Human Factors and Ergonomics Society

FELLOW PROFILE

Name:	Harold S. Blackman
Degrees, certifications, etc.:	PhD in Educational Psychology, Arizona State University, 1980
Current status:	Director of Research Materials and Fuels Complex, Idaho National Laboratory

Biography (How you got involved in the field, your major career activities and milestones):

As with many others my career has taken an interesting path. My passion in the late 1970's really dealt with how people learn, and the experimental investigation of those phenomena. During my graduate studies I had the opportunity to be exposed to the field of human factors through a variety of contracts from the Department of Defense. After graduating and a short stint as a professor I became interested in work being conducted at the Idaho National Laboratory (INL) in what was called then augmented operator control- think over-view displays, artificial intelligence and advanced procedure systems. The rest is really history for me with a career spanning 30 years in a variety of roles. I was an individual contributor for many years doing research in display systems, procedures and the like primarily for the U.S. Nuclear Regulatory Commission forming the technical basis for their regulations. From there I went into management and leadership building a 30+ human factors group at the lab. As time went on I was given the opportunity to manage larger groups and found that I could do more for human factors at the lab and elsewhere by being in a leadership position. Most recently I had the opportunity to build a new research facility, the Center for advanced Energy Studies (CAES), based upon collaboration among INL, the University of Idaho, Boise State University, and Idaho State University focused on energy. As a part of that facility we have developed a human systems laboratory tom study control systems including virtual environments. I hope to see next generation control and alarm systems developed there for application in the next generation of nuclear reactors.

Employment History (List top 5 positions):

Director of the Materials Fuels Complex Idaho National Laboratory
Director of the Center for advanced Energy Studies
Associate Laboratory Director Energy and Environment, Idaho National Laboratory
Chief Engineer, Idaho National Laboratory
Department Manager Human Factors, Idaho National Laboratory

What were your significant contributions to the field?

My primary contribution to human factors has been in the area of risk assessment and human error. Much of that work is summarized in a text Handbook for Human Reliability Analysis that I co-authored with my colleague David Gertman (Simplified Plant Analysis Risk (SPAR) Human

Reliability Analysis (HRA) Methodology). I also was the principal developer of a human error quantification technique that is widely used in the nuclear industry to quantify human error in probabilistic risk assessment. It is used extensively in evaluating operating events and their potential safety significance.

The other area of contribution is in the development of a group of human factors researchers at the Idaho National Laboratory where group that continues to day, as well as many individuals who have since gone to other positions across the nation.

Did you receive any notable awards or recognition during your career?
Far and away being a Fellow of the HFES is the greatest honor I have received.

Which articles in the journal *Human Factors* would you say were the most influential to you and your research or practice?
No single article perse, but bodies of work by Harold VanCott and Tom Sheridan for sure had major influences on my thinking and the research directions I took.

What advice would you give someone considering HF/E as a profession?
Make sure that you take a coursework across a variety of disciplines including psychology, engineering, and social sciences. Also seek out opportunities for applied experiences in industrial settings where you have real people engaged in work; this hands—on work will make you a better human factors professional!