

# CURRICULUM VITAE

**NAME:** Ostrom, Lee T. Ph.D., CSP, CPE, CTM, CFI-1, CFPE

**DATE:** November 2023

**RANK OR TITLE:** Professor Emeritus, University of Idaho

**CELL PHONE :** 208 589-5375

**EMAIL:** ostrom@solutions4work.com

## EDUCATION BEYOND HIGH SCHOOL:

### Degrees:

Ph.D. in Industrial Engineering from Texas Tech University, Lubbock, Texas, 1988.  
M.S. in Interdisciplinary Studies, Occupational Safety and Health from Texas Tech University, 1980.  
B.S. in Bacteriology from the University of Idaho, Moscow, Idaho, 1979.  
Academic Certificate in Nuclear Criticality Safety, 2009

### Honors and Awards:

Fulbright Specialist Grant to Aalto University on ergonomic and safety issues in Helsinki, Finland  
February 9, 2018, to March 23, 2018.

Fulbright Specialist to Karakalapak University, Uzbekistan, April/May 2022.

Member Alpha Pi Mu, Industrial Engineering Honor Society

Member Tau Beta Pi, Engineering Honor Society

Member Epsilon Pi Tau Honor Society

Elected to Board of Directors of the Board of Certification in Professional Ergonomics, November 2009  
to May 2010.

Awarded Best Paper Award in Education and Training at the IEEE Human System Interaction  
Conference in Gdansk, Poland June 2013 – Paper Titled “Technology Education Requirements for  
Physicians, “Laura Ostrom and Lee Ostrom Authors.

Awarded Author of Best Paper (2019) IEEE Human System Interaction in the area of Human Machine  
Interaction: Ostrom, L. and Wilhelmsen, C., Using Technology to Help Humans Perform Difficult  
Inspections, Human Systems Interactions 2019, Richmond, Va, June 2019.

### Certificates and Licenses:

Certified Safety Professional (#7689) by the Board of Certified Safety Professionals  
Certified Professional Ergonomist (#188) by the Board of Certification in Professional Ergonomics  
Certified Technology Manager (#5684), by the Association of Technology Management and Applied  
Engineering  
Certified Fire Inspector, Level 1– by the National Fire Protection Association  
Certified Fire Plan Examiner - by the National Fire Protection Association  
DoD “Secret” Clearance – Not active  
DOE “L” Clearance – Not active  
Past Radiation Safety Officer  
Certified Competent Fall Protection Person, 2009 to 2011  
Certified Private Pilot  
1<sup>st</sup> degree black belt, Songham Taekwondo

**EXPERIENCE:****Expert Witness**

CORE vs PSCo - May 2022 till November 2023 - Breached Contract and Negligence. I provided human factors/industrial safety support to plaintiff's counsel. The jury said when interviewed that the human factors testimony I provided helped to persuade their decision. A synopsis of the lawsuit is below:

On Oct. 25, a Denver district court jury found in favor of CORE in its lawsuit against Public Service Company of Colorado, a subsidiary of Xcel Energy Inc. (Xcel), regarding the mismanagement of the Comanche Unit 3 coal-fired power plant. CORE was awarded \$26.45 million for lengthy outages on 2020 and 2022 caused by Xcel's imprudent operations and negligence.

2022-Employee injury case. Two employees of a fish processing plant were repairing a conveyor system that was not properly locked out. The two employees entered a confined space called a fish dump with the knowledge of the supervisor. The employees contacted the actuator, and their legs were severely injured. I do not know the resolution to this case.

2022-Carpenter suing for his job back. I supplied information concerning the ergonomic issues that would preclude him from continuing to work. This was settled out of court.

2022-Snowblower product liability case. I am provided a report on the inherent safety issues with snowblowers. A dentist lost his right index finger clearing the chute. He confirmed the primary impeller was not moving when he stuck his hand in to clean the chute. This case was arbitrated to the benefit of the plaintiff.

2021- Lawnmower product liability case. In this case the lawnmower failed to stop when the operator released the bail and he attempted to pull the spark plug. The spark plug is right above the engine's 400+ °F exhaust pipe. As a precaution, he bent over the top of mower to pull the plug and slipped, his hand slipped under the mower, and he lost three fingers. This case was arbitrated to the benefit of the plaintiff.

2019 – Gas to Wood Fireplace Explosion Report – This was a complicated case in which an owner of the house had a gas fireplace converted to wood, but the contractor did not have the gas supply blocked off. That owner defaulted on the loan and the original owner took back possession of the house – he was a physician. The physician rented the house out, soon after taking back possession. The first renters tried to light the fireplace without instructions and thought that it was a gas assist fireplace. They opened the gas valve and gas accumulated in the area behind the fireplace and an explosion occurred, killing 4 people. My report was about how the contractor failed in his duty to do the job correctly. The original owner had no knowledge of the faulty installation. As I understand it, the report helped.

