



SearchLites

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The Quarterly Newsletter of The SETI League, Inc.

Offices:

433 Liberty Street
Little Ferry NJ
07643 USA

Phone:

(201) 641-1770

Facsimile:

(201) 641-1771

Email:

info@setileague.org

Web:

www.setileague.org

President/Registered Agent:

Richard Factor

Secretary/Treasurer:

A. Heather Wood

Executive Director Emeritus:

H. Paul Shuch, Ph.D.

Trustee:

Martin Schreiber, CPA

Advisory Board:

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Greg Bear
Paul Davies, Ph.D.
Robert S. Dixon, Ph.D.
Frank D. Drake, Ph.D.
Claudio Maccone, Ph.D.
Clifford Stoll, Ph.D.

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SETI League Announces Annual Awards

Little Ferry NJ., 21 April 2013 -- At its Annual Meeting this afternoon at its New Jersey headquarters, the nonprofit SETI League, leaders in a global search for extra-terrestrial intelligence, recognized two individuals for major contributions to the art and science of SETI. Honored this year for their efforts and accomplishments were Dr. Alexander L. Zaitsev of Russia, and Dr. Steven J. Dick of the United States.

The SETI League recognized Dick, a trained astronomer formerly employed as the Chief Historian of NASA, with its annual Giordano Bruno Memorial Award, for technical excellence in the service of SETI. Dick is author of many SETI-related publications, most notably his books The Biological Universe, Life on other Worlds, and Many Worlds. He has been keynote speaker at the 2002 SETI-con conference and the 2008 technical conference of SETI League affiliate SARA, the Society of Amateur Radio Astronomers. He serves alongside several other SETI League members on the SETI Committee of the International Academy of Astronautics.

Zaitsev, the League's volunteer Regional Coordinator for Russia, was selected to receive The SETI League's annual Orville Greene Service Award, in honor of his exemplary volunteer service to the nonprofit organization. As Chief scientist of the Institute of Radio Engineering, Russian Academy of Sciences, he has been a tireless proponent of "Messaging to ETI" or METI. Zaitsev has written numerous editorials as well as technical papers on the subject, and has been active on the various SETI League email discussion lists. He has also been very much involved in conducting transmissions into space from the Evpatoria planetary radar facility in Ukraine.

In other actions at today's meeting, the Board of Trustees accepted the Executive Director's and Secretary/Treasurer's annual reports; adopted a 2013 budget; re-elected its officers (Richard Factor, WA2IKL, President; A. Heather Wood, Secretary/Treasurer; H. Paul Shuch, N6TX, Executive Director Emeritus) to serve on a volunteer basis for an additional one-year term; and agreed to continue cost sharing of the Executive Director Emeritus' health insurance premiums.

Largely using radio telescopes and optical telescopes, SETI scientists seek to determine whether humankind is alone in the universe. Since Congress terminated NASA's SETI funding in 1993, The SETI League and other scientific groups have privatized the research. Amateur and professional scientists interested in participating in the search for intelligent alien life, and citizens wishing to help support it, should email our Secretary/Treasurer at [hwood50 at aol dot com](mailto:hwood50@aol.com), check the SETI League Web site at <http://www.setileague.org/>, send a fax to +1 (201) 641-1771, or contact The SETI League, Inc. membership hotline at +1 (800) TAU-SETI. Be sure to provide us with a postal address to which we will mail further information. The SETI League, Inc. is a membership-supported, non-profit [501(c)(3)], educational and scientific corporation dedicated to the scientific Search for Extra-Terrestrial Intelligence. ❖

Event Horizon

SearchLites readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site (www.setileague.org) under *Event Horizon*, or email to us at info@setileague.org, to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.

May 24 - 27, 2013: *Balticon 47*, Hunt Valley, MD.

July 25 - 28, 2013: *Central States VHF Conference*, Elk Grove Village, IL.

