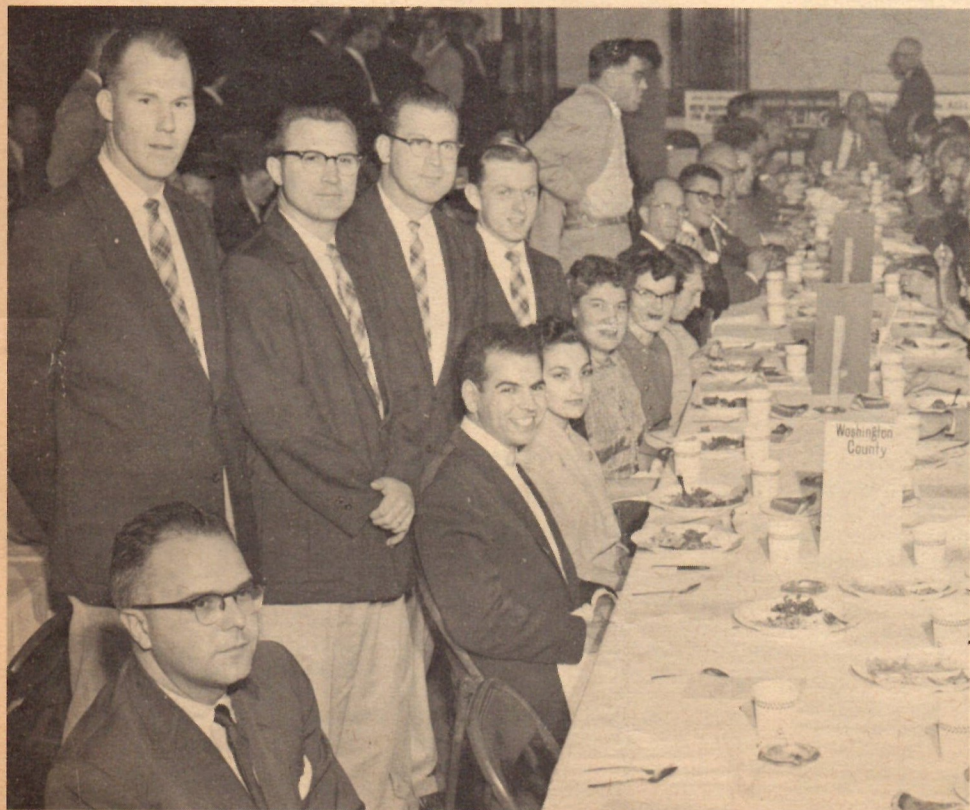


Tektronix Spotligthed On United Fund's Tri-County Campaign



Headlined for special notice was Tektronix at the United Fund report luncheon on October 26. Representing Tek were Tek Tones (left to right) Corky Hymes, Gene Cavanaugh, Bob Duhrkoop and Bob Jackson; seated are George Roussos, Yvonne Hoffer, Norma Caufield and Blanche Cook.



Presentations of hats have been high points of the United Fund Report Luncheons. Tek joined the fun and presented this 'Electronic Helmet' for better reception of Fund returns. Chuck Holloway, General Chairman, was recipient at the October 26th Report Luncheon. George Roussos made the presentation.

Shop Shifts "Ash" to Dept. Head



Erwin Ashenbrenner

Recently announced was the promotion of Erwin Ashenbrenner to department head of Tek's shop. Tek Talk in an interview with Ash who was convinced there was nothing interesting about his background, gave the reporter the following facts.

Ash in an Oregon Webfoot. He even likes the rain, preferring it to the Mid-west's cold winters. He was born and educated in Portland where he attended Hosford, Benson Tech, then Oregon State extension, where he studied the "Art of Being a Good Foreman." His educational background included a correspondence course in 1949 from Alexander Hamilton Institute on Modern Business, and another from the National Foreman's Institute, on work simplification. Various technical courses were included in these: Planning, Processing, Plant Management, Time and Motion Study, Conference Leadership and others. These courses augmented his practical experience.

Starting at Iron Fireman after graduation from Benson, Ash worked as a machinist. He was promoted to foreman in 1941. In 1945,

Ash's working experience changed radically. He was promoted to the foreman of the Bomb Fuse department and was doing nicely, when he was transferred to the Cleveland, Ohio plant, as assistant superintendent. From there he received a further promotion to plant superintendent in 1946. This position was held until his return to Portland in 1953. He went at this time with the Screw Machine Products as production superintendent and then in September, 1954, Ash became a part of Tektronix.

Ash's versatile work at Iron Fireman covered all phases of plant management and production from running turret lathes, hand screw machines, etc., through purchasing, cost reduction, processing, plant employee training and personnel work. He was responsible for setting up and conducting conferences on all phases of supervision and in this manner built up a competent supervisory staff; Ash has had as many as 550 people working under his guidance.

On the domestic front, Ash has had other things to keep him occupied. Bonita, age 10; Erwin, Jr., 8; and Lila, 4, all get home supervision from wife, Esther, but when she's too busy, Ash takes over. The same good humor and diplomacy displayed on the job, keeps harmony at home. Of course Dad is boss, but such an understanding one. Principle family activities are hunting, fishing and Ash is one of Tek's bowlers. Helping Dad make miniature models is another special project — all in all there is never a dull moment.

All this is a far cry from the boy who worked as a grocery clerk and sold newspapers to make his high school expenses. Tek Talk salutes our newest department head.

Government Aids Current Profit Share Renegotiation Refund Not Required

Tektronix profit sharing received a boost from the government last month. We were informed that Tektronix sales to government agencies during 1953 will not require a refund due to renegotiation. You may ask what this means to you and your profit share, so we will try to answer your question.

During periods of national emergency when government purchases will be exceptionally large, Congress passes laws designed to prevent overpaying suppliers. Technically these laws permit the government to review and adjust prices paid after completion of the contracts. These laws must apply to all situations, and unfortunately sometimes penalizes efficient manufacturers who have been profitable, while possibly missing some who are extravagant with their expenses, and therefore not so profitable.

