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## Submit Your Health Care Ergonomics Paper for the First *Human Factors Prize*

HFES is proud to announce the *Human Factors Prize*, established in 2010 by Editor-in-Chief William S. Marras. The prize, which will be presented for the first time in 2011, recognizes excellence in HF/E research through an annual competition in which authors are invited to submit papers on a specific topic for that year. The topic is selected by the editor in chief in consultation with a Board of Referees chaired by Immediate Past *Human Factors* Editor Nancy J. Cooke.

The prize carries a \$10,000 cash award and publication of the winning paper in the Society's flagship journal, *Human Factors* (<http://www.hfes.org/Publications/ProductDetail.aspx?ProductId=1>). The award will be formally conferred at a special session at the HFES Annual Meeting (<http://www.hfes.org/Web/HFESMeetings/meetings.html>), where the recipient will present his or her work.

The topic for the inaugural-year *Human Factors Prize* is health care ergonomics. HFES invites researchers in this area to submit their work by uploading a manuscript at the *Human Factors* submission site (<http://mc.manuscriptcentral.com/humanfactors>). Be sure to indicate your submission is for the *Human Factors Prize*.

Manuscripts must cover original research in the area of health care ergonomics and comply with the requirements in the instructions for authors available on the HFES web site (<http://www.hfes.org/Web/PubPages/hfauthorinfo.html>). Submitters need not be members. Review articles or brief reports are not eligible for the Prize.

Visit the *Human Factors Prize* Web page (<http://www.hfes.org/Web/PubPages/hfprize.html>) for additional details about eligibility, evaluation criteria, and deadlines. Send inquiries to W. S. Marras at [marras.1@osu.edu](mailto:marras.1@osu.edu).

## OUTREACH

### CHAAT Brings Science and Technology to Grade-School Girls

by Thomas Z. Strybel

During the summer of 2010, two programs enabled fifth- and eighth-grade girls to explore possible careers in the fields of science and technology. In the first, 10 high-achieving eighth-

grade girls from the Long Beach School District in California participated in a one-week workshop on human factors and other engineering disciplines. In the second, 30 fifth-grade girls participated in a series of educational forums at the Kennedy Space Center in Florida.

The two programs were made possible through the establishment of CHAAT—the Center for Human Factors in Advanced Aeronautics Technologies (<http://chaat.cla.csulb.edu/>) as well as interdisciplinary collaborations between the College of Liberal Arts and the College of Engineering at California State University, Long Beach (CSULB). Directed by HFES member Thomas Strybel, CHAAT is researching the impact that human factors have on pilots and air traffic controllers in the Next Generation Air Transportation System.

In 2009, CHAAT was designated as a NASA University Research Center with a five-year award from the NASA Education Office, one of only a dozen university research centers nationwide. NASA University Research Centers are designed to achieve a broad-based, competitive aerospace research capability among minority institutions in the United States. The purpose of these centers is to foster new aerospace science and technology concepts, expand the nation's base for aerospace research, and increase the participation of socially and economically disadvantaged students in science, technology, engineering, and mathematics (STEM) careers.

According to a recent National Academy of Sciences report, the number of U.S.-trained STEM professionals will be insufficient to meet the nation's future workforce needs in these areas. Moreover, the current number of students who are enrolled in a STEM field of study is not representative of the diversity in the nation's racial and ethnic populations. As a result of this disturbing finding, CHAAT funded the "Engineering Girls Internship," and NASA designed the "NASA Learning Experience" program to encourage students—especially minorities—to pursue STEM fields of study.