August 29 - September 2, 2013: *Lonestarcon 3*, 71st World Science Fiction Convention, San Antonio TX.

September 23 - 27, 2013: *64th International Astronautical Congress*, Beijing, China.

November 8 - 10, 2013: *Philcon 2013*, Cherry Hill, NJ.

April 19, 2014, 0000 UTC - 2359 UTC: Fifteenth annual SETI League *Ham Radio QSO Party*: 3.551, 7.0309, 7.2039, 14.084, 14.204, 21.306, and 28.408 MHz.

April 20, 2014: Twentieth SETI League *Annual Membership Meeting*, Little Ferry NJ.

August 14 - 18 August, 2014: *Loncon3*, 72nd World Science Fiction Convention, London, England.

September 29 - October 3, 2014: *65th International Astronautical Congress*, Toronto, Canada.

April 18, 2015, 0000 UTC - 2359 UTC: Sixteenth annual SETI League *Ham Radio QSO Party*: 3.551, 7.0309, 7.2039, 14.084, 14.204, 21.306, and 28.408 MHz.

April 19, 2015: Twenty First SETI League *Annual Membership Meeting*, Little Ferry NJ.

October 2015 (dates to be announced) : *66th International Astronautical Congress*, Jerusalem, Israel. ❖

UFO Defined

by Philip A. Stahl

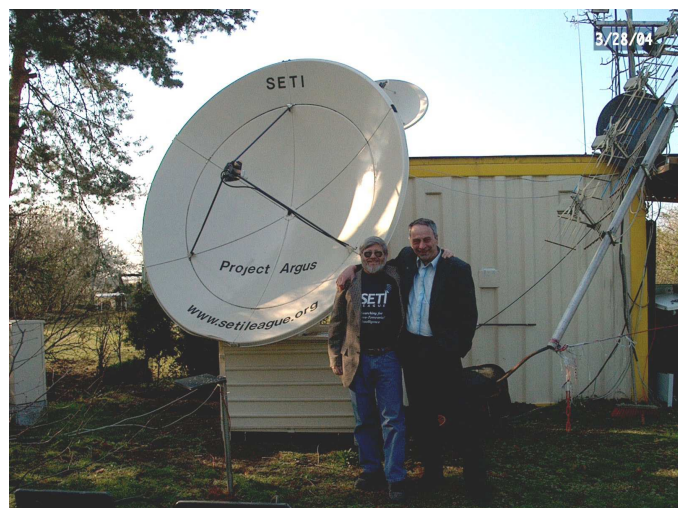
from the March, 2003 issue of the MENSA Bulletin, used by permission

In the January issue of the MENSA Bulletin, Donna Shirley argues there've been no recent UFO sightings because "the most likely reason is that UFOs do not exist." In fact, the problem in her argument is being unaware of the operational definition of "UFO" given by the late J. Allen Hynek of Northwestern University. Hynek, an astrophysicist, devoted many years to the scientific study of the UFO phenomenon. His definition reads as follows:

"A UFO is the reported perception of an object or light - seen in the sky or upon the land, the appearance, trajectory, and general dynamic and luminous behavior of which do not suggest a logical, conventional explanation and which is not only mystifying to the original percipients but remains unidentified after close scrutiny of all available evidence by persons who are technically capable of making a common sense identification if one were possible."

The preceding leaves the UFO unidentified so the definition doesn't descend to the most popular, debased usage, i.e. "UFO" equals "alien spacecraft." This precision then avoids the usual conflation and lack of clarity. Given Hynek's definition, the logical explanation for why fewer UFOs are being reported is that more people are better educated to discern what they are seeing in the night skies. In other words, they no longer mistake Venus or Jupiter at their brightest or the occasional artificial satellite for a UFO.

