



## AAR-100

### Human Factors Newsletter # 00-16

(September 2, 2000 – September 22, 2000)

**Air Ground Integration Experiment (AGIE):** Human factors researchers at the William J. Hughes Technical Center, in collaboration with the NASA Ames Research Center and the Volpe National Transportation Systems Center, are preparing a technical report on the AGIE simulation. The research team recently had a teleconference to discuss the study's results as well as pilot and controller comments about the simulation. The study is a preliminary step to identify air and ground issues associated with Free Flight.(R. Sollenberger, FAATC).

**EUROCONTROL:** Human factors representatives from AAR-100 and CAMI met in Brussels, Belgium to participate on the Human Factors Pre-Petal Integration Team with EUROCONTROL scientists and air traffic subject matter experts representing the European states. The purpose of the meeting was to begin development of a document that will harmonize and tie the requirements from the US CPDLC Baseline 2 Plan with Link 2000 in Europe. Representatives from Boeing, National Aviation and Space Administration, and representatives from other FAA organizations also participated. (R. Prinzo, CAMI)

**General Aviation Maintenance:** A CAMI scientist from the Training and Organizational Research Laboratory traveled to Dallas, TX to make a presentation to the National Air Transportation Association's Fall Committee. This presentation served as an up-date to committee members on CAMI's Human Factors Research in General Aviation Maintenance. (E. Fiedler, CAMI)

**User Request Evaluation Tool (URET):** A scientist from the CAMI Human Factors Research Laboratory (AAM-510) traveled to Memphis to observe the User Request Evaluation Tool (URET) at the Memphis En Route Air Traffic Control Center. Included in the meeting was a discussion of how the results of the Flight Strip Observation Study might be incorporated into URET. (C. Lowman, CAMI)

**Congressionally Mandated Shift-Work Study:** A scientist and a psychology technician from the CAMI Human Factors Research Laboratory (AAM-510) traveled to the Houston Air Traffic Control Center, in Houston, TX. They took delivery of data acquisition equipment and set-up

the Shift-Work experimental field study test environment. Earlier, a member of the scientific committee developed for the project participated in a meeting with CAMI scientists, the contractor, and an air traffic representative to review and revise the story-board content for the FAA Air Traffic Control Specialist Shift Work and Fatigue CD-ROM. This included discussion regarding circadian rhythms, sleep, implications of various shift schedules, and recommendations for coping strategies. Strategies and vignettes to illustrate various elements in the storyboard were also identified. (T. Nesthus, CAMI)

**STARS:** Researchers at the William J. Hughes Technical Center (ACT-530) accomplished advanced prototyping on ITWS weather products for STARS applications. An advance team consisting of four NATCA controllers, representatives from ACT-320 and Air Traffic Requirements, personnel from various parts of Raytheon, and the product team lead participated. They reviewed and modified six prototypes for weather displays so that proposed products could be presented to the STARS CHI working group in late October. (E. Stein, WJHTC)

**National Safe Skies Alliance (NSSA) Project Kickoff:** Representatives of the Aviation Security Human Factors Program (AAR-510) participated in the kickoff and technical information exchange with the NSSA. The Human Factors Program is specifically working with the Oak Ridge National Laboratory and the University of Tennessee for the development and testing of automated x-ray screener detection aids. A follow-on technical information interchange is planned for the early fall at the Technical Center. (G. Embrey-Brock, AAR-3)

**Checkpoint Integrated Program Management Review:** Representatives of the Aviation Security Human Factors Program (AAR-510) attended and participated in the Checkpoint Integrated Program Management (IPM) review. Discussion topics included screener assessment, compliance and enforcement, TIP, screener readiness testing, and the proposed rule for certification of screening companies. A detailed multi-year Gantt chart of checkpoint initiatives was presented. (G. Embrey-Brock, AAR-3)

