



**Letter from the President:**

Hi everyone,

Welcome back to the start of yet another academic year. I hope you have taken time this summer to relax and enjoy yourselves, and I hope that the semester has started smoothly.

It was certainly an eventful summer for ODU Human Factors students. We hosted the much-anticipated colloquium by Dr. Christopher Wickens on Human Factors Models of Attention as part of the HFES Virginia Student Conference in June. I think attendees would agree that both the colloquium and the conference were a success. Thanks to everyone who helped by providing lab tours or giving presentations at the conference! Dr. Wickens expressed that he really enjoyed meeting all of us and learning about our research.

Additionally, some of our students spent the summer working at exciting internships in Alabama, Ohio, and here in Hampton Roads. Other students were busy writing book chapters, conducting research with Eastern Virginia Medical School and VMASC, or studying for qualifying exams.

Now that we're a month into the fall semester, the summer seems like an eternity ago. It's exciting to see new faces, and on pages 3 and 4 of this newsletter we have featured bios of our new Ph.D. and Masters students. Over the last few weeks, our HFES student chapter has already been busy planning events for the fall. It's hard to believe that in just over a month many of us will be attending the HFES 56<sup>th</sup> Annual Meeting in Boston.

I hope you enjoy the newsletter, and I am really looking forward to another productive year for ODU HFES!

Becca Kennedy

**Save the dates:**

**HFES Tidewater Meeting**

Tuesday, 9/25; 5 pm  
*Belmont House of Smoke*

**HFES 56<sup>th</sup> Annual Meeting in Boston**

October 22 – 26

**World Usability Day (WUD) Movie Event**

Thursday, 11/8; 6 pm  
*ECSB Theater*

**Fall 2012 ODU HFES Officers**

- Becca Kennedy:** President *rkenn014@odu.edu*
- Alex Proaps:** Vice President *aproa001@odu.edu*
- Eric Chancey:** Treasurer *echan004@odu.edu*
- Veronica Scerra:** Secretary *vscerra@gmail.com*
- Wes Harden:** Webmaster *hardenjw@gmail.com*
- Kellie Kennedy:** PR *kellie.d.kennedy@gmail.com*
- Dr. Chris Brill:** Faculty Advisor

**Recent Accomplishments**

ODU HFES earned a GOLD level award for 2012! Thank you to everyone who made this possible during the 2011-2012 academic year.

Congratulations to Erik Prytz, Alex Proaps, and Kim Culley for passing qualifying exams!

**Old Dominion University  
Human Factors and Ergonomics Society  
student chapter**

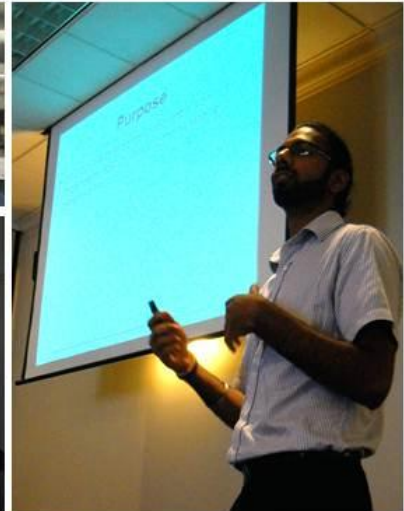
**September newsletter contributors:**

Becca Kennedy, Alex Proaps,  
Veronica Scerra, and Kellie Kennedy

**Find us on Facebook (ODU Human Factors)!**

## HFES Virginia Student Conference

by Becca Kennedy



Photos by Alex Proaps (ODU) and Ralph Cullen (Virginia Tech)

In June, the ODU HFES student chapter hosted fellow graduate students from Virginia Tech (VT) and George Mason University (GMU) for a two-day collaborative event called the HFES Virginia Student Conference. The conference kicked off Thursday evening with a heavily-attended colloquium by Dr. Chris Wickens on Human Factors Models of Attention. The evening also marked a revitalization of the HFES Tidewater Chapter who co-hosted Dr. Wickens' visit. Following the colloquium, a happy hour at Public House provided the opportunity for students, members of the Tidewater Chapter, and Dr. Wickens to socialize over food and drinks.