Tektronix has been both efficient and profitable. Tektronix, during a period of generally increasing costs, did not raise its price structure above those started in 1947, while greatly improving the instruments during that time. In spite of this fact, the Renegotiation Board saw fit to demand an adjustment refund in prices for 1951 which was paid in 1953. The Board has asked for a refund for 1952 which is still under discussion with them. The clearance (no adjustment refund) for 1953 was good news, and we hope we will also receive clearances for 1954 and 1955.

The possibility of being required to make a renegotiation refund was not anticipated in 1951 and 1952. Consequently, no reserve from which to pay this refund was built up during that period. This resulted in an overstatement of profits, and an overpayment of profit share. Howard and Jack volunteered to pay all of the 1951 required refund

from retained earnings, so the profit share was not affected in 1953 when the refund was paid. Early in 1954 it was felt that it was fair for the employees profit share to cover half the cost of the renegotiation refunds, with the balance to come from retained earnings. In order not to severely affect a particular bonus period, a reserve for the 1952 refund was started. This year we continued building a reserve for 1953 renegotiation, which reduced slightly the profit share earned so far this year. Now, we have eliminated the part of the reserve not required for the 1952 refund which improves the profit share for September through November.

Even with this assist, the October profit share is only 48% of pay, 36% current and 12% for retirement. Shipments were low because the test department had to take time to train their many new men. These new people are needed to replace those who left or were promoted into field engineering, and to expand the department to handle the increased volume. Test people report that for the last three weeks they have been gaining on the work waiting for them, and look forward to challenging Assembly to keep them supplied.

During September and October more than 50 permanent employees were added bringing the total for the company above 600. We must now ship more scopes than ever to have a high level of profit to share among our increased number.

Unexpected for this time of year, orders received during Oct. soared to our second highest month and increased our backlog of unfilled orders to an alltime high in dollars. This backlog is the highest measured in months of work since wartime 1951.

Tek Helps UF In 68 Agency Drive

The United Fund's annual tri-county drive had Tektronix as a guest star at their report luncheon, October 26 — only because Tek employees with their individual contributions showed their faith in their community and the one single annual company drive pledging, \$7,882.25; another \$2,500 was turned in by the Foundation. Percentage wise, it means that 88.3% of all Tek employees had voluntarily turned in their pledges and that this was almost 26% over 1954's returns.

Chuck Holloway, United Fund's chairman this year, has shown a penchant for hats. Tek's millinery department was not to be outdone, and couturier Cliff Moulton was design engineer of the helmet. Tek's UF committee was on deck for the presentation. Yvonne Hofer and George Roussos had the helmet; Blanche Cook and Norma Caufield carried placards reading "Tek it from us, it's fun to Give" and "Accept our Bounty from Washington County." Chairman Holloway was informed that with this magic hat, he would now be able to get all reports faster and clearer.

Completion of Tek's program was the entertainment provided by the Tek Tones: Corky Hymes, Gene Cavanaugh, Bob Duhrkoop and Bob Jackson. First on was "Kentucky Babe", followed by "Dry Bones" — and need we say, resounding applause. This also marked the first appearance of the Tek Tones in their new uniforms of gray flannel slacks and navy blue jackets.

Trophy awards this year to companies going over the top is a cow bell bearing the sign, "You Did Your Share for the UNITED FUND." In order that all employees can see it, the bell has been mounted and will tour each department for a day or so.

Tek Talk

Published by Tektronix, Inc., 9450 S. W. Barnes Road, Portland 7, Oregon, by and for its employees. Published the 10th day of each month, or nearest working day. Printed by Tektronix Incorporated.

EDITORIAL STAFF

Editor — Rita Woodbury Coordinating Editor — Norma Caufield
Composition — Gisle Borlaug Photography — Ed Egan

CONTRIBUTING REPORTERS

Engineering — Margie Guthrie	Field Eng. — Will Marsh
Mech. Eng. — Armon McDowell	— Jack Day
— Slim Sorenson	— Fran Egan
Stock, Purch. — Dick Millington	Export, Shipping — Orpha Enmark
Test — Sandy Sanford	Mech. Assem. — Margaret Ryan
— Pius Scheer	Unit Wiring for
— Lloyd Sharp	Assem. 1 & 2 — Reggie Green
Shop — Al Foleen	— Betty Jones
— Hank Jones	— Wilma Stapleton
— Duncan Bergeron	— Corky Hymes
Transformers — Jane Tomkin	Cables — Margaret Clymens
Ceramics — Helen Rohwer	GRT — Clara Knox
Panelcraft — Lois Rieschel	Manuals — Audrey Duyck
Front Office — Yvonne Hoffer	

Employees Give Generously To Obtain Volunteer Quota

Tektronix employees have expressed their feelings of security and warm friendliness for others in their voluntary pledges to the United Fund. The first day of the campaign this year, 57% of the employees had turned in their pledges. From then on it was a steady rate of return.

Quotas are set up on the basis of need; company quotas are then assigned by the budget committee of the tri-county United Fund. Tek's quota was made the first week.

Our contribution to our community was not made by an active solicitation; rather it was possible due to each Tek employee who gave his share in response to his knowledge of the need for the United Fund and his ability to give.

On November 24, America celebrates our national holiday, Thanksgiving. We think that here is a time to momentarily pause and be thankful for the feeling of fellowship and friendship that is so apparent at Tektronix.

German Visitors Round The World See Tektronix Plant For Eleven Cents

On October 14 Tektronix was pleased and honored to have as guests three gentlemen from the large West German firm of Siemens and Halske A.G. As some of you may know, Siemens and Halske is an electrical equipment manufacturer and is comparable in scope with the General Electric Company in the USA. To give a better idea of their size, they employ 140,000 people and rank second only to G. E. in their share of the world market for electrical equipment.

