

**American Society of Mechanical Engineers - Aerospace Division
Adaptive Structures and Material Systems Technical Committee**

at the

**SPIE Smart Structures and Materials Symposium
San Diego, CA**

Tuesday, March 4, 2003

7:30-9:30PM

**Town & Country Resort and Convention Center
Royal Palm III**

Minutes

Meeting Attendees

Members:

Greg Agnes	JPL
Eric Anderson	CSA Engineering
Bill Armstrong	U Wyoming
Diann Brei	U Michigan
Greg Carman	UCLA
Inderjit Chopra	U Maryland
Marcelo Dapino	Ohio State U
Alison Flatau	U Maryland
Mary Frecker	Penn State U
Kyle Henderson	AFRL/VSSV
Dan Inman	Virginia Tech
Conor Johnson	CSA Engineering
Dimitris Lagoudas	Texas A&M U
Don Leo	Virginia Tech
Doug Lindner	Virginia Tech
Arnie Lumsdaine	U Tennessee
Chris Lynch	Georgia Tech
Anna McGowan	NASA Langley
Mehrdad Ghasemi Nejhad	U Hawaii
Roger Ohayon	CNAM
Marc Rugelbrugge	Rhombus Consultants
Lance Richards	NASA Dryden
Janet Sater	Inst. for Defense Analyses
Kon-Well Wang	Penn State U
Greg Washington	Ohio State U

Guests:

Jiangyu Li	U Nebraska Lincoln	jli2@unl.edu
Steven Lane	Kirtland AFB, New	Steven.lane@kirtland.af.mil

Dale Ruebsamen	Mexico Honeywell Space Systems, Gladde, AZ	Dale.ruebsamen@honeywell.com
Abhijit Bhattacharyya	U Arkansas Little Rock	axbhattachar@ualr.edu
Auindya Ghoshal	NASA Langley	a.ghoshal@larc.nasa.gov
Rick Kellogg	Iowa State U	
William Clark	U Pittsburgh	wclark@engr.pitt.edu

The meeting started at 7:30 pm. A copy of the final agenda is attached.

1.0 Members, friends, and visitors in attendance were introduced.

2.0 Recognition campaign

2.1 Kon-Well Wang reported that Inderjit Chopra has been elected as an ASME fellow. Kon-Well summarized his accomplishments and contributions to smart structures community and ASME. Inderjit was congratulated by the committee.

2.2 Dan Inman reported that Greg Carman has been elected as a fellow of ASME. Dan summarized his accomplishments and contributions to smart structures community and ASME. Greg was congratulated by the committee.

3.0 Minutes from the Technical Committee meeting at the 2002 ASME meeting in New Orleans were e-mailed to the group previously. Greg Agnes moved to accept minutes from November 2002 meeting with the changes suggested by Kon-Well Wang. The motion was accepted without objection.

4.0 Mary Frecker circulated the TC roster for updating.

5.0 Treasury report: Greg Washington circulated a document outlining proposals for increased revenue options. The document is attached. Additional revenue is needed for Adaptive Structures prize, best paper awards, and other functions. Currently money comes from SPIE and ASME, though ASME has not given any funds for the last 2 years. The TC needs options to raise additional revenue.

The TC discussed all the options in the proposal. Inder Chopra supported the CHAP workshop/meeting idea and said that Univ. of Maryland can provide free facilities for the meeting. Revenue from such a meeting would go a long way to help committee. Chris Lynch mentioned that a SMA MURI meeting was being held at the SPIE meeting; perhaps it could also be a source of some money for the TC since the TC brings in additional papers and attendees to the conference. Janet Sater warned that government money comes with restrictions, receipts and records will be needed. Greg Washington asked for help from committee to tap into resources at companies for sponsorship. Diametric Lagoudas moved that the ad hoc

committee become the permanent fund raising committee. The motion passed. The TC agreed that the new committee should proceed with proposed their options, and that they can pursue with whatever options they think will most benefit the TC. Chris Lynch said that he will make a contact at TRS.

6.0 Reports on ASME IMECE

- 6.1** 2002 ASMS Symposium: Mary Frecker reported that 72 abstracts were submitted, 14 abstracts rejected, and 58 abstracts accepted. One paper was withdrawn before being submitted, and 6 requested presentations without papers. A total of 51 papers were submitted, 6 papers were late or withdrawn before final version. 46 papers were published in the proceedings. These broke down as 13 adaptive materials, 17 adaptive structures, and 16 other (design/NDE/controls).
- 6.2** 2003 ASMS Symposium: Don Leo reported that approximately 50 abstracts have been submitted to date. Abstracts need to be submitted by the end of this week.
- 6.3** Mehrdad Ghasemi-Nejhad volunteered to serve as co-chair in 2005.

