

**AIAA Adaptive Structures Technical Committee**  
**Meeting Minutes**  
**Palm Springs, CA**  
**April 21, 2004**

**1. INTRODUCTION**

Daryl Pines called the meeting to order at 7:10. The minutes from the previous ASTC meeting were approved by unanimous oral vote.

**2. SPECIAL REPORTS**

**2.1 James H. Starnes Award**

Bob Jones proposed the James H. Starnes Commemorative Award. James H. Starnes was a true structural mechanics professional who wrote over 86 archival papers (33 AIAA papers) and made 88 SDM presentations in the area of High Fidelity Analysis and Design. He was an integral part of the Structures TC and founded ASC. He represented three key values: excellence in structural engineering, mentoring of younger members and professional service. The award would recognize these values and be open to structural mechanics and dynamics. Freidrich Straub recommended a broader definition to include other fields and Bob responded that they would take that under consideration. The award would be a SDM competition, awarded every 2 to 4 years and evaluated by a board of 7. Bob is requesting ASC and AIAA co-sponsor this award and was seeking support of our TC to endorse the overall concept. A vote was taken with unanimous oral support.

**2.2 AIAA Professional Development Courses**

Brad Keelor from AIAA discussed AIAA Professional Development Courses and their TC referral program. They would like to target companies to set up on-site courses with 15-50 students/employees. The companies would save money and time and the courses could be tailored to the need of the company. The cost would be \$995. The TC would provide the contact and this would benefit the TC by showcasing the latest developments of the TC, increase the TC reputation and visibility and may provide money ranging from \$400 to \$3000. The person to contact is:

Michele Dominiak  
[mecheled@aiaa.org](mailto:mecheled@aiaa.org)  
866-864-AIAA  
<http://www.aiaa.org/onsite>

**2.3 Aerospace Sciences Report**

Daryl Pines attended the Aerospace Science Conference in Reno and reported on the AIAA Presidents 58 point strategic plan. One of the points was to challenge

the TC to engage in activities that increased the visibility to AIAA. They would like a report back in one year. The TC brainstormed several ideas including:

- Adaptive Structures book
- FIRST
- Kids activity such as the IEEE Aerospace Big Sky or project developments for educational kits
- CD/Website

Several people mentioned activities of the Dynamic TC with a long history of movies, web, CD and interactive game. While there was agreement that all of these were good ideas, concern was expressed on who would follow through. One suggestion was to contact regional chapters and encourage them to engage in local activities. At the end a consensus was reached that our TC would focus on education and the educational committee would take the lead.

### **3. REPORTS FROM STANDING AND SPECIAL SUBCOMMITTEES**

#### **3.1 Chair's Report (Friedrich Straub)**

The TC met three times in the last year. The main meeting is at the SDM/ASC. Joint meetings with the ASME Adaptive Structures TC were held at the ASME IMECE (November) and the SPIE Smart Structures Symposium (March). The TC has a total of 43 members, including 11 from industry, 15 from academia, 7 from government, and 10 associate and international members. Five members were rotating off and 3 new members were elected. We have openings on the subcommittees: Web site, annual highlights, liason, and education. SPIE has asked AIAA for co-sponsorship but more details and discussion will need to take place before a decision can be reached.

#### **3.2 Publications (Brei)**

*Contact Info Database(Brei):* Diann Brei has established a national database for the smart materials and structures community. This database includes the original AIAA database, ASME database, databases from centers, sponsors, etc. The original database was increased from 300 entries to over 1000 entries. The database has been successfully transitioned to CIMMS at Virginia Tech for long term oversight. Both the AIAA TC and the ASME TC who cosponsored the database have ratified the guidelines for the database. See attached. Diann Brei is now rotating off the committee and the new lead is Don Leo at Virginia Tech. The new ASTC secretary will be a member of the committee. Other volunteers are welcomed.

*Highlights Article (Bawden):* The AIAA Highlight article is 500 words plus a photo. They requested input, a sentence or two, which is needed by the end of August. Marc Regelbrugge volunteered to assist Janet Sater with the article.

*Web Site (Regelbrugge):* The web page has been updated. Marc Regelbrugge requested assistance on managing the database. Dave Vorcek has volunteered to help.

*Aerospace America Article (Sater):* This is still under development. Diann Brei and Greg Carman offered to help Janet. It was recommended that the focus be narrowed to the large demonstration programs. Friedrich Straub, Ed White, Frank Abidi and Dave Voracek all volunteer to contribute on their respective programs.

