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## Standards Committee Activities

The HFES Institute was established to promote the transition of human factors/ergonomics research into the practice and teaching of human factors/ergonomics. Since its inception, the development of American National Standards Institute (ANSI)/HFES and International Organization for Standardization (ISO) standards has been an important focus of the Institute. The following is a summary of some of the most recent activities of the Society's Standards Committees.

*Human Factors Engineering of Computer Workstation Design* (HFES 100). The BSR/HFES 100 was published in March 2002 as an ANSI Draft Standard for Trial Use (DSTU). The HFES 100 Committee, chaired by Tom Albin, is currently preparing status reports for each chapter based on comments received from users. These reports should be completed by the fall and will include proposed revisions and resources needed to complete the work.

*Human Factors Engineering of Software Interfaces* (ANSI 200). The ANSI 200 Software Ergonomics Standard was prepared in five parts and will be published as an ANSI DSTU. In 2003, the HFES 200 Committee, chaired by Paul Reed, expects to publish three parts of the standard: "200.2 – Accessibility," "200.3 – Interaction Techniques," and "200.5 – Interactive Voice Response." Each section will have the "200.1 – Introduction" included with it for completeness. If response to these DSTUs is positive, the standard will undergo the canvass process and eventually be published as ANSI/HFES 200.

*Anthropometric Methods* (ANSI 300). Final committee revisions to ANSI 300 "Guidelines for Using Anthropometry in Product Design" were completed in April under the leadership of Mark Strauss. The committee considered several possible formats for this document, including an ANSI DSTU, an ANSI Technical Report, and an HFES Institute Best Practices document. The manuscript is currently with Tom Albin, who chairs the Institute's new Best Practices publication series.

*ISO TC 159 TAG Ad Hoc Group on People with Special Requirements*. At their 14th meeting in Paris last fall, ISO Technical Committee 159, "Ergonomics," decided to establish an ad hoc group called "Ergonomics for People with Special Requirements." The purpose of this group is to advise TC 159 and its subcommittees on how to incorporate the needs of individuals with a "very wide continuum of competencies and abilities" into both existing and new ISO standards. Daryle Gardner-Bonneau serves as the ANSI representative to this committee. The committee had its first meeting in Nice on March 26, at which Gardner-Bonneau gave a short presentation on how accessibility issues are

addressed in ANSI 200.2 (Accessibility) and 200.5 (Interactive Voice Response).

*ANSI HFES TAG to ISO TC 159/SC3: Anthropometry and Biomechanics*. The US TAG to ISO TC 159/SC3 voted unanimously against approval of ISO FDIS 11228-1, "Ergonomics – Manual handling, Part 1: Lifting and carrying." The negative vote is consistent with all previous U.S. votes, reflecting the fact that prior technical comments concerning lifting limits and cumulative carrying limits had not been satisfactorily addressed. Bob Fox is actively writing sections of ISO WD 11228-2, "Ergonomics – Manual handling, Part 2: Pushing, pulling and holding" and ISO WD 11228-3, "Ergonomics – Manual handling, Part 3: Handling of low loads at high frequency." It is therefore expected that U.S. interests will be better represented in these standards than was the case with 11228-1, which was largely drafted before the U.S. became involved.

The U.S. TAG to ISO TC 159/SC3 voted to approve ISO FDIS 15535, "General requirements for establishing anthropometric databases," which also received the necessary votes from other ISO Member Bodies to become an ISO standard. This result was particularly satisfying, as ISO 15535 is the first ISO standard to emerge from SC3 that has had U.S. input from its very first draft.

Mike Biferio has authored a new section on verification and validation for ISO WD 15536-2, "Ergonomics – Computer manikins and body templates, Part 2: Structure and dimensions." This section was received enthusiastically at the joint meeting of ISO TC 159/SC3/WG1 and CEN TC 122/WG1 held in Vienna on April 7–8, 2003.

The U.S. TAG to ISO TC 159/SC3 voted to approve DTS 20646, "Ergonomic procedures for the improvement of local muscular workloads," which also received the necessary votes from other ISO Member Bodies to progress to Final Draft Technical Specification (FDTS) stage. Dan Roley has been working with this group. In a related action, the chair of ISO TC 159/SC3/WG5, Toru Itani, has organized a symposium entitled "International Standards for Preventing Work-Related Musculoskeletal Disorders" at the upcoming IEA 2003 meetings. David Cochran will speak as a U.S. expert in this symposium.