By the way, a consistent core of 3 percent of sightings remains unidentified. ❖



2013 Bruno Award recipient Steven Dick →

2013 Greene Award recipient Alexander Zaitsev (with executive director H. Paul Shuch) ←



Does the Universe Have an Agenda?

by Dan Duda

from the April, 2013 issue of Penn Central,
the monthly newsletter of Central PA Mensa,
used by permission

"Our rational cognition applies only to appearances, and leaves the thing in itself unrecognized by us, even though inherently actual."

Immanuel Kant, Critique of Pure Reason

Reality is so obvious to us. We've experienced it as far back as we can remember. But throughout history deep thinkers have had troubling questions about it. Back in 1781 Immanuel Kant questioned our ability to grasp it. He felt that, since our knowledge about "things" is based totally on our senses, our understanding of those things involves only appearances generated by our minds. That, in his view, leaves the "thing in itself" (reality), untouched by our limited source of information. Going back even further, this line of thinking is reminiscent of Plato's Cave Allegory in which residents of a cave deduced reality solely from shadows cast on a wall. The message, in both cases, is that our access to reality is always reflected through another medium - we never have direct contact with the "real" thing.

We now understand that our knowledge of things is based on electrical impulses cascading through nerve pathways which are interpreted by our brain. In spite of our innate reluctance to accept it, all we have of reality is a secondary, filtered interpretation - we just don't have access to things as they are. That insight, profound in the eras of Plato and Kant, is gathering incredible momentum in this modern age which is proving their point with deadly accurate scientific experiments.

Quantum wave mechanics, conceived by Erwin Schrodinger, suggest that the thing in itself is actually a wave of probability propagating through space and time (that's really weird, but experiments support his thinking). The wave coalesces into a single thing only when observed. Other than Schrodinger's propagating wave, we actually have no idea what the "thing" is doing when we're not looking. But it's worth noting that quantum mathematics is based on the discipline of statistics. With quantum uncertainty we can never predict what any specific particle will do. But, even better than statistical analysis, quantum science can predict with absolute certainty what the distribution curve of an experiment involving a large number of

particles will be. So, sub-atomic particles behave randomly as individuals, but with absolute predictability in groups.

[Warning: I'm about to use the springboard of science to leap into one of my unscientific brainstorms]

Could this quantum tendency translate to the macro world? Might the behavior of the universe be like a child's toy - a snow globe? When the toy is shaken the individual snow-like particles rush around following apparently random paths. However, over time they settle into the scene mandated by the design of the toy. Does the universe have a design that allows us to "sense" a stochastic environment while actually guiding us to a pre-determined end?

I'm reminded of old college debates about free-will vs. determinism. But let's extend the discussion - what if the universe translates this micro pattern to the macro world (remember, everything, including us, is made from sub-atomic particles). A false sense of free will might exist for us as individuals, while we actually operate within a predetermined framework. Any potential action of an individual could be described by a wave of probabilities. The individual is (or feels he is) free to choose. But taken together with all choices made - might there be a predetermined result? In other words - could the universe have an agenda? Further, might the fact that Kant's "thing in itself" is hidden from us be a clue that the universe is hiding its blueprint?

So, does the universe have a hidden agenda? Consider the fact that Einstein's Theory of Relativity never received a Nobel Prize, yet, it is widely considered the most incredible scientific insight ever. More recently, Peter Higgs' groundbreaking paper was rejected by "Physics Letters" which was edited by CERN. Since then, CERN has spent \$Billions building and staffing the Large Hadron Collider to prove the premise of his once rejected paper.

Today, some scientists see a universe that seems to have a master plan. If proven, that would rock the world even more than proof of intelligent extraterrestrial life. In the immortal words of Albert Einstein "Everything is determined, the beginning as well as the end, by forces over which we have no control. It is determined for the insect, as well as the star. Human beings, vegetables, or cosmic dust, we all dance to a mysterious tune, intoned in the distance by an invisible piper." ❖

Minutes of the Nineteenth Annual Membership Meeting

**21 April 2013, SETI League Headquarters,
Little Ferry, NJ**

- **Call to Order**

The meeting was convened at 13:00 hours EDT at SETI League Headquarters in Little Ferry NJ, by Executive Director Emeritus Dr. H. Paul Shuch (attending via telepresence). Three SETI League members in good standing present. Our Bylaws requiring one percent of the current membership to be in attendance for the conduct of SETI League business, the above represents a quorum.

