



SearchLites

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The Quarterly Newsletter of The SETI League, Inc.

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SETI League 2024 Annual Meeting Scheduled for Virtual Attendance

The SETI League, Inc. wishes to inform its members and supporters that, given our success in holding Zoom meetings during the pandemic, our Board has elected to continue the practice of hosting our Annual Membership Meetings online. Our next such meeting, now firmly scheduled for Sunday, 21 April 2024, will thus be held virtually. Arrangements are being made to permit SETI League members and supporters to sign on via the Zoom platform at 1 PM Eastern Daylight Time on that date. Those wishing to tune in are asked to email SETI League Secretary Heather Wood not less than two days prior, at hwood50_at_aol_dot_com, so she can email you logon details in advance of the meeting.

Following our virtual Annual Membership Meeting, the annual Board of Trustees Meeting required per SETI League Bylaws Article V, Section 3 will take place by the same electronic means at 2 PM Eastern Daylight Time on Sunday, 21 April 2024. For those unable to attend, we will post the full minutes of both meetings to the SETI League website and Facebook page, within 24 hours of their conclusion.

- Annual Membership Meeting Agenda
- Call to Order (via Zoom) and Quorum Call
- Minutes of 2023 Virtual Membership Meeting
- Financial Report
- Committee Reports
- Old Business
- New Business
- Good and Welfare
- Adjournment

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 heather_at_setileague_dot_org, check the SETI League Web site at <http://www.setileague.org/>, 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.

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When Radio Astronomy Takes You Off The Beaten Path

by Nicole Gugliucci

You may or may not be familiar with the story of the detection of the Cosmic Microwave Background in 1964 by Bell Lab scientists Arno Penzias and Robert Wilson. This is a wonderful story of the serendipity in scientific discovery, the importance of combining theory and observation, and bird poop.

The story is well told in other venues, but the short version I give my students was that, in an attempt to get the most sensitivity out of their instrument, they tried to remove all sources that could affect the “noise.” This included chasing out a bunch of pigeons who had been roosting there and cleaning out their poop (scientifically known as “a white dielectric”). Still, however, the noise persisted. Turns out... it was the faint signal from the Universe that helped to solidify the Big Bang Theory as the model for the start of it all!

This instrument, often called the Holmdel Horn Antenna for the town in New Jersey where it resides, is iconic for radio astronomers. In graduate school, I spent a lot of time working at the Green Bank Observatory in West Virginia, touring historical telescopes like the 140-foot telescope which is built like a battleship, seeing the refurbished antenna that Grote Reber built in his spare time to start exploring the galaxy in radio waves when no one else was, and even tracking down a hidden gem known as “Little Big Horn,” once used to determine a calibration scheme for the entire radio sky.

I don’t remember how I came across it one day, but I noticed that the Holmdel antenna was listed as a site on Google Maps one time when I was in the area visiting family. I managed to take a drive out to see it on the land owned by whichever company (maybe Nokia by then?) Bell Labs had eventually become part of some time in the past. I’m sure there was a sign somewhere indicating that it wasn’t a public road, but, in my excitement, I probably didn’t see it. I found the antenna quite easily! It had a little plaque and I was standing there taking pictures when a security guard came over to inform me that I was on private property and why was I stopped here taking pictures? I excitedly talked

about my love of historical radio telescopes and received a puzzled look in response. Apparently, he didn’t get that a lot around there.

Turns out, however, I am far from the only one excited about the Holmdel antenna. In 2021, a developer bought the land and planned to turn it into a residential development. A group of local citizens started a petition to save the antenna, a National Historic Landmark, and succeeded late last year as the town agreed to buy the land with plans of turning it into a public park, saving the antenna for posterity. I’d forgotten about my petition signature until last month when the town officially bought the land and introduced an ordinance to name the spot Dr. Robert Wilson Park.

I got a chance to meet Bob Wilson once when I was a grad student in Green Bank. After a day of field work and puzzling over data, I was in my observatory dorm room when my friend Paul sent me a message along the lines of “GET TO THE LOUNGE NOW! WILSON OF “PENZIAS AND WILSON” IS TELLING THE PIGEON POOP STORY!”

