17th AIAA International Space Planes and Hypersonic Systems and Technologies Conference

FOR PAPERS



Grand Hyatt San Francisco Union Square, San Francisco, CA 11-14 April 2011

Abstract Deadline: 1 September 2010



Synopsis

Organizing Committee

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General Chairman Emeritus

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Pacific Basin Masataka Maita Japan Aerospace Exploration Agency 81-422-40-3197 maita.masataka@jaxa.jp The objective of the 17th AIAA International Space Planes and Hypersonic Systems and Technology Conference is to provide a forum for international discussion and exchange of information about leading-edge research and development activities associated with space planes and hypersonic atmospheric flight vehicles and the technologies underpinning these capabilities. The conference will consist of overviews of national programs from Asia, Australia, Europe, and North America, programmatic summaries of major ongoing activities, invited lectures by distinguished researchers, technical oral and poster presentations, and panel discussions on current issues and future directions.

In keeping with the objectives of this conference, the organizers are soliciting papers from space plane and hypersonic enthusiasts and technologists from the international community. Papers are solicited in the following topic areas:

- Planned and ongoing space plane and hypersonic vehicle programs
- Advanced launch vehicle and hypersonic atmospheric flight vehicle concepts
- Commercial space tourism concepts
- International collaboration approaches working to advance concepts and capabilities
- Reentry vehicle systems and technologies
- Experimental vehicles and flying test beds
- Rocket, ramjet, scramjet, and exotic propulsion systems, including component technologies (e.g., inlets, combustion systems, fuel injection concepts, ignition and flameholding concepts, nozzles)
- Propellant characterization
- Aerodynamics of space planes and hypersonic vehicles
- MHD and plasma aerodynamic flow control techniques
- High-temperature materials
- Hot structures and thermal protection systems
- Active cooling concepts and systems
- Flight control and trajectory optimization techniques
- Health monitoring and management technologies
- Ground facilities and test techniques including diagnostics development
- CFD development, validation, and application
- Flight testing techniques, results, and lessons learned
- History of space planes and hypersonic vehicle activities
- Relevant educational initiatives and workforce development activities



General Information

Abstract Submittal Procedures

Abstract submissions will be accepted electronically through the AIAA Web site at www.aiaa.org/events/ hypersonics. Once you have entered the conference Web Site, you must log in using the boxes on the left side of the Web page. If you do not already have a record with AIAA, please create one using the boxes provided in the middle of the Web page. After you have logged in click "Begin a New Submission or View a Draft/Previous Submission," and follow the instructions in the submission Web site. This Web site will be open for abstract submittal starting 1 April 2010. The deadline for receipt of abstracts via electronic submittal is 1 September 2010. If you have questions regarding the submission criteria or questions about AIAA policy please contact Institute Administrator Ann Ames at anna@aiaa.org or 703.264.7549. If you have any difficulty with the submittal process please e-mail ScholarOne Technical Support at ts.acsupport@thomson.com or call 434.964.4100 or (toll-free, U.S. only) 888.503.1050.

Questions pertaining to the abstract or technical topics may be referred to any member of the Technical Program Committee. General inquiries concerning the program format or policies of the conference should be directed to the Technical Program Committee Chair.

Authors will be notified of paper acceptance or rejection on or about **22 November 2010**. Instructions for preparation of final manuscripts will be provided for accepted papers.

Please Note: Be sure that all of your submission data—authors, keywords, title and abstract file—is accurate before finalizing your submission as no modifications can be made to this data after the submission site closes.



Web Site Open for Abstract Submission Abstract Deadline Author Notification Final Manuscript Deadline 1 April 2010 1 September 2010 November 2010 28 March 2011

Abstract Submittal Requirements

Selection of papers for all conference sessions will be based on extended abstracts of no less than 1000 words (5 to 6 pages in length with 12 point font, including cover page, figures, tables and text).

"No Paper, No Podium" and "No Podium, No Paper" Policies

If a written paper is not submitted by the final manuscript deadline, authors will not be permitted to present the paper at the conference. It is the responsibility of those authors whose papers or presentations are accepted to ensure that a representative attends the conference to present the paper. If a paper is not presented at the conference, it will be withdrawn from the conference proceedings. These policies are intended to eliminate no-shows and to improve the quality of the conference for attendees.

Publication Policy

AIAA will not consider for presentation or publication any paper that has been or will be presented or published elsewhere. Authors will be required to sign a statement to this effect.

Final Manuscript Guidelines

An Author's Kit containing detailed instructions and guidelines for submitting papers will be made available to authors of accepted papers. Authors must submit their final manuscripts via the conference Web site no later than **28 March 2011**.

WARNING — Technology Transfer Considerations

Prospective authors are reminded that technology transfer guidelines have considerably extended the time required for review of abstracts and completed papers by U.S. government agencies. Internal (company) plus external (government) reviews can consume 16 weeks or more. Government review if required is the responsibility of the author. Authors should determine the extent of approval necessary early in the paper preparation process to preclude paper withdrawals and late submissions. The conference technical committee will assume that all abstracts papers and presentations are appropriately cleared.

International Traffic in Arms Regulations (ITAR)

AIAA speakers and attendees are reminded that some topics discussed in the conference could be controlled by the International Traffic in Arms Regulations (ITAR). U.S. nationals (U.S. citizens and permanent residents) are responsible for ensuring that technical data they present in open sessions to non-U.S. nationals in attendance or in conference proceedings are not export restricted by the ITAR. U.S. nationals are likewise responsible for ensuring that they do not discuss ITAR exportrestricted information with non-U.S. nationals in attendance. "The encouragement and support I receive from those connections [through AIAA] is a source of pride and confidence. I have given many hours of my time to volunteer for AIAA through section activities, standing committees, and as the student liaison. Yet, it is clear that have received far more in my association with AIAA."

— Caroline Twomey Lamb

"AIAA is the premier organization in the nation—maybe worldwide—that promotes the technical sciences that I'm interested in. Through the organization I am able to share my research with a lot of others who share their research with me."

> - Dr. Mujahid Abdulrahim, Aeronautical Engineer, Dynamics & Control, AeroVironment

"AIAA helps me network with other professionals to help find the next job. They provide a career center. It's helped me professionally. Seeing what other areas within the entire aerospace environment are is something that AIAA provides, which you wouldn't see anywhere else."

> *— Dean Davis,* Senior Principal Aerospace Scientist/ Engineer, The Boeing Company

"Aerospace has had some up times and down times, and AIAA has always been there to help people through some of those times, to find new jobs and new directions. It's always been a very stable and important organization to the overall community."

— Doug Cairns, Distinguished Professor, Mechanical and Industrial Engineering, Montana State University

Our members network with aerospace leaders from business, government, defense, and academia. Gain access to the latest technical information. Make connections

among 35,000 of the best minds in aerospace. And form lifelong professional relationships and friendships in aerospace's premier community of excellence.

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For more information, visit www.aiaa.org/membership

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