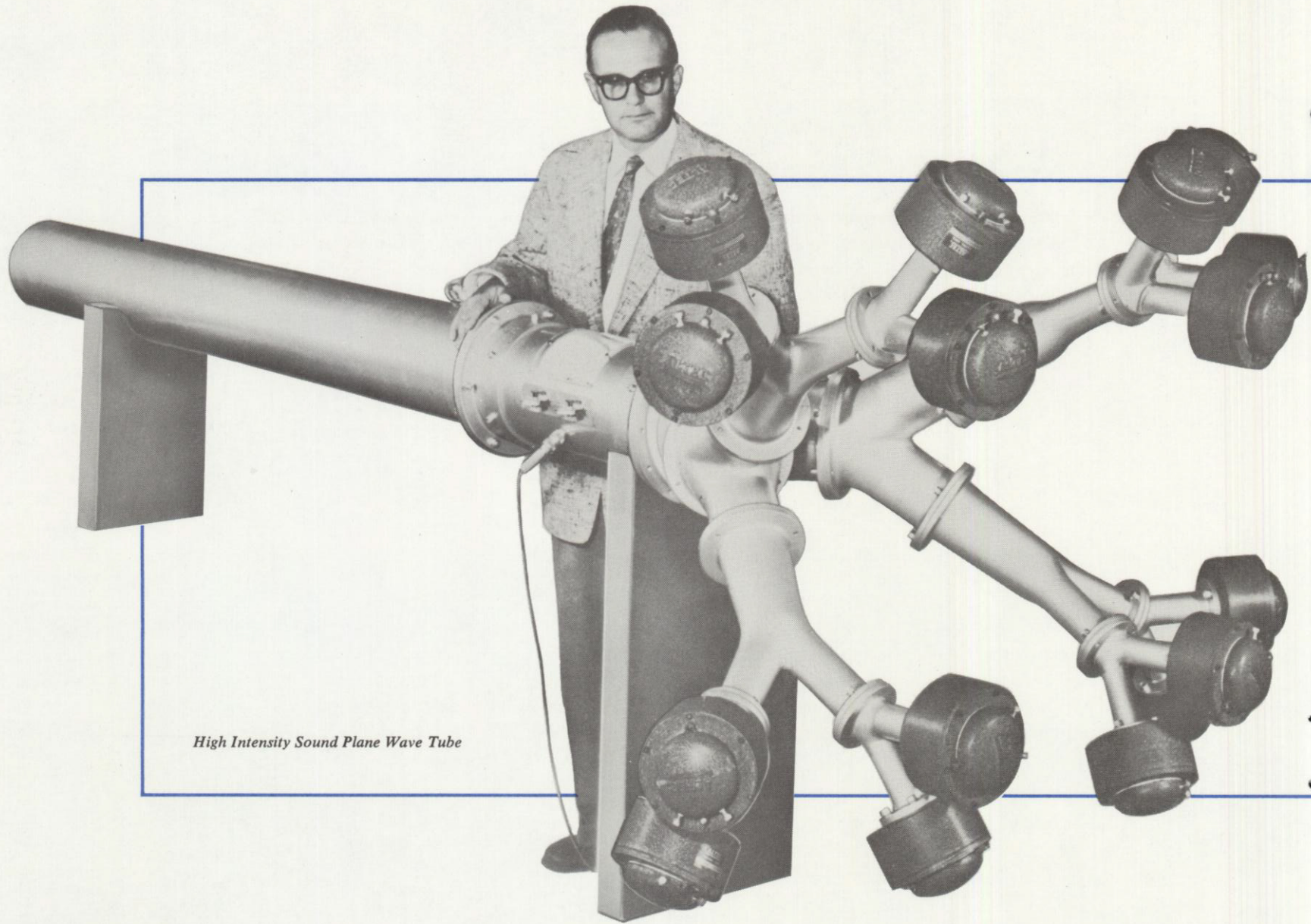
**LOW-POWER TELEVISION STATIONS** The Ling Spectator Camera has been incorporated into complete low-cost, low-power UHF and VHF television broadcast stations providing economical television coverage for smaller cities and educational institutions.

**AM AND UHF BROADCAST TRANSMITTERS** AM radio broadcast transmitters, as well as UHF television transmitters produced by Continental Electronics are now in use throughout the United States and overseas.

**INTERNATIONAL SHORT WAVE TRANSMITTERS** Continental Electronics supplies a complete line of International Short Wave transmitters. These have powers from 250 watts through 1 million watts and are available for U.S. or foreign broadcast service.







*High Intensity Sound Plane Wave Tube*



# LING-ALTEC

*...exploring the many aspects of* **SOUND**

From its research in the acoustic sciences to its work as a leader in commercial sound and home high fidelity systems, Ling-Altec is deeply concerned with the nature of sound. Company activities range from the manufacture of public address systems to the development of devices sensitive enough to measure the ebb and flow of human blood. Through Altec Lansing, Ling-Altec possesses an impressive reputation as the leading producer of sound systems for both commercial and home use. Altec Lansing's contributions to acoustic research in high intensity sound serves the nation's space program. The combined production of Altec Lansing and University establishes the company as the country's largest producer of loudspeakers. Ling-Altec participation in the realm of sound is outlined on the following pages.





*High Fidelity Products for the Home*

#### **HIGH FIDELITY SOUND SYSTEMS FOR HOME USE**

Altec Lansing and University Loudspeakers supply the home owner with some of the finest available sound components and systems. Altec Lansing provides a wide line of high-fidelity speakers, amplifiers and tuners —University supplies loudspeakers and sound systems. All these products are of professional quality and have a reputation for superior service.

#### **DISASTER, ALERT AND WARNING DEVICES**

Altec Lansing has developed an electro-pneumatic transducer, described in detail on the opposite page, which is capable of producing sound output that exceeds 100 conventional loudspeakers, and permitting reproduction of speech patterns. An alert or warning device which can speak, giving directions, has great potential in military, civil defense and fog signaling applications.



*City-Wide Disaster Warning System*



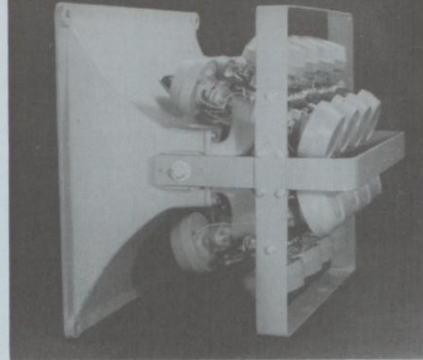
**SPECIALIZED LOUDSPEAKERS AND SYSTEMS**  
University produces a number of specialized types of loudspeakers for unusual environments. Among these are types powerful enough to rise above combat noise, explosion-proof speakers for use where the atmosphere throughout is dangerously volatile, speakers for operation underwater and unusual climatic conditions.

**ELECTRO-PNEUMATIC TRANSDUCERS AND ACOUSTIC ADVANCES** Altec Lansing and Ling Electronics, working in cooperation, recently achieved a significant breakthrough in environmental testing. Altec sound equipment, driven by Ling amplifiers, generates sound of the same high intensity produced by rocket or jet engines. These systems, described in detail on following pages, include the electro-pneumatic transducer. This transducer can produce up to 3,000 watts of acoustic power, up to a frequency of about 1,500 cycles per second, permitting reproduction of sine wave,

random or speech patterns. When driven by an airflow of 300 cubic feet per minute at gauge pressure of 40 pounds per square inch, it is capable of producing sound exceeding 100 conventional loudspeakers.

**SOUND MEASUREMENT DEVICE FOR MISSILES**  
Altec Lansing has furnished the microphones used in the nose-cone of the Atlas missile to make measurements of sound-pressure levels when the missiles re-enter the atmosphere.