I high-tailed it down the hall to the Drake Lounge where the Nobel Prize winning radio astronomer was just wrapping up talking about the past and moving on to discuss the work that he and current collaborators were doing with millimeter and sub-millimeter interferometry. At some point in the conversation, they were talking about the Event Horizon Telescope, the successful collaboration that produced the first ever images of the event horizon around a supermassive black hole. I don’t know if it even officially had that name yet! So, yeah, that’s one time I got to meet a Nobel-prize winning scientist who was lovely and generous with his time and still working to push the boundaries of radio astronomy instrumentation.

You can follow news of the site at the “Citizens for Informed Land Use” site. I, for one, am definitely looking forward to visiting the Horn Antenna. You know, legally.

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. ❖



SETI League members are encouraged to nominate SETI-relevant websites for our monthly SETI SuperStar Award. Nominating emails to our Awards Committee may be sent to:

Awards_at_setileague_dot_org

Please be sure to indicate the URL of the candidate website you are nominating, and a brief explanation as to why you consider the site worthy of recognition.

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.

April 21, 2024, 1 PM EDT: *SETI League Annual Membership Meeting*, virtually, via the Zoom platform. Members and guests should contact our Secretary via hwood50@aol.com, to request Zoom log-on link.

August 8 - 12, 2024: *81st World Science Fiction Convention*, Glasgow, Scotland.

October 11 - 18, 2024: *75th International Astronautical Congress*, Milan, Italy.

June, 2025 (dates to be announced): *Second Annual Penn State SETI Symposium*, State College PA.

August 13 – 17, 2025: *82nd World Science Fiction Convention*, Seattle, Washington USA

September 29 - October 3, 2025: *76th International Astronautical Con2gress*, Sydney, Australia.

October 2026 (dates to be announced): *77th International Astronautical Congress*, Antalya, Turkey.

Happy Birthday, Jill!

submitted by SETI Institute

In 1984, Dr. Jill Tarter co-founded the SETI Institute alongside Tom Pierson and led the first grant-funded proposal for SETI research here. Since then, she has served as Project Scientist for NASA's SETI program, the High Resolution Microwave Survey and has conducted numerous observational programs at radio observatories worldwide.

Dr. Tarter is a Fellow of the AAAS, the California Academy of Sciences, and the Explorers Club, she was named one of the Time 100 Most Influential People in the World in 2004, and one of the Time 25 in Space in 2012, received a TED prize in 2009, two public service awards from NASA, multiple awards for communicating science to the public, and has been honored as a woman in technology. She is an Adjunct Professor in the Department of Physics and Astronomy at USC. Asteroid 74824 Tarter (1999 TJ16) has been named in her honor. She was the Jansky Lecturer in 2014. Today, Jill serves on the SETI Institute's Board of Trustees, its Science Advisory Board, and is Chair Emeritus for SETI Research.

Dr. Tarter began her career with a degree in engineering from Cornell University and subsequent master's and doctoral degrees in astronomy from the University of California, Berkeley. She coined the term "brown dwarf" for certain small-mass objects that cannot fuse hydrogen. And when she turned her attention to the search for life beyond Earth, she changed the landscape of SETI going forward.

Around the SETI Institute, however, she is Jill. Her warm smiles and gentle voice have welcomed interns and scientists alike. For many years, she has joined the internship cohorts up at the Hat Creek Radio Observatory, teaching them about SETI research and the Allen Telescope Array. And of course, she is known as the inspiration for the character of Ellie Arroway in Carl Sagan's novel and movie, "Contact". During those summer trips, she has watched the movie with the students and given them background information about the story and the filming. (She also has generously participated in the internship shenanigans with some of their parody videos over the years.) Happy birthday, Dr. Tarter! Here's to many more to come.



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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 2023 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
Household Member (same address as a Full Member)	\$15 / yr
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.

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.

Name: _____

Order Your Membership Premiums:

	(u)*	(o)*
Pocket protectors	\$ 3	\$ 4
Mouse pads	\$ 5	\$ 7
<i>Tune In The Universe! (CD-ROM)</i>	\$25	\$30
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<i>Proceedings of SETICon04(CD)</i>	\$15	\$18
<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 More Songs of SETI (Songbook)</i>	\$10	\$13
<i>Sing a Song of SETI (music CD)</i>		out of stock
<i>Sing More Songs of SETI (music CD)</i>	\$15	\$18
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	\$45

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