

The FORVM

FORENSICS PROFESSIONAL GROUP
The HUMAN FACTORS and ERGONOMICS SOCIETY

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Chair's Page

I hope you have enjoyed your summer and have had time to relax. I would like to thank everyone for the support you have given me this year. As we move into 2006, I look forward to helping FPG accomplish a number of objectives. In particular, I would like to see our group prepare and present another big production next year (such as a mock trial). If you would like to be on a committee to organize such an event, please contact me. We have a wonderful program scheduled for our Annual Meeting in Orlando in September (see related article). I look forward to seeing you at FPG's business meeting on Wednesday, 9/28 at 3:30.

We have a new *FORVM* editor! Eric Shaver has volunteered to take the reins from Erik Olsen. Please show Eric your support by providing him with material at eshaver@appliedsafety.com. Have you read a book that you would like to review? Perhaps you would like to write a letter to the editor, or have an idea for an announcement or an editorial. All contributions are welcome. I would like to give special thanks for the hard work by Erik Olsen, both as Editor of *The FORVM*, and for serving as webmaster for [FPG's website!](#)

The Forensics Professional Group is as good as its members. Have you ever thought that the FPG would be better if only it did (fill in). Well now is your chance to make it happen. The FPG will be accepting nominations for new leadership at the beginning of the year. If you are new to the group and would like to meet people and learn the ropes, the Secretary/Treasurer position is the perfect job for you. If you would enjoy planning the technical program and help determine what papers are accepted, consider running for Program Chair. If you have been a member for a while and would like to lead FPG and attend the Council of Technical Groups as its representative, consider running for Chair. Feel free to nominate yourself. I hope to see you at our Annual Meeting in Orlando in September.

- Alison Vredenburg, 2004-2006 FPG Chair

YOUR FPG OFFICERS**Technical Group Chair: Alison Vredenburg**

Alison Vredenburg is the principal of Vredenburg & Associates, Inc., a research and consulting firm specializing in human factors and safety. She holds a Ph.D. in industrial-organizational psychology and a CPE certification. She is a member of the San Diego Center for Patient Safety.

Secretary Treasurer: Michael Maddox

Dr. Michael Maddox received a Bachelor of Science degree in Physics, and his Master of Science and PhD degrees in Industrial Engineering/Human Factors from Virginia Tech. His graduate research centered on information transfer from computer-generated displays. His human factors career now spans over 20 years.

Program Chair: Jay Pollack

Jay has been the Senior Human Factors Design Engineer for Crown Equipment Corporation for the past 3 years. His responsibilities include interface design, heavy equipment ergonomics and safety, and forensic human factors. His applied research interests include consumer and industrial product design, aviation human factors, virtual reality and safety.

Newsletter Editor Eric Shaver

Eric Shaver is a human factors specialist at Applied Safety & Ergonomics, Inc., a consulting firm specializing in human factors engineering/ergonomics, product/occupational safety and warnings and instructions. He received his Ph.D. from North Carolina State University in Ergonomics Psychology. His areas of interest include safety information design & evaluation, decision making, human error, and healthcare safety.

TREASURER NOTE

On 8/5/05 our balance was \$6,453.71 including >\$1,000 received from our video(s), with 261 FPG members.

2005 HFES Annual Meeting

The Human Factors and Ergonomics Society invites you to attend the 49th Annual Meeting, to be held September 26-30, 2005, at [Loews Royal Pacific Resort at Universal Orlando](http://www.loews.com) in Orlando, Florida. See info at <http://hfes.org/> Our FPG Business meeting will be held on **Wednesday, 9/28 from 3:30-4:30 PM**. Please contact an officer with any questions or input.

Summary of 2005 FPG Sessions

Compiled by Jay Pollack

This year, the Forensics Technical Group had only one session assigned for the presentation of papers at the conference. We received 10 lecture proposals and two posters. Of these, 5 lectures (FP1, Thursday, 8:30 AM) and both posters (POS2, Wednesday, 8:30 AM) were accepted for presentation at the meeting. The formal schedule, *as well as links to the submitted papers*, are now posted on the HFES Web site.