The names and activities of our guests from Karlsruhe were: Mr. Georg Bleisteiner, Vice President and member of the board, Siemens and Halske A.G.; Dr. Ludwig Merz, Head, Dept. of Engineering for the Electronic Measuring Instruments Division of Siemens; and Dr. Ing. Wilhelm Thal, Head, Dept. of Special Instruments of this same division.

Knowing about our instruments from actual use (Siemens is our largest customer in West Germany), these three men traveled 3,000 miles out of their way to visit our plant and to learn first hand how we manufacture oscilloscopes. Interest was high in our material handling, assembly techniques, and administration. At the end of a busy day all expressed equal admiration for our management methods, the skill of our people, and the over-all excellence of our instruments. The remainder of their day in Portland was spent with the Gerd Schwerins, pleasantly comparing notes in their native language.

On October 10, our wandering 'spec' was sent home by Mr. J. R. Edwards of Delco-Remy Division of Anderson (Adderson), Indiana (India), USA. The return voyage cost Mr. Edwards 9 cents but he had to let us know how far the 'spec' had journeyed.

Our apologies for the mistake and thank you for sharing this error with us. We only want you to know that if it ever happens again, a field engineer has volunteered to go with the 'spec' if we guarantee the same itinerary.

CREDIT UNION TIPS . . .

Did you know that you as a Credit Union member can buy life insurance without a medical examination—see your Credit Union for more information.

Don't forget yourself on payday, save a little with your Tektronix Federal Credit Union.

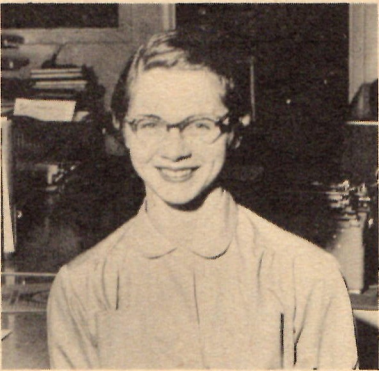
Credit Union deduction is the Painless Way to build a Savings Habit.

Late News Bulletin:

United Fund celebrated at a Victory dinner on November 3 the success of its quota making drive of \$3, 003, 644, for 68 agencies. Actual figures still being tallied point to a 102% completion.

— THE BIN. —

Tektronix just hired its 600th person. Kathryn Kroeger, better known as 'Taffy', joined the Field Engi-



neering staff on October 24th. My goodness, 600 of us, and we're only 8 years and a little over 5 months old!

A farewell party was held at Il Trovatore restaurant on September 27th, honoring Tek people who are transferring to Eastern offices. Harry Allison, Dick Phillips and Joe Vistica and their respective spouses were the honored guests. A choice of fried chicken or steak dinner was enjoyed by approximately 40 friends who extended their best wishes to all of them. After-dinner cocktails and conversation completed an enjoyable evening.

Harry Allison is at Bronxville, as will be Joe Vistica. Dick Phillips will take his training there, and will be stationed at Boston. It's nice to have such nice people representing us. Good luck, boys!

How To Get Action Out Of The Instruction Manual Department

If you want an instruction manual for a current production instrument call Corine — 238.

If you want an instruction manual corrected for a specific serial number call Corine — 238.

If you want an instruction manual for an instrument just going into production call Audrey — 237.

If you just want a part of a manual (text, parts list, schematics, etc.) call Audrey — 237.

If you want a good conversation call Rachel — 238. She works for Dick Tollisen and has hardly anything to do with manuals any more.

If you want information about manuals for new instruments call Fred — 239 or Henry — 236.

If you want to gripe about the lousy service call Henry — 236.

Thanks,
Henry

Russel Stover candy is making the same offer to Tektronix as we had last year. These gift boxes will be made available to us at a saving. Lists will be on the bulletin boards with order forms. Please turn them into Norma Caufield in the First Aid room. Orders must be turned in by December 10th for delivery on the 20th.

Tek Talk extends its sympathies to Bob and Eve Fitzgerald on the death of their mother. Our condolences also go to Hazel Tillman on the death of her father. Our sympathy to Coral Jenkins on the loss of her grandfather.

One Halloween party in the plant had special significance. Cables has confidence in their Seeress Hazel L'Amour. On October 31, 1954 her young son asked when it might snow. She predicted (after gazing in her mirror for 10 seconds) that it would snow on January 4th, 1955. It did: On January 4th, February 4th, and March 4th. Any one for fortunes? This year she was honored with a decorated cake and

witches brew — I mean — bonnet so she was the best-dressed witch — at Tektronix.

STORMMAKER OF ASSEMBLY TWO.

Hurricane, Earthquake Joe Drapak, as his friends call him now, recently brought his family to the Great Northwest from Bridgeport, Conn., and left in his wake a series

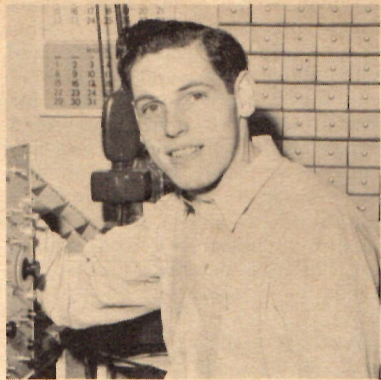


of hurricanes and floods in his hometown. When he arrived here in Sept. everyone complained about the hot weather which was followed by two weeks of rain. This isn't bad enough, he took his wife Fran and daughter Alice Ann to San Francisco on a week end trip and the Portland area witnessed a week-end of sunshine.

But lo and behold, poor Frisco suffered an earthquake while he was there. He's quoted as saying, "Wot Hoppen".

Naturally the reason for the rain again is because Joe is back at his workbench.

Welcomed back to Tek after an absence of 4 years is Paul Hanson in the test department. Paul started with us in March of 1951 but in the same year went on to Bronxville and worked in test at Tek's eastern headquarters. In May of this year



Paul took a leave of absence at Bronxville and went home to Denmark — Nautrup, 200 air miles away from Copenhagen.

