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From the President

By Anthony D. Andre, HFES President

It is quite an honor to serve HFES and its membership as president. When I ran for the office last year, I campaigned on a platform of modernization of the Society and a focus on member benefits and outreach. Thanks to the efforts of my predecessor, Immediate Past President Kathleen L. Mosier, the Society's governance is now much more efficient and effective. It is my goal to take advantage of

this toward making long-waited improvements on behalf of our membership.

Before discussing the planned initiatives for the coming year, I think it's worthwhile to reflect on the very purpose of a professional society. I see the role of HFES covering four main areas:

- 1. It provides direct benefits to its members through publications, meetings, resources, and other types of information dissemination.
- 2. It provides a shared affiliation and opportunities for interaction and collaboration among members.
- 3. It supports the profession as a whole by working on government committees, promoting adoption of our standards, and trying to bring exposure to and use of our research and best practices.
- 4. It helps to sustain our field through professional development, mentoring of student and early-career members, and continuous promotion of our field to undergraduate and high school students.

It probably goes without saying that HFES does not address these areas with equal emphasis or success. This year, I'm hoping to integrate technology, a larger volunteer force, and a climate of faster responses to needed improvements in order to carry out initiatives in each of the aforementioned areas of Society performance. Below, I briefly outline some planned initiatives.

Member Benefits

With our impending move to the SAGE Publication online platform, our members will be receiving a broader set of publications (adding *JCEDM* and *Reviews of Human Factors and Ergonomics*) as a benefit of membership, along with increased digital access to these publications and our extensive Digital Library-Archive.

We are making progressive changes to our annual meeting, adding top-down content (invited speakers and longer presentations) to our strong base of submitted scientific presentations and posters. We are also considering the addition of smaller, specialized meetings (focused on a single emerging HF/E topic or domain), to take place at times during the year other than the annual meeting.

Member Interaction and Collaboration

We have established the new Social Networking Operations Committee to foster collaboration and interaction among members. We plan to establish a strong presence on social networking sites such as LinkedIn, Facebook, and Twitter to allow for discussion, collaboration, and dissemination (e.g., employment and funding opportunities). Additionally, we will develop discussion/blogging forums for our main publications.

We plan to establish a monthly Webinar series that is free to all members. The presenters will be recruited from a diverse pool, including award winners, journal authors, Fellows, and other members who can present summative presentations on HF/E standards, hot topics, and emerging domains.

We will better involve our Fellows and past leaders in Society activities and improve the preservation of our history by fostering interaction between Fellows, and student and early-career professionals.

Promotion of HF/E

We will improve the promotion of our standards and best practices by developing materials that help to demonstrate how this information is, and can be, used in practice.

We will increase the dissemination of information on the accomplishments, research findings, and best practices of our members to media outlets and other organizations.

Professional Development

We have established the new Early-Career Professionals Committee, with the charter supporting and mentoring both academic and practitioner professionals within 7 years of graduation.

We plan to increase our student-mentoring activities beyond the annual meeting, to include year-round efforts, such as Webinars and discussion forums.

We will also target high school students in an initiative to increase awareness of HF/E programs and career paths.

Your Help Is Needed

In summary, I have laid out an ambitious plan to make your affiliation with HFES more valuable and satisfying, a plan that can be recognized only through the efforts of the Executive Council, division chairs, the many committee chairs and members, the HFES central office staff, and you, the member. If you would like to get involved in these or other activities, please contact me at andre@interface-analysis.com.

I firmly believe that, working together, we can improve and support both the careers of our individual members and the state of our profession as a whole. I welcome your inputs regarding the initiatives described here or any new initiatives that you feel should be addressed in the near future. I look forward to hearing from you.

