



AAR-100

Human Factors Newsletter # 00-13

(July 15, 2000 – July 28, 2000)

- **Air Carrier Training:** Human factors researchers at the University of Texas conducted observer training for an upcoming Line Operations Safety Audit (LOSA) at Continental Airlines. The two-day course also gave attending industry experts and other airlines an opportunity to learn about LOSA methodology and data collection. Attending guests included former Vice Chairman of the NTSB Robert Francis, as well as representatives from the FAA, ATA, US Airways, Southwest Airlines, and NASA Ames Research Center. (E. Edens, AAR-100)
- **Cabin Safety:** The Cabin Safety Research Technical Group met at the Technical Center on July 18-20, 2000. The technical group coordinates and cooperates on research to improve cabin safety. At the meeting were representatives from the U.S., United Kingdom, France, Italy and Canada. Agenda items included prioritization of R&D, updating the Cabin Safety Program Plan, crashworthiness update, accident database, etc. Also, after much deliberation it was decided the International Cabin Safety Research Conference, sponsored every three years by the FAA, JAA, Transport Canada and the Japan Civil Aviation Bureau will again be hosted by the Technical Center. The conference will be held at the Taj Mahal Hotel and Casino in October 2001. (G. Embrey-Brock, AAR-1)
- **Human Factors Award:** At ceremonies at the William J. Hughes Technical Center, Kenneth Allendoerfer (ACT-530) was named the Distinguished Employee of the Year. Kenneth was cited for: outstanding human factors efforts on multiple systems (STARS, SAWS, OASIS, and AFSS Voice Switch); proposals for additional human factors efforts (weather graphics and Terminal P3I); publications and presentations; work on the Human Factors Branch and Technical Center websites; and his support on colleagues' projects. (M. McAnulty, FAATC)
- **AFSS Voice Switch CHI:** Researchers at the William J. Hughes Technical Center conducted a three-day Early User Involvement Event (EUIE) for the Automated Flight Service Station (AFSS) Voice Switch Program (AND-320). The AFSS Voice Switch will replace the current AFSS air-ground and ground-ground communications systems with a modern, more-flexible system. The new system includes touch screens that

specialists will use to activate radio frequencies, receive pilot phone calls, and conduct other flight service operations. A prototype computer-human interface (CHI) for the switch was developed by ACT-530 in collaboration with AND, ARR, and NAATS. The EUIE was designed to collect user feedback and validate the prototype CHI design. Flight service specialists completed a variety of common tasks using the CHI prototype and provided feedback to human factors personnel. The feedback will guide changes to the CHI prototype which will be incorporated into the system specification.(K. Allendoerfer, FAATC)

- **Air Traffic Control Tower Metrics Project:** Human Factors researchers at the William J. Hughes Technical Center visited Philadelphia and Newark air traffic control towers. The purpose of the visits was to observe tower operations and develop human factors measures for the tower cab environment. (R. Sollenberger, FAATC).
- **General Aviation:** CAMI representatives participated in the General Aviation Manufacturers Association (GAMA) General Aviation Human Factors Guidelines Document meeting that was held at the Wichita Aviation Certification Office in Wichita, KS. The meeting was devoted to reviewing and revising the document, with a final draft available for release at the end of July. (D. Beringer, CAMI)
- **Runway Safety Program:** CAMI representatives participated in a meeting of the Runway Safety Program Team Human Factors Steering Committee (HFSC) in Washington, D.C. The committee reviewed and conceptually developed the project areas, research plans, and project funding for FY-01 based on the output from the Human Factors and Runway Safety Symposium. The HFSC is comprised of human factors representatives from FAA research organizations, other government agencies, and academia. (J. Pounds, CAMI)
- **Flight Strips:** A CAMI researcher visited the Chicago Air Route Traffic Control Center to collect data for the Flight Strip Observation Study. Data collection was completed successfully. The third and final data collection effort will take place at the Atlanta Center in August, 2000. (C. Manning, CAMI)
- **Safe Flight 21:** Human factors specialists from the Technical Center, CAMI, Volpe, and NASA participated in flight simulations and meetings at MITRE to develop the test plan for the ADS-B OpEval in Louisville in October 2000. The OpEval is a joint effort between the FAA and the Cargo Airlines Association. Basic decisions were reached about the primary flight profiles and evaluation approach. Further efforts are required to finalize the mixed versus partial equipage issue and the surface situation awareness issue. (M. McAnulty, FAATC; K. Joseph, S. Mills, R. Prinzo, CAMI; A. Yost, E. Nadler, Volpe)
- **ATC Communication:** CAMI representatives conferred with scientists at the William J. Hughes Technical Center regarding data from the collaborative study on R-side and D-Side ATC communication exchanges. The result of preliminary analysis suggests that three factors drive communication exchanges. These include aspects of the individual, properties

of the controller function (i.e. R-side or D-Side), and the overall workload. (E. Fiedler, L. Bailey, CAMI)

- **Collaborative Decision-making:** CAMI representatives participated in a meeting on the Collaborative Decision-Making research agenda and grant proposals with AAR-100 and Air Traffic sponsor representatives. Briefings were provided regarding research plans of scientists from Ohio State University, Ohio University, and Kansas State University. (P. Krois, AAR-100; D. Broach, R. Prinzo, CAMI)
- **SATORI:** CAMI representatives, in coordination with personnel from the Indianapolis En Route Center, provided a SATORI scenario demonstration to Department of Justice (DOJ) representatives. DOJ expressed an interest in SATORI regarding an incident where the pilot of a DOJ aircraft was involved in a possible pilot deviation. (J. Pounds, D. Rester, CAMI)

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

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

August 22-24- 2nd Workshop on Risk Analysis and Safety Performance Measurement in Aviation, William J. Hughes Technical Center, Atlantic City, NJ <http://www.rci.rutgers.edu>

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

August 28-31, 2000- SAE G-10 Meeting, Shelter Point Hotel, San Diego, CA

September 12-14- The International Avionics Exhibition, Parc des Expositions de Toulouse, Toulouse, France <http://www.spearhead.co.uk/>

September 18-21, 2000- Sixth Annual Flight Simulator Engineering & Maintenance Conference, Centre De Congress, Toulouse, France <http://www.arinc.com>

September 19-22, 2000- 13th International Technology Meeting, Institute of Navigation, Satellite Division, Salt Lake City Convention Center, Salt Lake City, UT <http://www.ion.org/>

October 4-6, 2000- RTCA 2000 Annual Symposium, Sheraton Premiere Hotel, Tyson's Corner, VA (no Web site)

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>

October 30-November 1, 2000-Aviation 2000 Exhibition and Conference, Omni Shoreham Hotel, Washington, DC <http://www.aviationtoday.com/aviation2000>

October 31-November 2, 2000- 10th International Aviation Security Human Factors Technical Advisory Group Meeting at SEATAC Airport, Washington.

November 15-16, 2000- Avionics 2000, 14th Annual Conference and Exhibition, Renaissance London Heathrow Hotel, UK <http://www.era.co.uk/conf/confpage.htm>

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

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



Comments or questions regarding this newsletter?
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