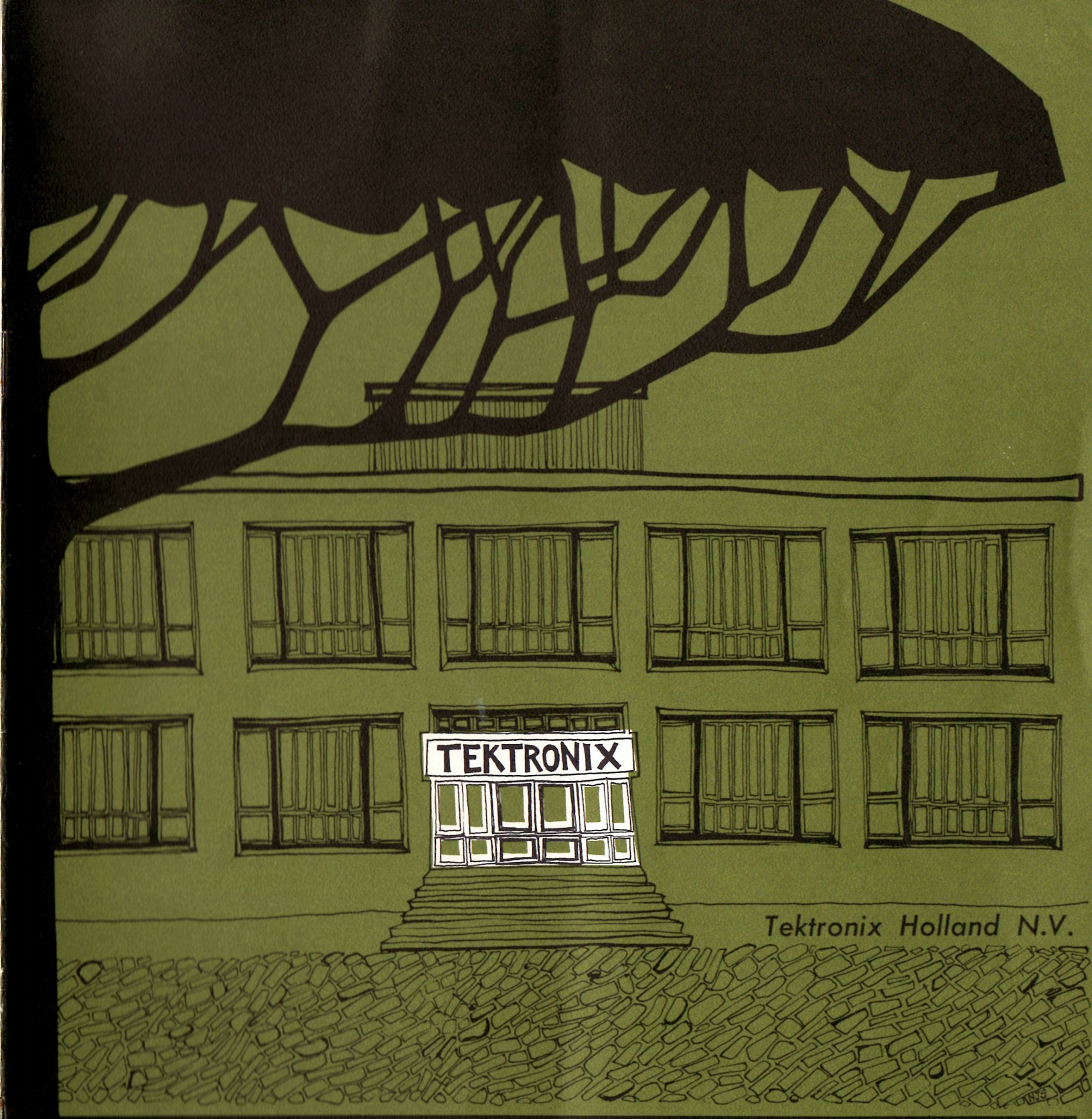

Tektronix Holland N.V.

tek talk

employee's publication of Tektronix, Inc. volume 9, number 4 November 1962

grapevines, weeds and retractions

(*probably a sermon*)

Like alchemy and peeling a turtle, fighting rumor is a rough go. It's easier to prevent rumor in the first place than it is to stomp on one after it sprouts. But not **much** easier, and not always.

Rumors fly, someone has said. And so it often seems. Newsmen hardened by years on the beat still wag their heads astounded, as the grapevine continues to move information faster than the best efforts of modern communication.

Other things about rumor are just as wondrous. One is the belief it can generate. Maybe it's our cynical age that makes people cling to wisps of rumor and resist all manner of gargantuan effort to shake them loose.

One reason is, of course, that rumor often comes from someone close — a coworker, a friend — and carries the weight of his conviction.

Yet this isn't the whole story. One big reason rumors are potent is the perversity of us readers and listeners.

A metropolitan daily newspaper, testing reader attitude, once published a fictitious "retraction" which said, in effect:

> "John Jones of ———— street, this city, did **not** beat his wife, as reported recently in this newspaper. We are sorry for the error."

That was all. There never had been an original story — only the phony retraction.

Then the newspaper surveyed a random sample of its readers, and asked: Do you believe John Jones beat his wife? Over half of them answered: **Yes, I believe he did.**

In a community — and in a business organization — rumors sometimes thrive like weeds in a garden. Self-perpetuating, squelch-resistant, they tend to be divisive, seldom beneficial, often downright destructive.

The best thing to do with a rumor is: Forget it. Passing it on — in any form — is risky, and may do some harm. Nor does labeling it "rumor" make it any less poisonous, any more than identifying a stick of dynamite when you hand it to someone makes it less lethal.

The responsibility for successful communication in a company places a strong obligation on the sender to inform, conscientiously and openly. As Dean Robert Roy of MIT, a Tek visitor last year, pointed out: "The price of autonomy is free disclosure."

The receiver has a corresponding obligation: To pass on only what he knows to be true, authoritative, accurate . . . .

Typically, rumors progress from the innocuous to the damaging, from the small misstatement to the large, from the near-truth to the gross distortion. In a rumor chain, as in any chain, each link is of equal importance. The person who passes a rumor on when it's embryonic is just as responsible for its effect as is the person who mouths it at its most virulent.

This probably is a sermon. Articles about rumor tend to be. But there is no glib, no slick way to put it: For a communications program to be truly effective, the honest best efforts of those who send must be matched by the continued soundest judgment of those who listen and repeat.

—J.F.

tek talk

Published six times a year by Tektronix, Inc., 13955 SW Millikan Way, Beaverton, Oregon, by and for its employees and with the cooperation of the Printing and Photography departments.

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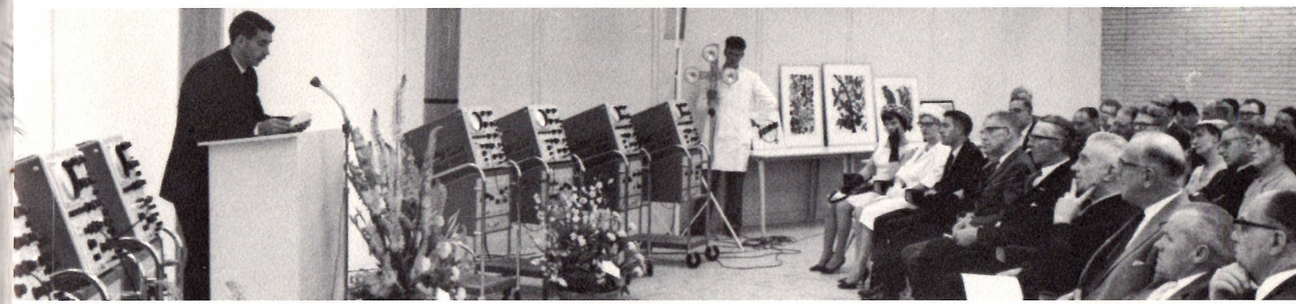
IN NATIVE FRIESIAN costume to celebrate the opening of Tektronix Holland's new building in Heerenveen were the two employees at left. Speakers at the opening ceremonies included H. P. Linthorst Homan, Queen's Commissioner for Friesland (bottom left, being introduced by Adri Leewis, Heerenveen personnel manager). Earl Wantland, plant manager, addressed the gathering in Dutch, and Dal Dallas (bottom of page) conveyed the greetings of President Howard Vollum. Guests included Dutch governmental, business and industrial representatives.



heerenveen's openings feest

(Heerenveen Housewarming)

By DICK KOE

Het is mij een voorrecht U allen hartelijk welkom te mogen heten op een bijeenkomst, die ik als een mijlpaal zie op de weg naar ons einddoel: de vervaardiging van oscilloscopen . . . .