On Friday morning, students from ODU, VT, and GMU gathered in Webb Center for breakfast, coffee, and a poster session. This was followed by interactive lab tours of ODU human factors research facilities in the Mills Godwin Building and the Engineering and Computational Sciences Building on campus. In addition to student attendees, we were fortunate that Dr. Wickens joined us for the lab tours to learn more about the human factors research projects that are underway at ODU.

*Continued on page 3*



During the afternoon of the conference, several students from the three participating universities gave presentations of research that they had either previously presented at conferences or were planning to present in the future. These presentations provided insight into the fascinating and widely diverse projects that human factors students undertake. An interesting example is that Bridget Lewis from GMU shared work that she and colleagues have done using an interactive driving simulator to teach high school students about the dangers of cell phone use while operating a vehicle. The program, *Distractions N' Driving*, earned the research team a Governor's Transportation Safety Award.

Overall, both the colloquium and the student conference were successful. The conference was a valuable experience that allowed students to share ideas and suggestions in a friendly and supportive environment. Students who attended the conference expressed that they were happy to have participated and felt that they were able to bond with students from other institutions. We hope to continue the student conference tradition in the coming years and to take advantage of opportunities to maintain close relationships with nearby HFES student chapters.

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## Welcome New HF Students!

compiled by Kellie Kennedy



### **Amanda Allen**

Amanda is currently a first-year Ph.D. student in the Human Factors program at Old Dominion University. She received her undergraduate degree in Psychology with a minor in East Asian studies at Clemson University. Following graduation in May of 2010, she completed a human factors internship at SA Technologies in Atlanta, Georgia. After the internship, she moved back home to Charleston, South Carolina where she helped conduct MRI research. She eventually returned to the Human Factors field and is now studying attention and multi-modal displays with Dr. Brill.



### **Adam Sitz**

Adam is a first-year doctoral student in the Human Factors program at Old Dominion University with Dr. Brill. Originally from Indiana, Adam graduated with a B.S. in Psychology and Biology minor from the University of Dayton in Ohio. Before coming to Old Dominion, Adam was involved with the Air Force Research Laboratory at Wright-Patterson Air Force Base where he worked as a research assistant in the Battlespace Acoustics Branch. Among other topics, he is interested in multimodal interface design and workload measures. In his spare time, Adam is an avid tennis player and also enjoys swimming, traveling, and cooking.





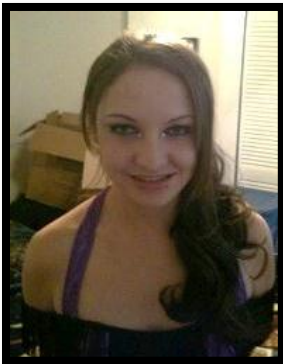
**Levi Warvel**

Levi is from Erie, PA. He graduated from Gannon University with a B.A. in Psychology. He is in the Human Factors Ph.D. program working with Dr. Mark Scerbo. His research interests are pretty varied. In the past, he did research on the effect of visual and auditory distracting agents on task completion and the negative effect of expertise on object recognition, as well as some social psychology topics. He is very interested in broadening his research experience in the years to come. For fun, he loves to write fiction, design new things, spar, parkour, and fence.



**Isabella Gagliano**

Isabella is a first-year master's student in the Experimental Psychology program at ODU working with Dr. Brill. She graduated from ODU in May 2012 with a B.S. in Psychology with honors. She also holds an A.S. from Northern Virginia Community College in Social Sciences. She is interested in physiopsychological measurement techniques as well as human cognition and behavior. Ultimately, she would like to earn a Ph.D. in human factors psychology!



**Julie Hanson**

Julie is a first year Masters student in experimental psychology working under Dr. Bliss. She is interested in military orientated human factors psychology. Julie is originally from Colorado Springs and relocated to Virginia due to her husband's career in the US Army. In her free time, Julie enjoys riding motocross and playing with her dogs.



**Amanda Ashdown**

Amanda is a first-year student in the Experimental Psychology Master's program at Old Dominion University working with Mark Scerbo. She went to ODU for her undergraduate studies and obtained a B.S. with Honors in Psychology. Her research interests vary and she has been working in Dr. Scerbo's lab getting involved in research concerning human performance with medical technology and simulation. Her ultimate goal is to earn a Ph.D. in human factors psychology.

