



AAR-100

Human Factors Newsletter # 00-03

(January 22, 2000 – February 4, 2000)

- **Automated Flight Service Station Voice Switch:** Human Factors specialists from the William J. Hughes Technical Center began developmental prototyping efforts for the Automated Flight Service Station Voice Switch. They are working with representatives of the integrated product team, flight service specialists, the air traffic requirements service, and the Technical Center Voice Switching Automation Branch, ACT-340. (M. McAnulty, WJHTC)
- **HOCSR:** The Host and Oceanic Computer System Replacement (HOCSR) Human Factors Workgroup met to review the status of human factors issues identified during a usability assessment of the Series 1 Replacement. Several issues have already been resolved. All but one of the remaining issues will be resolved as the recommended modifications are implemented in upcoming software releases. Members of the workgroup include representatives of PASS, ACT, ARU, and AUA. (T. Yuditsky, WJHTC)
- **Human Factors Specialist Job Vacancy:** The Aviation Security Human Factors Program (AAR-510) will soon recruit for a human factors specialist to work in the Washington, D.C., metro area. This person will resolve human factors issues for security systems that are of interest to the transition group of the Security Equipment Integrated Product Team. For additional information, contact James Fobes at (609) 485-4944. (T. Kraus, AAR-1)
- **Human Factors Interface with CTX Alarms:** The Aviation Security Human Factors Program (AAR-510) is working with InVision Technologies to examine the relationship between CTX screener experience and their performance resolving CTX alarms. (T. Kraus, AAR-1)
- **Directed/Non-Directed Trace Field Study:** Personnel from the Technology Transition Program participated in a meeting with personnel from the Aviation Security Human Factors Program (AAR-510) to discuss issues (test sites, procedures, personnel, coordination, planning, etc.) for the Directed/Non-Directed Trace Field Study. These issues will be addressed at the next meeting with Mr. Roy Mason, project lead, for further action. (T. Kraus, AAR-1)

- **Frontline's Computer-Based Training (CBT) System:** Personnel from the Technology Transition Program Team are reviewing the final version of Frontline's CBT System. Once Washington approves this system, the Aviation Security Human Factors Program (AAR-510) will use this system in the CBT comparison study. (T. Kraus, AAR-1)
- **Directed and Undirected Trace Field Evaluation Meeting:** A representative of the Technology Transition Program met with representatives of the Aviation Security Human Factors Program (AAR-510) to complete a statement of work for contractor support for a field test of directed trace (DT) and undirected trace (UT). The DT and UT procedures are being considered as possible techniques for screening checked baggage at airport/airline sites in the United States that do not have enough passenger traffic to justify installation of an Explosives Detection System (EDS) in the immediate future. The DT and UT field test will be conducted to confirm and expand on the findings of a laboratory test that was conducted in December, 1999. The field DT and UT assessment is expected to begin in late March at two airport sites. (T. Kraus, AAR-1)
- **Human Factors Briefing:** The Aviation Security Human Factors Program (AAR-510) briefed the Security Equipment Integrated Product Team (AAR-600) on the Threat Image Projection (TIP) Optimal Study, TIP Network issues, and biometrics as a means to log on to TIP systems. (T. Kraus, AAR-1)
- **REDAC Human Factors Subcommittee:** The Human Factors Subcommittee meeting of the Research, Engineering and Development Advisory Committee (REDAC) was held at the Human Factors Laboratory in Atlantic City, NJ. Dr. Mark Rodgers, the Chief Scientist for Human Factors, attended the meeting. Dr. Deborah Boehm-Davis chaired the committee. Researchers from the William J. Hughes Technical Center presented a comprehensive briefing of the activities performed over the past year. A summary of the work program for FY00 was provided. REDAC members asked technical questions and seemed very pleased with the program and accomplishments. (J. Hall, WJHTC)
- **DSAR1:** Larry Bailey from the Civil Aviation Medical Institute (CAMI) visited the Human Factors Laboratory at the William J. Hughes Technical Center to discuss the intra-team communication measures taken during the Decision Support Automation Research (DSAR1) experiment. The DSAR1 experiment will start on March 13, 2000. (B. Willems, WJHTC)
- **Human Factors Meetings:** Dr. Dana Broach/CAMI participated in a meeting with HumRRO, Inc., in Alexandria, VA, regarding the Variable Item Generator (VIGOR) contract. During meetings at FAA Headquarters, he briefed the National Black Coalition and Technical Women's Organization on the Airway Facilities Computerized Applicant Pool System and the Basic Electronic Screening Tool process and outcomes. He also conducted a BEST Item Sensitivity Review. (D. Broach, CAMI)
- **ADS-B/CDTI Human Factors Working Group:** Dr. Roni Prinzo participated in the Automatic Dependent Surveillance - Broadcast (ADS-B)/Cockpit Display of Traffic Information (CDTI) Human Factors Working Group meeting. The Honeywell Corporation hosted the meeting in Phoenix, AZ. The purpose of the meeting was to review the human factors results section of the Operational Evaluation (OpEval) Final Report. During that

meeting, Dr. Prinzo and Dr. Nadler presented the communication and phraseology results. (R. Prinzo, CAMI)

