



tek talk



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tek talk

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Address mail to Tek Talk, Communications department, Joe Floren, editor.

COVER — Watching intently as trainer Bart Kamna points out a problem in chassis assembly are Danny Poage (top) and Leslie Lawer, of Plant 2 Finals. Danny and Leslie, both completely deaf, are examples of disabled persons who have become capable, valuable Tektronix employees. A story in this issue describes Tektronix' program of hiring qualified handicapped individuals.

PICNIC PICNIC

How many familiar Tek faces can you identify in this picture? (See answer below).

The drawing — not to scale — shows some of the goings-on that may go on at the TEK PICNIC (a non-job-related whingding) which will happen August 18 at Jantzen Beach.

Park officials say picnic tables will seat 15,000 persons. Everybody come out, and sit on the tables.

Mooring space is available for boats. If you own an automobile, there is also a parking lot. If you own your own plane, good for you.

Some of the fun things, pictured here by Russ Myer of Test Training, include stage show watching, drawing winning tickets, amateur gittar plonking, taking pictures, lighting cigars, eating ice cream, not eating ice cream, losing balloons and being a puppy.

On the softball diamond, the RT building team will try to whap the bejabbers out of the IO building athletes, WHO TROUNCED RT LAST YEAR. Come and cheer the umpire.

On hand will be such show folk as Pat Pattee, Rick Dasso and Addie Bobkins.*

Seriously (hark now), the picnic is said to be the biggest ever, and the best. And it no doubt will be. Every year it is — ask anybody. (Central Information desk is 501).

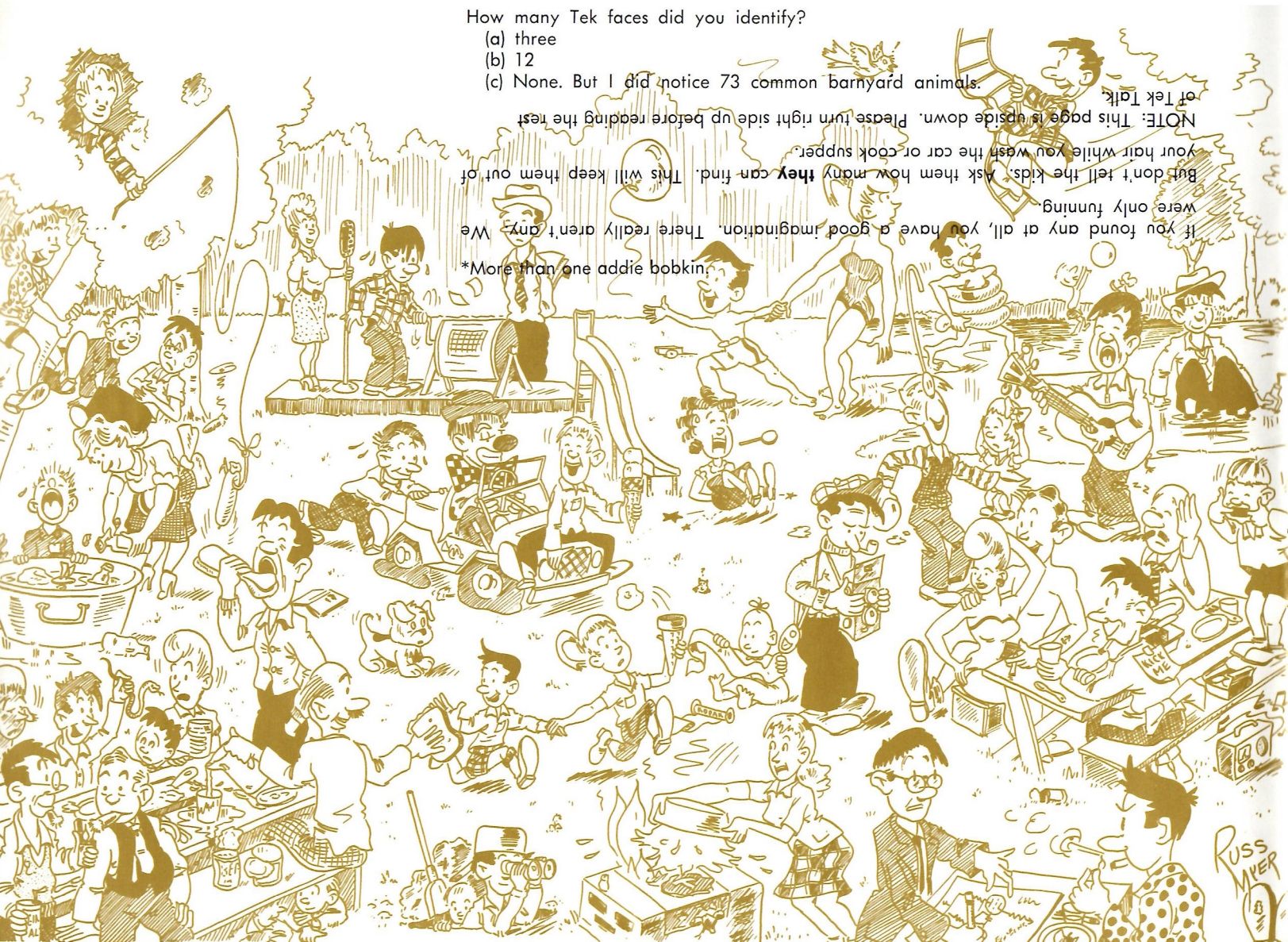
Teks and families will have the place to themselves, for kid and adult games, dancing, horseshoes, swimming, a talent show and prize drawings.

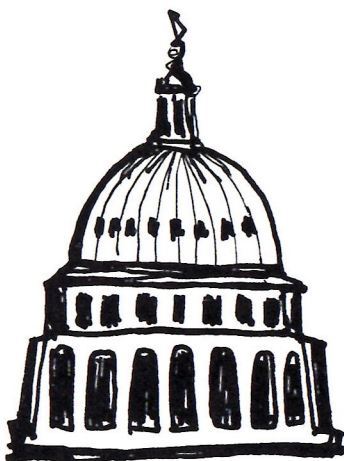
How many Tek faces did you identify?

- (a) three
- (b) 12
- (c) None. But I did notice 73 common barnyard animals.