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## Student Experience Spotlight: Veronica Scerra

by Veronica Scerra



***The Experience:*** Over the summer, I assisted Dr. Brill on an 8-week fellowship at Wright-Patterson Air Force Base in Fairborn, OH (Dayton). Our proposed intention was to investigate the viability of tactile navigation cues in combat situations. Currently, all cues being used are either visual or auditory, or some combination of the two (i.e. looking at a map, hearing directions, see smoke flares, etc.), but a tactile cueing system would be easy to install, if it proved useful.

To aid in our investigation, we had access to a computer-based simulation of the province of Kandahar, Afghanistan. The experiment involved having participants respond to signals in three different modalities in three separate trials (within subjects) and variation of cueing style (continuous, intermittent, and nodal; between subjects). Ultimately we wanted to see which modality and cueing style led to less error in waypoint navigating, fastest travel, lowest subjective workload, and best situational awareness/mental map development. To determine situational awareness/mental map development we designed map drawing and recognition tasks to be completed by the participants after each trial. The items for the recognition tasks were items that we placed in the environment ourselves, so that we were able to know exactly which items participants would have passed (and potentially seen) depending on which path they followed to the waypoint.

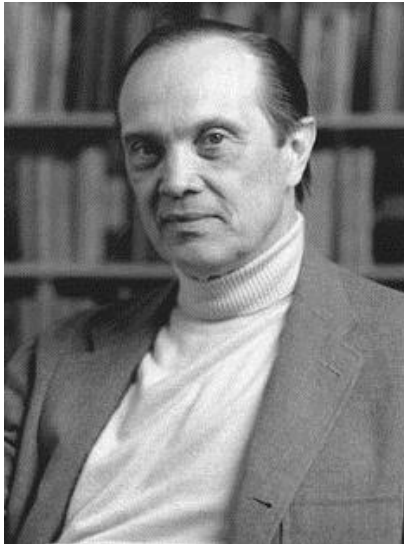
The bulk of our time at WPAFB was spent setting up the virtual environment and pilot testing the tactile belt for threshold levels. We also conducted tests comparing participants' accuracy of directional discrimination using both tactile and auditory cues. All of our research was conducted on the base in the BATMAN (Battlefield-Air Targeting Man-Aided kNowledge) lab of the Human Performance wing. As Dr. Brill's assistant, I was responsible for helping to develop and test the threshold and discrimination tasks, collecting data from pilot testing, developing the routes and events in the virtual environment, and mapping nodes in the environment for navigational cues. The great thing about working in a collaborative lab like the AFRL's is that whenever an engineering, programming, or other specialty issue arises, there's usually someone an office or two down who can help. The diversity of expertise was an invaluable tool this summer.

***Most Valuable Lesson:*** I've learned that there are occasionally vast differences between strict research settings and applied research settings. It's no surprise that things in ecological settings are not as rigidly manipulable as they are in the research lab, but having to truly account for the ecological differences in the experimental design was a new experience. I also learned that though a collaborative environment is advantageous for various reasons, it can also be a bit more difficult to navigate, in terms of getting everybody to work together with the same goal and motivation on one project.

## Human Factors in the News

by Alex Proaps

### In memoriam – George A. Miller



via [nytimes.com](http://nytimes.com)

On August 1<sup>st</sup>, George A. Miller died at the age of 92. Paul Vitello of The New York Times wrote a wonderful obituary that I wanted to share with everyone.

From the [nytimes.com](http://nytimes.com):

Psychological research was in a kind of rut in 1955 when George A. Miller, a professor at Harvard, delivered a paper titled “The Magical Number Seven, Plus or Minus Two,” which helped set off an explosion of new thinking about thinking and opened a new field of research known as cognitive psychology.

This is my favorite quote from the article:

“He made the one and only hole-in-one of his life at the age of 77, on the seventh green” at the Springdale Golf Club in Princeton, his daughter said. “He made it with a seven iron. He loved that.”

### Curiosity, the Mars Rover, landed on Mars on August 6<sup>th</sup>.



via [space.com](http://space.com)

Curiosity live tweeted the trip through space. In fact, one of those tweets has been retweeted over 70,000 times.



For Curiosity updates, check out the Mars Science Lab website: [nasa.gov/mission\\_pages/msl/index.html](http://nasa.gov/mission_pages/msl/index.html)

### Will the Elderly Ever Accept Care From Robots?

The challenge here isn't the technology, but the people.