AWARDS

Distinguished International Colleague Award Named in Honor of Hal W. Hendrick

by Pascale Carayon, Michelle M. Robertson, & Michael J. Smith, Hal W. Hendrick Distinguished International Colleague Award Subcommittee

The Human Factors and Ergonomics Society Executive Council has renamed the Distinguished International Colleague Award to honor a renowned member of the Society, Hal W. Hendrick. The Distinguished International Colleague Award, formerly known as the Distinguished Foreign Colleague Award, recognizes a non-U.S. citizen who has made outstanding contributions to the human factors/ergonomics field. In a letter to the Executive Council, the award's subcommit-

tee wrote that Hal Hendrick has been active in promoting human factors/ergonomics internationally for decades and that he has received worldwide recognition as an outstanding scholar, teacher, practitioner, and diplomat for the field.

Hendrick received a BA in psychology from Ohio Wesleyan University (1955), and an MS in human factors (1961) and a PhD in industrial psychology with a minor in industrial engineering from Purdue University (1966). Hal is emeritus professor of human factors at the University of Southern California. He is principal of Hendrick and Associates, a human factors/ergonomics design and industrial/organizational psychology consulting firm. He is a Certified Professional Ergonomist, Board Certified Forensic Examiner, a Diplomate of the American Board and a Fellow of the American College of Forensic Examiners.

Hendrick is a Fellow of the Human Factors and Ergonomics Society, the International Ergonomics Association (IEA) and the American Psychological Association (APA). He is also a Charter Member and Fellow of the American Psychological Society. Hal has served as secretary general and president of the IEA, president of HFES, and president of the Board of Certification in Professional Ergonomics (BCPE).

Hal was a college dean at the University of Denver, chair of the Human Factors Department at USC, and executive director of USC's Institute of Safety and Systems Management. He served as chief of Behavioral Sciences at the Defense Race Relations Institute, associate professor at the U.S. Air Force Academy, where he co-developed the undergraduate psychology program and developed the graduate human factors engineering program. Hal was a human performance engineer on the Dynasoar space vehicle and C-141 transport aircraft, 463L cargo-handling system, and flight simulator development programs.

Hal received a best teaching award while at USC and also USC's highest award for teaching excellence. In addition, HFES presented him with the Jack A. Kraft Innovator Award for conceptualizing and initiating the subdiscipline of macroergonomics, the Alexander C. Williams, Jr., Award for outstanding system design, and the Arnold M. Small President's Distinguished Service Award. Other recognitions include the IEA Distinguished Service Award and the International Society for Occupational Ergonomics and Safety's Certificate of Recognition of Prominence.

Hal is considered the "father" of macroergonomics based on his work in the 1980s and 1990s. Hal and Ted Brown founded the ODAM International conferences. In 2000, Hal authored "The Technology of Ergonomics," in which he drew from international sources and his observations of ergonomics internationally to describe human-system interface technology. He was the senior coauthor with Brian Kleiner of *Macroergonomics: An Introduction to Work System Design* (Human Factors and Ergonomics Society, 2001) and co-editor of *Macroergonomics: Theory, Methods, and Applications* (2002).



Hansen Outreach Award Presented to Sullenberger

by Richard J. Hornick, O. Keith Hansen Outreach Award Subcommittee Chair

Following Retired Captain "Sully" Sullenberger's stimulating and inspirational address to more than one thousand of our members, I had the privilege of presenting him with the Oliver Keith Hansen Outreach Award.

Sullenberger has spent his entire career in aviation, promoting research and application for safety in aviation. Indeed, his address to HFES 2010 Annual Meeting attendees concentrated on issues pertinent to familiar concerns such as stress, fatigue, training requirements, emergency procedures, and crew coordination and resource management. He has promoted interest in those areas in many talks around the world and advocated their importance to Congress, industry, and other professional societies.

Among Sullenberger's credentials, he established a safety consulting business—Safety Reliability Methods, Inc.—which not only provides safety strategies and performance monitoring to the airline industry but also focuses on developing domains such as crew resource management in medical settings. He was cited in *Time* magazine as "one of the top 100 world's most influential people" in 2009.