7.0 Reports on AIAA SDM

- 7.1** 2002 Adaptive Structures Conference: Diann Brei reported that 60 papers were submitted, and 57 papers were accepted. There were 10 sessions which were well attended.
- 7.2** 2003 Adaptive Structures Conference: Greg Agnes reported that there were 58 papers in 10 sessions. Six papers were rejected, and two were transferred to other sessions. The web submission process worked well. The keynote speaker will be Terry Weissaar.
- 7.3** 2004 Adaptive Structures Conference: Greg Agnes reported that Lee Peterson is the co-chair for 2004 in Palm Springs. The conference will continue having special sessions on morphing and conceptual design with adaptive structures. He requested suggestions for a keynote speaker.

8.0 Reports on SPIE Symposium SPIE:

- 8.1** Marc Regelbrugge reported that attendance was up at this year's conference; over 750 were registered, and the final count is expected to be 900, an increase over last year. Marc thanked the TC for its efforts in organizing the conference and for the committee's service. He commended the success of student paper competition, and thanked Alison Flatau. Marc reported that in the past the conference chairs have been from ASME every two years, and recommended that the committee consider naming a conference chair from

the ASME TC for 2006-2010. Next year's conference is scheduled for March 13-18, 2004 in San Diego in the same hotel.

- 8.2** Scott Walker from SPIE thanked the TC for its participation in the conference, and reported that SPIE is happy with its partnership with the TC. The meeting and exhibit are growing, with the exhibit being key to the success of the meeting. Scott encouraged participation in the exhibit. He reported that it may be possible to have future meetings in a location in the southeastern US every other year. He asked that the committee consider ways to maintain excitement in the field of smart structures and to help the field continue to develop. Diann Brei expressed concern over the proximity of the SPIE meeting with the SDM meeting in April. Scott said that meeting facilities are more flexible now, and that it may be possible to move the meeting to an earlier date. If he is able to renegotiate for a late February date he will send the new dates to Alison Flatau.
- 8.3** Alison Flatau reported on the SPIE conference chair's pre-conference meeting. The SPIE conference will be moving to web based submission process. SPIE wants to increase the attendance of non-presenters. A possibility is to move from a 4 day conference to 3 days with more poster presentations to improve the quality of papers. Individual conferences will have their own poster sessions. Janet Sater pointed out that the size of conference will decrease if more papers are rejected. Scott Walker reported that next year there will be a bigger exhibit area downstairs. Alison Flatau reported that next year there will be a window of submission dates to help encourage more paper submissions from Europe, but that the final submission deadline will be more firm than in the past.
- 8.4** Smart structures & integrated systems: Amr Baz was not present to report. Alison Flatau asked for volunteers to co-chair in 2004 and 2005. There should be a 2 year cycle at chair and co-chair.
- 8.5** Active Materials: Behavior and Mechanics: Dimitris Lagoudas reported that there were 90 papers, 15 posters, and 4 keynote speakers. The paper sessions were organized around the keynote topics.
- 8.6** Damping and Isolation: Greg Agnes reported that 59 papers were submitted and accepted. The sessions were so well attended that the rooms were too small. Approximately 10% of presenters did not show up to present their papers, equally split between foreign and US authors.
- 8.7** Industrial and Commercial Applications: Eric Anderson reported that there were 45 papers, approximately 2/3 of which were solicited by committee members. The attendance at the sessions is excellent, however there is some overlap with the Integrated Systems conference. Eric will update program committee. Eric Anderson is chair in 2004, and Porter Davis will serve as co-chair in 2005.

- 8.8** Best Student Paper competition: Alison Flatau reported that there were 46 submissions to the best student paper competition. She thanked the TC members for judging the competition. There were 12 papers judged to be in the top 25%, and 6 were invited to give oral presentations. IMI Vision helped sponsor \$500, \$250, and \$100 awards, along with \$50 each for 3 runners up. The 6 winners also had their conference registration waived by SPIE. The other 6 in the top 12 received a certificate. Arnie Lumsdaine has agreed to take over the best student paper competition. More industry sponsorship is needed for the awards.
- 9.0** Reports on International Conference on Adaptive Structures & Technology (ICAST): Marc Regelbrugge reported that the next conference is Oct. 7-9, 2003 in Seoul, Korea; it is being organized by Prof Kim. Roger Ohayon circulated a brochure about the meeting. Marc reported that there are typically 100 attendees, with 60-70 papers. The conference is cosponsored by AIAA, though AIAA does not provide financial sponsorship. Dan Inman is the conference organizer for 2004. He is investigating possible locations such as Bar Harbor, Maine.
- 10.0** Honorific Subcommittee
- 10.1** ASME Adaptive Structures and Material Systems Prize: Greg Agnes reported that a winner has been selected for the ASME Adaptive Structures and Material Systems Prize, and will be announced at the SDM conference.
- 10.2** ASMS Best Paper Awards: Chris Lynch reported that to date he has received the following nominations: 1 structures paper, 4 materials papers, and a few (?) others. Chris requested help from TC in recommending papers. He needs only a reference from any conference or journal paper. He needs 20 structures paper nominations from 2002 onward, and 20 materials papers from 2003 onward.
- 11.0** Operating procedures
- 11.1** Bylaws: Mary Frecker reported that neither Jeff Martin nor H.S. Tzou were able to attend the TC meeting. They would like to table this item until next meeting.
- 11.2** TC Mailing List Database: Diann Brei reported that the AIAA database was currently being updated. They want to develop a centralized database that all conferences can use. There are currently approximately 3000 entries in the database. Diann has verified 1000 entries, and is in the process of verifying the remaining entries, including those with no e-mail addresses on record. Diann moved that an ad hoc committee be formed to discuss policies on how the database will be used, how will it be maintained, and what it can be used for. The ad hoc committee will report on its recommendations at this year's AIAA meeting. Mehrdad Ghasemi-Nejhad,