The U.S. TAG to ISO TC 159/SC3 voted to approve CD 20685, "3-D Scanning methodologies for internationally compatible anthropometric databases," which also received the necessary votes from other ISO Member Bodies to progress to DIS stage. Comments received in CD voting will be discussed at the August meeting of ISO TC 159/SC3/WG1 in Seoul. This project, led by Bruce Bradtmiller, is the first in ISO TC 159/SC3 that has been proposed and chaired by the U.S. (ANSI).

*continued on page 6*

## EID Editor Candidates Sought

Are you interested in assisting in the dissemination of applied human factors/ergonomics work to practitioners and others involved in HF/E work? Would you like to be part of the Society's vital outreach efforts? The HFES Communications Subcouncil (David Post and Paul Green) invites applications from volunteers interested in becoming editor of *Ergonomics in Design* for the three-year term beginning January 1, 2004.

The editor is responsible for the quality of the magazine's content, with the objective of covering a wide variety of balanced and timely topics of interest to human factors/ergonomics practitioners. The editor works with an editorial board consisting of associate editors and department editors to monitor the quality and timeliness of reviews; invites articles or develops article ideas on a range of topics, especially underrepresented topics; helps the staff to set an editorial calendar each year; evaluates the submissions and their reviews and makes final accept/reject decisions; and collaborates with an editorial development team and the AEs to ensure a steady stream of submissions.

Currently *EID* receives 30-40 articles per year, though it is hoped this number can be increased through the efforts of the editor, development editors, and editorial board members. The editor receives an annual honorarium and is reimbursed for some expenses. All administrative and editorial production support is provided by the HFES Communications Department, which manages the peer review process (including forwarding all correspondence between the editor and authors) and is responsible for all production matters.

To apply, please go to the *EID* Web page, <http://hfes.org/publications/EID.html>, where you will find a list of questions for candidates. Send your responses to Lois Smith ([lois@hfes.org](mailto:lois@hfes.org)) by *July 11, 2003*, for forwarding to the subcouncil members. This will enable them to make a recommendation for the Executive Council's October meeting in Denver. The incoming editor will be asked to join the Editorial Board in October and assume responsibilities of the editorship on January 5, 2004.

Feel free to contact Lois (310/394-1811) if you have questions about the processes, scheduling, or other details of the job. We look forward to receiving your application. ☒

## Intent to Release ANSI Draft Standard for Trial Use

The Human Factors and Ergonomics Society (HFES) announces the intent to release parts of the HFES 200 project as an American National Standards Institute (ANSI) Draft Standard for Trial Use (DSTU). The title is *Human Factors Engineering of Software User Interfaces*. The Society plans to release Parts 1, 2, 3, and 5 as ANSI DSTUs by July 31, 2003.

The purpose of the HFES 200 standard is to define ergonomic design requirements and recommendations that facilitate the development of software user interfaces that are more usable, accessible, and consistent and that enable greater productivity and satisfaction.

The HFES 200 software user interface standard consists of five parts:

- HFES 200.1: Introduction – Guidance on the utilization of individual parts in the software development process.
- HFES 200.2: Accessibility – Recommendations for computer operating systems, drivers, and applications that increase the accessibility of applications for users with disabilities.
- HFES 200.3: Interaction Techniques – Ergonomic requirements for the design of user interaction including menu dialogs, form-filling dialogs, direct manipulation, command dialogs, and user guidance.
- HFES 200.4: Visual Presentation – Recommendations for use of color and visual design planned for release at a future date.
- HFES 200.5: Interactive Voice Response (IVR) – Ergonomic requirements for the design of voice-based user interfaces for IVR systems addressing input techniques, error handling, human operator access, prompting, messages, and output techniques.

Any person who objects to the release of these documents as DSTUs must contact HFES Executive Director Lynn Strother, P.O. Box 1369, Santa Monica, CA 90406-1369; 310/394 1811, fax 310/394-2410; [lynn@hfes.org](mailto:lynn@hfes.org). Please include an explanation of why you object. The cutoff date for receipt of objections is July 31, 2003. No objections can be accepted after this date. ☒

## PEOPLE

**Valerie J. Gawron** was recently named a 2003 Veridian Fellow in recognition of her exemplary dedication to the field of human factors engineering, and for demonstrating an extraordinary record of technical achievement and innovation in that field. As part of the Fellow designation, Dr. Gawron may devote 20% of her time on the job working on business-related projects of her choice for the remainder of the year. She may be contacted at 150 N. Airport Dr., Buffalo, NY 14225; 716/631-6916, fax 716/631-6990; [valerie.gawron@veridian.com](mailto:valerie.gawron@veridian.com)

**Robert Simon** recently began work at the Center for Medical Simulation in Cambridge, Massachusetts, as a senior scientist. His new address is Center for Medical Simulation, 65 Landsdowne St., Cambridge, MA 02139; 617/768-8902, fax 617/768-8915; [rsimon@harvardmedsim.org](mailto:rsimon@harvardmedsim.org). ☒



## Bulletin

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## Executive Council Meeting Report

The midyear meeting of the HFES Executive Council took place at the Four Points Hotel in Santa Monica, California, on April 24–26, 2003. Following is a report of the discussions and actions taken at that meeting.

