

DR. SETI'S STARSHIP

Searching For The Ultimate DX

“Larry the Dad”

Although he has never been a SETI League member, Larry Spector, W2QOV, is largely responsible for its very existence, for it was “Larry the Dad” who first introduced me to Richard Factor, WA2IKL.

Let's go back to the beginning. In the early 1980s, I used to chat with Larry on a local 220-MHz repeater while commuting back and forth to the California college at which I then taught electronics and aeronautics. He was a fellow pilot and flight instructor, and onetime owner of a pristine Piper J3 Cub. By the time I met him and his wife Libby, they were flying a Beech Bonanza, fast cousin to my old Beech Sierra. Larry, a Bell Labs alumnus and longtime IBM employee, was then managing a cutting-edge engineering research department staffed by distinguished PhDs, so we frequently talked airplanes, and ham radio, and engineering. Not necessarily in that order.

At the time, when not teaching my classes, I was running a Silicon Valley startup and hip deep in the development of BiDCAS, an airborne anti-collision radar system. Once the prototype was tested and the patent filed, I told Larry about my project and lamented the challenges of putting my promising design into commercial production. That's when Larry mentioned his friend Richard.

Richard, I was told, owned a successful electronics company in New Jersey. He was a friend of Larry's daughter Claire (hence the nickname bestowed on Larry), a fellow ham, and pilot, and was in the process of introducing some rather innovative avionics products. My BiDCAS radar design might yet find a home. Would I be interested in meeting him, Larry wondered.

Indeed, I would. Larry made the introduction. Richard's company sent mine a retainer check, we each signed a non-disclosure agreement, and I sent along photocopies of my lab notebooks for his

**Executive Director Emeritus, The SETI League, Inc., <www.setileague.org>
e-mail: <n6tx@setileague.org>*



Larry Spector, W2QOV, with the Schweitzer glider he currently flies. Larry is indirectly responsible for The SETI League's very existence. Three decades ago he introduced two of his ham radio buddies to each other. Richard Factor, WA2IKL, went on to found The SETI League, and H. Paul Shuch, N6TX, became its founding Executive Director.

patent attorney to peruse. At first it appeared that we might be able to do a profitable business together. For reasons beyond the scope of this story, that never panned out — but this was (as Rick Blaine said to Louie at the end of *Casablanca*) the beginning of a beautiful friendship.

It was beautiful, though admittedly intermittent. For the next decade, as life and geography precluded closer contact, Richard and I crossed paths about once a year. Usually we'd play telephone catch-up around the December holidays. Our conversations became formulaic: “Anything exciting going on in your life,” each of us would ask the other. “Any new jobs, cars, ham gear, wives?” (“I never made the same mistake twice,” Richard would always answer to that last query.) “Any new research interests?” “Airplanes?” “Exciting travels?” We'd fill in the blanks, wish each other a happy new year, and then not talk again until another twelve months had passed.

The December 1994 call from Richard brought with it a new question: “Do you know anything about SETI?” he inquired.

It was a reasonable question. I had gone to grad school at the University of California, Berkeley, a hotbed of SETI activity. As it happened, I knew most of the key players in SETI science, and, as a microwave circuit engineer, was relatively well versed in the technologies being harnessed to ferret out RF evidence of our cosmic companions.

I proceeded to brief my ham friend on the termination, the year prior, of the modestly funded NASA SETI office. I apprised him of efforts to privatize that research, including the upcoming launch of Project Phoenix, a continuation of NASA's targeted search under the aegis of the nonprofit SETI Institute (staffed largely by a regrouped aggregation of former NASA employees, many of them my

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old Berkeley friends, colleagues, and classmates).

I guess I got carried away, because I found myself spouting SETI for the better part of an hour. Then Richard dropped his bombshell: "I've just set up a private SETI research organization. How'd you like to run it?"

A fascinating opportunity, I told Richard, when finally it sunk in that the hour just passed had actually been a job interview. There was just one complication: I was teaching electronics engineering at a Pennsylvania college, and winter classes were about to start right after the holidays.

"No problem," effused Richard. "Just quit your teaching job and come to work for The SETI League."

"Let me get this straight," I responded. "You're asking me to give up a tenured full professorship, a job for life backed by the taxing authority of the state, to do

fringe science on soft money? How can I possibly pass up a deal like that?"

My sarcasm was not lost on Richard. We ended the conversation with my promise to fly my Beechcraft the short distance to northern New Jersey the following week so that he could try to twist my arm.