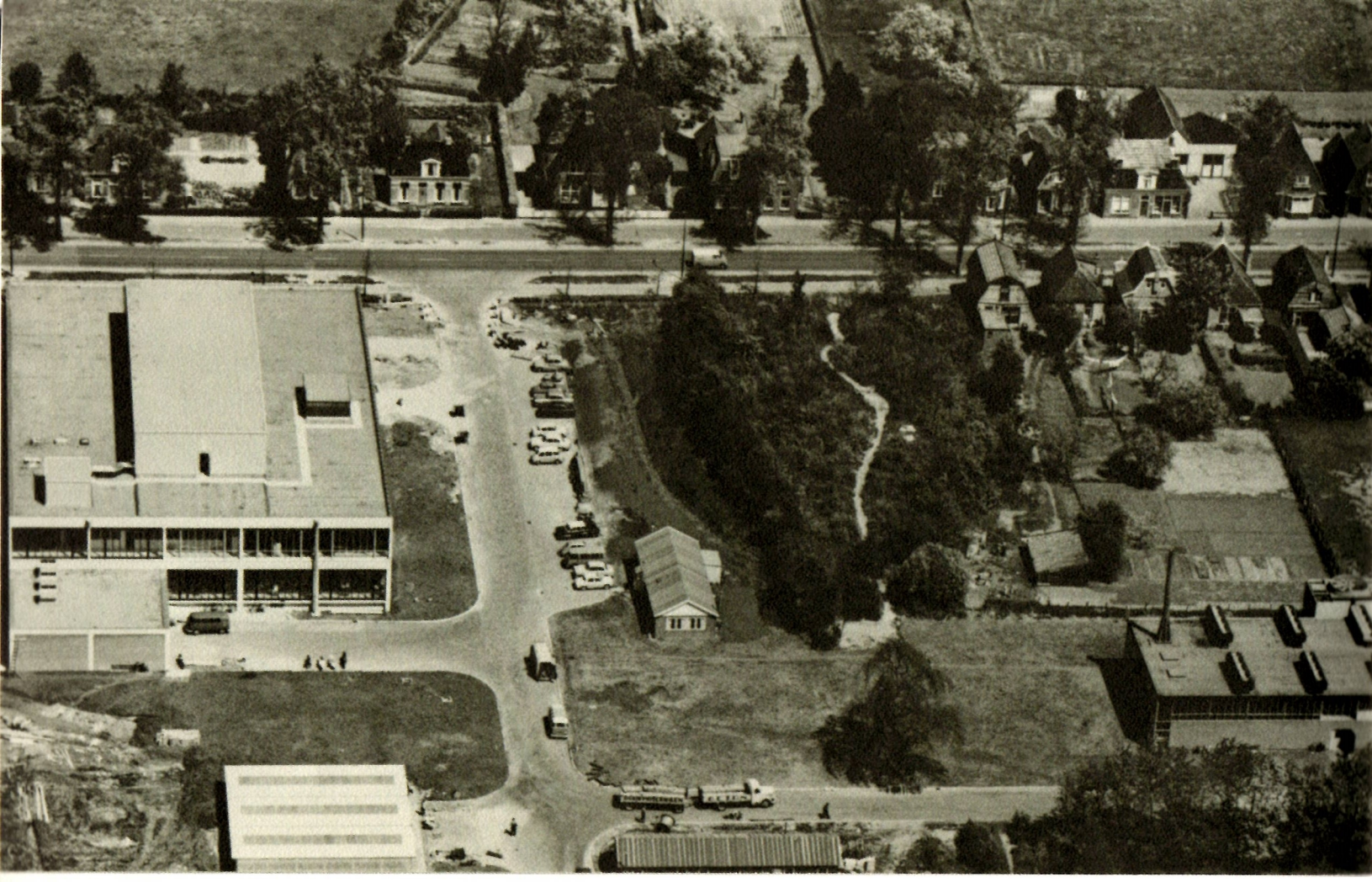
The language is Dutch but the person speaking it is a full-fledged American. Moreover, he is a native Oregonian. His name? Earl Wantland, manager of Tek's Heerenveen operations. The occasion? The formal opening on June 22 of Tektronix Holland N.V.'s first assembly building.

Earl welcomed a special audience of governmental, business and industrial representatives and Tek Heerenveen employees by saying:

"It is a great pleasure to give you all a hearty welcome at this meeting which I see as a milestone on the way to our goal: The manufacturing of oscilloscopes."

Earl emphasized four points in his speech: (1) He gave a welcome to all guests on behalf of Tektronix, Inc., (2) He said the Dutch have responded enthusiastically to the needs and aims of Tektronix Holland N.V.; (3) He described Tektronix as "extraordinarily" pleased to proceed from the period of preparation to the period of modest production and (4) He expressed appreciation to the Queen's Commissioner for Friesland, Mr. H. P. Linthorst Homan, for his spontaneous willingness to confirm the opening of the plant by an official act.

Earl's use of the Dutch language impressed the audience and especially the Dutch newsmen. One newspaper noted that Earl "speaks English to his sub-ordinates, but gave his opening speech in fluent Dutch, although he had been in the country only a few months." Another commented: "The American plant manager spoke Dutch



housewarming...

while his personnel chief, a Dutchman, took care of the translation."

The speech made one of many impressions at the Heerenveen opening. Another was the invitation card to the ceremonies which was written in three languages—English, Friesian and Dutch. This was another demonstration, according to the Dutch press, of the "drive of Tektronix to fit themselves in the Friesian way of life."

Tek Scope Graphs Anthem

Still another impression was the graphing of Friesland's native anthem—Harmen Sytstra's "Waldsang"—on eight Tek oscilloscopes. Mr. Homan activated the scope with the help of a technician to indicate the soundwaves of the "Waldsang". The guests said that "without any doubt this was the most original way the 'Waldsang' has ever been presented."

Probably the greatest impression was made by the completion of Tek's new Heerenveen plant. J. Abma, Amsterdam architect, and brother of Tek's Art Abma, CRT Gun Assembly manager, collaborated with Portland architects Wolff & Zimmer in designing the imposing two-story structure—similar to the Beaverton assembly plants but with more windows. Three hundred poles were placed into the ground as a foundation for the new structure. Unique to Heerenveen was the large-scale air-conditioning system which pumps cool air or heat energy throughout the building as the season requires. The new plant is situated on a 23-acre site in Oudeschoot, a suburb of Heerenveen.

Dal Represents Howard

Sharing the program with Earl was another Tek, vice president Dal Dallas. Dal, representing Howard Vollum who was prevented at the last moment from attending the opening ceremonies, read a telex-message from Howard thanking the Heerenveen friends for "their faith in Tek and their spirit of complete cooperation." Howard pledged that "every effort will be continually made to justify Heerenveen's faith in Tek and to merit their continued cooperation and friendship."

Dal added that success of Tek Holland N.V. should inevitably provide steady and increasing employment for people in Heerenveen as well as for quality technical products and instruments. This success, he noted, can be accomplished by means of "all concerned working in full harmony and concert."

Commissioner Homan, speaking on behalf of the Netherlands government, noted that the opening of Tek Holland N.V. was a milestone in Dutch industrialization and particularly for Heerenveen. He said:

"The settling of this concern in Heerenveen is not only for Friesland, but for our whole country, of much importance. Circumstances in Heerenveen are very favorable to bring a modern industrial project to growth. Tektronix Holland N.V. can be assured as far as assistance is concerned of the provincial government, the county government, the Friesian Industrial committee, and the ETIF (Economical Future in Friesland).

Mr. Homan called the new ties with Tektronix a strengthening of the many historic connections between the United States and Friesland. He mentioned the many Friesians who had found a new homeland in the United States and had taken important positions in American industry. "We appreciate your coming to Heerenveen, especially with the historical ties," he added.

Architect Presents Flags

Other speakers on the program included Mayor G. H. Kuperus of Heerenveen, architect J. Abma, J. D. Boot of the Central Committee of Heerenveen and B. F. Schroder of the Dutch contractors. Mayor Kuperus said he hoped for a good, constant cooperation and promised

heerenveen housewarming...

all cooperation by the city council. Mr. Abma extended congratulations by presenting a Dutch flag and an orange banner for the flag poles, and Mr. Schroder presented a modern figurine on behalf of the contractors.

