



# AIAA Baltimore Section

<http://www.aiaa-baltimore.org/>



Newsletter, Fall/Winter 2006

*Carolyn Slivinski  
Editor*

>> **Chair's Corner: Pramud Rawat**

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## Related Links

AIAA National Capital Section:  
<http://www.aiaa.org/portal/index.cfm?GetComm=181>

AIAA Delaware Section:  
<http://mywebpages.comcast.net/blackre2/index.htm>

AIAA New England Section  
<http://www.aiaa.org/sections/nd/>

In fall 2006 the Baltimore Section took the lead in organizing the Region I Young Professionals, Students, and Education (YPSE-06) Conference at the Johns Hopkins University, Applied Physics Laboratory, which included 45 papers in sessions on:

- Missile Modeling and Flight Evaluation
- Computational Fluid Dynamics
- Information Assurance
- Armament Design
- Detection Systems Needed for Precision Engagement
- Autonomy at APL
- Active Flow Control
- Cutting-edge Nanotechnologies in NASA Space Applications
- Aviation Technologies for FAA
- Kinetic and Non-kinetic Engagement for Achieving Weapons Effects on Demand
- Smart Structures
- An experimental study of bluff-body wakes for drag breakdown
- Satellite Education: Low Cost Satellite Lab Models
- Space and Aviation Law
- Recent Experiences and Proposals for Space Missions
- Achieving Seamless Command and Control at all Levels of Command

along with four sessions devoted to graduate and undergraduate student papers. For a full listing of all conference titles, go to <http://www.aiaa-baltimore.org/YPSE-06/Titles.shtml>. The keynote address was delivered by Mr. Steven Brody, VP North American Operations, International Space University (ISU), on ISU's educational program. The program was designed to interest young professionals and students, and it was well received.

The planning for YPSE-07, scheduled for 2-3 November 2007 has begun. Ms. Carolyn Slivinski will serve as Program Chair. Your suggestions and offers of help in organizing this program will be greatly appreciated. Ms. Slivinski can be reached at (410) 409-9760 or [carolyn.slivinski@aiaa-baltimore.org](mailto:carolyn.slivinski@aiaa-baltimore.org).

On 7 December, the Baltimore Section organized a program on naval aviation at the US Naval Academy, jointly with AIAA NCS, USNA, and the Society of Naval Architects and Marine Engineers. Our guest speakers were CAPT Richard Brasel, NAVAIR, who spoke on the Navy's Unmanned Combat Air Vehicle (UCAV) program, and CAPT John Rosa, USN Retd., whose presentation on Aviation-Ship Integration was given by Mr. John Woodward. We are planning to make this joint program on naval aviation an annual event.

Looking ahead, on 17 April 2007 Dr. John Anderson, Curator, Aerodynamics, National Air & Space Museum give a talk on **Breaking the Sound Barrier: The Aerodynamic Breakthroughs that Made it Possible**. On 7 May 2007 Dr. Roger Launius, Chair, Division of Space History, Smithsonian Institute, will give a talk on **Perspectives on the Past Present and Future of Human Space Travel**. Both of these programs are organized under AIAA's Distinguished Lecturer Program. Please mark your calendar. Finally, please note that one of our most pleasant obligations is to solicit nominations for annual Engineer of the Year awards. Ms. Barbara Leary (240)228-0139, [Barbara.Leary@jhuapl.edu](mailto:Barbara.Leary@jhuapl.edu), Chair of the Awards Committee, will appreciate hearing from you.

With regards,

**Pramud Rawat**

AIAA Hampton Roads Section  
<http://www.seva.net/~aiaa/>

SNAME Chesapeake Section:  
[http://www.sname.org/hq\\_sections/chesapeake/](http://www.sname.org/hq_sections/chesapeake/)

Glenn L. Martin Maryland Aviation Museum  
<http://www.marylandaviationmuseum.org>

<http://www.aiaa-baltimore.org/>

## >> From the Editor

Many of our Section members are receiving AIAA recognition for their accomplishments.

- Ms. Barbara A. Leary has been upgraded to Associate Fellow
- Dr. David Fischel has been upgraded to Associate Fellow
- Dr. Michael Nusca (ARL) has been inducted into the Region I Engineer of the Year Honor Society honor roll.
- Mr. T. Adrian Hill (JHU/APL) has been inducted into the Region I Engineer of the Year Honor Society honor roll.
- Dr. Marvine Hamner, Principal, LeaTech LLC, of Frederick, MD, has been selected to receive an AIAA Sustained Service Award. The award is presented to recognize sustained, significant service and contributions to the AIAA.

AIAA Baltimore Section congratulates all of these members being so recognized! We also hope that some extraordinary talent will be recognized through your efforts. Keep an eye out for Engineer of the Year and Manager of the Year announcements from Barbara Leary.

