

SETI, SETV, and UFOs

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The Search for Extraterrestrial Visitation (SETV) has roots in early SETI postulations of the possibility that ETI civilizations could be sending probes into our solar system, and in the UFO community that believes it is seeing crafts of extraterrestrial origin. SETV's response to these ideas is to propose and deploy instrumented systems to search for probes or to examine anomalous phenomena that could represent them. Yet because of animosity between the SETI and UFO communities, SETV struggles for recognition.

Background: SETI, SETV Proposals, and UFOs

The Search for Extraterrestrial Intelligence (SETI) might logically appear to be a middle ground between serious UFO research and the mainstream scientific communities, where science and UFO interests meet. SETI and UFO researchers see matters quite differently, however. "SETI" identifies itself as a scientific enterprise and excludes UFO data and UFO research from the sphere of scientific legitimacy. In other words, SETI believes it is in the mainstream. For their part, UFO researchers dismiss SETI for its refusal to recognize the massive and widespread body of experience of the UFO.

Yet for some decades there has existed a potential interface area where SETI and UFO research could meet, though it has not been given much attention by either side. In the years when SETI was first being formulated, physicist and electrical engineer Ron Bracewell was arguing for the possibility of "messenger probes" - robotic probes sent out from advanced civilizations to roam and contact other societies, no matter how long the journey might take. The class of probes he described later became known as *Bracewell probes*, and telescopic searches for them were actually carried out at two major observatories.¹ But today, while not explicitly disavowing the proposals of one of its founders, SETI focuses on the electromagnetic search for distant sources, perhaps believing that its programs would be undermined by any acceptance of the possibility of interstellar travel, not to mention that such possibility would legitimize UFO research.

¹ Frank Tipler in 1975 suggested that probes might consist of universal von Neumann self-replicators, referring to a theory developed by the mathematician John von Neumann. Endowed with human intelligence, these von Neumann probes would increase exponentially in number, and colonize the Galaxy.

Meanwhile, Bracewell's ideas engendered a number of proposals and studies. R. A. Freitas and F. Valdes (1985) formulated *The Search for Extraterrestrial Artifacts* (SETA), a proposal to "detect [evidence] in the Solar System by telescopic, radar, infrared, direct probe, or other available means". Note that while this definition would appear to include planetary surface artifacts such as described by Alexey Arkhipov in Research Thread #2: Anomalous Lunar Phenomena, and the Cydonia features, subject of Research Thread #1: Face on Mars, Freitas and Valdes were specifically interested in a search for probes.

The designation *Search for Extraterrestrial Visitation* (SETV) may represent little more than a recent name change from SETA. It is not clear why the change was necessary, but it does seem to coincide with a greater emphasis on the design of practical search systems and the beginning of actual search programs.²

JPL engineer Scot Stride (2001) describes SETV as a program to search for extraterrestrial interstellar robotic probes by means of "passive autonomous data acquisition platforms" using "commercial off-the-shelf" (COTS) hardware.

SETV Observing Programs

One obvious distinction between SETI and UFO research is that the former comprises a search for what is theoretically possible, while the latter is an attempt to explain what has allegedly been encountered, and thus assumes, as a popularly accepted paradigm, that interstellar travel is possible and actually has been taking place. SETV proponents also assume that possibility, as a scientifically-testable working hypothesis based on previous SETA theoretical studies. Unlike their SETI colleagues, some SETV researchers take an interest in certain "anomalous luminous phenomena" or "anomalous observational phenomena", considering them as possibly representing the presence of "probes".

Scot Stride specifically mentions that possibility in his proposals. Other SETV researchers have already mounted observational programs to collect data on anomalous phenomena. A group known as *Project Hessdalen* under the direction of engineer Erling Strand of Østfold College has been studying anomalous luminous phenomena in the Hessdalen valley of Norway for over 15 years. A variety of instrumentation has been employed, including photography and related optical and infrared systems, seismographs, radar, HF radio spectrum analyzer, geiger counter. The team has carried out similar measurements in the Australian desert and at Mexico's *Popocatepetl* volcano, a well-known focus of anomalous activity.

Their work has led to a collaboration with a team of Italian researchers headed by astrophysicist Dr. Massimo Teodorani (2001) and to two Italian exploratory missions

² The slightly mysterious Organization for SETV Research presents a SETV Protocol and resource materials on the anonymous SETV website <http://www.setv.org>.