Marcelo Dapino, and Don Leo agreed to serve on the ad hoc committee.
The motion passed.

12.0 AIAA activities: Frederick Staub sent his regrets that he could not attend the meeting. Diann Brei reported that there was nothing to report.

13.0 Other: Don Leo solicited applicants for the summer undergraduate research program at Virginia Tech.

14.0 Greg Agnes moved to adjourn. The motion passed.

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Agenda

- 1.0 Attendance and acknowledgment of visitors (Alison Flatau, Chair)
- 2.0 Review and acceptance of minutes of committee meeting held at the 2002 ASME IMECE ASMS Symposium, New Orleans, LA (Mary Frecker)
- 3.0 Membership Report (Mary Frecker)
 - 3.1 Circulation of Roster for Updating
- 4.0 Treasury Report (Greg Washington)
 - 4.1 Status and update
 - 4.2 Proposal for ASMS fund raising – closed meeting
- 5.0 Reports on ASME IMECE
 - 2002 ASMS Symposium: John Shaw and Mary Frecker
 - 2003 ASMS Symposium: Mary Frecker and Don Leo
 - 2004 ASMS Symposium: Don Leo and Marcelo Dapino
 - 2005 ASMS Symposium: Marcelo Dapino and ?
- 6.0 Reports on AIAA SDM
 - 2002 Adaptive Structures Conference: Diann Brei and Vit Babuska
 - 2003 Adaptive Structures Conference: Vit Babuska and Greg Agnes
 - 2004 Adaptive Structures Conference: Greg Agnes and ?
- 7.0 Reports on SPIE Symposium
 - 2003 – Chair: Marc Regelbrugge, Co-Chair: Vasundara Varadan
 - 2004 – Chair: Vasundara Varadan, Co-Chair: Yoseph Bar-Cohen
 - 2005 – Chair: Vasundara Varadan, Co-Chair: Yoseph Bar-Cohen
 - 2006 – Chair: Yoseph Bar-Cohen, Co-Chair: ?
 - 7.1 Smart Structures & Integrated Systems Conference
 - 2003 – Chair: Amr Baz, Co-Chair: Alison Flatau, Yuji Matsuzaki
 - 2004 - Chair: Alison Flatau, Co-Chair: ?

2005 - Chair: ?, Co-Chair: ?

- 7.2 Active Materials: Behavior and Mechanics
 - 2003 – Dimitris Lagoudas and Bill Armstrong
 - 2004 – Bill Armstrong and ?
 - 2005 - ? and ?
- 7.3 Damping and Isolation
 - 2003 – Greg Agnes and Kon Well Wang
 - 2004 – Kon-Well Wang and William Clark
 - 2005 – Kon-Well Wang and William Clark
 - 2006 – William Clark and ?
- 7.4 Industrial and Commercial Applications
 - 2003 – Eric Anderson and Ed White
 - 2004 – Ed White and Porter Davis
 - 2005 – Porter Davis and ?
- 7.5 Best Student Paper competition: Alison Flatau
- 8.0 Reports on International Conference on Adaptive Structures & Technology (Inderjit Chopra)
 - 2003 South Korea – Prof. Kim
 - 2004 VPI&SU – Dan Inman
- 9.0 Honoric Subcommittee
 - 9.1 ASME Adaptive Structures and Material Systems Prize (Dan Inman)
 - 9.2 ASMS Best Paper Awards (Chris Lynch)
 - Structures and Structural Dynamics (Don Leo)
 - Materials and Material Systems (Marty Dunn)
 - 9.3 Recognition Campaign (Kon-Well Wang)
- 10.0 Operating Procedures
 - 10.1 Bylaws (H.S. Tzou)
 - 10.2 TC Mailing List (Diann Brei and Mehrdad Ghasemi-Nejhad)
- 11.0 AIAA Business (F. Staub)
- 12.0 Adjourn