

AIAA SAN FRANCISCO SECTION



IN4M-LETTER

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AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS SAN FRANCISCO SECTION
P.O. BOX 1548, MOUNTAIN VIEW, CA 94042 <http://www.aiaa-sf.org>



Above: Right panorama of Spirit's landing site, taken by the rover's navigation camera. Photo credit: Jet Propulsion Laboratory.



Left: Antennae in the Allan Telescope Array at the Hat Creek Radio Observatory. Photo credit: Seth Shostak.



Right: Mars, a possible target of human exploration. Photo credit: NASA Glenn Research Center.

Wednesday, July 21, 2004
Ramada Inn, Sunnyvale, CA

Update on the Search for Extra-Terrestrials

Dr. Seth Shostak
SETI Institute
Mountain View, CA

(Note: This meeting will also honor the winners of the 16th Annual Essay Contest.)

Recent research indicates that hundreds of billions of planets may be scattered throughout the vast starfields of the Milky Way. Biology, once thought to be a miracle, is increasingly believed to be as commonplace as a cheap motel. Many worlds could be carpeted by life.

But could some of these distant planets have spawned intelligent beings? The SETI Institute, a research group in Mountain View, California, is using massive radio telescopes to try and eavesdrop on alien broadcasts. What are the chances that they will succeed, what would the aliens be like, and what would be the impact on earthly society if they do?

Popular lecturer and writer Dr. Seth Shostak, Senior Astronomer at the SETI Institute, will review current research work and look into the questions posed above.

Update on Search for Extra-Terrestrials, continued on page 3

16th Annual Essay Contest

Should We Send Humans to Mars?

July 20 will mark the 35th anniversary of Man's first landing on the moon. Since the Eagle landed at Tranquility Base, the question of going to Mars has been debated in various forums. This year, with the spectacularly successful robotic missions of the Mars exploration rovers Spirit and Opportunity, and President Bush's

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NOTE: this newsletter and many back issues are available in PDF form at: <http://www.aiaa-sf.org/newsletter>

New SF Section Officers Elected

Council Starts New Term

The AIAA San Francisco has elected new officers for the 2004-2005 term. They are:

- Chair **Prasada Rao Gogineni**. He automatically moves up from section vice-chair. He has previously been programs director for the section.
chair@aiaa-sf.org
- Vice-chair **Richard J. Kwan**. He was previously the section secretary, and has been treasurer and communications director.
vicechair@aiaa-sf.org
- Secretary **Eric R. Mueller**. He has been section education director and young professionals director.
secretary@aiaa-sf.org
- Treasurer **Todd Farley**. He is re-elected to this post, and has been section public policy director.
treasurer@aiaa-sf.org

The officers are supported by the section council. Many of the council posts filled by acting directors or are vacant. Interested members may contact the section chair. The council directors are:

- Programs Director **Prasada Rao Gogineni** (acting)
programs@aiaa-sf.org
- Education Director **Eric R. Mueller** (acting)
education@aiaa-sf.org
- Membership Director **Seth Kurasaki** (acting)
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- Communications Director **Richard J. Kwan** (acting)
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- Honors & Awards Director (vacant)
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- Evolution of Flight Director **Gano Chatterji**
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- RAC Representative **Prasada Rao Gogineni**
chair@aiaa-sf.org

The section newsletter, website, and e-mail update are handled by the Communications Committee, which includes: **Richard J. Kwan, Corwin H. Lakin, Bruno Geoffrion, and Stephanie P. Gregg**.

The council also includes selected regional and national representatives. **Norm Bergrun** sits on the AIAA national public policy committee. **Gano Chatterji** is an Assistant Director for AIAA Region VI.

Membership Anniversaries

The San Francisco Section of the American Institute of Aeronautics and Astronautics (AIAA) wishes to recognize the following individuals for their continued membership in the AIAA or its predecessor societies, the Institute of Aeronautical Sciences (IAS) and the American Rocket Society (ARS).

60 Years

- Robert L. Nelson

50 Years

- John A. Bailie
- A. W. Meijer
- Jason J. Moses
- Victor L. Peterson
- William J. Schatz
- Daniel M. Tellep
- Myron Tyger

40 Years

- Vaughn W. Abbott
- William G. Bousman
- Richard M. Cima
- Joseph W. Cleary
- John C. Dusterberry
- John W. Overall, Jr.
- Herbert E. Rauch
- Henry Rie
- Robert Thornquist
- J. W. Young, Jr.