After his experience as a military jet pilot and before becoming a commercial pilot, he received a master's degree from Purdue University in industrial psychology (in 1973). The dedication of Captain Sullenberger's activities that is consistent with our professional goals was clear in his remarks in the Opening Plenary Session. Indeed, many attendees said that hearing Sully was like listening to another professional colleague advancing our interests.

In his recent book, *Highest Duty*, Sullenberger discusses such topics as crew resource management, situation awareness, pilot performance under stress, control/display challenges, training requirements, and other constructs vital to our profession. He states his admiration of Earl Weiner—a past HFES president and active volunteer—relative to aviation safety and the role of automation. This book not only provides insight into Captain Sullenberger's personal experiences and the events involving Flight 1549 on January 15, 2009, it promotes awareness of what our profession is about.

Keith Hansen dedicated his life to promoting the ideals of our professional objectives to all who might listen, whether the audience consisted of aerospace program managers, government representatives, other professional societies, or members of the press. Above all, Keith desired to see safe systems and procedures for all of humankind. Captain Sullenberger is the kind of recipient whom Keith would appreciate. Sully is an advocate of what Keith pursued and which this Society promotes.

ANNUAL MEETING

Future Leaders and Volunteers Panel Highlights "ROI"

On Tuesday evening, September 28, following the HFES Business Meeting in San Francisco, Incoming President Anthony D. Andre and Scientific Division Chair Kermit G. Davis welcomed seasoned volunteers and those newly interested in getting involved in the Society to the first-ever Future Leaders and Volunteers Panel and Reception. Following brief opening remarks, Andre introduced three speakers, who described their experiences and impressions of the value of volunteerism in HFES.

Immediate Past President Kathleen L. Mosier explained that after passing on the first suggestion that she become involved in HFES, she began working in a technical group. From there she moved up to progressively more responsible leadership positions. Echoing comments by more than one HFES 2010 awardee during the Opening Plenary session, she reiterated that the Society truly is her professional home. "This work gives you a huge return on investment. . . .The only way an organization like this can flourish is through volunteers."

Andrew S. Imada, immediate past secretary-treasurer and current president of the International Ergonomics Association, listed a few preconceptions about volunteer leadership in an organization. The first is that it is too much work. "You put in as much work as you can, need, and want to do," he said. There is a preconception that HFES is run by an "old boys' club" conducting its work in secret. "That is not the case," Imada asserted. HFES being the largest ergonomics association in the world, he emphasized, "everyone watches what we do," which increases the importance of ensuring the Society's success.

Finally, despite the reality that everyone has too much to do and not enough time to volunteer, Imada advised attendees to avoid doing one thing to the detriment of any other aspect of life and consider the balance between family, work, and volunteerism. He concluded by encouraging attendees to talk to someone they don't know during the reception that followed, to ask questions about volunteering, and to choose to do something, whether in HFES or in their local community.

The final speaker, Barry Beith, has served HFES in many roles, including as president. He noted that in any organization, 70% are the audience, and 20% are those who are involved in some way, but only 10% are the leaders. As a new member, he had a chance to meet the people who drove the Society and the field. "Part of volunteering, aiming to be a leader, is something that adds to your life and connects you to the history of the field. . . . More important than social networking is the 'professional network that a member gains through volunteering."

Bruce Bradtmiller, division chair for the HFES Institute, commented after the presentations that he has gained even more than what the speakers described. "There is a huge bonus. I've learned about strategic planning, how to run an organization, how to prioritize and focus on the important things, and I bring that into other areas of my life."

With the presentations concluded, attendees mingled with HFES officers, committee chairs, and Fellows. More than 40 people signed up to become involved in various committees and task forces.

There are still many opportunities to become an active volunteer in the Society. If you're interested in any of the areas listed below, please contact Tony Andre at andre@interface-analysis.com.