One of Paul's proudest possessions on leaving Portland was a second hand Pontiac which he had shipped over. Then with his parents and two sisters they motored through West Germany, Holland, Belgium and France. In these countries, Paul visited all Tektronix offices (West Germany was not in effect at this time) — and how were they? Paul's comment was that they were the most wonderful people that he met over there. "It was just a little bit of Tektronix" — and he was pleased to find that they work very much the same way in the foreign branches that we do here.

On his return flight, Paul stopped to visit Mr. Hogg of our English offices. He also flew on the British airlines "Viscount", Denmark to London and commented that this, the world's first propeller-turbine airliner was "something."

All of mechanical assembly attended a bridal shower for the fu-

ture, Mrs. Roy Newman — better known as Kay Adams, on Saturday, October 15. In spite of the many hints in the department about everyone attending a shower, Kay didn't have a clue.

Kay's father helped the plot by insisting that he needed her help in buying a gun 'scope. From there on it was easy, Kay was driven to Lucy Benton's doorstep and "surprise!" She received 'something of everything to start furnishing her new home, which she is looking forward to with so much anticipation.

From Deer Harbor, Washington came a note from Miles and Nellie Tippery announcing the birth of a new son, Bruce Leslie on October 1. A special note also said "hellow" to their many friends at Tek. Through the columns of Tek Talk, we would like to congratulate the Tipperys and their children — Ruth, Wayne and Joyce.

Miles is a former vice-president and one of the original owners of Tektronix.

After a political palaver unaided by the smoke-filled room, Yvonne Hofer was swept into office by the front-office for their personnel representative. Also-rans (really a slow walk) were Don Ellis and Les Stevens. (Besides, Yvonne is much prettier!)

The gals "up front" inspired by the planters and flower boxes in the manuals department requested and are now the proud possessors of a 14-foot flower box which now contains 2 lone plants — a philadendron and a wandering Jew. All donations will be greatly appreciated.

At the regular engineering meeting on Thursday, October 27th, Howard Vollum showed his movies taken on his trip to Europe this spring. He gave a running commentary on the places visited, which added to the enjoyment of the lovely colors and many interesting sights. Howard really enjoyed his visits with our distributors, and his colored films are lifetime mementoes of it. Appreciation is expressed by the engineers for Howard's time spent editing and showing these films at the meeting.

A visitor at Tektronix the last of October was Jack Dressler, manager of the Cedar Hills branch of the First National Bank of Portland. The First National is one of the newcomers to the rapidly expanding Cedar Hills shopping area.

Catalog Will Soon Be Home-Grown

The printing department boasts a new acquisition in a Model 26 Mergenthaler Linotype. This model is a 2-main and 2-auxiliary magazine machine.

Purchase of the new linotype was necessitated for printing the catalog. The former linotype was unable to handle all the processes and finishing needed, so it was all done on a photo-setter in town. This service is no longer available so Tek decided to purchase this model.

Six different type faces can be printed on one line if necessary and headlines can also be printed. Formerly all headlines were hand set. The model's other accomplishments are diversification and faster operation.

Gisle Borlaug is at the keyboard, and is in charge of the new machine.

Anyone Have Any Spare-time to Lend?

Any news this week — anybody taken a trip — anybody had a party — the usual query of questions that any Tek Talk reporter asks around deadline time. To thwart all suggestion of the fact that "nothing ever goes on around here", our active Tek reporters rounded up all the activities, organized groups and clubs that exist at Tek. By the time they finished, we were gasping. People don't even have time to work, much less, time to answer "stupid" questions — they are busy!

Photography

From Ed Egan's photographic department came the not-surprising news that there was not a camera club but a conservative estimate of the people that took pictures or owned a camera at Tektronix would cover 90% of the employees.

Top users of color film for their large and varied collection of slides are Nile Thayer and Helen Reed in shop. These two think nothing of gathering up 30 rolls of color film for a two week vacation. (Mighty generous to their other employees too, with a film presentation during lunch periods.)

Movie producers for their own families and the pleasure of their friends also are beginning to number. Among the most avid are: Frank Hood, Howard Gault, Ray Grecco, Armon McDowell, Jim Donoghue, Jean Hansen, Miller Duris and Howard Vollum.

Reggie Green (assem) who is beginning to plan for her projected trip to Africa is now stockpiling black and white (enough for 1,000 shots) and colored film to equal it.

Ham Radio

Clubs, groups or guys that just like to talk and get acquainted can easily find nucleus in Tek's ham operators. Tek has two groups — high frequency on bands 6, 2 and 1½. Most high frequency equipment must be made and it is possible to do a great deal of experimentation. In this group are found, Jim Strickland, Mike Park and Hank Scott.

The greater number of hams are found in the 50 mc. and down whose bands are 160, 80, 40, 20 and 10. In this group are Mike Park, Don Pratt, Ron Van Dyke, Ted Goodfellow and Bill Johnson. Fun and activity here are in long distance communications — it is possible to go all the way around the world by hitting the right band at the right time. All the operators recommend it as an easy way to make friends and meet people. Available to all operators is a call book covering the United States.

In a law passed by the legislature, any ham operator is able to get his call number on his license plate. This marked the first time that Oregon officially recognized the usefulness of the ham operator and his car for emergency operations.

Farmer's All

Not yet in formation but broached at a recent personnel meeting was the suggestion of a guest at Tektronix, John New of the Washington County Extension Service who wanted to promote some interest in a part time farmer's club at Tek. This would be for anyone who had a plot ranging from 50 x 100 to acreage.

The "Bulls" and Bears

A meaningful membership are the six investment clubs with membership in each varying from 10 to 18 each. Presidents are: Jack Day, Hawkin Au, Bob Fitzgerald, Emil Evans, Fred Tinker and Dave Spinks. Each member is required to invest a minimum of \$10 a month which is invested jointly on the decision of the group. Future stock-brokers or investors who might want to join a club and are not able to find an opening may talk with Don Ellis regarding the formation of another club.

