

DR. SETI'S STARSHIP

Searching For The Ultimate DX

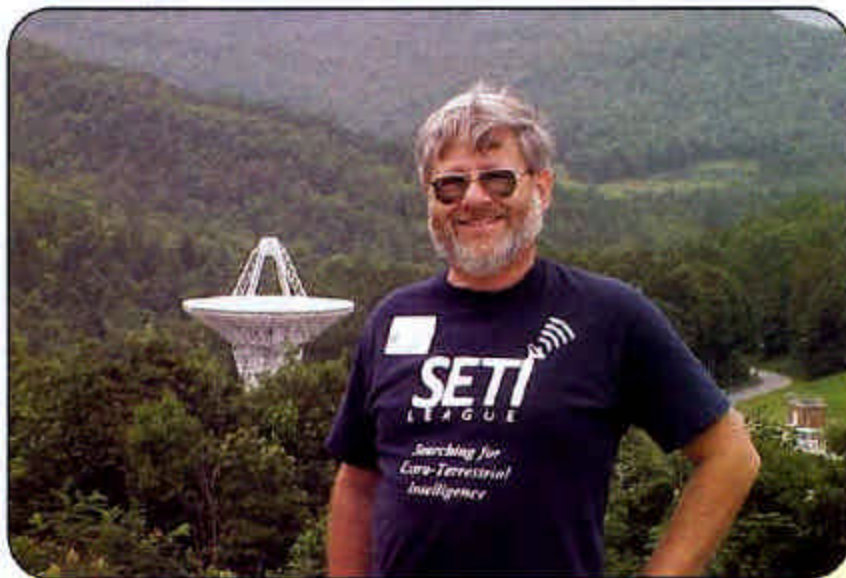
Star Voyager

You are a star voyager. You share your starship Earth with six thousand million other human passengers as you hurtle across space and time at 86,400 seconds per day, the Speed of Life. Your ship is adrift in a vast ocean of four hundred thousand million stars, which we call the Milky Way. How can you look out at those other suns and not wonder about the creatures inhabiting their starship planets? The question "Are We Alone?" is as old as our species, yet it is only within an eye blink of human history that we have begun to develop technology to seek a meaningful answer.

Welcome to "Dr. SETI's Starship," a column about the quest for our cosmic companions. I am H. Paul Shuch, N6TX, Executive Director of the international SETI (Search for Extra-Terrestrial Intelligence) League, and it is my privilege to lead you on this journey. Please join me in a quest for the ultimate DX. In the months ahead we will explore the scientific and technological breakthroughs which lead us to now envision a universe teeming with life. We will review the early efforts of the SETI discipline, discuss the various searches now underway, grapple with the challenge of recognizing what we see, and speculate on the impact that extra-terrestrial contact may have on our own starship and its future course. First, however, it is necessary to establish a few ground rules.

My personal background is in amateur radio. Through it, I became interested in radio astronomy. I use radio telescopes (sensitive microwave receivers, powerful computers, and elaborate antennas) to sift through the cosmic static in search of patterns which nature cannot produce by any mechanism known to us. This is probably not the only way to search for evidence of other civilizations in the cosmos, but these are the tools available to me. In recent years a number of phenomena (reported sightings, abductions, the Roswell incident, crop circles, Area 51, etc.)

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The author seen with one of the twin 26-meter dishes at the Pisgah Astronomical Research Institute (PARI) in North Carolina, the world's largest private radio observatory, which is run entirely by radio amateurs. (SETI League photo)

have defied explanation. These matters are certainly interesting, and may be worthy of further study by qualified experts. We in the SETI community are primarily radio astronomers, though, arguably qualified to recover and analyze microwave signals. Beyond that we claim no particular expertise. We will continue to concentrate on what we know best, and encourage others to do the same.

CQ VHF enjoys a worldwide readership. If you've read this far, you have doubtless determined that my urbane, cosmopolitan manner notwithstanding, I am unmistakably a Yank. Despite our honorable editor's best efforts to Anglicize my writing, I write as I speak, in idiomatic American. I beg the indulgence of our non-American readers, who no doubt find my style rather quaint. My point is, we speak languages which at the very least have common roots, which is more than we can expect when we attempt to communicate across the gulf of interstellar space.

The above statement begs the question "How can we ever hope to learn anything

useful from a species with which we have absolutely nothing in common?" The optimist in me answers that our cosmic companions, if indeed they exist, share more in common with us than you could possibly imagine. For one thing, we share all natural laws. One lesson astronomy has taught us is that the laws of the universe are pretty much the same Out There as they are Down Here. We may even share a shred of common biology, if the late Sir Fred Hoyle's theories about directed panspermia are correct. That is, life on Earth very well may have been seeded from beyond. Recent fossil evidence found within meteorites which fell on Earth from Mars suggests that life (at least at the microbial level) well may permeate the cosmos. We may have just met our distant ancestors, encased in rock.

If that is the case, then we readily can imagine who that distant DX might be—beings not so unlike ourselves, living in the light of distant suns, looking out toward us across the gulf of space and time, and wondering, "Are We Alone?"

73, Paul, N6TX