### Strategic Planning

Led by President-Elect Betty Sanders and EC member Nancy Larson, the Council engaged in a day-long session on April 24 to refine the major goals of the Society's Strategic Plan. Work will continue during the year and at the 47th Annual Meeting in Denver.

### Annual Meeting

The Student Affairs Committee proposal to institute the Monday of the annual meeting as Student Career and Professional Development Day was approved. The program is being organized, and details will be presented in upcoming issues of the *HFES Bulletin*, posted on the HFES Web site, and distributed via the HFES Student List Server.

### Budget

A Resource Development Task Force will be formed, the purpose of which is to identify sources of nondues revenue.

The revised 2003 budget was approved, as follows:

<b>Income</b>	
Membership Dues . . . . .	\$ 600,625
Membership Services . . . . .	\$ 41,250
Communications/Publications . . . . .	\$ 375,650
Annual Meeting . . . . .	\$ 150,187
HFES Institute . . . . .	\$ 91,250
Miscellaneous . . . . .	\$ 6,650
<b>Total Income . . . . .</b>	<b>\$1,265,612</b>
<b>Expense</b>	
Membership Services . . . . .	\$ 95,650
Publications . . . . .	\$ 364,713
Administrative . . . . .	\$ 597,008
Committees and Officers . . . . .	\$ 47,315
Annual Meeting . . . . .	\$ 64,500
HFES Institute . . . . .	\$ 71,465
Interorganizational . . . . .	\$ 21,856
<b>Total Expense . . . . .</b>	<b>\$1,262,507</b>
<b>Excess, Income over Expenses . . . . .</b>	<b>\$ 3,105</b>

### Chapters

The Massachusetts Institute of Technology has formed a new student chapter, which was approved at the midyear Council meeting. The faculty adviser is Charles Oman.

### Communications and Publications

Council approved two proposals from the Communications and Publications Subcouncil: to put *Human Factors* on line beginning in 2004, and to convert to a Web-based system for submission and review of submitted papers. Work will begin this summer on both initiatives.

### Outreach

Council approved an initial action plan for implementing National Ergonomics Month, which was proposed by Ron Shapiro and Haydee Cuevas. The NEM team has been asked to begin compiling promotional materials that may be disseminated in conjunction with NEM activities and posted at the HFES Web site.

## HFES Election

This year's nomination ballots have been tallied, and the following candidates have agreed to run for office. Ballots are being mailed in July to all Full Members and Fellows in good standing.

### President-Elect

- Marvin J. Dainoff, Miami University, Oxford, OH
- John Brian Peacock, Baylor College of Medicine, Houston, TX
- Wendy A. Rogers, Georgia Institute of Technology, Atlanta, GA

### Secretary-Treasurer-Elect

- Arthur D. Fisk, Georgia Institute of Technology, Atlanta, GA
- Valerie J. Gawron, Veridian Engineering, Buffalo, NY
- Carol Stuart-Buttle, Stuart-Buttle Ergonomics, Philadelphia, PA

### Executive Council Member-at-Large

- D. Kristen Gilbert, University of Montevallo, Montevallo, AL
- Donald L. Lassiter, Methodist College, Fayetteville, NC
- K. Ronald Laughery, Micro Analysis & Design, Inc., Boulder, CO
- David L. Post, U. S. Air Force Research Laboratory, Wright-Patterson AFB, OH
- Valerie J. Rice, AMEDD Center and School, ARL-AMEDD Field Office, Ft. Sam Houston, TX
- Mark W. Scerbo, Old Dominion University, Norfolk, VA

## New HFES Publications Catalog!

In early May, all HFES members were sent a copy of the newly updated Publications Catalog. Feel free to log on to <http://hfes.org/Publications/Menu.html> to link to detailed pages for each book, which include tables of contents.

*Adoptions:* If you are a faculty member who would like to review a title for use in a course, we will refund the cost of the review copy when an order for five or more books is received.

Would you like us to send additional copies of the catalog to friends and colleagues? Simply send their names and addresses to the HFES Member Services Department ([danyelle@hfes.org](mailto:danyelle@hfes.org)), and copies will be mailed promptly.

## Visit [hfes.org](http://hfes.org)

We'd like to draw your attention to some of the free resources available at the HFES Web site, <http://hfes.org>. If you haven't

been to the site lately, we hope you will soon. Links to all the following items can be found on the main page.