NOTE: This page is upside down. Please turn right side up before reading the rest of Tek Talk.
But don't tell the kids. Ask them how many they can find. This will keep them out of your hair while you wash the car or cook supper.
If you found any at all, you have a good imagination. There really aren't any. We were only kidding.

*More than one addie bobkins.





Statement of
Don A. Ellis,
Treasurer,
Tektronix Inc.
before the
Senate Finance
Committee

Legislation pending in the US Senate may bear strongly on the future of Tekintag, our year-old marketing subsidiary in Switzerland.

Tektronix believes parts of the bill, HR 10650, designed primarily to prevent "exporting" US jobs, will actually work to the competitive disadvantage of US firms operating abroad and may eventually threaten the security even of domestic jobs.

Treasurer Don Ellis appeared April 27 before the Senate Finance committee to describe Tektronix' dim view of the Kennedy administration's proposal. His testimony is reproduced on these pages.

The bill would result in US firms being taxed on the earnings of their overseas marketing subsidiaries **before** those earnings are remitted to this country. This has the effect of accelerating the taxation — of making the parent firm pay its taxes **sooner**. For us to have to use our money resources for taxes while foreign competitors use theirs for expansion obviously hampers our competitive position.

The legislation, which has passed the House of Representatives, is not aimed at manufacturing subsidiaries. It would have little effect on our Guernsey and Heerenveen manufacturing operations, even though these have more employees than Tekintag.

To oversimplify a bit: Now, Tekintag profits are taxed by The Netherlands and Switzerland. Because both countries encourage export business, taxes on income from exporting are lower than they would be for a company operating entirely within the borders of their country — and lower also than US rates.

If Tekintag accumulates earnings in excess of the amount it needs for expansion, it remits a dividend to Tektronix, Inc. We pay a tax on this dividend, but receive credit for applicable Swiss and Dutch taxes which Tekintag paid.

Under the administration's proposal, Tekintag earnings would be taxed by The Netherlands and Switzerland as at present — but Tektronix, Inc. would also pay tax on those earnings now, eating into the money we have available for expansion.

Some companies more experienced than we are in international marketing reportedly have made plans to liquidate their overseas operations if the bill is approved and before the President signs it into law. We plan no such step.

First, Tekintag is such a new venture that we can't precisely evaluate how the bill would affect it. Nor are we sure the measure will pass the Senate. Nor do we have any big accumulated Tekintag earnings to worry about.

Although the bill contains other provisions, Don's testimony dealt primarily with the detrimental effect of taxing the US parent firm before remittance of subsidiary earnings.

He pointed out that Tekintag was born of our determination not to abdicate our overseas market to foreign competitors — and to prevent their gaining strength to invade our domestic market also.

Any hurdle which US corporations operating overseas face and which their foreign competitors do not face is a competitive handicap, he stressed.

Don noted that our Swiss corporation performs the complicated task of coordinating the sales of three manufacturing operations. With a product as technical as ours, coordinating marketing — and our resultant ability to provide close technical assistance and advice — is essential to our international success. Because of this vital function, Tekintag is not a so-called "tax-haven" operation — one which serves no purpose other than to take advantage of a favorable tax setup.

Don emphasized three points: That anything hampering the competitiveness of foreign subsidiaries of US companies is detrimental to the United States itself; that any attempt to tax parent corporations before subsidiary earnings are remitted would encourage foreign countries to enact stiffer taxation; and that the end result of the proposal might be to threaten the security of domestic jobs by encouraging foreign companies to gain competitive strength.

(continued on next page)

Don Ellis . . .

Because of the nature of my presentation I do not have a prepared manuscript. We did send written statements to each member of the committee, and I turned in a few this morning which I would like to see included in the record.

Senator Kerr. That has already been ordered. It will appear at the end of your testimony.

Mr. Ellis . . . I would like to make two observations and spend the balance of my time illustrating the first.

The first observation is that anything which is done to reduce the ability of US corporations and their subsidiaries to compete with foreign companies will be detrimental to the United States.

This includes parts of the tax bill under consideration.

I would also like to encourage support of efforts to reduce trade barriers and move toward freer trade, which I think will do even more good for the United States.

The second is: If you were to reverse your roles with your counterparts in other countries, particularly European, and so-called "tax-haven" countries, I am sure you would retaliate with higher tax rates to counteract this country's attempt to tax earnings of foreign subsidiaries of US companies before the earnings are remitted.

would reduce US tax

Higher foreign tax rates would increase the tax credit and reduce the amount of tax the United States would be able to collect, either as earned or when the earnings are remitted.

Also, if the foreign subsidiaries were in no position to make remittances to the parent in this country, and the tax had to be paid, it would be paid out of money that might very well otherwise be invested in this country to create more jobs.

To illustrate how hampering our ability to compete with foreign countries will hurt US jobs, I have to do something the associates in my company don't like—sort of toot our own horn.

We are one of the new technology companies. We manufacture sophisticated electronic measuring instruments. I brought one with me, to illustrate to some extent.

This is the baby of our line. It is similar to a TV set except that it is very precise. A variety of measurements can be made with it. To the electronic and electrical engineer and researcher this instrument performs the same function that a chemical balance or a microscope does for a chemist—in other words, makes the very basic measurements.

The electronics industry is particularly advantageous to some localities in this country; I am sure it is the type of industry we would like to keep strong in this country.

It is a mobile industry. It is not dependent on its location for markets or for materials. It is primarily based upon intelligence or brain power for developing the instruments; on productive careful workers to manufacture the instruments, and very particularly upon good selling effort.

History related

Our company started after World War II in 1946. The first sale was made in 1947.

The first instrument that was developed sold for around \$800, whereas the competing instruments on the market at that time sold for around \$1900 to \$2000.

We rapidly became prominent in the industry, selling instruments all over this country. Very few companies remained in competition with us.

We are located in Oregon, which is unusual for a company of this type but is very valuable to Oregon. Oregon's economy depends mostly on forest products and agriculture, both of which are highly seasonal.

Our company is considered quite an asset because while we started out with no employees in 1946 and had only 75 in 1950, by the end of 1951, as a result of the instrument uses related to the Korean defense effort, we had 320 employees. By the end of 1954, 500; 1956, 1200; 1958, 2000; 1959, 3000; 1960, 4000; and at the end of 1961, about 4600.

Of these, 250 are in our field offices providing the selling effort which I will emphasize in a minute.

We also have about 200 employees overseas.