- **Minutes of 2012 Membership Meeting**

The Minutes of the 2012 Membership Meeting having been previously posted to The SETI League's World Wide Web site, a motion was then passed to accept the minutes as posted.

- **Treasurer's Report**

Presented jointly by Dr. Shuch and Secretary/Treasurer Heather Wood, covering the calendar year 2012 (as e-filed).

1. Revenues: Dues and Contributions \$11,088, Interest Income \$2, Total \$11,090.
2. Expenses: Educational/Scientific Programs \$11,895, Management/General \$1,667, Fundraising \$1,462, Total \$15,024.
3. Revenues minus Expenses: \$(3,934).
4. End of 2012, SETI League account balances equalled \$2,917. 2011 beginning net assets \$6,851.
5. 2013 Budget: Projected Revenues \$11,002, Program Expenses \$10,000, Management/General Expenses \$1,600, Fundraising Expenses \$1,400, Total Expenses \$13,000, Projected deficit (\$1,998), Projected Ending Balance \$919.
6. This report was accepted by those present.

- **Executive Director's Report**

The Executive Director's annual report of Program Service Accomplishments having been previously posted to The SETI League's World Wide Web site, a motion was passed to accept the report as published.

- **Committee Reports**

EME Committee

Report by SETI League president and station trustee Richard Factor. The EME beacon remains off the air during Mr. Factor's relocation to Arizona.

Awards Committee

Awards Committee chairman David Ocame being absent, Dr. Shuch announced the selection of this year's Giordano Bruno Award and Orville N. Greene Award recipients. Twelve websites have been given the SETI SuperStar award this year. More nominations are requested from the members. Paul will note this in the next issue of *SearchLites*.

- **Old Business**

1. **Very Small Array**

Dr. Shuch reports that the project remains on hold, due to lack of funding, with no progress to report since last year.

2. **Mid-Year Renewal Letter**

Ms. Wood will email a mid-year appeal to lapsed members, with hardcopies to be distributed to members for whom we have no current email address. Last year's letter generated several reinstatements of lapsed members.

3. **Annual Report**

The SETI League's 2012 Annual Report is available to members via the website, in Portable Document Format (PDF). Ms. Wood will distribute hard-copies of this report to our major donors.

4. Web Server

Mr. Factor reports that new servers are online, and the website is online and working properly. Weekly web updates are currently being performed manually. Mr. Factor will investigate means for automating the process. Our email server remains offline, and alternatives for restoring our various email lists are being investigated.

- **New Business**

The impact of the current email server outage, and possible mitigating measures, were discussed.

- **Next Meeting**

The next Annual Meeting will be held on Sunday 22 April 2014. The date has been verified as not in conflict with Easter, Passover, or US tax season. Mr. Factor and Ms. Wood will explore facilities for conducting the meeting online. The meeting will be at 1300 hours EDT, to be followed immediately by the Board of Trustees meeting. The date and time, as well as telepresence procedures if available, will be announced to the membership via the website and newsletter.

- **Good and Welfare**

The membership remembered longtime member Allen Tough, who passed away shortly after last year's annual meeting. The SETI League is considering an appropriate memorial to Dr. Tough.

- **Adjournment**

The Annual Membership Meeting was adjourned by the Executive Director Emeritus at 13:33 hours EDT on 21 April 2013. A Regular Board of Trustees meeting followed.

Business Transacted by Board of Trustees:

1. Quorum Call

Trustees and Officers present: A. Heather Wood, Richard Factor, H. Paul Shuch

Trustees and Officers absent: Martin Schreiber
A quorum is present.

