

Report on Inside Aerospace 2009

Inside Aerospace is an international forum focused this year on "Building and Retaining the Aerospace Workforce". AIAA organizes the event in collaboration with the Aerospace Industries Association (AIA), the Air Force Association (AFA), the SAE, and our own ADCA. Due to the Chairperson switch occurring during the second half of 2008, ADCA was not very active in the process of organization, but AIAA was gracious enough to invite me to attend, so I did, representing ADCA. Attendance this year was open to all, whereas previous years had been invitation-only. Total attendance was announced as 160+.

For those interested in feedback on the event, the following academic types registered, although I cannot confirm what sessions anyone attended, since there were other AIAA event running concurrently - Bobby Braun, Georgia Tech; John Cochran, Auburn; Bernadine Douglas, Embry-Riddle; Jay Gore, Purdue; Raimo Hakkinen, Washington U.; Chris Hall, Virginia Tech; Chris Hearsey, Maryland; Dimitris Lagoudas, Texas A&M; Robert Loewy, Georgia Tech; Robert Owen, Embry-Riddle, Scott Pace, George Washington; Cindy Pendley, Georgia Tech; Angela Phillips-Diaz, University of California; Martiqua Post, USAF Academy; John Strenkowski, NC State, Paula Thornhill, AFIT; Ian Waitz, MIT; Annalisa Weigel, MIT; and yours truly. Last years event is documented in a "Report and Recommendations" document obtainable from AIAA, and the draft of a similar report for this years is already being worked on. I expect a publication date sometime in July or August.

Day 1 focused on K-12 and College education, with Day 2 focused more on retention and professional development issues within the workforce. A random selection of factoids that I noted down follows:

- Roughly 5% of U.S. U/Gs are in engineering programs. Its 10% in Europe and 15% in Asia
- 60% of U.S. engineering and science PhDs are awarded to non-citizens, 45% of Masters degrees
- Passion for engineering can trump curriculum
- More aspire than can achieve
- The National Academy of Engineering has launched a Grand Challenges initiative
 - Recommended topics/publications include Rising Above the Gathering Storm, Changing the Conversation, and Engineer 2020. See - www.nae.edu
- A top new tagline tested for engineering careers was "Engineers Make a World of Difference"
- The largest global systems engineering project ever attempted might be the International Space Station

Much discussion about the "leaky pipeline" leading from K-12 preparation to highly qualified engineers. MIT is continually revamping curricula, with current emphasis on project based learning in each year of the program and active learning processes in the classroom (w/clickers). Also at MIT, the percentage of women faculty only rose when targeted programs were in place, but held (did not fall) in intervening periods.

Other publications being unveiled or circulated included AIAA's new career-oriented web site - "Ask Polaris". I was told that Polaris here alludes to the Pole Star, that one might navigate by; see - www.askpolaris.org. Also copies of AIA's report "Launching the 21st Century American Aerospace Workforce", and advance notice of Av Week's Annual Workforce Report special issue (c. August 24). All in all, quite interesting and thought-provoking. AIAA is holding a telecon soon to determine what form the event should take in 2010. I'll make sure ADCA is properly represented.

Submitted: Colin Britcher, Old Dominion University, serving as Acting Chair of ADCA