And if you, or a colleague, have career or industry news to share, contact the Editor.

## >> Upcoming Events

### **03/06/07 Glenn L. Martin Maryland Aviation Museum Speaker Series**

**Stan Piet.** Author and historian, will give a lavishly illustrated talk featuring early color photography of WWII air, sea, and ground subjects. Mr. Piet is one of the founders, and currently the archivist, of the Museum and always provides superb photography along with interesting historical insight. See <http://www.marylandaviationmuseum.org/events/index.html> .

### **04/02/07 Glenn L. Martin Maryland Aviation Museum Speaker Series**

**Ms. Carol Nickisher** will talk about her father's adventures building South Pacific seaplane bases for Pan American Airways in the 1930s. He was the youngest member of Pan Am's North Haven expedition to Wake and Midway Islands enabling the airline to be the first to fly across the Pacific Ocean. The story includes his involvement with Martin's M-130 China Clipper, a nice complement to the Museum's recently acquired Clipper exhibit built by Disney. Ms. Nickisher is a bit of an adventurer herself, evidenced in her world travels, time as a commercial pilot in Panama, and University instructor. She used her father's daily journal, letters home, and 200 of his photographs (including the M-130 in Wake lagoon) to prepare the story, which she used to write her book, *Riding the Reef, a Pan American Adventure*. See <http://www.marylandaviationmuseum.org/events/index.html> .

### **04/19/07 Distinguished Lecturer – Dr. John Anderson**

Dr. Anderson, Curator for Aerodynamics, National Air and Space Museum, will speak on "***Breaking the Sound Barrier: The Aerodynamic Breakthroughs that Made it Possible***". See <http://www.aiaa-baltimore.org/> and click on "Announcements" for more information.

### **05/07/07 Distinguished Lecturer – Dr. Roger D. Launius**

**"Perspectives on the Past, Present, and Future of Human Spaceflight"** This presentation explores the history of Spaceflight during the past fifty years and offers comments on the core challenges for future exploration. Those challenges include: political will; cheap, reliable access to space; smart robotics; protecting this planet and this species; and exploration of the Moon and Mars. This lecture will be held at the Glenn L. Martin Maryland Aviation Museum. <http://www.marylandaviationmuseum.org/events/index.html>

### **7/06/07 – 7/08/07 Robert A. Heinlein Centennial**

The Robert A. Heinlein Centennial will take place in Kansas City, Missouri, in July 2007. The event's wide scope will include a special emphasis on the nascent but burgeoning commercial spaceflight industry, which so closely follows Heinlein's fictional history of space development. Participants include Dr. Michael Griffin (NASA Administrator), Dr. Peter Diamandis (first winner of the \$500,000 Heinlein Prize for Accomplishments in Commercial Space Activities), and Sir Arthur C. Clarke (in virtual attendance via satellite). To learn more, see <http://www.heinleincentennial.com> .

### **11/02/07 REGION I YPSE-07**

Make plans now to attend or present at the AIAA Region I Young Professional, Student and Education Conference, a growing regional event. Check the conference website regularly for updates, at <http://www.aiaa-baltimore.org/YPSE-07> Go to <http://www.aiaa-baltimore.org/photos/2006/YPSE/> for a description of last year's event and photos;



see <http://www.aiaa-baltimore.org/YPSE-06/Titles.shtml> for a list of last year's presentations. Add your own title to this year's event!

## >> Pre-College Activities: Thomas D. Milnes

### 9/23/06 Aviation Education Expo

The First Annual Aviation Education Expo was held at the Frederick Municipal Airport. Almost 200 students from the surrounding area came to learn about aviation industry careers. Ms. Carolyn Slivinski represented AIAA Baltimore. Jamal Larkins, a 22-year-old acrobatic pilot and aviation entrepreneur, provided a riveting Keynote address. For photos and a summary of this event, go to [http://www.aiaa-baltimore.org/photos/2006/Aviation\\_Education\\_Expo/](http://www.aiaa-baltimore.org/photos/2006/Aviation_Education_Expo/)



### 12/12/06 JFK High School Career Fair

John F. Kennedy High School in Montgomery County, MD, invited AIAA to participate in the high school's second annual Career Fair. Tom Milnes and Carolyn Slivinski, AIAA Baltimore Section, spent the morning talking to students about their interests in various career paths. The students visited the booths, picking up brochures and advice. Many (most, in fact!) were quite unsure of what career they planned to pursue; however, quite a few had a clear interest in science, stopping by the AIAA booth. A newly-published AIAA brochure, "Careers in Aerospace Within Your Lifetime", was distributed to students, who were often surprised at the breadth of careers available within the aerospace field.