POS 2, Wednesday, 8:30AM-12:00PM

--Consequences of Poor Workplace Layout and Ambient Conditions: Case Study of an Industrial Injury (H. Harvey Cohen & Cindy A. Larue): *This poster presents an analysis of a litigated case involving a variety of human factors issues. Also discussed are the opinions prepared by the expert witness and an explanation of the steps that could have been taken to prevent the incident from occurring.*

--Intersection Right-of-Way: What Is an Immediate Hazard? (Thomas J. Ayres, Rajeev Kelkar, & Kelly Kennett): *This paper discusses a framework for contributions from human factors and vehicle kinematics to right-of-way questions, based on defining immediate hazard as a situation requiring an aggressive avoidance maneuver.*

FP1, Thursday, 8:30AM-10:00AM

--Evaluation of Threat by Police Officers: Initial Findings. (Karen Delos Santos, Shawn Stafford, James Szalma, Tal Oron-Gilad, & Peter Hancock): *Police officers' threat perception of static images was examined using images reflecting the range of five threat categories on which police officers are trained.*

--Fatal Errors: Case Study Involving Medication Labeling. (Cindy LaRue and H. Harvey Cohen): *This paper explores the issue of adequate visual cues on intravenous bag labels in a hospital setting.*

--A Case Study in Forensics, Marcroergonomics and Work-Related Musculoskeletal Injuries in Call Center Work. (Joseph Cohen & H. Harvey Cohen): *This case study describes a personal injury case and expert opinions expressed by a HF/E expert concerning work-related musculoskeletal injuries sustained by a 43 year-old female call center service representative.*

--The Development, Application, and Limitations of 3-D Human Simulation in Fall Accidents. (Gary David Sloan): *The steps that were involved in developing a tool that predicts the trajectories of linked human body segments on the basis of their inertial properties are presented along with examples of its application and discussion of its limitations.*

--Consumer Beliefs Toward the Protection Offered by Motorcycle Helmets: The Effects of Certification, Price, and Crash Speed. (William J. Vigilante): *This study examined consumer beliefs towards the level of protection offered by motorcycle helmets varying in price, level of certification, and at high versus low speed lay-down type crashes.*

One of our agenda items for next year is to obtain more space for FPG technical sessions and increase the variety of sessions we can offer our members. I will be soliciting ideas at the meeting (Wednesday, September 28, from 3:30-4:30) for panel suggestions, special lectures and, of course, more submissions to the general program, but feel free to email me (Pollack@erinet.com) throughout the year with your ideas. Session format can be quite broad, and we can work with the Special Sessions Chair for additional space when the topic is meritorious or non-traditional. The topics that FPG deals with serve a broader audience than just our membership. Thus, hosting a joint sessions with Safety, Product Design or other technical groups can often be quite advantageous. I look forward to hearing from you.

When would you waive an advance retainer to start working on a case?

Compiled by Erik C.B. Olsen

If you've been following the FPG list serve discussions, then you saw the recent post asking the above question. Below is a summary of many of the responses (edited). Although this is probably not representative of all experts, it appears that those who responded are split in their opinions ranging from 1) always get a retainer, 2) "it depends," and 3) "I never require retainers." Without taking sides completely, I think the "get a retainer" folks are slightly more in the majority.

1. NEVER EVER would I start working on a case without a retainer.
2. No matter how many cases promised, always get a retainer for each.
3. I think a retainer for each case is totally appropriate.
4. I always demand a retainer before beginning work, although I usually talk with the attorney for a half-hour about their case. The part of the retainer that is not used is fully and immediately refundable. Attorneys who are serious about the case have

- absolutely no problem sending a retainer. Those who have an issue, I don't really want to work with.
5. Depends on how well and for how long you know the lawyer. In my case every time I have made an exception, I have regretted it.
 6. The only times we require a retainer are for 1) criminal cases and 2) when the client has proven fiscal unreliability. Bottom line - if you bill monthly and have good communication you will have a much higher likelihood of being paid promptly.
 7. I ask for a retainer only from those for whom I have not previously done work. I would insist on a retainer for each separate case, and indicate that no work will be done on it until the retainer is received.
 8. I rarely ask for a retainer. A \$1000 retainer isn't much consolation when you are having trouble recovering \$20,000. Most clients pay within a reasonable time or respond to a nudge or two.
 9. I never require retainers. As a sole proprietor I tend to stick with law firms doing defense work as opposed lawyers representing plaintiffs. I know this can open the question of bias, but this is strictly a fiscal decision rather than technical or political.

