



ATOP-R&E

Human Factors Newsletter # 05-04

February 18, 2005 – March 4, 2005

Articles in this newsletter:

- Human Factors Reports Database
- Human Factors Analysis and Classification System (HFACS)
- Human Factors Presentations/Briefing
- Controller Training
- CAMI Briefs
- FAA R&D Annual Review

Technical Information: Human Factors Reports Database

The Human Factors Reports Database has over 1200 articles from 29 different sources, including CAMI, NASA and EUROCONTROL. There are also articles from research conducted at several universities. To access the reports, point to: www.hf.faa.gov/Workbench/search.aspx. The database is updated regularly, and we will keep you informed about the latest articles. Each month we will list articles that have been added to the database. Here is this month's list of recent additions:

Ahlstrom, Ulf. (2004). TRACON Controller Weather Information Needs: II. Cognitive Work Analysis.

Ahlstrom, Vicki; Muldoon, Robert (2004). Visual Coding of Status for Technical Operations Systems.

Della Rocco, Pamela; Panjwani, Gulshan; Friedman-Berg, Ferne; Kopardekar, Parimal; Hah, Sehchang (2005). Collocation of User Request Evaluation Tool, Traffic Management Advisor and Controller Pilot Data Link Communications--An Initial Human Factors Evaluation.

Yuditsky, Tanya; Friedman-Berg, Ferne; Smith, Alfred (2005). Design of Information Display Systems for Air Traffic Control

Prinzo, O. Veronika (2004). Automatic Dependent Surveillance - Broadcast/Cockpit Display of Traffic Information: Innovations in Aircraft Navigation on the Airport Surface

These initiatives support the Administrator's Flight Plan Goal for Increased Safety, Objective 7: Enhance the safety of FAA's air traffic systems.

Point of Contact: D. Piccione, ATOP-R&E

HFACS: On February 15th, CAMI researcher Scott Shappell provided the keynote address at the "Medicine in Challenging Environments Conference" at the University of Texas Medical Branch in Galveston, TX. The presentation entitled "Human Factors in Aviation" reviewed the status of recent research regarding Human Factors Analysis and Classification System (HFACS) analyses of civil and military aviation accidents. HFACS facilitates reliable identification, classification, and analysis of human error in complex systems such as aircraft. The HFACS framework comprehensively addresses the myriad of active and latent failures known to influence operator performance. In doing so, it allows safety professionals to identify factors that influence performance and cause operator error. *This research supports the Administrator's Flight Plan Goal for Increased Safety, Objectives 1, 2 and 7: Reduce the commercial fatal accident rate; Reduce the number of fatal accidents in general aviation; Enhance the safety of FAA's air traffic systems.* (D. Schroeder, CAMI)

Human Factors Presentation: Research Psychologists from the William J. Hughes Technical Center's NAS Human Factors Group participated in a Human Factors Outreach event at Rowan University, Glassboro, NJ on February 17th. The event was sponsored by the South Jersey chapter of the Human Factors and Ergonomics Society. Presentations included interactive demonstrations, videos, and displays that introduced students to topics such as usability and design, attention and perception, and human factors in aviation. A discussion of research programs underway at the Technical Center was also included. The event was extremely successful in that many students and faculty participated, and many expressed interest in aviation, human factors, and FAA research. (T. Yuditsky, WJHTC)

Human Factors Briefing: On February 18th, William J. Hughes Technical Center personnel provided briefings and demonstrations to Paul Schneider, consultant to the Administrator. Briefings covered the entire spectrum of Technical Center activities, and demonstrations focused on human factors research that provides benefit for new systems acquisitions. (E. Stein, WJHTC)

Human Factors Presentation: CAMI representative Dave Schroeder participated in the American Psychological Association Division 19 (Society for Military Psychology) and Division 21 (Applied Experimental and Engineering Psychology) Annual Symposium on Applied Experimental Research at George Mason University, Fairfax, VA. In addition to encouraging student involvement in the divisions, sessions were focused around human-computer interaction, usability and automation, advanced technologies in aviation, military leadership, and human factors in training and operations. (D. Schroeder, CAMI)

Controller Training: On February 23-24, human factors representatives participated in a review of the MITRE Corporation proposal for addressing challenges in hiring and training the controller workforce during the next years. The MITRE proposal focuses on integrating advanced simulation technologies into controller training. Concepts for redesign of the controller training regimen were also presented. Recommendations were offered that may affect the process and the technology by which training is accomplished in the future. *This activity supports the Administrator's Flight Plan Goal for Organizational Excellence, Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.* (Glen Hewitt, ATO-P - R&E)

CAMI Briefs: Dana Broach (AAM-520) traveled to FAA Headquarters to:

