

Gary Spence - A Career in Tek Labs

Bill Gellatly

A fascinating letter was received at the TVRP office just as our February edition was going to press. Gary Spence joined Tektronix in 1972 following a stint in the Navy, where he qualified for a two-year electronics school, finished well, was promoted to 2nd Class Petty Officer (aka "E-5") and subsequently assigned to the USAF Electronics Calibration school at Lowry Air Force Base.

He highlighted and praised the value of the Tektronix Education Program. "I took more than 30 classes and learned many skills from the expert teachers."

His knowledge was first put to use calibrating USM-281C (military version of the 7603) and was quickly made a lead calibrator. Within six months Gary was selected for a job in Tek Labs and began work on a Scan Converter with Ray Hayes. "I assisted Dr. Hayes in developing the Electron Beam A-to-D (nicknamed EBAD) using a silicon diode target. My role was to design the test equipment and to test the performance of the tube."

Gary's knack for creative solutions led to an early application for the 4051 that captured signals from a residual gas analyzer and plotted the detected peaks, each of which were correlated to gaseous content. The data capture hardware solved a contamination problem that was causing premature failures of CRT cathodes.

In 1978, he modified an R7912 Scan Converter for use by Sandia Labs in their contract work to monitor nuclear blast. He studied the application and brought a significant cost reduction as a result of his removing parts of the R7912 not needed for their very specific tests. With

each blast, the fast pulses were recorded before either the electromagnetic pulse (EMP) or the mechanical shock-wave destroyed the instrument. Cameras acted as the storage media and often, just the film cartridge was retrieved after each test for analysis. [Ed. Note: The VintageTEK museum now has a display of equipment used for these nuclear blasts, including the earlier 519 1 GHz oscilloscope and the 7104.]

Gary was clearly a motivated and creative technician who was well-suited to an engineering environment. He says, "I had a long history as a user of the 4051 Graphics Computer; I built four versions for my personal use, and with that knowledge I created became fascinated with a 6800 CPU microcode. I went on to create editors and compilers that included an English printout of the code functions."

Being in Tek Labs, Gary saw how he could program the 4051 capabilities to control testing of the 7104 micro-channel plate CRT. Not only were there time savings, the measurement data collected provided a statistical basis for manufacturing consistency and quality.

In 1987, he got involved with what he calls a "four-phase Charge-Coupled Device" (CCD) used to replace film in large telescopes. His approach was unique and led to a patent for a Programmable Multiphase Sequence Controller.

"One of my most noteworthy projects was the 64-megapixel imager installed on an 'upgrade mission' for the Hubble Telescope." The CCD was very sensitive, with a sub-pixel able detect fewer than 10 photons. The tolerance for bright light without "flaring" was excellent, giving these sensors a very high dynamic range. In 1993 the Tektronix CCD Group was spun out as Scientific Imaging Technologies (aka SITe), and Gary went to the new

quarters in Tigard. Problems arose, however, when other suppliers of silicon wafers could not match the quality of those produced the Tektronix IC foundry (later Maxim). Again, there were exciting beginnings, and lots of opportunities for Gary, a 32-year run ending in 2003. "I saw the troubles with quality, retired on a Friday, and pink-slips were handed out on the following Monday.

Gary now enjoys winters in a rural area where he can enjoy, water and feed the wildlife that surround his home 22 miles SW of Tucson AZ. He'll be back in the Portland area as soon as our weather fits his health needs.

Lyle Robinson – Metals Liaison

Bill Gellatly

In early April, I received a message from the TRVP office that Lyle Robinson wanted me to call him. Our phone conversation was special. It felt as though we had picked up right where we'd left off in 1977.

Lyle had worked in Metals for all of his years with Tek, and he retired prior to the spin-out as a separate metals supplier. Central Manufacturing had their own liaison system connecting the many process engineers to product designers, and Lyle spent the later years at Tek in this role of helping ME's navigate getting products out on time, with the best tooling options, and at the best internal costs.

Lyle is now 93, and still living at home in Hillsboro. He was travelling south each winter until just a couple of years ago.

VintageTEK Needs Your Help

VintageTEK President Dave Brown is asking for your help in a special fund-

raising activity. The short story is that the museum needs to be able to scan and digitize their microfiche to support restoration efforts for the museum and collectors. The scanner funding needs are described at: <https://vintagetek.org/vintagetek-microfiche-scanner-fundraiser/>

The longer story is that the museum has many manuals for Tektronix products, but what you might not know, is that there was a lot of specialized information used to maintain and repair our products in each field service center, located all around the world.

Entire manuals, special repair bulletins, and less formal first-hand experience notes from service technicians were photographed and reduced to microfiche media. At one point, Wizard's Workshop was one of those informal publications.

A very complete set of microfiche documents was obtained by the museum, and while they can be viewed, the museum needs to be able to scan and print individual pages in order to do repairs and restoration work. A scanner has been found, and the museum is raising the funds to purchase it. Since the museum is a recognized organization under IRS code 501-c3 any contribution you make is a charitable donation.