Two interesting on-line articles are available, including [The Proper Handling of Advance Fee Deposits and Retainers](#) which defines retainers as "funds paid by a client to secure a lawyer's availability over a given period of time," and the article [Protecting Yourself in Working with Attorneys: A Guide for Experts](#) by John Cabaniss (an attorney), who states:

"The biggest problem experts have in dealing with attorneys is ensuring they get paid for services rendered. There are several steps an expert can take to improve the probability of being paid. First, it is not unreasonable for an expert to request and maintain a reasonable retainer during the pendency of the case. The retainer should be sufficient to minimize the potential loss. The retainer can be applied as a credit to the last bill in a matter. If an attorney is reluctant to pay a retainer, you can conclude he will not be a reliable client."

In 2004, the FPG conducted a survey of its members. Survey responses were collected from 55 members of the FPG, which accounted for 21% of the membership. Results indicated that most do ask for a retainer (78%), and the amount of the retainer varied considerably. Many respondents do not refund any part of the retainer (32%). Others either partly (30%) or completely (38%) refund unused portions of the retainer.

[Handbook of Human Factors in Litigation](#) (12/28/04)

Y. Ian Noy & Waldemar Karwowski (Eds.)
Available online via <http://www.crcpress.com/>

- Provides a comprehensive guide to the field of human factors and ergonomics in forensics
- Represents state-of-the art in forensic human factors
- Discusses consumer product deficiencies, slips & falls, motor vehicle crashes, emerging applications
- Includes such topics as human performance in the legal context, driving environments, physical and cognitive factors, product liability and warnings, and human factors applications
- Using ergonomics in forensics can help prevent the recurrence of system failures through engineering or administrative controls. It can also raise the level of concern among professionals and the public regarding product, workplace, and service safety due to perceived exposure to liability. Even with such a potentially important and broad impact, forensic human factors is a subject that is neither taught nor systematically practiced. There is little documentation to help develop a knowledge of the field in a systematic way, nor is there a large pool of qualified practitioners.
- The Handbook of Human Factors in Litigation seeks to provide a comprehensive reference that provides the tools necessary for the preparation, analysis, and presentation of forensic evidence. Compiled by experienced, internationally respected authors, this handbook represents the state-of-the-art in the application of ergonomics to forensic investigation. It contains information on the litigation process, forensic approaches and methods, important scientific data in the major application areas, and valuable case studies.
- For legal and forensic practitioners, this handbook will serve as an indispensable reference and as the foundation for further development of formal study in the field. For product and workplace designers and managers, it is a useful tool in the management of exposure to liability.

National Ergonomics Month (NEM)

National Ergonomics Month (NEM), October, is fast approaching. We are reaching out to you in hopes that you will spread the word and encourage members of your TG to add their names to the NEM Honor Roll. Any help you can provide would be greatly appreciated, whether you forward this e-mail, and/or include something in your newsletter or website.

It is very likely that yourself already qualify for the Honor Roll. Remember, outreach activities through the community or media can date back to October 2001, the inaugural year for NEM. To read about the Honor Roll please visit <http://hfesnem.org/leadership.htm>. Click on the box on the right, and fill out the form which will then come up. Your name will be entered as one of our Charter Honor roll members shortly thereafter.

- Ellen Carpenter, ecarpent@odu.edu

Update on ANSI Z535.6— A Proposed Standard for Safety Information in Product Manuals, Instructions, and Other Collateral Materials

by J. Paul Frantz, Steven M. Hall, & Stephen L. Young

The ANSI Z535 Standards Committee is creating a new standard, ANSI Z535.6, which will address safety information in product manuals, instructions, and other collateral materials. The new standard will use elements of the graphical approaches in other ANSI Z535-series standards. Currently, the five Z535-series standards contain recommendations regarding the formats, colors, and symbols for safety signs used in environmental and facility applications, product applications, and accident prevention tags/tape. Safety messages in product manuals, instructions, and other collateral materials are not covered by the existing Z535-series standards or other standards. The absence of standardized formatting systems, combined with the increased awareness and use of ANSI Z535.4 Standard for Product Safety Signs and Labels, has led to attempts to apply various aspects of ANSI Z535.4 to the presentation of safety information in collateral materials. Since ANSI Z535.4 was not designed for that purpose, it is not well suited for broad application beyond the domain of product safety signs and labels.

The limited applicability stems from differences between product signs and labels and various collateral materials. Collateral materials can vary significantly in terms of their purpose, content, format, and/or length. For example, they may come in the form of a bound manual, a single sheet of paper (folded or otherwise), a pamphlet, or a booklet. Collateral materials are typically formatted like a book or other published literature. Thus, different conventions may be required and/or expected compared to on-product information.