### **Engineering Girls Internship**

The "Engineering Girls Internship" program is designed to inspire girls to pursue careers in human factors, science, technology, engineering, and mathematics. Funded by CHAAT and directed by HFES member and CHAAT Co-Investigator Kim Vu, CHAAT Research Associate Pannada Marayong, and CHAAT Educational Partner Lily Gossage, the internship consisted of 10 eighth-grade girls who were selected from a pool of 150 applicants. All interns were academically advanced in mathematics and science and showed an interest in learning about engineering and technology. "This is the first STEM-based residential program for such young students. Many of those who applied had already completed Algebra I and II, which means they are two years ahead in math and are expected to complete calculus or AP calculus by the 12th grade," said Gossage, director of CSULB's College of Engineering Recruitment and Retention Center. "The average GPA of these girls was 3.83, and the average CST score was 438, which is well above the expected state proficiency level." The program was also exciting, Gossage added, because "overall in professional practice, less than 10% of engineers are women."

Students spent one week in a dormitory on the CSULB campus and interacted with human factors and engineering university professors, professional engineers, and engineering managers. The interns learned about the work done by professional engineers and scientists who deal with space exploration, air traffic safety, and scientific research. These topics were designed to expose the students to a broad range of engineering specialties and applications. For the human factors workshop, students learned about air traffic management and directed traffic in a simulated en route airspace sector while using air traffic controller headsets to communicate with CHAAT pseudo-pilots in an adjacent room. Other workshops introduced the students to robotics, acoustics, electrical engineering, and other disciplines, thanks to the voluntary efforts of faculty from CSULB's engineering and psychology departments.

Based on feedback obtained in exit surveys, the students were extremely positive about their experiences. When asked whether the internship had changed their interest in engineering careers, one student commented, "Yes, I am more interested in engineering, because I got to see how fun it is, and interesting." When asked about which engineering discipline interested them most, students' responses varied; some chose human factors, and others chose chemical engineering, aerospace engineering, computer science, or electrical engineering. Students were also asked what they learned about human factors. Comments such as "Human factors includes how people react

and respond to certain products” indicated that their views of the human factors discipline had been changed.

### **NASA Learning Experience**

The NASA Learning Experience program took place in July 2010 at the Kennedy Space Center. Created out of Minority University Research and Education Programs Small Projects opportunities, the program was part of NASA’s “Summer of Innovation” initiative and the federal “Education to Innovate” campaign. Through these programs, universities can bring students to the Kennedy Space Center to involve them in educational forums, hands-on activities, and a tour of the center. Led by Principal Investigator Lily Gossage and Co-Investigator Panadda Marayong, 30 low-income, fifth-grade girls selected from Long Beach elementary schools visited the center with six teachers from their respective schools. The teachers acted as representatives for their schools in order to bring back and incorporate NASA curriculum into their classrooms.

### **Culmination of the Summer Activities**

At the end of the summer, Vu and Gossage accompanied 50 of the grade-school participants to NASA’s Dryden Flight Research Center in Edwards, California, for the “Summer of Innovation” culminating event. Two students from the CSULB programs were selected to communicate with in-flight F-18 pilots as part of mission control.

Since both the Engineering Girls Internship and the NASA Learning Experience are pilot programs, all student participants will be tracked to measure the impact of the programs on their future educational and career paths to determine if any of them pursue STEM education and aerospace careers.

To obtain more information about CHAAT outreach programs, go to <http://chaat.cla.csulb.edu/> and click the link to “K-12 Outreach.” Engineering industry companies and professionals and those from other organizations are welcomed to sponsor future programs.

*Tom Strybel is principal investigator, director of CHAAT, and professor of psychology at California State University, Long Beach.*

## **MEMBERSHIP**

## **Renew Your Membership Today!**

HFES members enjoy a wide range of benefits at great savings. Free access to HFES publications alone costs a nonmember \$878 for the online format of these titles, but HFES members pay just \$195 annually:

- *Human Factors*: \$451
- *Ergonomics in Design*: \$79

And starting January 1, through an expanded copublishing partnership with SAGE, you’ll also get free online access to these three HFES periodicals:

- *Journal of Cognitive Engineering and Decision Making*: \$169
- *Reviews of Human Factors and Ergonomics*: \$95
- Proceedings of the HFES Annual Meeting: \$84

