



AAR-100

Human Factors Newsletter # 02-06

March 16, 2002 – March 29, 2002

Operational Evolution Plan - Staff from AAR-100, ASD-100, AOA, and MITRE CAASD met to discuss plans for an assessment using modeling and simulation to demonstrate capacity and efficiency benefits intended with implementation of capabilities contained in the Operational Evolution Plan. This assessment will culminate in a complex human-in-the-loop simulation involving flight deck and ATC resources in 2005 reflecting traffic levels projected for 2010. An article describing the objectives and approach is contained in the latest issue of ATCA's Journal of Air Traffic Control. In addition, discussions have been held involving AAR-100, ASD-100, and ACT-540 examining the William J. Hughes Technical Center's modeling and simulation considerations. (P, Krois, AAR-100)

JANUS

- Mr. Luis Castro (AAT-200) and Mr. Lawrence Cole (ARI-100) attended the Air Traffic Control Human Factors program review held at CAMI on February 26-27. In addition to attending briefings regarding recent CAMI accomplishments and future research plans, Mr. Castro met with Dr. Julia Pounds and Dr. Paul Krois (AAR-100) to discuss applications of the JANUS human factors analysis technique in other areas, such as studies of runway incursions. Mr. Cole was briefed by Ms. Alfretia Scarborough (AAM-510), Mr. Howard Harris (AAM-510), and Dr. Pounds on the current status of the JANUS technique for identifying causal factors related to runway safety in ground and cockpit operations. Mr. Cole also met with representatives of AOS-230 regarding surface event re-play capabilities. (J. Pounds, CAMI)
- Dr. Julia Pounds (AAM-510) and Ms. Carrie Roberts (Omni) traveled to various air traffic facilities to collect data on operational errors as part of the ongoing beta test of the JANUS human factors analysis technique for air traffic operations. The test is being conducted at facilities in ANE, ASW, ASO, AGL, and AWP, which have volunteered to participate. The research is conducted as soon as feasible following an operational error, and relies on a cadre of on-call researchers to travel to facilities as needed to conduct the data collection activity. The beta test is being conducted in collaboration with AAT-200, NATCA, AAR-100, ARI-100, and operational air traffic personnel at the regional and local levels. (J. Pounds, CAMI)

Tower Complexity Factors Study: Researchers from the William J Hughes Technical Center NAS Human Factors Branch (ACB-220) completed data collection on the Tower Complexity Factors Study. The study examined the factors which contribute to complexity in controlling traffic, and strategies used to manage the complexity. Sixty ATCS from union and management were interviewed at six facilities, including Atlanta, Chicago, Phoenix, Oakland, Boston and Jeffco ATCTs. ARQ-200, ATP-430, and NATCA were instrumental in facilitating the site visits. (P. Della Rocco, WJHTC)

Automated Flight Service Station Voice Switch: Engineering research psychologists from the NAS Human Factors Group (ACB-220) completed a two-month computer-human interface (CHI) assessment of products under consideration to be selected as the Automated Flight Service Station Voice Switch (AFSSVS). The AFSSVS will provide air-to-ground and ground-to-ground communications to 61 AFSSs nationwide. ACB-220 had been involved with the earlier requirement exploration phases of the program by building and testing CHI prototypes. In the just-completed assessment, eight flight service specialists completed scripts that emulated typical flight service tasks such as communicating with pilots, coordinating with approach control, and configuring operational positions. The assessment examined key CHI design areas such as use of color, readability, display organization, user workload, and operational efficiency. The team identified CHI strengths and weaknesses of each product and assessed a level of operational risk associated with the weaknesses. The team's findings were provided to the selection board, which will make a selection in the next 1-2 months. Deployment will begin in the 2004 time frame. (K. Allendoerfer, WJHTC)

Knowledge Management Seminar: e-Gov will hold its third annual knowledge management conference at the Ronald Reagan Building and International Trade Center, Washington, DC, April 22-25. You need to register on-line at: http://www.e-gov.com/new_registration/km2002_registrationa.asp. On April 23, AAR-100's Ron Simmons will be part of a panel discussion on KM Methodologies – Directions and Commonalities. There will be a free day of presentations and exhibition on April 24th. (T. Kraus, AAR-200)

AAR Website: The new Office of Aviation Research (AAR) website is now up and running at <http://research.faa.gov/aar>. This newly designed site includes links to FAA Technical Reports, newsletters, technology press releases, and much more. (T. Kraus, AAR-200)

*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 2-4, 2002 – 16th Symposium on Human Factors in Aviation Maintenance, San Francisco, CA <http://www.galaxyscientific.com/2002hfams/index.html>