Family Camping

A family camping group was another activity started this summer. Mighty handy with tips on how to pitch a tent or start a fire with wet wood are inveterate campers: the Carl Helmer's, Don and Helen Sherrod, the Earl Palhka's, the Derrol Pennington's, the Sandy Sanford's, the Bob Poulin's. Labor Day weekend found the largest outing pronounced as a great success and include the following families: Phalka's, Sherrods, Helmers, Visticas, Sanfords and Pius Scheer.

Last of the season and certainly a swan song was the same weekend as the golf tournament when with a fair weather broadcast, the Helmers and Sanfords ventured to the Cape Lookout State Park. Instead storm warnings came up with 60 mile an hour winds. Arriving around 8 p. m. Friday, our rugged pioneers stuck it out until Saturday afternoon and surrendered tent poles and all. Sandy reported trees blowing down and that Saturday morning he put his tent up twice. With a compliment of 6 children, our modern day pioneers finally gave up.

The Sanford family managed to keep in trim by camping out on their vacation this summer of 16 days — 12 on the 3300 miles of open road which included Glacier Park, Yellowstone, the Grand Tetons and Lake Chelan — the other 4 were spent in motels and the whole family votes for the great outdoors.

Roller Skating

Coming over the P. A. system is the announcement of a roller skating party. Usually once a month, sometimes more often...but the result is a group of 20 who retreat to the Oaks for an evening of the light and the fantastic. Last meeting was October 14, the first of the fall season.

An unusually small but compact group of 7 only, included John and Vivian Durecka, Warren Collier, Mickey McKay, John West and Barbara and Lloyd Sharp.

So listen closely to any P. A. announcements as all roller skaters are alerted for a November skating party.

"Need a Fourth"

Then, there is always the problem of "where can we get a fourth?" Inveterate bridge players who not only talk but play a good game as well are Marybelle Rash and her husband, the Si Corn's, Helen Helmick and Hallie Todd. We also understand that Byron Witt is in quest of a game during the lunch break. Diane Ross is another avid learner. Great loss was sustained by the kibitzers in Norman Larabee, one of Tek's student summer help now back at Pacific who was also a tournament bridge player. Hawkin Au describes himself as "sort of." — and the only other suggestion we have is Will Marsh.

De-Liar Winners

In the last edition of Tek Talk, winners of the De-Liar Fish Club were given their season awards. Pictured with their hard earned trophies



ies are left to right: Donna Wojcik, Bob Guthrie, Clair Kidd, Gloria Montag and Virginia Levens.

Sport Car Fans

Sports car fans biggest booster was Howard Gault who states that he is now masquerading these days in a '49 Chev pick-up for hunting

and fishing but maintains "it's still a sport car." In transformers, much talk is batted back and forth on Cal Watson's Austin Healy. The envy of the shop is Ed Brooke's street roadster, a custom job.

Basketball League

Off with the referee's whistle is Tek's Basketball team with opening practise on October 28 at the Sunset Valley school every Monday and Friday at 5 p. m. Wednesday, basketballers will convene at the Markham school on the Capitol highway. Bill McCord will continue to be the contact point and states that league play will begin on November 15.

"Hunting and Shooting"

Riflery experts number a good many but a nucleus for discussion could be had with any of the Issac Walton League backers such as Archie Yergen, Cal Smith or Ash Ashenbrenner.

Archie reported that one successful result from the League thus far was the Sled Spring's Elk Hunt. In which no fires were left unattended and no reports of vandalism were made; out of 164 hunters, this is real good!

Chess Strategists

Undisputed master of the chess board at Tektronix is Ron Hankins in drafting. He is joined in his department by Kermit Fleck and Leon Prentice. Printing addicts are: Harlow Loucks, Bob Livingston, Rennie Brown, Gisle Borlaug and Ernie Plapp.

Ron states that Chess can be played in 15 minutes and that he can teach anyone how to play and show



"by experience and instinct." He also acknowledged that the rules of chess were essential for this rapid style.

Contrary to many an opinion on days spent on the deliberation of moves, there are chess games in which movements are timed by a referee every 10 seconds. Ron has challenged printing to various kinds of matches in which he has played against two boards at a time and they have been plotting a return engagement using three boards. (He has been known to lose one now and then. —Etaoin Shrdlu) Lloyd Olson remarks that he can teach anyone how to cheat in 5 minutes, so it really isn't necessary to take the 15 minute course!

Hi-Fi Experts

Fans of high-fi are now considering forming a club for those who are not only interested in good music but also in its technical reproduction. It would be a discussion group for ironing out mutual problems as well as "good listening." Self-starters in this direction are: Barbara and Lloyd Sharp, Jim Cook, Jim Strickland, Lou Ballinger, Roger Haight, John Durecka and Bill Lee.

Ski?

With the recent flurry of snow, we expect to get out the boards and wax up. No club as yet, but you'd better talk to any of the following: Mickey McKay, John Durecka, Bud Siegel, Dick and Gloria Montag (how's that leg, Gloria?), Bob Poulin, Jack Murdock, Hawkin Au, Lee Wagner or Dick Tollison.

Fred Tinker is offering his equip-

Chest X-Ray Given

Examination for Tuberculosis, taken thru the facilities of the Mobile X-ray Unit, is an annual practice at Tektronix. Hours were arranged in the hope the residents of neighboring communities would take advantage of its accessibility. Some Tek people brought their families in after work.

Last year, 480 were accommodated, and 544 this year.

Questions & Answers

1. How long will the electronics courses run? If I am unable to take them at this time, will they be given again this year?

The classes will each run approximately 18 weeks. Courses will be held again next year.

2. Will performance in the electronics classes affect my job record at Tektronix?

It is hoped that these classes may be of real interest and help to those who want to learn about electronics. However, the grades received will not be used to anyone's disadvantage on their job.