**Frontline Smart Approach Training Meeting:** Representatives of the Aviation Security Human Factors Program (AAR-510) met with Frontline to discuss the upcoming field test of their Smart Approach Computer-Based Training (CBT) for initial screener certification. The Smart Approach CBT will undergo operational evaluation to assess its effectiveness for teaching newly hired screeners the knowledge necessary to perform checkpoint operations. The assessment will be conducted in Seattle, Detroit, and Atlanta airports. (G. Embrey-Brock, AAR-3)

**Seattle Tacoma International Airport Training Assessment:** Representatives of the Aviation Security Human Factors Program (AAR-510) met with security guard company representatives, FAA field agents, and air carrier personnel to coordinate the upcoming field assessment of CBT for initial screener training. (G. Embrey-Brock, AAR-3)

**International Aviation Security Human Factors Meeting:** Representatives of the Aviation Security Human Factors Program (AAR-510) are coordinating with the Centre for Human Science at the United Kingdom Defense Evaluation and Research Agency (DERA) to help host

an international meeting of aviation security human factors practitioners. Alaska Airlines is co-hosting this meeting, which is scheduled for October in Seattle. (G. Embrey-Brock, AAR-3)

**24<sup>th</sup> European Association for Aviation Psychology Conference:** A CAMI scientist from the Training and Organizational Research Laboratory (AAM-520) traveled to Crieff, Scotland, to participate in the 24<sup>th</sup> European Association for Aviation Psychology Conference, and presented a paper entitled "The Impact of Previous Computer Experience on Air Traffic-Selection and Training (AT-SAT) Test Performance." (M. Heil, CAMI)

**Assessment of the Results of the National Aviation Research Institute (NARI) Field Study:**

A scientist from the Human Factors Research Laboratory (AAM-510) traveled to Fort Worth, TX to confer with representatives from the following organizations: Air Traffic Service, Investigations Division (AAT-200), the National Aviation Research Institute (NARI), the National Air Traffic Controllers Association (NATCA), and the William J. Hughes Technical Center. The purpose of the meeting was to assess the results to date of the NARI field study being conducted to identify causal factors related to operational errors and to make any necessary adjustments to procedures for remaining facilities. CAMI provided the human factors model that is being used as the framework for the investigation. (J. Pounds, CAMI)

**Alaska Safety Initiative:** Three scientists from Alaska conferred with CAMI scientists on human factors issues associated with Alaska aviation accidents. Drs. George Conway, Diane Bensyl (CDC/NIOSH Alaska) and Matthew Berman (University of Alaska-Anchorage) presented an overview of the Alaska Safety Initiative. The presentation included information on aspects of the CAPSTONE project. Personnel from the Alaskan Region Flight Standards Office are active members of the research team. There is some potential for future collaboration with CAMI scientists (D. Schroeder, 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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FAA (AAR-100)



**September 25-26, 2000-** Human Systems Integration Technologies, Tools, and Techniques (HSIT3) Seminar, Doubletree Hotel, Arlington, VA [mail to: rebecca.singer@wpafb.af.mil](mailto:rebecca.singer@wpafb.af.mil)

**September 25-27, 2000-** International Conference on the Global Implementation of Aeronautical Datalink, The Institution of Electrical Engineers, Savoy Place, London, UK <http://www.atnconference.com/>

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

**October 5-7, 2000-** 21<sup>st</sup> American Society of Engineering Management National Conference on Technical Management: Key to Enterprise Success in the 21<sup>st</sup> Century, Washington Marriott Hotel, Washington, DC <http://www.gwu.edu/asemconf>

**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 22-26, 2000-** ATCA 45<sup>th</sup> Annual Technical Program and Exhibits, Taj Mahal Resort, Atlantic City, NJ <http://www.atca.org/>

**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-** 10<sup>th</sup> International Aviation Security Human Factors Technical Advisory Group Meeting at SEATAC Airport, Washington.

**November 6-9, 2000 -** DOD HFE TAG-45, El Paso, Texas.  
<http://dticam.dtic.mil/hftag/index/html>

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

**March 31 – April 5, 2001-** CHI 2001, Seattle, WA <http://www.acm.org/chi2001>

**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)

**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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