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Strategic Plan Update

*By David L. Post, President, and
Barry H. Beith, President-Elect*

This is a co-authored article, in which your current president (Dave) and president-elect (Barry) each tell you about your Executive Council's progress in updating the Society's Strategic Plan. To avoid the awkwardness of continuing to speak about ourselves in the third person or having to constantly indicate who "I" refers to, we've adopted an interview-type format in which paragraphs are preceded by the initials of the person who wrote them.

DP: One of the main goals I set at the start of my presidency was updating our strategic plan. I'm pleased to report that we've made substantial progress – more than I really expected to have made at this point, based on my experience with the first plan. Maybe we're getting more efficient with practice.

BB: We feel that the strategic plan is vital in providing direction for the activities of the Society and a focus for measuring and reporting progress to the membership. Dave and I have worked together and with the Executive Council to strengthen continuity across new years and new administrations of the Council. To accomplish this, at the Midyear Executive Council meeting we adopted an Operating Rule designating the midyear planning day as Strategic Planning Day with an agenda designed to highlight and focus on the Strategic Plan.

DP: That new operating rule was Barry's idea, and it's an excellent one. It will help to ensure that Council performs "regular maintenance" on the plan so we don't have to do a major overhaul every few years.

BB: An important aspect of this Operating Rule is the development of a process by which we can review, assess, and update the plan. This has involved several months of effort by the Executive Council.

DP: The first main products of that effort were new vision and mission statements. The vision statement is meant to express an inspiring goal that may not be wholly realistic but would be wonderful for our profession to achieve. The mission statement describes broadly how HFES can contribute toward achieving the vision. Ideally, both statements are short and simple so there's a reasonable chance members (and we!) can remember them. Here's what we settled on:

Vision: We envision a widely shared science, philosophy, and practice that adapts technology to enhance human performance and to improve the quality of human life.

Mission: Our mission is to help our members advance and promote the science, philosophy, and practice of human-centered design.

DP: The next task was to develop a set of goal statements that support accomplishing the HFES mission. Toward this end, we

adopted the working hypothesis that everything HFES needs to do can be characterized as a form of communication. We weren't certain at the outset that this hypothesis would prove to be correct, but it turned out to be a useful organizing scheme. As you'll see, we ended up with three goals that can be characterized roughly as communication between teachers and students, among peers, and between HF/E professionals and the outside world. Interestingly, these goals are very similar to three in the original Strategic Plan. The two that have been omitted involved articulating our profession's boundaries, which has proven to be controversial and elusive, and enhancing HFES decision making, resource management, and member services, which we decided is no longer an appropriate part of the Strategic Plan.

BB: While we hope it will not be necessary each year to revamp the entire Strategic Plan, this was a useful exercise after six years and exemplifies the importance of reviewing and assessing the plan regularly to ensure that it reflects the needs of the membership and the changing world context within which it must function.

DP: I think interest in serving on Council will evaporate if we start revamping the entire plan every year! But getting back to our story: Finally, we continued the top-down design process by developing strategic objectives for each goal. This material is still subject to revision, so the final version may be a little different, but it's far enough along to be worth sharing.

BB: Members are invited to make comments and suggestions regarding these objectives between now and the 46th Annual Meeting in Baltimore. We encourage all of you to review them and provide your input to establish a set of priorities that you believe will have the greatest benefits for the Society. The goals and current strategic objectives are as follows:

Education and Training Goal: Promote the teaching of HF/E science, philosophy, and practice.

Strategic Objectives:

- Anticipate and prepare members for the future requirements and issues of human-centered design.
- Identify and help fill important gaps in available teaching and self-study materials.
- Provide forums for continuing education of HF/E professionals.
- Provide forums in which non-HF/E professionals can get specialized HF/E training.
- Provide forums in which students can get specialized HF/E training.

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Keynote Speaker Profile

This year's keynote speech will be given by Harold E. Guard, Ph.D., head of the Human Systems Science & Technology Department at the Office of Naval Research (ONR) in Arlington, Virginia. Guard will speak during the Tuesday morning plenary session (October 1) at the Baltimore Marriott Waterfront Hotel.



To address the theme "Bridging Fundamentals and New Opportunities," Guard will speak about challenges ahead for the HF/E scientific community within the Navy and Marine Corps. He will present his personal perspective as a manager of science and technology. The talk will cover perceived barriers to including human factors research results in technology development, some Navy efforts to stress the role of the human as part of the warfighting systems, and some emerging areas of ONR-supported science in the human factors area of human-systems interface design.