Open house was held following the ceremonies, with Tek employees conducting tours and demonstrating Tek scopes for the visiting dignitaries.

The new building houses a shop, assembly and production area and offices. A metal finishing area and component manufacturing areas will be added later. When the plant operates in full capacity, it will demand half of Friesland's energy consumption.

Tek's 545A oscilloscope is presently on the Heerenveen assembly line along with three plug-ins, K, L and CA. More instruments will be added, with eventual production reaching four or five million dollars a year. All instruments produced here will be shipped to the European Economic Community, better known as the Common Market countries of Belgium, Netherlands, Luxembourg, West Germany, France and Italy.

Tekintag Has Dutch Branch

Tek's Heerenveen operations, like those in Guernsey, are part of Tektronix International A.G. (Tekintag) with headquarters in Zug, Switzerland. At present, the Heerenveen site houses the Tekintag Dutch Branch and Tek Holland N.V., both under Earl Wantland. Tekintag's Dutch Branch currently has accounting under Klaas Lanting, and marketing under Al Hannmann. Tek Holland N.V. has accounting under Bill Borbiro and manufacturing under Earl Wantland.

Four operating areas now comprise Tek Holland N.V.'s manufacturing. They are: Test and Transformers, headed by Jim Beijersbergen; Instrument Assembly, by Wim de Jager; Material Planning and Stock Control by Jan Gielisse and Mechanical, by Pieter Pouderoyen. Purchasing headed by Ad Dieben, and Personnel, by Adri Leewis are also part of the Heerenveen operations.

Since the plant opened last May, Tek Heerenveen employees have increased from 57 to 126 as of September, 101 in Tektronix Holland N.V. and 25 in Tekintag Dutch Branch. Plans are to add 250 employees yearly, making it the largest American industry in northern Netherlands.

Tek's Heerenveen opening made many first-day impressions but probably the one impression in the minds of visitors, friends and employees was that Tektronix had taken another important step in producing and supplying precision cathode-ray oscilloscopes to meet demands of an expanding electronics world.

What is the Common Market?

The Common Market (EEC) is one of three parts of the European Community established since 1951.

In the special fields of coal and steel and atomic energy, two other Communities have been established, known as the European Coal and Steel Community (ECSC) and the European Atomic Energy Community (Euratom).

Over the long run these three regional communities, their use and success are expected to bring about a union of European states never before possible due to fierce nationalism, language differences, government structure and so on.

The purpose of the Common Market is to unify a major portion of Western Europe economically, legally and politically; to create a single common market in which not only goods but men and capital can move as freely as within a single country.

The Common Market was established March 25, 1957, when the Treaty of Rome was signed by the member nations (Belgium, Netherlands, Luxembourg, France, West Germany and Italy). It became effective January 1, 1958. Only other European countries may be full members and they must apply for membership.

With a population almost as large as that of the United States crammed into one-sixth the area, these countries could hardly afford their customs frontiers with some 30,000 tariff items — 30,000 barriers to free trade. The treaty sought to abolish these obstacles to economic growth. It laid down an objective of a completely tariff-free internal community and specified precise tariff cuts and reductions in the restrictive quota arrangements, over a three-stage 12 to 15-year schedule.

At the end of the first stage — December 1961 — internal tariffs on each product were to be cut at least 25 per cent, and all export duties and quotas abolished within the community. At the end of the second stage, in 1965, tariffs on each item were to be reduced 50 per cent. By December 31, 1969, the internal market of Europe would move as freely as that between the states of our own country. Meanwhile, as internal national tariffs fell, a new common external tariff was to take their place.

Thus, so far as American exporters are concerned, there will no longer be different tariff rates for, say, Italy, France or Germany, but one rate for the six-country community.

However, when the manufacturers of Europe realized the Common Market was moving ahead they didn't wait for each stage but pressed strongly for expanded community trade. The original timetable looked needlessly slow.

Today tariffs between the member states have already been reduced by 50 per cent. If current trends continue — and they may be exceeded — the Common Market will arrive three years ahead of schedule.

The success of the Common Market has sparked new confidence in Europe's future. In 1961, the Common Market announced its conservative goal of doubling Europe's national product in 20 years. Ten years ago widespread disbelief would have greeted such an announcement. Today, few doubt it will be achieved. In fact, if the rate of growth is maintained, the Community can double its product in less than 15 years.

(1) FOLLOWING THE opening of our Heerenveen plant, Manager Earl Wantland guided visitors through the new building's assembly areas. (2) Musical entertainers added to the festivities. (3) Firing up eight Tektronix oscilloscopes was H. P. Linthorst Homan, Queen's Commissioner for Friesland. (4) Outside the building, flags presented by architect J. Abma waved in the breeze. (5) Assembly scene is reminiscent of early Tek days at Beaverton. (6) The boiler room has a stylish look of its own. (7) A modern statuary group, presented on behalf of the contractors, decorates the new building.

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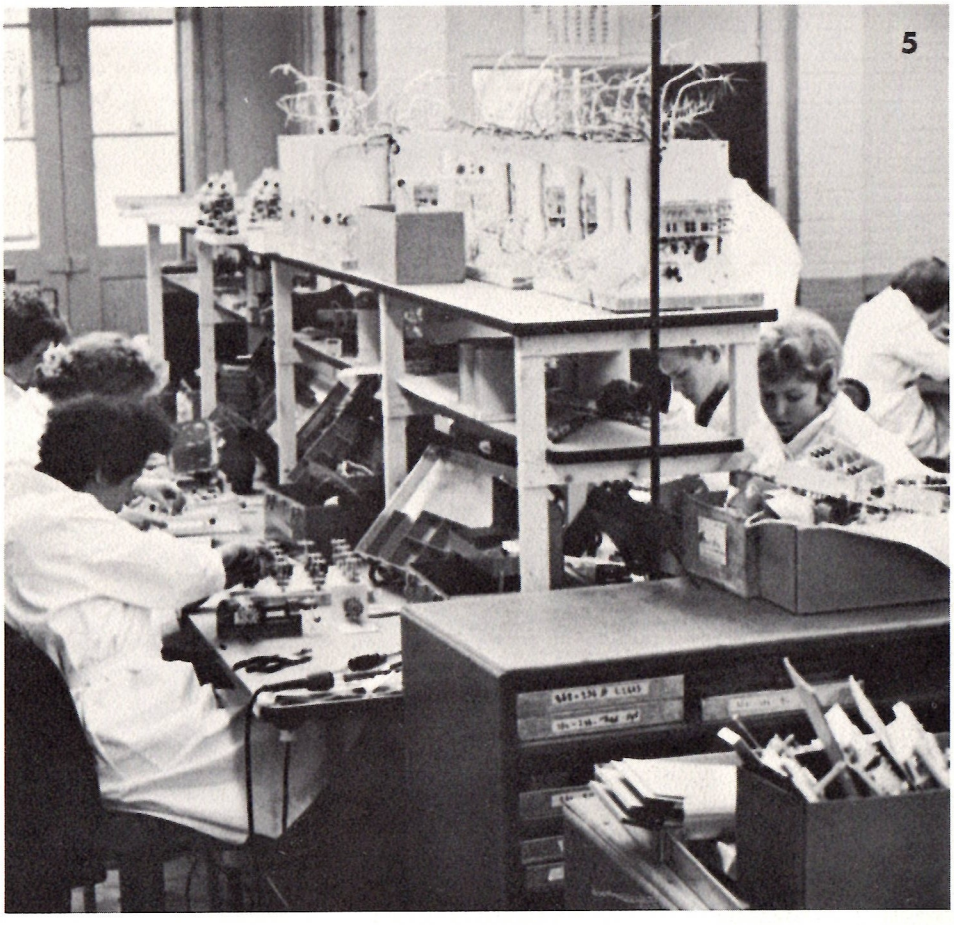