In our business we have found personal marketing highly important. These instruments are very technical. For a customer to make good use of them he needs to have considerable instruction and demonstration. There are now 43 different oscilloscopes in our line. This sample, as I mentioned, is the baby. It is a transistorized portable scope that can be used anywhere. We have some that are fairly large, weighing as much as 150 pounds and costing \$3500 each.

We do a lot of training of our field engineers. It takes a man who has a good background to become one, and then we have in-plant training of six months just so he is capable of helping customers learn to use our products.

I have a couple of examples of letters here that illustrate what our customers think of our marketing efforts. One is from our Encino office, where recently a chief engineer disclosed his counsel to his young engineers. "If your system doesn't operate and you don't know what is wrong, blame it on the oscilloscope. The Tektronix field engineer, to defend his equipment, will show you what to do."

Foreign customers Show interest

We established ourselves in this country and then found there were customers in other countries that wished our products. From an insignificant amount in 1950, our export has expanded to take more than one-third of our output. Of course, from Oregon's viewpoint all our output is export.

Almost none of our sales are made to Oregon, but for the United States one-third of our output is now outside this country and Canada. We consider Canada domestic.

Obviously, with instruments of this sort, none of this goes to underdeveloped countries. All of it is to highly developed countries—those that use technology. We decided our marketing in the foreign field was inadequate, and in 1957 sent a man over to Europe to circulate among our distributors there to make sure they were kept up to date on the nature of our products and the ability to demonstrate them to our customers.

From 1959 to 1962 our export sales averaged an increase of 40 per cent per year. At the same time our domestic market was averaging an increase of only 20 per cent a year.

In the United Kingdom our sales in 1955 were \$80,000; in 1956, \$180,000; then in 1957, with our new field engineer, \$320,000; 1958, \$530,000; in 1959, \$980,000; 1960, \$1,800,000, almost double 1959; in 1961, only \$2 million—and it is the slowdown I want to stress.

UK competitive

The United Kingdom provides more competition than most of the other countries in Europe at present. I have furnished members of the committee with copies of a letter to Mr. Ullman, from Mr. Brooks Hays of the State Department.

It describes part of our difficulty in the United Kingdom. The United Kingdom has a 33⅓ per cent ad valorem duty on our type of instrument. However, when there is no competing instrument available in their country, they allow our instruments to come in without payment of a tariff. But whenever an English competitor claims he has an instrument like this, a deposit has to be made with the customs people until it is proved that within 9 months the competitor did not supply the instrument.

We at one time had \$200,000 invested in deposits with the customs people in the United Kingdom waiting for the competitors to fail to deliver.

Had the competitors **been** able to deliver, of course, our price would immediately have gone up one-third to the British customers. This would give our competition an almost insurmountable advantage.

We saw the handwriting on the wall, and in 1959 started a manufacturing branch on the island of Guernsey, one of the Channel Islands.

Now, in 1959, as I mentioned, we had sales of \$980,000 in the United Kingdom;

45 per cent of these were instruments manufactured on the island of Guernsey.

In 1960 sales were \$1,800,000, with 50 per cent from the island of Guernsey. In 1961, of the \$2 million sales, 60 per cent was from our plant in Guernsey.

This amounted to an actual decrease in the amount that came from this country. Guernsey manufactures only 5 out of our 43 types. We would not have been able to sell any of these five types made in this country; by manufacturing on the island of Guernsey, we are able to continue satisfying the United Kingdom market.

Thus, we did not abdicate to their companies the right to make our instruments.

I have another example to show where we have failed to prevent the growth of competition.

In Japan we have not sent over our own field people. We do not furnish marketing assistance there, and I think it is a big mistake.

In 1959, we had 11 competitors in Japan that we know about, and we still had about two-thirds of the Japanese business.

In 1960, we believe we satisfied only about one-half of that market. In 1962 there are at least 20 competitors in Japan, and we feel we are doing less than one-third of the business there.

We are, I think, sorely in need of field engineering in that country, as well as manufacturing.

However, seeing the handwriting on the wall in the United Kingdom, we also see it in the Common Market. Competition is developing there, so in May we will open a manufacturing facility in The Netherlands to manufacture the instruments threatened with competition.

Competition met

We will continue sending to Europe from production in Portland the other 38 scopes plus the allied instruments.

However, as I mentioned, our marketing is a problem. It is complex; it requires competence. We will be selling instruments from three different companies. Not only do the efforts need to be coordinated but our field distributors need to be informed, kept up to date at all times.

We therefore formed a marketing subsidiary (a necessary operation) to unify

all of these efforts, to coordinate the instruction and demonstration, and to do the repair work. We selected a Swiss company. There are several reasons why we did it, and we did not ignore the fact that taxes would be less.

However, we went to Switzerland because it has a good record of stability—economic, political and money stability—of reliability, of easy transfer of funds, of respect, a good set of treaties, and, in particular, it is multilingual. The Swiss people are adept at dealing with the variety of countries. But as I said, we didn't ignore the fact that by forming this company in Switzerland we would have less taxes over there, therefore, less credit and—when the money is remitted back here—a larger US tax.

US exports will increase

In summary, our satisfying the world market instead of defaulting it to foreign competitors:

1. Expands exports of US-made instruments because we are increasing demand by providing proper instruction in the use of the instruments.
2. Prevents the loss of foreign and eventually domestic markets to our foreign competitors. We have no doubt that as Japan is able to make these instruments they will try to sell them in this country.
3. Brings to the United States earnings of the foreign manufacturing and marketing subsidiaries and allows us to continue our expansion there.

I might also say that our manufacturing companies over there pay a technical service fee for every instrument they make to the domestic parent directly and that, of course, is taxable income to the United States.

