

**AIAA ADS TC Meeting  
Natick - June 3<sup>rd</sup>, 2004**

**Meeting Minutes**

Convene – American Paratrooper Conference Room, Natick Soldier Center (8:45am)

- Minutes from the February 2004 Reno TC meeting were approved.

Treasury Report

- The discrepancy from the last meeting with regards to the Monterey Seminar was resolved. In the end the seminar broke even.
- Current balance is \$15,020.22.
- Mo was concerned and questioned why the TC broke even instead of making a profit on the seminar.
- Mike stated that the TC had to pay AIAA ~\$2800 for overseeing the seminar; the speakers were paid, etc. He stated that the goal of the seminar was not really to make a profit. He asked is the TC should make it a goal to break even instead of turning a profit.
- Questions arose about paying AIAA so much and what that gets us. Dean J. said Rick Howard & Tony Taylor would of entered into a contract with AIAA for the seminar cost. Dean suggested that since Tony was the Conference Chairman he should contact the AIAA and get the last seminar costs.

**Action Item:** Tony Taylor to contact the AIAA ADS Conference administrator in Restin, Virginia to get the seminar cost information. If that doesn't work Dean J. will call Ellen Aldridge to get the information.

ADS Award

- Mike stated that the TC must have a minimum of 3 nominations to AIAA by October 1, 2004.
- Names that are not selected will be carried over for 2 additional award periods (2007 & 2009).
- Dean J. stated that it's up to the TC to 'freshen' up any roll-over nominations.
- The previous TC meeting resulted in the following nominees being preliminarily submitted:
  - Dave Northey
  - Chuck Lowry
  - Henry Hunter
  - Chuck Sandy
  - Roy Fox
  - Gary Thibault

- Mike asked if we should submit all 6 or should the TC ‘weed’ out to 3 or 4?
- Miguel said he would like to keep it to 3 so they don’t have to worry about ‘carry over’. He also mentioned that his real concern was that some are getting old & we can’t award this posthumously
- Carl asked how the voting has previously been done.
- Dean J. said that the TC really couldn’t prevent nominations from being submitted to AIAA. Anyone can be nominated. It’s an AIAA award not a TC award. Dean J. also said that AIAA takes the submissions and then the TC votes on them. In theory, AIAA weeds out those they don’t believe are worthy. He said that they will give all of them back and be shocked that the TC actually had so many.
- Mike asked if there were any actions. It was determined that there were no more actions required at this time by the TC.

**Action Item:** Four of the six nominators were present. Mike must contact Rich Benney and Tom Rivellini to make sure they understand that they need to complete the nomination process.

- It was determined that there were no more motions, 6 people are to be nominated. Mike will make sure that the nomination packages are submitted in time. Forms should be on the web.

**Action Item:** Mike to check for nomination package location and tell writers/nominators where it is.

### CVD

- CVD was held April 21, 2004.
- Mo said it was a TC/PIA combined visit. There were 7 people from the parachute side (TC) of the house including the following: Larry Manderscheid, Dean Jorgensen, Bob Francis, Bill Gerrow, Chris (Carol) Christensen, Mo and Phil.
- Mo said they visited 15 Congressmen/Senators including:
  1. Sen. Kennedy (MA)
  2. Sen. Kerry (MA)
  3. Sen. Lott (MS)
  4. Congresswoman Loretta Sanchez (CA-46<sup>th</sup>)
  5. Congressman Edward Markey (MA-7<sup>th</sup>)
  6. Sen. John Edwards (NC)
  7. Sen. Elizabeth Dole (NC)
  8. Congresswomen Robin Hayes (NC-8<sup>th</sup>)
  9. Congressman Howard Coble (NC-6<sup>th</sup>)
  10. Sen. Daschle (SD)
  11. Sen. Johnson (SD)
  12. Congressman John Larson (CT-1<sup>st</sup>)
  13. Congressman Jim Saxton (NJ-3<sup>rd</sup>)
  14. Congressman Dana Rohrabacher (CA-45<sup>th</sup>)
  15. Congressman Robert Simmons (CT-2<sup>nd</sup>)