The Human Systems Department supports basic and applied research and advanced technology development leading to applications for the Departments of Navy and Defense and U.S. industry. It is "committed to active exploration programs that are at the leading edges of medical science, human performance, biotechnology, training and human factors, neural information processing, and biorobotics." Guard is responsible for the direction, program planning, management, and oversight of the ONR budget within the department. More information about the Human Systems Department may be found at http://www.onr.navy.mil/sci_tech/personnel/default.htm.

Prior to his appointment to the Human Systems Department in September 1999, Guard served as director of ONR's Biomolecular and Biosystems S&T Division and acting director of the Physical Sciences S&T Division.

Guard completed his Ph.D. in physical organic chemistry at the University of California, Berkeley, in 1969. After a postdoctoral appointment in inorganic chemistry at the University of Chicago,

he accepted a position on the research staff of the School of Public Health, University of California, Berkeley, where he worked as an environmental chemist in a multidisciplinary marine science group. At Berkeley, he advanced to chair the Environmental & Marine Science Department of the Naval Biosciences Laboratory in the School of Public Health, where he managed a team of chemists and marine biologists investigating the fates and effects of chemicals in estuarine environments.

Computer Systems Special Session

by *Lorraine Normore, Program Chair*

Dick Pew, principal scientist at BBN Technologies, who has been in the field of HCI since its early days, will present perspectives on the development of the field of HCI. The session is scheduled for Thursday, October 3, 10:30 a.m.–12:00 p.m. (check your program for the room). He will lay out key ideas of some of the field's founders (Vannevar Bush, J. C. R. Licklider, Douglas Englebart), providing additional insight drawn from his personal experiences. He will also speak about the historical development of the technologies underlying HCI and the challenges that each new technology has brought to the field, ending with the question of the "disappearance" of the computer interface per se as ubiquitous computing takes on a larger role. He will be introduced by Richard Jagacinski, Ohio State University. Arnold Lund, Sapient, will act as discussant for this special session.

Professional Development Panel

by *Cristina Bubb-Lewis, Program Chair*

Professional Development and General Sessions are proud to announce a panel entitled "HF/E's Place in the Parade: Should We Be Drum Majors or Toot Our Own Horns?" The panel will be held on Tuesday, October 1, from 1:30 to 3:30 p.m. At the 2001 HFES Annual Meeting, then-President William Howell's thought-provoking remarks on the state of the human factors discipline spawned a healthy debate surrounding how we move forward as a group that influences system design. Howell presented two views of the world regarding our state, following the metaphor of the "HF/E Parade." The parade metaphor, representing the gamut of system design processes, is an apt one, because we can see ourselves in several roles, including leadership, planning the parade route, or, as has been said, "cleaning up the mess" after everyone marches by.

This panel will review several corporate situations that relate their experiences with the process of putting HF/E into a position of influence in system design. The panelists will discuss their unique experiences in gaining a foothold with their internal or external customers with respect to HF/E processes and methods, using Howell's comments and position as a discussion departure point. In addition, the movement of HF/E into a strategic position in the panelists' organizations will be addressed.



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CEDM Sessions

by *Nancy Cooke, Program Chair*

The Cognitive Engineering and Decision Making (CEDM) Technical Group received a record number of submissions (101) this year. The quality of these submissions was impressive, and CEDM reviewers worked hard to produce a diverse and stimulating 2002 program. There will be 19 CEDM sessions, four of them cosponsored (with Aerospace Systems, Medical Systems and Rehabilitation, General Sessions, and Training Technical Groups).

One not-to-miss panel session (October 3 at 10:30 a.m.) is titled "GUTs or No GUTs (Grand Unified Theories): Does/Can/Should Cognitive Engineering Have GUTs?" organized by David D. Woods, Ohio State University; with participants Kim Vincente, University of Toronto; Emilie Roth, Roth Cognitive Engineering; Gary Klein, Klein Associates, Inc.; Robert Hoffman, University of West Florida; Peter Hancock, University of Central Florida; and John Flach, Wright State University.

Several lecture sessions focus on decision-making processes and include topics such as decision aids and trust, human and machine decision making, and decision making in the armed forces. A current "hot topic" in this area, "National Differences and the Decision-Making Process," will be showcased in a symposium organized by Helen Altman Klein, Wright State University, to be held October 1 at 10:30 a.m. Presentations in this symposium will examine the barriers faced by practitioners as they apply current models of cognitive engineering and decision making to other national groups and to multinational interactions.