2019 – Fire extinguisher installation report – A fire extinguisher was not properly mounted, and it fell off a wall and broke an employee's foot. My report discussed the fasteners used to hold the fire extinguisher to the wall and that they were not strong enough to hold the weight of the fire extinguisher. I do not know the outcome.

2018 – Peanut Butter Allergy - Chantel Giacalone vs Mandalay Bay. Rebuttal report for the plaintiff concerning failure of the convention center to label food allergens. The defense was claiming that if the peanut butter containing food was labeled it would not have made a difference. My report rebutted that argument. The plaintiff won for \$29 million.

2017/2018 – Ergonomic and Safety Assessment of BNSF Railroad Gravel Truck. I wrote a report and was deposed. In this case a truck operator fell while getting into the truck bed to shovel gravel. The ladder was not adequately designed to allow safe access and egress. The plaintiff won this case.

**Teaching, Extension and Research Appointments:**

2018 to present, Center Executive Officer Idaho Falls Center, University of Idaho, Idaho Falls, Idaho

2013 to 2018, Academic Director and Associate Dean of Engineering, University of Idaho, Idaho Falls, Idaho

2011 to 2013, Full Professor and Director of Industrial Technology, University of Idaho, Idaho Falls, Idaho

2004-2010, Associate Professor, Adult, Counselor, and Technology Education, University of Idaho, Idaho Falls, Idaho

2002 to 2012, Adjunct Professor for American Public University System, Charles Town, WV  
Teaching two to three, eight-week undergraduate and graduate online classes continuously.

1999-2004, Assistant Professor, Adult, Counselor, and Technology Education, University of Idaho, Idaho Falls, Idaho

1989-99 Adjunct and Affiliate faculty for the University in Idaho Falls

1985-88, Graduate Assistant at Texas Tech University in Lubbock Texas

**Non-Academic Employment including Armed Forces:*****July 2010 to 2017, Consulting with NASA on maintenance and inspection risk issues***

Developed risk and human factor/ergonomic models of aviation composite materials inspection and maintenance.

***June 2007 to December 2017, Ergonomic Support for U.S. Navy and Marine Corps***

Conducted over 40 ergonomic assessments at numerous locations. These include, but are not limited to:

- Ergonomic assessment of the Naval Submarine Base Kings Bay explosive ordinance high lift cranes,
- Ergonomic assessment of Naval Construction Battalion Center Gulfport maintenance and outfitting shops,
- Ergonomic assessments of Naval Air Station Oceana bomb hanger shop, wire fabrication shop, gun shop, composite repair shop, warehouse, and other areas,
- Ergonomic assessments of Naval Submarine Base New London counter measures shop, special material area, purified water area, and others,
- Ergonomic assessment of Naval Submarine Base Point Loma explosive ordinance marine mammal command,
- Ergonomic assessments of Naval Air Station Key West warehouse operation, construction battalion areas, and fire department.
- Ergonomic assessment of Naval Air Station Fallon fire houses,
- Ergonomic assessments of FRC East turbine blade shop, media blasting area, and numerous aircraft repair areas,
- Ergonomic assessment of Naval Air Station Pax River document storage,
- Ergonomic assessments of United States Naval Academy dinghy storage area, sail boat repair area, and laundry,
- Ergonomic assessment of United States Marine Corp Artillery Instructional Battery operations,

- Ergonomic assessments of Bethesda Naval Hospital operating rooms, storage areas, and biomedical area,
- Ergonomic assessments of Marine Corp Base Hawaii bomb hanger shop and several aircraft maintenance shops,
- Fall protection assessment of Ergonomic assessments of United States Naval Academy sail boat repair area,

Co-taught 20-plus sessions of the 40 and 32-hour versions of the FY12 Navy Ergonomics Program Course (A-493-0085).

Developed/co-developed the following materials for Navy Ergonomics Program:

- Duel-monitor ergonomic brochure
- Ergonomic training manual
- Welding guide
- Ergonomic success stories
- Ergonomic news articles

***July 2000-September 2002, Special Consultant for the Department of Defense on aviation risk/safety topics***

***June 1989-December 1999, Advisory Scientist for the Idaho National Engineering and Environmental Laboratory***

Major projects:

- Research and risk analysis of aviation and space system inspection and repair tasks and procedures,
- Analysis of emergency operating procedures at nuclear power plants,
- Human factors support for analysis of nuclear power plant incidents and medical radioisotope misadministrations,
- Ergonomic and safety support for the Idaho National Engineering Laboratory (INEL/INL),
- Review of new nuclear power plant designs, including the AP600 and the upgrade to the Temelin power station in the Czech Republic,
- Human factors review of nuclear waste casks,
- and Risk assessment of the upgrade of nuclear power plant control systems from analog to digital systems.