Through your free online access, you’ll have more than 16,000 articles and abstracts at your fingertips. In addition to these excellent publications, you’re entitled to the following benefits:

- Discounted registration and workshop fees for the HFES Annual Meeting
- Access to the members-only HFES Career Center for confidential résumé posting and job searching, and the On-Site Career Center at the Annual Meeting
- Consultants Directory for individuals and companies (for Full Members, Fellows, and Honorary Fellows)
- Opportunity to nominate yourself or colleagues for Awards and Fellows
- Discounted subscription rates for the IEA journal *Ergonomics* (\$220) and the online version of *Theoretical Issues in Ergonomics Science* (\$99 + VAT)
- 20% off software, workload assessment tools, data analysis tools, and other products from the Human Systems Information Analysis Center
- 15% off Taylor & Francis and CRC Press books and subscriptions to *Ergonomics in Design*
- 15% off selected books from Academic Press
- Discounts on car rentals from Hertz and Enterprise

All member benefits can be found online at <http://www.hfes.org/web/Membership/benefits.html>.

Continuing the Society's resource conservation efforts, the 2011–2012 *HFES Directory & Yearbook* will include listings only for members who have renewed their membership by **March 7**. To ensure that your most up-to-date contact information appears in the printed directory, please log in to your member record by **March 7** and make the necessary changes. As was the case in 2010, only business contact information will be included. The most current contact information for members will always be accessible via the online membership directory when you log in at [hfes.org](http://hfes.org). (Forgot your HFES login ID? Contact Member Services at [membership@hfes.org](mailto:membership@hfes.org), 310/394-1811.)

Log in today and renew to ensure your continued access to the Society's publications and your network of peers in the field.

## NEWS

# Harvard Business Review Discovers Ergonomics at BMW

by William F. Moroney, PhD, CPE

It appears that 2010 should have been dubbed “The Year of the Distracted Driver,” based on all the media attention focused on the topic. From *New York Times* articles (see the series at [http://topics.nytimes.com/top/news/technology/series/driven\\_to\\_distraction/index.html](http://topics.nytimes.com/top/news/technology/series/driven_to_distraction/index.html)), to lengthy discussions on *The Oprah Winfrey Show* (<http://www.oprah.com/oprahshow/The-Brain-and-Distracted-Driving>), distracted driving has become a part of the nation's lexicon. However, away from all the hype about how people are driving their cars, the automotive industry is addressing a less dramatic but financially critical ergonomics issue of its own: the aging worker.

Anticipating an increase in the number of aging workers and problems resulting from their decreased ability to handle physiological loads and stresses, BMW initiated a countermeasures study. Some companies address the aging-worker problem by “encouraging” early retirement and/or reassigning older workers to jobs that are less physically demanding. These strategies are costly and ultimately require hiring and training new, and often younger, employees. BMW wanted to maintain its skilled workforce and avoid the charge of age discrimination, so the company developed a different strategy.

“How BMW is defusing the demographic timebomb” (*Harvard Business Review*, March 2010, pp. 99-102) describes BMW's systematic approach to the dilemma. In 2007 the average age of its production-line worker was 39 (about 20% of workers were older than 50). By 2017 the aver-

age age is expected to be 47 (40% are expected to be older than 50). In a pilot study, at a power-train assembly plant in Lower Bavaria, BMW staffed a labor-intensive production line with a sample that was representative of the year 2017 workers ( $N = 42$ ). By the end of the study, BMW had made 70 changes and spent €20,000 on capital investment and €20,000 on labor investment. The return on investment included a 7% increase in productivity within the year, a reduction of four workers on the assembly line, attainment of the goal of 10 defects per 1 million within 3 months, and a 5% decrease in absenteeism (from 7% to 2%).

BMW attributed its success to a number of factors, including facilitating a bottom-up development process involving participation by members of the Workers Council, encouraging input from line workers by allowing them to initiate and rank their suggestions for continuous product improvement, and supporting the workers by providing professionals in the areas of ergonomics, safety, physiotherapy, and process engineering. Specific changes included installing wooden flooring, adding adjustable work tables and sit/stand chairs, providing angling monitors and using a larger typeface, and providing magnifying lenses, large-handled gripping tools, stackable transport containers, and manual hoisting cranes.