(EMBLA 2000 and 2001), which focused on effects in the VLF and ELF portions of the radio spectrum and on new aspects of the optical phenomenology including low-resolution spectroscopy. The programs have collected a rich and extensive set of recordings, sufficient to allow the testing of a number of theories and hypotheses as to their causes, including those relating to natural phenomena.

At Kingsland Observatory in northwestern Ireland, Eamonn Ansbro and Catherine Overhauser (2001) are developing instrumentation that builds on the findings of the Hessdalen and EMBLA research projects. Their remarkable surveillance system employs 11 cameras covering the whole sky hemisphere, with sufficient intelligence to recognize and track targets, and to trigger a video tracking system. They have also proposed ULF-VLF radio spectrum coverage, radar, magnetometers, and other instrumentation, as well as a 30 mW, 532 nm laser "for reaction tests on the target".

Recognition and Acceptance of SETV

SETV research could be said to self-consciously adhere to the *Galilean method*, meaning that it

1. Begins with observations of phenomena
2. Develops hypothetical explanations of the phenomena
3. Attempts to verify hypotheses through further observation.

Although this might appear to be a simplistic and obvious way to conduct scientific studies, in fact neither SETI nor UFO research operate in this manner. UFO organizations simply assume that Earth is visited by ETI. Thus UFO research does not recognize the importance of SETV, and is also offended by SETV's attempts to avoid the culturally-loaded terminology and assumptions prevalent in UFO research.

Current SETI research denies, as a paradigm, the possibility that Earth can be visited. In other words, SETI is not interested in the observational phenomena that are in fact quite abundant. Perhaps that is why SETI and optical SETI (OSETI) organizations - at least those in the United States - while including SETV-related presentations in their symposia, have at least until recently seemed to be uncomfortable with them, feeling that the subject was *controversial*, as though anything in this field might not be.

However, as Ansbro and Overhauser pointed out in their 2001 paper, SETV is finding a certain amount of support in Europe, and the publications and workshops of the European Space Agency are not averse to covering this field. And [reported in private communication], barriers to SETV publications and proposals appear to be coming down in the United States as well.

It would be logical for SETI to support and include SETV as part of its programs, as the search for nearby extraterrestrial intelligence, especially considering that SETV assumptions are derived directly from previous SETI theoretical studies. UFO organizations should recognize SETV as their best hope of demonstrating the reality of UFO phenomena. In each

case, if there is to be more than a simple tacit acceptance, these groups need to reexamine their principles and assumptions.

Improved alignment and working cooperation between these research fields would lead to a much greater human understanding of a vitally important subject.

References

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Gerry Zeitlin is a graduate of Cornell University (B.E.E. 1960) and the University of Colorado (M.S.E.E. 1969). He pursued further graduate studies in physics, astronomy, and astrophysics at the University of California, Berkeley. At Cornell, Mr. Zeitlin performed studies of early feed designs for use at the Arecibo Observatory, then under development. His Master's Thesis at the University of Colorado was devoted to an analysis and modeling of propagation modes in the curved VLF earth-ionosphere waveguide. Zeitlin also conducted studies of seasonal patterns of world-wide VLF noise for Westinghouse Georesearch Laboratory in Boulder, Colorado. Mr. Zeitlin spent many years studying patterns of brainwave activity as an Assistant Research Computer Scientist at the University of California's Langlely Porter Neuropsychiatric Institute, San Francisco, and the highly regarded EEG Systems Laboratory. As a staff engineer with the University of California Space Sciences Laboratory, Berkeley, Zeitlin managed an early version of Project SERENDIP, collecting and analyzing SETI data at the Hat Creek Radio Observatory, and at Jet Propulsion Laboratory's Deep Space Network, Goldstone, California. He was awarded a NASA-ASEE Summer Faculty Fellowship at the University of Santa Clara, supporting his contribution to the development of advanced methods of high-speed SETI analysis at NASA Ames Research Center. Mr. Zeitlin has also pursued a sideline career in information security with the Department of Defense, Pacific Bell, Verisign, and Science Applications International Corporation, from which organization he recently retired. Zeitlin is a Member of the Institute of Electrical and Electronic Engineers, an Associate Member of the Society for Scientific Exploration, and a past member of the Society for Planetary SETI Research (SPSR). He now devotes his energies to the Open SETI Initiative <http://openseti.org>.