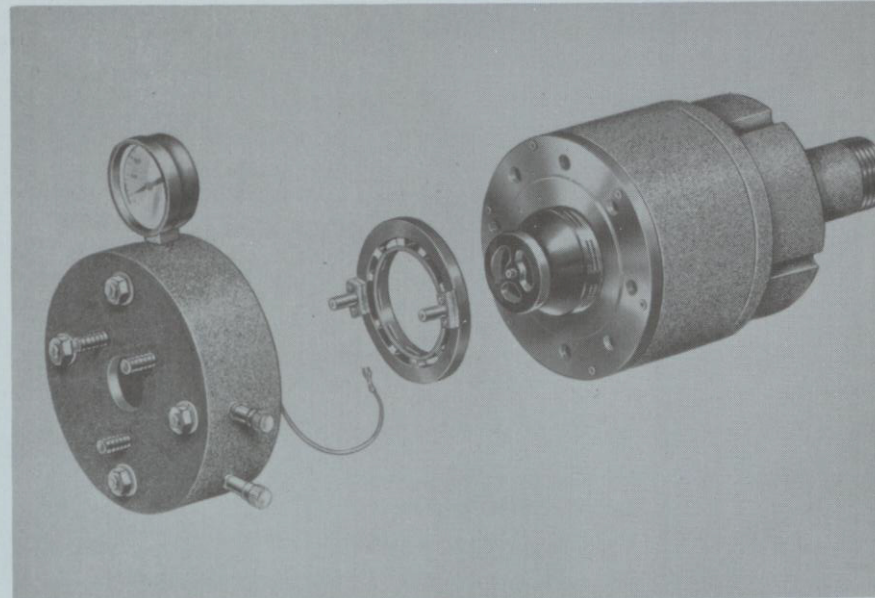
**PUBLIC ADDRESS AND COMMERCIAL SOUND SYSTEMS** University Loudspeaker and Altec Lansing together provide one of the nation's most complete catalogues of sound equipment for commercial use, including complete theater sound systems, speech input systems, microphones, loudspeakers, industrial amplifiers and public address systems for all applications. Altec Lansing is also a major manufacturer of broadcasting equipment and transistorized telephone repeaters.



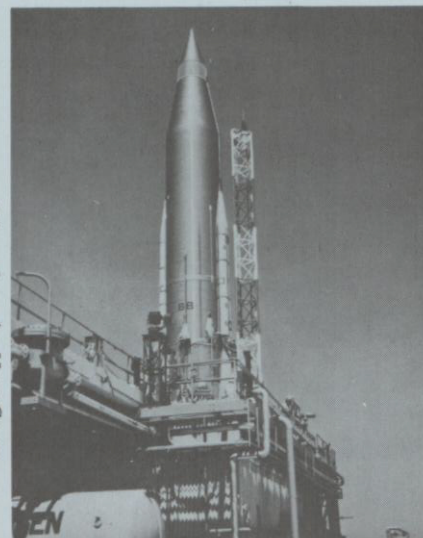
*Battle Simulation System*



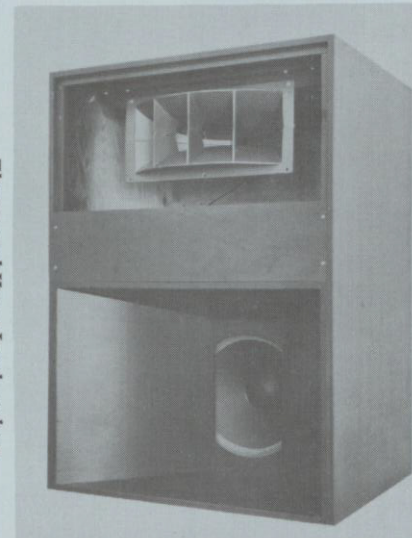
*Submersible Loudspeakers*



*Electro-Pneumatic Transducer*

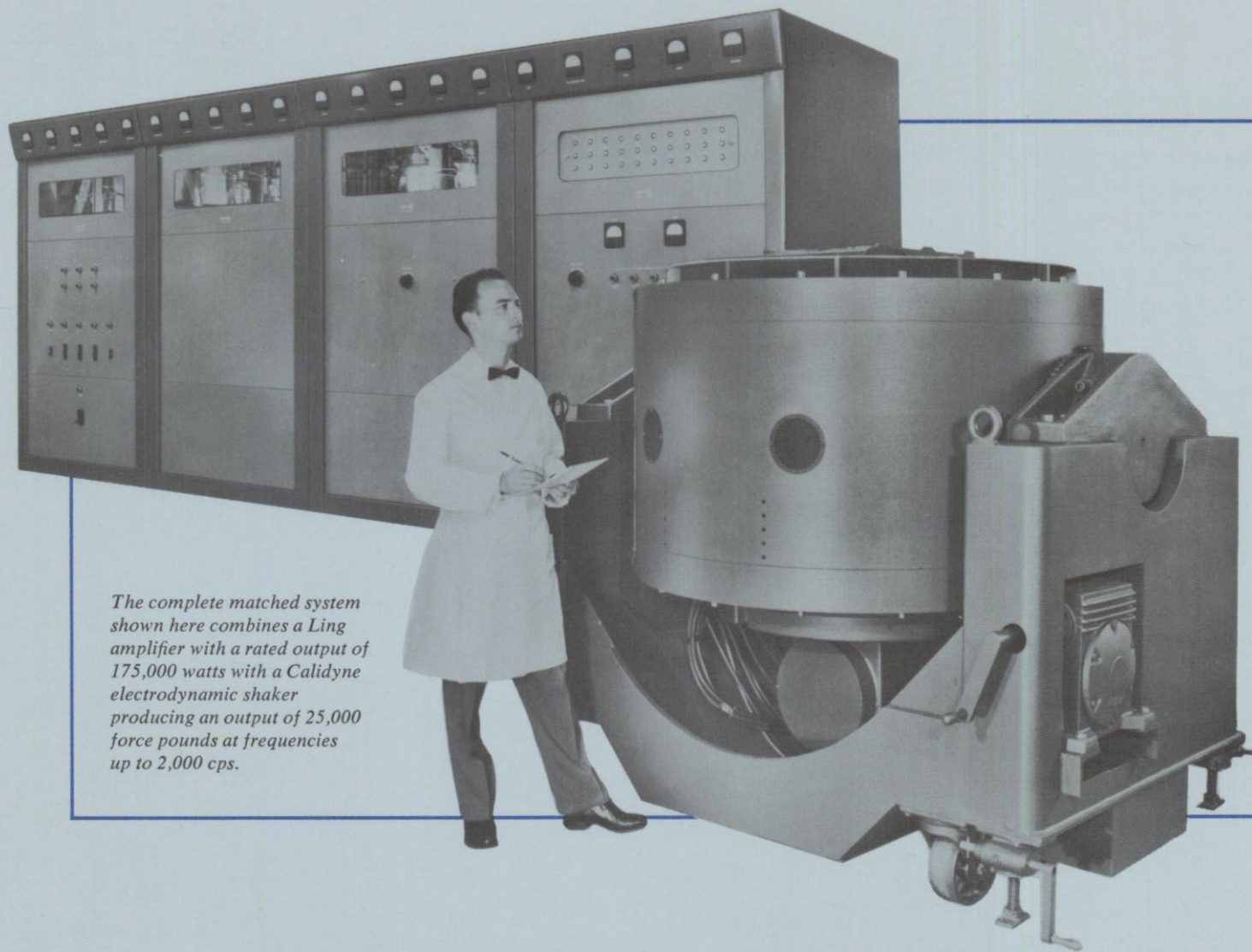


*Microphone for Nose Cones*



*Theater and Home Loudspeakers*





*The complete matched system shown here combines a Ling amplifier with a rated output of 175,000 watts with a Calidyne electrodynamic shaker producing an output of 25,000 force pounds at frequencies up to 2,000 cps.*



# LING-ALTEC

*...today's leading force in*

## ENVIRONMENTAL TESTING

Setting a pattern for rapid growth for the organization, Ling Electronics took an early lead in the development of electronically-driven vibration testing systems. The engineering and manufacturing skills of Ling permitted the power of such testing systems to be multiplied many times over. Calidyne provides a well-established facility for the manufacture of the electrodynamic shakers used in Ling vibration testing systems. The co-operation of Calidyne and Ling permits the organization to offer the field's most completely integrated high power system—Calidyne mechanical shakers and controls built into a matched system with Ling amplifiers and programming equipment. Moreover, the Ling amplifiers which drive vibration test equipment, also drive the Altec Lansing acoustic testing devices—providing a completely versatile testing system. Through the work of the three divisions, illustrated on the next pages, Ling-Altec has now taken a commanding lead in the production of environmental testing systems.





*Reverberant Sound Testing Chamber*



*Equalizer-Analyzer Control and High Power System for Vibration Testing*



**ACOUSTIC TESTING COMPONENTS AND SYSTEMS** Altec Lansing pioneered the development of acoustic testing components which represent a breakthrough in environmental testing. Coupled with Ling electronics driving equipment, the Altec Lansing components generate high intensity sound great enough to simulate the destructive sonic energies produced by jet and rocket engines. Equipment includes:

Plane Wave Tubes to test small components subjected to stress in specific directions at pressure levels to 160 db.

Progressive Wave Systems to test miniature components, capable of generating 170 db sound pressure levels.

Reverberant Chambers to test components or packages 20 cubic feet in size at sound pressure levels as high as 150 db for extensive time periods.