A particularly innovative approach included developing a job rotation strategy based on the level of strain found at each workstation. A Type A workstation caused mild/moderate strain; Type B was most physically demanding, and Type C was least physically demanding. For example, any workers assigned to Category B workstations worked a maximum of 3 hours per shift at that particular workstation, then rotated to workstations A and/or C for the remainder of the shift.

This successful program will be tested and evaluated at assembly plants in the United States, Germany, and Austria.

*Bill Moroney is a professor emeritus in the Department of Psychology at the University of Dayton. He also serves as a senior editor for Ergonomics in Design.*

## **FPE Presents 2010 Jahns Student Practitioner Award**

Augusto Espinosa, a student at Embry-Riddle Aeronautical University, has been named the first recipient of the Dieter W. Jahns Student Practitioner Award by the Foundation for Professional Ergonomics, or FPE ([www.ergofoundation.org](http://www.ergofoundation.org)). Espinosa was recognized for his concept design project of a men's public urinal with a built-in hand sanitation system.

The award was created in honor of Dieter Jahns, a life-long advocate of the practice of ergonomics and a leader in ergonomics certification. Jahns's wife, Karel, presented the award at the Board of Certification in Professional Ergonomics's reception at the HFES Annual Meeting in San Francisco in September. The award includes a \$500 cash prize.

Espinosa, who is pursuing an MS in human factors and systems, was surprised by the recognition. He said, "I feel truly honored; it's great to see how the Foundation for Professional Ergonomics is willing to support and motivate students in our field."



The Dieter W. Jahns Student Practitioner Award is given each year to a student (or group of students) for an ergonomics project that demonstrates the major practice areas of ergonomics: analysis, design, and evaluation. The purpose of the award is to advance professionalism in ergonomics by recognizing educational activities that demonstrate how professional ergonomists make people's lives at work and at home healthier, safer, more productive, and more satisfying. Details about eligibility and other criteria are available at [www.ergofoundation.org](http://www.ergofoundation.org).

*Karel Jahns presenting the award to Augusto Espinosa.*

## New Site for Submission of Manuscripts to *Ergonomics in Design* Opens

HFES is pleased to announce the launch of a new manuscript submission site for *Ergonomics in Design* (<http://www.hfes.org/Publications/ProductDetail.aspx?ProductId=36>). The *EID* ScholarOne Manuscripts site makes it easy for authors to upload their submissions any time from any location and for the editor and editorial board to expedite the review process.

*EID* is the third HFES journal to offer a ScholarOne Manuscripts site for submission and review. ScholarOne Manuscripts is a highly regarded journal and peer review tool for scholarly publishers and societies. It balances a journal's requirements to create and solicit content with an author's interest in getting published work out to a professional audience.

For upcoming issues, *Ergonomics in Design* welcomes original articles describing how human factors/ergonomics principles are applied in all aspects of the profession, including system or product design, simulation, testing, training, operation, maintenance, or management. Articles of many formats are invited to foster an exchange of ideas and to help practitioners grow and keep current and for researchers to identify knowledge gaps.

*EID* submissions may be uploaded at: <http://mc.manuscriptcentral.com/ergonomicsindesign>. Instructions for Authors are available at <http://www.hfes.org/web/PubPages/EIDauthorguidelines.html>.

## SOCIETY HONORS

### Awards Nominations Invited

Each year during the HFES Annual Meeting, the Society honors outstanding persons who have made significant contributions to the human factors/ergonomics discipline. Nominations are requested from HFES Full Members for six of these awards. Nominees are not required to be HFES members. Submissions are due on or before **March 31, 2011**.