It is possible that the satisfactory completion of the beginners electronics class, the advanced class, and the scope class, along with previous background and experience in electronics, might qualify a person for test and calibration engineering. However, with classes only two hours a week for 18 weeks in each course, it isn't likely that the completion of all three courses alone, will make a test engineer.

3. I took the electronics classes last year but feel that I would like to brush up my knowledge once again, is this possible?

If there is enough room. Preference will be given to new registrants.

ment for sale but perhaps he'll change his mind in the event of powder snow.

Archery

Archery has a good many with a full quiver but we leave you to our expert and champion, Maxine Calvert who would be happy to act as an information source.

Talent Stars

There's lots of talent at Tek and some who get together for their own enjoyment as well as the entertainment of their friends could certainly form a group whenever they desired. For instance, Marybelle Rash who plays a mean jazz piano and was at one time with an orchestra; Al Croeni, saxophone; Doug Prouty, trumpet; Mart Kubarsepp, concert organist; Ted Goodfellow, flute; Roger Haight, trumpet; Dick Tollison, vocal and then "is Hawkin Au still taking piano lessons?"

"The Wild Blue Yonder"

Johnny Taylor says the Flying club has some thing 'in the wind' and some are 'up in the air'. And we (reporters) can't 'pin him down' on any of it. Future plans are 'in the making', but nothing definite yet. Some of the members like Jerry Kraxberger, Ed Bauder, are or have taken off for the four corners of the U. S. This has lowered the number of members here, but the interest is 'spreading out'. Anyhow, there should be more news later, and if there are any questions, Jack Murdock, Don Ellis, Johnny, Jim Morrow, are some of the members you can 'contact' about the future. Right now it's sort of 'up in the wild, blue yonder'.

Bowling Leagues

Representatives from Tektronix bowl on some league almost every night of the week. December Tek Talk will feature the entire bowling story.

Printed Circuit Tek Experiment

Many of you have heard of the wide spread use of printed circuit boards in radio and television manufacturing, as the fundamental key to automatic production. The printed circuit idea has been developed because of its possibilities for production economy, particularly where large quantities of instruments can be made without modifications. It eliminates jumpers and cabling and reduces the possibilities for errors. However, as with all ideas, there are disadvantages. From the user's standpoint an instrument containing printed circuit boards is frequently very difficult to repair. Excessive heat can cause the metal foil to separate from the base. Flexure of the boards can cause the thin conductors to break.

These circuits are more suitable for mass devices where the usable life is normally shorter than in an instrument such as ours. Also, in quantitative instruments changes have to be made much more frequently than in instruments such as radio and television receivers where a change will not be so important. In our instruments a components may have to be changed if it drifts 1%, whereas a drift of 20-30% in a television or radio receiver may not require a change. An instrument user is much more critical of this instrument's performance than is a TV or radio user.

We are experimenting with printed circuits in some minor applications in order to gain experience in manufacturing and customer acceptance. We hope the problem of separation of the metal foil from the base will be solved by our use of hollow eyelets at each soldering point. It is always possible that some innovation will remove the present limitations and if so, we want to be ready.

At the present time, Don Olson comprises the printed circuit department. Starting with bakelite having copper foil laminated to each side and a Kodolith positive, he carries out the numerous steps leading to printed circuit boards for the 310, 360, and 123 instruments.

This article has been typeset in a new "face" which is currently being used in conjunction with the Long Form Catalog.

Starting with the next issue of Tek Talk, this type face, known as 8 pt. Futura Medium, will be used. It is not only a modern type but also has a shorter alphabet length, which will enable us to have more space for articles.

The print shop would like to hear your comments as to the desirability of this type between now and the next issue.

Thanks, see you in December —
Etaoin Shrdlu



Word has been received of the birth of a daughter to Geri Duyck and her husband on October 23. Patricia Ann weighed in at a healthy 7 pounds, 9 ounces.

The stock department was busy congratulating father, Dick Place on the arrival of his new daughter, Kathleen Patricia on October 25.

Arriving just in time for Tek Talk on November 3, was Lawrence William Vollum, who father Howard Vollum says, weighed in at 8 pounds, 2 ounces. The following telegram was sent to Kit from the employees of Tektronix during her stay at St. Vincents:

Felicitations, Congratulations and Best Wishes to you Kit and to Howard. A hearty welcome and good luck to your youngest. Glad to hear everyone is doing well and pop survived.

The Leonard Mason's are enjoying the recent arrival of Steven Allen Mason on October 20. Congratulations!

Mary Louise Mitchell arrived on October 30th to the addition of the Ed Mitchell household. At latest reports all were doing fine, even father.!

Bloodmobile Has Personnel Aids

49 Tek Donors School Meeting

Tektronix chalked up 49 donors for the Bloodmobile on October 17 at the Community Church of Cedar Hills. This visit was sponsored by several of the Valley churches. 100 people in all visited the Bloodmobile and 79 were accepted. This was a satisfying amount for the first time. It is planned to have the Bloodmobile in this area once every 3 months. It is hoped the response will prove as much or more satisfactory as time goes on.

As of October 28th, there were 103 who had contributed one or more pints of blood to the Tektronix Blood Bank during 1955.

Pints	
End of August balance	147
September contributions	11
Used in September	26
End of Sept. balance	132
October contributions	35
Used in October	0
End of October balance	167
On October 17th, 43 visited the Bloodmobile. Of these, 8 were rejected. The next contributions will be made some time in January when the Bloodmobile will be stationed in this district again.	

Conference Held

The Pacific Northwest Personnel Management Association held its 17th Annual Personnel Conference at Spokane, on October 27, 28, and 29. Don Kepler was one of the 33 members of the Portland group who attended. The Keynote address was given by Howard M. Dirks, Vice-President of the Carrier Corporation of Syracuse, New York. Other pertinent and informative addresses were given by John Post, Manager of Industrial Relations Department of Continental Oil Company, Houston, Texas; and Lawrence L. German, Manager of Employee Relations of General Electric's Hanford Atomic Products Operation, Richland, Washington. After each address, association members held forums with exchanges of ideas and problems of great interest to everyone.

