

**American Institute of Aeronautics and Astronautics (AIAA)
Design Engineering Technical Committee (DETC)
AeroSpace Architecture Subcommittee (ASASC)**

Meeting Minutes

Submitted by Ted Hall.

2006 September 18, 13:30-16:30 PDT
Willow Glen Room I & II
Marriott Hotel
San Jose Convention Center
San Jose, California, USA

Participating members (13): Constance Adams, Marc Cohen (*DETC Chair*), Silvano Colombano, Ted Hall (*ASASC Chair*), Scott Howe (*DETC Vice Chair for AeroSpace Architecture*), Paivi Jukola, Mark Kerr, Shahzad Khaligh, Susmita Mohanty, David Nixon, Georgi Petrov, Brent Sherwood (*ASASC Vice Chair*), David Wong.

Observers (4): John Curran, Jim Lowe, Bruce MacKenzie, Ayako Ono.

This ASASC meeting was immediately preceded by a full DETC meeting in the morning, and followed by another DETC meeting the next morning.

1. 2nd International Space Architecture Symposium

1.1 Technical Track

Action items:

- 2ISAS Session Chairs: Follow up with authors of withdrawn papers; encourage them to resubmit for ICES or IAC in 2007.

Discussion:

Of 31 accepted abstracts, we have 22 completed papers and 9 withdrawals. Sessions and papers have been moved forward to fill empty slots. Discussion of the large percentage of withdrawals, and how to avoid it in the future, clustered around the following recommendations:

Review abstracts more carefully: Despite early complaints that the abstract reviews were too tough, maybe they weren't tough enough. The manuscript reviews identified substantial problems with some papers, and some authors withdrew rather than attempt the necessary revisions. More stringent review of abstracts would have identified weaknesses earlier, allowing for earlier revision and possibly fewer "false positive" acceptances.

Clarify the expected scope of the abstract: They were supposed to be *extended* abstracts – actually, short papers. This was not clearly communicated in the AIAA's Call for Papers. Confusion also arises from different uses of the term "abstract": the extended abstracts for

initial review were supposed to be 500 to 1000 words, but final abstracts included in full manuscripts should generally not exceed a single paragraph of 300 words or less.

Authors should understand the review process: Our reviews are more stringent than other conferences – for example, IAC. We post author guidelines on our web site, but it's questionable whether authors read them. We need to give authors concise guidance without overwhelming them.

Authors must plan their work: Some authors withdrew because they were unable to complete their research or development or get it approved for release early enough to meet the deadline. The Call for Papers should advise authors to write about completed work rather than work in progress. It should stress the peer review date as the deadline for documenting results and clearing them for release.

Authors must budget time and money to attend the conference: This should be stated in the Call for Papers. Authors should be informed of the conference registration costs as early as possible. Acceptance notification should come early enough and in a presentable form to support authors' applications for funding.

1.2 Workshop on the Practice of Architecture in the Aerospace Engineering Environment

Action items:

- Volunteers Needed: Arrange workshop venue.
- Brent Sherwood and other Discussion Leaders: Prepare your materials and conduct your sessions.

Discussion:

The facility manager in charge of the rental on Friday is Meredith Jung, 408-534-5242. Marc Cohen express-mailed a check to her for \$900, which is half the agreed rent for the facility. At \$50 per person, if we get 36 attendees, we will recoup the \$1800. If we get more people, we might even make a small profit. We are renting the Boardroom and the Courtyard.

Ms. Jung called to ask if we were sending anyone to meet with her and her staff to make plans to set up tables, easels, etc. We also will need someone to determine how many foam core panels we will need, where to set them up and so on. Marc Cohen suggested that we have members check it out at lunchtime on Monday, September 18.

Mark Kerr volunteered to follow up with Ms. Jung regarding the use of a computer projector and screen in the Boardroom.

[Note: Due to a lowered estimate of attendance, Marc canceled the Courtyard reservation prior to the event, reducing the facility rental from \$1800 to \$900, already paid in full. Ultimately, 20 people signed the attendance sheet, but I don't know whether they all paid the \$50 fee.]

1.3 Reception

Discussion:

Constance Adams reported that Futron will host a reception for the attendees and participants of the 2nd International Space Architecture Symposium. Time and place:

2006 September 21, following the close of the 2ISAS
Sainte Claire Hotel (across the street from the Marriott)
San Jose, California, USA

This should be announced each day at the Symposium.

Shahzad Khaligh volunteered to post a sign-up sheet.

1.4 Publicity

Discussion:

David Nixon provided text to Rodrigo Rada, who produced a poster in JPEG format at various sizes. Rodrigo mailed the JPEGs to David, who mailed them to Ted Hall.

