

Minutes of AIAA ADS Technical Committee Meeting
September 5, 2006 held at NASA/Langley Research Center, Hampton, VA

Attendees:

John Watkins	Pioneer Aerospace
Mo Gionfriddo	MPG Consultants
Rob Sinclair	Irvin Aerospace
Dean Jorgensen	Vertigo
Jim Rand	Winzen Engr
Henry Cathey	MNSU/Phys Sci Lab
Carl Peterson	Sandia Natl Labs
Tony Taylor	Irvin Aerospace
Sean George	Draper Labs
Ben Raiszabeh	NASA Langley
Alec Dyatt	Air Force Flight Test Center
Ken Desabrais	US Army Natick Soldier Center
Ray Whipple	NASA Langley
Michael Accorsi	University of Connecticut
Richard Charles	US Army Natick Soldier Center
Jean Potvin	St. Louis University (by phone)

The ADS Technical Committee Meeting was convened by Tony Taylor, interim emergency chairman, at 9:00 AM. Welcome and Introductions were conducted. R. Charles volunteered to take the Minutes.

Old Minutes. J. Watkins (J.W.) brought up the Minutes of the previous meeting (Reno, Jan 06) and summarized them for the Committee from his laptop readout. One issue concerned itself with the spending prerogatives of the Committee Chair and became intertwined with the Committee's Treasurer's report. Succinctly, there was a motion previously that the Chairman be allowed to spend amounts up to \$1K unilaterally (currently TC vote required for amounts above \$300). To pass the measure 70% of the TC was required to reply and 70% of that response to be affirmative for the motion. For this measure a 70% response was not achieved and the motion failed. A secondary motion was submitted to make the response threshold merely a simple majority – subsequent votes resulted in failure due to low level of response. Recommended action from issue was to review, weed, and augment the TC list with new blood in order to get a more responsive membership for voting on such matters. After completing a review of Old Minutes – they were voted on and accepted by the TC.

Treasurer Report. Richard Benney reported that current balance of the TC account as of 26 Jun 06 was \$42, 0004.87. (It was reported in J.P.'s subsequent Short Course report that while some invoices were still outstanding, the contribution from the course would raise the balance to an amount closer to \$55K). M. Gionfriddo (M.G.) mentioned that an additional \$3K was most likely necessary for support of Linda Hall activities in support of the TC. J. Potvin (J.P.) suggested the funds be used for lean out-years to

support the Short Course operating expenses. Due to amount of balance, T. Taylor (T.T.) noted that there was a dearth of ideas as to how to spend the funds and was soliciting ideas between now and next meeting on how to do so. T.T. would also check with other T.C. chairs to see how they spend their funds. C. Peterson (C.P.) noted that the large amount of funds might draw the attention of AIAA National, who might make argument that the funds were fundamentally theirs. D. Jorgensen (D.J.) suggested a white paper (only a couple of paragraphs) that outlined intended uses for the funds (Linda Hall, scholarships, Short Course shortfalls).

Short Course Report. J. P. presented a detailed memorandum covering the status of activities associated with the Short Course held this year May 15-19, 2006, at US Army Yuma Proving Ground in Yuma, AZ, as well as containing a copy of the course schedule and agenda. High points were:

- 25 lectures were presented to 72 students
- The lobby size (where meals were served) was the main limiter on the class size
- Although the demo drops were definitely a value-added they did also contribute to down time for the students as when the UH-1 had to land and reload systems to drop
- A suggestion was made at the course to condense the drops and use 2006 data and video to streamline the data presentation/acquisition/reduction activities.
- A suggestion was made to split the course into two pieces (Intro M-W, and Technical Th-F) that could be taken separately or together with a cost breakout based upon attendance. T.T. comments: two-part approach adds flexibility but had feedback from his boss and old-time rigger (who both attended the past course) that technical aspects stretched them and gave them a greater appreciation. K. Desabrais (K.D.) had received feedback that the course was too technical also.
- J.P. brought up issue of uniqueness of YPG as site for course and R. Howard's role in the smooth running of the course. Positive income from course to TC. In part due to ECIII (YPG support contractor) not taking a share of the profits and many of the aspects of the course such as the demo aircraft being supplied by YPG. T.T. asked if the TC could support the use of the a/c in the demos – consensus response that such a thing would wipe out the TC surplus. J.P. had sent a thank you to YPG and ECIII as Short Course chair. T.T. would also look into sending a plaque and certificate of thanks from the TC with the ADSCTC logo.
- It was suggested to contact Rob Berlin as a replacement advocate for the Short Course. It was suggested to enlist greater participation of YPG personnel as TC members.
- A replacement was necessary for R. Howard's teaching duties in the course (K. Doherr's notes.
- Bus rides to/from YPG were judged acceptable by attendees. S. Lingard was only "problem case" in getting on post at YPG.
- T.T. asked J.P to continue Short Course duties through 08 – J.P. response, "Here to serve."