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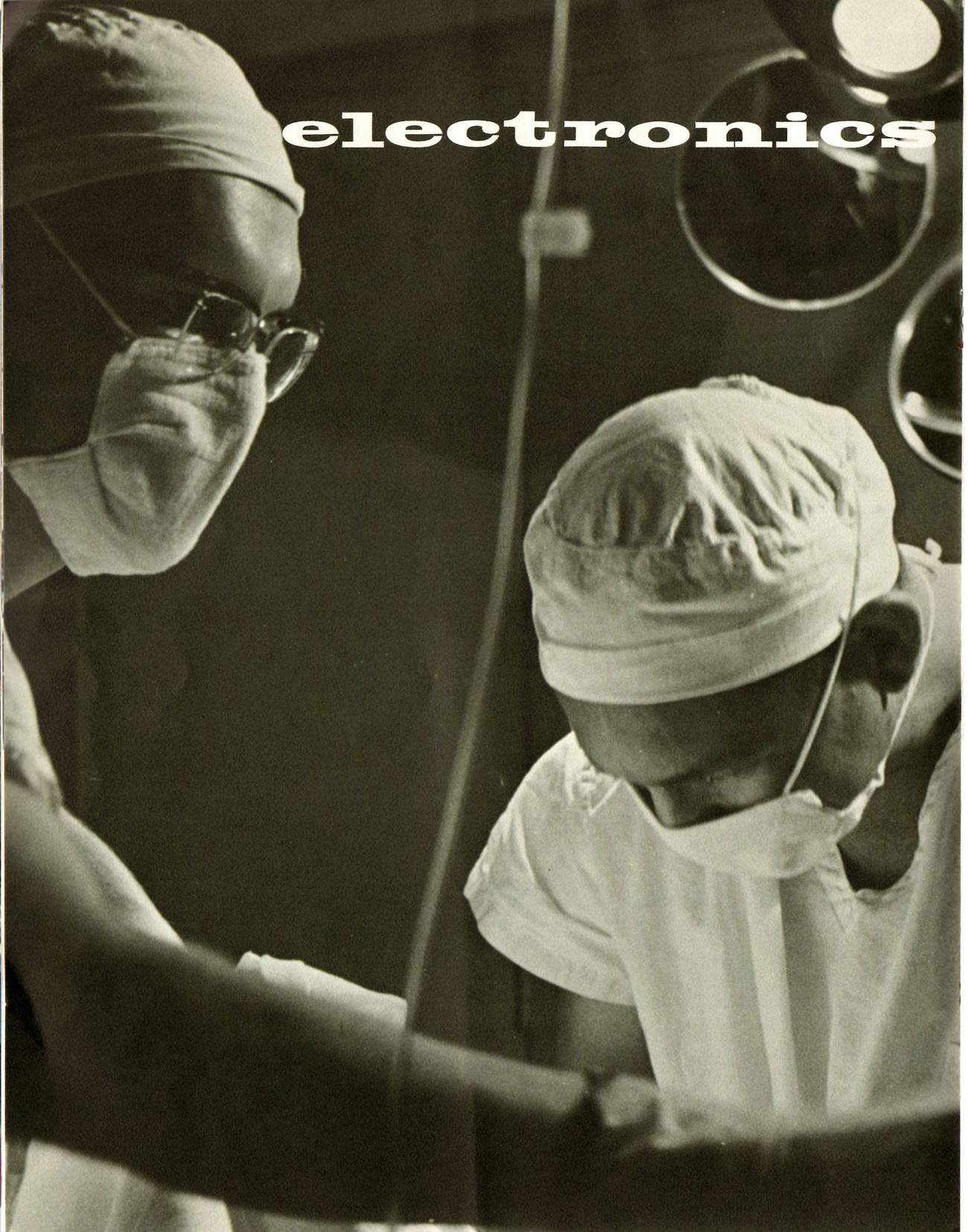


electronics & medicine

By JANE MARTIN

If the need for precision in an oscilloscope, with built-in dependability, accuracy and versatility, is absolute—where second best isn't good enough—it is in the field of medical electronics.

Just how are the men in medical research and private practice using Tektronix oscilloscopes?

At Good Samaritan hospital in Portland, in the department of Neurophysiology, young doctors, with determination typical of the young, and more experienced doctors, with dedication typical of those who have devoted their lives to research, are hurrying toward the discovery of new ways to help victims of strokes, epilepsy and motor-sensory difficulties.

In one room, a Tek RM32 oscilloscope, CA unit and two RM122 pre-amps are installed with a tape deck and speaker system. The doctor is able to test the ability of a patient's muscles to react to electrical stimulus. Specially developed needles are placed in the muscle, for instance in the elbow near the ulnar nerve; the time the impulse takes to reach the fingertips is seen on the scope, recorded on the tape recorder and transmitted through the speaker. Just as an electronic technician can see minute changes in the trace, the doctor is able to **hear** deviations in the "blip" broadcast from the speaker.

After this test, the doctor can replay the tape and "hear" not only the trace but also his explanation of what he was doing to the patient at the time to cause the reaction.

Cerebellum Studied

Dr. H. D. Henatsch, studying at Good Samaritan under a special fellowship from Germany (financed partially with Tek Foundation funds) is trying to establish the relationship between the cerebellum and epilepsy.

At present his patients are animals, who have been made chronic epileptics by introducing cobalt into the cerebellum. A Tek 127 power supply, Q and D plug-ins, three pulse generators and several waveform generators are used. The Q unit monitors the mechanical activity of a leg muscle, which has been connected to a strain gauge, and the D unit monitors the electrical activity of the nervous system. A signal (300 pulses per second at a specific amplitude and duration) is fed into the cerebellum. The resulting electrical activity is displayed on a Tek 502. A motion picture camera, mounted in front of the cathode-ray tube, permanently records the waveforms.

Kitty-cats with strange metal hats, looking for all the world like electrical plugs with 14 points, meow contentedly in the cages. They have electrodes placed in different areas of the brain. After being subjected to loud noises and bright lights, they display typical epileptic seizures. While under these seizures, their brainwaves are observed on the oscilloscope. Researchers hope to discover which area of the brain produces the seizures and which, if any, can inhibit, delay or prevent a seizure.

Brain-Cooling Aids Stroke Victims

Dr. John Misko, a resident in Neurosurgery, is perfecting a procedure for cooling the brain area which has been damaged by stroke. ("Stroke" is a word used to describe what happens when an artery which feeds blood to a part of the brain is choked off or damaged, reducing the oxygen supply to that part.) Because less oxygen is needed when the brain temperature is reduced, surgeons hope the new technique will give them the extra time they need to repair the damage surgically or with medicine before the patient becomes paralyzed. At present, the experimental surgery is performed on dogs, but when perfected and tested for safety it will enable persons who suffer strokes to be treated before they become paralyzed — increasing the possibility of their returning to normal lives, without a wheelchair and without a paralyzed limb.

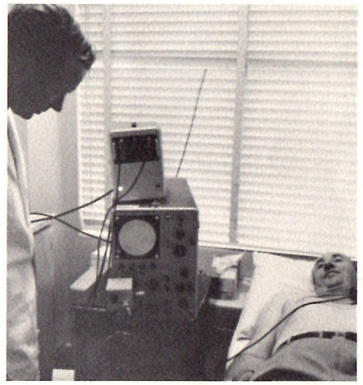
Outside the surgery room, the dog's temperature—in three different areas of the body—is being monitored with the help of Tektronix equipment.

Our scopes are also used in the work of Wilson Greatbatch, an electronics consultant from Buffalo, who recently visited Tektronix. He devised a method of implanting "pace-maker heart machines" beneath the patient's skin. The pacemaker, developed several years ago by Dr. C. Walton Lillehei at the University of Minnesota, has been worn outside the body by persons with certain heart defects. By sending an electrical impulse to the heart muscle at regular intervals, it keeps the heart beating in a normal rhythmic pattern.

Wearing the pace-maker internally eliminates the concern by both doctor and patient that it may become accidentally unplugged, turned off or wet, causing an electrical shock.

On his calls throughout the country, Mr. Greatbatch carries a Tektronix type 310 oscilloscope to check on the heart waveforms of the more than 1000 persons now using implantable pace-maker hearts.

When a person's heartbeat depends on a small electronic device implanted under his skin and an electronics consultant checks to see if a patient's "heart" is functioning properly, accuracy and dependability of the scope can't be underestimated.



In the office of Dr. Lenox Dick, Portland heart specialist, a 502 dual-beam scope is used for diagnosing and recording defective heart action.

Electrodes are strapped to the patient's wrists and ankles and a special microphone (with extremely high sensitivity) is placed over his heart.