25 Years

- Ralph E. Bach, Jr.
- Richard J. Bennett
- Mark D. Betzina
- Kungta K. Chow
- Donald A. Durston
- Robert M. Ferencz
- James R. Fruchterman
- Prasada Rao Gogineni
- Conor D. Johnson
- Bernard Laub
- George Leitmann
- Mark E. Lemak
- Phil D. Lohafer
- Warren G. Morimoto
- Gerald D. Nordley
- Robert W. Parks
- Laura C. Rodman
- James C. Ross
- Russell L. Schweickart
- Paul L. Shattuck
- Banavar Sridhar
- Leonard Tobias
- Guy E. Watson

Short Notes

- **The newsletter is in transition.** The AIAA San Francisco Section *In4m-Letter* will soon undergo changes in how it is produced and distributed. Much of the section budget now goes to newsletter printing and postage. If the printed circulation can be reduced, the section has the option to pursue other projects or improve existing ones. Both the section and AIAA headquarters use e-mail to reach members. However, of the roughly 1400 members of the section, about 300 do not have valid e-mail addresses. The council is looking into ways to let members select print or electronic delivery. ***If you have an e-mail address***, but haven't been getting periodic updates from the San Francisco Section or AIAA headquarters, go on-line and check your address at <http://www.aiaa.org/members>.
- The **2nd Interplanetary Probe Workshop** will meet Aug. 23-26 at NASA Ames. It follows the very successful first workshop in Lisbon, Portugal, in October 2003). The workshop brings together planetary scientists, spacecraft engineers and mission designers and planners. More information about the workshop and registration instructions can be found on-line at <http://probews2.arc.nasa.gov>.

Update on Search for Extra-Terrestrials, continued from page 1

SETI, the Search for Extraterrestrial Intelligence, is an exploratory science that seeks evidence of life in the universe by looking for some signature of its technology. The current accepted understanding of life's origin on Earth suggests that given a suitable environment and sufficient time, life will develop on other planets. Whether evolution will give rise to intelligent, technological civilizations is open to speculation. However, such a civilization could be detected across interstellar distances, and may actually offer our best opportunity for discovering extraterrestrial life in the near future.

Finding evidence of other technological civilizations however, requires significant effort. Currently, the institute's Center for SETI Research develops signal-processing technology and uses it to search for signals from advanced technological civilizations in our galaxy.

Among the center's projects is the Allen Telescope Array (ATA), located at the Hat Creek Radio Observatory site, just north of Mt. Lassen, California. It will consist of roughly 350 6.1-meter dishes, and is named for one of its principal benefactors, Microsoft co-founder Paul Allen.

Founded in 1984, the Institute today employs over 100 scientists, educators and support staff. Research at the Institute is anchored by two centers, each directed by a renowned scientist who holds an endowed chair. Dr. Jill Tarter leads the Center for SETI (Search for Extraterrestrial Intelligence) Research as Bernard M. Oliver Chair for SETI, while Dr. Christopher Chyba holds the Carl Sagan Chair, and directs the Center for the Study of Life in the Universe.

A number of Bay area companies are involved in the SETI Institute's work. Sun Microsystems provides computing systems for command and control, data storage, and other functions. Xilinx provides field-programmable "smart chips" at the core of the new SETI signal processing system. Trimble GPS technology is used

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Section Officers and Council: A complete directory of the section council can be found at <http://www.aiaa-sf.org>.

Chair	Prasad Gogineni	408/756-2994
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AIAA SF Communications Committee staff: Rick Kwan, Corky Lakin, Bruno Geoffrion, Stephanie Gregg.

for pin-point placement of dishes in the ATA. Agilent Technology provides custom spectrum analysis equipment for the ATA.

About the Speaker

Dr. Seth Shostak is a Senior Astronomer at the SETI Institute, in Mountain View, California. He has an undergraduate degree in physics from Princeton University, and a doctorate in astronomy from the California Institute of Technology. For much of his career, Dr. Shostak conducted radio astronomy research on galaxies, and has published approximately fifty papers in professional journals. During more than a decade, he worked at the Kapteyn Astronomical Institute, in Groningen, The Netherlands, using the Westerbork Radio Synthesis Telescope. He also founded and ran a company producing computer animation for TV.



Dr. Shostak has written several hundred popular magazine and web articles on various topics in astronomy, technology, film and television. He now lectures on astronomy and other subjects at the California Academy of Sciences, and gives approximately 70 talks annually at both educational and corporate institutions. For the last five years, Seth has been a Discontinued Speaker for the American Institute of Aeronautics and Astronautics.