- **Safe Flight 21 Human Factors Working Group:** The Safe Flight 21 Human Factors Working Group met at Honeywell's Technology Center in Phoenix to discuss the results of the July 10, 1999 operational evaluation of the ADS-B /Cockpit Display of Traffic Information. The CDTI provides pilots with surveillance information on ADS-B equipped aircraft in their vicinity, including flight ID's. Representatives from the Volpe Center, NASA-Ames, CAMI, MITRE, and the Cargo Airlines Association participated. Topics included the effect of ADS-B/ CDTI on visual acquisition performance, aircraft spacing, controller workload, and pilot use of flight ID phraseology. (D. Sussman, Volpe)
- **DSR SATORI:** Mr. Dennis Rester conferred with facility and contractor personnel at the En Route Air Traffic Control Center in Cleveland, OH. Discussions centered on the development of the Display System Replacement (DSR) SATORI. (D. Rester, CAMI)
- **Accident Hearing:** Dr. Tom Nesthus participated as a Human Performance Team member in the public hearing that was held in Little Rock, AR, for the American Airlines Flight 1420 accident. Twenty expert witnesses provided testimony concerning operations, meteorology, aircraft performance, airport and aircraft rescue, fire fighting, and survival factors. Testimony from the human performance-fatigue expert and the tower controller will be gathered at another time. (T. Nesthus, CAMI)

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

Mark Rodgers
FAA (AAR-100)



March 6-8, 2000- Flight Safety Foundation, 12th Annual European Aviation Safety Seminar, Grand Hotel Krasnapolsky, Amsterdam

March 7-8, 2000- 25th Annual FAA Aviation Forecast Conference, "Aviation 2000", Washington Convention Center, Washington, DC

March 28-30, 2000- 14th Annual Human Factors in Aviation Maintenance Symposium, “Safety Management: Theory to Practice”, Waterfront Centre Hotel, Vancouver, British Columbia, Canada <http://www.tc.gc.ca/aviation/mainten/aarpc/hfiam.htm> e-mail: boothbj@tc.gc.ca

April 1-6, 2000- Conference on Human Factors in Computing Systems, “CHI 2000”, The Hague, The Netherlands <http://www.acm.org/sigchi/chi2000> e-mail: CHI2000-office@acm.org

April 11-13, 2000- Advances in Aviation Safety Conference and Exposition, Adams Mark Hotel, Daytona Beach, FL <http://www.sae.org/calendar/aas00tag.htm> email: jimb@sae.org

April 25–27, 2000- 45th Corporate Aviation Safety Seminar (CASS), The Adam’s Mark Hotel, San Antonio, TX http://www.flightsafety.org/cass00_cfp.html

May 9-11, 2000- General Aviation Technology Conference and Exposition, Century II Convention Center, Wichita, KS <http://www.sae.org/calendar/gat00/index.htm>

May 10-12, 2000- 3rd International Conference on Nonlinear Problems in Aviation and Aerospace, Daytona Beach, FL <http://students.db.erau.edu/~siva/conference.html>

May 15-18, 2000- 4th Joint DOD/FAA/NASA Conference on Aging Aircraft, St. Louis, MO <http://www.aging2000.com>

June 6-8, 2000- Digital Human Modeling for Design and Engineering (DHM) Conference and Exposition, Hyatt Regency, Dearborn, MI <http://www.sae.org/calendar/dhm00/index.htm>

June 13-16, 2000- 3rd International Air Traffic Management R&D Seminar, “ATM-2000”, Napoli, Italy <http://atm-seminar-2000.eurocontrol.fr>

June 20-22, 2000- Threats, Countermeasures, and Situational Awareness: Teaming for Survivability, The Virginia Beach Pavilion and Convention Center, Virginia Beach, VA http://corp-nt20.nawcad.navy.mil/nawcad/news/sit_aware/2000/

July 30 – August 4, 2000- 14th Triennial Congress of the International Ergonomics Association and the Human Factors and Ergonomics Society 44rd Annual Meeting “IEA 2000/HFES 2000”, San Diego Marriott Hotel and Marina, San Diego, CA <http://iea2000.hfes.org/>

August 27-September 1, 2000- 22nd International Council of the Aeronautical Sciences (ICAS) Congress, Harrogate, UK <http://www.aiaa.org/calendar/icas00cfp.html>

October 10-12, 2000- World Aviation Congress and Exposition, Town and Country Hotel, San Diego, CA <http://www.sae.org/calendar/wac00/index.htm>

October 15-19, 2000- *Human Performance, Situation Awareness & Automation: User-Centered Design for a New Millennium*, Marriott Riverfront, Savannah, GA <http://www.ie.msstate.edu/hpsaa/index.html>

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



Comments or questions regarding this newsletter?
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