In addition, there are differences that may exist between safety information in collateral materials and safety messages on product signs and labels. For example, collateral materials typically:

- contain more information than a sign or label;
- address multiple hazards and contain multiple safety messages;
- provide longer and more detailed safety messages;
- contain multiple pages of information that cannot be viewed simultaneously; and
- can provide information that would be impractical on product safety signs, such as definitions of the safety alert symbol, signal words, and safety symbols.

Safety information in collateral materials must often be integrated with surrounding, non-safety information. Because collateral materials are typically not attached to the product, issues related to reading conditions, distinctiveness, placement, expected life, and

maintenance are different. In addition, the concept of a safe viewing distance is not generally applicable.

To respond to these differences, this proposed standard sets forth a hazard communication system developed specifically for product safety information in collateral materials. It incorporates elements of the graphical approaches used by other ANSI Z535-series standards into a common design direction selected to provide product safety information.

However, in order to adapt these graphical elements for use in collateral materials, the standard will include unique formats that are unlike those in other Z535-series standards. Voting and public comment on the draft new standard and revisions of the five existing ANSI Z535-series standards has recently been completed and the ANSI Z 535 Committee will be discussing the comments and results at their meeting in September, 2005.

Publication of Z535.6 and revisions of the other standards is tentatively scheduled for sometime in 2006. For more information about the standard, contact Steve Hall at shall@appliedsafety.com or at 734-994-9400. For information about the outcome of the upcoming ANSI Z535 Committee meeting, feel free to speak with Paul Frantz, Stephen Young or Steve Hall at the HFES Annual Meeting in Orlando at the end of September.

Notes from the 2004 FPG Business Meeting

22-September-2004

- HFES wants an update the FPG brochure.
- The [FP position paper](#) was handed out
- Alison Vredenburg is the new President of the FPG
- COTG notes were reviewed – the HFES newsletter will focus on one TG each month.
- Our balance as of 31 August 2004 was \$5319.91.
- Our membership as of 31 August 2004 was 266.
- HFES Proceedings articles exclusively via CD. Discussion followed re. attorney access to articles.
- Increasing membership
 - Membership will be “naturally” limited.
 - There is not a clear consensus that we need to grow
 - We care about having involved high-quality people.
 - We should not merge with another TG
 - We (need) to have more papers and posters
 - TG members do not need to be members of HFES.
- Newsletter had 50 mail copies sent and ~300 sent via email. (Ed Note: None were sent via mail in '05)
- Encourage applied papers, such as:
 - Specific sessions, such as “slip and fall”.
 - Alternative format such as success stories
 - Solicit presenters for a particular theme.
- Brochure: Dave Leonard will make suggestions for changes, and pass the new draft around for comment.

FORENSICS PROFESSIONAL GROUP

The *FORVM* is a publication of the Forensics Professional Group (FPG) of the **Human Factors and Ergonomics Society**. Membership in the FPG is open to all people interested in the application of human factors and ergonomics to a professional forensics practice.

The FPG is concerned with the application of human factors knowledge and techniques to “standards of care” and accountability established within the legislative, regulatory, and judicial systems. The emphasis is on providing a scientific basis to human factors/ergonomics issues raised within these systems.

Membership in the Human Factors and Ergonomics Society is not required for membership in the FPG. For further information, contact the Central Office of the HFES: P.O. Box 1369, Santa Monica, CA 90406-1369, Phone: (310) 394-1811.

The FORVM

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CONTENTS

- Chair's Page
- Your FPG Officers
- Treasurer Note
- 2005 HFES Annual Meeting
- Summary of 2005 FPG Sessions
- When would you waive an advance retainer to start working on a case?
- Handbook of Human Factors in Litigation
- National Ergonomics Month (NEM)
- Update on ANSI Z535.6— A Proposed Standard for Safety Info. . . .
- Notes from the 2004 Meeting
-
- Forms enclosed
- Application for Membership

Application for Membership

Forensics Professional Group, Human Factors and Ergonomics Society

Membership in the FPG does not require membership in the Human Factors and Ergonomics Society. Members of the HFES may pay FPG dues with their HFES dues. Please print.

Name: _____

Title: _____

Organization: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

Are you a full-time student? () yes () no

Are you a member of the HFES? () yes () no

Please mail this application and a check for \$5.00 to:

Human Factors and Ergonomics Society
PO Box 1369
Santa Monica, CA 90406-1369 USA