- Mo stated that they usually see staffers for these ‘smaller’ issues (i.e. not pollution, etc.). Staffers really listen for 30-45 minutes. At end of session they always ask what they can do for us. This time it was easy: Save Natick.
- Mo handed out the brochures that were made up for the visit and given to the staffers and congressmen/representatives. They were very nicely done in color and glossy. Brochures were made courtesy of Pioneer (PIA paid for publishing). Brochures were left at each office. The back of the brochure answers the question “What can we do?”
- Miguel mentioned that he heard that BRAC (Base Realignment & Closure) was possibly being delayed 2 yrs. Evidently BRAC is in ‘limbo’ right now.
- Lott’s staffer said this is the 1<sup>st</sup> time people from one state ask that a base from another state be kept open.
- Mo said they also pointed out that they do a survey on the impacts to employment & the economy of the local cities – but nothing on how it affects an industry.
- All in all CVD was very effective this year. Mo also received calls from reps and others requesting info on impact to parachute industry.
- Mo stated it was harder this year to coordinate, as AIAA didn’t make the appointments as in previous years. Teams were overlapping some (State vs. Specific rep/cong.). The reps would get mixed messages. Some of AIAA message some of the TC/PIA message.
- AIAA wasn’t happy with the TC/PIA discussions, as they didn’t take the AIAA message. The AIAA message is for the reps to support Government incentives for more money for students to study math, science, etc.
- Mo mentioned he is thinking about have the PIA run it next year. The biggest thing that the AIAA did was set up the appointments and they didn’t do it this year.
- Dean J., Bob Francis, and Larry Manderscheid had a meeting with Connecticut Congressman Simmons. Simmons was very fascinated to know how much Connecticut was involved with parachutes. He told the TC/PIA reps how to get an education bill through the process. Very informative. He also stated that it was the TC’s job to see what the Massachusetts legislature was doing to save Natick. Rep Simmons stated that the TC/PIA needed to push Representative Markey.
- Dean J. noted that Simmons ‘gets it’. Dean said it was his 4<sup>th</sup> CVD and the most worthwhile.
- AIAA had 6 issues that they wanted the ADS TC to talk about:
  1. Workforce and Education
  2. Air Transportation System Transformation
  3. Revitalizing Aeronautics R&D
  4. Developing and Implementing an Integrated Space Transportation Plan
  5. Department of Homeland Security – Unmanned Aerial Vehicles
  6. Department of Defense – 3% Funding for Science and Technology
- Thomas Bennett asked if the brochure needed any thing else or did anyone have presentations on laptops? Mo said the brochure was great. He had a ‘WOW’ response. No laptops.
- There was no action required of the CVD team until next year (Jan 2005).

## Election of Next TC Chairman

- Rick Howard was nominated and voted on unanimously. Mike asked him and he accepted.

## Web Page

- AIAA had incorrect link to the ADS website that has since been fixed.
- A call for papers was posted on the ADS website as well as the AIAA website.
- Jim S. talked to AIAA regarding the website. He said there were 3 options.
  1. AIAA has a link from their site to the UConn server (Current setup)
  2. AIAA can provide a server but they won't do the content
  3. AIAA can provide a template – minimal info. It was noted that the template option was not good as it was not good for our archival type website.
- No action was taken on the website. It was decided to keep it as it is currently.
- It was noted that there were no inputs received for the mass email list. Mike only uses the email list about 2 times a year and he keeps getting more and more 'bounces'. The question was raised as to how the list could be kept current. Angela Hunter suggested that the AIAA send the mass emails for the TC. Mike said they might charge for that effort. The list was originally Rich Benney's. It was suggested that the TC get the update from Rich.

**Action Item:** Mike to ask the AIAA and Rich Benney for email updates of the list.

## ADS Short Course

- The TC read through Jean Potvin's report regarding the recent short course:
  - 51 students, 6 non-US
  - Short Course Firsts:
    - Lecture notes all on CD.
    - All presentations were overhead in PowerPoint format.
    - Tour of the facilities (YPG)
  - The hotel was loud with construction going on. If have the course there again will need to find a new hotel. It was also very hard to get in and out.
  - The test should have been conducted earlier in the week so the range had time to process the data for the students to use.
  - Anticipated revenue is high ~ \$20K.
- Dean Wolf (instructor at the course) noted that the challenge was to juggle course work with the tour and demos.
- It was noted that every year the TC has to turn away people - but it wasn't understand why since it's such a small community. Evidently, there are some new engineers, but mostly the course is full of people involved with a program that has parachutes on it. They see the course as a way to get 'smart' on chutes.