Temperature's Taken On Gadget Control

By Lloyd Sharp

Well, practically everybody cares, in **some** respect. We work in a plant in which the temperature and humidity are held practically constant (well, **most** of the time anyway), but have you ever wondered how many other temperature-controlled processes go on in Tektronix? How many would you guess — 5, 10, maybe? Guess again. There are nearly 30 by my count, and I probably missed some.

The water emerging from a certain faucet in the Photo lab comes through a thermostatic mixing valve, and is always the same temperature within ½° F. This is important in the control of photo-chemical processes. In the print shop, the melting pot for type-metal in the lino-type machine has a thermostat in it. In the model shop are furnaces and ovens for heat-treating, melting, tempering and low-nealing of metals, machine parts and tools, employing thermostats to control temperatures from 900 to 2,000° F.

In Bob Poulin's baliwick are controlled ovens for accelerated aging tests on scope components such as selenium rectifiers, potentiometers, and capacitors,—and a temperature-controlled room for "extreme environment" endurance tests on finished scopes, where they are kept in operation up to 115° until something fails.

In the manufacture of cathode ray tubes we run into a whole gamut of T-controlled gadgets: the ammonia reduction plant, the hydrogen-annealing furnace (supplied with hydrogen from the ammonia reduction plant), ovens for annealing glass

Preparation of students to fill the needs of business is one of the main objectives of educators in Oregon. As a personnel director, Don Kepler is well aware of some of the problems faced by students upon entering the business world. In September, Don was invited to speak at a meeting of the faculty of Albany Union High School, his subject, "What Business Expects from the High School Graduate." Albany's students have shown unusual interest in the best ways to obtain a firm foundation for their business futures, and Don sincerely enjoyed this opportunity to assist in this timely project.

At the annual state meeting of the Oregon Elementary School Principals' Association, in October, Don was the speaker selected for the subject "Personnel Practices in Business." This was in line with their theme and constant project "Better Service through Inservice." Inservice can best be defined as "training while your on the job that improves you in the job." Inservice training is required by a state law and all teachers must give evidence of growing inservice; every school district decides on its interpretation. The most frequent example of inservice training are the summer shcools and extension courses.

Another speaker in our community of Washington county was Mr. Earl L. Johnson, principal of the West Union Elementary School, Hillsboro.

Field Filters--

"John Mulvey and I waded out of RCA, and I mean literally waded — with pants legs rolled up to our knees. Seems it had been raining all afternoon and we were so busy we hadn't noticed. For two blocks around RCA in Camden, water was knee deep in the streets, side-walks and parking lot. (And they say it rains in Portland.)"

parts, the baking of dag, phosphor, and lacquer coatings, cooling CRT's fresh from the assembling lathe, induction and radiation-heating of guns and of tubes during evacuation — all these operations are carried on at carefully controlled temperatures, and they can produce some sad-looking specimens if these controls get out of hand.

T-control is also mighty important in our plastics department, not only for the molding and setting of plastics, but also for storage. Alkyd resin (matrix for the fibre-glass probe bodies), acetate butyrate, nylon, polyethylene, tentite, vinylite, urea-formaldehyde and (in the capacitor dept.) teflon comprises the list, each with its own special thermal treatment. Nylon, for example, must be held between 650 and 700° for intrusion molding. If it becomes much cooler it won't mold; and if it gets much hotter, the final product comes out brittle. Some of our plastics products require controlled annealing in order to develop the desired properties.

In the manufacture of our precision capacitors, they are vacuum-saturated with silicone under T-control to insure uniformity in the final product. Our flat-wound "sand-bar" resistors are protected by a triple layer of teflon, and baked at 650 to 700°, resulting in a film of one of the most impervious, chemically inert substances know to man. The full chemical name for this "teflon" would floor you, just as it floored me, so we'll just skip it.

(Continued next week)

Tek Transfers

At Tektronix since August 1 has been Ray Lisiecki of Buffalo, N. Y. Ray now leaves for Bronxville for a two week period and then expects to join the Syracuse staff of Scotty Pyle, Gordon Allison, Ann Dwinelle and Virginia Sands.

Phyllis Jensen was welcomed to the front office in September. She has now been transferred into the accounting department.

Dorothy Van Maren is now working with Will Marsh's gang in parts, and Kathryn Kroeger (better known as Taffy) is working on acknowledgments. Front office wants it known they are hoping to keep these two and anyone who wants a new girl — please find your own.!!

A constant problem in field engineering is to find hands for all the varied jobs. Jack Henderson has been primarily occupied with credit considerations and business methods. He has also, from time to time, helped out with the overflow of work from the staff field engineers.

In a recent promotion Jack is now a staff field engineer. Credit and collection problems are in the process of being turned over to the accounting department.

Jack will continue to run down technical problems turned in from the field but will also be responsible for making up the shipment delay schedules, and will more closely coordinate orders with production.

Bill Barnes is now in production engineering with headquarters in the engineering building.

Deane Kidd is back in engineering at Tektronix after a two-year sojourn (vacation) in the Army.

How To Retire Or Terminate

The October Tek Talk article explaining **YOUR RETIREMENT PLAN** advised you to keep your beneficiary card up to date, and to see Don Ellis if you were planning to terminate or take leave of absence. This article will explain why it is so important to see Don.

Since most Tektronix employees are so young, many are currently more interested in their rights upon termination of employment than in their retirement benefits. **YOUR RETIREMENT PLAN** was set up to reward employees for long time contributions to the value of Tektronix. Therefore if you terminate before completing six years with us, you will forfeit some or all the profit share credited to you.

