

Meeting of the Air Transportation Systems Technical Committee

April 24, 2002

In conjunction with the
Global Air & Space Conference
Hyatt Regency Crystal City
Alexandria, Virginia

The meeting was officially called to order by the Chairperson, Todd Farley, at 9:30am.
Members present were:

Todd Farley
Daniel Salvano
Jim Cistone
Ray Ausrotas
Shahab Hasan
Mary Reveley (prospective member)
David Maroney (prospective member)

Present for a portion of the meeting were:

Bruno Kisala (AIAA Business Development)

Guests:
(None)

Todd passed out an agenda and information for the meeting. He reviewed the agenda for our TC meeting, and invited us all to attend the afternoon session of the Global Air and Space Conference. This session featured a panel discussion by members of the Presidential Commission on the Future of the United States Aerospace Industry. This Commission was established to “study the future of the U.S. aerospace industry in the global economy, particularly in relationship to U.S. national security; and to assess the future importance of the domestic aerospace industry for the economic and national security of the United States.” The Commission has put out two interim reports, and plans to issue a final report on November 19, 2002. They can be found at aerospacecommission.gov.

Todd covered the “Administrivia”, asking for a volunteer to take minutes (prospective member David Maroney volunteered), and asking all members to do two things: 1) make sure your member dues are paid, and 2) update your member info on the AIAA main website and the TC webpage. (ACTION)

Current activities were discussed. The first ATIO forum last October was reviewed; since the turnout was light because of 9/11, the '02 ATIO Forum will really be the first full forum. So far, it has been held in connection with AvWeek – last year the sessions were intentionally separate; this year there will be an effort to interleave them. There was some discussion of whether we wanted to continue the ATIO connection with the

AvWeek conference, or whether we wanted to split off in '03. The suggestion was made to let it (ATIO) take root first, then think about when and how to split off. Our TC is sponsoring two sessions; the abstract deadline is coming up and it looks like there is a bigger pool of papers this year.

Dan reported on the Evaluation of FAA Security Hotline Suggestions. His work with the TELL-FAA hotline after 9/11 garnered 50,000 ideas, which went through an initial sort to come up with 7000 ideas worth considering. Based on an idea from our TC meeting in October 2001, Dan's office contracted with AIAA to get AIAA experts to help review and categorize the ideas. Phase I was completed just after Christmas 2001, in which these suggestions were sorted and matrixed in a database, and 100 unique ideas were extracted. Phase 2 is to review and evaluate these ideas; timing is TBD and a suggestion was made to use the AIAA TCs to help with this task.

Todd reported that our TC is heading up a special issue of the Journal of Aircraft coming out in Fall 2003, coinciding with the 100th anniversary of the powered flight. This issue of the Journal will focus on air transportation systems. The issue will contain a lead section comprised of 3-4 articles discussing the past, present and future of air transportation systems, plus a main section having 5-6 more typical research articles on ATS-related topics. TC members are strongly urged to submit a manuscript for publication in this issue. This is a perfect opportunity for ATS TC members to contribute to the TC while getting something out of it – a published journal article. We talked about appropriate submissions, and then briefly discussed the possibility of expanding the charter of the Journal of Aircraft to explicitly include ATS, or even to spin off a journal of our own (more later in these notes).

Todd spoke about a short article that has been prepared for the Young Professionals Fall newsletter. There is a sidebar on the ATS TC.

In the absence of John-Paul Clarke and Nora Lawson, Todd mentioned and described the Jay Hollingsworth Speas Airport Award, which is sponsored by our TC. The selection process ended April 15, so it's all done for this year. Nominations for the 2003 award close on September 30, 2002. We expect our TC to come up with 2 or 3 nomination packets for this award. Be thinking of potential nominees. A call for nominations is available on the ATS TC website [<http://aiaa.org/tc/ats/>].

How to Structure our TC was the next topic of discussion. Todd stressed that we were going "back to basics" to figure out what we wanted to do, individually and as a group. He wanted to explore what people's interests are, and to make use of those to formulate the direction for the TC. He would like to form subcommittees, with different TC members chairing each one and sitting on at least one other. He's also looking for individuals to step up with projects, and to take the lead in getting them going.

