

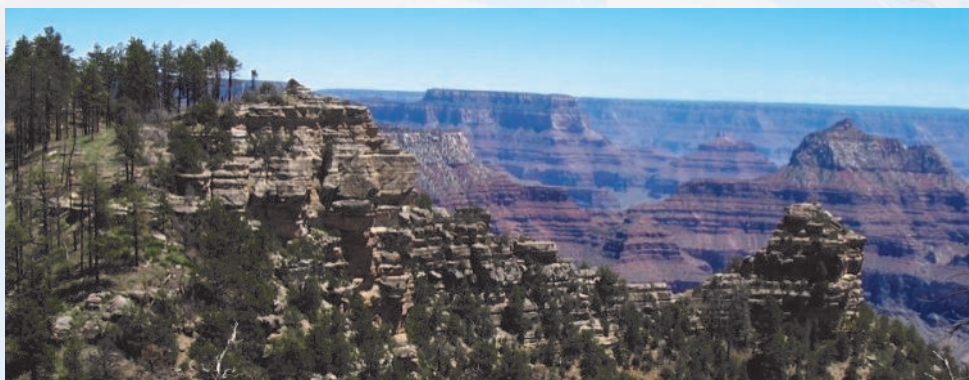
DUE DATE FOR ABSTRACTS  
JULY 31, 2014

# ISABE2015

22nd ISABE Conference

October 25 - 30, 2015 Phoenix, AZ, USA

**Affordability, Profitability, and Environmental Compatibility:  
Airbreathing Propulsion Technologies Enabling Sustainable Growth  
in Air Transportation**

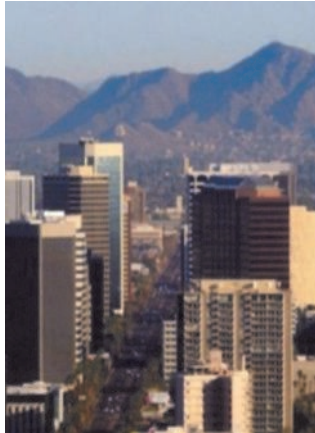


## *The First Announcement and Call for Papers*



*Hosted by The United States National Organizing Committee  
Honeywell Aerospace*

*Please consult the conference website for more information:  
[www.isabe2015.com](http://www.isabe2015.com)*



## XXII ISABE

You are invited to participate in the Conference with a personal contribution in any part of the Conference Plan.

- **Contribute a Paper for:**
  - any Contributed Technical Paper Session
  - any proposed Pre-Arranged Session
- **Organize a Pre-Arranged Session**

### What is planned in Phoenix

- **Invited Lectures:**

Lectures by distinguished leaders in air-breathing engines.
- **Contributed Technical Paper Sessions:**

Papers on various topics associated with airbreathing engines for flight vehicles and aero-derivative engines for power generation.
- **Pre-Arranged Sessions:**

Sessions of contributed technical papers on specific topics of current interest organized by the experts from the various member nations.
- **Special Forum**
- **ISABE - International Council of Aeronautical Sciences (ICAS) Joint Session**
- **Social Events for Informal Discussions, Networking and Relaxation:**
  - Sunday: Reception at Conference Venue, TBD
  - Monday: Phoenix City Reception
  - Wednesday: Industry Sponsoring Dinner
  - Thursday: ISABE Banquet
- **Accompanying Persons Program:**

Guided tours offering a unique look in the beautiful surroundings of Phoenix and the USA Southwest
- **Technical Visits:**

Wednesday afternoon: Tour of Honeywell Aerospace facilities
- **Technical Exhibits:**

The Sponsoring Organizations will have displays, location TBD.
- **For more information, please first consult the website at [www.isabe2015.com](http://www.isabe2015.com). If questions remain, then consult**
- Your national representative (see page 8), or
  - Dr. Rainer Walther  
e-mail: [rainer.walther@mtu.de](mailto:rainer.walther@mtu.de)



## Proposals for Participation

- **Contributed Technical Paper Sessions**
- **Pre-Arranged Sessions**
- **Special Forum**

### Contributed Technical Paper Sessions

#### ■ **To offer a paper**

Please submit your abstract as described on page 4.