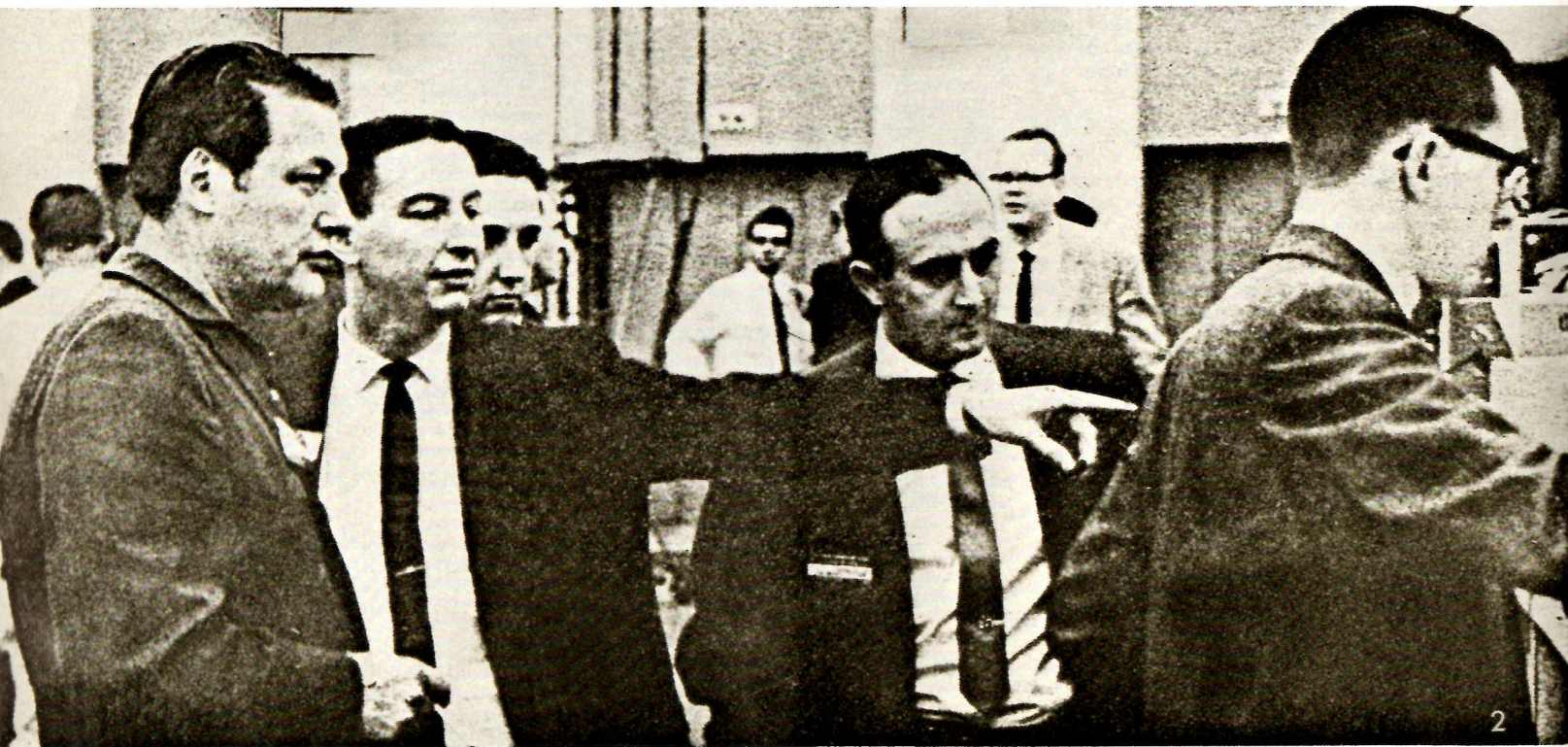
Our marketing company pays a license for the right to use the name.

So, if provisions to tax earnings of foreign subsidiaries remain in the tax bill, they will hamper our ability to compete. They will endanger our employment in the United States and particularly in Oregon.

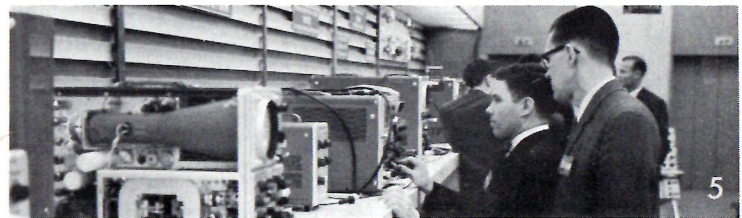
We feel sure such provision will invite other countries to raise their tax rates and thereby nullify the effects of the bill.

Thank you.

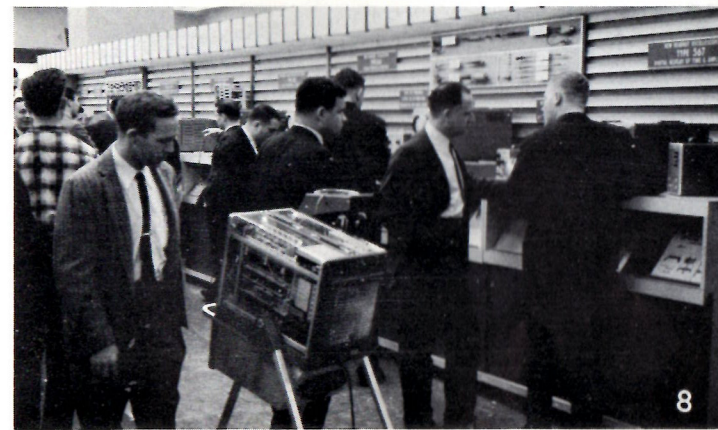
Senator Kerr. Thank you very much, Mr. Ellis, for a very interesting statement and presentation.



new york
coliseum
march
1962



IRE



PART OF THE activity at the annual New York IRE show — the nation's largest annual electronic instrument display — is captured in these pictures by Tektronix visitors. The show was held in the city coliseum in late March. (1) Chris Christensen (Customer Service) and John Kobbe (Corporate Staff) check the Tek booth before the show. (2) Norm Winningstad (Design Engineering) points out our instrument exhibit to two Hewlett-Packard engineers. With him are engineers John Gates (behind Norm), Stan Baker (center) and Cal Hongel (right). (3) Union Field Secretary Diane Green tends reading rack. (4) From above, this is how the coliseum floor looked before the gates opened. (5) Sam McCutcheon and Cal Hongel (Design Engineering) check out a scope. (6) Byron Broms (Corporate Staff) and Scotty Pyle (International Marketing) confer with Dr. Sandro G. Pieri of Silverstar Ltd., our Italian distributor. (7) Norm was among the speakers when engineers and FEs gathered before the show to compare notes on instrument needs and development. (8) Crowds from show's opening to close kept booth attendants hustling. (9) Through the coliseum's main entrance passed an estimated 73,000 visitors.



The young man in the Testing room, working against time as he took part in Tektronix' dexterity and related tests, was taut and perspiring. The tests, unnerving to many Tek job-seekers, were little short of terrifying to him.

