



AAR-100

Human Factors Newsletter # 01-07

(March 24, 2001 – April 6, 2001)

ASDE-X: The first week of the ASDE-X Early User Involvement Event was conducted March 20-22 at the William J. Hughes Technical Center's Research, Development and Human Factors Laboratory and at the Technical Center's Research Tower Cab. Three air traffic controllers and one supervisory controller participated in the readability, usability, and hardware comparison exercises. They completed ratings of display/function acceptability and usage of different interaction methods. The final week of the ASDE-X Early User Involvement Event was conducted March 27-29. (M. McAnulty, WJHTC)

New AAR-100 Participant: We are pleased to welcome Richard (Rick) Bartel of Titan, Inc. as a new contributor to the AAR-100 human factors team. Rick will assist in applying his multi-varied experience in human factors to several programs and projects, especially those related to requirements development and investment analyses. We thank you, in advance, for lending him your assistance. (G. Hewitt, AAR-100)

Runway Safety Workshop: A CAMI representative (AAM-510) provided a "Human Factors Seminar" at the 2nd Annual Great Lakes Region Runway Safety Workshop, March 28-29, 2001 in Des Plaines, IL. The purpose of the briefing was to highlight some of the ways human factors contribute to runway safety and to summarize relevant human factors initiatives currently being conducted by CAMI scientists. Topics covered cognitive processing and performance in a complex environment, use of data-driven analytic methods such as the Human Factors Analysis and Classification System (HFACS), and incorporating multiple perspectives into a 360-degree human factors analysis (J. Pounds, CAMI)

Interruptions, Distractions, Lapses of Attention in the Cockpit: NASA-Ames researchers are conducting a field study which looks at the scope and nature of concurrent task demands on the flight deck. The field study, which has been underway since late 2000, begins with a functional description of flows and checklists for each phase of flight. Pilots are trained to follow these standardized time- and event-sequences of actions so as to minimize workload and avoid possible errors. With time and experience, the use of procedures becomes habitual and automatic and can, in most cases, be relied on for error-free performance. The description of flows and checklists is then amplified with NASA observations from the flight deck during

scheduled, part 121 flight operations. Researchers have found a large number of events that interrupt and generally distract pilots from their prescribed duties in each phase of flight. To respond to such events, pilots are forced to interleave novel activities with the habitual, well-practiced sequences of actions. In doing so, pilots continuously engage in the making of decisions involving adding, shedding, and/or rescheduling actions. The possibility of errors increases as the problem is exacerbated from one of mere task overload to one of general task and attention management. (E. Edens, AAR-100; L. Loukopoulos, K. Dismukes, I. Barshi, NASA-Ames)

Employee Attitude Survey (EAS): On March 27, 2001, a CAMI representative (AAM-520) briefed the ATS Management Team and MWE Coordinators on EAS 2000 results for ATS. In the briefing, he described key outcomes (job, compensation, communications satisfaction, & organizational commitment), and the key drivers of those outcomes (employee perceptions of management's concern for employees, supervisory fairness, job-related and policy-related communications). He also presented a framework for linking leadership behaviors (e.g., communications, supervisory fairness, etc.) to employee satisfaction and organizational outcomes (safety, security, efficiency) based on recent research in the private sector. ATS-1 took time to discuss the need to empirically assess and evaluate linkages between leadership behaviors, employee perceptions, and organizational outcomes in the context of ATS moving towards becoming a performance-based organization. The same CAMI representative will also be briefing the Aeronautical Center Management Team on April 9th, and has been asked to brief the AOS Management Team during the week of April 23 on the EAS 2000 results for those organizations. (D. Broach, CAMI)

Researcher Recognition: Dr. Tanya Yuditsky received a letter of commendation for exceptional performance from the lead of the STARS product team, AUA-310. The letter cited Dr. Yuditsky's performance and professionalism while conducting a STARS FS-1 Airway Facilities CHI validation at the vendor's facilities from January 30th to February 1st of this year. The author indicated that her performance was a credit to the WJH Technical Center and thanked her for a job well done. (E. Stein, WJHTC)