#### ■ **To offer to chair a session**

Please contact your national delegate with a copy to Dr. Rainer Walther at [rainer.walther@mtu.de](mailto:rainer.walther@mtu.de) with the subject areas of your expertise.

### Pre-Arranged Sessions

#### ■ **To offer to organize a Pre-Arranged Session**

Select a co-organizer from a nation other than your own and together select a topic area. For further information on how to proceed, please contact the Executive Secretary, Prof. Awatef Hamed, at [a.hamed@uc.edu](mailto:a.hamed@uc.edu)

#### ■ **To offer a paper in a Pre-Arranged Session**

Contact one or both organizers to advise them of your intent, and submit an abstract as described on page 4.

### Special Forum

#### ■ **Please contact**

United States National Organizing Committee  
Chair: Dr. Dhanireddy Ramalinga "D.R." Reddy  
**NASA Glenn Research Center**  
[dhanireddy.r.reddy@nasa.gov](mailto:dhanireddy.r.reddy@nasa.gov)





## Important Dates

Abstracts due .....	July 31, 2014
Acceptance Notice .....	November 30, 2014
All manuscripts (including honor and invited lectures) must be received by .....	April 30, 2015
Tentative programs and registration materials....	April 30, 2015
Last date for pre-registration .....	June 30, 2015

**Pre-registration is required for all presenters**

## Preparation of Abstracts

- Abstracts must be submitted for all papers following the instructions for Preparation of Abstracts, prior to **July 31, 2014**.
- All abstracts will be reviewed and scored by the Executive Committee, which includes all National Representatives and Society Officers, for final decision on the acceptance.
- The total number of papers that can be accepted has been limited by the Executive Committee.
- Prospective authors should submit electronically through the website [http://www.isabe.org/papers\\_publications.html](http://www.isabe.org/papers_publications.html)
- Please note that the author needs to create his/her own log-in account at the website in order to submit the abstract. Abstract can be uploaded only in either MS Word format or Adobe Portable Document File format (PDF). All figures and tables must be included in electronic submissions. You will be able to verify the status of the abstract at the website.
- A typical abstract should be a self-contained description of the paper, between 500 and 600 words, with figures and tables as necessary. A condensed statement of research in a single short paragraph without any supporting data or results is likely to be rejected as incomplete.

An automatic acknowledgement of submission will be distributed to the author, national representatives and organizing team.

Status of abstract evaluation process can be checked at the website by authors and national representatives.

An abstract can be resubmitted in case of recommendations from the experts national representative.



## Subject Areas Included in the Conference

### Subject Areas

The following is a list of major subject areas of interest: All aspects of airbreathing engines for flight propulsion in all regimes of speed and aero-derivative engines for power production are included, as well as components that are ancillary to engines. The greatest emphasis is on creation and utilization of the best technology for sustainable progress.

■ **Systems:** New developments in gas turbine engines, ramjet, scramjet engines, combined cycle engines, pulsed and other detonation engines, various assisted engines, micro- engines, multipurpose engines, integrated systems and integration technologies.

■ **Cost and Business:** Economics of engine development, testing, production, certification, usage and maintenance, civil and military engine business, acquisition, ownership and marketing, lifecycle and other costs

■ **Environment:** Chemical and noise pollution.

■ **Safety:** Engine safety and engine-caused safety problems, material and structural failure.

■ **Aeromechanics, Flutter, Vibration, and High-Cycle Fatigue**

■ **Engineering Sciences:** Problems of fluid and gas dynamics, sprays, combustion, heat transfer, conventional and advanced materials

■ **Diagnostics, Instrumentation and Sensors**

■ **Thermal Management:** Cooling technology, coolers, heat exchangers and energy bypass schemes, compressor and turbine cooling

■ **Aero-Derivative**

■ **Intelligent Engine Control and Health Monitoring**

■ **Materials and Structures:** Smart materials and structures, titanium technology, composites, ceramics, thermoelasticity, structures, coatings

■ **Compressors, Turbines:** Axial and centrifugal compressors, axial and other turbines, aerodynamics, mechanics

■ **Fuels, Injection, and Ignition:** Fuels for gas turbines, alternate fuels, combined cycles, micro-engines, endothermic fuels for cooling, injection technologies, ignition technologies

■ **Integrated Testing, Prediction, and Evaluation**

■ **Manufacturing Processes**

■ **Engine Operability**

■ **Maintenance, Repair and Overhaul and Organization**

■ **Synthesis Methods:** From concept to usable product; rational methods of synthesis, virtual development and testing.