2. Election of Officers

The following slate of officers was retained for an additional one-year term:

President - Richard Factor, serving without compensation.

Secretary/Treasurer - A. Heather Wood

Executive Director Emeritus - H. Paul Shuch, serving on a volunteer basis.

3. Personnel matters

3.1. In executive session, the Secretary/Treasurer's annual performance review was completed.

3.2. In executive session, the Board of Trustees voted to continue cost-sharing of Executive Director Emeritus' health insurance premiums, as a program expense, pending availability of funds and subject to periodic review. Dr. Shuch abstaining.

4. Advisory Board

The Executive Director Emeritus will draft a letter to our Advisory Board members, thanking them for their continued service to The SETI League.

5. Bank Fees

Fees charged for our various bank accounts were discussed. The Secretary/Treasurer will investigate the use of PayPal, Intuit, and other alternatives for lower-cost processing of credit cards.

6. Registered Agent

The New Jersey Division of Revenue requires that we designate a Registered Agent to execute certain state documents. Mr. Factor was previously appointed to this post, and has agreed to continue serving in this capacity for an additional year.

7. Adjournment

The Board of Trustees meeting was adjourned at 13:51 EDT.



Guest Editorial:

Humanity is Perfectly Visible to Extraterrestrials

© Alexander Popoff, used by permission
(excerpt from his eBook [The Hidden Alpha](#))

At a meeting of the Royal Society in London, in trying to explain the current failure of SETI to discover extraterrestrial civilizations, Frank Drake said that phasing out analog transmissions from TV, radio, and radar is making our planet electronically invisible from outer space, because while an old-style TV transmitter might generate a million watts, the power of a digital satellite signal is around twenty watts.

The digital revolution does not make civilizations invisible to extraterrestrial search. On the contrary, the electromagnetic radiation of our civilization is getting stronger and stronger, and we are sending an increasing amount of radio waves into space.

Today, WHKY-TV's (an independent TV station in North Carolina) digital signal now operates at 600,000 watts, roughly equivalent to 1.2 million watts for an analog transmitter. The station currently has a construction permit to boost its power to 950,000 watts.

CBS 8 shut off its analog transmitter in late 2008. Now it is sending out a digital signal at one million watts.

On June 6, 2011, the Federal Communications Commission granted WAND, an NBC-affiliated TV station, a construction permit to move its digital frequency back to its former analog allotment, and to operate its digital signal at the maximum one million watts.

Military and science radars are also sending out millions of watts.

The transmitter system of HAARP is officially able to produce approximately 3.6 million watts of radio frequency power. The pulsed or continuous signal is sent into the ionosphere. According to some researchers, the output power can reach up to 300 million watts and the military has patents to boost this power output to over a hundred billion watts. These high figures of billions of watts are still unconfirmed officially.

The Russian missile defense and early warning radar Don-2N, which can also track space vehicles, is capable of monitoring air space at an altitude of 40,000 km (24,860 miles). It transmits extremely

powerful radio pulses of 250 million watts. Russia has even more powerful radars. The other major military powers in the world have similar radar systems, too.

Civilizations are using powerful signals in radio astronomy to explore the local star system and for communication with their probes and spaceships.

The number of TV transmitters, military and science radars, and so on, all around the world and in orbit is increasing. Their power output is also increasing.

The total level of electromagnetic noise from the inhabited planets is also growing. The electromagnetic radiation from Earth will travel thousands of light-years away.

The digital revolution is making the civilizations much more visible to extraterrestrial search.

Some scholars, including Stephen Hawking, are concerned that the deliberate sending of radio signals into deep space and the leakage radiation could be a serious risk, because we are revealing the location of our planet to hostile alien civilizations.

There have even been calls for a moratorium on deliberate radio transmissions into deep space to attract the attention of aliens.

