

Membership Drive Gains Momentum

The SETI League, Inc., a membership-supported, non-profit, educational and scientific corporation, depends upon dues and contributions to keep its Search for Extra-Terrestrial Intelligence alive. League founder and Trustee Richard Factor has kicked off a drive to recruit new Charter Members, which includes a dues discount and an extended membership period.

From now until December 31, 1995, Charter memberships are available for a contribution of \$35 US (regular dues for Full memberships are \$50 per year). As an additional incentive to "join early and often," all Charter memberships will not expire until December 31, 1996. Thus, our early birds will be able to parlay a single contribution into nearly two years' membership privileges.

And what privileges there are! In addition to this distinguished publication, Charter Members will receive **discounts** on SETI League merchandise (much of it bearing the coveted SETI League Logo which you see below). They receive **advance notice** of upcoming conferences at which SETI presentations are scheduled, **priority use** of the League's Internet node (including the World Wide Web site discussed elsewhere in this issue), and the **satisfaction** of knowing that they are among a growing cadre of concerned citizens helping to privatize this vital search in the wake of the Congressional termination of all NASA SETI funding.

Additional membership categories include: **Household Member** (only \$15 a year for those sharing an address and newsletter subscription with a Full Member); **Scholarship Membership** (\$25 a year for full-time students); **Life Membership**, an ever popular alternative (\$1000, which remains in effect until we make contact); and **special categories** and privileges for those wishing to make a more substantial contribution to SETI. An application for any of these categories appears on the last page of this issue. For more information or to receive additional applications, call our Membership hotline at 1(800) TAU-SETI.



Search**Lites**

the Quarterly Newsletter of The SETI League, Inc. *Volume 1 Number 1 Spring 1995*

Sky Survey Target Date Announced

SETI League Executive Director H. Paul Shuch has announced "Earth Day, April 20, 1996" as the target date for commencing The SETI League's long awaited Sky Survey. The announcement underscores the nature of SETI as an activity to involve, and benefit, all of humankind.

To conduct a thorough survey of the entire sky at the popular 1.4 to 1.7 GHz Water Hole frequencies, it is estimated that a coordinated effort of some 5,000 experimenters will be required. Shuch emphasizes, "This is not an activity to be undertaken lightly. Joining the search will generally require an investment of hundreds of dollars for equipment and software, thousands of hours of effort and, most likely, many years of patience. I doubt that a full sky survey will offer much to those who demand instant gratification.

"But for those willing to make the investment and effort, the potential rewards are immeasurable. If we do the search, and do it right, a generation from now we will either have discovered that we are not alone in the universe or, perhaps, be forced to reluctantly conclude that we probably are. Either outcome boggles the imagination."

Shuch notes that experimenters wishing to join the search have less than a year to get their equipment together. He points out that those with amateur radio, microwave, or computer signal analysis backgrounds, including expertise in digital signal processing, can assist those less experienced in developing their stations. A successful amateur SETI station will probably use a 3- to 5-meter (10- to 16-foot) diameter parabolic reflector antenna (the type used for satellite TV reception is ideal). SETI League engineers are currently at work on the design of a standard, low-cost microwave receiver to scan the Water Hole at 10 Hz resolution. It is expected that the receiver circuitry will be offered in kit form, and should be available in time for Christmas (start dropping hints now). A home computer of the 486 DX class, equipped with a sound card, can be used for digital signal processing. The cost and complexity of a viable SETI station today are on a par with a high-performance, amateur radio station.

Experimenters interested in joining the Search should contact Dr. Shuch for technical details. He can be reached at The SETI League headquarters, (201) 641-1770, by fax at (201) 641-1771, or via email, n6tx@setileague.org.

This issue of SearchLites is dedicated to the memory of
Dana Atchley, Jr.
Order of the Dolphin

SETI League Vision Statement

Recognizing that receiving signals of intelligent origin from beyond our planet will change forever our view of humanity's place in the cosmos, The SETI League envisions a worldwide network of thousands of advanced experimenters, working together to hasten our entry into the galactic community.