*AIAA Book (Wereley):* Norm Wereley is organizing an AIAA book with approximately 30-35 chapters, 200 pages. He and George Lesieutre are editors. He has a list of authors that he will submit by end of April. The chapter will be due by August 30. There will be 3 reviewers for each chapter due by mid to late fall. Revisions and updates will be needed by 1<sup>st</sup> quarter 2005. Any one can contribute - contact Norm at [wereley@engin.umd.edu](mailto:wereley@engin.umd.edu).

### **3.3 Conferences (Agnes)**

*ASC 2004 (Lee Petersen):* This year's conference had 63 papers in 10 sessions over two days. There were 73 abstract with 10 rejected resulting in 85% acceptance. There were 4 to 5 no-shows. Attendance was very good. There was about 10% no show with lots of last minute withdrawals. It was speculated that this is due to the increased difficulty in international travel and ITAR clearance. While the panel was considered specialized, most agreed it was worthwhile.

Next year's conference is in Austin and Steve Griffen will be the deputy chair and Lee Petersen the general chair. The abstracts will be due Aug 1 and the reviews should be completed by August 24 in time for the planning committee.

*ICAST (Inman):* ICAST was in Seoul, Korea in October. The US attendance was low. This year Dan Inman will be hosting the 15<sup>th</sup> ICAST in Bar Harbour, Maine, Oct 25- 27. September 1 is the registration deadline. Next year it will be hosted by Roger Ohayon in Paris, Oct 10-12.

*SPIE 2003 (White):* This year's SPIE meeting went very well. The number of papers and attendance were up, and the venue was good. There were ~50 papers. Next year will be March 7-10. Concerns were expressed again regarding the proximity of the SPIE and ASC.

### **3.4 Awards and Advancement (Straub)**

*ASME ASMS Prize (Inman):* no information available.

*ASME ASMS Best Paper:* no information available.

*AIAA Grade Advancements:* Sathya Hanagud was advanced to Fellow. Members are encouraged to apply to upgrade their status. You need 8 years for Senior grade, 12 years for Associate fellow. The deadline is April 15.

### **3.5 Liaison (K. Griffin)**

*Congressional Visits Day (Bawden):* There was a conflict this year with the AIAA conference.

*Other Technical Committees:* Volunteers were recruited for the different TC's: Aditi Chattopadhyay for Structural TC and Carlos Cesnick for the Structural Dynamics TC.

### **3.6 Education (Chattopadhyay)**

There were 21 papers and 2 awards. There was concern that papers got lost and only went to SDM and that the other conferences were part of the process. It was suggested that the process be formalized more so that the ASC can better participate. It was delegated to the education committee to review and make a recommendation at the next meeting.

## **4. OLD BUSINESS**

Vit Babuska will take the papers from the last conference and form a special issue of a journal. While he will consider several different venues for the journal, it was recommended that it would be AIAA to help meet the AIAA President's challenge.

## **5. NEW BUSINESS**

### **5.1 Elections and Appointments**

Diann Brei was elected Vice-Chair and Vit Babuska was elected Secretary.

### **5.2 ASC 2004 (Agnes and Peterson)**

Lee Petersen will be the Chair and Steve Griffen, the Technical Chair. They requested suggestions on a keynote address and special session topics. Next year the ASC will be in Austin, Texas, April 18-21, 2005. Aug 1, 2004 is the deadline for abstracts. They are going to try to review papers by August 24.

### **5.3 Reports from SDM Strategic Direction and Long Range Planning Committees (Lesieutre)**

Locations for future meetings under discussion are Austin or Newport for the 2006 meeting and the West coast in 2007. Tom Gate will be the General Chair. NDA and Gossamer will have a conference in 2006. They are discussing the future structure of this meeting, currently it is a hybrid. If you have any comments or ideas, please direct them to George Lesieutre.

#### **5.4 Items from the floor**

Forming a journal, perhaps with ASME, for the field was discussed. Concern was expressed that it may dilute the journals too much. It will be discussed more with Dan Inman for JIMMS and Vijay Varadan for the SMS journal.

It was requested that the TC engaged more in Industrial Outreach. Writing letters to employers to express the importance of the ASTC and help in recommendations would be very helpful and increase the TC's visibility. Many in industry are having a hard time making the business case for adaptive structures, some case studies in other industries would help. Testimonial letters and introducing to congress would be helpful - Frank Abidi volunteered to help on this.

#### **5.5 Next AIAA ASTC Meeting**

ASME IMECE	November 13-19, 2004 in Anaheim, CA
SPIE	March 7-10, 2005 San Diego, CA
ASC	April 18-21, 2005 Austin TX

The meeting adjourned at 10:30 pm.