**Index to periodicals.** This on-line index, which replaces the Cumulative Indexes that used to be published in paperback every five years, contains the titles and authors of all the articles in *Human Factors*, *Ergonomics in Design*, and the Annual Meeting proceedings from their inceptions through 2002. You can search by key word(s) in titles or authors' last names.

**Graduate HF/E programs.** The HFES Directory of Human Factors/Ergonomics Graduate Programs, which is updated regularly (formerly published every three years), contains detailed information about more than 75 programs in North America.

**Adolescence of Engineering Psychology.** This small publication, a history of the early days of the HF/E field, has just been converted to HTML and PDF formats and is now freely accessible.

**47th Annual Meeting.** This section contains information about this year's meeting and will be updated regularly. Watch for registration information later this summer and an on-line registration form.

**Technical Groups.** Follow the links to the groups that have their own Web sites, where even more resources can be found.

**Local Chapters/Student Chapters.** Many chapters also have their own Web sites including membership information and upcoming chapter events.

## HFES Book Translated into Japanese

The Society is happy to announce that a Japanese translation of *Anthropometric Methods: Designing to Fit the Human Body* has been published by Asakura Publishing Company Limited, Tokyo. It can be ordered from the Asakura Web site, <http://www.asakura.co.jp> (in Japanese). The original English-language edition, which was reprinted last year, is available from HFES (310/394-1811, [store@hfes.org](mailto:store@hfes.org), <http://hfes.org>).

## HFES Welcomes New Members

The following individuals joined the Society in March and April 2003. Their membership applications are subject to final ratification by the HFES Executive Council at its next meeting.

### Full Members

Karen Arciszewski  
 Mariea Dunn Jackson  
 Sharon M.B Joines  
 Min-Ju Liao  
 Edwin F. Madigan  
 Daniel McHugh  
 Xiaoyan Niu

### Associates

Lisa L. Berman  
 John K. Lenneman  
 Dahai Liu  
 Richard M. Zobarich  
 Michael Hartley

### Affiliates

Jan Christensen  
 Andrew L. Concors

Andrew Kavie  
 Pawan K. Sharma

### Affiliates (cont.)

Ronda L. Crenshaw  
 John Curran  
 Daniel J. France  
 Kuang Huei Kan

Vivian Smith  
 Dai Yong Sung  
 Norris Torres-Santiago  
 Kan Wan-Ling

### Students

La Detria R. Blackwell  
 Aaron M. Bock  
 Christopher Brill  
 Ji Hong Chang  
 Amrish O. Chourasia  
 Atul R. Deshmukh  
 Cary S. Feria  
 Melissa Hallock  
 Lin Chia Hua  
 Darniet K. Jennings  
 Brian R. Johnson  
 Heidi Lam  
 Mathew Mason  
 Christina Mendat  
 Jennifer E. Newberry

Patrick G. Nyeste  
 Brian P. Oakley  
 Susan Plano  
 Shannon M. Posey  
 Luis R. Prada  
 Dolores Price  
 Cassandra Ralls  
 Leah M. Reeves  
 Kathy J. Sifrit  
 Maya Siriwardana  
 Anand Tharanathan  
 Enlie Wang  
 Sara L. Waxberg  
 Allison S. Yale



## REGULATORY NEWS

### NACE Presents Work Plans

The National Advisory Committee on Ergonomics (NACE) presented its first set of work plans to the Occupational Safety and Health Administration to assist the agency in its goal of reducing musculoskeletal disorders in the workplace. The committee's efforts focused on three work groups: guidelines, outreach and assistance, and research.

The guidelines work group discussed factors that OSHA should use to determine specific industries for which guidelines should be developed. These included injury/illness rates, population affected, willingness of specific industry stakeholders, and taking into consideration existing successful program models. The group also suggested various types of data OSHA should consider that help demonstrate that ergonomics makes good financial sense.

The group on outreach and assistance has begun reviewing current OSHA outreach efforts. It will also identify industries and organizations willing to share ergonomics best practices and to join OSHA in conducting ergonomics seminars and roundtables throughout the country.

The research discussion group recommended the creation of a symposium for published researchers on work-related musculoskeletal disorders to examine their studies and the methodologies used. It also recommended that future presentations to the full committee include a neurologist and research reports from the National Academy of Sciences.

The committee is scheduled to meet again in September.

Source: <http://www.osha.gov>



## Call for Student Volunteers

The Host Committee for the HFES 47th Annual Meeting, October 13–17, in Denver, Colorado, invites full-time students to serve as volunteers. Student volunteers perform many essential functions and help to ensure that the annual meeting runs smoothly.