## >> Recent Events:

- 10/16/06 **Annual Aerospace Fair (Picnic).** Colleagues and families launched model rockets, saw tethered model airplanes fly, and more on a bright sunny day. See <http://www.aiaa-baltimore.org/photos/2006/Picnic/>.



- 10/19/06 **The Russian Space Program.** Mr. Yevgeny Zvedre, Senior Counselor for Science and Technology at the Russian Embassy; and Dr. William P. Barry of NASA spoke. See <http://www.aiaa-baltimore.org/photos/2006/RussianSpaceProgram/> for photos.



- 10/25/06 **SSTC Dinner event:** NCS Young Engineer/Scientist of the Year, Dr. Gang Wang, spoke about fly fishing rod design using modern aerospace techniques. See <http://www.aiaa-baltimore.org/photos/2006/YoungEngineerOctober/>



- 11/06/06 Mr. James F. Pitts, Corporate Vice President and President, Northrop Grumman Electronic Systems, spoke on "**Perspectives on a Career in Aerospace**" at Johns Hopkins University Homewood Campus.



- 11/10 – 11/11/06: **AIAA Region I YPSE-06** (Young Professional, Student and Education) Conference. For photos and a summary of this event, go to <http://www.aiaa-baltimore.org/photos/2006/YPSE/>



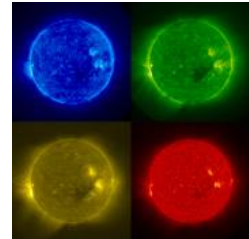
- 12/7/06 **The US Naval Academy** was the setting for a dual lecture, covering the Unmanned Combat Air System Program, and Shipboard Integration of Aviation Systems. Capt. R. Brasel and a presentation authored by Capt. J. Rosa held the interest of the attendees. See [http://www.aiaa-baltimore.org/photos/2006/Naval\\_Academy\\_Meeting/](http://www.aiaa-baltimore.org/photos/2006/Naval_Academy_Meeting/) for a description of this interesting event, as well as photos.



### >> Of Interest

- Alan Stern, Principal Investigator for the Pluto-bound *New Horizons* spacecraft, will blog for Astronomy.com about the probe's February 28 Jupiter flyby. To reach Pluto in 2015, *New Horizons* needs a gravity assist from the giant planet Jupiter. Mission scientists also will use this flyby to test the spacecraft's systems and to study Jupiter up-close for the first time in 4 years. <http://www.astronomy.com/asy/default.aspx?c=a&id=5108>
- 1/11/07 "The [intentional destruction](#) on Jan. 11 of China's Fengyun-1C weather satellite via an [anti-satellite \(ASAT\) device](#) launched by the Chinese has created a mess of fragments fluttering through space.... Lobbed into space atop a ballistic missile, the ASAT destroyed the weather-watching [satellite](#) that had been orbiting [Earth](#) since May 10, 1999 [\[image\]](#). The result was littering Earth orbit with hundreds upon hundreds of various sizes of shrapnel." [http://www.space.com/news/070202\\_china\\_spacedebris.html](http://www.space.com/news/070202_china_spacedebris.html)

- 1/23/07 NASA's twin STEREO (Solar TERrestrial Relations Observatory) spacecraft, built and operated by the Johns Hopkins University Applied Physics Laboratory (APL), in Laurel, Md., completed a series of complex maneuvers Sunday (1/21) to position the spacecraft in their mission orbits. The spacecraft will be in position to produce the first 3-D images of the sun by April. <http://www.jhuapl.edu/newscenter/pressreleases/2007/070123.asp>



- 1/31/07 Forty high school seniors were named finalists for the Intel Science Talent Search 2007. Six former finalists have won the Nobel Prize and others have been awarded the Fields Medal, the National Medal of Science and MacArthur Foundation fellowships. For the first time in the competition's history, this year's finalists have an equal number of young men and women. Three of the finalists are from Maryland: Emma Kathryn Call (Baltimore Polytechnic Institute); Brian Robert Lawrence (Montgomery Blair HS); Richard Matthew McCutcheon (Montgomery Blair HS). Keep an eye out for these leaders of tomorrow in science. <http://www.sciserv.org/Sts/>
- 1/11/07 United Airlines wins the license to operate the first nonstop daily flight between Washington and Beijing. <http://www.cnn.com/2007/TRAVEL/01/10/bt.unitedchina/index.html>
- 12/16/06 A rocket carrying two experimental satellites blasted off in the first launch from the commercial launch pad at NASA's Wallops Flight Facility, the first time in 20 years they've launched from Wallops. <http://www.msnbc.msn.com/id/16156378/>

<http://www.aiaa-baltimore.org/>