



AAR-100

Human Factors Newsletter # 00-22

(December 9, 2000 – December 22, 2000)

Action Plan 12: Human factors staff from AAR-100, CAMI, and NASA Ames held a management planning meeting with EUROCONTROL which addressed Action Plan 12, the management and reduction of human error in ATM. The meeting addressed harmonization of US and EUROCONTROL methods for investigating and analyzing operational errors, evaluation of human error as part of real-time controller-in-the-loop simulations, and approaches for prospective analysis of human error in future ATC systems. Results from the planning meeting were presented at the FAA/EUROCONTROL executive committee meeting. (P. Krois, AAR-100; J. Pounds, CAMI)

Airport Pavements: Representatives from the Airport Technology R&D Branch, AAR-410, attended a program review meeting for the FAA Center of Excellence (COE) in Airport Pavement Research held at the University of Illinois Urbana-Champaign, Urbana, IL. A new Undergraduate Minority Summer Internship Program will be initiated within the COE for FY 2001. The objective of this program is to increase the number of under-represented minorities obtaining advanced degrees in civil engineering, with an emphasis on expertise directly related to improving airport pavement technology. Up to six students per year may be recruited under this program, including one or more in the area of Human Factors research. (G. Embry-Brock, AAR-1)

Minimum Aviation System Performance Standards: Human factors representatives from AAR-100 and CAMI attended the RTCA meeting held December 12-14 at NASA-Langley Research Center to participate in Special Committee 195 (SC-195) activities. SC-195 of the RTCA has been developing the Minimum Aviation System Performance Standards (MASPS) for Flight Information Services - Broadcast (FIS-B) Data Link, Paper No. 343-00/SC-195-021. The committee is co-chaired by Rick Heuwinkel of the FAA (ARW-100), and Steve Henely of Rockwell-Collins. The purpose and scope of the document are stated as follows: "This document provides a broadcast protocol for use in any broadcast medium. The standards specify system performance requirements and equipment characteristics that should be useful to designers, manufacturers, installers, and users of FIS-B data link systems. Functional specifications are used where possible in order that implementers may have flexibility in

developing FIS-B data link systems. Compliance with these standards is recommended as one means of assuring that the system and equipment will perform their intended functions satisfactorily under all conditions normally encountered in routine aeronautical operations. Any regulatory application of this document is the sole responsibility of appropriate government agencies."

Working Group 1 of SC-195 is tasked with the section of the MASPS dealing with the development of display guidelines for FIS-B applications. The group is co-chaired by Kevin Williams of the FAA (AAM-510), and Mary Beth Lapis of Rockwell-Collins. The current focus of the group is with weather display guidelines; however, as the scope of FIS-B applications covered in the MASPS is expanded, so too will the scope of the display guidelines. The first version of the MASPS was completed at the December meeting. The document will now be sent to the RTCA Program Management Council (PMC) for approval and publication. (K. Williams, CAMI; R. McAdaragh, AAR-100)

STARS FS-1 CHI Validation: Researchers from the William J. Hughes Technical Center's NAS Human Factors Branch (ACT-530) conducted a three-day simulation activity to validate the computer-human interface (CHI) of the latest version of the Standard Terminal Automation Replacement System (STARS), known as Full STARS (FS)-1. STARS FS-1 is actually the third phase of STARS, but it is the first to completely replace the outdated Automated Radar Terminal System (ARTS) and the terminal and tower radar scopes. In this CHI validation, controllers from terminal facilities nationwide used the STARS FS-1 to work traffic in a simulated approach control and tower environment. The activity carefully examined each FS-1 function to ensure that it met the controllers' expectations for performance and usability. STARS FS-1 will be deployed to the STARS key sites in the next 12-18 months, once the formal test and evaluation process is complete. ACT-530 has supported the development of the STARS CHI since 1997 in various usability assessments, human-in-the-loop simulations, and rapid CHI prototyping activities. (K. Allendoerfer, T. Yuditsky, R. Sollenberger, A. Koros, WJHTC)