Help is needed in the following key areas: **workshops and seminars** (October 13), the **HFES Placement Service** (October 13–15), the **registration desk** (October 13–15), **daily on-site newsletter** (October 14–16), **technical tours** (October 14–16), and **poster sessions** (October 14–16).

You may request assignments in specific areas, and every effort will be made to ensure you receive your first or second choice. About 80 student volunteers are needed. A limited number of reduced-rate hotel rooms will be available, so early student volunteer signups and annual meeting registration are strongly encouraged. The early registration deadline is September 15. Assignments will be made and instructions sent prior to the meeting. A student volunteers room will be available at the headquarters hotel for checking in for assignments, networking with other students, and obtaining signatures for completed work.

Students who volunteer for eight hours will receive a reimbursement of the full registration fee, and those who volunteer for four hours will be reimbursed half the registration fee. Refunds are processed after the meeting.

To volunteer, please send the following information to the address below:

- Complete contact information, including e-mail address
- Your department, university, and current course load (must be full-time according to your university's definition)
- Your first, second, and third choices from the list of key areas given above
- Anticipated date of arrival at and departure from the meeting.

Address requests to Director of Member Services Carlos de Falla, HFES, P.O. Box 1369, Santa Monica, CA 90406-1369 USA; 310/394-1811, fax 310/394-2410, carlos@hfes.org.

## HFES Placement Service

The HFES Placement Service is the only service of its kind that caters exclusively to human factors/ergonomics professionals, with easy-to-use features for both employers and job seekers.

### Employers

To recruit top human factors/ergonomics professionals, visit our Web site at <http://hfes.org> or go directly to <http://hfes.jobcontrolcenter.com> and post a job, search the résumés, or do both. Candidates searching the database can send their résumés directly to your desktop.

### Candidates

This service is free to job seekers! Post your résumé at <http://hfes.org> and search our database of available jobs. If you see a job posting that interests you, you can e-mail your résumé

directly to the employer. If you prefer to remain anonymous, the "Confidential" selection protects your identity until you choose to become known to the employer.

### Annual Meeting On-Site Placement Center

At each HFES Annual Meeting, the Placement Service provides an outstanding opportunity for employers and job seekers to meet in an informal setting or in prearranged interviews.

Employers subscribing to the HFES On-Line Placement Service may reserve space at the On-Site Placement Center for up to four days of interviews. Computers are made available for employers and candidates to perform searches on the HFES Web site.

For more information about the HFES Placement Service, call 310/394-1811 or e-mail carlos@hfes.org. ☎

## CALLS FOR PAPERS

## Conference on Aerospace Sciences

Abstracts are invited for the 44th Israel Annual Conference on Aerospace Sciences, to be held February 25–26, 2004, in Tel Aviv, Israel. Areas of interest include aerodynamics and ballistics, flight simulators, space systems, and testing and evaluation of aerospace systems. Abstracts are due *October 19, 2003*. Contact Haim Abramovich, Faculty of Aerospace Engineering, Technion, Haifa 3200, Israel; 972 4 8293199, fax 972 4 8292030, alic@aerodyne.technion.ac.il, <http://www.aeroconf.org.il/conf>.

## HPSAA II

Abstracts are invited for the Human Performance, Situation Awareness and Automation Technology Conference II, to be held March 22–25, 2004, in Daytona Beach, Florida. Areas of interest include aging, driving, aviation, and human-computer interaction. Abstracts are due *November 15, 2003*. Contact Dennis A. Vincenzi, Assistant Professor and Conference Chair, Department of Human Factors and Systems, Embry-Riddle Aeronautical University, 600 S. Clyde Morris Blvd., Daytona Beach, FL 32114; 386/226-7035, fax 386/226-7050; Dennis.Vincenzi@erau.edu, <http://faculty.erau.edu/vincenzd/hpsaa>. ☎

## SHORT COURSES

**Occupational Ergonomics**, July 21–24, 2003, Ann Arbor, MI. University of Michigan, College of Engineering, Center for Professional Development, 273 Chrysler Center, 2121 Bonisteel Blvd., Ann Arbor, MI 48109-2092; 734/647-7200, fax 734/647-7182; cpd-info@umich.edu, <http://cpd.engin.umich.edu>.

**Ergonomics: Job Analysis and Case Studies**, July 25–26, 2003, Ann Arbor, MI. University of Michigan, College of Engineering, Center for Professional Development, 273 Chrysler Center, 2121

## SHORT COURSES, cont.

Bonisteel Blvd., Ann Arbor, MI 48109-2092; 734/647-7200, fax 734/647-7182; cpd-info@umich.edu, <http://cpd.engin.umich.edu>.

