



ANST Newsletter

December 8, 2006

Volume 1, Number 1

*Aerospace
Nuclear
Science &
Technology*

*A Technical
Group of the
American
Nuclear
Society*

Message from the Chair

Pablo Rubiolo, Chair 2006-2007

Dear ANST members,

Space nuclear power is a very exciting technical area where I believe there will be significant developments in the coming years. Further progress of human exploration in the solar system will require the implementation of advanced technologies. Nuclear engines will have a major role in this. Human resources will be also a critical factor in this endeavor: a new generation of skilled scientists and engineers will be needed to diverse new technical challenges.

The Aerospace Nuclear Science & Technology (ANST) Technical Group was established in 2000 to play an important role in the nuclear aerospace community by promoting the advancement of knowledge in the use of nuclear science and technologies in aerospace applications. Since its creation, ANST has grown to become a large technical group of more than 500 members (5% of all ANS members). As our activities grow, we are seeking the participation of our membership in the various activities developed by our committees. The vitality of the ANST Technical Group depends on your active involvement.

I am pleased to report that during 2006 ANST has achieved some important goals, including the launch of our new website at <http://anst.ans.org>, the improvement of the group governance and the development of a five year strategic plan, the adoption of awards to support students and the co-sponsoring of various technical sessions related to space nuclear power.

The year 2007 will be full of new developments. We are on the way to becoming an ANS Professional Division. We are also organizing the Space Nuclear Conference 2007 (SNC '07) that will be held as an embedded topical meeting during the 2007 Annual Meeting of the American Nuclear Society in Boston, MA. The SNC'07 will be the second topical meeting organized by ANST. We have currently received more than 40 technical papers in various topical areas. The conference will include plenary sessions with top level key speakers on Space Nuclear Power & Propulsion, Radioisotope Power Sources, Key Issues and Challenges and Future Opportunities. We are looking forward to your attendance and participation in the SNC'07.

Early in 2007, we will also implement a regular ANST newsletter featuring articles on space nuclear power. We are planning to establish awards for technical excellence in papers presented in ANST sponsored sessions. We would also like to develop a forum through our website to share and stimulate ideas and to permit information exchange.

One of the goals of ANST is to serve our members. We want to make more progress in this area and we need your help to do so. Please consider participating in the activities developed by the ANST Committees. Committee descriptions can be found on the ANST website, at the "Officers & Committees" link. For additional information on a specific committee, please contact the committee chair indicated below. I will also be glad to provide any general information on how to get involved.

Finally, I want to seize this opportunity to wish you a Happy New Year and a good start into 2007.

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Meet the ANST Executive Committee

OFFICERS (2006 - 2007)

EXECUTIVE COMMITTEE

OFFICERS

Pablo R. Rubiolo

Chair

Westinghouse Electric Company

E-Mail: rubiolpr@westinghouse.com

Jon Carmack

Vice-Chair/Chair-Elect

Idaho National Laboratory

E-Mail: Jon.Carmack@inl.gov

Leo Bobek

Secretary

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E-Mail: Leo_Bobek@uml.edu

Robert Singleterry

Treasurer

National Aeronautical & Space Agency

E-Mail: robert.c.singleterry@nasa.gov

AT-LARGE EXECUTIVE COMMITTEE MEMBERS

Shannon M. Bragg-Sitton

Dion Sunderland

Andrew C. Klein

Melissa VanDyke

Thomas Larson

Michael L. Zerkle

Heather MacLean

Eric Alderson (Student Liaison)

Call for Volunteers!!

ANST is soliciting volunteers for its committees. At well over 500 members, ANST can really begin to accomplish great things within the Society. However, that requires more of our members to get involved in the operations of the Technical Group. We are actively recruiting committee members to the committees detailed below. Committee descriptions can be found on the ANST website, <http://anst.ans.org/>, at the Officers & Committees link. For additional information on a specific committee, please contact the indicated committee chair. General information on getting involved in activities of ANST can be requested from the ANST Chair, Pablo Rubiolo [Rubiolpr@westinghouse.com].

Technical Program

Boise Pearson [J.Boise.Pearson@nasa.gov]

Membership, Honors & Awards

Jon Carmack [Jon.Carmack@inl.gov]

Communications and Public Information

Dion Sunderland [dion@anatech.com]

SPACE NUCLEAR CONFERENCE 2007

Embedded Topical Meeting at the 2007 ANS Annual Meeting

June 24-28, 2007 • Marriot Copley Place • Boston, MA

General Chairs

Dr. Charles Chitwood, Center Deputy Director, NASA MSFC
Vice Admiral John J. Grossenbacher (Ret.), *Laboratory Director, INL*

Technical Program Chairs

Dr. Shannon Bragg-Sitton, *LANL*
Dr. Steven D. Howe, *INL Center for Space Nuclear Research*

Space Nuclear Conference 2007 (SNC '07) will be the second topical meeting organized by the Aerospace Nuclear Science and Technology (ANST) technical group. The purpose of the meeting is to bring together and provide a communications network and forum for information exchange for the wide cross section of research and management personnel from government, industry, academia, and the national laboratory system that are involved in the initiative. To this end, the meeting will address topics ranging from overviews of current programs and plans to detailed issues related to space travel such as nuclear-based power and propulsion systems designs, materials, testing, safety, space environmental effects and nuclear power system radiation shielding for humans and electronic components, and human factor strategies for the safe and reliable operation of nuclear power and propulsion plants.

This conference will have full-length technical papers, which will be peer reviewed and published on a CDROM, available at the meeting. At least one author is required to attend the conference and present his or her paper. **Full-length papers of exceptional quality will be considered for publication in a special 'SPACE-07' issue of *Nuclear Technology*.**

Visit www.ans.org/goto/space07 for more details and to download the Call for Papers.

Publication schedule for SNC'07:

Submission of Abstract

~~December 1, 2006~~

Extended to December 29, 2006

Submission of Draft Paper for Review

February 1, 2007

Submission of Final Accepted Paper

April 15, 2007

Lynne Schreiber,
Conference
Administrator
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www.ans.org/goto/space07

Updates from...

The ANST Communications and Public Information Committee

The ANST website has been up and running for several months now and is periodically updated as ANST evolves and as information changes. Please visit the website and spend some time learning about ANST and the upcoming meetings and conference. We would also appreciate feedback on the site content, and please make recommendations for improvement.

Reiterating ANST's Mission:

"The Aerospace Nuclear Science & Technology Technical Group was established to promote the advancement of knowledge in the use of nuclear science and technologies in the aerospace application.

Specialized nuclear-based technologies and applications are needed to advance the state-of-the-art in aerospace design, engineering and operations to explore planetary bodies in our solar system and beyond, plus enhance the safety of air travel, especially high speed air travel.

Areas of interest will include but are not limited to the creation of nuclear-based power and propulsion systems, multifunctional materials to protect humans and electronic components from atmospheric, space, and nuclear power system radiation, human factor strategies for the safety and reliable operation of nuclear power and propulsion plants by non-specialized personnel and more."

We working toward making ANST a professional division and to do so requires participation of our members.

Dion Sunderland
Communications and Public Information

Articles to Contribute?

Would you like to contribute an article to a future edition of the ANST Newsletter? Just send your draft article in a text or Microsoft Word file to dion@anatech.com. Articles should be ~500 words. Accompanying photos and figures are welcome, and should be sent as separate JPEG files. An approximate publication schedule for ANST Newsletters will be available on the website early in 2007.

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We're on the Web!
<http://anst.ans.org>