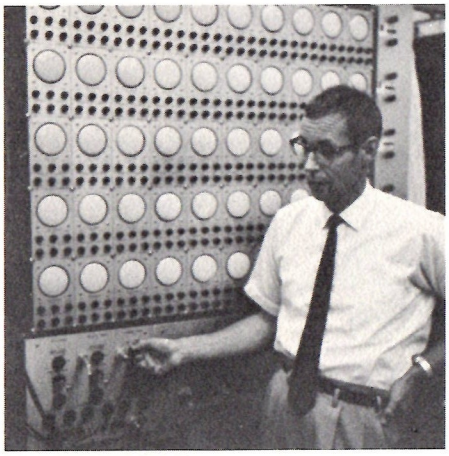
In Dr. Dick's field of cardiology, the Tektronix oscilloscope offers much higher fidelity and higher frequency response than is available with mechanical writing devices. On the 502, one trace displays the electrocardiogram response (the electrical voltage generated by the heart muscle action) and the other trace shows the phonocardiogram or sound measurements. A Polaroid camera photographs the scope's display of the heart defect, giving the doctor a permanent record.

Applications Many at Med School

Peeking around corners and into crowded laboratories and offices at the University of Oregon Medical School hospital, you see familiar Tek instruments almost everywhere. In the Ophthalmology department a medical student uses a new type 565 for research studies on the human eye; in the Physiology

Researchers enlist precision scopes in endless battle against suffering.....

department rack mounted 160 series power supply, pulse generators, waveform generators, two 360 series indicator units and a 565 aid in the study of the nerve action in the spinal column. Across the hall a dual-beam 502 is used to study olfactory sense (the sense of smell) and its relationship to the brain.



Dr. A. R. Tunturi, associate professor of anatomy at the medical school, is in charge of a long-term project involving the audio cortex area, the brain's "hearing center". In a sound proof area, 50 tiny, stainless steel electrodes, arranged on a precision grid 2 millimeters apart (5 vertically and 10 horizontally) are placed directly on the exposed brain of a dog. A measured amount of sound is directed into the animal's ear; the cortex response is sensed by the 50 electrodes and displayed on a 50-channel cathode-ray oscilloscope. This unique instrument was designed in the early 1950s by Dick Ropiequet (Future Products) to aid Dr. Tunturi in his effort to area-map the brain and determine how it performs its basic functions.

In order to obtain a valid average reading, thousands of statistics and data must be processed. IBM data processing equipment is set up to record the information as it is received through a maze of 50 differential pre-amplifiers, a 50-channel solid state multiplexer, a high-speed analog-to-digital converter, format and control logic, an on-line scope display roster, and finally, a digital tape recorder.

Measure—and Measure Again

In a previous six-year period, before the electronic computer system was installed, Dr. Tunturi completed 900,000 measurements of electrical responses. With his present setup, he is able to make 3,500,000 measurements **every three minutes.** Even at this astounding rate of computing information, Dr. Tunturi reports he is three years behind in his processing.

Dr. Tunturi, who has been involved in this same area of research since 1941, estimates it will take 20 more years of study to complete the project. He conducts three experiments weekly; each experiment provides 12 minutes of useable data. The IBM tape records these responses on a tape moving 112 inches per second. Because the data received is not all relevant or useable, it is necessary to be able to start and stop the entire recording operation instantly. This he does in .2 of a millisecond. The recording of data is limited only by the time needed to perform the surgery—about 1½ to two hours.

The project is financed partially with funds from the Office of Naval Research and also by the Institute of Neurological Diseases and Blindness and the Institute of Mental Health.

Within the next year, Dr. Tunturi hopes to install a cable-link between the teaching hospital and his lab to record data from the human cortex. The 50-electrodes will be placed on the brain of persons undergoing surgery for some other reason, but it will enable him to expand his work to the more complex studies of the human brain.

Russ Fillinger heads the four-man Medical Instrument Development group at Tek, which concerns itself with meeting the needs of our medical customers.

In an effort to bridge the gap of understanding between our field and theirs, Russ and other Tek engineers are consulting with doctors at the University of Oregon medical school to try and meet on a common ground—so doctors will be able to think of the term "pulse" in the electronic sense, rather than confine the term to the rhythmic motion going on inside our wrists—and electronic technicians will understand the needs of researchers in medicine.

Field engineers are also spending considerable time consulting with medical people to determine how Tektronix oscilloscopes can be put to work for them.

John Seaman, field engineer (Tektronix Canada, Toronto), recently called on the Hospital for Sick Children in Toronto. The call report received at Beaverton described the need for a multi-channel readout scope to be used to rapidly analyze newborn infant malfunctions. The first four channels would monitor the baby's temperature, electrocardiogram, blood pressure and respiration. The hospital technician explained that their present instruments are insufficient. "To reduce the death rate of newborns, the accuracy and rapidity of your systems are required."

During the last year, Tek Foundation contributed $33,300 in cash and instrument donations to medical science and research. Tektronix, Inc. must continue to provide the best oscilloscopes and accessories to the men and women of the medical profession, as they seek to solve the mysteries of the mind and body.

FORMER TEK summer employee Larry Mills, now a biomedical engineer in Good Samaritan's Research department, looks over scope traces recorded on Tektronix Type RM32 oscilloscope. He also teaches a course in medical electronics at the hospital.

movies at Tek are better than ever

By BECKY SHORT

Early in Tektronix history the company recognized the service good films could provide. In 1952 Frank Hood, then in Instrument Design, produced a 15-minute black-and-white sound film entitled "We Are Tektronix". The film met enthusiastic response. A second film produced in 1955, "A Precision Cathode-Ray Tube", was shown to thousands of high-school students as well as engineering and technical personnel. With the good reception of these two films, the company realized that films could not only serve public relations but could also become a medium for transmitting engineering information to large audiences, relieving the engineering staff of some of the burden of communication. Frank became unofficial film producer and in 1961 was appointed manager of the new Films group.

The Films group includes 2½ men. Frank Hood (manager) and Arlan Evensen (photographer) work full-time. Bob Zurcher works half-time with Frank and Arlan, and half-time with still pictures.

The group produces all promotional and training motion pictures for Tektronix, Inc. and its international subsidiaries.

Film-making Takes Time, Talent

Hours of work are required before the Films group picks up a camera, as the script is mapped out, written and approved. Although the Communications department writes most of the scripts, some are prepared by other employees. For example, Paul Gaertner (Education and Training) drew from his engineering and naval experience to write the script for "The Oscilloscope" (a non-technical explanation of the oscilloscope and some of its uses). Sandy Sanford (Portland field engineer) prepared the script for "Time and Quantity" (a review of problems encountered in accurately measuring time and quantity, with emphasis on the use of oscilloscopes to record split-second events).

As a script is written, ideas for filmed sequences are noted. When it is completed and approved, the Films group goes into action. The script is divided into short sections, called scenes. Some scenes — and some entire films — require little advance preparation; Arlan and Bob simply set up their equipment and film the scenes. These include recorded lectures, shots of buildings or scenes showing assembly areas or operations. Others require substantial advance preparation and coordination. Examples include films in which a person explains an operation or describes an event — for example, "Proper Handling of Cathode-Ray Tubes" required elaborate advance planning.

Geared To Company Needs

Frank's group prepares three distinct types of films:

(1) In-plant service films — These are usually black-and-white, without sound, and record a production process or technique. They are used to trouble-shoot a new process or to provide a permanent visual record of a discontinued technique. Sometimes these films are sent to Tektronix Guernsey to be used for training new employees. The group also provides high-speed (slow-motion) films for studying a process or analyzing machine problems.

(2) Recorded lectures — These are sometimes recorded as they are presented to an audience, but more often are filmed separately. "Time and Quantity" was prepared in advance for use on the TV show, "Tomorrow's World", but will also be useful in explaining oscilloscope fundamentals. These recorded lectures are used to communicate engineering or technical information between Portland and field offices or subsidiaries, or between engineering groups in the Tek park.

(3) "Finished" films — Films are prepared both for company use and for distribution outside the company. Since its formation in August 1961 the Films group has produced 12 complete sound films, bringing the total of Tektronix-produced general-purpose (finished) films to more than 30, about half of which are available for public viewing. Three of these ("The Tektronix Spirit", "Tek Park" and "Soldering Techniques - Ceramic Strips") have been prepared with Dutch sound tracks for Tektronix Holland N.V. Dutch and Friesian tracks are in process on several others. Gare Van Dyke (Accounting), a native of Haarlem, Netherlands, translates and records the Dutch sound tracks.

Films Find Wide Use

Several films are in process. The group hopes to complete this year a series on Current Profit Share: Tekem, Cash Profit Share and Retirement Trust. Dutch and Friesian sound tracks will be added to some current films, and future films probably will include copies with sound tracks in these languages.

NELSON HIBBS (I.M. Training) records film sound track as Frank Hood directs and Arlan Evensen operates recording equipment.