**System Engineering for Project Managers**, July 28–30, 2003, Los Angeles, CA. UCLA Extension, Department of Engineering, Information Systems and Technical Management, Short Courses, 1095 Le Conte Ave., Rm. 313, Los Angeles, CA 90024-2883; 310/825-3344, fax 310/206-2815; shortcourses@uclaextension.org, <http://uclaextension.org/shortcourses>.

**16th Annual Occupational Safety & Health Institute**, July 28–August 1, 2003, Emeryville, CA. University of California, COEH Continuing Education, UC Berkeley MC 5120, 2223 Fulton St., 2nd Floor, Berkeley, CA 94720-5120; 510/643-7277, fax 510/643-7291; coehce@socrates.berkeley.edu, <http://socrates.berkeley.edu/~coehce>.

**Human Factors Engineering**, July 28–August 2, 2003, Ann Arbor, MI. University of Michigan, College of Engineering, Center for Professional Development, 273 Chrysler Center, 2121 Bonisteel Blvd., Ann Arbor, MI 48109-2092; 734/647-7200, fax 734/647-7182; cpd-info@umich.edu, <http://cpd.engin.umich.edu>.



## LAB REPORT

# Florida Institute of Technology Space Coast Center for Human Factors Research

*By John E. Deaton, Florida Institute of Technology*

One of this lab's current projects, titled, "An Experimental Analysis of Type and Temperament Matching Using the Myers-Briggs Type Indicator as a Means of Aircrew Composition Optimization," is an attempt to identify personality combinations that enhance the crews' ability to coordinate and those that impede it. The sample consists of 25 pilots with a similar knowledge base and experience level. The pilots were given the Myers-Briggs to identify their psychological type. The sample was then divided into four groups, including those paired (1) randomly, (2) with the same psychological type, (3) with the opposite psychological type, and (4) hybrid teams consisting of both similar and dissimilar types. Each of the crews then flew a mission in the PC combat simulator Falcon 4.0. Each crew was videotaped and asked to complete a self-evaluation form of how well they felt their crew worked together. The analysis includes statistical comparisons of the mean performance scores of each group, the frequency of communications, and the coordination ratings derived from the self-evaluation forms.

A second project, "Certified Flight Instructor Instructional Skill Improvements Through Utilization of Personal Computer-Based Aviation Training Devices," is part of an effort to explore the pos-

sibility of supplementing current pilot training programs with enhanced training tools. By applying advancements and capabilities of computing technology to pilot training (primarily PC-based training devices), it may be possible to place greater emphasis on flight instructor error detection and flight instructor teaching performance. Redesigning current thinking could substantially improve accident rates in general aviation.

Finally, "Development of a Small Aircraft Maintenance Monitoring System (SAMMS) Interface for In-flight Mechanical Fault Management" is an extension of a Navy study to determine if HUMS (Health and Usage Monitoring System) technology improves pilot fault detection performance in general aviation aircraft and what is the best method to display the additional information the system provides over and above traditional warning-caution-advisory systems to indicate a potential malfunction. A display that represents the instrument panel of the Piper Warrior, a display based on a Navy HUMS prototype, and a display designed by the researcher are compared.

Contact John E. Deaton, Florida Institute of Technology, School of Aeronautics, 150 West University Blvd., Melbourne, FL 32901-6975; 321/674-8120, fax 321/674-8059; [jdeaton@fit.edu](mailto:jdeaton@fit.edu).



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## Standards Committee Activities

*(continued from page 1)*

The U.S. TAG to ISO TC 159/SC3 will meet in Yellow Springs, Ohio, on July 24–25, 2003. In addition to ISO project reports and discussions, the TAG will consider expanding its membership through targeted recruiting, and increasing meeting frequency via teleconference so that members with travel restrictions can participate more actively.

*ANSI/HFES TAG to ISO TC 159/SC4.* The U.S. TAG to ISO TC 159/SC4, chaired by Jim Williams, has reviewed and voted on ISO CD 11064-6, "Environmental requirements for control centers," and ISO DIS 11064-6, "Workstation layout and dimensions." Tom Albin has joined the SC4 TAG and been nominated as a U.S. Expert to ISO TC 159/SC4/WG2, "Visual Display Requirements."

*IEEE Voting System Standard Task Force.* Work in this committee is on a fast track, as the goal of the IEEE Voting Equipment Standard (P-1583) is to impact the 2004 election. The HFES task force, led by John O'Hara, is responsible for two sections: Section 5.3 on standards for usability and accessibility and Section 6.3 on verification and test criteria for the standards.

The fourth iteration of the usability and accessibility standards section is nearly complete and will soon be ready for IEEE Committee ballot. A white paper addressing the verification section uses a testing approach that combines standards compliance evaluation and usability testing. This will be circulated for comment, and a completed draft for IEEE balloting is expected before the close of 2003.