- Dissemination of HF/E information
- Meetings Policy Committee
- Early-Career Professionals Committee
- Publications
- Social Networking Operations Committee
- "Interesting HF/E Jobs" list
- Virtual Student Meeting Task Force
- Specialized Midvear Meeting Task Force
- International membership growth
- Annual Meeting Host Committee
- Mentoring Committee

JCEDM

Call for Editor-in-Chief Candidates: JCEDM

The Journal of Cognitive Engineering and Decision Making (JCEDM) is seeking a new editor in chief, to start January 1, 2011. JCEDM is a high-quality, uniquely focused journal that covers a broad range of topics and fields within the emerging disciplines of cognitive engineering and decision making. Soon this journal will be included as a benefit of HFES membership, along with Human Factors and Ergonomics in Design.

Candidates for the position should have the following qualifications:

- An established, recognized person in the field who can articulate a clear vision for the journal and who has the requisite influence in the CEDM community (and beyond) to implement that vision.
- One who can increase interest in the journal among CEDM academicians, researchers, and practitioners, both inside and outside HFES.
- One who has a clear understanding of current CEDM publication outlets, who can articulate a plan for attracting these authors and distinguishing *JCEDM* from competing journals.
- One who can increase the number and quality of submissions.
- One who has sufficient time, resources, and willingness to commit to the future success and growth of the journal.

The new editor in chief will serve primarily as a visionary for the journal, focusing on content, scope, promotion, quality, and policy. He or she will work with other HFES editors to develop the

HFES publication portfolio. Hands-on manuscript management will be delegated to associate editors and the editorial board.

To obtain more information about this position and/or the application process, please contact HFES Scientific Publications Division Chair Kermit Davis at DAVISKG@ucmail.uc.edu (513/558-2809). **To apply**, send 1) your CV and 2) a letter stating your interest in the position, your qualifications and your vision for the journal, to Lois Smith lois@hfes.org (310/394-1811). Applications are due *December 1*, 2010.

Papers Invited for Two JCEDM Special Issues

Two special issues are now in development for the *Journal of Cognitive Engineering and Decision Making:*

- Computational Cognitive Modeling for System Design, guested edited by Scott D. Wood—proposals are due *December 17, 2010*
- Exploring Cognitive Readiness in Complex Operational Environments: Advances in Theory and Practice, guest edited by Dylan Schmorrow, Cheryl A. Bolstad, and Katrina A. May—proposals are due *January 31*, 2011

Computational Cognitive Modeling for System Design

The objective of this special *JCEDM* issue is to explore the nexus between the cognitive engineering and decision making, human performance modeling, and health care communities within human factors/ergonomics. The guest editor is interested in papers on basic or applied research of computational cognitive modeling tools, techniques, and methodologies. Work focusing on health care domains and applications is highly encouraged, all studies involving a computational cognitive modeling component are welcome for submission.

Topics of interest within the scope of this special issue include (but are not limited to) the following:

- overviews or surveys of computational cognitive modeling within health care;
- factors in system design that motivate the need for or benefit of computational cognitive modeling;
- translation of modeling results into design knowledge;
- use of computational cognitive modeling for error-tolerant design;
- tools for modeling or integrating target system devices with cognitive models;
- research or application of normative or descriptive, veridical, or conceptual, models that support system design;
- novel uses of computational cognitive modeling throughout the development process;
- computational models that focus on information content and structure as it informs system design;
- the integration of cognitive modeling within a broader development context;
- meta-modeling techniques for integrating complementary modeling approaches;
- techniques for verification and validation of computational cognitive models.

This body of work is expected to represent a broad view of the state of the art in computational cognitive modeling as it relates to health care, health information technology, and related domains. This will include tools for the application of computational cognitive models, architectures for modeling cognition and human performance, barriers and techniques for applying computational cognitive modeling to health care, research needs, and future directions.

Please address inquiries to Guest Editor Scott D. Wood, <u>scottdwood@acm.org</u>.