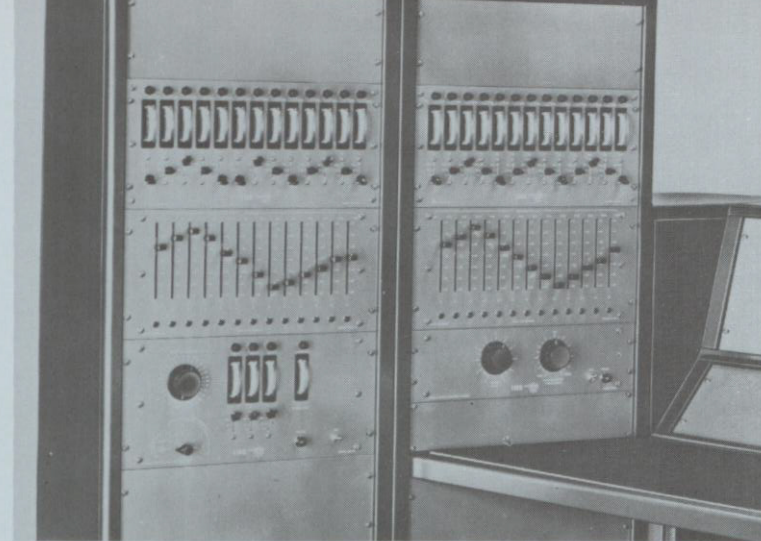
Electro-Pneumatic Transducer on Exponential Horn, tests large apparatus or complete air-frames under free field conditions; levels in excess of 150 db on a sine-wave, random or speech basis can be produced at the mouth of a 6' x 6' horn.

**HIGH POWER ELECTRONICS SYSTEMS** Ling Electronics, a pioneer in the field of environmental testing, specializes in the manufacture of high-power electronic driving systems for both vibration testing and acoustic testing. From its early start with systems operating on a sine-wave pattern, Ling went on to introduce random-wave systems to accurately simulate the unpredictable stresses encountered in space flight. Ling amplifiers with a rated output as high as 300,000 volt-amperes are now available. Ling has also developed a complete line of equalizer, analyzer and control consoles to more accurately simulate stresses of space flight.

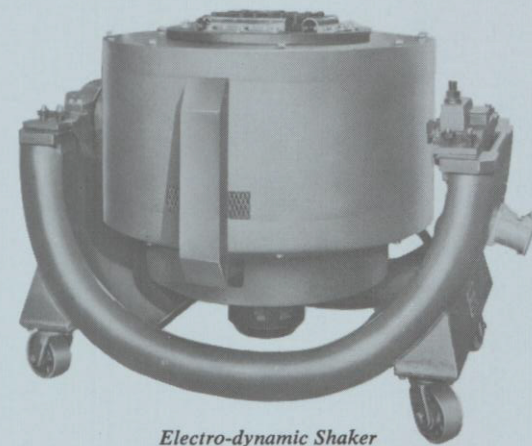
**EQUALIZER-ANALYZER SYSTEM FOR RANDOM TESTING** Another recent breakthrough in random noise vibration testing is the product of Ling Electronics. When a random shaker system is equalized at a low sine wave level the system cannot be assumed linear during the test. Unknown variations can be analyzed rapidly and continuously and corrected immediately even during the test with the Ling Spectral Density Equalizer-Analyzer System.

**ELECTRO-DYNAMIC SHAKERS AND CONTROLS** Calidyne, long a leading manufacturer of electrodynamic shakers for vibration testing, was responsible for many significant developments in this field. Using direct-coupled accelerometers, Calidyne developed a low-frequency displacement system which has been used extensively by the Navy to measure hull vibration. Calidyne also introduced a 24-channel multi-shaker system for structural testing of aircraft, as well as the first power shaker, rated at 450-force pounds output. Calidyne shakers with an output as high as 30,000 force pounds are now available, as well as random-wave systems for use with the equipment by Ling.

**COMPLETE VIBRATION TEST SYSTEM ON WHEELS** Ling Electronics and Calidyne supply a complete vibration testing system—shakers, electronics, and console—housed in a trailer. This unique system provides a mobile method of testing structures too large for ordinary vibration testing laboratories, such as complete airframes and missiles.