Also note that at CEDM's business meeting on October 2 at 4:30 a.m. there will be an informal poster session on the topic of "CEDM Applied to Homeland Defense." Some of CEDM's ongoing and potential contributions to current problems of critical importance will be displayed. Please contact Steve Fiore at sfiore@pegasus.cc.ucf.edu if you are interested in presenting a poster at this meeting.

Macroergonomics Methods Symposium

by *Hal W. Hendrick, Program Chair*

For the first time, many of the proven major methods that have been either developed or modified for macroergonomics interventions will be reviewed in a single symposium by leading macroergonomics researchers and practitioners. Be sure to attend this session, which takes place on October 2 from 8:30 to 10:00 a.m. Twelve major macroergonomics methods for analysis, design, and evaluation in macroergonomics research and interventions will be summarized. Seven of these are adaptations of well-known organizational and ergonomics methods for use in macroergonomics research and interventions: participatory ergonomics, organizational questionnaire surveys, interviews,

focus groups, field studies, field experiments, and cognitive walk-through analysis.

Six are methods that have been developed based on sociotechnical systems theory and research for use in macroergonomic-level studies and interventions: Macroergonomic Analysis of Structure (MAS) for improving the structure of work systems; Macro-Ergonomic Analysis and Design (MEAD) for improving work system processes; System Analysis Tool (SAT) for doing trade-off evaluations of intervention alternatives; High Integration of Technology, Organization, and People, (HITOP) for implementing new technology into the work system; TOP-Modeler, a decision support system for manufacturing organizations to help them identify the organizational changes required when new process technologies are being considered, and CIMOP, a knowledge-based evaluation system for evaluating computer-integrated manufacturing, organization, and people system design. The presenters will summarize an actual application of most of these methods.

Invitation to "Attend" CybErg'2002

By *Andrew Thatcher, General Chair, Cyberg'2002*

We invite all HFES members and others interested in human factors to attend and participate in the third international Web-based, virtual conference on ergonomics/human factors, CybErg'2002. This conference is organized and run entirely on line, and you can attend from any location.

The conference discussions will be active from September 15 to October 15. As in 1996, this year's CybErg conference will provide free access to attendees of the HFES 46th Annual Meeting in Baltimore for the duration of the meeting (September 30-October 4). If you wish to participate in the conference before or after the annual meeting and/or receive the proceedings on CD-ROM, you will have to register and pay a small fee of \$75.

The conference papers were selected from extended abstracts reviewed by at least two members of the International Scientific Advisory Committee consisting of Leon Straker (Australia), Rabin-dra Sen (Malaysia), Kwan Lee (South Korea), Don Harris (UK), Houshang Shahnavaz (Sweden), Francisco Fialho (Brazil), Mario Vidal (Brazil), Jeff Kelley (USA), Pawan Vora (USA), Pat Scott (South Africa), James Fisher (South Africa), and Jon James (South Africa). The 57 papers selected through this review process have been arranged into 14 theme-based sessions. There are also four thought-provoking symposium sessions consisting of an additional 14 papers. Altogether there are 71 papers with authors representing 23 countries including Africa, Asia, Australasia, Europe, North America, and South America. In particular, there are a number of papers reporting on human factors interventions in Iran, China, Brazil, Algeria, Turkey, India, Vietnam, Hungary, and South Africa.

To register on line, go to <http://cyberg.wits.ac.za/registrat.html> or e-mail the conference chair, Andrew Thatcher, at thatcher@umthombo.wits.ac.za.

Hot Topic Session: HF and Homeland Security

By Mark W. Scerbo, Technical Program Committee Chair

In the wake of the terrorist attacks on the United States on September 11, 2001, President Bush issued an Executive Order creating the Office of Homeland Security. Its mission is to develop and coordinate the implementation of a comprehensive national strategy to secure the United States from terrorist threats or attacks by focusing on policy and goal setting, direct intervention and prevention, intelligence and information gathering, and preparedness and recovery.

The ability of the United States to bolster the security of its people at home and abroad will draw upon the talents and expertise of individuals from many different domains. Human factors is no exception. A special half-day colloquium on the role of human factors in homeland security will take place on Tuesday, October 1, from 1:30 to 5:00 p.m. All attendees are invited to participate. The purpose of the colloquium is to bring together human factors experts and representatives from organizations and government agencies responsible for different aspects of homeland security to discuss lessons learned, potential threats, and human factors approaches to prevention, defense, and response.