He was a paraplegic, confined to a wheelchair, his lower extremities useless forever. An automobile accident had turned him suddenly from a normal to a handicapped person.

In this, his first try for a job since the mishap, he was plagued by fears of failure. Nervous, fumbling, he completed the tests. They were scored; most were poor.

This might have been the end, with who knows what emotional aftermath. But Employment staff members, noticing his extreme nervousness and aware of his electronics training, decided on a retest. The decision paid off; his scores the second time around improved.

Staff man Norm Silver, part of whose job is placing qualified handicapped workers, checked to see which Tek areas could accommodate a person in a wheelchair. He found a department with a job opening and enough work space, and arranged an interview with the supervisor.

Interview time arrived, but the applicant didn't. He had reached the door of the building, then—overcome by fear of rejection—he panicked and headed home. Norm phoned him, encouraged him to try again and offered to accompany him to see the supervisor.

The interview began stiffly. The young man was tense. Then, as the meeting continued casually, easily, he relaxed and—for the first time—began to talk freely. He passed an oral exam, and was hired.

And so his second chance paid off—for Tektronix. Other than minor adjustments in placement of tools, he's needed no special consideration. He has faced the same production standards as any worker—and has met them. He has received a pay raise; now, after three months, he's going to be sent to test and calibration school. He's happy, but most important: He's a self-reliant, productive employee.

Which is what Tek counted on when it gave the second chance.

What Matters? ABILITY, NOT DISABILITY

“Human
resources
are the
greatest assets
of Tektronix,
for
its objectives
are achieved
by
and through
people.”

.....Tektronix employment policy

When it hires, Tektronix seeks not to discriminate either against any person or for any person. The important thing is that person's **ability**—not his disability.

We make one concession: We will take the necessary extra effort to make sure he has a fair chance at the start. So it is that we invest more in his placement than that of the average job candidate.

There are two good reasons why—good reasons for Tektronix:

First, we are tapping a reservoir of dedicated, capable employees—a reservoir it would be poor business to overlook.

Second, a positive outlook toward hiring disabled persons is healthy for employee morale.

What is a handicapped person? Any one who is physically impaired.

What is special placement? It is merely special consideration—or, more accurately, equal consideration through special effort.

There are also what might be called **socially** handicapped persons: Those with language difficulty; those with prison or mental institution backgrounds; ex-alcoholics, and (sometimes) minority group members. This article does not discuss them in detail.



LEON DUFF, undaunted by blindness, developed his own Braille cable board and “doghouses.” His job performance compares with that of other Cables employees.

Who qualifies for special placement? Only those who are qualified for Tektronix jobs—that is, who have the necessary education, experience, aptitude or other indication of potential.

This is our criterion: **Potential value to Tektronix.** Of our applicants (about 1000 a month), 25 to 30 may be handicapped—have a problem which indicates they can't be normally placed in jobs.

About three-quarters of these are physically disabled. Of course, not all of them are dramatically—or even visibly—afflicted. (A diabetic is less apparent than a person in a wheelchair.) But the problem for each is the same: Adjustment. And that of the company is the same: Extra effort in placement and training.

There is slight chance for a mentally retarded person, or a spastic, to be employed at Tektronix. Yet we **have** found productive work for the totally blind and totally deaf, as well as for people with other extreme disabilities.

Often it's merely a problem of educating managers in the range of jobs which handicapped persons can do. Other times it's a matter of proving that the person can be a normal employee.

It's important to remember that Tektronix production standards apply to all employees—handicapped or not. The physically impaired person must produce not only as well but also as rapidly as his coworkers.

As Norm Silver stresses: “We're interested in handicapped workers not because we're a rehabilitation center but because we're a business.” Of the two words, the important one is **worker**.

Takes Longer to Learn

The breaking-in period for a disabled person usually is longer than for the average employee, and it means more attention by the manager and, often, by fellow employees. How **much** extra training and time we allow depends largely on the individual department.

Norm praises Tek managers for their open-mindedness toward hiring disabled persons, and commends the cooperativeness of employees, many of whom contact him to arrange special favors for handicapped coworkers: More convenient parking arrangements, for example.

In most cases, these favors are not granted. “Most disabled persons prefer, we think, to be treated like anyone else.”

Before a person with a job handicap is placed, Norm makes extensive contact with the supervisor doing the hiring—far more extensive than for most employees. Rarely will he refer an applicant without completely discussing with the supervisor that person's background, history and limitations.

Often the solution is to modify a work process so a person with a particular disability can do the job. And it's not always the company that makes these adjustments. One blind employee, Leon Duff of Cables, constructed his own Braille cable board and row of Braille “doghouses” — holders for color-coded wire—to help him learn his job more rapidly.

Most disabilities (not only physical impairments but also language problems) are apparent to the employment interviewer immediately. Others may come up in conversation. Some are revealed in the applicant's job history.

Tektronix is frequently contacted by Oregon State Division of Rehabilitation and the state employment service, both sources of qualified handicapped workers. Various workshops for afflicted persons also refer likely job candidates to us.

Many Impairments Acceptable

We have successfully placed persons with many afflictions: Diabetics, amputees, paraplegics, epileptics, even some spastics and people with histories of mental illness.

Sometimes a person who is generally sickly is harder to place than one more severely handicapped. One possibility we must consider in these cases is absenteeism. Another problem, although easier to solve, is that these persons often require jobs that involve little physical exertion.

Even persons with physical defects so severe as to hamper their normal movements receive consideration—up to a point: We're doing exploratory work to find out what areas can use these persons, and on what jobs.

“Not only is it common sense to make as many persons productive as we can,” comments Employment Manager Irv Smith, “but it's also part of our community responsibility. As a major area employer, we can't **help** being in the limelight. So we provide as much opportunity for these persons as is consistent with our company objectives.”

“Also, we feel it's better for a person to earn his own way than to be a burden on the tax rolls.

Two Ways to Look at It

“Your attitude toward hiring the handicapped depends a lot on just where you start your line of reasoning.

“You may start by saying that **some-one** has to hire these people—that is, begin with the idea of social responsibility. If all handicapped persons were jobless they might become drifters, criminals, welfare recipients . . .

“Many of these people, with proper environment and proper work to do, can find a spot in which their ability or talent is superior. Unless they can be productive, they are useless.

“On the other hand, if you begin with the idea of filling a specific job, these persons must compete with other applicants. Often they must shift their education and training to compensate for their disability.”