Conference Planning. Main points:

- Abstracts. Coming in – only 14 at last look the week before. Deadline has been pushed back to the 18th – already advertised on website. Any papers after this deadline only accepted as fill-ins. Concern was expressed about the low number of abstracts at this time – response that 50-70 papers will be forthcoming. H. Cathey (H.C.), Balloon TC representative, remarked that their culture was not to transmit papers so far in advance. Concerned that AIAA in this matter not in step with other societies. T.T. will follow up with AIAA regarding the policy. The Balloon side would have about 20 papers (about half of ADS size). AIAA preliminary program deadline Nov 10th - driven by publishing deadlines. Questions were raised about the effect of electronic automation and speedup on the process. M.G. stressed the need to be selective in reviewing the papers. Deadline for the final papers – May 1, 2007. With them being accessible online after May 7, 2007. Question was raised about the availability of a book of abstracts being available for attendees to make notes in during conference. Response was to assure the availability of the abstracts and full papers online before the conference for interested parties to printout themselves.
- Organization and number of papers. Issue of parallel sessions (pros and cons) raised by K.D. D.J. recommended being ruthless in review of quality and letting this be the guide of how many papers are presented. Recommendation to eliminate Thursday afternoon session if possible, or conclude with a plenary session (such as the “blooper” session at Monterey). It was pointed out the need to establish a policy of adjusting the schedule when necessary. Overall the feedback was that the Munich papers were of acceptable quality. J.W. asked for overall guidance/input on criteria and measures of acceptance. R.S. indicated that there would be obvious “yes” and obvious “no” groups – consulting with other TC members as necessary for the “in-betweeners”. It was recommended to allow only a 72-hour revision time limit for resubmission. C.P. suggested that the “height of the bar” determines whether the TC is a “tech committee” or a “country club”. The question of accepting foreign paper author submissions due to poor track record of showing up to present the paper – consensus appeared that yes but with a critical eye to as to the history of the author of showing up. Jeanne Riley (phoning in) of AIAA stated that concern over “no shows” had led to the AIAA policy of “no paper - no podium” had expanded to “no podium - no paper”. Consensus that reviewers with access do a review of papers case by case and then call in additional reviewers on middle ground papers. Recommendation to start off with a Plenary Speaker/Session followed by 2-3 ADS sessions and 1 Balloon session going all day. Planning on 1 or 2 joint sessions with a 2 & 2 breakout on topic(s) of common interest. Should coordinate Sep or early Oct for coordination of internal organization and then meet between both sides and do some joint planning. H.C. mentioned that the Balloon TC usually have TC meeting during one of the lunches. ADS replied that typical meet Sunday before the seminar with a followup after the conference. Didn't plan on shifting to a lunch meeting during the conference.
- B. Raiszabeh looking at venues. Industry reception site – conference hotel possibility, looking at sites within walking distance in Colonial Williamsburg. No