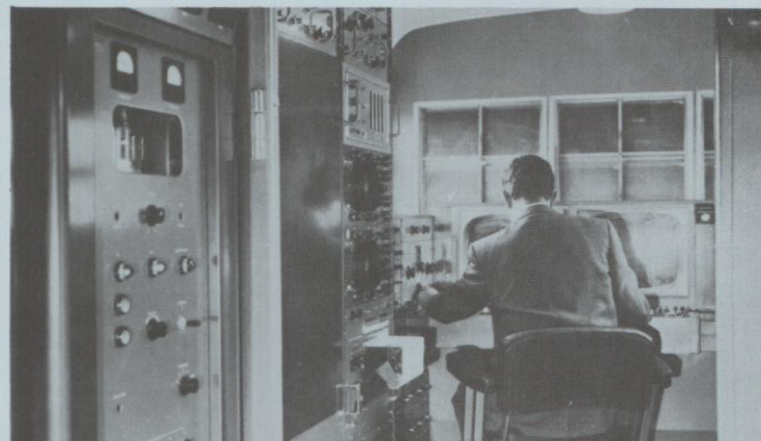


*Equalizer-Analyzer System*

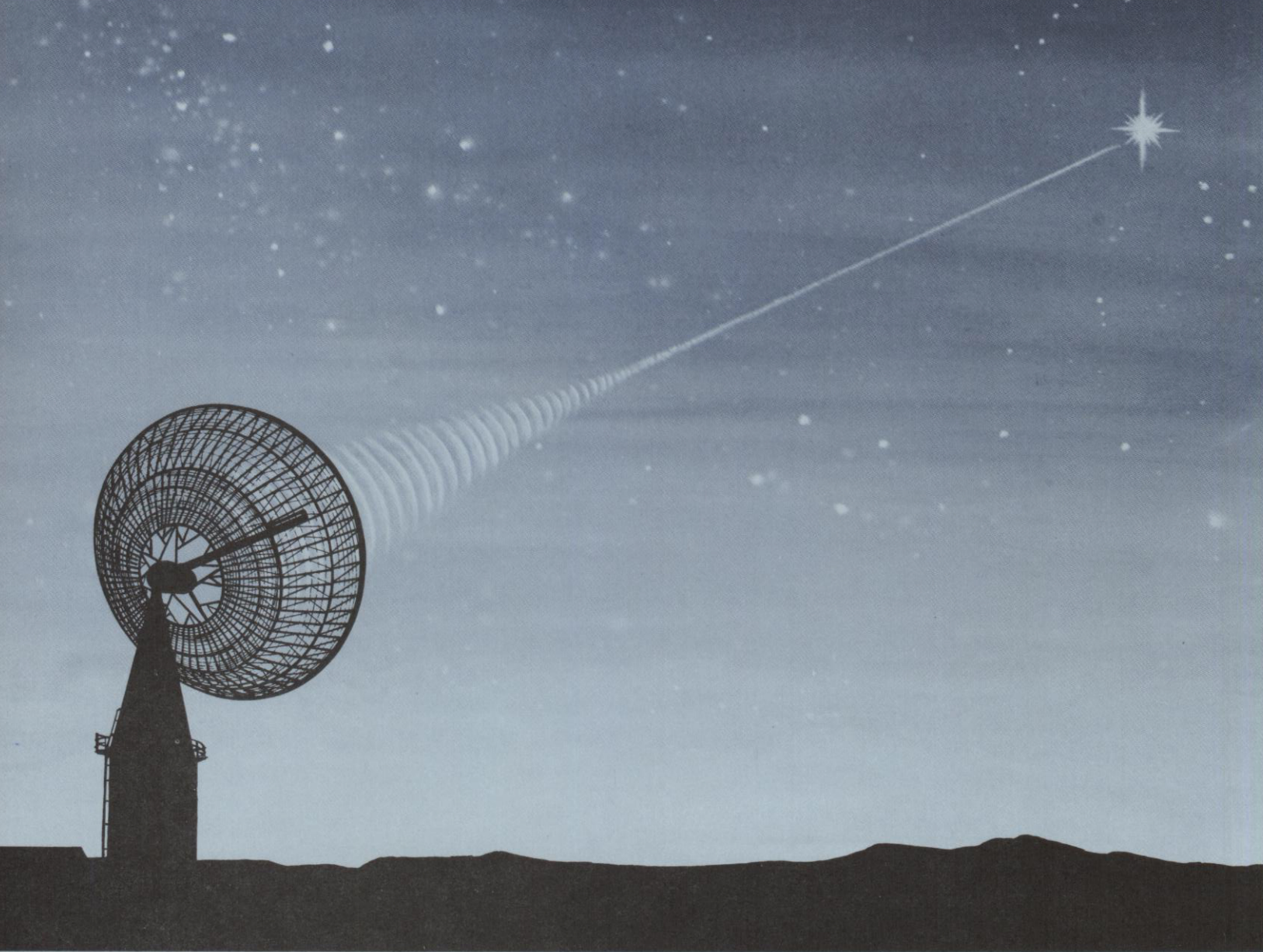


*Electro-dynamic Shaker*

*Mobile Vibration Testing Laboratory*







*Interplanetary Radar Contact*

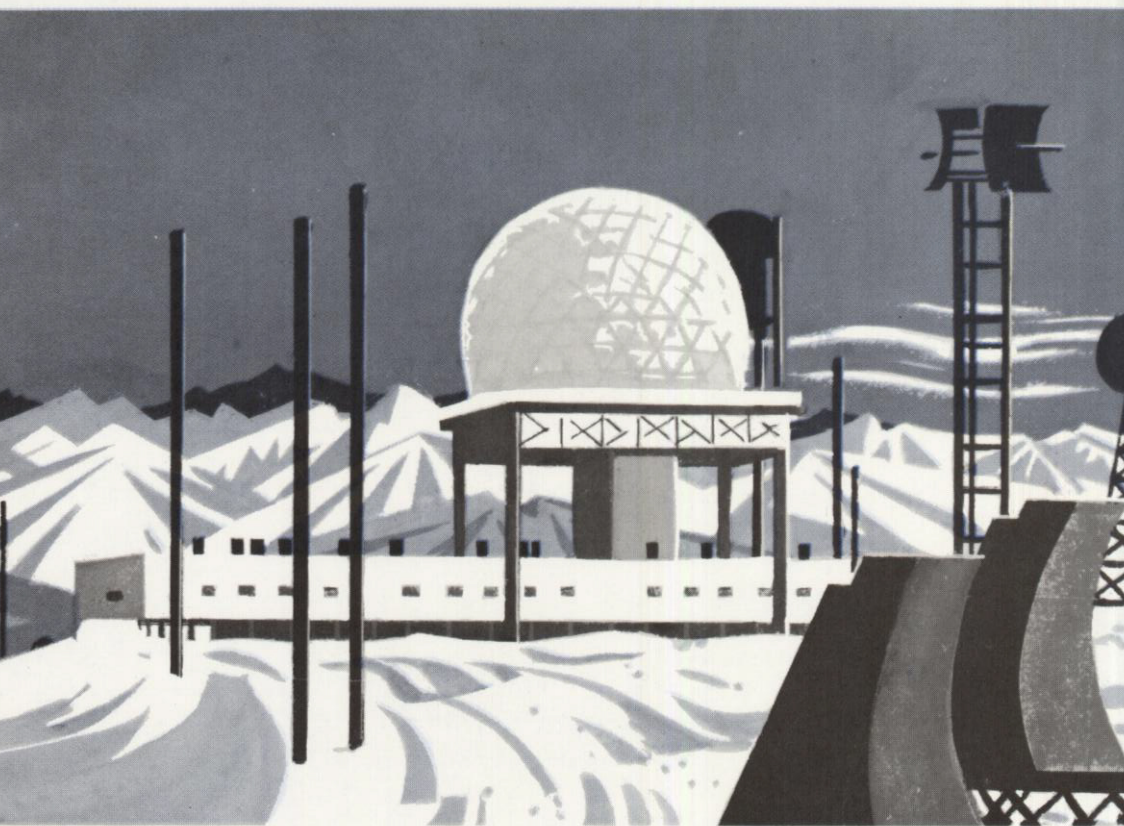


# LING-ALTEC

*...super power electronics for* **RADAR**

In both practical achievements and research programs, Ling-Altec is contributing to the development of radar. Super power electronics supplied by Continental play a vital part in radar systems now in use by both science and the military. The impressive super power of Continental's transmitters is capable of bridging astronomical distances, greatly improving the effective range of radar installations. Through the co-operative work of all its divisions, Ling-Altec is in a position to assume research and development programs as well as manufacturing programs for the components and systems used in radar.



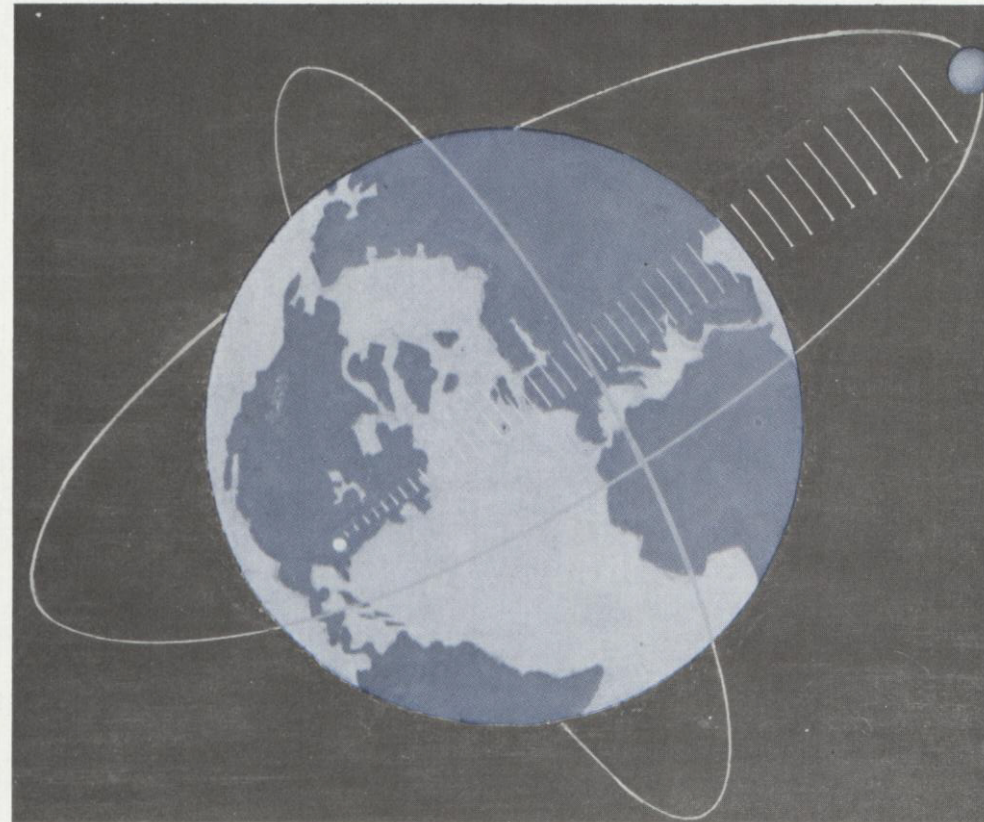




**FIRST RADAR CONTACT WITH THE PLANET VENUS** A radar signal powered by Continental's transmitter was bounced off Venus for a round trip across space of some 56 million miles. The tremendous distances involved in this experiment testify to the great power of the Continental transmitter built for Lincoln Laboratory of Massachusetts Institute of Technology, and indicate the vital part radar can play in space exploration.

**SUPER POWER RADAR TRANSMITTERS FOR DEFENSE** Continental has developed and is manufacturing under contracts from the Air Force, the most powerful radar transmitters ever produced. These transmitters which will operate on the perimeter of the nation, are used in the Ballistic Missile Early Warning System to provide instant detection and warning of attack by enemy Intercontinental Ballistic Missiles.

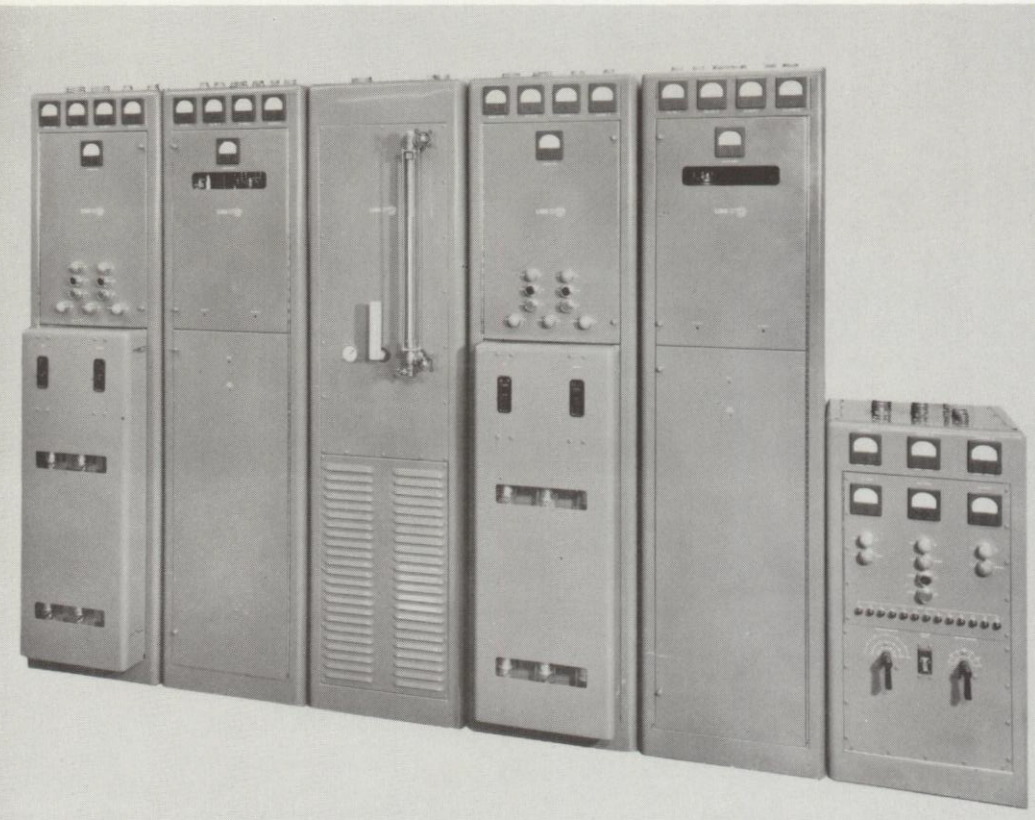
**SATELLITE TRACKING AND SPACE PROBES** The Continental transmitter at the Lincoln Laboratory employing a giant antenna 84 feet in diameter also sees service in other space probes. It has been used to track and record the position of the Satellites launched into orbit around the earth.