- Dean said that the format of having hands on experience along with the classroom lectures was a real winner. He said that YPG and EC3 did an amazing job of support the short course. The lecture room was outstanding with space for 70-80 people and great audio visual equipment. Previous years a weeks worth of lectures tends to drain the students and lecturers. It was nice to get out and have the hands on experience to break things up. Dean strongly suggested we should try and stay at the test facility for the next short course as well.
- Richard Charles suggested having a backup ‘canned’ test dataset to use in case glitches in the actual test occur. This ‘canned’ data could be used for the analysis purposes.
- Dean said that would be nice, but that it is very good to use actual data.
- The TC agreed with Dean, but thought that making ‘canned’ data secondary would be a good backup plan.
- It was noted that 2 lecturers pulled out before the class started. Rick Howard picked up Karl’s stuff and Dean picked up Vance Behr’s. Vance is no long in the chute ‘business’.
- Evidently it took a fair amount of effort to get everything into electronic format. About 5 days at 8 hrs per day!
- Miguel suggested that perhaps the course could be later in the year so avoid the heat. Dean stated that the TC can’t really do it any other time as Jean Potvin has school.
- Jean will give a final report but estimates the profit at about \$20K compared to the usual profit of approximately \$10K. The reason for the larger profit is that the government picked up a lot of the expense (rooms, tests, audio visual equipment).
- The short course was lots of work for the lecturers. But having more lecturers would cause a loss of continuity with regard to the content. Also the TC would have to pay the additional lecturers and the profit would go down.
- Carl suggested that the cap on the number of students be removed. The cap is currently set at 50 based on the facilities. Dean said they probably could have handled a few more (~10). The TC will reconsider the cap before next year’s course.
- It was brought up that it would have been nice to have color format for the photos.
- Sean George asked if the short course notes on CD could be made available for a nominal fee. Mike stated that the TC doesn’t market the course, but it could be made available. Jean could make ~10 extra copies. A suggested fee was mentioned of \$100-\$175.

**Action Item:** Make the short course notes available to the parachute community for some nominal fee.

### Other TC Business

#### AIAA Issues

- Technical experts
  - AIAA wants a contact from the TC so that if something breaks in the real world they can call (i.e. Mir Lands – who do they call?).
  - Mike said that some TC’s have one expert – some have more than one. The number of contacts is based on the topic.
  - Dean J. said that the TC should have more than 1 expert.

- Carl, Mo and Dean W. suggested only one POC and then that person could disseminate the question to the appropriate person. The one POC could be the TC chair. This method would prevent having to keep the list up to date for POCs.
- Dean J. & Carl suggested we have 3 or 4 generic topics and POC's. Suggested categories included:
  - Military
  - Recreational
  - Space Systems
  - Parachute Technology

**Action Item:** Mike to send solicitation of the above categories asking the TC who should be POCs for them. Mike would do the screening.