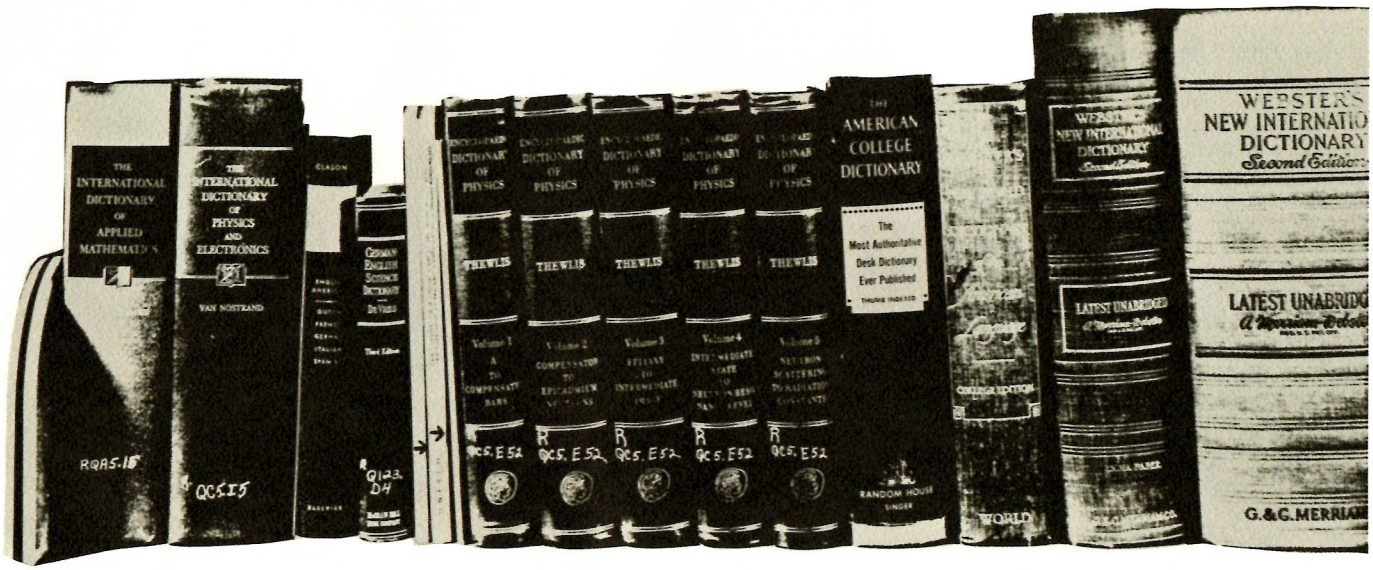
Preparation time on films ranges from several hours to several months. A recorded lecture can be prepared in a few hours and be ready for distribution in two days. Other films encounter delays that cause production time to be as much as six months. The cost of the final films varies similarly. Some cost little more than the material on which they are printed; on others the film itself is a minor part of the total cost.

In addition to film preparation, the Films group recommends projection equipment purchases, serves as film consultants to operating units and provides technical assistance to operations using films as training devices. They also provide tape-recording and duplicating services when requested.

Frank emphasized that finished films are available for use by all Tektronix employees to show in the company, and to clubs, schools, church groups or civic organizations. He commented, "I feel films are an excellent communication tool and will find wider application in the future both in education and in industry."

ten thousand books

and where to find them



By WILLIE HENNING

Availability of technical and nontechnical printed material has been an integral part of Tektronix research and other developmental programs. To meet increasing needs for information, and also an exploded supply of information, our library has grown proportionately.

Along with increased numbers of books and periodicals, there has been an expansion of library services.

The library was set up to have a central function in the company to order books. It was to be primarily for the use of engineers, who wanted central records available of all books the company purchased. The books needed most would be kept in the library, which not only would stop duplication but also would make books available to a person or a department that ordinarily didn't need a desk copy.

The library (then called the Engineering Library), started in the upstairs conference room of the old CRT building (now Bldg. 86) in March 1958. Later it moved downstairs. In August 1960 it moved to its present location in the Ceramics building (#13). It was then re-named the Technical library.

Sometime in December the library will move into the Facilities building (#28).

In October 1961 it became the Tektronix library and expanded its coverage to management, marketing, data processing, accounting, personnel and other areas of company interest. It is working now to increase its material on administration.

Library personnel have grown from one, in 1958, to five permanent employees.

Dave Weiser, head of the library, graduated from Ohio Wesleyan university in 1947 with a B.A. in chemistry. He also had academic training in patent law and library science.

He went to work for Champion Papers, Inc. in 1947, became head librarian there in 1949 and held this position until 1961 when he came to Tektronix.

Dave served as chairman of the Translations Center committee, which operates the Special Libraries Association center at the John Crerar library in Chicago, one of the country's foremost scientific libraries.

Terry Bassett, reference librarian, graduated from Lewis and Clark college with a B.A. in physics in 1958. She started working at Tektronix in June 1958 and in the library in March 1959. While working here, she attended night school at University of Portland and received an M.A. in Library Science in 1962.

Other staff members are Chris Richter, subscriptions and periodicals; Jean Steinfeld, books, interlibrary loans and A.S.T.I.A.; and Gladys Mead, who assists in reference and does the cataloging.

Library Has 10,000 Books

The library has about 10,000 technical and business books, and subscribes to about 255 technical, business and similar magazines. Included are Time, Newsweek, Business Week, Fortune, Consumer Reports and Harvard Business Review.

Some magazines are on file from as far back as 1930 (such as IRE—Institute of Radio Engineers). Most magazines are kept on file back to 1950; however, some files are not complete. The library is trying to obtain missing issues through several sources: Tek employees, United States Book Exchange and magazine dealers.

The library also has reference sources: Dictionaries, almanacs, atlases, telephone books from most large cities, the Encyclopedia Britannica, Who's Who and so on.

A record of all company books (including desk copies) is maintained in a complete record of all papers and magazines to which Tektronix personnel subscribe at company expense.

Newpapers available in the library are the Wall Street Journal, West Coast edition of the New York Times, Journal of Commerce (New York Edition), Barron's and Electronic News.

The ratio of technical to nontechnical books and magazines is about 60:40.

Open Five Days a Week

The library is open five days a week, 7 to 5. The sketch on this page illustrates where the books and magazines will be located in the Facilities building.

Biweekly, the library publishes the Journal Index, which lists all new issues of magazines received and gives the contents of most of them. Magazines are held in the library for two weeks. Xerox copies of current articles are provided on request (cost of Xerox is charged to the department ordering).

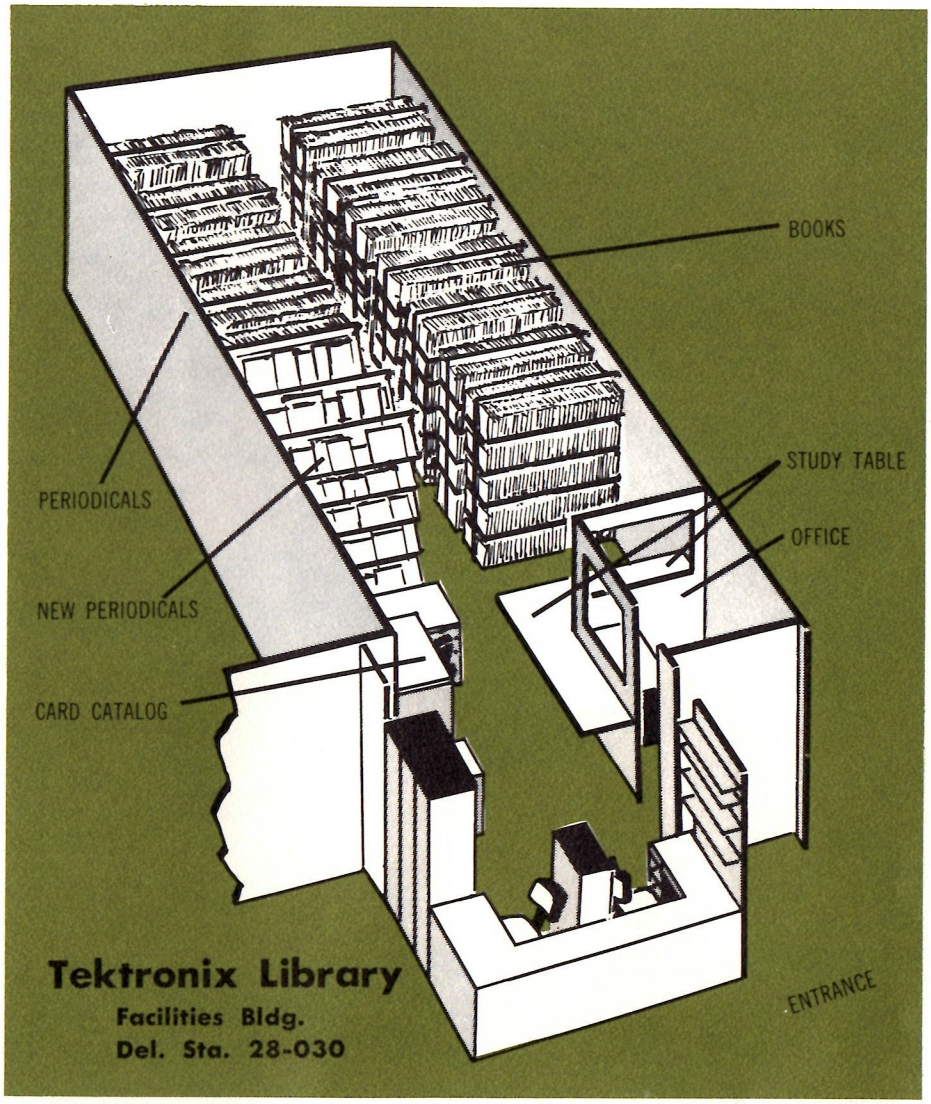
The Library Bulletin also is published biweekly informing employees of all new books the library receives. New books are held in the library for a two-week period and may be reserved by anyone (to be checked out later). During the two weeks, people may come in and use these books **in the library.** After the two-week period, the books may be loaned as usual.