That meeting was pivotal. Richard's vision for his newly founded nonprofit paralleled my own concept of privatized science. We both disparaged the multi-million-dollar government approach to SETI and felt there had to be a better way. Why not, we both reasoned, tap into a resource that NASA never contemplated—the world's thousands of amateur astronomers and moonbounce hams and microwave experimenters? With their help we could launch a search that not only would eclipse any previous SETI effort, but that would be immune to any congressional budget-slashing efforts.

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operators are becoming a rare breed, indeed. Some of the younger hams are interested in CW, but the gap between high-speed CW operators and the beginners is increasing, not decreasing, despite the efforts of the FISTS organization.

Although difficult at best, this essay has attempted to address the current problem of inactivity on 2 meter FM, once the glory-spot of amateur radio. A solution to the problem is uncertain, as the one thing that is certain is change. What the actual solution is I do not know.

The ARRL is in a very precarious position with regard to 2-meters FM. The manufacturers of 2-meter FM gear, of course, want 2-meter FM portrayed in a positive manner, but at the same time, the board of directors of the ARRL are very aware of the current lack of activity on 2 meters FM. More and more innovative and inexpensive designs of 2-meter equipment are available, and still demand is not that great.

Overall the status of 2-meter (and the same goes for other bands) FM activity and quality of operating is still quite a lot better than the cronyism and clannish activity currently seen on the 75-meter SSB band.

So that this article is not misconstrued, the main point is that the use of conven-

tional and data cellphones and tablets constitutes a real and current danger to VHF repeater and weak-signal operation, much greater than any other, including broadband via power lines (BPL). There are many birdies interfering with weak-signal operation. Commercial pressures for spectrum may eliminate any amateur VHF allocations.

Other than to encourage weak-signal and repeater operation rather than smart phone use for VHF operators, I do not have a solution for the problem. When I observe hams using their smartphones at hamfests and amateur gatherings, the Pogo quote "we have found the enemy and it is us" comes to mind. For the good of ham radio, get on your local 2-meter repeater and check into the club or ARES net! Monitor your local repeater. Call CQ on 144.200 MHz. We need our VHF frequencies.

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(Disclaimer: This piece in no way reflects the position of the Susquehanna Valley ARC, Frankford Radio Club, Mt. Airy VHF Radio Club, ARRL, CQ Communications and its subsidiaries, or CW ops, QCWA, OOTC, QRP ARCI, SWOT, CFO, or the other clubs to which I belong!

In the end, I agreed to help out on a consulting basis throughout the upcoming semester, while seeking a leave of absence for the following academic year.

That leave was ultimately granted and was to become a sabbatical from which I would never return. It's a tale that has been told incrementally in this column over the past dozen years. The sequel to the story is that, for extraordinary (though unwitting) service to The SETI League, the organization's board of trustees in 2012 bestowed upon W2QOV its annual Orville Greene Service Award.

And where was "Larry the Dad" while Richard and I were plotting our little SETI insurrection? Why, just down the road in Hoboken, New Jersey, as it turned out, doing something even more amazing than what Richard and I were attempting. He was going back to school.

Larry, it happens, had been a graduate student decades back at Stevens Institute of Technology. The degree he had sought was a PhD. The one he actually earned was ABD (All But Dissertation). Having completed all his coursework and concluding his research, he was penning his doctoral thesis when somebody else pre-published his most important, original breakthrough idea.

Pick another topic and start again, his advisor told him. However, that was not an option for Larry, who by then had acquired a job, and a family, and a mortgage. Therefore, he went back to IBM, ultimately to manage a whole department of PhDs, his being the only one on the team without a doctorate to call his own.

Wearing his "Captain of Industry" cap, Larry found himself back on the Stevens campus in the early 1990s, attending an engineering conference. He chanced to run into his old advisor (by now a very long-time full professor), who asked, "So, did you ever finish that doctorate?"

When Larry answered in the negative, his old professor asked, "Why not come back here and do it now?"

Of course, the statute of limitations on Larry's prior coursework had long expired. The school offered to waive it. All he needed to do was complete a suitable research project, write a dissertation, and march in cap and gown and hood.

That is exactly what "Larry the Dad" did, well into his sixties, afterward retiring from IBM as *Doctor* "Larry the Dad." This was almost as improbable an accomplishment as the one Richard Factor and I were (and are still) attempting.

73, Paul, N6TX