SETI League Mission Statement

The SETI League's mission is to encourage and support the Search for Extra-Terrestrial Intelligence by:

- (1) attracting interested radio amateurs, astronomy enthusiasts, microwave and digital signal processing experimenters into the SETI community;
- (2) developing technologies to assist the advanced experimenter in assembling a workable SETI receiving station;
- (3) disseminating hardware and software designs in support of SETI;
- (4) coordinating SETI experimenters worldwide in conducting a thorough sky survey;
- (5) providing a medium for communication among SETI experimenters, enthusiasts, and organizations, through periodicals, meetings, conferences, and electronic means;
- (6) assembling, maintaining and operating advanced optical and radio telescopes;
- (7) identifying and publicizing potential spin-off applications of SETI technologies;
- (8) encouraging the restoration of public funding for the NASA SETI Office; and
- (9) raising public consciousness as to the importance and significance of a broad-based Search for Extra-Terrestrial Intelligence.

The SETI League, Inc. is a membership-supported, non-profit [501(c)(3)] educational and scientific corporation.

Who's Who in The SETI League

Founder and President	Richard C. Factor
Executive Director	H. Paul Shuch, Ph.D.
Secretary	Diana Davidson
Treasurer	Martin Schreiber, CPA
Registered Agent	Marc Arnold, Esq.
Trustees:	Richard Factor Martin Schreiber Marc Arnold

SETI Pioneer Frank Drake Endorses SETI League Search

In an interview with San Francisco Examiner science writer Keay Davidson, SETI pioneer Dr. Frank Drake expressed cautious support of The SETI League's planned amateur all sky survey. Drake, who conducted Project Ozma, the very first microwave Search for Extra-Terrestrial Intelligence, from the National Radio Astronomy Observatory in Green Bank WV, in 1960, is now President of the SETI Institute in Mountain View CA.

Davidson's interview, which appeared in the February 5, 1995 issue of the *San Francisco Examiner*, was syndicated by the Scripps Howard News Service giving The SETI League its first national exposure. The article also included an interview with SETI League Executive Director Dr. H. Paul Shuch, and comments by optical SETI proponent Dr. Stuart Kingsley of Columbus OH.

"While Drake represents the big-money, big-radio-telescope side of SETI, he welcomes up-and-coming amateurs like Shuch," the article said. "Throughout history amateur astronomers have often made scientific contributions -- for example, by counting meteors and observing so-called 'variable' stars. Drake thinks there's a chance the amateur SETI buffs could also achieve their dream: to hear the first greetings from space."

The article also describes The SETI League's plans to launch an all sky survey involving perhaps 5000 amateurs, working as a coordinated team. Davidson ends his article with a most encouraging direct quote: " 'You never know!' Drake says with a chuckle. 'Shuch's plans are quite reasonable. It's not flaky stuff like the UFO people.' "

Upcoming Conferences

SearchLites' readers are apprised of the following conferences at which SETI related information will be presented. League members are invited to call headquarters at (201) 641-1770, or email info@setileague.org, to obtain further information.

July 10 - 12, 1995: Society of Amateur Radio Astronomers (SARA) annual meeting at National Radio Astronomy Observatory, Green Bank WV. Contact Jeffrey Lichtman, (404) 992-4959.

July 27 - 29, 1995: 29th Conference of the Central States VHF Society, Colorado Springs CO. Contact Lauren Libby, (719) 593-986; or Hal Bergeson, (719) 471-0238.

August 25 - 27 1995: Eastern VHF/UHF Conference, Vernon CT. Contact Stan Helinski, (203) 872-6197.

September 30, 1995: Mid-Atlantic VHF Conference, Hershaw PA, sponsored by Mt. Airy VHF Radio Club. Contact John Sorter, (610) 999-7658.

October 6 - 8, 1995: AMSAT Space Symposium, Orlando FL. Contact AMSAT Headquarters, (301) 589-6062.

October 27 - 29, 1995: Microwave Update '95, Arlington TX. Contact Kent Britain, (214) 660-2840.

November 17 - 19, 1995: Philcon '95, Philadelphia PA. Contact PSFS Hotline, (215) 957-4004.