For more information about any of the work of the Standards Committee, please contact Claire Gordon, Standards Committee Chair, U.S. Army, Natick RD&E Ctr., Science & Technology Directorate, Natick, MA 01760-5020; 508/233-5429, fax 508/233-5104, [claire.gordon@natick.army.mil](mailto:claire.gordon@natick.army.mil).



*Announcement deadlines: 1st day of the month prior to the desired issue; for events or deadlines within the first 3 weeks of a month, send information at least 2 months in advance. Items are published according to space availability.*

- ASSE Professional Development Conference & Exposition, June 22–25, 2003, Denver, CO. ASSE, 33477 Treasury Center, Chicago, IL 60694-3400; 847/699-2929, fax 847/768-3434; <http://www.asse.org>.
- ★ **10th International Conference on Human-Computer Interaction**, June 22–27, 2003, Crete, Greece. HCI International 2003, Institute of Computer Science Foundation for Research and Technology, Hellas Science and Technology Park of Crete, Heraklion, Crete, GR-71110, Greece; 30 2810 391752, fax 30 2810 391740; [info@hciei2003.gr](mailto:info@hciei2003.gr); <http://www.hciei2003.gr>.
- Human Systems Integration Symposium**, June 23–25, 2003, Tysons Corner, VA. Megan Sinesiou, American Society of Naval Engineers, 1452 Duke St., Alexandria, VA 22314-3458; 703/836-6727, fax 703/836-7491; [msinesiou@navalengineers.org](mailto:msinesiou@navalengineers.org); <http://www.navalengineers.org/Events/Events.html>.
- ★ **16th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems**, June 23–26, 2003, Loughborough, England. Southwest Texas State University, Attn: Cheryl Morriss, IEA/AIE-2003 Registration Chair, Department of Computer Science, 601 University Dr., San Marcos, TX 78666-4616; fax 512/245-8750; [p.w.h.chung@lboro.ac.uk](mailto:p.w.h.chung@lboro.ac.uk); <http://gradients.lboro.ac.uk/iea2003aie/>.
- 5th Australian Industrial & Organizational Psychology Conference**, June 26–29, 2003, Melbourne, Australia. Eventcorp, P.O. Box 788, Rosebery NSW 2018, Australia, [ktaylor@eventcorp.com.au](mailto:ktaylor@eventcorp.com.au); <http://www.aps.psychsociety.com.au/events/conferences/iop>.
- IASTED International Conference on Computers and Advanced Technology in Education**, June 30–July 2, 2003, Rhodes, Greece. IASTED Secretariat, #80, 4500 16th Ave., NW, Calgary, AB, Canada T3B0M6; 403/288-1196, fax 403/247-6851; [calgary@iasted.com](mailto:calgary@iasted.com); <http://www.iasted.org/conferences/2003/greece/cate.htm>.
- 2nd International Driving Symposium on Human Factors in Driving Assessment, Training, and Vehicle Design**, July 21–24, 2003, Park City, UT. Kathy Holeton, University of Iowa/PPC, 223 South Quadrangle, Iowa City, IA 52242; 319/335-6804, fax 319/335-6801; [kathy-holeton@uiowa.edu](mailto:kathy-holeton@uiowa.edu); <http://ppc.uiowa.edu/driving-assessment>.
- 18th International Joint Conference on Artificial Intelligence (IJCAI-03)**, August 9–15, 2003, Acapulco, Mexico. American Association for Artificial Intelligence, 445 Burgess Drive, Menlo Park, CA 94025-3442; 650/328-3123, fax 650/321-4457; [www.ijcai-03.org](http://www.ijcai-03.org).
- ★ **ASNE/SNAME Meets 2003, Marine Environmental Technology**, August 21–22, 2003, Arlington, VA. Megan Sinesiou, American Society of Naval Engineers, 1452 Duke St., Alexandria, VA 22314-3458; 703/836-6727, fax 703/836-7491; [msinesiou@navalengineers.org](mailto:msinesiou@navalengineers.org); <http://www.navalengineers.org/Events/Events.html>.
- ★ **XVth Triennial Congress of the International Ergonomics Association**, August 24–29, 2003, Seoul, Korea. Gangnam P.O. Box 467, Seoul, 135-146, Korea; +82 2 552 8350, fax +82 2 552 8325; [info@iea2003.org](mailto:info@iea2003.org); <http://www.iea2003.org>.