Errata

The June-July Bulletin announcement of a colloquium entitled "The Human/Factors Ergonomics Role in Promoting Corporate Social Responsibility" included an incorrect e-mail address for Maria J. Brunette. The correct address is mjbrunette@students.wisc.edu.

On page 2 under "Baltimore Logistics," the incorrect number was given for reserving hotel rooms. The correct number is 888/511-7809. ☒

INSIDE HFES

HFES Welcomes New Members

The following individuals joined the Society in the month of June. Their membership applications are subject to final ratification by the HFES Executive Council at its next meeting in October.

| | | |
|-------------------|--------------------|------------------------|
| Members | Daniel McCune | Nicholas D. Cassavaugh |
| Erwin R. Boer | Bryan Y. Walker | Jean M. Catanzaro |
| David R. Hunter | Affiliates | Elizabeth Cook |
| O-Seong Kweon | David J. Blomme | Renee Eileen DeRouin |
| Andrew Wood | Greg Jagiello | Mark T. Jodlowski |
| Associates | Miriam E. Necesito | Kevin A. Long |
| Terry G. Ballard | Students | Dustin A. Marks |
| Marcia J. Bufton | Komal Bajaj | Jeff L. Mayhugh |
| Ania Hernandez | Randy J. Brou | Chen Wei ☒ |
| David C. Kraus | Daniel W. Carruth | |

News

UK Patient Safety

A new study will address the challenge of reducing medical error across the National Health Service (NHS) of the UK. "Design for Patient Safety" is a study funded by the Department of Health and the Design Council that will address the 850,000 medical errors that occur annually in the UK. These errors cause patient suffering and cost the NHS £2 billion in additional hospital stays and £400 million in clinical negligence settlements. Research will explore whether effective use of design can improve patient safety through the development of user-focused medical equipment or the creation of systems and processes that are less prone to human error.

For more information, visit <http://www-edc.eng.cam.ac.uk/medical>, or contact the Robens Centre for Health Ergonomics, EIHMS, University of Surrey, Guildford, Surrey GU2 7TE; +44 0 1483 689213.

Source: *The Ergonomist*, June 2002.

Work Design and Heart Disease

A recent Health and Safety Executive (HSE) research report indicates that a stressful working environment can lead to coronary heart disease. The report, "Work Environment, Alcohol Consumption, and Ill Health. The Whitehall II Study," presents a correlation between an increased incidence of heart disease and high job demands, low job control, and physical effort-reward imbalance. The report is based on a study of the health of more than 10,000 British civil servants. It also explores the role of alcohol consumption in work absence through accidents. The study is published as HSE Contract Research Report 422/2002, and can be ordered on line at <http://www.hsebooks.co.uk> or by phone at +44 0 1787 881165.

Source: *The Ergonomist*, June 2002. ☒

IN THE NEWS

Najmedin Meshkati wrote an op-ed piece for the May 20 edition of *The Alaska Daily News* entitled, "There Is Hope for Aviation Safety." The article addresses the launch of a major statewide aviation safety program designed to decrease the disproportionately high fatality rate of civilian pilots in Alaska. View the article on line at <http://www.adn.com/opinion/v-printer/story/1128922-p-1236360c.html>.

Meshkati was also interviewed for KCET's *Life and Times* on June 24 regarding the safety of nuclear waste and its transportation to Yucca Mountain.

Mark Draper was interviewed for an article in the July issue of *Aerospace America* entitled, "UAVs and the Human Factor." Draper discussed his work at AFRL's Synthetic Interface Research for UAV Systems (SIRUS) lab and the future of unmanned aerial vehicle operation. ☒

Peer Networking Goal: Promote the evaluation and exchange of information among HF/E researchers, educators, and practitioners.

Strategic Objectives:

- Produce materials in which HF/E researchers, educators, and practitioners can present their work, knowledge, and ideas to the HF/E community.
- Provide forums through which HF/E researchers, educators, and practitioners can interact.

Outreach Goal: Promote the exchange of information between HF/E professionals and those who need our services.

Strategic Objectives:

- Advance the level of knowledge about HF/E among non-members.
- Promote the sharing of information and interaction with non-members.
- Advance and promote the understanding and appreciation of user-centered design among the general population.
- Ensure that human-centered design principles are incorporated into industry standards and government regulations that significantly affect human performance and quality of human life.
- Ensure that human factors and ergonomics professionals are included in committees, boards, commissions, panels, or other bodies that provide advice and guidance to government agencies and industries on issues affecting human performance and quality of human life.