Exploring Cognitive Readiness in Complex Operational Environments

The goal of this special issue is to present the latest advances in cognitive readiness research in terms of both theory development and practical applications across domains. We invite theoreti-

cal, methodological, and empirical papers that address issues including (but not limited to) the following topic areas:

- *models of cognitive readiness:* validation of qualitative theoretical and quantitative computational models;
- *measuring cognitive readiness:* methodologies, tools, and techniques for both individual and team assessment;
- *training cognitive readiness:* training and mitigation strategies, embedded training, scenario-based training, and so on for both individuals and teams;
- decision support tchnologies: intelligent decision aids, embedded agent capabilities, data fusion systems, social network applications, and so on for raining, assessment, and/or human performance enhancement;
- nuroscience cncepts: neurocognitive measures, neurocognitive control of human-machine systems, augmented cognition applications, and so on for training, assessment, and/or human performance enhancement:
- methodological issues: challenges faced in conducting cognitive readiness research (e.g., consideration of individual differences, establishing benchmarks and measures of effectiveness, trade-offs between lab-based versus field studies, etc.) and guidelines for how to overcome these obstacles.

Please contact the guest editors by December 15, 2010, if you are planning to submit a paper. Direct inquiries regarding the suitability of work to Dylan.Schmorrow@osd.mil, cheryl@satechnologies.com, or katrina.may@arl.army.mil. For technical questions (e.g., formatting, problems uploading manuscript, review status), contact Haydee Cuevas, administrative liaison, at haydee.cuevas@satechnologies.com or send an e-mail to cedm.journal@satechnologies.com.

Submission Guidelines

Manuscripts should be prepared in accordance with the Instructions for Authors (http://www.hfes.org/web/PubPages/JCEDMauthorinfo.pdf) and submitted online at http://mc.manuscriptcentral.com/jcedm.

HUMAN FACTORS

Deadline Extended to December 17: Human Factors and Automation in Vehicles Special Issue

There's still time to submit a paper for this special issue of *Human Factors*, guest edited by Natasha Merat and John D. Lee. Read the <u>call for papers</u> in the July issue of the *HFES Bulletin* and upload your manuscript to the online submission/review system (http://mc.manuscriptcentral.com/humanfactors) by *December 17*, *2010*. Be sure to indicate that your submission is for the Human Factors and Automation in Vehicles special issue.

FELLOWS

Invitation for Applications for HFES Fellow

The Human Factors and Ergonomics Society's Fellows Selection Committee invites applications for Fellows to be elected in 2011. "Fellow" is a special class of Society membership, as established in the Bylaws, Article I, Section 4. Individuals may apply for Fellow status on their own behalf, or they may submit an application on behalf of another.

Election to Fellow status is an honor that recognizes outstanding achievement, consistently superior professional performance, exceptional contributions, service to the Society, and other meritorious accomplishments. Any Full Member of the Society in good standing (except members of the Fellows Selection Committee) may apply or nominate by completing the application forms for Fellow. No limitation is placed on the number of times a Member maybe considered for election to Fellow.

Prospective applicants should carefully review the rules and regulations for Fellow designation and the guide for preparing the contribution statement in the application package prior to initiating the process.

Applicants must obtain recommendations of support for the candidate from three other Full Members. The meritorious contributions of the applicant must be detailed in the application form and must be supported by evidentiary documentation included with the package.

The Fellow Application Package, including instructions, nomination and recommendation forms, and supporting information, may be obtained online (http://www.hfes.org/web/Awards&Fellows/fellows.html) or by e-mail (carlos@hfes.org), fax (310/394-2410), or mail (P.O. Box 1369, Santa Monica, CA 90406-1369 USA). The completed application package (application form, recommendation form, candidate's vitae or resume, and supporting documentation) must be received by the Fellows Selection Committee at the HFES Central Office on or before *February 1*, 2011.

Applications approved by the Fellows Selection Committee, chaired by Betty M. Sanders, and the Executive Council are recommended for approval by the Fellows at large. Candidates who are approved at all three levels will receive Fellow designation at the 2011 Annual Meeting.

EXECUTIVE COUNCIL

Executive Council Meeting Report

The HFES Executive Council met in San Francisco on September 25 and 26. Following is a summary of the actions taken.