# LING-ALTEC

*...contributing to the advance of* **SONAR**



*Compact High Power Sonar Equipment*

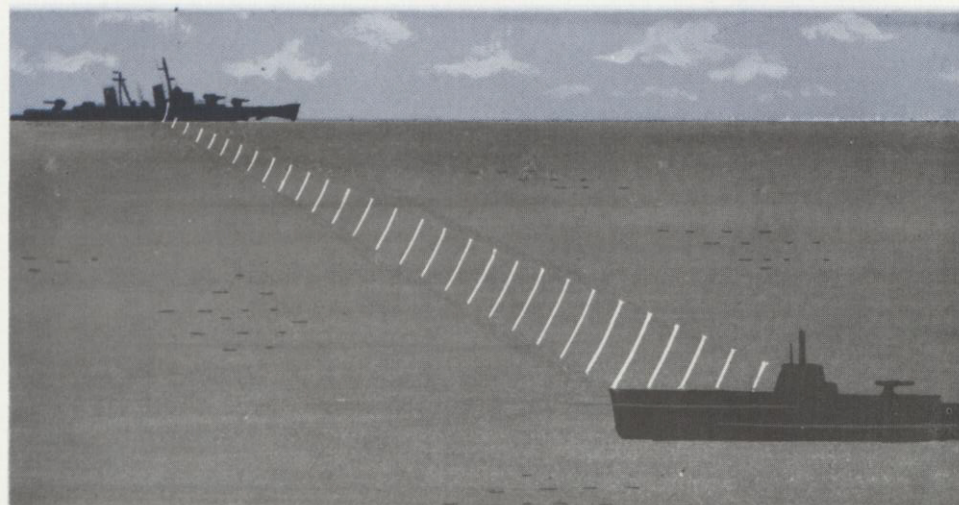
Through the co-operative work of its divisions, Ling-Altec is deeply concerned in the advancement of sonar. The high power amplification equipment developed by Ling Electronics for vibration testing systems has proven value in sonar applications. Continental's work in super power electronics directly complements Ling's work in sonar, where extremely high power is required to exploit recent developments. The company is actively engaged in prime contracts and sub-contracts for the development and production of sonar transmitters, and through the Ling-Altec Research Division is in a position to assume research and development programs.



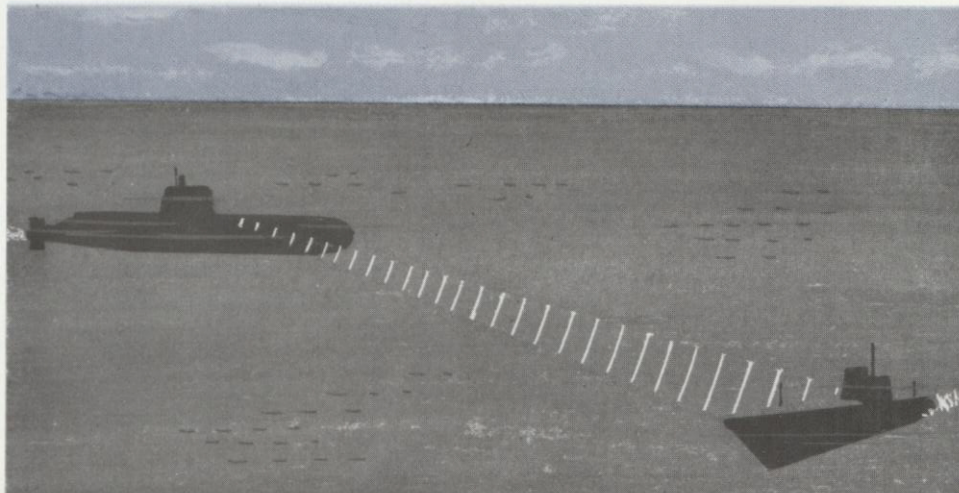
**LIGHTWEIGHT SONAR TRANSMITTERS** Ling Electronics is developing for the Office of Naval Research, a small-size, lightweight, high-power transmitter with application in airborne sonar as well as the more usual surface and sub-surface applications.



**LARGEST SONAR TRANSMITTERS** Concurrent with the project mentioned above, Ling Electronics is now building the largest sonar transmitters yet conceived.



**HIGH POWER ELECTRONICS FOR SUBMARINE SONAR** Ling and Continental electronics are particularly useful in submarine sonar, for they produce super power in compact equipment. Ling electronics gear meets the requirements of miniaturization for submarine applications.



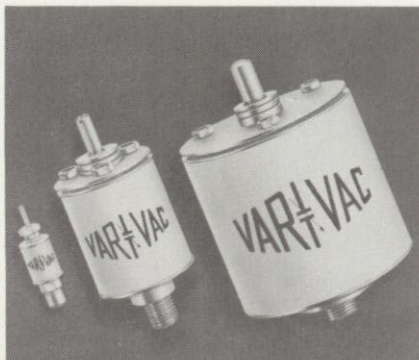


# LING-ALTEC ... a recognized source of ELECTRONIC COMPONENTS

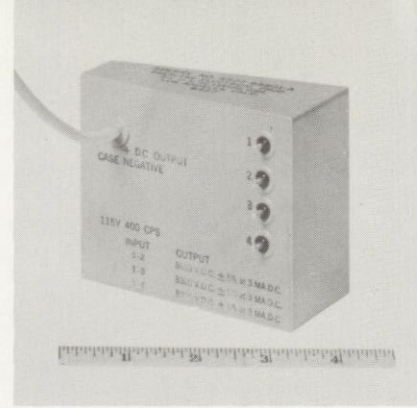
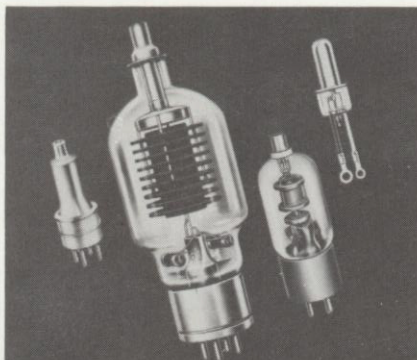
The work of several of its divisions and subsidiaries establishes Ling-Altec as an important source of reliable electronic components for commercial and military application. Ling Electronics and Altec Lansing provide power supplies, amplifiers and preamplifiers, while United Electronics manufactures high power, high vacuum tubes for standard applications as well as special types specified by the military. Peerless Electrical Products manufactures highly specialized power supplies, transformers and rectifiers used in Ling-Altec products and by the electronics and missile industries. Continental provides the electronics industry with unusual high power transmitter accessories not available elsewhere. Altec Lansing and University supply telephone repeaters, microphones and loudspeakers for a variety of applications.



**CERAMIC VARIABLE VACUUM CAPACITORS**  
A new product developed and marketed only recently by United Electronics, the ceramic variable vacuum capacitor, operates at temperatures as high as 500°C., under adverse climatic conditions, a feature which gives it an important place in a variety of missile and high power radio applications.



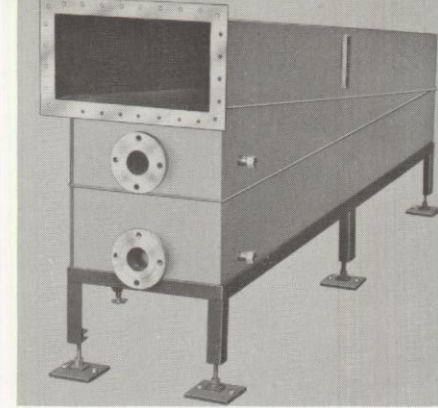
**HIGH-POWER, HIGH-VACUUM TUBES**  
United Electronics unique bonded thoria tungsten core filament tubes have never been duplicated. United's design permits an extremely high peak energy to be produced from smaller unit sizes. United is the nation's only source of a number of tubes specified as preferred by the military and commercial markets.