More information on human factors research can be found at the FAA Human Factors (AAR-100) web site: <http://www.hf.faa.gov>

Mark D. Rodgers
FAA (AAR-100)



April 8-14, 2001 – Sun ‘n Fun EAA Fly-In, Lakeland, FL <http://www.sun-n-fun.com/>

April 24-26, 2001 – 46th Annual Corporate Aviation Safety Seminar, Orlando, FL
<http://www.nbaa.org/>

April 24-26 – IT 2001 – Airlines Harnessing the Power of Technology, Hotel Okura, Amsterdam, The Netherlands. <http://www.iataonline.com/>

April 29-May 4, 2001 – The 13th Annual Software Technology Conference, 2001 Software Odyssey: Controlling Cost, Schedule, and Quality. Salt Palace Convention Center, Salt Lake City, UT <http://www.stc-online.org/>, or <mailto:stcinfo@ext.usu.edu>

April 30-May 2, 2001- Regional Airline Association Convention, Tampa, FL
<http://www.raa.org/>

May 3-4, 2001 – Human Factors for Aviation Technicians Workshop, Long Beach, CA
<http://www.greyowl.com>

May 14-17, 2001 – DOD Technical Advisory Group Meeting, Antler's Adam's Mark Hotel, Colorado Springs, CO <http://dticam.dtic.mil/hftag/>

June 3-8, 2001- Society for Information Display, International Symposium, Seminar & Exhibition, San Jose Convention Center, San Jose, CA [mail to: pdrzaic@elink.com](mailto:pdrzaic@elink.com)

June 17-24, 2001 – Paris Air Show, Le Bourget, France <http://www.promosalons.com/>

July 8-11, 2001 – ATCA 12th Annual International Technical Conference & Exhibition, Conrad International Hotel, Dublin, Ireland <http://www.atca.org/>

August 5-10, 2001 – 9th International Conference on Human-Computer Interaction, New Orleans, LA <http://hcie2001.engr.wisc.edu/>

September 10-14, 2001 – Aerospace Congress & Exhibition By Aerospace North America and SAE, Washington State Convention and Trade Center, Seattle, WA [mail to:kthomson@sae.org](mailto:kthomson@sae.org)

September 18-20, 2001 – NBAA Annual Meeting and Convention, New Orleans, LA
<http://www.nbaa.org/>

October 8-12, 2001 – Human Factors and Ergonomics Society 45th Annual Meeting, Minneapolis, MN <http://www.hfes.org/>

October 2001- Annual Cabin Safety Research Technical Group Meeting, Taj Mahal Hotel and Casino, Atlantic City, NJ

November, 2001 – DOD Technical Advisory Group Meeting, San Diego, CA
<http://dticam.dtic.mil/hftag/>

November 4-8, 2001 – ATCA 46th Annual International Program & Exhibits, Washington Convention Center, Wash, D.C. <http://atca.org/>

November 27-30, 2001 - The Third International Aviation Security Technology Symposium, Tropicana Resort & Casino, Atlantic City, NJ, sponsored by the FAA Aviation Security R&D Division and National Safe Skies Alliance. Symposium topics include: Trace Detection, Bulk Detection, Human Factors, Technical Integration, Operational Testing and Evaluation, Deployment, Aircraft Hardening, Emerging Technologies, and other related topics.
http://www.safeskiesinternational.org/symposium_2001.htm

December, 2001 – EUROCONTROL Air Traffic Management R&D Seminar, Santa Fe, New Mexico <http://eurocontrol.fr/>

September 23-27, 2002 – Human Factors and Ergonomics Society 46th Annual Meeting, Pittsburgh, PA <http://www.hfes.org/>

Note: Calendar events in Italics are new since the last Newsletter



Comments or questions regarding this newsletter?
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