Database: Linda Hall

- There was some confusion after the last TC meeting. The fee of \$5000 was just to do the German collection. Mike sent out an email and the TC voted to approve this task. LHL has completed approximately 300 papers out of the total of 850.
- Mo called Nancy Day regarding the setting up of a contract. Both agreed that they didn't know how to do that. Both decided to use the LHL presentation given at the last TC meeting and having Mike sign it.
- The TC was told they could review what had already been completed by going to [www.LindaHall.org](http://www.LindaHall.org) – Leonardo and clicking on 'parachutes'. 226 titles come up by going through that process.
- Mo said Nancy expected to complete the German collection for less than the \$5k quoted. Mo told LHL that if that happened they should just keep the remaining money as the TC wants LHL to continue with the Natick collection and then the Sandia collection.
- Sandia Collection Status –
  - Carl says they have compiled a list of what they will be sending LHL. There are approximately 873 items on the list. The library is in boxes and ready to go to LHL. They will do last check of the boxes before they are sent out.
  - Evidently the duplicates were thrown out before they could be distributed to others in the community. Carl and Sandia have a few however.
  - Miguel stated he was concerned that libraries were going to one site – all eggs in one basket. There would be no backup (i.e. electronic copy).
  - Carl says the TC knew that when they decided to do this. Having the libraries in the LHL is better than 'in the engineer's closets'.
- It was mentioned that 32 of the 300 German papers already cataloged were missing abstracts. Extrapolating that number to the full collection (850) gives an estimate that about 100 papers will be missing abstracts. The TC will have to deal with it. Karl Doherr is really the only person who can provide some sort of abstracts for the papers that are missing them.
  - It was decided that it would be best to have the TC write the English missing abstracts. They would be distributed between the TC members. Perhaps the TC should spend an extra day at the next meeting or do offline at home.

- Carl suggested that they be done off-line and with any remaining ones being completed at the next meeting.
- Debbie said that the next step of the LHL after cataloging would be to make the electronic copy.

**Action Item:** See what level of workload Karl has and to try and compensate him or make it easier for him if possible.

**Action Item:** Mike to call Nancy (LHL) to try and execute the writing of the abstracts off-line.

#### Next ADS Meeting

- Edwards. Late September or October
- Miguel suggested mid-October perhaps on the Friday before the Edwards Open House/Air Show.

**Action Item:** Miguel to check on the exact date of the open house and Mike to provide email to the TC.

#### LUNCH

- During lunch Mr. Ed Doucette, Airdrop/Aerial Delivery Directorate, gave a presentation on Natick Capabilities and the Airdrop Science & Technology Program.

#### ADS Conference

- Tim Lott was on travel but had sent an email with the status to Mike:
  - A Memorandum of Understanding is in work between DGLR and AIAA. It should be signed soon.
  - One of the biggest issues is the promotion of the event. USA attendance may be down, so will need to promote more in Europe. DGLR to handle the European promotion with the cost not to exceed EUR300 (approximately \$130 US dollars) – not much!
  - Currently Tim doesn't have the conference costs from the AIAA.
    - In the US with the booking of a block of rooms the hotel usually gives the conference rooms free. In Europe the conference rooms will be additional.
    - Jean (from AIAA) doesn't expect the costs to be too much high (+10%) than the Monterey conference.
  - The call for papers went out in the AIAA May 2004 Publication.
  - Still working on the location for the Industry reception. Tim plans on soliciting money from Industry as usual. Thomas Yong is working with a Munich local for the reception location.
    - Carl asked if there were any German companies around that could/would sponsor.

- Abstracts for papers are due September 1, 2004. Mike said that after they are received the Technical Chairs (Paul Mortaloni and Ken Desabrais) will work on the program.
- The technical chairs need to work on the plenary session. Suggestions include:
  - A courtesy Germany ‘presence’ paper
  - US Space Technology Paper (Genesis – Bob Corwin, MEK – Rop Manning)
  - European Activity Paper
    - DLR overview paper
    - British Paper (Huygens – Steve Lingard)
    - Irvin GQ (A400M)
    - High Level System Stuff

**Action Item:** Rob to ask Irvin GQ regarding the A400M

**Action Item:** Mike to ask Karl/Thomas for a DLR overview paper on German Space Programs.

- Mo noted that Roy’s ‘bloopers’ will be all US. Need to get some European.
- Mike noted that the TC needed to get some non-parachute topics, but related, for the plenary session. (i.e. aero capture, materials)
- Dean J. suggested inviting previous materials seminar presenters to submit reports (Dean and Debbie have POCs).
- Mo mentioned previously trying to get the sport parachute community to submit but not having much success. He wondered if the TC should ask the European sport community. He thought we would probably get a similar lack of response.
- Mo stated that the technical chairs would only have 30 days to review abstracts.