Tektronix' attitude toward the disabled,

(continued on next page)

Ability . . .

although it has been cited as a community example, doesn't differ significantly from that of many other employers. But assigning the responsibility for special placement to a single individual is a distinct approach.

Many handicapped applicants present a problem for the special placement interviewer. Often they are apprehensive, hard to talk to. Sometimes they are withdrawn, and refuse to speak. If they have been rejected by other employers, this adds to their tension. Frequently they appear downright hostile.

Sometimes when an applicant can offer no conventional work experience, Tek looks for other indications to go on: Recommendations by a referral agency, a check into his school records, his interest in a relevant hobby . . . Sometimes none of these, but merely a strong hunch by the interviewer.

Of course there are failures; not every placement works out well. But our ratio of successes to failures is high.

Communicating a Problem

Persons with language problems (immigrants are a good example) have a problem equal to that of some physically handicapped: They must be trained by example rather than by explanation.

Difficulty in communicating, whatever the cause, may be the disabled jobseeker's worst obstacle. Sometimes a manager must turn down an otherwise qualified applicant for this reason; however, some totally deaf persons for example, have become excellent employees despite this hurdle.

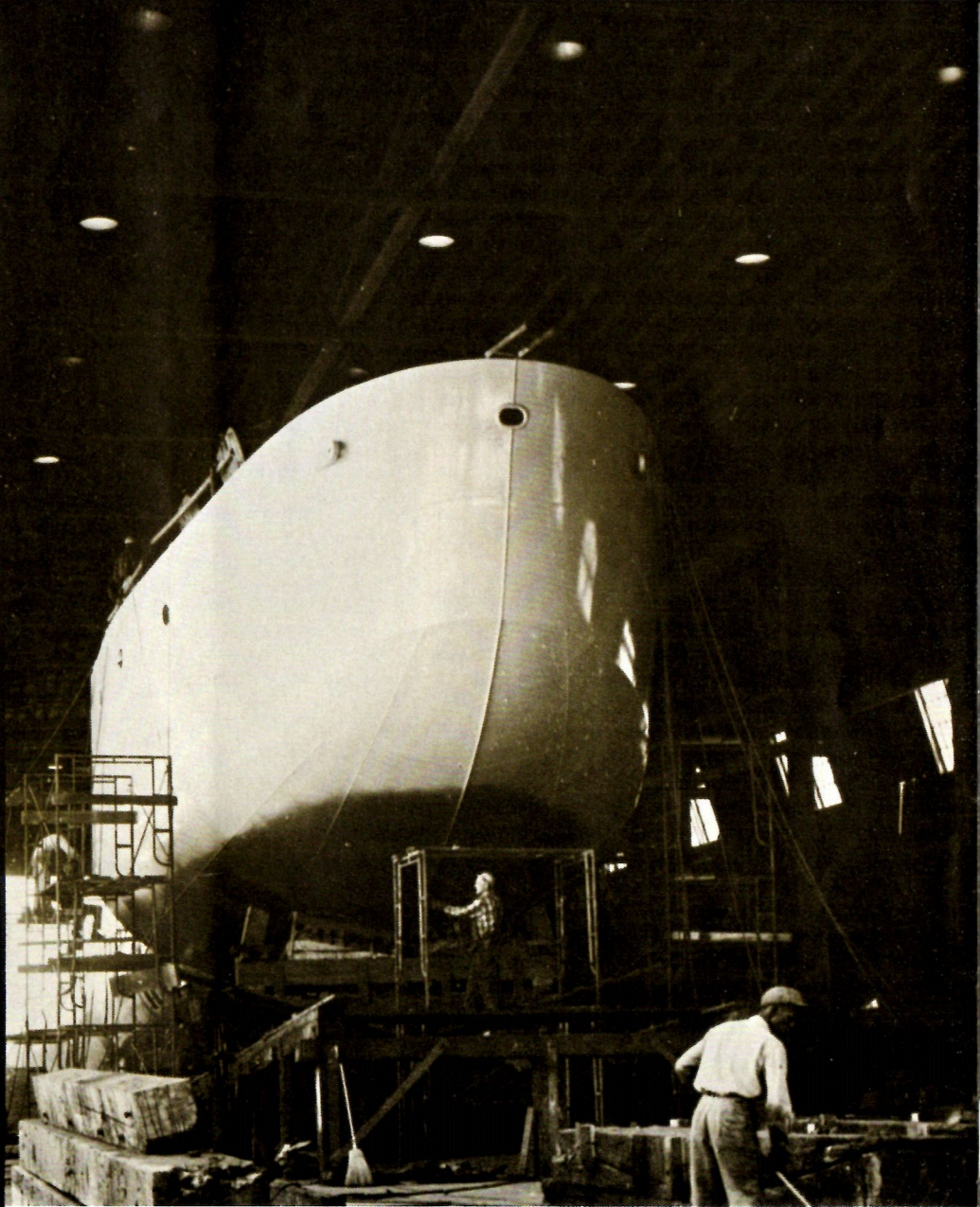
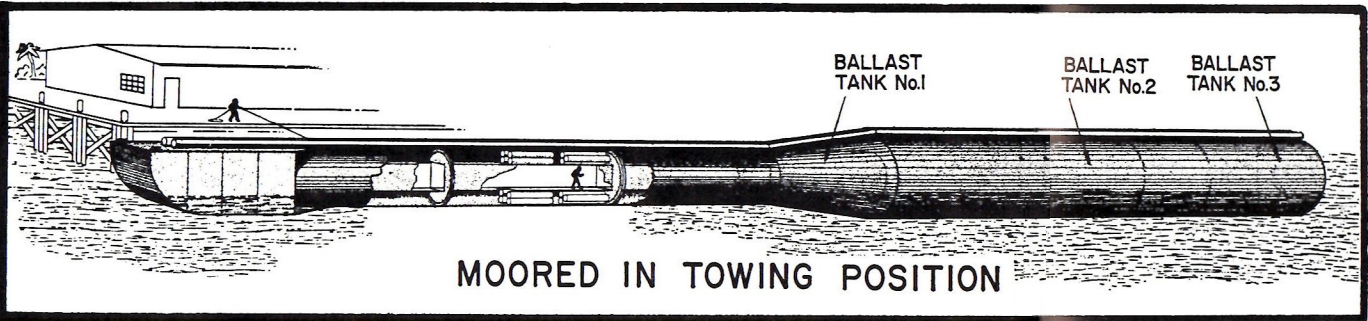
Although a handicapped person must face the fact that his inability to communicate may limit, or rule out entirely, his chances for a supervisory position, employees with severe disabilities have progressed, when qualified, into managerial jobs.