DP: The final step will be to develop an action plan for each strategic objective. Council is in unanimous agreement that the action plans must come from the groups within the Society that will be responsible for implementing them, rather than from us. Our role is to provide leadership, not micromanagement.

BB: The action plans, as Dave says, must be an outgrowth of the membership and reflect your buy-in and priorities. Each committee will be asked to review the strategic objectives and identify those actions they feel will allow them to best serve the membership as a committee. In this way, the action plans help to ensure that the Society becomes what you need it to become and works in a way that best fulfills your needs. The HFES Strategic Plan has always been intended to be a “living” document that both recognizes and embraces change. This means that each new Council will be responsible for reviewing, assessing, and reprioritizing the action plans and activities undertaken to move the Strategic Plan ahead to best serve the Society and to allow it to adapt to meet the evolving needs of the membership, the field, and the future. The Operating Rule mentioned earlier is but one step in that process that requires attention by the Executive Council each year.

DP: Barry and I are very much on the same wavelength regarding the plan. I've been partnering with him in much the same way that Bill Howell did with me, and I think the resulting

consistency in leadership direction is very healthy and productive for HFES.

BB: It is my hope that during my year as president, I can build on the efforts of prior presidents, particularly Bill Howell and Dave, and strengthen the process surrounding this important set of objectives. I believe that it represents the best mechanism we have to plan our progress and measure it over the coming years. There is no doubt that the next several years will be challenging, and the Strategic Plan is an outstanding tool to meet those challenges. The progress Dave has made in updating the Strategic Plan is an important first step in institutionalizing it as a roadmap for HFES. 

PEOPLE

Terence S. Andre won the annual Air Force Research Laboratory (AFRL) Leadership Award. He was recognized for outstanding performance in 2001 as chief of AFRL's Warfighter Skill Development and Training Branch. He worked to expand the branch's personnel and technical program substantially and improved communication and coordination among its members. Contact him at Air Force Research Lab, Warfighter Training Research Div., 6030 S. Kent St., Mesa, AZ 85212-6061; 480/988-6561 x142.

Kristen K. Liggett won the Aerospace Human Factors Association's 2001 Stanley N. Roscoe Award, which recognizes outstanding doctoral dissertations in aerospace human factors. Her dissertation, “The Effect of Helmet-Mounted Display Symbology on the Opto-Kinetic Cervical Reflex, Frame of Reference, and Pilot Performance,” investigated frames of reference that pilots use to determine their spatial orientation and the resulting implications for helmet-mounted display attitude symbology. Contact her at Air Force Research Lab, Human Effectiveness Directorate, AFRL/HECI, 2210 Eighth St., Wright-Patterson AFB, OH 45433-7511; 937/255-8251; kristen.liggett@wpafb.af.mil.

Colin Drury was named a University Distinguished Professor by the State University of New York at Buffalo. The distinction recognizes full professors who have achieved true distinction and are leaders in their fields. Drury has a distinguished record of research in areas of industrial process control, quality control, and aviation maintenance and safety. Contact him at SUNY Buffalo, Bell Hall, Rm. 410, Box 602050, Buffalo, NY 14260-2050; 716/645-2357 x 2117; drury@buffalo.edu.

Ann Bisantz was recognized with a State University of New York at Buffalo Investigator Award, given to professors early in their careers. Bisantz conducts research in areas of human decision modeling and information display design. Contact her at 342 Bell Hall, Dept. of Industrial Engineering, SUNY Buffalo, Buffalo, NY 14260; 716/645-2357 x 2474; bisantz@eng.buffalo.edu.

Waldemar Karwowski received the Engineering Libraries Division of the American Society for Engineering Education Best Reference Work Award for *The International Encyclopedia of Ergonomics and Human Factors*. This award is a certificate of merit given to new, significant reference works. Contact him at Center for

Industrial Ergonomics, Lutz Hall, Rm. 445, University of Louisville, Warnonck Street, Louisville, KY 40292; 502/852-7397; karwowski@louisville.edu.