Ted placed the poster on the SpaceArchitect.org web site in JPEG and PDF format. On July 7 he mass-mailed a plain-text announcement with URL links for the posters, to 485 addresses from Marc Cohen's Excel database. (The poster was too large to attach to unsolicited mass e-mail, in Ted's opinion.)

http://www.spacearchitect.org/pubs/2ISAS_Posters.jpg
http://www.spacearchitect.org/pubs/2ISAS_Posters.pdf

2. ICES

Action items:

- Ted Hall, David Nixon, Serkan Anilir, Georgi Petrov: Organize 2007 ICES sessions on Space Architecture.

Discussion:

The 2006 ICES saw a near total collapse of the Space Architecture sessions. The 2ISAS was a major distraction, and ICES planning disappeared in the background. At the final deadline for corrected manuscripts, many of the papers had still not been peer reviewed! It's not clear how the review process broke down. With emergency weekend reviews and the forbearance of SAE staff, three papers survived, but only one author attended.

The lesson is that ASASC should not commit to organizing more than one event per year.

For the 2007 ICES, Ted Hall has requested two sessions for Space Architecture. Session 45 will be a technical paper session. Session 46 is tentatively planned as a panel session for authors from Session 45, but might be converted to a second paper session if necessary.

[Note: These sessions have subsequently been renumbered as 43 and 44 in the ICES Call for Papers.]

David Nixon, Serkan Anilir, and Georgi Petrov have volunteered to assist Ted in organizing the sessions.

Abstracts will probably be due in early November. Authors who couldn't meet the deadline for the 2ISAS should especially be invited to resubmit their work.

[Note: The ICES abstract deadline is November 10. The Call for Papers is posted at <http://www.spacearchitect.org/pubs/ICES2007.htm> .]

Time and place:

2007 July 9-12
Westin Hotel, Michigan Avenue
Chicago, Illinois, USA

Marc Cohen reported that Vernon Strength has invited us on behalf of LSSTC to hold our next Symposium at ICES in 2008. They haven't given up on us despite our poor showing in 2006. But 2008 is too soon for our next Symposium.

Marc noted that ICES has 5 organizing sponsors – including the “International Committee”, so 1/5 of ICES conferences are outside the USA.

Brent Sherwood noted that since the previous “international” ICES was in 2005 (Rome), the next one should be in 2010. That could be a good target for our next Symposium – putting our symposia at consistent four-year intervals.

3. Publications

Discussion:

Scott Howe updated us on the status of our “Progress in Astronautics” volume for the SAS 2002 papers – *Space Architecture: Paradigms for Habitable Space Environments*. The AIAA publications contact person for this project is Rodger Williams. Scott has passed all of the manuscripts to Rodger, and the ball is now in AIAA's court.

AIAA required editable documents (e.g., MS Word, not PDF) and original non-embedded images to facilitate reformatting the material into book form. It took some time to collect these materials from the authors. Scott also solicited short introductory essays for the various sections of the book.

The publisher has advised us that we should not market the book as a “proceedings” because that would imply a short period of relevance.

We discussed whether we should pursue a similar volume for the SAS 2006 papers. Since the “2002” book is not a “proceedings”, it's not necessarily appropriate to follow with a “2006” book. The “2002” book is a first. We should follow up only with selected papers of archival value.

The discussion turned to other publication outlets.

Scott Howe asked, what journals are open to us?

Ted Hall suggested *Environment and Planning B*.

[Note: The Environment and Planning home page is <http://www.envplan.com/>.]

Marc Cohen commented on the Habitation conference. There has been a change in its organization. There is currently no official AIAA liaison. Could we take that on? We have an opportunity. They meet every two years, January or February. Maybe we could alternate between Habitation and ICES. The next Habitation conference should convene in January 2008.

[Note: The Habitation 2006 conference home page is <http://habitation2006.us/>.]

Susmita Mohanty asked if we could publish in the *Habitation* journal, independent of participating in the Habitation conference.

[Note: The Habitation journal home page is <http://www.cognizantcommunication.com/filecabinet/Habitation/hab.html>.]

Marc Cohen replied that that's more difficult than getting into the conference. The journal is more rigorously reviewed. Conference acceptance is based only on the abstract, without a policy of "no paper no podium."

Marc suggested the possibility of a special "space architecture" issue in an AIAA journal.

4. Education

Action items:

- Marc Cohen: Take Brent Sherwood's markup of the aerospace architecture curriculum document NASA CR-2004-212820 back to Ames for their review.

Discussion:

Donna Duerk has prepared an aerospace architecture curriculum document as contractor report NASA CR-2004-212820 for NASA Ames Research Center.

Brent Sherwood has completed a substantial review and markup of the document and sent it to Marc Cohen.

Marc Cohen will take the markup back to Ames Research Center for their review.

The approved document will eventually be available on the Web in PDF format.

5. Standards

Action items:

- Scott Howe, Marc Cohen, Paola Favatá: Confirm the status of the drawings and text of the Volume Standard for inclusion in the next edition of the *AIAA Aerospace Design Engineers Guide*. Prepare to submit all material to the DETC Design Guide Subcommittee at the Reno conference in 2007.