■ **Hypersonic Vehicle Propulsion:** Space launch vehicles, cruise vehicles, military systems.

■ **STOVL Vehicle Propulsion:** Thrust vector design options, controls, ground effects.

■ **Unmanned Air Vehicle Propulsion:** Various propulsion systems for UAVs

■ **Helicopter Propulsion:** Small engines, propellers, special air intakes, noise control.

■ **Micro- and Small Engines:** Components and systems.

■ **Education and training:** Re-engineering of the Gas turbine curriculum, education partnerships, best practices, etc.

■ **Skills challenges:** Demographics, apprenticeships, global skills, systems engineers, etc.



## Registration

Accommodations, registration details and tentative programs will be mailed in April 2015. Please note that the presentation of a paper at the conference requires pre-registration.

Online registration will be possible from April 2015. For further information, please visit the website at [www.isabe2015.com](http://www.isabe2015.com).

## Conference Venue and General Information

### ■ Conference Venue

The Location for the XXII ISABE Conference is the Sheraton Phoenix Downtown Hotel, the flagship of the Sheraton Brand for Starwood Hotels and Resorts Worldwide. Being conveniently located in the heart of downtown Phoenix, it is within walking distance of over 40 locally owned restaurants and bars and all major theatres and indoor sports venues. <http://www.sheratonphoenixdowntown.com/>

### ■ General Information

The city - Phoenix

<http://phoenix.gov/>

<http://www.arizonaguide.com/places-to-visit/phoenix-central-arizona/phoenix>

<http://www.visitphoenix.com/index.aspx>

#### The Airport

Phoenix Sky Harbor International Airport (PHX) is about xx minutes away by bus, metro or taxi.

<http://skyharbor.com/>

## Phoenix — a great conference location

### ■ Comfortable

Phoenix boasts a beautiful Sonoran desert environment. October is one of the best times of the year to visit with plentiful sunshine and mild temperatures. Its geography includes local mountains which provide excellent hiking and extraordinary views.

### ■ Excursions and Cultural Visits

**Visit Sedona**—Just 2 hours away lies one of the most picturesque valleys of red rock formations in the world. Often called "Red Rock Country" Sedona is for everyone - whether you're into history and archaeology, arts and culture, shopping, you can do it against a backdrop of some of the most spectacular scenery in the world. This picturesque city is surrounded by red-rock monoliths. At the north end of the city is the stunning Oak Creek Canyon, a breathtaking chasm that is wildly wonderful. <http://visitsedona.org/>

**Visit Heard Museum** —Just 1 mile away on the light rail line. The Heard Museum is a premier collection of the arts, heritage and life ways of indigenous peoples of the Americas, with an emphasis on American tribes and other cultures of the Southwest U.S. <http://heard.org/about/>

**Visit Desert Botanical Gardens**—Just 2 miles from downtown Phoenix lies this 140 acre natural display of over 50,000 desert plants on display in beautiful outdoor exhibits. A must see for those who truly wish to experience all the beauty a desert has to offer. You will be amazed! [www.dbg.org](http://www.dbg.org)

**Arizona's Wonder of the World** — Extend your visit by a day or 2 and visit the majesty of the Grand Canyon! Carved out by the Colorado River, the Grand Canyon (nearly 1,500 m deep) is the most spectacular gorge in the world. Its horizontal strata retrace the geological history of the past 2 billion years.





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- Von Karman Institute for Fluid Dynamics, Belgium
- Snecma, Centre de Villaroche, France
- General Electric Aircraft Engines, USA
- MTU Aero Engines GmbH, München, Germany
- Ishikawajima-Harima Industries Co., Ltd., Japan

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Korean Society for Fluid Machinery  
Korean Society of Propulsion Engineers

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WSK PZL-Rzeszow S.A.

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