Bruno Award Established

Nominations Sought

The SETI League is pleased to announce the establishment of an award honoring the memory of Giordano Bruno, the Italian monk burned at the stake in 1600 for postulating the multiplicity of inhabited worlds. This award was first suggested by sociologist Donald Tarter, at a SETI dinner held at the American Association for the Advancement of Science meetings in Atlanta GA, on Feb. 17, 1995 (coincidentally the 395th anniversary of Bruno's death).

The Bruno Award will be presented annually to persons making significant technical, intellectual or financial contributions to the art and science of SETI, or in recognition of extraordinary service to The SETI League. The award shall consist of an appropriately crafted statuette, to be known as a Bruno.

SETI League members are invited to nominate deserving individuals to receive Brunos, with recipients to be selected by the League's Trustees. Nominating petitions not resulting in awards will be held for future consideration. Nominees need not be members of The SETI League. The Trustees reserve the right to present no award in any given year.

Nominating petitions from League members, which must be received by January 1st of each year, must detail the contributions of the nominee. They may be addressed to Bruno Award, SETI League, PO Box 555, Little Ferry NJ 07643, or submitted electronically to bruno@setileague.org. Awards shall be presented at the annual AAAS SETI Dinner, or such other SETI forum as the Trustees may dictate.

Nominate early and often. Stake your claim now. Remember, fortune is fleeting, but flame endures forever.

SETI League Merges Onto

Info Superhighway

The SETI League has recently established a presence on the Information Superhighway with the activation of its own Internet on-ramp. Members with Internet access may now receive various services through the domain seti1.setileague.org. You may email directly to **headquarters** (info@setileague.org); to our newly established **membership department** (join@setileague.org); to our founder, Trustee and **President** Richard C. Factor (rcf@setileague.org); or to the League's **Executive Director**, Dr. H. Paul Shuch (n6tx@setileague.org). Look for new addresses to be added to the system in the months ahead.

Plans are now being made to permit downloading of SETI League files and software through anonymous ftp, and we are pleased to announce the activation of our own World Wide Web home page. Members with Web access are invited to browse. Our Uniform Resource Locator (URL) is <http://seti1.setileague.org/homepg.html>.

Editorial

Why Haven't We Heard Them?

by H. Paul Shuch, Executive Director

"NASA has spent millions of dollars, has been listening for a whole year, and still hasn't heard anything. No little green men have come up to us and said 'take me to your leader.' " With that logic, Nevada senator Richard Bryan introduced on September 22, 1993 the legislation which terminated NASA's High Resolution Microwave Survey just one year into its ten-year run. And it's true, of the dozens of SETI projects undertaken over the past 35 years, not one has produced a single, verified signal of intelligent extra-terrestrial origin. Does that mean that we're wasting our time? Hardly.

Why has SETI not yet succeeded? The fact is, we should *not* yet have achieved positive results. Consider that the Milky Way galaxy contains roughly 200 billion stars. Perhaps ten percent of these have lasted long enough to produce stable planetary systems. Frank Drake, father of the famous Drake Equation, now estimates that there are about 10,000 intelligent, communicative civilizations in our galaxy alone. But that makes every good candidate star we survey about a 20 million to one long-shot. The sum of all SETI programs to date has resulted in our surveying a few hundred stars, over a limited frequency range, for limited periods of time. Not only have we not yet scratched the surface, we haven't even found the itch.

SETI is not the sort of science which produces immediate results. But Congress appears not to realize that, and maybe it's just as well. I mourned the loss of NASA's SETI budget as much as anybody, but look at how far we've come since! The SETI Institute has given new life to the late NASA targeted search, under the Project Phoenix banner. Now The SETI League is preparing to resurrect the all sky survey component of NASA SETI, at admittedly much reduced sensitivity, but with unparalleled sky coverage. Privatization of SETI can work!

It has been suggested that any project in which Government (ours or anybody else's) involves itself will end up costing twice as much, taking twice as long, and working half as well. By privatizing SETI, we have a golden opportunity to do the search the way it should be done, not the way our supposed leaders deem politically appropriate and expedient.

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