

Ampex Headquarters

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AMPEX

1967

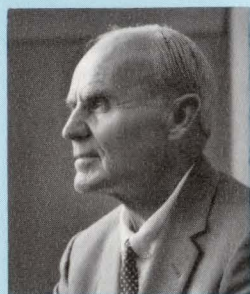


AMPEX

1967



WILLIAM E. ROBERTS
President and Chief Executive Officer



ALEXANDER M. PONIATOFF
Founder and Chairman of the Board

FOUNDED in 1944 by Alexander M. Poniatoff, Ampex Corporation is a worldwide organization of approximately 12,000 people with manufacturing plants, offices and sales, service and supply facilities located throughout the Free World. The name AMPEX is derived from Mr. Poniatoff's initials, plus "EX" for excellence.

The company was originally formed to develop and manufacture advanced electric motors and generators for use in World War II airborne radar systems. These activities were suspended at the war's end, when the company began pioneering work in the field of magnetic recording.

Now headed by William E. Roberts, President and Chief Executive Officer, Ampex today has diversified worldwide operations in all phases of magnetic recording and tape, computer memories and systems, document storage and retrieval, geophysical exploration and photoelectric color sorting equipment.

Headquartered in Redwood City, California, Ampex also has manufacturing facilities in Culver City, California; Colorado Springs, Colorado; Houston, Texas (Mandrel); Opelika, Alabama; Elk Grove Village, Illinois; Reading, England; Nivelles, Belgium; Hong Kong; Tokyo, Japan; Toronto, Ontario, and Calgary (Mandrel), Alberta, Canada; Sao Paulo, Brazil (Mandrel).

Ampex sales for fiscal 1967 were \$214,746,000, earnings \$10,321,000. Sales have risen an average of 17 percent and net earnings an average of 21 percent during the past five years. For the total five year period, sales have risen 116 percent and earnings 160 percent. Twenty-eight percent of current sales are international; less than 20 percent are to the U.S. government. The Corporation has more than 50 thousand shareholders.

FIELDS OF INTEREST

Sound Recording

In 1947, Mr. Poniatoff and his associates developed the first professional quality magnetic tape recorder, which revolutionized radio broadcasting methods and made possible "high fidelity" music. For the first time, radio programs could be recorded in advance, with quality undistinguishable from the original. They could then be edited, supplemented and broadcast at will to meet time and policy requirements.

Today, Ampex professional tape recorders are used for making master recordings for phonograph records and stereo tapes and in radio stations throughout the Free World. Specialized Ampex audio recorders are widely used in industry and education for training and communications. Ampex consumer stereo recorders, music systems, speakers and accessories are recognized leaders in the growing home entertainment field. The company also is the leading producer of recorded stereo tapes for home and auto listening.



Home stereo tape recorder/AM-FM receiver combination.

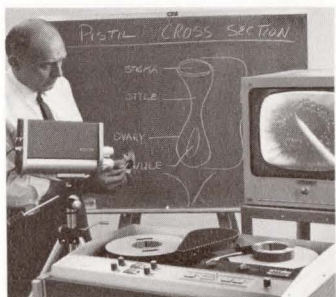
Instrumentation Recording

High quality sound recording was a first step in the development of today's broad and diversified magnetic recording industry, of which Ampex has consistently played a leading role. Technical capabilities of the early commercial sound recorder led Ampex to develop the versatile instrumentation recorder, which has become an essential tool in space exploration, defense, industry and medicine.

Instrumentation recorders were originated by Ampex to analyze the complex stresses in aircraft structures. A wide range of data could be recorded simultaneously on a single recording device, dramatically reducing the cost and risk of human life involved in test flights.

Since then, the complicated needs of space technology

High band color broadcast videotape recorder.



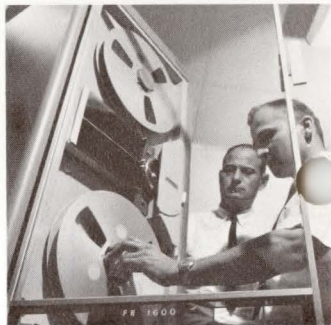
Compact, portable closed circuit videotape recorder for industry, education and government.

have depended on advanced instrumentation recorders for storing and analyzing information radioed to earth from space vehicles. Each step forward in space exploration has been made from a base of such knowledge stored on magnetic tape.

Many other uses of instrumentation recording are now being made in industry, medicine and scientific research. In the future, industrial and commercial uses are expected to grow at a much faster rate than those in defense and space exploration. Ampex products are at the forefront of this expanding field.

Computer Memories

Another major use of magnetic recording is in the storage and handling of information used in modern computers and data processing systems. Most information used by computers today is stored on magnetic tape for use as needed by the central processor. Magnetic tape devices represent the best means of storing large quantities of in-



High performance instrumentation recorder.

formation and making it readily available to the computer.