- Meet with representatives from ATO-A Workforce Development on the identification of organizational human factors research requirements for FY06 and FY07 in support of the ATO-A Strategic Management Process
- Participate in the Individual and Team Performance Technical Community Requirements Group meeting
- Brief the Human Factors Subcommittee of the Research, Engineering & Development Advisory Committee on the December 2004 Controller Workforce Plan
- Meet with the Director, AVS Quality & Integration Service (AQI-1)) with regard to CAMI support of a September 2005 survey of all AVS employees concerning AVS organizational change
- Meet with AHR-40 to finalize wording of questions to be included in the short-version Employee Attitude Survey to be administered to a sample of FAA employees in mid-May 2005

This activity supports the Administrator's Flight Plan Goal for Organizational Excellence, Objective 1: Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, safer, diverse workforce.

Point of Contact: D. Piccione, ATO-P

2004 FAA R&D Annual Review On-line: The 2004 R&D annual report is now on-line at http://research.faa.gov/docs/annual_review_2004.pdf. This report highlights the critical R&D work in airport and aircraft safety, human factors, aerospace medicine, environment and energy, commercial space transportation, information technology, and aviation weather being done by the FAA in support of the Agency's strategic goals and mission.

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

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FAA (ATO-P R&D Human Factors)



Comments or questions regarding this newsletter?
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March 14-16, 2005 – Centers of Excellence 4th Annual Joint Meeting, Radisson Hotel, Orlando, FL

March 14-16, 2005 – Flight Safety Foundation 17th Annual European Aviation Safety Seminar, Warsaw, Poland http://www.flightsafety.org/eass05_preagenda.html

March 17-18, 2005 – Aviation and Environment Summit, Crowne Plaza, Geneva, Switzerland
<http://www.iata.org>

March 17-18, 2005 – FAA Aviation Forecast, Washington Convention Center, Wash, DC
apo.faa.gov/Conference/welcome.htm

April 2-7, 2005 – CHI 2005, Portland, OR chi2005-chair@acm.org.

April 5-7, 2005 – Aviation Testing Expo 2005: Scientific Conference and Technology Forum, Europe, Messe Hamburg, Germany <http://www.aerospacetesting-expo.com/northamerica/conf+forum.html>

April 11-14, 2005 – SAE 100th Anniversary World Congress, Cobo Hall, Detroit, MI
<http://www.sae.org/congress/about/news/congressdates.htm>

April 12-13, 2005 – R,E&D Advisory Committee Meeting, Bessie Coleman Auditorium, FAA Headquarters, Wash., DC Gloria.dunderman@faa.gov

April 12-18, 2005 – Sun ‘n Fun 2005, Lakeland, FL <http://www.sun-n-fun.org/>

April 17-22, 2005 – International Federation of Air Traffic Controller’s Associations, Melbourne, Australia http://www.ifatca.org/conferences/annual_conference.htm

April 18-21, 2005 – 13th International Symposium on Aviation Psychology (ISAP), Cox Convention Center, Oklahoma City, OK <http://www.wright.edu/isap/>

April 26-28, 2005 – Flight Safety Foundation 50th Annual Corporate Aviation Safety Seminar, Orlando, FL http://www.flightsafety.org/cass05_preagenda.html

April 28-29, 2005- Mini-Conference on Human Factors in Complex Sociotechnical Systems, hosted by HFES South Jersey Chapter, Atlantic City, NJ, <http://www.sjhfes.org/>

May 9-12, 2005 - 76th Annual Scientific Meeting of the Aerospace Medical Association, Kansas City, MO <http://www.asma.org/>

May 14-15, 2005 – 8th Alaska State Aviation Trade Show and Conference, Anchorage International Airport, Anchorage, AK <http://www.alaskaairmen.com/>

May 17-18, 2005 – Aviation Maintenance & Human Factors Workshop & Symposium, Crowne Plaza, Arlington, TX exhibitions@sae.org

May 23-24, 2005 – PROP Europe 2005, Frankfurt, Germany <http://www.turbineair.com/prop.html>

May 23-26, 2005 – DoD TAG (Human Factors Engineering Technical Advisory Group), Marriott Bay Point Resort Golf and Yacht Club, Panama City, FL <http://hfetag.dtic.mil/meetschl.html>

May 26-29, 2005 – American Psychological Society 17th Annual Convention, Westin Century Plaza Hotel, Los Angeles, CA <http://www.psychologicalscience.org/convention/>

June 2005 – 6th USA/Europe ATM Seminar, Baltimore, MD (note: call for papers deadline is January 28, 2005) <http://atmseminar.eurocontrol.fr/>

June 4, 2005 – AOPA Fly-in and Open House, Frederick, MD <http://www.aopa.org/>

June 13-19, 2005 - Paris Air Show 2005, Parc des expositions de Paris Nord - Le Bourget, 93350, France. www.paris-air-show.com