- firm list of candidates yet. Possibility of beach area in Yorktown but it is not in Williamsburg area, although it is scenic and overlooks the river. Possibility of community building in area near lodge. Possibility of William and Mary Alumni Hall. Question of use of alcohol on site chosen – issue at beach location? Refreshments to be offered – drinks, finger foods, etc. K.D. mentioned the need for government employees not to be involved in the soliciting of support for this event. Transportation issues were brought up as they affect location, alcohol use, or availability of mass transit (trolleys?). H.C. indicated that the Balloon TC was willing to participate in the reception. Issue of AIAA being part of choosing reception location – pushing for hotel location. A suggestion was made for dressing up in period costume for the reception received lukewarm response.
- Location of Awards Banquet. Suggestion of on Governor's grounds with a tent – probably can't get approval and weather considerations. Suggestion of holding it at Williams and Mary's with music like in Toulouse – consensus in favor of this idea. Also location of first balloon flight in VA took place on the college campus. J. Riley raised concern that the University food might not be that good, but hadn't contacted anyone at the university yet.
 - Issue of access fees for different activities in area - \$34 to \$70. Question asked about availability of deal from hotel for multiple day pass. D.J. suggested possibility of folding cost of fees into registration fee and thereby amortizing it for attendees. K.D. pointed out AIAA makes contractual arrangement with the hotel. D.J. asked about possibility of TC then picking up cost of passes.
 - Seminar plans outlined by R. Charles. Mentioned that M. Accorsi has volunteered to help with organizing. Morning session would layout definitions and basic concepts of modeling and simulation can be handled by personnel within TC resources. Afternoon portions would hopefully be a mix possibly from industry, government, and academia that was focused on interesting examples and minimizing the salesmanship. It was mentioned that the notes from the Munich seminar had still not been sent out. C.P. stressed the need to emphasize the limitations, examples, and V&V concerns inherent in modeling and simulation.

Membership Subcommittee. Main Points:

- T.T. was not sure if there was currently a POC. T.T. wants to appoint D.J. to form Awards/Membership subcommittee. T.T. and D. J. will work together to finalize the membership list and then cull out the dead wood. T.T. also asking for new candidates.
- Knacke Award is a "robust" award: AIAA membership is not required; can't be member of TC in past 2 yrs; must be breathing (AIAA is a stickler about this). Requires 3 nominees needed by Nov. 1st. Those previously nominated are eligible for the award in 2 consecutive years (06,07,08). Five carry-overs, all appearing from last time. Glen Brown will be new nominee with package together by Oct 1st. All told there will be six names on the list like last time.
- New membership. M.G. raised issue of including Sports segment of industry. T.T. concerned about including too much "fringe" industries. M.G. suggested possible new members as Sandy Reed, John LaBlanc, Bill Gargano. T.T. said TC was

- lacking young, foreign, and sports area representatives. J.W. mentioned at a previous conference the sports segment put at the end of the conference and no audience attendance left a bad taste in the mouth of the presenters. R.S. said we need to revisit the definition of ADS – to possibly include more non-conventional parachutes. J.W. suggested Ted Strong as possible new TC member candidate. H.C. suggested the possibility of combining to disciplines by looking at drop tests from balloons. It was suggested that there be more inclusion of the aero-capture segment on the TC. B.R. suggested to announce at the conference desire for attendees to apply to be members of the TC. T.T said same could be done at PIA. M.G. said that he would put it on the agenda for the morning plenary session or the government systems committee. D.J. commented that academia could be more represented on TC also.
- T.T. and D.J. said that they were nominating M.G. for the AIAA Sustained Service Award. (Past recipients are Carl Peterson and Phil Hattis).

Linda Hall. Report given by M.G. Main points:

- Dean Wolf heading interaction.
- C.P. would like more electronic services to be available. The need to meet with Linda Hall and lean on their management to support electronic formats over paper. M.G. said more monetary support might sway things. H.C. said that in his experience that electronic transcription had copyright issues in addition to the issue of getting the electron forms of the documents.
- M.G. stated that the TC needed to publicize to the community that the resources at Linda Hall exists. Possible communication mechanisms are handouts through the AIAA and PIA conferences. Suggested a short powerpoint presentation.

PIA. Report given by M.G. Main points:

- Washington, DC visit Day occurred in last May 4th. Members of ADSTC there. Roughly ten member delegation.
- Barry Amendment is a primary concern for US members but an issue for the international members. Textile portion of group better at lobbying than the strictly parachute industry portion of the group. Mark West was the liaison with PIA.
- J.W. brought up issue of timing. February would be better time than May due to Congressional bill formation and enactment schedule. Also questioned if the AIAA (like the PIA) has an agenda and mission compatible with the activity.