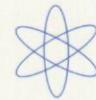
**POWER SUPPLIES, TRANSFORMERS AND RECTIFIERS** In addition to transformers and rectifiers, Peerless provides specialized types of power supplies in unitized housings which are hermetically sealed for high altitude and other unusual environments. Epoxy filled, epoxy cast and oil-filled types, some with input and output completely isolated in the case, operating in ambient temperatures up to 125°C. Ling Electronics provides a series of power supplies used in shaker field excitation and neutralization.

**SEMI-CONDUCTOR POWER GENERATORS**, not shown, capable of producing 10 kilowatts of power at 10 kilocycles per second in a six-inch cube box, have been developed by Ling Electronics. These units have application in any field where high amplification at audio frequencies is required.

**AMPLIFIERS AND PREAMPLIFIERS** Ling Electronics and Altec Lansing provide amplifiers and preamplifiers and compression type amplifiers which find application in commercial, industrial and home power and sound systems.



**COMPONENTS FOR THE ELECTRONICS INDUSTRY** Continental has developed a series of specialized components for its transmitters, modified from conventional designs to function at special voltage, current or power ratings. These include: UHF Coaxial Water Load Units, Waveguide Hybrid Units for 450-MC Band, Waveguide Load Units which convert several megawatts of RF power in the 450-MC region into heat, Medium Frequency Water Load units which dissipate up to 1 megawatt.



**TELEPHONE, MICROPHONE, LOUD-SPEAKER COMPONENTS** Altec Lansing has supplied industry and science with telephone repeaters and conference amplifiers, microphones for sound measurement, public address and professional use, while University and Altec Lansing both supply loudspeakers and driving equipment for many fields.



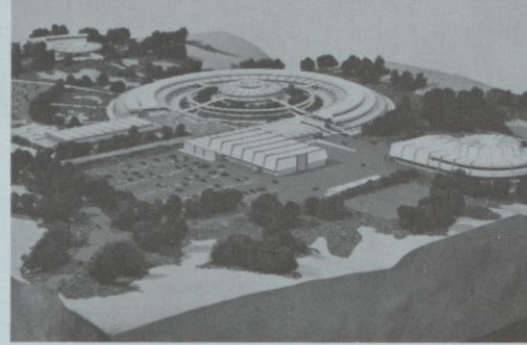


# LING-ALTEC

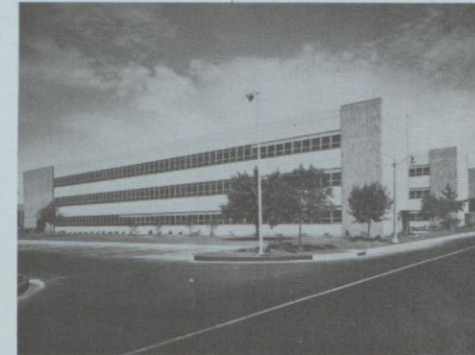
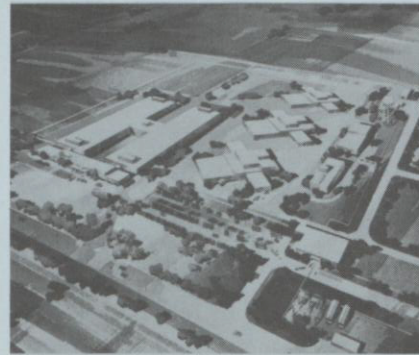
## ...a complete ELECTRICAL CONTRACTING SERVICE

Through two divisions, Ling Electric of Richardson, Texas and Grady-Ling Electric of Glendale, California, the company adds an all-important dimension to its capabilities. Both companies boast exceptional records in electrical contracting, having executed a number of important projects for private enterprise and the government—including prime contracts in the missile, aircraft and electronics fields. The combined talents of both companies can be put to work on any electrical problem. Their skills in electrical engineering, design and installation provide a unique facet to the company capability in that the two divisions are equipped to install the electrical support needed for many of the complex electronics systems produced by the company. Just a few of the hundreds of installations executed by Ling-Altec are listed below.

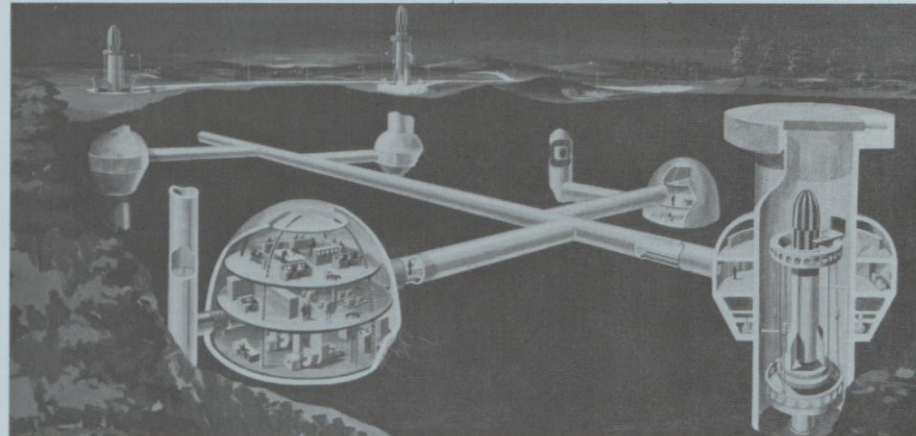
1. General Atomic's John Jay Hopkins Laboratory for Pure and Applied Science: electrical contracting, Grady-Ling Electric, Inc.
2. Mayflower Building, Dallas, Texas: electrical contracting, Ling Electric, Inc.
3. Animal Disease Center: electrical contracting, Ling Electric, Inc.
4. Long Beach Memorial Hospital, Long Beach, California: electrical contracting, Grady-Ling Electric, Inc.
5. Titan Underground Project: electrical contracting, Ling Electric, Inc.
6. Jet Propulsion Laboratory at California Institute of Technology: electrical contracting, Grady-Ling Electric, Inc.
7. General Telephone Company, Santa Monica, California: electrical contracting, Grady-Ling Electric, Inc.



1 2



3 4



5 Artist's Conception, Courtesy Westinghouse

6 7





10 PLANTS...

2 SERVICE ORGANIZATIONS

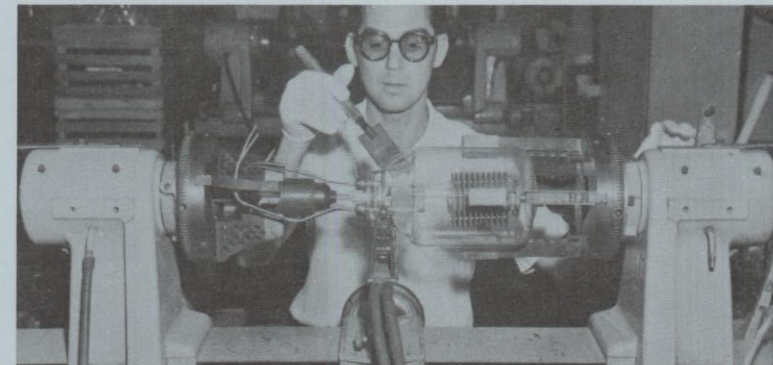
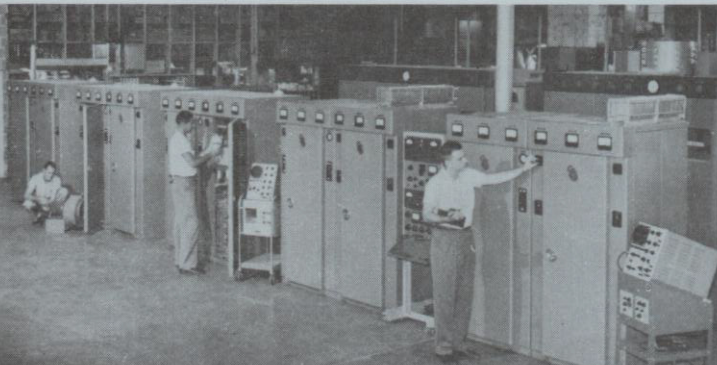
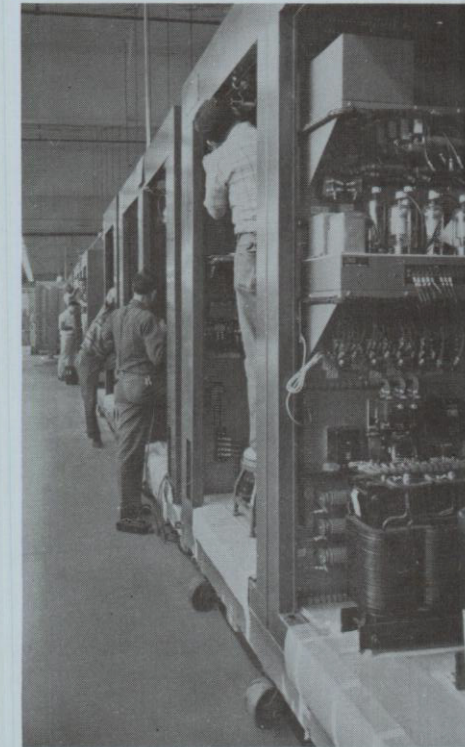
2 ELECTRICAL CONTRACTORS