Discussion:

The status of the Volume Standard is not clear. Have all of the drawings been converted to black vector graphics? Where is the explanatory text? For converting or recreating the drawings, can we get money to pay students?

The DETC Design Guide Subcommittee informs us that their next publication date is Spring 2008. They must finish editing 6 months prior to that – i.e., Fall 2007. They plan to put the draft together after the SDM conference in April 2007. Since the ASASC does not typically participate in the SDM conference, our target is Reno, January 2007.

Additionally, Kurt Micheels has commented via e-mail that the AIA guideline adopted by 41 of the 50 USA states is not huge and may be a model for ASASC standards.

6. Logo Design

Action items:

- Ted Hall, Scott Howe: Post logo suggestions on the web and set up a voting mechanism for ASASC members.

Discussion:

Do we want to revive this?

As of March 2, Ted Hall had received three entries, from Ted Nathanson, Andreas Vogler, and David Wong. Little has happened since then.

Martina Pinni has recently submitted an entry.

Paivi Jukola commented that first we need a mission statement, then work on branding.

Others replied that our Millennium Charter is our mission statement.

There was a general informal consensus that we should post the entries on the Web and allow members to vote. There was no formal motion or vote to adopt any specific procedure or set any closing date.

7. Web Site

Discussion:

The SpaceArchitect.org domain name registration and web site hosting has been donated by Scott Howe and his company Plugin Creations, at a cost to them of about \$200/year since 2002. To insure its web presence, the ASASC should plan either to pay the cost of the current arrangement or to make other arrangements.

We discussed migrating the ASASC web site to the AIAA web space. We could have free space for at least a basic site, but we would lose our unique “SpaceArchitect.org” identity, mail lists, forums, and other features and freedoms provided by the current host. There might also be a limitation on disk space. SpaceArchitect.org currently occupies 850 megabytes, of which 453 megabytes serve our publications. The current hosting plan provides an additional 650 megabytes (total 1,500 MB).

We discussed the possibility of using subcommittee dues to fund the site. The DETC currently suggests an annual voluntary contribution of \$5 per member. The ASASC or the anticipated Space Architecture Technical Committee could similarly collect dues of \$5 or \$10 per member per year to fund its web site or other initiatives.

There were no immediate motions or votes, pending further discussion of the issues.

[Note: During the following DETC meeting of September 19, a motion carried to institute \$10 annual dues per member in the ASASC to fund the SpaceArchitect.org web site.]

Marc Cohen commented that we need to post events on the front page of SpaceArchitect.org to attract greater participation.

8. Formation of the AeroSpace Architecture Technical Committee

Action items:

- Ted Hall: Remove inactive members from the ASASC membership list.

Discussion:

Can we achieve this by Space 2007 as originally planned?

We need to take stock of how many of our “members” are really active. Of the 36 members in our roll, 6 have not renewed their AIAA membership. Others have not attended any meetings, performed any peer reviews, or made any other contributions.

Marc Cohen presented arguments against formation of the TC and challenged members to offer counter-arguments. In summary:

1. We do not have enough well qualified people.
2. We do not have enough people willing or able to make the commitment necessary to meet the AIAA’s standards for TC attendance.

3. Architects are simply not reliable enough to make the TC work.

The discussion alternated between philosophical and practical organizational issues:

Constance Adams: The issue isn't "technical committee," but "profession."

Paivi Jukola: Does it make sense to educate so many people for so few jobs?

Constance Adams: Think of it as "high-performance design" with a broader base of application.

Ted Hall: One advantage of forming an independent TC would be freedom to choose conferences and meeting venues more relevant to architects, which might encourage greater participation.

Marc Cohen: It would also give us more freedom to set our own membership requirements.

Brent Sherwood: Was "aero" included in our subcommittee name to placate the DETC? As an independent TC, we should drop the "aero" and adopt the title Space Architecture Technical Committee.

Susmita Mohanty: We're a different kind of committee.

Marc Cohen: We need to raise our membership standards.

Bruce MacKenzie: Space architecture would have more visibility as an independent TC.

What are the tasks that we need to complete to become a TC? Present a charter, a justification, and a membership list. We need to examine and prune our membership list to better reflect our active base.

9. Working Group breakout meetings

The originally scheduled working group (WG) breakout meetings did not occur. Instead, the previous discussion segued into a discussion of the WG structure itself. The current WGs correspond to the AIAA's suggestions for TC subcommittees. Every TC does not necessarily have all of these subcommittees. Some TCs may have other subcommittees not included in the AIAA's list.

Brent Sherwood: We need a different set of working groups.

Constance Adams: We need a "design jury" working group.

Susmita Mohanty: Call it "consulting", not "jury", to avoid misunderstanding among non-architects unfamiliar with our use of the term.

Ted Hall: Or call it "review", "critique", "commentary", or "advisory".

10. Adjournment

The ASASC meeting adjourned at 16:30 PDT.