Website. Main points:

- "Sadly out of date."
- M.A. only person currently supporting the site. K.D. asked about hiring someone. D.J. has a contact who makes such websites. Will asked for quote to make new one and recommendation for maintenance software to keep site current.
- Proposed to update member profiles or delete section.
- M.A. is also still maintaining an email list of several thousand contacts. If K.D. wants email sent in conjunction with the conference he will coordinate with M.A. K.D. didn't want general notice sent out about the new abstract deadline date.

Session chairs would be solicited from the TC – 1 person per session with a double chair for any joint Balloon/ADS sessions.

Year in Review. Report given by S.G. Main points:

- Report being coordinated by S. George.
- Input from variety of sources: Airborne Systems, Natick, Pioneer, Paraflyte, and Vertigo.
- Currently a little too long but being edited down. Constraints: 1300 words (2 pages) and 2 or 3 pictures.
- Three main sections: ballistic; guided airdrop; and space systems.

Next Meeting – time and location:

- M.G. announced that it had been coordinated with R. Howard to be held in Feb at Reno in conjunction with the PIA. Best time would be Monday the 5th.
- Attendees would be eligible for the reception Monday night and the opening of the exhibits that afternoon.
- Location would be the Silver Legacy Resort and Casino.
- M.G. would like a list of TC attendees by the Friday before.

Election of Chairman – Elect: “In a narrowly won, multiple ballot cliff-hanger”, Rob Sinclair was named new TC Chairman-Elect by general acclaim.

Proposed Textbook issue. Main points:

- A textbook has been proposed, “Advances in Dynamics and Controls of Parachute Systems,” for the ADS technology field. Many TC members were proposed as possible authors. Discussion covered the aspects of whether to support the writing of such a text as well as diverting into the issue of updating or replacing the various Knacke texts.
- New proposed text. Oleg Yakimenko and David Rubinstein are writing the book. One of their ideas to move the ideas forward is to make a session of this at an upcoming conference. TC consensus was that it was too late for this conference. Previously this idea was brought up at PATCAD and a previous TC meeting. M.G. thinks this is the purview of consultants. C.P. asked if the community wants to write the next generation of texts – it is a lot of work and large task to coordinate the efforts of the contributors. J.W. said that if he were one of the experts he wouldn't want to divulge trade secrets. H.C. stated that other TC's were contemplating similar activities. Further said that the idea didn't seem mature enough to determine whether to support or not. K.D. asked what was being asked by the authors. T.T. replied that the authors wanted a session at a conference and to be able to introduce the idea to the community. C.P. stated that the committee cannot commit individuals. R.S. mentioned that the cut-throat environment wouldn't be good for nurturing such a project.
- M.G. asked about the status of editing the Knacke text. Apparently Karl Doherr had provided to the TC an extensive errata. D.J. mentioned that an amorphous committee had examined the effort necessary to update the Design Guide (which was done on contract 30 years ago (1972 manual)). C.P. and D.J. agreed that

- what was needed was a use to pull the project (government) and not the committee to push the project. Would probably cost in the neighborhood of \$100's of K. Sandia has the originals for the 1972 text. Poynter has publishing rights for the Navy China Lake version. C.P mentioned that the current practice was to augment the historical documents with private knowledge caches. Question was raised as to whether to include Dan Poynter in the process – reply was that he was a publisher not an author or editor in this matter. Question was still how to deal with the errata associated with Knacke. Reply was that an errata was already being distributed on cd at the short course. J.W. added that a section totally missing from the text was one on gliding parachutes. A consensus on what constituted the “cache of knowledge” was: Lingard’s Coco Beach paper and short course notes; the Air Force Design Guide; the Cockerall Agardograph; the Poynter Knacke text (the short course was using this).
- A. Dyatt mentioned that his former boss was writing a new Agardograph on guided parachute systems.

The meeting was adjourned at 1600.