From the company's modern headquarters in Anaheim to the other plants across the nation, Ling-Altec facilities reflect the emphasis the company places on sound planning. Ten plants, with floor space totaling some 470,000 square feet, are designed for flexibility—to meet the demands of the work and the future. Each is equipped to handle design, development and manufacturing, with most plants handling their own machining, metal fabricating, and component assemblies. Because of the complex nature of the products, quality control and final testing procedures are inherent in the process. All required technical manuals and specifications are produced by the organization's own publications department.

Altec Service Company and the Ling-Altec Service Division provide two nation-wide networks of offices for the service and maintenance of Ling-Altec products. The former serves consumer, commercial sound, theatre and broadcast equipment. The latter serves environmental test and other high power electronic equipment. Representatives from 71 strategically located offices and an overseas group periodically receive training which enables them to keep abreast of new developments.

Ling Electric and Grady-Ling Electric, in addition to offering design, engineering and electrical installation service on an independent basis, also supply the installations to support the systems contracts of the company.





**LING-ALTEC ELECTRONICS, INC.  
AND SUBSIDIARIES  
STATEMENT OF  
CONSOLIDATED EARNINGS** — *Note A*

*Year ended December 31, 1959*

Net sales . . . . .		\$48,086,785
Cost of sales . . . . .		<u>39,769,744</u>
		\$ 8,317,041
 Selling, administrative and general, and engineering expenses . . . . .		 <u>5,197,307</u> \$ 3,119,734
 Other income:		
Profit on sale of capital assets . . . . .	\$446,634	
Other . . . . .	<u>128,415</u>	<u>575,049</u>
		\$ 3,694,783
 Other deductions:		
Interest expense (includes \$218,639 on long-term debt) . . . . .	\$471,458	
Other . . . . .	<u>83,686</u>	<u>555,144</u>
<b>EARNINGS BEFORE INCOME TAXES</b>		<b>\$ 3,139,639</b>
 Federal and state taxes on income — estimated		 <u>1,273,173</u>
<b>NET EARNINGS</b>		<b><u>\$ 1,866,466</u></b>
 Provision for depreciation of property, plant, and equipment for the year amounted to \$494,470.		

*See notes to financial statements.*

**ERNST & ERNST**  
CERTIFIED PUBLIC ACCOUNTANTS  
FIRST NATIONAL BANK BUILDING  
DALLAS 2, TEXAS

Board of Directors,  
Ling-Altec Electronics, Inc.,  
Dallas, Texas.

We have examined the consolidated financial statements of Ling-Altec Electronics, Inc. and subsidiaries for the year ended December 31, 1959. 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.

In our opinion, the accompanying balance sheet and statements of earnings, capital surplus and retained earnings present fairly the consolidated financial position of Ling-Altec Electronics, Inc. and subsidiaries at December 31, 1959, and the consolidated results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

*Ernst & Ernst*  
Certified Public Accountants

Dallas, Texas  
March 7, 1960



# LING-ALTEC ELECTRONICS, INC. AND SUBSIDIARIES

## CONSOLIDATED BAL

### ASSETS

	<i>December 31</i> <i>1959</i>	<i>December 31</i> <i>1958</i>
<b>CURRENT ASSETS</b>		
Cash and United States Treasury securities — Note B . . . . .	\$ 1,874,053	\$ 1,160,656
Trade receivables — Note B . . . . .	\$10,451,296	\$ 3,679,203
Less allowances for doubtful receivables . . . . .	76,336	48,588
	<u>\$10,374,960</u>	<u>\$ 3,630,615</u>
Unbilled contract work in progress . . . . .	1,228,513	590,505
Inventories, at average cost, not in excess of market — Note B:		
Materials and purchased parts . . . . .	\$ 2,355,298	\$ 1,382,726
Work in process . . . . .	5,273,136	1,077,655
Finished product . . . . .	1,734,373	859,335
	<u>\$ 9,362,807</u>	<u>\$ 3,319,716</u>
Less applicable advances from customers on contracts . . . . .	114,620	9,164
	<u>\$ 9,248,187</u>	<u>\$ 3,310,552</u>
Prepaid expenses . . . . .	148,497	99,631
<b>TOTAL CURRENT ASSETS</b> . . . . .	<u>\$22,874,210</u>	<u>\$ 8,791,959</u>
<b>INVESTMENTS AND OTHER ASSETS</b>		
Mortgage notes receivable . . . . .	\$ 747,493	\$ — 0 —
Investments in and advances to affiliated companies . . . . .	128,419	162,308
Investments in real estate — at cost . . . . .	189,541	577,027
Miscellaneous receivables, securities, etc. . . . .	136,294	157,932
<b>TOTAL INVESTMENTS AND OTHER ASSETS</b> . . . . .	<u>\$ 1,201,747</u>	<u>\$ 897,267</u>
<b>PROPERTY, PLANT, AND EQUIPMENT — at cost — Note C</b>		
Land . . . . .	\$ 322,907	\$ 330,982
Buildings . . . . .	1,770,686	1,117,604
Machinery and equipment, etc. . . . .	4,488,244	2,234,126
	<u>\$ 6,581,831</u>	<u>\$ 3,682,712</u>
Less allowances for depreciation . . . . .	1,470,866	770,264
<b>TOTAL PROPERTIES — NET</b> . . . . .	<u>\$ 5,110,965</u>	<u>\$ 2,912,448</u>
<b>INTANGIBLES</b>		
Excess of investment in subsidiaries over net assets acquired, less amortization . . . . .	\$ 3,031,762	\$ 347,652
Patents . . . . .	61,164	1
<b>TOTAL INTANGIBLES</b> . . . . .	<u>\$ 3,092,926</u>	<u>\$ 347,653</u>
<b>DEFERRED CHARGES</b>		
Unamortized debt expense . . . . .	\$ 191,172	\$ 129,084
Unamortized research and development costs . . . . .	59,383	76,461
<b>TOTAL DEFERRED CHARGES</b> . . . . .	<u>\$ 250,555</u>	<u>\$ 205,545</u>
	<u>\$32,530,403</u>	<u>\$13,154,872</u>



# FINANCIAL STATEMENTS — Note A

## LIABILITIES AND STOCKHOLDERS' EQUITY

	<i>December 31</i> <i>1959</i>	<i>December 31</i> <i>1958</i>
<b>CURRENT LIABILITIES</b>		
Notes payable to banks — Note B . . . . .	\$ 7,200,988	\$ 1,385,202
Notes payable to others . . . . .	62,500	38,250
Accounts payable, etc. . . . .	5,226,082	1,429,807
Accrued compensation, taxes, interest, etc. . . . .	1,012,225	528,532
Federal and state taxes on income — estimated . . . . .	1,394,386	338,600
Current portion of mortgage notes payable — Note C . . . . .	217,293	56,264
<b>TOTAL CURRENT LIABILITIES . . . . .</b>	<b>\$15,113,474</b>	<b>\$ 3,776,655</b>
<b>LONG-TERM DEBT</b>		
Mortgage notes payable, less installments due within one year — Note C . . . . .	\$ 351,420	\$ 149,750
5½% note payable to individual, due September 9, 1961 . . . . .	62,500	— 0 —
5½% subordinated convertible debentures, due September 1, 1970 — Note D . . . . .	2,200,000	2,200,000
5¾% subordinated convertible debentures, due December 1, 1970 . . . . .	— 0 —	922,500
6% Senior notes, due December 1, 1974 — Note E . . . . .	5,000,000	— 0 —
<b>TOTAL LONG-TERM DEBT . . . . .</b>	<b>\$ 7,613,920</b>	<b>\$ 3,272,250</b>
<b>RESERVE</b>		
For deferred federal taxes on income . . . . .	10,400	4,900
<b>STOCKHOLDERS' EQUITY</b>		
6% Cumulative convertible preferred stock, par value \$1.00 a share — Note F:		
Authorized 1,000,000 shares;		
Issued — 36,953 shares in 1959, and 822,911 shares in 1958 . . . . .	\$ 36,953	\$ 822,911
Common stock, par value \$0.50 a share — Notes D, E, F, and G:		
Authorized — 3,000,000 shares in 1959, and 2,000,000 shares in 1958		
Issued — 1,610,820 shares in 1959, and 1,362,628 shares in 1958 . . . . .	805,410	681,314
Capital surplus . . . . .	4,316,215	1,749,810
Retained earnings — Note E . . . . .	4,634,693	2,847,707
	<u>\$ 9,793,271</u>	<u>\$ 6,101,742</u>
Less cost of shares held in treasury:		
1959 — 58 shares of common stock; 1958 — 135 shares of preferred stock and 45 shares of common stock	662	675
	<u>\$ 9,792,609</u>	<u>\$ 6,101,067</u>
<b>TOTAL STOCKHOLDERS' EQUITY . . . . .</b>	<b>\$32,530,403</b>	<b>\$13,154,872</b>

See notes to financial statements.



