

**AIAA Adaptive Structures Technical Committee
Meeting Minutes
Austin, TX
April 20, 2005**

1. INTRODUCTION

The ASTC members gathered at 7:30 pm for dinner. Darryll Pines called the meeting to order at 8:05 pm. The minutes from the previous ASTC meeting had been emailed to committee members prior to the meeting. Copies of the minutes were distributed to the meeting attendees during dinner. They were approved by unanimous voice vote.

During dinner the roster was circulated and attendees updated their contact information.

2. SPECIAL REPORTS

2.1 TC involvement in making AIAA a better organization

Darryll Pines presented a report about AIAA efforts to reach out to the TCs to get information/ideas to make AIAA a better, more relevant organization to members and potential members.

3. REPORTS FROM STANDING AND SPECIAL SUBCOMMITTEES

3.1 Chair's Report (Darryll Pines)

ASTC membership

Darryll discussed ASTC membership and tenure. The ASTC currently has about 43 members, which is more than the 37 called for by the AIAA. People are not rotating off as fast as people are joining--and being accepted onto--the committee. A discussion of the 3 year tenure rules in the bylaws ensued. Marc Regelbrugge reviewed the ASTC bylaws (Section 2) on the subject. According to the bylaws:

A member typically serves a three year term, but may serve longer at the discretion of the Chair (Section 2.4).

It was decided that no formal changes are required, but that the Membership Subcommittee, (chaired by the ASTC Vice-Chair per the Bylaws) will review the roster.

Report from ASME ASMS Committee meeting @ SPIE conference, March 2005

The main point was that the ASTC and ASME ASMS committees want to publish a joint electronic newsletter twice per year. ASME ASMS TC published a newsletter some years ago. The objective of the newsletter would be to keep

members abreast of activities and accomplishments and thereby increase ASTC visibility and promote AIAA and ASME membership.

3.2 Membership (Brei)

See Chairman's report regarding ASTC membership. Three members--Marc Regelbrugge, Ken Griffin, and Janet Sater--are rotating off.

New members include David McGowan, Victor Giurgiutiu, and Wenbin Yu. Diann Brei will review membership and contact members on the committee for more than three years about their interest in continuing their participation on the committee. Rotation off the committee will be done on a voluntary basis.

3.3 Publications (Babuska)

Contact Info Database(Babuska/Brei): The current database contains about 1200 names. In the past year it has been used to send out calls for papers for all major conferences supported by the ASME and AIAA technical committees (e.g., ASME IMECE, SPIE, ICAST, etc.), as well as additional mailings such as special conference announcements of interest to the smart structures community. The use of the database as a mailing list needs to be constantly reviewed so that mailings are targeted.

The database was started by Diann Brei and is maintained by the CIMMS at Virginia Tech. The ASTC secretary is on the oversight committee for the database; however, the ASTC secretary was not involved with the database in the past year. The primary database use decisions relate to requests for e-mailings.

Highlights Article (Regelbrugge/Voracek): Excellent input was received from Dan Inman, George Lesieutre, Kyle Henderson, and Shiv Joshi. The AIAA Highlight article is 500 words plus a photo. No captions are permitted on the figures/photos. Input is needed by the end of August. David Voracek will be the lead for the 2005 article.

Web Site (Frank Abdi): Frank Abdi has taken over the maintenance of the website. It was updated in April 2005. Frank's goal is to update the content 2x per month as appropriate. The URL is: <http://www.aiaa.org/tc/as/index.html>

Aerospace America Article (Sater): This is still under development. The article will cover the large smart structures demonstration programs--like SAMPSON, MD-900 Smart Rotor, and Smart Wing. Janet contacted Elaine Camhi, editor-in-chief of Aerospace America, who indicated that the article may not be from a TC. Elaine provided Janet with author guidelines. Chris Martin, Friedrich Straub and Diann Brei have agreed to help. Marc Regelbrugge, Ed White, and David Voracek also agreed to help. A draft may be ready by mid-May 2005. This draft will be reviewed prior to submission to AIAA. After the article is done, Janet will rotate off the ASTC.

AIAA Book (Wereley): Norm Wereley is organizing an AIAA book with approximately 45 chapters, 200 pages. He, George Lesieutre and Dimitris Lagoudas are co-editors. The book will be organized into 2 main sections:

- 1) *Elements of Adaptive Structures*
- 2) *Application Areas*

Norm has a list of authors but he would like ASTC members to let him know how they would like to participate. He will email the book TOC spreadsheet with tentative topics and contributors within two weeks. Contact Norm at werely@engin.umd.edu.

Norm presented a tentative schedule:

- Finalize TOC and writing assignments (2 weeks)
- Collect and assemble abstracts, submit book proposal to AIAA (2 weeks)
- AIAA review of book proposal (about 6 – 8 weeks)
- Complete contractual items between AIAA, ASTC and authors (TBD)
- Write chapters (6 months, some of which can be done concurrently with above items)
- Review chapters (6 weeks)
- Assemble book (6 weeks)
- Draft completed (by April 2006)

Special Journal Issue on Smart Structures (Babuska): Vit Babuska had planned to review conference papers and try to organize a “smart structures” issue in one of the AIAA journals; however, no progress was made in the past year. The ASTC decided it was still a good idea. Recommendations from ASC session chairs for possible papers would be very helpful. Contact Vit Babuska at vitbabuska1@msn.com.