There is absolutely no need to worry about this. The advanced civilizations from our Galaxy know that we exist and know exactly where we are. The spectral analysis of Earth's atmosphere alone is enough to reveal us, because it is specific to planets with complex life and technological civilizations. We cannot hide our atmosphere.

According to the second law of thermodynamics, the advanced civilizations create entropy in the form of waste heat that is drifting into outer space. It is impossible to hide the faint entropy glow.

The advanced technological civilizations from our Galaxy know where we are and what is our level of development.

For the mega-civilizations, these are mature intelligences managed to abandon their dying home universes, we are like a Monopoly game on the table, next to the sandwiches and the beer. We are totally visible, accessible, and manipulable.

Disclaimer: The opinions expressed in editorials are those of the individual authors, and do not necessarily reflect the position of The SETI League, Inc., its Trustees, officers, Advisory Board, members, donors, or commercial sponsors. ❖



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Annual Renewal: Is This Your Last SearchLites?
SETI League memberships are issued for the *Calendar Year*. Please check the expiration date indicated on your mailing label. If it reads December 2012 or earlier, you have already expired, and *must* renew your SETI League membership **now!** Please fill out and return this page along with your payment.

Please renew my membership in this category:

Full Member	\$50 / yr
Supporting Member (elderly, retired, or disabled)	\$35 / yr
Scholarship Member (full-time students only)	\$25 / yr
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Household Life Member (same address as a Life Member)	\$300
Life Member (until we make contact)	\$1,000
Sustaining Life Member – a generous <i>annual</i> pledge of:	\$1,000 / yr
Patron (priority use of The SETI League’s radio telescope)	\$10,000
Director (Patron membership plus seat on advisory board)	\$100,000
Benefactor (a major radio telescope named for you)	\$1,000,000

Annual memberships are issued for the calendar year. Those processed in January through April expire on 31 December of that year. Those processed in September through December expire on 31 December of the *following* year. Those members joining in May through August should remit half the annual dues indicated, and will expire on 31 December of the same year.

Order Your Membership Premiums:

	(u/c)*	(o)*
Pocket protectors	\$ 3	\$ 4
Mouse pads	\$ 5	\$ 7
<i>Tune In The Universe! (CD-ROM)</i>	\$25	\$30
<i>Proceedings of SETICon01</i>	\$20	\$27
<i>Proceedings of SETICon02</i>	\$20	\$27
<i>Proceedings of SETICon03 (CD)</i>	\$15	\$17
<i>Proceedings of EuroSETI04 (CD)</i>	\$15	\$17
<i>Proceedings of SETICon04(CD)</i>	\$15	\$17
<i>SARA Conference Proceedings:</i>		
2006, 2007, 2008, 2009 (specify)	\$20	\$27
<i>SETI League Technical Manual (CD)</i>	\$10	\$13
<i>Project Cyclops 2nd Edition</i>	\$20	\$30
<i>The Listeners</i> by James Gunn	\$15	\$21
<i>Sing a Song of SETI</i> (Songbook)	\$10	\$13
<i>Sing More Songs of SETI</i> (Songbook)	\$10	\$13
<i>Sing a Song of SETI</i> (music CD)	\$15	\$17
<i>Demented!</i> (music CD)	\$15	\$17
T-shirts, specify M, L, or XL	\$15	\$22
SETI Nerd Gift Set (one each Mouse Pad, Pocket Protector, <i>Project Cyclops</i> and <i>Tech Manual</i>) at 20% Savings to <u>Members Only</u> :	\$30	\$43

***Includes postage to (u/c) US/Canada, or (o) other locations**
Payments in US Dollars, check payable through a US bank

Pleased to Accept PayPal

The SETI League invites you to pay your membership dues and additional contributions via credit card, using the PayPal online payment system. Simply log on to www.paypal.com and specify that your payment be directed to paypal@setileague.org.

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