To nominate an award candidate,

- submit the candidate's résumé or curriculum vitae, a nominating letter, and at least two but no more than three letters of support from individuals who know the candidate well enough to assess his or her candidacy in terms of the award's criteria; and
- send all nomination packages via e-mail to Lynn Strother, [lynn@hfes.org](mailto:lynn@hfes.org). Please submit the package as a single file in PDF format.

Nominations are sought for the following awards:

**Hal W. Hendrick Distinguished International Colleague Award** recognizes a non-U.S. citizen who has made outstanding contributions to the human factors/ergonomics field. Candidates are considered based on the significance of their contributions and their worldwide recognition within and outside the HF/E profession.

**Paul M. Fitts Education Award** recognizes a person who has made exceptional contributions to the education and training of HF/E specialists. Candidates should either be currently or previously engaged in college or university teaching of HF/E material or should have written significant textbooks in the field. The principal criteria for evaluation are the influence that the candi-

date has had on students and/or how extensively the candidate's work has been used by educators in general. If the criterion for the award is student influence, as many as five testimonials from current or previous students may be submitted in addition to the curriculum vitae or résumé and letters of recommendation.

This award is open to all Society members who train or educate and is not restricted to academic educators.

**A. R. Lauer Safety Award** recognizes a person for outstanding contributions to human factors aspects in the broad area of safety. This includes HF/E work that has led to reduced accidents and injuries in such areas as industry, aviation, surface transportation, and consumer products. Candidates' accomplishments should be related to safety or safety training technology as demonstrated by research or application of HF/E principles. Emphasis should be placed on both programmatic and recent contributions to the field of endeavor.

**Alexander C. Williams, Jr., Design Award** recognizes those who have made outstanding contributions to the conception or design of any product, service, or system that has had a significant impact on users and exemplifies the excellent use of empirical human factors/ergonomics design principles. "Product, service, or system" may include consumer or business products, training systems, communications systems, computing systems, display systems, control systems, highly procedural systems such as the air traffic system, or any combination of one or more people and equipment designed to perform some goal-oriented function. The product, service, or system need not necessarily be extremely large or complex. The essential criteria are that the product, service, or system has achieved operational status and that its conception and design are based on the outstanding application of experimentally determined HF/E design principles.

In addition to the curriculum vitae or résumé and letters of support, other evidence of the success of the design will be accepted, such as testimonials from users' performance evaluations or papers or reports that substantiate the extent to which the submission is based on experimentally derived HF/E design principles.

**Jack A. Kraft Innovator Award** honors a person for significant efforts to extend or diversify the application of HF/E principles and methods to new areas of endeavor. In addition, candidates must have made effective efforts to encourage the application of HF/E knowledge and techniques in new areas. The field of endeavor should differ from previous military, space, government, or industry-supported work. Candidates will be evaluated on the significance of their effort to society in general, the adequacy of the effort to accomplish intended objectives (e.g., thoroughness of problem analysis, effectiveness of proposed or achieved solutions), and the impact of their effort on the HF/E profession.

**Oliver Keith Hansen Outreach Award** recognizes both members and nonmembers who engage in significant activities that broaden the awareness of the existence of the human factors/ergonomics profession and the benefits it brings to humankind.

Award winners are notified prior to the HFES Annual Meeting and are recognized during the opening plenary session.

HFES also presents the following awards each year, which are not open for nominations:

- **Jerome H. Ely Human Factors Article Award** for the best paper published in the previous year's volume
- **Best Ergonomics in Design Article Award** for the best article published in the previous year's volume
- **Arnold M. Small President's Distinguished Service Award**
- **Alphonse Chapanis Student Paper Award.** Students are encouraged to compete for this award by submitting a proposal for consideration for the 2011 Annual Meeting. The award application form will be available to accepted authors in May.

# Applications for Fellow Due February 1

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.