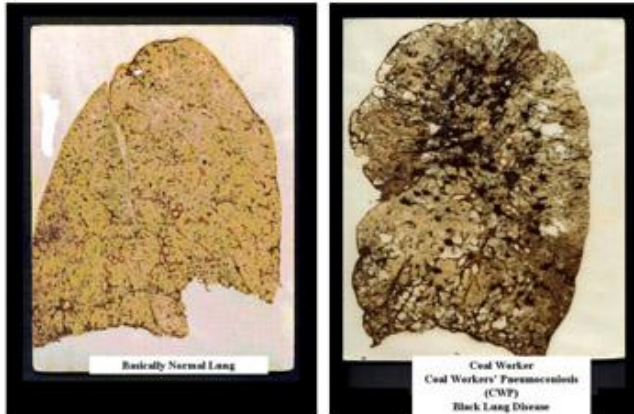
-- Thomas Rogers, 8/17/12, [slate.com](http://slate.com)



via [Slate.com](http://Slate.com)

Following the release of a new film, *Robot & Frank*, Thomas Rogers reviewed some human-robot interaction challenges we face with the surge of elderly care robots in the future: One in five Americans will be over 65 by 2030 and many may need some kind of daily assistance. Japan has designed a number of elderly care robots, like Paro. Paro was designed for those with Alzheimer's. Nursebots are also popular. The personal robot industry is growing worldwide and it is critical to address universal usability issues.





Miners' lungs are scarred, shriveled, black (right) via NIOSH

Of particular concern are "hot spots" identified in central Appalachia by the National Institute for Occupational Safety and Health, NIOSH, a government research agency.

From publicintegrity.org on August 17<sup>th</sup>:

Research supports an Obama administration plan to reduce coal miners' exposure to the dust that causes black lung, a much-anticipated Government Accountability Office report released Friday found.

Last December, House Republicans inserted language into an appropriations bill requiring the study. No money could be used to implement a proposed coal mine dust rule until the GAO evaluated research underpinning it, the rider said.

The GAO report lends support to one piece of the federal Mine Safety and Health Administration's efforts to address a resurgence of black lung, particularly in parts of Appalachia. A Center for Public Integrity-NPR investigation in July found that the disease has returned amid widespread cheating on required dust sampling by some mining companies and enforcement lapses by MSHA.

You can read the full story at [publicintegrity.org](http://publicintegrity.org).

### The New Face of Black Lung

The disease was supposed to be a relic of the dirty old days of coal mining. But it's making a deadly comeback in Appalachia. -- By Chris Hamby, Center for Public Integrity

From publicintegrity.org on July 8<sup>th</sup>:

From 1968 through 2007, black lung caused or contributed to roughly 75,000 deaths in the United States, according to government data. In the decades following passage of the 1969 law, rates of the disease dropped significantly. Then, in the late 1990s, this trend reversed.

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### FAA Error Reporting Gives Amnesty for Sleeping, Report Says

--Jeff Plungis, 7/23/12, [businessweek.com](http://businessweek.com)

A U.S. Federal Aviation Administration program created for early detection of safety problems has been used by some air-traffic controllers to escape punishment for sleeping on duty, a report said.

Controllers have been allowed to report poor personal conduct rather than the kind of performance problems the program was intended to find, the Transportation Department inspector general's office said today.

At least five FAA air traffic controllers were reported to be sleeping on the job last year. Transportation Secretary Ray LaHood pledged to fire three air traffic controllers caught sleeping in Seattle, Miami and Knoxville.

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### Introducing the principle of graceful error recovery to state government

--Anne McLaughlin, 7/3/12

Anne McLaughlin wrote this brief story over at the Human Factors Blog this summer:

A North Carolina State Representative just accidentally overrode a veto on "fracking" due to being tired and pressing the wrong button during the vote. Apparently, they aren't allowed to change their votes if it would alter the overall outcome. So even though she realized it right when she pressed the button, the override stands.

From the article on WRAL:

Carney characterized her vote as "very accidental." "It is late. Here we are rushing to make these kind of decisions this time of night," she said. Carney pointed out that she has voted against fracking in the past, and said she spent the day lobbying other Democrats to uphold the veto of Senate Bill 820.

"And then I push the green button," she said. Just after the vote, Carney's voice could be heard on her microphone, saying "Oh my gosh. I pushed green."