***December 1983-July 1985, Safety Engineer for PPG Industries in LaPorte, Texas***

Managed the safety, health and fire protection for the PPG plant in LaPorte, TX. I reported to the plant manager. The plant produced Phosgene, and Chloroformates.

***January 1983-December 1983, Safety Specialist for the University of Houston in Houston, Texas***

Developed safety and health materials for a NIOSH grant.

***January 1980-December 1982, Safety Engineer for PPG Industries in LaPorte, Texas***

Entry level safety and health position.

## **LANGUAGES:**

Swedish – Beginner  
Russian – Advanced beginner  
Spanish – Beginner

Ukrainian - some

## **TEACHING ACCOMPLISHMENTS:**

### **Areas of Specialization:**

Ergonomics, Safety (industrial and nuclear), Human Factors, Human Performance, Risk Assessment, Industrial Technology, and Project Management

### **Courses Taught for University of Idaho:**

TM 510, Introduction to Technology Management  
 ENG 105, Engineering Graphics  
 CE 482, Project Management  
 ED 584, Intermediate Quantitative Analysis/Ed  
 EM 486, Software Project Management  
 EM 560, Project Risk Management  
 PTTE 267, CAD  
 PTTE 364, Hazardous Materials  
 PTTE 452, Fire Emergency Planning  
 PTTE 552/Psych 552 Industrial Ergonomics  
 PTTE 512, Fundamentals of Nuclear Science  
 PTTE 514, Nuclear Safety –  
 ITED 404, Interpreting OSHA Regs  
 ITED 404/504, Aviation Risk Assessment  
 TM/ITED/PTTE 404/504/534, Biohazard  
 ITED 404/504, Biohazard Lab  
 TM/ITED/PTTE 404/504/Psych 552, Ergonomics  
 ITED/PTTE 450, Industrial Safety  
 ITED/PTTE 504/404/533, Chemical and Nuclear Hazards  
 ITED 505/405, Gems of the Northwest  
 ITED/PTTE 522/529, Risk Assessment  
 ITED/PTTE 523, Safety Applications  
 PHYS 499, Physics directed study –  
 PTTE 404, Lean to Green Sustainable Technologies

University of Idaho, Adjunct and Affiliate Faculty, 1989-99:

CE 482 Project Management – ten semesters  
 ITED 210 Intro to Industrial Efficiency – three semesters

### **Courses Developed:**

(not a complete list)  
 EM 560/TM 560/INDT 404, Project Risk Management  
 PTTE 404, Lean to Green Sustainable Technologies  
 TM/PTTE 514, Nuclear Safety  
 TM/PTTE 516, Nuclear Regulations  
 TM/PTTE 552/Psych 552, Industrial Ergonomics  
 ITED 404/504, Aviation Risk Assessment  
 TM/ITED 404/504/534, Biohazards  
 ITED 404/504/533, Chemical and Nuclear Hazards  
 ITED 404/504, Interpreting OSHA Regs

## ITED 505/405, Gems of the Northwest

**Students Mentored to Completion:**

## Graduate Students:

Jeffrey Heath, Ph.D., 2018  
Christian Godfrey, Ph.D., 2011  
James Croasmun, Ph.D., 2010  
Randy Somsen, Ph.D., 2009  
Darrin Simpson, Ph.D., 2008  
Deanna Dye, Ph.D., 2007  
Shane Goodwin, Ph.D., 2007  
Julee Leavitt, Ph.D., 2007  
Carol Baldwin, Ph.D., 2006  
Reese Nelson, Ph.D., 2006

## Nuclear Engineering

Thea Mennemeyer, MEng 2014

## Biological Engineering

Kelley Verner, MS 2017

## Engineering Management (EM)

Wade Allen, MS 2009  
Curtis Branter, MS 2008

## Technology Management (TM)

Sheldon Christensen, MS 2023  
Roger Chunn, MS 2023  
Charles Johnson, MS 2023  
Lynn Pope, MS 2022  
Hsuan Wen Kuo, MS 2022  
Sai Bodducherla, MS2022  
Sandra Harrell, MS 2022  
Courtney Hill, MS 2022  
Evaly, Jennifer Maguire, MS 2022  
Andrew Kline, MS 2021  
Kristen Willis, MS 2021  
Gregory M Hodges, MS 2020  
Cody Lish, MS 2020  
Lucas Rich, MS 2020  
Jacob Wohlschlegel, MS 2020  
Shanna L. Armstrong, MS 2020  
Carwin Hendricks, MS 2018  
Maxine Johnson, MS 2017  
Bryan Denny, MS 2014  
Gerald Page, MS 2014