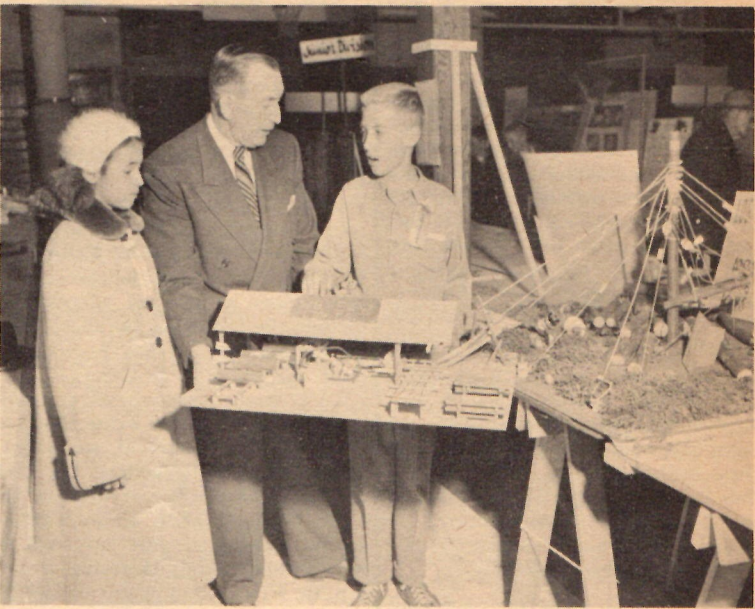
Earning an unforfeitable part of the profit share credited to you is called "vesting" by the attorneys. Your vesting period is measured by the number of months for which you received pay or spent on active U.S. Military service since you were employed. In most cases this includes the time you worked prior to the start of the plan in 1953.

You may interrupt your vesting period with a leave of absence, and continue building it up when you return. However, if you terminate employment, then return to work sometime later, you must start your vesting period from scratch. This is why it is so important to see Don before you leave, and make sure both of you completely agree on your status.

The increasing value of the length of time you have worked is shown in the table below:	
0 thru 23	None
24 thru 35	20
36 thru 47	40
48 thru 59	60
60 thru 71	80
72 or more	100
Reach age 65	100
Total Disability	100

Your rights to a cash settlement upon termination will be discussed in the next Tek Talk article on **YOUR RETIREMENT PLAN**.

Posters Printed For Science Exposition



A recent contribution of Tektronix to the Oregon Museum of Science and Industry was the printing of posters and the rules and regulations for the fourth annual Northwest Science Exposition to be held at Oregon State College, March 24-30, 1956.

The Exposition was established in an effort to stimulate our youth to an increased active interest in the sciences and related fields of study. In line with one of the purposes of Tektronix's Foundation, this project has always received active and financial support. Howard Vollum is also the first vice president of the Oregon Museum.

Posters and rules have now been supplied to all public and parochial schools in the state of Oregon; approximately, 1500. In addition, Clark county is blanketed and the other Columbia River counties in Washington are given the rules by request. Schools as far away as Yakima, Washington have entered.

Regional contests are held prior to the state. Multnomah county had 1200 entries last year; 40 were selected to go to Oregon State. Other regional contests were held at Grants Pass, Sweet Home (a tri-county endeavor), Corvallis, Salem, Eugene and Beaverton. This year applications have already been received from Clark College in Van-

couver and Rainier in Columbia county for their regional contests.

Exhibit classifications are divided into 4 major divisions based on the grade level of the exhibitors; grade level is 1-12. Exhibits in the Senior and Junior divisions are divided into three categories: **Physical sciences** (principles of physical laws: chemistry, electricity, mechanics, optics, heat, etc. — applications of physical laws in communications, production or transportation.), **Physiographical sciences** (astronomy, geology, meteorology, conservation of soils, etc.) and **Biological sciences** (plants and animals, medicine, agriculture or conservation.)

Intermediate (grades 4, 5 and 6) and elementary divisions hold forth in the physical and biological categories, only.

The Northwest Science Exposition is endorsed by the leading educators of Oregon and their respective institutions, by leading scientists, by scientific societies and other members of industry. The program has been enthusiastically received by all participating schools as a vital stimulus to youth interest in scientific endeavor.

If you have a child who would be interested in competing in this contest, be sure and ask him to secure a copy of the rules and regulations from his teacher.

Divot Diggers Dive in Downpour Annual Golf Tounament--Swim Meet

No little thing like a 40 mile gale is going to stop Tek's golfers. No siree! 31 turned out for the annual event, and what fun they had. Just to make it a real competition, it rained 2¾ inches between 4:00 p.m. Friday and 4:00 p.m. Sunday. Most of it came down between noon and 6:00 on Saturday. Of course, just to keep it sporting, they played the second nine during this time.

Some of the interesting side-lights were: Dick Schmidt who thought

his ball was a bird. Byron Broms watching the wind blow his ball almost back to him on the 8th. Ed Bauder, playing the wind, and making a hole in one on the 16th. Johnny West's long drive on 7 — clear down by the crick — and well over 300 yds. Byron and Ed's balls ending up side-by-side on their tee-off drives on 7. Maryellen Stevens' jacket just dripping by the time she reached the 15th tee, but nothing dampened her good spirits.

Prizes awarded, were:

Joe Griffith	Low Gross — Men
Lois Gillespie	Low Gross — Women
Tom Caufield	Low Net — Men
Ken Walling	K(losest to the)-P(in)
Jim Peabody	Longest Drive — Men
Norma Caufield	Longest Drive — Women
Jack Henderson	Most lost balls
John Taylor	High Gross
Wettest	Maryellen Stevens
Happiest	Ed Bauder
Best Sport	All of them

Hawkin Au arranged to have sandwiches and coffee for everyone after the play. This was wonderful. We were all ravenous by the time we finished. Prizes were awarded after lunch. Trophies for Low Gross to Joe and Lois. Reynolds-wrap Grill to Tom. Ken received a gadget to retrieve lost balls. Half a dozen new balls to Jack. Norma is working towards a new cart to go with the Kart-Kit she received (Xmas is coming, she hopes. Jim Peabody is looking mighty efficient with a pen and pencil set.