How widespread is our population of physically impaired persons? About 90 per cent of Tektronix areas have some type of special placements.

"In our survey," Norm recounts, "we've found that even more Tek areas than we expected can use handicapped workers. Many supervisors simply hadn't before realized the potential that this pool of workers can offer. The major obstacle usually is the training time involved—but sometimes it's lack of space for a wheelchair or inability to change a work process.

"We're now doing case studies to learn more about these persons—what their adjustment problems are, for example—in an effort to improve our consideration of similar people seeking jobs here.

"Our approach to special placement is always to inform managers, to educate them, to explain—**never to sell**. What we're doing is looking for ways to use potential good employees, regardless of handicap. To waste that potential would be a shame."



THREE DAYS BEFORE completion of FLIP (Floating Instrument Platform), Gunderson Bros. crews worked night and day to give it a final coat of paint, remove scaffolding, make repairs and prepare it for the launch. Drawing shows the giant buoy in its horizontal towing position. At right, tugboats nudge FLIP into position near dock to await trip to Puget Sound for trials.



by JANE MARTIN

With the appropriate amount of fanfare the strange craft slipped down the ways at Gunderson Bros. Engineering Corp. in Portland on June 22. The faces of the many men who helped create it wore some mighty proud smiles. They had built a FLIP (Floating Instrument Platform) and it was now afloat in the Willamette river, showing off the blue-and-gold colors of the State of California which were painted in bold stripes on its bow.

Described variously as an "ocean-going soda straw", a "sea needle" and a giant buoy, FLIP also can be compared with a submarine capable of floating horizontally in the water and then standing on its tail in the middle of the ocean—and remaining there from one to two weeks. While in this vertical position, 55 feet of bow, housing the electronics labs, living quarters and controls, projects out of the water.

FLIP was the dream of Dr. F. N. Spiess, Dr. Frederick H. Fisher, and other personnel of the Marine Physical Laboratory, Scripps Institute of Oceanography, University of California. Sponsored and financed by the Office of Naval Research (at a cost of \$500,000), it fulfills a need recognized for the last 15 years for a stable platform, with little or no background noise, from which to conduct extremely delicate underwater sound and motion measurements.

Won't Bob Much

Should FLIP run into rough weather while researching at sea — say 30-foot waves — it would bob up and down less than 3 feet. In the past, rough seas have not only reduced the effectiveness of the experimental equipment but sometimes hidden the very effects they were trying to measure.

Tektronix oscilloscopes will play an important part in FLIP's research. Two rack-mounted 515 scopes are installed in the electronics lab. They will be used to trouble-shoot other instruments in the lab and to compare the arrival times of sonar pulses as they are received on the hydrophones mounted on a boom on the lower end of the buoy. The time comparisons picked up by the scopes are used in orienting FLIP with a sonar transducer suspended below a surface ship many miles away. A 533A mounted on a 202 Scope-Mobile will be in general use around the lab.

A series 122 preamp and some 160 waveform generators also will be used aboard the craft. The Marine Physical Lab at San Diego has a large inventory of Tek instruments which can be taken aboard the FLIP "as needed".

FE Will be on Call

"Tek scopes were selected to fill the need for highly accurate sweep calibration," Phil Cushing, electronics engineer from M.P.L., reported. "The crew aboard FLIP will rely heavily on their instruction manuals for minor scope repairs, but Hal Dosch of San Diego field office will be called out for everything else. He's a great help and very capable," Cushing added.

From the Portland dock, FLIP was towed to Dabob Bay in Puget Sound to undergo trials. (It is not self-propelled and must be towed to its research points).

There it was "flipped" for the first time by Commander Earl Bronson, resident inspector who directed the construction, a retired U. S. Navy man with 30 years submarine experience. The three ballast tanks in the stern are flooded with 1500 tons of water, causing the rear section to sink to a depth of 300 feet. The four men, fastened with safety belts to prevent being flipped also, operate the controls for a time while lying on their stomachs, until the giant buoy has completed its change of position. 70 tons of concrete placed along the horizontal keel insure its flipping right-side-up when surfacing.

Flipping Causes Problem

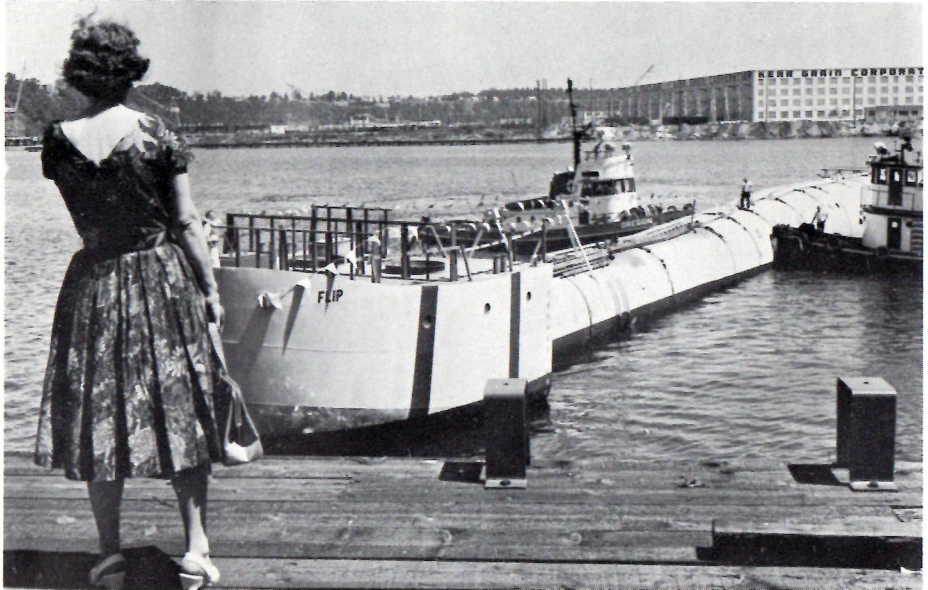
The original designs called for typical submarine galleys, living quarters and sanitary facilities. However, the many problems that arose in efforts to gimbal the equipment (enable it to remain horizontal when the position of the craft changes) made the researchers abandon the idea for now.