The Fellow Application Package—including instructions, nomination and recommendation forms, and supporting information—may be obtained from the Fellows page (<http://www.hfes.org/web/Awards&Fellows/fellows.html>). You may also contact HFES Director of Member Services Carlos de Falla, [carlos@hfes.org](mailto:carlos@hfes.org). The completed application package (application form, recommendation form, candidate's vitae or résumé, and supporting documentation) must be received at the HFES Central Office on or before **February 1, 2011**.

## IEA

### News From the IEA Council Meeting

by **William S. Marras, Chair, IEA Representatives Committee**

The International Ergonomics Association (IEA) Annual Meeting was held on October 9–10, 2010, in Bruges, Belgium. Sixteen societies from around the world were represented at the meeting. The U.S. delegation consisted of HFES Representatives Deborah A. Boehm-Davis, Kathleen L. Mosier, and William S. Marras, as well as HFES Executive Director Lynn Strother (ex officio).

The IEA has been active on a number of fronts, described here. First, the organization announced the publication of two new items. *Ergonomics Guidelines*, in development for 10 years, is now available, and the second edition of the *IEA/ILO Ergonomics Checkpoints* has been published. In addition, *Ergonomics Checkpoints for Agriculture* is expected to be published in 2011.

IEA is actively involved in forging relationships with organizations whose members work outside the ergonomics field. As an example, IEA President Andrew S. Imada was recently featured in the publication *ISO Focus*, in which he describes to the larger international standards community the value of HF/E.

Several IEA "demonstration" projects are under way to help introduce ergonomics principles in developing countries. A workshop was held in Thailand to introduce occupational ergonomics using the publication *Ergonomics Checkpoints Council*. In addition, a "Lighthouse" project is under way in Nicaragua. This effort, led by Barbara Silverstein, examines ergonomics concerns in that country's coffee-harvesting industry.

IEA has been involved in efforts to encourage the consideration of HF/E principles in design. Under development since 2000, *EQUID* (Ergonomics Quality in Design) is a publication that is intended to bridge the gaps among ergonomics, design, and product managers. This document is undergoing revisions and should be finalized during the year. More information about EQUID is available at [http://www.iea.cc/02\\_about/EQUID%20Committee.html](http://www.iea.cc/02_about/EQUID%20Committee.html).

Finally, the IEA recognizes those in the ergonomics community who have contributed significantly to the science. At the council meeting it was announced that one of our HFES Fellows, Valerie J. Gawron, was elected as an IEA Fellow.

The next IEA council meeting will be held in South Africa in April 2011. The next IEA Triennial Congress will take place in Recife, Brazil, from February 12 to 16, 2012. Bookmark the Congress Web site for dates and other details: <http://iea2012.org/>. Proposals are due on April 15.

## New England HFES Student Conference 2010

The HFES New England Chapter hosted its annual student conference on October 22, 2010, at Microsoft's New England Research & Development (NERD) Center in Cambridge, Massachusetts. Attending were 70 human factors/ergonomics professionals and students from all over New England, who convened to network and enjoy a program of 22 presentations from students and sponsors.

Students from Bentley College, the University of Massachusetts, the University of New Hampshire, Massachusetts Institute of Technology, and Tufts University presented research about human factors in space, transportation, education, hospitals, and aging. Sponsor representatives from Aptima; Charles Rivers Analytics, Inc.; Liberty Mutual; and the NERD Center described their human factors portfolio. Judith Bürki-Cohen, a researcher at the U.S. Department of Transportation Volpe Center and president of the chapter, served as chair.

"In my opinion, this conference is an excellent opportunity for students to present their work. It requires them to organize their thinking and to figure out how to explain their work to a larger audience," said Dan Hannon, professor of the practice in the Department of Mechanical Engineering at Tufts University School of Engineering. "The questions and critiques are genuine and come from professionals who attend the conference as well as students, so the participants get worthwhile feedback."