Another means of storing and relaying information to the central computer processor is the magnetic core memory, consisting of minute metallic rings wired together. Each ring measuring as little as 18 thousandths of an inch in diameter, stores one unit of information. Core memories employ a different technology and permit greater speed, but less capacity than tape memories. Most computers use both tape and core memories.

Ampex is a leader in the development and manufacture of both core and tape memory systems and components for the data processing industry.

Video Recording

One of the most dramatic developments in magnetic recording technology has been the videotape recorder, which records moving pictures as well as sound on magnetic tape for immediate playback without processing. Ampex invented practical television recording with the original videotape recorder in 1956 and has supplied a majority of all television recorders in use today.

The first videotape recorder revolutionized television broadcasting, much as the first audio tape recorder altered the radio broadcasting industry. Today, more than half the programs seen on television are on video tape.

Again, as in the case of sound recording, broadcasting



Viewing console of a Videofile document filing and retrieval system.

was only the first use of video recording. Closed circuit television recording is flourishing in education, industry, medicine, government, sports and many other fields today as a result of the development of lightweight and lower cost videotape recorders. Ampex is the only company offering a complete line of videotape recorders and accessories that range from the most advanced profes-

sional equipment to small, relatively inexpensive portable units for personal use.

Over the next few years, home recording of TV programs, sports or family activities that can be played back immediately through the home TV set or stored on tape for future use will be common.

Automating the File Cabinet

The Videofile* document filing and retrieval system, an outgrowth of Ampex video recording technology, promises to revolutionize large filing operations in commerce, industry and government. It is useful wherever very large heavily-used files of documents exist.

The system stores documents on video tape, making them available at the touch of a button either as hard copies or as images on a TV screen. Documents may be viewed or printed out at the central station or at locations thousands of miles distant, and several people can view the same information simultaneously.

Business records may be filed, retrieved, erased, replaced or refiled electronically within the Videofile system in seconds. Correspondence, printed matter, photographs, engineering drawings and graphic material of all kinds can be recorded permanently on the Videofile system's magnetic tape at great savings in space, time and cost.

Magnetic Tape

Ampex is the only company developing and manufacturing magnetic tape and recorders for every major application in sound recording, instrumentation recording, computer data storage and television recording. As a result, customers are assured of high quality tapes specifically developed for use with each type of magnetic recording device. At the same time, development of recording equipment takes place in close relationship to the state of the art in magnetic tape technology.

Geophysical Exploration

Mandrel Industries, Inc., an Ampex subsidiary, is a leading firm in the field of geophysical exploration. It contracts to locate new petroleum and mineral deposits and manufactures geophysical sensing and recording equipment for various oil companies. Mandrel exploration crews are employed widely throughout the Free World, working on land and sea.

Through an operational subsidiary, Geoscience, Inc., Mandrel also provides equipment and survey crews for the mining industry and carries out research and development projects in the earth sciences for industry and government agencies, here and abroad.

The techniques and equipment Mandrel has developed for its tasks are finding application in newer geophysical

Ampex tape duplicators produce Ampex stereo tapes.



Large capacity memory stack for a computer.

areas, such as exploration for other minerals and oceanology. The combination of Mandrel's skills in exploration and Ampex's technical capability in digital recording and data processing are helping to accelerate the critically important understanding of the earth and its oceans.

Food Processing

Mandrel is also the world's leading manufacturer of automated sorting machinery, with which grades of foodstuffs and other commodities may be distinguished and separated by color variations at very high speeds. The techniques employed in this equipment point the way to further developments in increasing human efficiency.

Research and Development

A firm base for continued Ampex growth and leadership is the company's research and development program. Over the past six years, more than \$82 million has been invested in research, engineering and development of new techniques and products. More than 70 percent of this total has been Ampex funded; the balance consists of contract

research and engineering, primarily to meet advanced government requirements.

A measure of the success of these research and development activities is the flow of innovative Ampex products to market. In the past four years, Ampex has introduced more than 150 new products. These products alone accounted for some 67 percent of the company's sales in fiscal year 1967.



Ampex mobile television recording and production studio.

In addition to magnetic recording development, Ampex is conducting research programs involving a variety of new techniques for recording, storing, reproducing and analyzing information. Ampex scientists have made significant developments in electron beam recording, advanced techniques that promise to allow the storage of vast amounts of information in far less space than is possible with existing methods. Magnetic thin films and laser recording are other fields undergoing study.

THE FUTURE

Ampex sees no limit to future progress, for the fields it already has entered are among the most vital to continuing human progress. It has contributed substantially to widening horizons of man's life and knowledge. Ampex is well equipped and determined to extend its participation in the pioneering of the future, with emphasis on dedication to research, to quality and to service.