A great example is the Capital Hill Colloquium on Air Transportation that Dan and George set up 2-3 years ago to educate Congress and staffers about the issues and inter-relationships affecting aviation. If we were to resurrect this program, it would be a shared responsibility of the Public Policy subcommittee and the Programs subcommittee, for

example. Ray mentioned that merging military and civil groups hasn't worked in the past, and suggested that when we come up with an idea, we should look to see if something similar has worked in the past and follow these examples.

Todd went through a list of expertise areas and everyone chimed in for some of them. Most of the responses are listed here; Todd asked everyone to send their areas of expertise to him (ACTION).

1. Analysis and development of ATC systems: Jim, Todd, Dan
2. Planning and design of airports, airbases, and airport systems: Jim
3. Modernization of the air transportation infrastructure: Jim, Todd, Dan, Dave
4. Forecast and analysis of air transportation system changes: Ray, Dave, Shahab, Mary
5. Airline marketing and business practices: Jim, Ray
6. Economic analysis of air transportation systems: Jim, Ray, Shahab, Mary
7. Planning and scheduling: Jim, Dennis
8. Safety of air transportation: Dan, Mary, Shahab
9. Application of systems analysis techniques: Jim, Dan, Mary, Shahab

Other areas that were identified are:

- Aviation Policy
- Airlines/NBAA operations
- Airframes/airframers

In addition to individual ideas, Todd also wanted to see if we could come up with ideas as a group, and to look for ways to tackle them. We brainstormed on some issues of the day, and came up with these topics:

- Integration of Commercial Space with the NAS
- Merging of Ground and Air Travel
- CNS/ATM around the Globe
- RNAV/RNP

When we discussed how to tackle some or all of these diverse topics, ideas were spawned such as: write papers for conferences, publish articles or books, hold classes, and suggest a new Journal to address cross-ATC/ATM issues.

Todd commented that AIAA has "reorg'ed" and recognized several areas that it is deficient, one of which is ATIS/ATM. They are looking for things like this to fill the voids: professional courses, symposia, etc.

Jim commented that after Sept 11, the NAS was shut down and came back slowly, almost bankrupting the airlines. He would be interested in exploring how to respond differently: can FAA isolate the incidents and not shut down the whole NAS? Dan thought we should have a panel to discuss this. Apparently, a third track for ATIO 2002 was discussed, originally to be safety and security, but it was becoming the Mushpot track. The discussion led to allowing this year's track to raise issues and generate ideas, and to feed

this into the planning for the 2003 conference. Dan will check to see if we can get security experts to join the TC. (ACTION)

Jim also commented that the ATM TC (of which he is also a member) has a research sub-committee that is putting together an Integrated Plan for the NAS. They will be publishing a paper on this topic. With the events of Sept 11, they are adding security threads. He will find out more when the TC meets tomorrow. (ACTION)

Next Directions for the TC: We tried to reduce some of these ideas into how we wanted to move the TC over the next three years. The main ideas were:

- Journals: The #1 goal would be to contribute to the Special issue of the Journal of Aircraft, while the #2 goal is to consider sponsoring our own Journal (perhaps the Journal of ATS?). Some elements that might go into that would be (from our charter) economics, political, infrastructure, and technology behind ATC/ATM and operation of the NAS, with possible focus on airports and/or airlines.
- Develop the ATIO conference: build more into it, and make it more widely known. The long term goal would be to develop tracks for the 2003+ ATIOs, on threads that we start this year. The near term goal is to come up with threads through the sessions that we already have started, and to use the Mushpot track for idea generation. Jim will push ATM ideas and Dan will push ATS ideas to the AIAA.
- Check our membership and publicize our own expertise. Ray came up with the idea to check with Port Authorities, to contribute their expertise in our TC...maybe we could trade guest lectures for their expertise on our TC.
- Educational institutions: get colleges (GWU/GMU/Embry) involved in our TC for their expertise. We can help develop training or teach classes in ATM/ATS.

Actions:

Everyone: 1) make sure your member dues are paid, and 2) update your member info on the AIAA main website and the TC webpage.

Everyone: What is your area of expertise...therefore what is your goal, or mission, or pet project, or other contribution in this TC? Send all your ideas to Todd, and he will compile them, and see how we look. If you are not contributing, consider moving to the ATS TC Alumni Club which Todd described for us.

Dan: Look for security experts to join the TC.

Jim: Report back to the TC on the activities of the ATM TC.

The meeting was adjourned at 12:00 noon.

Respectfully submitted,
David Maroney
June 28, 2002