- 10th International Conference for Vision in Vehicles**, September 6–10, 2003, Granada, Spain. VIV10, Institute of Behavioural Sciences, University of Derby, Kingsway House, Kingsway, Derby DE22 3HL, UK; tel/fax 44 0 1332 593131; [ibs@derby.ac.uk](mailto:ibs@derby.ac.uk); <http://ibs.ac.uk/viv/viv10.html>.
- ★ **18th Annual Professional Conference on Industrial Hygiene**, September 13–16, 2003, Rancho Mirage, CA. American Industrial Hygiene Association, 2700 Prosperity Ave., Suite 250, Fairfax, VA 22031; 703/849-8888, fax 703/207-3561; [infont@aiha.org](mailto:infont@aiha.org); <http://www.aiha.org/TheAcademy/html/pcih.htm>.
- ★ **13th International Conference on Software Quality**, September 15–16, 2003, Toronto, Ontario, Canada. American Society for Quality, P.O. Box 3005, Milwaukee, WI 53201-3005; 414/272-8575, fax 414/272-1734; [help@asq.org](mailto:help@asq.org); <http://www.asq.org/ed/conferences>.
- SID 23rd International Display Research Conference**, September 15–18, 2003, Phoenix, AZ. Society for Information Display, 610 South 2nd St., San Jose, CA 95112-9896; 408/977-1013, fax 408/977-1531; [office@sid.org](mailto:office@sid.org); <http://www.sid.org/conf/idrc2003/idrc2003.html>.
- ★ **Harnessing the Power of Technology for the Warfighter**, September 16–18, 2003, Bloomington, IN. Megan Sinesiou, American Society of Naval Engineers, 1452 Duke St., Alexandria, VA 22314-3458; 703/836-6727, fax 703/836-7491; [msinesiou@navalengineers.org](mailto:msinesiou@navalengineers.org); <http://www.navalengineers.org/Events/Events.html>.
- SAFE Association 41st Annual Symposium**, September 22–24, 2003, Jacksonville, FL. Jeani Benton, P.O. Box 130, Creswell, OR 97426-0130; 541/895-3012, fax 541/895-3014; [safe@peak.org](mailto:safe@peak.org); <http://www.safeassociation.com>.
- ★ **7th Symposium on Human Factors in Organizational Design and Management**, October 1–3, 2003, Aachen, Germany. Bruno Kloubert, Pontdriesch 14/16, 52062 Aachen, Germany; +49 02 41 4 77 05 150, fax +49 02 41 4 77 05 199; [lk@fir.rwth-aachen.de](mailto:lk@fir.rwth-aachen.de); <http://www.odam.net>.
- HFES 47th Annual Meeting**, October 13–17, 2003, Denver, CO. Hosted by the Rocky Mountain Chapter. HFES, P.O. Box 1369, Santa Monica, CA 90406; 310/394-1811, 310/394-2410; [info@hfes.org](mailto:info@hfes.org); <http://hfes.org>.
- ★ **11th National Quality Education Conference**, November 7–9, 2003, Albuquerque, NM. American Society for Quality, P.O. Box 3005, Milwaukee, WI 53201-3005; 414/272-8575, fax 414/272-1734; [help@asq.org](mailto:help@asq.org); <http://www.asq.org/ed/conferences>.
- ★ **146th Meeting of the Acoustical Society of America**, November 10–14, 2003, Austin, TX. Acoustical Society of America, Suite 1N01, 2 Huntington Quadrangle, Melville, NY 11747-4502; 516/576-2360, fax 516/576-2377; [asa@aip.org](mailto:asa@aip.org); [http://asa.aip.org/map\\_meetings.html](http://asa.aip.org/map_meetings.html).
- ★ **44th Israel Annual Conference on Aerospace Sciences**, February 25–26, 2004, Tel-Aviv, Israel. Haim Abramovich, Faculty of Aerospace Engineering, Technion, Haifa 3200, Israel; 972 4 8293199, fax 972 4 8292030, [alice@aerodyne.technion.ac.il](mailto:alice@aerodyne.technion.ac.il); <http://www.aeroconf.org.il/conf>.
- ★ **Safety Across High-Consequence Industries**, March 9–11, 2004, St. Louis, MO. Manoj S. Patankar, Dept. of Aviation Science, Saint Louis University, Parks College of Engineering and Aviation, 3450 Lindell Blvd., Saint Louis, MO 63103; 314/977-8355, fax 314/977-8388; [patankar@slu.edu](mailto:patankar@slu.edu).
- ★ *Indicates new listing.* 

# Bulletin

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**FLASH!**

## Plan to Attend!

**HFES 47th Annual Meeting**  
Denver, Colorado  
October 13–17, 2003

**Early registration deadline:**  
September 15, 2003  
**Hotel booking deadline:**  
September 19, 2003



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