Like more history on the founding days of Tektronix?

Here's a book recommendation I can make. Several years ago, Miles Tippery wrote an autobiography and donated the chapter dealing with his years at Tektronix to the VintageTEK museum. Dave Brown says, "It is a great read. Since it is his autobiography, it also contains family accounts not specifically related to Tektronix. Some have to do with his hobbies such as mountain climbing, and these anecdotes are still related in that he started one of, if not the first special interest Tek club.

Other portions have to do with his building his own house which is also interesting in that it describes the challenges in the post-war economy. Here's the description and a photo from the eBay book listing.

My Years At Tektronix 1946 - 1953



by Miles Tippery

My Years at Tektronix is an insider's account of the startup and early years in the life of Tektronix, the premier producer of oscilloscopes and Oregon's first home-grown \$1B company. Miles Tippery (1917 – 1995) was a cofounder of the company along with his WW2 Coast Guard friend, Jack Murdock, and Howard Vollum, the brilliant designer and architect of the company's first oscilloscopes. Miles provides an intimate description of his own personal contributions as well as that of his colleagues. He presents a first-hand account for the evolution of what was to be known as the "Tek Spirit" as well as early product design and production of iconic Tek oscilloscopes. His story includes a detailed description of life in the post-war Portland and the Pacific Northwest at large where Mr. Tippery built his own home and struggled with the challenges of raising a family. This 326-page paperback book is available at the VintageTEK Museum or with our eBay portal.

<https://www.ebay.com/itm/112924630041>

Can you help with Connections?

We were contacted by **Jim Sutton**, who worked in CRT as an equipment maintenance specialist. That work was very specialized! Many systems called for knowledge of high-power radiant heating of glass, operation of vacuum systems to "pump down" the CRT's to less than one-millionth of the pressure of the air we breathe.

Jim asked our help in finding two room-

mates from the late 1970's, **Doyal Hershberger** and **Chuck Carpenter**. All three were Tektronix employees and did similar maintenance work to keep CRT equipment working 365 days a year! The "up-time" is the most important aspect of reliability in this kind of an environment.

VintageTEK volunteer John Addis used old directories and his favorite "people finder" tools to locate Doyal, and Jim is hopeful that Doyal will know where to find Chuck Carpenter.

If you know how to reach Chuck, Jim would appreciate your letting him know at (360) 340-6029. Jim is dealing with some health issues and would like your help. There are few, if any things that are more important than family and friends.

To the Editor:

First of all, I want to thank you for all of your hard work in publishing the newsletter! I am extremely proud of having worked for Tektronix for 32 years.

I am now a 7-year volunteer with a Washington County organization called SHIBA (Senior Health Insurance Benefits Assistance).

We work through the State of Oregon, and national Medicare (i.e. Centers for Medicare and Medicaid), to provide free, objective, educational and personal assistance to those who want to learn about Medicare, and those who have Medicare questions or issues. We are trained counselors, certified by national Medicare staff to meet with seniors. We are **not** insurance brokers or agents---we are a free community service. There are chapters of SHIBA in all Oregon counties. If you're facing an immediate issue with your Medicare coverage, you can call Bobbie Hoke at (503) 846-3094. [We'll bring more information from Mary before the next open enrollment interval. – Ed.]

Washington County SHIBA is interested in getting information out to the community, as we are currently recruiting new volunteers.

Mary Richardson (503) 358-5079
At Tektronix from 1973 to 2005.

TEK Trivia Quiz Answers

In the last issue Bob Beville asked five questions, and several of you replied, but only to three of them:

Why were Tektronix oscilloscopes on the U.S. State Department's Strategic Commodities List? *Strategic... Tektronix oscilloscopes were on the State Department's Commerce Control List because of their use in the development of atomic bombs. Some were 'consumed' during the tests, never to be seen again. There were never warranty returns, secondary markets, or surplus instruments available! A State Department guest speaker said the 'Kremlin' and other Iron Curtain countries were always after two instruments, one to operate and observe, the other, to dissect. For nuclear proliferation reasons, our exports had to comply with the Commerce Control List. Recently, Anti-Terrorism has been added as a category for export controls. Replies from Rod Bristol, Murlan Kaufman and Doug Stevens.*

What was the name of the Tek employee who performed as a clown? What was his clown name? *The clown was Charles "Bud" Sandefur. In costume, he was "Bingo - The Roving Clown." [Bud was a materials handling specialist in the 1960's who delivered parcels to a specific mail station that were too large or too heavy for the staff who delivered interplant mail. - Ed.] Replies from Nora Pirrie and Ralph Williams.*

What was the material used to form the light hood for 5-inch CRT screens? *The first light hood for 5-inch CRT screens was 5-inch extruded metal irrigation pipe. A pin in the top mated to a hole in the top of the bezel for stability. A rubber edging was used to cushion the edge, and in some later models was curved to seal against the user's forehead, creating a tight light seal. Replies from Rod Bristol and Bill Gellatly.*

Quiz Contributors:

Rod Bristol
Murlan Kaufman
Lois Lesser
Ralph & Teryl Williams
Doug Stevens

I'm reading a book about anti-gravity. I just can't put it down.

