

Lonnie LeClair of New Hampshire has had a long career working in fiber optics cabling and research and development. He has done coursework with Dave Miller of New Hampshire Community Technical College at Pease, who is currently a participant in Project PHOTON2.

PHOTON2 News spoke with Mr. LeClair about his experiences in the fiber optics field, his background, and his views on career paths in the industry.

Describe your current work.

Currently I work for Integrisys Communications doing networking cable installation. I've done several large jobs for Integrisys, including work for Liberty Mutual Portsmouth building a fiber optic backbone for their offices. Typically I'm installing 50-micron multi-mode fiber.

How did you become interested in fiber optics?

I started out in the military. From 1980 to 1983 I was a computer maintenance technician with the Air Force.

My introduction to fiber was as a cable TV technician in Florida. That got me interested in learning about fiber. For Christmas my parents said I could have anything I wanted. I asked them to pay for a week-long course in fiber at Corning Cable.

When I moved back to New Hampshire (that's where I grew up) I got a job with White Mountain Cable Construction and worked there for five years.

After White Mountain, I was with JCI Communications in Boston. There I implemented a program of fiber documentation to provide customers with test results. JCI is now NetVersant.

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After JCI I worked at Eigenlight in Somersworth, NH. I worked in the R&D lab under Dr. Craig Poole, sculpting fiber with a CO2 laser. But Eigenlight was hit hard by the tech crash, and I was laid off. I did some small cabling work until I got the Integrisys job.

What is your educational background?

I did a lot of learning on the job, and I've taken several small classes along the way to pick up nuances and little techniques. I've done classroom demos for Dave Miller [at New Hampshire Community Technical College].

I've been working toward my Associate's degree at NHCTC, with the goal of becoming a network administrator, but my current position has me working very far out of town, so I haven't had time to finish the general ed classes.

I'm currently certified as A+, Network+, Server+, CCNA, and Certified Fiber Optics Tech. I have also completed an Information Systems Technology certificate at NHCTC.

What do you enjoy most about your work in the optics industry?

In my current work doing installation and testing, I'd say the travel. I get to go to a different job site every day, and see different cities.

“[In fiber optics,] on-the-job training will be a major factor in your career.”

My favorite experience over my career was the time at Eigenlight. It was my first experience in a laboratory setting, where I was mentored by a Ph.D., Dr. Craig Poole, who is a former Bell Labs scientist. I was working with lasers, the polarization of laser light, how it behaves within fiber.

Can you describe that work in more detail?

We sculpted fiber with the lasers. We would use a CO2 laser, a cutting laser, to put a kink in the glass, and downstream we would cut reflective surfaces. That would tap off a portion of light and reflect to the detectors that monitored the amount of power in the fiber.

Would you change anything about your career in fiber?

I would have gotten my degree sooner. It's better to do that right after high school or the military, especially to get a strong background in physics.

What advice do you have for anyone interested in entering this field?

Study math and physics. Both of them apply greatly to engineering. Also, taking the classes offered by vendors is a big plus—they can give you the little tricks and things that you won't learn in traditional schools.

Experience is most important though. On the job training will be a major factor in your career. Most companies, if you just show up, won't let you take care of their fragile fiber until they know you have the experience to do it right. So maybe do side-alongs with technicians or job shadowing to get over that hump. ■