



AIAA Air Transportation Systems TC Meeting Minutes

San Francisco Airport Hyatt
SAE/AIAA World Aviation Congress
19 October, 1999

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1. Attendance

The meeting was officially called to order by the Chairman, Ray Ausrotas, at 6:00 PM.

Members present were:

Ray Ausrotas, Chairman
Gano Chatterji (prospective member)
Tom Galloway
Rodolfo Piedra de Furundarena
Russ Shaver (guest of George Donohue)
George Donohue
Todd Farley
Daniel Salvano
Bruno Casala (AIAA staff)
Dick Culpepper (AIAA Vice President for Technical Activities)
Emily Davies (AIAA staff)
Don Richardson (Director, AIAA Aircraft Technology Integration & Operations Group)

New Members and Guests:

Dr. Gano Chatterji, who is thinking about joining the ATSTC, participated in the meeting as a guest. He is a Principal Scientist for Raytheon in the Automation Concepts Research Branch at NASA Ames.
Russ Shaver is a senior scientist with MITRE/CAASD and gave one of the talks in the WAC session organized by George Donohue. Mr. Shaver is not considering TC membership at this time.

2. Future Conference Sponsorship

Don Richardson briefed the TC on the AIAA's recent discussions regarding sponsorship of future World Aviation Congress meetings. AIAA enthusiasm for the WAC is waning. At the same time, the AIAA has agreed to support the Aviation Week & Space Technology's Aerospace Expo which is held in November each year. Although historically focused more at managerial issues (Quality, OEM/Supplier, InfoTech, etc.), the Aerospace Expo will, in 2001, be adding a technical track. The AIAA has committed itself to support the technical component of the Aerospace Expo and is attempting to convince SAE (our joint sponsor at the WAC) to join us in supporting the Aerospace Expo.

AIAA will still support the WAC in 2000, which is being held at the Town & Country Resort in San Diego, Oct. 10-12, 2000. (Ref: <http://www.sae.org/calendar/wac00/cfp.htm>) However, our involvement beyond 2000 is in doubt.

In 2001, AIAA will move to support the AvWeek Aerospace Expo. However, we will also have a "mini-presence" at the Aerospace Expo in November of 2000 at the Long Beach (CA) Convention Center.

The AIAA's "mini-presence" is envisioned as a one-day activity consisting of 3 sessions of roughly 4 papers each. AIAA has asked the ATS TC to arrange one of those sessions. Discussion among our group produced one suggested session topic for AeroExpo 2000:



- Session: Historical perspectives on aviation safety and automation
- Topic: History, successes and failures of TCAS
 - Topic: History, successes and failures of GPWS/EGPWS
 - Topic: History, successes and failures of AMASS
 - Topic: Philosophical debate of the role of cockpit automation
(Does increased authority placed in flight deck automation save lives?)

Longer term, the ATS TC is asked to come up with a 3-session track for the 2001 Aerospace Expo. Group discussion produced the following suggestions:

- Track: Distributed air traffic control
- Session: Concepts, benefits studies
 - Session: Human factors issues on the flight deck
 - Session: Human factors issues in ATC
- Track: ATC paradigm shift (Tactical control moving to the crew, Strategic control moving to ATC, the evolving role of AOCs)
- Track: Can NAS modernization be benefits driven? How? -or- "Why modernization won't work."

3. Briefing from Mr. Culpepper

Dick Culpepper, Vice President for Technical Activities, gave a short briefing to the TC. He mentioned two important activities for incoming TC Chairpersons being given the weekend immediately prior to the AIAA Annual Meetings in Reno. On the Saturday (the 8th), TC Chair training will be provided; on the Sunday (the 9th), a TC Chair workshop is being given. All incoming TC Chairs are asked to attend these events. The conference follows on January 10-13, 2000.

Emily Davies added that the AIAA has funds available to support the TC Chair's travel to the Reno meetings if the Chair would not otherwise be attending.

Mr. Culpepper urged the TC to step up its recruitment efforts, adding that there is no limit on the number of young and/or international AIAA members permitted to join the TC. Regular membership is limited to 35.

The AIAA is planning a celebration of the 100th anniversary of the Wright brothers' first flight. This is to be a major national event, and our TC is asked to come up with ideas of special events we could sponsor as part of the celebration.

Emily distributed new AIAA TC polo shirts to all members present. Members not in attendance can collect their shirt at the next TC meeting. Contact Emily Davies for further details.

4. Making our TC effective in the commercial aviation community

The bulk of the meeting time was allocated to discussing ways in which our TC can be effective in the commercial aviation community. New AIAA Business Development Manager Bruno Casala was on hand for this portion of the meeting.

Suggested initiatives included the following:

a. Symposium on "the Hill"

Recent congressional criticism of the relationship between the FAA and RTCA creates a opportunity for the AIAA, and our TC in particular, to step forward as a new and credible voice on commercial aviation issues. The TC will investigate the possibility of sponsoring a symposium on Capitol Hill in early February, 2000. The symposium's purpose would be to educate congress about the technical issues associated with the looming capacity and delay problems in the air transportation system, and how those technical issues drive the economic realities. AIAA fellows and noted academics would be invited to testify on our panel. As an independent technical organization with no political agenda, it is hoped that the AIAA's input might resonate with lawmakers.

George Donohue, Dan Salvano, and Bruno Casala were put in charge of exploring this possibility further.

b. Formal publication of technical papers

It was noted that there are few outlets for publication of technical papers related to air traffic management and the air transportation system. AIAA occasionally publishes such work in the *Journal of Guidance, Control, and Dynamics*, and sometimes also in the *Journal of Aircraft*.

Several suggestions were made to address this shortcoming... in order of short-term to long-term solutions, they included:



1. AIAA publication of papers presented at the FAA/Eurocontrol ATM R&D Seminars, the next of which occurs in June 2000. (Refer to: <http://atm-seminar-2000.eurocontrol.fr/>) Papers given at this conference are peer reviewed, but are not formally published in any proceedings or journal. The thought is to approach the AIAA about formally publishing these papers.
2. Build a larger presence in the AIAA Journal of GCD for research in our field. This could take the form of a special issue of the Journal dedicated to issues of capacity, delay, modernization, etc. IEEE has published special issues in the past concerning ATC and modernization; why not AIAA?
3. Create a new peer-reviewed AIAA journal as a repository for technical writings and research in our field.

5. Next TC Meeting

The next TC meeting is tentatively planned to coincide with the ATRIF Spring meeting and FAA Forecasting meeting, March 6-8, 2000, in Washington, DC.

6. Action Items:

George, Dan, Bruno: Coordinate effort to plan a symposium on Capitol Hill.

Gano: Investigate the feasibility of building a track on TCAS for AeroExpo 2000.

Dan: Investigate the feasibility of building a track on AMASS for AeroExpo 2000.

George and Dan: Explore AIAA publication of the ATM2000 papers.

7. Special thanks!...

... to George Donohue for organizing and delivering an informative and well-received session at the WAC on issues of capacity and delay in the air transportation system.

The meeting was adjourned at 9:10 PM.

Respectfully submitted,
Todd Farley
October 27, 1999