Death Notices

Anderson, George David -d3?20/2018
Beatie, Evelyn Louise -d1/15/2018 @Tek about 20 years
Beers, Allen "Jim" -d2/21/2018
Christie, Alvin Benson -d12/19/2017 @Tek 34 years
Doerrie, Patricia McCoy -d7/5/2017
Eads, Jennifer Gaye -d1/12/2018
Elliott, Wilfred Zene "Buck" -d3/8/2018 @ Tek 24 Years
Gass, Geoffrey Alan -d2/16/2018 @ Tek 28 years
Gentis, Steve -d11/22/2018

Lebarron, Walter Dale -d8/31/2014
Guthrie, Thomas Harold -d1/17/2018
Hampel, Robert Roy -d2/26/2017
Klein, Violet M. -d2/25/2018 @ Tek 18 years
Lyons, Robert "Tug" - d6/17/2017
Macomb, Lavora June -d10/9/2015 @ Tek 10 years
Merritt, Frances Marie -d2/14/2018
Parret, Joe L -d2/13/2018 @Tek 19 years
Reichen, John E -d3/20/2017
Soule, Paul E 'Pete' -d3/26/2018
Tan, Moira R -d8/20/2017 @Tek 28 years
Sloan, Tomas J 'Tom' -d3/18/2018 @ Tek Appr 22 years
Wilson, Ann Marie (Molek) -d2/6/2018 @ Tek 26 years
Wood, Martha A. -d3/3/2013 @Tek 23 years
Young, Frank W. -d2/13/2018 @ Tek 31 years

RETIREE BENEFIT INFORMATION & ADDRESS CHANGE PROCEEDURE

Retiree Medical and/or Life Insurance

Anyone who is a past employee with Retiree Medical and/or Life Insurance will need to request information or make changes in writing to A & I. You must include your signature and Social Security number.

Tektronix Post Employment Services
A & I Benefit Plan Administrators, Inc.
1220 SW Morrison St., Suite 300
Portland, OR 97205-2222
Toll Free: 1-800-778-7956
Fax: 503-228-0149

401k Benefit

Anyone who has a 401k benefit must contact Fidelity for information or to change their address directly with them at:

1-800-835-5092

Cash Balance Plan

The Cash Balance Plan has been transferred to Danaher Pension Plan Processing Center with Hewitt. Questions or changes should be directed to:

1-800-580-7526

Tektronix Retiree Volunteer Program

M/S 13-400
PO Box 500
Beaverton, OR 97077 - 0001

Phone: 503-627-4056

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TRVP Web Page:

www.tekretirees.org

Starting June 7

TRVP Office Hours Thursdays 10-3

VintageTEK Hours

Thursday: 10-6

Saturday: 10-4

Other times by request

TRVP News

Electronic Version of the Newsletter? Your Preferences and Your Choice

If you're comfortable with downloading each issue, and printing when you want to save something, please consider opting for email delivery of the Newsletter. It is available to ex-Tek employees, as well. If you prefer receiving the printed and mailed newsletter, there's no need to change anything. To receive notices via email, please send us an email with your name, address, phone number, and email address to: tek-retirees@tektronix.com. Your data will not be shared.

Your Tektronix Retirees Volunteer Program is funded by Tektronix and it can be thought of as a non-tangible asset provided for your enjoyment, and to help you stay in touch. We have donated space in Building 13, phones, older "food-chain" computers and our publication is made possible with time from our team of volunteers. Your calls are always welcome at (503) 627-4056, where you can leave voice mails at any time.

Tektronix Retiree Volunteer Program

M/S 13-400, PO Box 500

Beaverton, OR 97077 - 0001

CALENDAR

Previous Tek-Employees Luncheon

11:30 a.m. 2nd Monday monthly

Peppermill Restaurant

17455 SW Farmington Road #26B

(Corner of Farmington

& Kinnaman Rd)

Aloha, OR 97007

Details: Annetta Spickelmier

503-312-8825

Redmond Breakfasts

8:00 a.m. 1st Monday monthly

Shari's Restaurant; Redmond, OR

1565 SW Odem Medo Way

Spouses welcome

Details: Nick Hughes 541-548-1201

TERAC

Weekly on Friday 6:00 p. m.

Round Table — Beaverton

SW Beaverton Hillsdale Hwy and

SW Western Ave

Next door to Bi-Mart

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Would you like to help save postage and read your Tek-Retiree Newsletter on our webpage? Send your name, address, phone number and email address to:

tek-retirees@tektronix.com

We will send you a notice when the newsletter is posted each quarter. If your email is changed or rejected for any reason you will receive one phone call to request an update. If you don't respond we will return your newsletter to the US mail list. To preview the web page and previous issues of the newsletter go to: **www.tekretirees.org**

Please send questions, information or correspondence not involving the newsletter online to TVRP at **tek-retirees@tektronix.com**