Clarence C. Rodrigues received a second place American Society of Safety Engineers' Professional Paper Award. "Ergonomics to the Rescue: A Cost Justification Case Study" was published in the April 2001 issue of *Professional Safety* and focused on a firm in the process of changing its business approach. Contact him at Embry Riddle Aeronautical U., Applied Aviation Sciences, 600 S. Clyde Morris, Daytona Beach, FL 32114; 904/323-5062; rodrigcl@erau.edu. ☒

CALLS FOR PAPERS

Ergonomics Center Conference

The Ergonomics Center of North Carolina invites submissions for presentations at its conference, to be held February 18–20, 2003, in Raleigh, North Carolina. Topic areas include current issues in ergonomics, interactive solutions, and business and process ergonomics. Submissions are due *September 9, 2002*. Contact Stephen McNierny, The Ergonomics Center of North Carolina, 3701 Neil St., Raleigh, NC 27607; 919/515-2052; mail@theergonomicscenter.com, <http://www.theergonomicscenter.com>.

Include 2003

Abstracts are invited for the second inclusive design contest, Include 2003, to be held March 25–28, 2003, in London, England. Topic areas include workplace design, transport, and domestic interiors. Abstracts are due *September 30, 2002*. Contact John Bound, Royal College of Art, Kensington Gore, London, SW7 2EU, UK; +44 0 20 7590 4242, fax +44 0 20 7590 4244; include@rca.ac.uk, <http://www.hhrc.rca.ac.uk/events/include2003/index.html>.

Human Systems Integration Symposium

Abstracts are invited for the Human Systems Integration Symposium to be held in Tyson's Corner, Virginia, on June 24–26, 2003. Papers are encouraged on topics related to developing or applying human-systems integration principles, methods, tools, and measures to the 21st century joint or maritime systems. Specific areas of interest include policy and acquisition strategies, distributed decision making, and metrics and life cycle cost pay-offs. Abstracts are due *November 15, 2002*. Contact Daniel Wallace, DD(X) HSI Director, Code G50, Naval Surface Warfare Center Dahlgren Division, 17320 Dahlgren Rd., Dahlgren, VA 22448-5100; 202/781-2598, fax 540/663-3050; wallacedf@navesea.navy.mil, http://www.navalengineers.org/Events/hsis2003/hsis_cfp.html. ☒

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.

★ **International Road Federation & Australian Road Federation Asia Pacific Roads Conference and Exhibition**, September 1–5, 2002, Sydney, Australia. Roads Conference Managers, GPO Box 128, Sydney NSW 2001, Australia; 61 2 9262 2277, fax 61 2 9262 3135; road@tourhosts.com.au, <http://www.tourhosts.com.au/roads>.

Human Factors and Ergonomics Society 46th Annual Meeting, Rescheduled: September 30–October 4, 2002, New Location: Baltimore, MD. HFES, P.O. Box 1369, Santa Monica, CA 90406-1369; 310/394-1811, fax 310/394-2410; info@hfes.org, <http://www.hfes.org>.

★ **Association of Canadian Ergonomists and IIE Applied Ergonomics Joint Conference 2002**, October 21–23, 2002, Banff, Alberta, Canada. ACE-AE2002, 840 6th Ave. S.W., Ste. 300, Calgary, Alberta, Canada, T2P 3E5; 866/206-2220, fax 403/206-7285; <http://ace-ae2002.aceconf.ca>.

★ **Human Factors and Ergonomics Society Europe Chapter Annual Meeting 2002**, October 23–25, 2002, Dortmund, Germany. Dick de Waard, University of Groningen, Experimental and Labour Psychology, Grote Kruisstraat 2/1, NL-9712 TS Groningen, Netherlands; +31 50 363 6758, fax +31 50 363 6784; d.de.waard@ision.nl, <http://www.ision.nl/users/hfesec/conf.htm>.

★ **The Ergonomics Center of North Carolina Conference**, February 18–20, 2003, Raleigh, North Carolina. Stephen McNierny, The Ergonomics Center of North Carolina, 3701 Neil St., Raleigh, NC 27608; 919/515-2052; mail@theergonomicscenter.com, <http://www.TheErgonomicsCenter.com>.

★ *Indicates new listing.* ☒

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Opinions expressed in BULLETIN articles are those of the authors and should not be considered as expressions of official policy by the Human Factors and Ergonomics Society.

F L A S H !

Plan to Attend!

**HFES 46th Annual Meeting
September 30–October 4, 2002**

Now at the HFES Web site:

- Exhibitor Information
Overview of Technical Sessions**
- On-Line Registration
Preliminary Program**

**Early reg deadline:
August 30, 2002**

**Hotel booking deadline:
September 4, 2002**



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and
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