The food will be brought aboard airplane-fashion in warm and cold containers. A ship will be within calling distance at all times, but will not remain alongside unless needed.

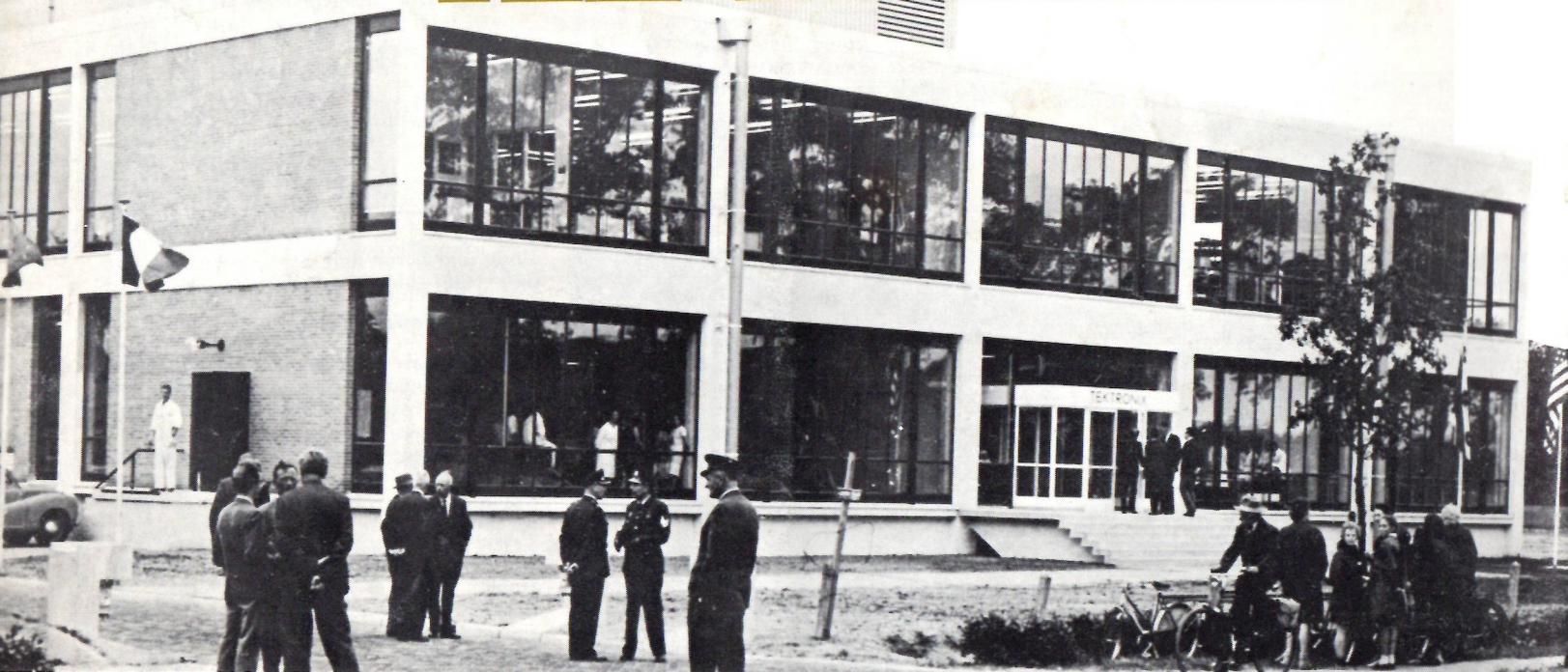
FLIP is 355 feet long with a circular beam of 20 feet. It weighs 600 tons while horizontal and 2100 tons when upended.

Upon completion of the trials at Dabob Bay, FLIP was towed to Point Loma, San Diego, where it now operates in the Pacific under the direction of the Marine Physical Laboratory.

As Senator Warren Magnuson of Washington pointed out in his address at the launch ceremonies, "We know more about the back side of the moon than we do about ¾ of the earth's surface." The accomplishments of FLIP, with the help of Tek scopes, may contribute largely to new discoveries in "inner space".



TEK NEWSREEL



THIS IS TEKTRONIX HOLLAND N.V., our manufacturing plant in Heerenveen, The Netherlands, which was officially dedicated June 22. A duplicate of our Beaverton assembly buildings, the structure opened with 57 persons employed. Mr. H. P. Linthorst

Homan, the Queen's Commissioner for Friesland, fired up the first oscilloscope. First instruments into the Heerenveen line will be the 545A, 535A, CA, K and L. Earl Wantland is manager of the Dutch manufacturing operation.

At the annual meeting of Tektronix shareholders June 4, Howard Vollum announced that he had again taken over the duties of chief operating executive.

The position of executive vice-president no longer exists. Bob Davis, who has held that post since December 1958, will continue as a member of the board of directors.

Howard's decision, although made with reluctance, was reached after much study

and discussion, and was "the best way to meet my responsibilities as I saw them," he explained.

He commended Bob's "many good ideas" and his effective operation in many areas—including growth of Tek facilities and employment, and the establishment of overseas operations.

He and Bob agree that the company should be governed by one managerial style rather than two, he added.

Howard said he doesn't plan any sudden changes in organization or policies. Any changes which do occur will be based on the needs of, and made in consultation with, the people involved.

"I am confident we have the abilities and willingness to work out policies and practices which will be to the benefit of all," he concluded.

Tek operates. So, profit share base pay now includes the regular portion of overtime pay, but not the premium portion.

In the past Tek has paid the same profit-share percentage in each country. However, some countries have much greater "employee benefits" than others, which means Tek has paid some employees a larger percentage over and above base pay than it has others. Because this seemed unfair, Tek has adjusted profit share to make the percentage (PS plus benefits) over and above base pay the same in all countries.



Tektronix participated in the 6th National Military Electronics Convention (MIL-E-CON) in Washington June 25 - 27. The show is sponsored by the Professional Group on Military Electronics of IRE.

Five instruments were on display in the two Tek booths: The 945 militarized scope with an MC dual-trace plugin unit and ML fast-rise high-gain plugin unit; the 567 digital readout scope; the 290 transistor switching-time tester; the 585 and the 545A.

Bill Ewin (Washington) was in charge of Tek's display.



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