The Index and Bulletin are distributed to your division office and also are placed in the reading racks.

The library also issues a Calendar of Events, a monthly publication, listing conventions, meetings and seminars for the succeeding three months. Each month the Calendar is updated to keep this information current.

Books and pamphlets are loaned for two weeks, magazines for two days. However, new ones have to remain in the library for two weeks before they are loaned.

You can get the books, pamphlets and magazines by going directly to the library or by calling; the library will send your books or magazines through interplant mail if you wish. You are asked to return the books on time. Often other employees are waiting.



HEAD LIBRARIAN Dave Weiser checking one of the library's new books. Over 10,000 technical and nontechnical publications are available.

Job-related Services

As a special service, our library will borrow books or magazines from outside libraries for you. Interlibrary loan books and magazines must be used in the library, as some of material is irreplaceable. The employee asking for the book is responsible for it, and must pay for damage or loss.

Library delegates have been appointed for each division or operating area. The delegate signs all requisitions for books, magazines or newpapers and has authorization to approve or disapprove requests from his area.

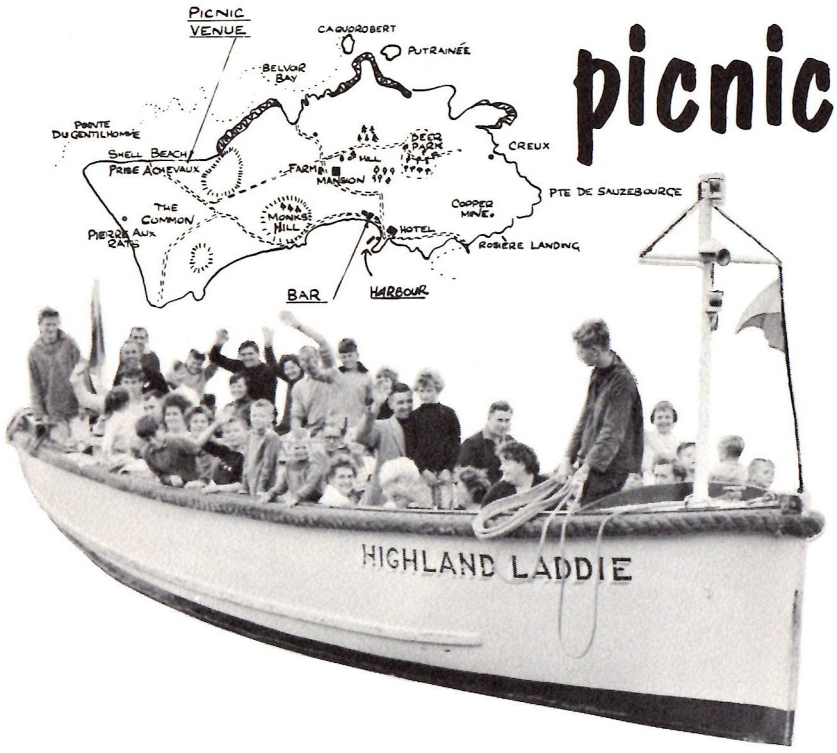
The library welcomes suggestions for books, magazines and pamphlets you feel should be in the library, but reserves the right to approve or disapprove these requests.

The library:

- Orders publications of all types for the company at the most reasonable rates.
- Has information on company-owned desk copies of books, and will let you know who has these books if you need to use them.
- Answers reference questions—of all types.
- Makes literature searches (finds books or other material on specific subjects). For a literature search, go to the library, or call, and tell them the subject or material you are interested in finding. They will locate the books or magazines on this subject that are in the library. If they don't have the sources you need, they will find out where you can get them.
- Has microfilm and a microfilm reader available. You can call the library to find what film they have (most of the film is highly technical). Employees are welcome to use the reader anytime and may use their own or borrowed film.
- Provides discount cards for personal purchase of books (10 per cent for technical and 20 per cent for popular). To get a discount card, call extension 388.

The library is a service for you. Your calls for information and suggestions are always welcome.

picnic day on herm



A Tek picnic is a Tek picnic is a Tek picnic — whether it's at Portland's Jantzen Beach or on the Isle of Herm, three watery miles from Guernsey.

It was onto the sands of this wee island that 550 employees of Tektronix Guernsey Limited launched an amphibious assault this summer, accompanied by local newspaper and TV correspondents, who sized up the invasion as news.

As with all Tek picnics, there was much to eat, and all sorts of games, including a treasure hunt and an egg-catching competition. Norm Gardner ably handled the picnic committee. Charlie Hillion (Facilities), despite a skillful hula, managed to place only fourth in the beauty contest. Di Gaskin was named Miss Tek, with Julia Mills second and Shirley Pipe third. Sid Smith (Stock) captured the angling prize and Jon Dauncey (Final supervisor) won the spear-fishing competition.

Herm, owned by Guernsey and leased to the island's tenant, features a farmhouse, a deer park, a hotel, a tractor (the island's only transportation) and something called the Herm International football team, which challenged Tek athletes and soon rued the day, bowing 3-2 in a contest described as "notable for all-out-endeavor." (Sounds like Tek picnics back home.)

Another Yankee-like activity: Employees who were so inclined spent the afternoon doing the twist to the sounds of a musical organization referred to in late dispatches as "The Group".

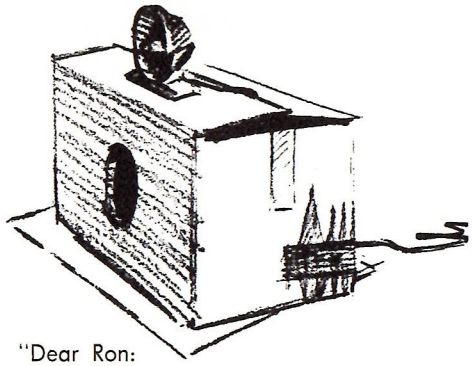
Guests of Tektronix were 32 youngsters from a local children's home.

FOLKS at Union Switch & Signal in Pittsburgh, reports FE Ron Bell, have cut a hole in the side of a 516 packing case, installed a loudspeaker and come up with a useable hi-fi enclosure.

Ron, ever alert, suggested they buy 555s instead, because the larger packing case would give more volume — and even let them mount a 15-inch speaker, maybe.

They could go into business on the side, he hinted, selling low-cost enclosures. "The reaction was favorable," he reported.

Good, but not good enough for Geoff Gass (Field Information), who wrote back:



"Dear Ron:

"We've looked at your new sales approach, and we like it. It's good! Your dynamic, "total package" concept has won you new recognition here at World Headquarters.

"Our only disappointment is this, Ron: You have allowed your customer's lack of imagination to slow down your own creative sales drive. Need we mention that the trend today is toward **stereo**?