# LING-ALTEC ELECTRONICS, INC. AND SUBSIDIARIES

## STATEMENTS OF CONSOLIDATED CAPITAL SURPLUS AND RETAINED EARNINGS—*Note A*

*Year ended December 31, 1959*

### CAPITAL SURPLUS

Balance at beginning of year:		
Ling Electronics, Inc. and subsidiaries . . .	\$1,198,269	
Altec Companies, Inc. and subsidiaries . . .	551,541	\$1,749,810
<hr/>		
Excess of principal amount over par value of common shares issued upon conversion of 5¾% convertible subordinated debentures, less \$90,660 unamortized expense, etc. . . .	\$ 796,399	
Excess of par value of preferred stock over par value of common shares issued upon conversion of 6% cumulative convertible preferred stock, less \$19,294 paid for fractional shares . . . . .	727,888	
Excess over par value of proceeds from sale of common stock under option plan . . . . .	801,889	
Excess of market value over par value of common shares issued upon acquisition of subsidiary company . . . . .	235,000	
Credits from sundry other capital transactions . . . . .	5,229	2,566,405
<hr/>		
Balance at end of year . . . . .		<u>\$4,316,215</u>

### RETAINED EARNINGS

Balance at beginning of year:		
Ling Electronics, Inc. and subsidiaries . . .	\$ 334,888	
Altec Companies, Inc. and subsidiaries . . .	2,512,819	\$2,847,707
Add net earnings for the year . . . . .		<u>1,866,466</u>
<hr/>		
Deduct dividends paid:		\$4,714,173
On 6% cumulative convertible preferred stock \$0.06 a share . . . . .	\$ 45,980	
On Altec Companies, Inc., prior to acquisition . . . . .	33,500	79,480
<hr/>		
Balance at end of year— <i>Note E</i> . . . . .		<u>\$4,634,693</u>

*See notes to financial statements.*

## NOTES TO FINANCIAL STATEMENTS

*December 31, 1959*

### NOTE A — ACQUISITION OF ALTEC COMPANIES, INC.

During March, 1959, the Company acquired substantially all of the outstanding capital stock of Altec Companies, Inc. This acquisition has been considered a pooling of interests for accounting purposes, and accordingly consolidated net earnings for 1959 include the results of operations of Altec Companies, Inc. and subsidiaries for the entire year. The consolidated balance sheet at December 31, 1958, includes the accounts of Altec Companies, Inc. and subsidiaries.

### NOTE B — NOTES PAYABLE TO BANKS

At December 31, 1959, accounts receivable aggregating \$4,743,793 have been assigned by the Company and a subsidiary as collateral for bank loans aggregating \$4,538,546, inventories of work in process amounting to \$1,250,000 have been pledged as collateral on bank loans aggregating \$750,000, and United States Treasury securities of a subsidiary in the amount of \$750,000 have been pledged as collateral on a bank loan of \$750,000.

### NOTE C — MORTGAGE NOTES PAYABLE

Mortgage notes (5%) aggregating \$533,333 have the pledge of machinery and equipment carried at \$818,167. These notes are payable \$53,333 quarter-annually, the final installments being due June 3, 1962.

A mortgage note (5%) in the amount of \$35,380 has the pledge of improved real estate carried at \$64,777, and is payable in monthly installments aggregating \$3,960 annually, the final installment being due December 10, 1968.

### NOTE D — SUBORDINATED CONVERTIBLE DEBENTURES

The 5½% debentures are convertible into common stock at an initial conversion price of \$10 per share, and require prepayments commencing September 1, 1962, for redemption of debentures not converted. At December 31, 1959, the Company had reserved 220,000 shares of common stock for conversion of the debentures.

### NOTE E — 6% SENIOR NOTES, AND DIVIDEND RESTRICTIONS

The notes carry warrants to purchase 50,000 shares of common stock at a price of \$33 per share, and require prepayments commencing December 1, 1965. At December 31, 1959, the Company had reserved 50,000 shares of common stock for sale to warrant holders. The loan agreement under which the senior notes were sold in December, 1959, contains requirements as to the maintenance of working capital and certain restrictions as to the payment of dividends. At December 31, 1959, unrestricted consolidated retained earnings amounted to \$1,310,997.

### NOTE F — 6% CUMULATIVE CONVERTIBLE PREFERRED STOCK

The preferred stock was called for redemption as of September 30, 1959, at \$1.05 per share plus accrued dividends. A specified expiration date for exercising the right to convert the preferred stock into common stock on the basis of one share of common stock for each ten shares of preferred, was subsequently extended to February 29, 1960, at which time 2,148 shares of preferred stock remained outstanding. As of December 31, 1959, 3,695 shares of common stock were reserved for conversion of the preferred stock.

### NOTE G — OPTIONS TO PURCHASE COMMON STOCK

The Company has a plan for the granting of restricted stock options to officers and employees of the Company and its subsidiaries and at December 31, 1959, had 142,790 shares of common stock reserved for such plan. At December 31, 1959, there were 115,320 shares issuable at option prices aggregating \$2,364,773. During the year ended December 31, 1959, there were 100,000 additional shares of common stock reserved; 99,290 shares issued at option prices aggregating \$851,534; options for 14,250 shares were cancelled and options were granted for 134,580 shares aggregating \$2,689,315. Unoptioned shares at December 31, 1959, aggregated 27,470 shares.

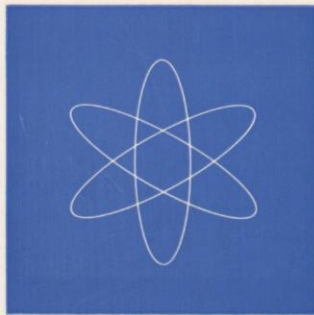


**LING-ALTEC  
DIVISIONS  
AND  
SUBSIDIARIES**

**LING-ALTEC ELECTRONICS, INC.**  
**P. O. BOX 8023** **DALLAS 5, TEXAS**

- **LING ELECTRONICS DIVISION**  
1515 South Manchester, Anaheim, California
- **LING-ALTEC RESEARCH DIVISION**  
1515 South Manchester, Anaheim, California
- **CONTINENTAL ELECTRONICS MANUFACTURING COMPANY, INC.**  
4212 South Buckner Boulevard, Dallas 27, Texas
- **ALTEC LANSING CORPORATION**  
1515 South Manchester, Anaheim, California
- **PEERLESS ELECTRICAL PRODUCTS DIVISION**  
6920 South McKinley Avenue, Los Angeles 1, California
- **THE CALIDYNE COMPANY, INC.**  
120 Cross Street, Winchester, Massachusetts
- **UNITED ELECTRONICS COMPANY**  
42 Spring Street, Newark 4, New Jersey
- **UNIVERSITY LOUDSPEAKERS, INC.**  
80 S. Kensico Avenue, White Plains, New York
- **THE ELECTRON CORPORATION**  
P.O. Box 5570, Dallas, Texas
- **LING ELECTRIC, INC.**  
P.O. Box 5529, Dallas, Texas
- **GRADY-LING ELECTRIC, INC.**  
345 W. Cypress Street, Glendale 4, California
- **LING-ALTEC SERVICE DIVISION**  
161 Sixth Avenue, New York 13, New York
- **ALTEC SERVICE COMPANY**  
161 Sixth Avenue, New York 13, New York
- **LING-ALTEC WESTERN HEMISPHERE CORPORATION**  
161 Sixth Avenue, New York 13, New York
- **LING-ALTEC EXPORT CORPORATION**  
161 Sixth Avenue, New York 13, New York
- **WASHINGTON, D. C. OFFICE**  
Investment Building, 1511 K Street, N.W.





**LING-ALTEC ELECTRONICS, INC.**

**DALLAS, TEXAS**