Frequently interviewed for radio and TV, Dr. Shostak has recently been seen and/or heard on Discovery Channel, Learning Channel, History Channel, the BBC, "Nightline," "The O'Reilly Factor," "Coast to Coast AM," NPR, CNN News, and National Geographic Television.

Dr. Shostak has edited and contributed to a half dozen books. His first popular tome, *Sharing the Universe: Perspectives on Extraterrestrial Life* (Berkeley Hills Books) appeared in 1998. He has since co-authored *Life in the Universe* (an astrobiology textbook) and *Cosmic Company*.

Should We Send Humans to Mars?, continued from page 1

announcement of new goals for space exploration, the debate is particularly visible.

What does the next possible generation of explorers think of this? We posed this question to 7th and 8th graders for the AIAA SF 16th Annual Essay Contest: *Should we send humans to Mars? Why or why not?* Assuming a target date around 2035, much of the implementation of such an endeavor will fall to their generation.

Over 100 essays were received and judged, with original and well-stated opinions for and against the idea. Winners and their essays will be revealed at the July 21 dinner meeting at the Ramada Inn, in Sunnyvale. The meeting will feature Dr. Seth Shostak, who will provide an *Update on the Search for Extra-Terrestrials*.

Should we send humans to Mars? If so, the leaders of that project are possibly among us, pondering that very question.

Calendar

AIAA SF Section Events

- Wednesday, July 21, 2004, 6:30-9:00pm: Dr. Seth Shostak on *Update on the Search for Extra-Terrestrials* – Ramada Inn Silicon Valley, 1217 Wildwood Ave, Sunnyvale, CA [Tel: 408-245-5330] Cost: AIAA members and guests - \$20, students - \$15, non-members - \$25. Cash or check only. (Related article on page 1.)

No dinner program is planned for August.

Dinner Meetings Agenda: No-host cocktails at 6:30pm, dinner & program from 7pm to 9pm. **Registration:** By Monday preceding dinner. On-line at <http://www.aiaa-sf.org>, or contact Programs Director by e-mail or phone. **Cancellation:** By Wednesday preceding dinner. Please contact Programs Director. (AIAA pays for all reservations, including no-shows.) **More Info, Questions, Comments, Jokes:** Contact our Programs Director at programs@aiaa-sf.org.

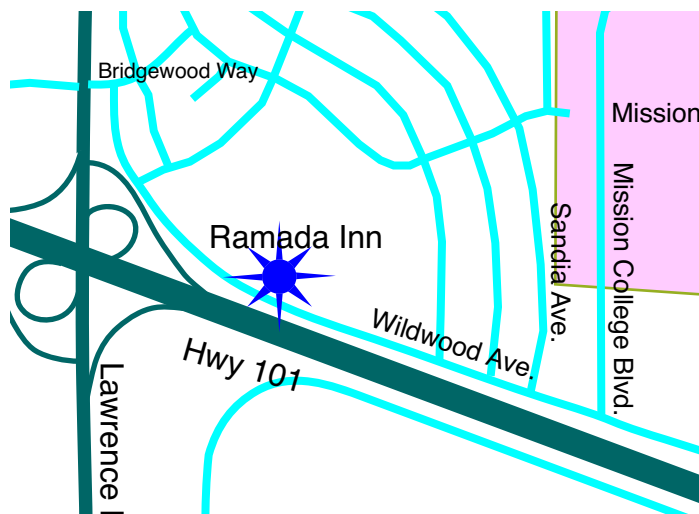
AIAA National Programs

Below are selected conferences, workshops, and other programs sponsored or organized by AIAA, including upcoming Region VI meetings.

- *35th AIAA Plasmadynamics and Lasers Conference, 37th AIAA Thermophysics Conference, 24th AIAA Aerodynamic Measurement Technology and Ground Testing Conference, 2nd AIAA Flow Control Conference, 34th AIAA Fluid Dynamics*

- *Conference and Exhibit*, Portland, OR - June 28-July 1, 2004.
- *Space 2004 Conference and Exhibit*, San Diego, CA - Sept. 28-30, 2004.
- *CAENUS 2004 — Conference on Micro-Nano-Technologies*, Monterey, CA — Nov. 1-5, 2004.
- *USAF Developmental Test and Evaluation Summit*, Woodland Hills, CA — Nov. 16-18, 2004.
- *2004 AIAA Missile Sciences Conference*, Monterey, CA — Nov. 16-18, 2004.
- *43rd AIAA Aerospace Sciences Meeting and Exhibit*, Reno, NV — Jan. 10-13, 2005.

Additional details may be found on the national AIAA website at <http://www.aiaa.org/calendar>.



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Should We Send Humans to Mars?*