"We will expect all 555 orders from Pittsburgh office to be in even numbers."

SNITCHING WITH impunity from another company's magazine, here's a good safety pitch, courtesy of the ESCO Ladle:

"EYES FOR SALE," it says. (Then there's a photo of a batch of artificial eyes.)

"People who intend to go into danger areas without eye protection should purchase their artificial eyes now and take advantage of the discount. After losing an eye, your discount privilege will no longer be in effect.

"If you lose both eyes, it will be difficult for you to choose the color you want."

CAMPAIGN SEASON stole upon us all, and Teks who looked close could see real live candidates moseying through the plant.

Teks

In accordance with our rules, they didn't electioneer on campus. Just mosey. This is fair, OK by Tek, part of America and typical of the seasonal antics of office-seekers:

One candidate each election year writes to tell his constituents that the US Department of Agriculture has a mess of free bulletins they can send for. (Shuckins! **We** could have printed that news here, saved him postage, and thus peeled a smidgin off the federal debt.)

These publications (or some which sound about **like** them) are free for the asking, he announces:

Alfalfa — Its Cause and Cure
How to Waterproof Your Cat
How to Design and Build a Simple Fencepost
Narcotics You Can Grow
Convert Your Farmhouse to a Silo
Retreading Tennis Shoes at Home
Fifty-seven New Uses for Strawberry Hallocks

Other politicians make speeches. Some kiss babies. Some visit Tek. Half of them (give or take a few) get elected, and you'll see them again next campaign.

So much for that.

IN THE REALM of tall but true tales is this one, from Don Trudeau (Field Training):

While visiting Minneapolis field office in August, he went along with FE Frank Elardo to see Control Data's research laboratory, located just outside Chippewa Falls, Wis.

Not sure of their geography, they soon found themselves out in the country, on county road E, just past county road C, near a farmhouse and pretty well lost.

So they stopped and asked to borrow the phone. Sure, said the farmer.

While Frank called Control Data to get his directions straighter, Don talked with the farmer's son:

"Nice farm you got here," he commented.

"Yeh," the kid said, "but we're selling it and moving out West."

"Where out West?"

"To Oregon."

"By golly, **I'm** from Oregon. Where in Oregon are you moving?"

"To a little town called Beaverton," the son answered.

"I **work** in Beaverton. What are you going to do there?"

"Apply for a job at Tektronix," the farmer's son said. "My mother (Wanda Hilp) works there in the Capacitors department."

IN THE OTHER room phoning, Frank noticed the farmer kept staring at him each time he mentioned he was from Tektronix.

Later the fellow explained:

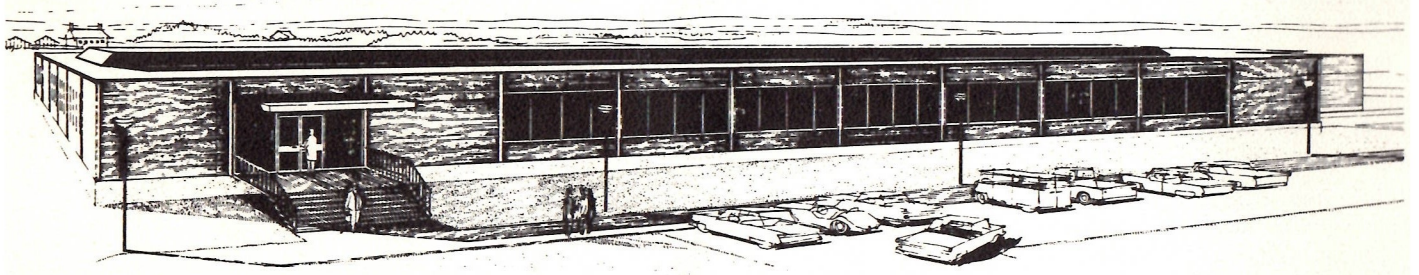
He'd heard that Tek goes to great lengths investigating prospective employees, he said, but he hadn't expected anything like **this.**

ALSO FROM the field, Chuck DeVere (Endicott) tells of sneaky doings down Cornell university way, where some fellows in the name of science are using a Tek scope to help analyze the mating calls of birds.

Now, hold on a durn minute! Science or no, invasion of privacy is out of bounds. Spying on birdie wooing can do science no credit.

And it doesn't respect the birds' dignity as individuals.

TEK NEWSREEL



SCHEDULED FOR completion in August 1963 is the new assembly building at Tektronix Guernsey Limited. The 35,000-square-foot building located on 8⅓ acres of land adjoining the Guernsey airport will house assembly and administrative operations. The present building will accommodate other Guernsey manufacturing functions.

In a major step to improve Tektronix' efficiency by more closely coordinating our domestic and international operations, the board of directors on November 7 appointed Bob Fitzgerald vice-president, operations.

Fitz has served as general manager, domestic operations, for the past 1½ years. Now his areas of responsibility will involve the entire Tektronix organization, both here and overseas, President Howard Vollum said in a Newsletter announcing the appointment.

"Many of you have had opportunities, as I have had, to experience at first hand his outstanding leadership and organizational abilities," Howard said. He expressed "pride and satisfaction" in reporting the board's choice.

The Management Group has selected several ad hoc committees to study and make recommendations on specific problems facing the company. Among them are:

Product Planning committee — includes Howard Vollum (chairman), Byron Broms, Bob Fitzgerald, Bill Polits and John Wallen. The purpose is: To set clear, agreed-on directions from product development, and assure responsible decisions based on the most important factors. By specifying what problems the system should solve, what activities the committee should complete, which people should participate and who should be informed, the committee seeks to correct some of the difficulties that have made our past product planning efforts more confusing and less effective than they might have been.

Committee on Electrochemical building — includes Bob Fitzgerald (chairman), E. E. Ashenbrenner, Marlow Butler, Joe Almand, Bill Parker and Oz Svehaug.

Committee to determine status of exportees (Tek U.S. employees who are working for an overseas subsidiary) — includes Don Ellis (chairman), Jim Castles, Fritz Neisser, Les Stevens, Emerson Hoogstraat and Bob Newberry.

Committee to consider how Tek can best use talents of its Human Relations group — includes Jack Murdock (chairman), Howard Vollum, Bob Fitzgerald, Guy Frazier, Bill Polits and John Wallen.

To consolidate and make more efficient the total operation that is Tektronix (Tektronix, Inc., Tektronix International A.G., Tektronix Holland N.V.; Tektronix Guernesy Ltd.; Tektronix Canada Ltd.), the Management group has recommended that Tektronix' corporate structure be revised. Last year management set up a domestic operation and a corporate staff in an effort to meet our expanded administrative needs. It now appears that a different structure will better meet our immediate organizational needs. Under this plan the Corporate Staff and Domestic Operations will eventually be replaced by functional groupings —Finance, Engineering-Research, Marketing, Manufacturing, and so on.

The first of a series of changes implementing this reorganization took effect September 7 with consolidation of all finance and accounting functions under Treasurer Don Ellis. This change was negotiated by the managers involved— Bob Fitzgerald, to whom the controller reported, and Don.

Another change is the addition of Fritz Neisser, formerly of the International group, to the staff of Secretary Jim Castles. Other changes which will occur in coming weeks will be part of the overall restructuring to accomplish the functional reorganization.

Bob Fitzgerald, campaign manager for Tek's 1962 UGN fund drive, commended employees for their concern and cooperation as evidenced by drive results. Total employee contribution was $97,267.14, an increase of more than $20,000 over the 1961 total. Although the percentage of employee participation decreased from 1961's 86.1% to 85.2%, the average per capita gift increased from $18.49 to $20.18.

The Management Group has appointed a standing committee to consider international problems. This International committee includes Byron Broms, Jim Castles, Dal Dallas, Don Ellis, Bob Fitzgerald, Ladd Goodman, Fritz Neisser, Mike Park, Bill Polits, Scotty Pyle, Al Swanson and Howard Vollum. Its purpose is: To improve communication of information about international activities throughout the Beaverton organization; to discuss and study policies or major actions in the international field with a view of presenting recommendations to management for action; to discuss and help solve operational problems which involve more than two operating Beaverton functions or which operating personnel may want to put before the group for discussion or opinions.

To more effectively meet the manufacturing needs of our Heerenveen and Guernsey operations, a technical support activity has been established under Roger Haight. Reporting to Mike Park, Roger performs two kinds of services: He is contact man and guide for European manufacturing personnel sent to Beaverton for training, and full-time link between European and Beaverton manufacturing.

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