Hui Ying Wen and James Won, doctoral students at MIT Man-Vehicle Laboratory and Tufts School of Engineering, respectively, received the sponsors' awards for the best papers. Wen's work on human-automation task allocation for space system design was deemed highly relevant for the Next Generation Air Transportation System, which is being developed to increase the efficiency of the National Airspace System. Won's work on the role of workload and situation awareness in team performance was conducted at MIT Lincoln Laboratories. The paper looked at the parameters that affect the performance of teams that are convened for a limited time, usually to solve specific problems.

A highlight was the luncheon presentation by John Moore, a physician and doctoral candidate in MIT's Media Lab. Moore uses his clinical knowledge to foster doctor-patient partnerships without interfering with the clinical workflow. He studies the effect that new technology-mediated paradigms for doctor-patient collaboration can have on education, adherence, and behavior change. One participant's comment summarized many others about Moore's presentation: "Moore's very motivating talk inspires me to continue to think outside the box and push the boundaries of HF design." Other evaluators appreciated the conference's informality, which enabled students to speak comfortably in front of the audience, to learn about the diversity of research at area schools, and to network with students, alumni, and colleagues.

For more information about the New England Chapter, please visit <http://www.nechfes.org>

## MEMBER MILESTONES



HFES Fellow **John H. Duddy III** died on November 22, 2010, at the age of 78. John was a former president and director of the HFES Bay Area Chapter, serving as the chapter's first chair of the original Affiliations Committee. He was the Society's first Intersociety Affiliations Committee chair; he also chaired the HFES Fellows Selection Committee. John was a member of the *Human Factors* Editorial Board and guest edited two special issues of the journal devoted to human factors and industrial design. In 1970, John worked with the Industrial Designers Society of America on the publication of a special issue on human factors and industrial design.

John had a lifelong commitment to developing a strong, collaborative relationship between designers and human factors specialists to promote the effective integration of knowledge about hu-

man requirements, capabilities, and limitations in the design and development of products, systems, and environments of all kinds. The culmination of his intersociety initiatives was achieving HFES affiliation with the American Association for the Advancement of Science. Born in Norristown, Pennsylvania, John received a BA in industrial design from Syracuse University and an MBA from Harvard Business School. He served on active duty with the U.S. Air Force at the Aerospace Medical Research Laboratory at Wright-Patterson Air Force Base and continued in the USAF Reserve for 30 years, retiring in 1986 as a colonel. John served in the Design Research Group and other branches for 20 years, then as a scientific and technical intelligence officer with the Air Force Intelligence Reserve assigned to the Scientific and Technical Intelligence Directorate of the Defense Intelligence Agency, and the U.S. Army Foreign Science and Technology Center.

John's civilian career was just as long and diversified; he was devoted principally to the design and development of advanced military and aerospace systems at Lockheed Missiles & Space Company in Sunnyvale and Palo Alto, California. John is survived by his wife of 38 years, Nancy J. Duddy, sons Steven K. Duddy and Blair K. Duddy, and his stepdaughter Lisa Ann Nazzaro.

## CALENDAR

### January 2011

**Transportation Research Board 90th Annual Meeting**, January 23-27, Washington D.C., <http://www.trb.org/AnnualMeeting2011/Public/AnnualMeeting2011.aspx>.

**SAE G-10**, January 31-February 3, Melbourne, FL, <http://www.sae.org/>.

### February 2011

**AUVSI Unmanned Systems Program Review 2011**, February 1-3, Washington D.C., <http://www.auvsi.org/AUVSI/AUVSI/Events/AUVSIEvents/Default.aspx>.

**Human Social Culture Behavior (HSCB) Modeling Program Focus 2011**, February 8-11, Westfields Marriott Hotel, Chantilly, VA, <http://www.sa-meetings.com/hscbfocus2011>.

**Society for Health Systems Conference and Expo 2011**, February 17-20, Peabody Hotel, Orlando, FL, <http://www.iienet2.org/SHS/Conference/>.

### September 2011

**Human Factors and Ergonomics Society 55th Annual Meeting**, September 19-23, Las Vegas, NV, <http://www.hfes.org/web/HFESMeetings/2011annualmeeting.html>.

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## Bulletin



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