April 8-11, 2002 – Aircraft Interiors Expo 2002, Hamburg, Germany
<http://www.ukintpress.com/airexpo>

April 9-11, 2002 – Maintenance, Repair and Overhaul Conference & Exhibition, Phoenix Convention Center, Phoenix, AZ <http://www.aviationnow.com/conferences>

April 14-15, 2002 – FAA General Aviation Forecast Conference, Wichita, KS
<http://api.hq.faa.gov/Conference/welcome.htm>

April 14-15, 2002 – FREE Flight Safety Boeing Maintenance Human Factors Awareness Training for Managers, Seattle, WA <http://www.fsbt.com>

April 16, 2002 – Aviation Week and Space Technology 45th Aerospace Laurels, Smithsonian Air and Space Museum, Wash, DC

April 23-24, 2002 – FAA R,E&D Advisory Committee, Holiday Inn Rosslyn Westpark Hotel, Arlington, VA <mailto:gloria.ctr.dunderman@faa.gov>

April 23-25, 2002 – NBAA Leadership Conference, Nashville, TN <http://www.nbaa.org/>

April 29-May 2, 2002 – DoD HFE TAG, Clarion Hotel Bayview, San Diego, CA
<http://dtica.dtic.mil/hftag>

April 30-May 1, 2002 – First Threat and Error Management (TREM) Training Workshop, San Salvador, El Salvador <mailto:dmaurino@icao.int>

May 5-9, 2002 – 73rd Annual Scientific Meeting of the Aerospace Medical Association, Queen Elizabeth's Hotel, Montreal, Canada <http://www.asma.org/>

May 6-12, 2002 – International Aerospace Exhibition and Conference, Berlin Brandenburg International Airport, Berlin, Germany <http://www.ila-berlin.com/>

May 20-22, 2002 – 11th Annual Phoenix International Aviation Symposium, The Phoenician Resort, Phoenix, AZ <http://www.phxskyharbor.com/>

May 28-30, 2002 – EBACE2002, Geneva, Switzerland <http://www.ebace.com/>

June 13-14, 2002 – Aviation Conference and Exposition, Oklahoma City, OK
<mailto:skymarket@aol.com>

August 27-30, 2002 – Measuring Behavior 2002, 4th International Conference on Methods and Techniques in Behavioral Research, University of Amsterdam, Amsterdam, The Netherlands
<http://www.noldus.com/events/mb2002/index.html>

September 16-18, 2002 – Conference on Aerospace Materials, Processes and Environmental Technology, Huntsville, AL <http://ampet.msfc.nasa.gov/>

September 17-18, 2002 – FAA R,E&D Advisory Committee, Holiday Inn Rosslyn Westpark Hotel, Arlington, VA <mailto:gloria.ctr.dunderman@faa.gov>

September 17-20, 2002 – International Air Cargo Forum, Hong Kong <http://tiaca.org/>

September 30- October 4, 2002 – Human Factors and Ergonomics Society 46th Annual Meeting, Baltimore Waterfront Marriott Hotel, Baltimore, MD <http://www.hfes.org/>

October 14-16, 2002 – Third LOSA Week, Dubai, United Arab Emirates
<mailto:dmaurino@icao.int>

October 23-25, 2002 – International Conference on Human-Computer Interaction in Aeronautics, Massachusetts Institute of Technology, Cambridge, MA <http://www-eurisco.onecert.fr/events/hci-aero2002.html/>

October 27-31, 2002 – 21st Digital Avionics Systems Conference, Hyatt Regency Hotel, Irvine, CA <http://www.dasconline.org/>

April 7-27, 2003 – Aviation World's Fair, Newport News/Williamsburg, VA
<http://www.worlds-fair.com/> or <http://aviation-worlds-fair.com/>

May 4-9, 2003 – 74th Annual Scientific Meeting of the Aerospace Medical Association, Convention Center, San Antonio, TX <http://www.asma.org/>

October 13-17, 2003 – Human Factors and Ergonomics Society 47th Annual Meeting, Adams Mark Denver Hotel, Denver, CO <http://www.hfes.org/>

May 2-7, 2004 – 75th Annual Scientific Meeting of the Aerospace Medical Association, Egan Convention Center, Anchorage, AK <http://www.asma.org/>

September 20-24, 2004 – Human Factors and Ergonomics Society 48th Annual Meeting, Sheraton New Orleans Hotel, New Orleans, LA <http://www.hfes.org/>

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



Comments or questions regarding this newsletter?
Please contact Bill Berger at (334) 271-2928
or via e-mail at bill.ctr.berger@faa.gov