ATC Error Analysis: A CAMI human factors representative attended the quarterly safety meeting of Air Traffic Evaluations and Investigations (AAT-20) and regional air traffic quality assurance managers from AXX-505, December 12-14, to report on the status of the error analysis method being developed by CAMI for air traffic control investigation of causal factors related to operational errors. Her presentation included an overview of the method and sample data from a retrospective analysis of operational errors. She also presented an overview of the method for investigating causal factors of operational errors to representatives of the Office of Aviation Safety (ASY-300) on December 15. (J. Pounds, CAMI)

OPEVAL2: A representative from CAMI's Human Factors Research Laboratory (AAM-510) participated in an OPEVAL2 meeting held in McLean, VA, December 11-15, hosted by MITRE corp. The meeting was held to provide participants with a quick look at the preliminary results distilled from data collection activities during OPEVAL 2. (R. Prinzo, 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)



January 17, 2001 – ATCA Symposium – “Air 21”, Renaissance Hotel, Wash, D.C.
<http://www.atca.org/>

February 22-23, 2001 – 2001 Aviation Maintenance Training Conference, Toulouse, France
<http://www.avex-online.com/>

February 22-23, 2001 – Human Factors for Aviation Technicians Workshop. Atlanta, GA
<http://www.greyowl.com>

March 13-15, 2001 – The Advanced Technology Electronic Defense Systems Conference and The Tactical Situational Awareness Symposium, Shelter Pointe Hotel and Marina on Shelter Island, San Diego, CA [mail to: AssenmacheTJ@navair.navy.mil](mailto:AssenmacheTJ@navair.navy.mil)

March 18-20, 2001 – National Aviation Environmental Conference, Dallas, TX
<http://www.airportnet.org/>

March 21-23, 2001 – International Symposium on Smart Graphics, Hawthorne, NY
<http://www.smartgraphics.org/>

March 27-29, 2001- The Fifteenth Symposium on Human Factors in Aviation Maintenance, The Brewery Conference Centre, London, UK [mail to: enquiries@conferenceconsultancy.com](mailto:enquiries@conferenceconsultancy.com)

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

April 3-5, 2001 – Maintenance Repair and Overhaul Conference and Exhibition, Dallas, TX
<http://www.aviationnow.com/>

April 8-14, 2001 – Sun ‘n Fun EAA Fly-In, Lakeland, FL <http://www.sun-n-fun.com/>

April 24-26, 2001 – 46th Annual Corporate Aviation Safety Seminar, Orlando, FL
<http://www.nbaa.org/>

April 30-May 2, 2001- Regional Airline Association Convention, Tampa, FL
<http://www.raa.org/>

May 3-4, 2001 – Human Factors for Aviation Technicians Workshop, Long Beach, CA
<http://www.greyowl.com>

May 14-17, 2001 – DOD Technical Advisory Group Meeting, Antler's Adam's Mark Hotel, Colorado Springs, CO <http://dticam.dtic.mil/hftag/>

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)

June 17-24, 2001 – Paris Air Show, Le Bourget, France <http://www.promosalons.com/>

July 8-11, 2001 – ATCA 12th Annual International Technical Conference & Exhibition, Conrad International Hotel, Dublin, Ireland <http://www.atca.org/>

August 5-10, 2001 – 9th International Conference on Human-Computer Interaction, New Orleans, LA <http://hcie2001.engr.wisc.edu/>

September 10-14, 2001 – Aerospace Congress & Exhibition By Aerospace North America and SAE, Washington State Convention and Trade Center, Seattle, WA [mail to:kthomson@sae.org](mailto:kthomson@sae.org)

September 18-20, 2001 – NBAA Annual Meeting and Convention, New Orleans, LA <http://www.nbaa.org/>

October 8-12, 2001 – Human Factors and Ergonomics Society 45th Annual Meeting, Minneapolis, MN <http://www.hfes.org/>

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

November, 2001 – DOD Technical Advisory Group Meeting, San Diego, CA <http://dticam.dtic.mil/hftag/>

November 4-8, 2001 – ATCA 46th Annual International Program & Exhibits, Washington Convention Center, Wash, D.C. <http://atca.org/>

December, 2001 – EUROCONTROL Air Traffic Management R&D Seminar, Santa Fe, New Mexico <http://eurocontrol.fr/>

September 23-27, 2002 – Human Factors and Ergonomics Society 46th Annual Meeting, Pittsburg, PA <http://www.hfes.org/>

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



Comments or questions regarding this newsletter?
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