## PTTE/ITED/Interdisciplinary Studies

Gordon Hinkley, MS, May 2015  
Clem Potelunas, Ed.S., December 2010  
Don Eggleston, Ed.S., - May 2007  
Eric Roy, Ed.S. – May 2007  
Charlene Smith, Ed.S. May 2006  
Cheryl Wilhelmsen, Ed.S. May 2006  
Lou Valenti. Ed.S., May 2006  
Julee Leavitt, Ed.S., August 2006  
David Fry, Ed.S., 2005  
Holly Ashley, MS 2010  
John Epperson, MS 2010  
Ted Garling, MS, 2009  
Wayne Leatherman, MS, 2009  
Jerry Schurtliff, MS, 2009  
Seth Nelson, MS, 2009  
Kris Novich, MS, 2009  
Peggy Scherbinski, MS, 2009  
Bonnie Christensen, MS, 2009  
Briggita Rugerio, MS, 2009  
Allen Nellesen, MS, 2008  
John Baker, MS, 2008  
Larry Friedman, MS, 2008  
Robert Miller, MS, 2008  
Cyndi Lykes, MS, 2008  
Cheryl Simonds, MS, 2008  
Byron Christiansen, MS, 2007  
Julie Finup, MS, 2007  
Carol Strong, MS, 2007  
John Baker, MS, 2006  
Ron Farris, MS, 2006  
Don Eggleston, M.S., May 2006  
Char Bain, M.S., 2003-2005  
Crystall Adolfson, M.S., 2004  
Grayson Downs, M.S., 2004  
Jeri Harwood, M.S., 2002-04  
Nancy Makey, M.S., 2004  
Clem Potelunas, M.S., 2004  
Joy Rule, M.S., 2004  
Mark Cole, M.S., 2003  
David Fry, M.S., 2003  
Rochelle Mason, M.S., 2003  
Brian Perkes, M.S., 2003  
Eric Roy, M.S., 2003  
Louis Valenti, M.S., 2003  
Elizabeth Warner, M.S., 2003  
Niel Christiansen, M.S., 2002  
Michael Covington, MS, 2002  
Susan Daleiden, M.S., 2002  
Eric Gossweiler, M.S., 2002  
Charlene Johnson, M.S., 2002  
Marshall Marlors, M.S., 2002  
Richard Nugent, M.S., 2002  
Mark Rosenleaf, M.S., 2002  
Robert Seal, M.S., 2002  
Cheryl Wilhelmsen, M.S., 2002  
Craig Kantack, M.S., 2001  
Daren Jensen, M.S., 2001

Julie Leavitt, M.S., 2001

## SCHOLARSHIP ACCOMPLISHMENTS:

### Publications:

#### Books:

##### In process:

Stack, T., and Ostrom, L., *Occupational Ergonomics: A Practical Approach*, Second Edition, Fall 2023.

##### Published:

Ostrom, L.T., *Safety Culture Case Studies*, John Wiley and Sons, October, 2022.

Ostrom, L.T., and Wilhelmsen, C., *Risk Assessment Tools and Techniques and Their Application*, John Wiley and Sons; second Edition, July, 2019.

Stack, T., Ostrom, L., and Wilhelmsen, C., *Occupational Ergonomics: A Practical Approach*, publication date: May 2016 – Sales as of 2/18/19 – 2636.

Ostrom, L.T., and Wilhelmsen, C., *Risk Assessment Tools and Techniques and Their Application*, John Wiley and Sons, July 2012 – Sales as of 2/28/19 – 1849.

Ostrom, L.T., *Creating the Ergonomically-Sound Workplace*, Josse-Bass, San Francisco, California, published March 1994.

#### Book Chapters:

Ostrom, L.T., Graduate Student Safety Culture, IHSED Conference Proceedings, March 2022.

Ostrom, L. T., Wilhelmsen, C. A., Chapter 7: Human Factors Research Methods and Tools, in IAASS Space Safety and Human Performance, published by Elsevier, December 2017.