June 20-22, 2005 – 3rd Human System Integration Symposium, Sheraton National Hotel, Arlington, VA <http://www.navalengineers.org/Events/HSIS2005/HSIS05Index.html>

June 27-30, 2005 – TRB 3rd International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design, Rockport, Maine

June 28-30, 2005 – AAMI Human Factors, Ergonomics, and Patient Safety for Medical Devices, Capital Hilton, Washington, DC <http://www.aami.org/meetings/hf/>

July 22-28, 2005 – HCI International 2005, 11th International Conference on Human-Computer Interaction, Caesars Palace, Las Vegas, NV <http://hci2005@ecn.purdue.edu>

July 25-31, 2005 – EAA AirVenture Oshkosh 2005, Oshkosh, WI <http://www.airventure.org>

August 15-18, 2005 - 43rd AIAA Aerospace Sciences Meeting and Exhibit, Hyatt Regency San Francisco at Embarcadero Center, San Francisco, CA <http://www.aiaa.org/>

August 18-21, 2005 - 113th Convention of the American Psychological Association, Wash, DC <http://www.apa.org/convention>

August 22-26, 2005 – SAE G-10 (Behavioral Engineering Technology Committee Meeting, Washington, DC http://forums.sae.org/access/dispatch.cgi/TEAG10_pf

September 12-16, 2005 – Interact 2005, Tenth IFIP TC13 International Conference on Human-Computer Interaction, Rome, Italy <http://www.interact2005.org/>

September 19-23, 2005 – ANA 2005 Aviation Conference and Exhibition, Connecticut Convention Center, Hartford, CN <http://www.aerospace-na.com/ace2005.asp>

September 20-21, 2005 - R,E&D Advisory Committee Meeting (joint meeting with NASA's Aerospace Research Advisory Committee), Bessie Coleman Auditorium, FAA Headquarters, Wash., DC Gloria.dunderman@faa.gov

September 25-28, 2005 - 11th Ka and Broadband Communications Conference and 23rd AIAA International Communications Satellite Systems Conference 2005 (organized by IIC), Aurelia Convention Center, Rome, Italy <http://www.aiaa.org/>

September 26-28, 2005 - AIAA 5th Aviation, Technology, Integration, and Operations Forum (ATIO), Hyatt Regency Crystal City, Arlington, VA <http://www.aiaa.org/>

September 26-28, 2005 - AIAA 2nd Intelligent Systems Conference (IS), Hyatt Regency Crystal City, Arlington, VA <http://www.aiaa.org/>

September 26-30, 2005 – Human Factors and Ergonomics Society 49th Annual Meeting, Royal Pacific Resort at Universal Orlando, Orlando, FL <http://hfes.org/meetings/menu.html>

October 3-6, 2005 – SAE 2005 AeroTech Congress and Exhibition, Gaylord Texan Resort and Convention Center, Dallas/Fort Worth Airport Area, Texas <http://www.sae.org/events/conferences/aerospace/>

October 6-9, 2005 – Aviation North Expo Conference, Fairbanks Princess Riverside Lodge, Fairbanks, AK www.AviationNorth.org

October 24-25, 2005 – National Academies Institute of Medicine Annual Meeting, National Academy of Sciences, Washington, *DC* <http://wwwsearch.nationalacademies.org/>

October 30-November 7, 2005 – ATCA 50th Annual Conference and Exposition, Dallas, TX http://www.atca.org/event_items.asp.

October 30—November 3, 2005 – 24th Digital Avionics Systems Conference, Hyatt Regency Crystal City, Wash., DC <http://www.dasconline.org>

November, 2005 – DoD TAG (Human Factors Engineering Technical Advisory Group) Meeting, Baltimore, MD <http://hfetag.dtic.mil/meetschl.html>

November 6-9, 2005 - ACI World / Pacific Conference and Exhibition, Auckland, New Zealand. www.auckland-airport.co.nz

November 7-10, 2005 – Flight Safety Foundation 58th Annual International Air Safety Seminar, Moscow, Russia http://www.flightsafety.org/iass05_cfp.html

November 8-10, 2005 – Aerospace Testing Expo, North America: Scientific Conference and Technology Forum, Long Beach Convention Center, Long Beach, CA <http://www.aerospacetesting-expo.com/northamerica/conf+forum.html>

January 9-12, 2006 - 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno Hilton, Reno, NV <http://www.aiaa.org/>

January 22-26, 2006 – TRB 85th Annual Meeting, Washington, DC <http://trb.org/calendar/>

August 10-13, 2006 – American Psychological Association Annual Meeting, New Orleans, LA <http://www.apa.org/convention05/future.html>

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



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