3.4 Conferences (Peterson)

ASC 2005 (S. Griffin): This year’s conference had 48 papers in 8 sessions and one special session over two and a half days. 49 abstracts were submitted, 6 were rejected, 5 were transferred in from other conferences. Discussion regarding the low number of submissions followed. It was noted that the SDM has sessions in adaptive structures and that the process of trading papers between the SDM, ASC, GSF, etc. is not robust. Clarification is needed to deal with the topical overlap in the conferences. Ken Griffin expressed concern that the ASC is becoming labeled as the “piezo-electric” conference. Carlos Cesnik pointed out that authors often make a thoughtful choice as to which conference they submit their papers, and the paper trading process should not contradict that choice. Vit pointed out that not all authors may be so considerate of their choices: if they see similar topics at the submission website they may assume it will get sorted internally. The discussion concluded with an Action Item assigned to TC liaisons to bring up the topic

overlap issues with other TCs, and for the TC Chairman to discuss the issue with the planning committees. A motion was made and approved unanimously to make this a focused topic at the next ASTC meeting.

Steve Griffin reported that he had no (few) problems obtaining timely reviews of abstracts for the conference. Anecdotal comments indicated that the abstracts were generally excellent.

Next year's conference is in Newport, RI in May. Steve Griffin will be the General Chair and Damodar Ambur will be the Technical Chair. Abstracts will be due Aug 1; and reviews should be completed by August 24, in time for the planning committee.

ICAST: No report

SPIE 2004: No report.

3.5 Awards and Advancement (Chopra)

ASME ASMS Prize: no information available.

ASME ASMS Best Paper: Nominations (paper titles) should be provided to Norm Wereley by June 30, 2005

AIAA Grade Advancements: No information provided. You need 8 years for Senior grade, 12 years for Associate fellow.

Prize lecture and Keynote address: Darryll Pines encouraged all TC members to attend the ASME ASMS prize lecture. Dinner with the speaker follows the talk and all ASTC members are invited. The dinner is NOT TC funded--the diners pay for themselves and also chip in to cover the dinner for the prize-winner and a guest. ASTC members should also attend the ASC Keynote address. Good showings at both are very important.

3.6 Liaison (K. Griffin)

Ken Griffin is rotating off the TC. Carlos Cesnik volunteered to Chair the Liaison Subcommittee. The following members were assigned as liaisons with other TCs:

Carlos Cesnik	Structural Dynamics
Aditi Chattopadhyay	Structures
Greg Reich	Materials
David McGowan	Gossamer
Chris Chamis	NDA
Akhilesh Jha	MDO

John Lassiter from the Gossamer committee attended the meeting.

3.7 Education (Chattopadhyay)

Student Paper Competition (Chattopadhyay): There were 11 papers and 1 award. Three papers were ASC papers. The Education Subcommittee was asked to review the ASC participation at the 2004 ASTC. There was concern that papers got lost and only went to SDM and that the other conferences were part of the process. The conclusion was that the inclusion of ASC papers in the Jefferson Goblet competition seems to be working. No changes are required or recommended; this was approved by voice vote.

The ASTC needs to encourage more adaptive structures student papers.

Short Course (John Rodgers): There were 6 students for the adaptive structures short course this year. The minimum is 5 students and this was the first time in a while that there was sufficient registration to hold the course.

Education Series Book (Chattopadhyay): Aditi is editing and writing a smart structures book for the AIAA Education Series. This project is independent from the Norm Wereley book project.

4. OLD BUSINESS

None

5. NEW BUSINESS

5.1 New Initiatives

Diann Brei will chair a New Initiatives *ad hoc* committee. This follows from discussions at the 2004 ASTC meeting as well as a desire to gain visibility for adaptive structures efforts, generate new ideas, and recruit new AIAA members. Adaptive structures are moving up the 6.1 – 6.3 ladder, becoming parts of systems. There is a perceived need to back fill at the 6.1 level.

Diann will lead a group to brainstorm and develop a strategic plan. A few ideas will be presented to the ASTC at the next meeting. Ron Barrett, Shiv Joshi, Inderjit Chopra, Frank Abdi, Bogdan Eperneu and David McGowan offered to work with Diann.

Inderjit Chopra suggested that we need to actively recruit participation from Europe where there is significant activity that gets limited exposure here.

5.2 ASC 2006 (Griffin and Ambur)

Steve Griffin will be the General Chair and Damodar Ambur, the Technical Chair. It was suggested that ASTC members help organize specific sessions.

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

Dave Jensen and George Lesieutre provided information on the following topics:

SDM Committees:

Organizing Committee – organizes the next SDM

Long Range Planning Committee – looks 1-3 years out; assesses initiatives; selects the site and chair

Strategic Directions Committee – sets vision and goals; acts as corporate memory repository

Discussed membership and duties in the committees.

Answered the question of why Adaptive Structures is not part of the rotation for SDM General and Technical Chair positions – because ASTC has its own conference.

AIAA Initiatives:

- 1) Corporate sponsorship of SDM – Good idea? Bad idea? GlobalSearch had advertising in printed schedule this year.
- 2) Ways to increase international participation;
- 3) Approaches to retain students after they graduate, how to encourage membership and participation from young professionals.
- 4) Nanotechnology parts – how to highlight
- 5) Expo (Exhibits) – should they come back?
LRPC wants feedback – contact George or David if you have input.

5.4 Items from the floor

None

5.5 Next AIAA ASTC Meeting

SPIE March 2006

ASC May 2006

The meeting adjourned at 10:05 pm.