Membership

New members and changes of membership category were approved in the following numbers: 27 Affiliates, 13 Associates, 98 Full Members, 103 Students; 1 Affiliate to Associate, 1 Affiliate to Full Member, 15 Associate to Full Member, 7 Full Member to Emeritus Member, 136 Student to Transitional Associate 1, 1 Transitional Associate 1 to Associate, 2 Transitional Associate 1 to Full Member, 73 Transitional Associate 1 to Transitional Associate 2 to Associate, 43 Transitional Associate 2 to Full Member.

Annual Meeting

Council approved the Washington Hilton as the 2016 Annual Meeting headquarters hotel.

Chapters

The request by the New Mexico State University Student Chapter for reactivation was approved.

Committees

The Early-Career Professionals Committee was established, to be cochaired by Ben-Tzion Karsh and Kristi Schmidt. The purpose of this committee is to foster communication and mentoring between seasoned professionals and those new to the field by organizing events at the Annual Meeting, among other year-round activities.

Committee chairs recommended by incoming President Tony Andre were approved. The updated Organizational Chart may be viewed in the About HFES section of the Web site (http://www.hfes.org/web/AboutHFES/leadership.html).

A new Specialized Meeting task force was created to develop a plan for a potential specialized HFES meeting in 2012.

Budget

The 2011 budget was approved as follows:

Estimated Income		
Membership Dues	\$ 6	640,800
Member Services		47,250
Communications/Publications	3	317,664
Annual Meeting	3	347,500
HFES Institute		22,000
Miscellaneous Income		17,000
Total Estimated Income	\$1,	392,214
Estimated Expense		
Member Services	\$	29,100
Communications/Publications		154,750
Administrative		902,951
Committees		90,060
Officers		39,500
Annual Meeting		63,500
HFES Institute		43,175
Interorganizational		39,836
Total Estimated Expense	\$1,	362,872
Estimated Surplus	\$	29,342

The final revised budget estimate for 2010 is as follows:

Estimated Income		
Membership Dues	\$6	25,000
Member Services		56,150
Communications/Publications	3	52,832
Annual Meeting	3	82,500
HFES Institute		25,000
Miscellaneous Income		18,100
Total Estimated Income	\$1,	465,382
Estimated Expense		
Member Services	\$	43,195
Communications/Publications	2	264,107
Administrative		870,224
Committees		48,048
Officers		39,500
Annual Meeting		83,070
HFES Institute		41,595
Interorganizational		39,536
Total Estimated Expense	\$1,	453,077
Estimated Surplus	\$	12,306

MEMBER MILESTONES



HFES Member Marvin C. McCallum passed away on June 24, 2010, at the age of 60. He received a BA in psychology from Western Washington State University in 1974 and a PhD in experimental psychology from the University of New Mexico in 1980. He was formally trained in human memory and cognition, human perception, human factors engineering, industrial psychology, research design and statistics, and software programming. From 1980 to1985, he worked as a senior scientist at Anacapa Sciences Inc., in Santa Barbara, CA. He returned to the Northwest and began working at the Battelle Human

Affairs Research Center in 1987.

During his 23 years at Battelle, he worked in and led a number of distinguished technical groups. His most recent position was as manager and research leader at Battelle's Center for Human Performance and Safety. Marvin was a widely recognized expert in the foundations and measurement of operator fatigue in a variety of environments, and in the development of countermeasures to address fatigue. He was a Certified Human Factors Professional.

Marvin's early work at Anacapa Sciences involved the application of quantitative cognitive psychology techniques to user preferences for various features of cars. He formalized the approach as *design psychometrics*, which influenced much of his later work at Battelle. Marvin was an expert at structured data collection and analysis in what were often very unstructured research domains. These included studies of Army training systems, intelligent vehicles, thermal comfort, nuclear power plant systems, commercial ship work practices, operator fatigue in a variety of settings, and process safety in the oil pipeline industry.

Marvin was a good friend and colleague, and though he will be greatly missed, his influence will be felt through the exemplary research practices that he demonstrated.

—Thomas F. Sanquist and John L. Campbell





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