**Action Item:** Technical Chairs need to solicit help to review the papers.

**Action Item:** Technical Chairs need to recruit plenary papers.

- Mike says the TC should use the AIAA review setup on the computer. It’s a very good tool. However, the session chairs need to be setup very early – at the time of submittal.
- Carl suggested extending the paper review deadline to mid October so TC meeting could occur. Then the TC could fine tune and provide final review.
  - Dean W. noted that there was no real reason for the September 30<sup>th</sup> deadline for abstract review.

**Action Item:** Mike to ask AIAA about slipping paper review date to Mid October.

**Action Item:** Mo to check with LHL (Nancy) to see if the AIAA is still passing conference papers to them.

## ADS Seminar

- Dean J. relayed Steve Lingard's plan to the TC.
  - Theme: Application of System Engineering Process to Develop an Aerodynamic Decelerator System
  - Focus of the Seminar
    - AM: Introduction & Indoctrination – Rudiments of the System Engineering Process
    - PM: Case studies of systems that we know. Discussion & demonstration of some of the desk top tools to manage the system engineering process.
  - Goal of the day
    - To provide a better understanding for engineers and program managers of how the best practices can be introduced into the design of an aero decelerator system that meets all requirements. Rather than taking existing systems and 'tweaking' to meet the system requirements of a system that is really a quite different than the original.
  - Key Note Speaker: Professor Heinz Stoewer, President of INCOSE
  - Preliminary Outline
    - 8:45 – 9:00 Opening Remarks
    - 9:00 – 10:00 Systems Engineering for Dummies
    - 10:00 – 11:00 Keynote speaker Professor Stoewer
    - 11:00 – 11:15 Coffee Break
    - 11:15 – 12:15 Sys. Engineering Presentation 2
    - 12:15 – 13:30 Lunch (provided by hotel)
    - 13:30 – 14:30 Case Study 1 (MER?)
    - 14:30 – 15:30 Case Study 2 (Terrestrial parachute system TBD)
    - 15:30 – 15:45 Break
    - 15:45 – 16:45 SE Software Tools
    - 16:45 – 17:15 Wrap up discussion
- Carl also suggested MER as a case study. Noted that Rob Manning was very articulate. Carl was going to see Rob & Wayne Elle next week.

**Action Item:** Carl to contact Steve L. with regards to MER for heads up to Rob & Wayne.

**Action Item:** Finalize seminar speakers and program by October 2004 so they can be included in conference promotions.

## Publications

### Journal of Aerospace (JOA)

- Mike said he pretty much received a 'no reply' on his request for the JOA special section.
- Carl states that it might be better to identify potential JOA papers based on the abstracts submitted for the Munich conference. Dual review goal – Conference and JOA submittal.

### Errata

- Karl submits 'chunks' (page by page)
- One person asked to include an index
- Carl brought up that this is a huge effort and is it really worth doing all this work to update a 1978 manual. He stated that we really need to add a bridge for 1978 to now.
- Carl suggested that there needs to be a sponsor to add new chapters for 1978 and beyond as well as fix the errors.
- Dean J suggested that a white paper be written to shot to the DOD, Natick, and China Lake in order to get a sponsor.
- Miguel noted that the additional chapter(s) should have multiple authors.
- Dean W. agreed that no one person could be an expert on the additional info that needs to be added.
- Dean J. stated that Mike & TC President Elect (Rick Howard) should discuss the TC vision on the aging textbook/handbook and define what the next big strategic initiative is. He noted that he felt this issue was the next 'brick wall'.
- Carl said the additional information should address integrating other tools, updated tools and simulation tools. 'VISION FOR THE FUTURE'

## October Meeting Agenda

- Need to take off the CVD and short course

List of Attendees:

Mike Accorsi	University of Connecticut
Thomas Bennett	Pioneer Aerospace
Tim Smith	ILC Dover
Miguel A. Lopez	AFFTC, Edwards Air Force Base, Ca.
Mo Gionfriddo	MPG Consultants
Robert Sinclair	Irvin Aerospace
Debbie Gardinier	Irvin Aerospace
Dean Wolf	Consultant
Carl Peterson	Sandia National Labs
Sean George	Draper
Richard Charles	Natick Soldier Center
Angela J. Hunter	ILSC, Aerial Delivery Natick Soldier Center
Dean Jorgensen	Vertigo Inc.