Stack, T., & Ostrom, L., Firing of a Cannon: Biomechanical Evaluation of Ergonomic Hazards. In *International Conference on Applied Human Factors and Ergonomics* (pp. 23-33). Springer, Cham, July 2016.

Stack, T., Autenrieth, D., & Ostrom, L. (2016). Firing of a Cannon: Psychophysical Evaluation of Ergonomic Hazards. In *Advances in Physical Ergonomics and Human Factors* (pp. 583-593). Springer International Publishing.

Ostrom, L., and Wilhelmsen, C., Developing Risk Models for Aviation Inspection and Maintenance Tasks, *Aeronautics and Astronautics*, ISBN 978-953-307-473-3, edited by Max Mulder, InTech - Open Access Publisher, August 2011.

Ostrom, L. and Wilhelmsen, C., Buddy Ergonomics System, *Encyclopedia of Ergonomics*, Taylor and Francis, 2000.

#### Refereed Journals:

\* Indicates a graduate student co-author

\*Deanna Dye, Karen Wilson Scott, Lee Ostrom, Nancy Devine, and Jennifer Leight, The Effect of Specific Feedback on Critical Reflection of Physical Therapy Students During Internships, *Journal of Adult Education*, Vol. 40, Number 2, 2011.



\*Croasmun, J and Ostrom, L., Using Likert-Type Scales in the Social Sciences, *Journal of Adult Education*, Vol. 40, Number 1, 2011.

\*Goodwin, S., Ostrom, L., and Scott, K., Gender Differences in Mathematics Self-Efficacy and Back Substitution in Multiple-Choice Examinations, *Journal of Adult Education*, Volume 38, Number 1, 2009

Ostrom, L. and Wilhelmsen, C., Developing Risk Models for Aviation Maintenance and Inspection, , Volume 18, Issue 1, pages 30 – 42, January 2008

\*Erhart, D., Ostrom, L., and Wilhelmsen, C., Visual Detectibility of Dents on a Composite Aircraft Control Surface: An Initial Study, *International Journal of Applied Aviation Studies*, December 2004.

Ostrom, L., Wilhelmsen, C., \*Valenti, L., and Kanki, B., Inspectors' Probability of Crack Detection, *International Journal of Applied Aviation Studies*, Volume 2, Number 2, December 2002.

Wilhelmsen, C., Ostrom, L., and Kanki, B., Visual Measurement Accuracy, *International Journal of Applied Aviation Studies*, Volume 2, Number 2, December 2002.

Nelson, W.R., Haney, L.N., Ostrom, L.T., and Richards, R.E., Structured Methods for Identifying and Correcting Potential Human Errors in Space Operations, *ACTA Astronautics*, Vol. 43, Nos. 3-6, pp. 211-222, 1998.

Ostrom, L.T., et al., Lessons Learned from Investigations of Therapy Misadministration Events, *In. J. Radiation Oncology, Biol., and Phys.*, 34 (1), 1996.

Ostrom, L.T., Wilhelmsen, C.A., and Kaplan, K., Assessing Safety Culture, *Journal of Nuclear Safety*, 34(2), 1994.

Ostrom, L.T., Smith, J.L., and Ayoub, M.M., The Effect of Training on the Results of the Isoinertial 6-Foot Incremental Lift Strength Test, *International Journal of Industrial Ergonomics*, 6, 1990, 225-229.

#### **Conference Proceedings:**

Ostrom, L., Graduate Student Safety Culture, Presented at the 4th International Conference on Human Systems Engineering and Design: Future Trends and Applications (IHSED 2021) University of Dubrovnik, Croatia, September 2021.

Ostrom, L. and Wilhelmsen, C., Using Technology to Help Humans Perform Difficult Inspections, *Human Systems Interactions 2019*, Richmond, Va, June 2019.

Stack, T., and Ostrom, L.T., Firing of a Cannon: Biomechanical Evaluation of Ergonomic Hazards, in the proceeding for the 2017 AHFE Conference, Los Angeles, CA July 2017.

Ostrom, L.T., and Verner, K., Utilizing Waste Heat from Nuclear Power Plants, presented at the 2017 Ecology and Safety Conference, Etienne/Sunny Beach Bulgaria, June 2017.

Goonetilleke, R.; Karwowsk W.,(editors); Proceedings of the 7<sup>th</sup> International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences, July 27-31, Walt Disney World, Orlando; *Advances in Physical Ergonomics and Human Factors* Vol 489 2016; Stack, T.; (et el).; *The firing of a cannon: A psychophysical evaluation*, (583-593), ISBN: 978-3-319-41693-9

- Ostrom, L., Verner, K., Manic, M., Kasun Amarasinghe, Dumidu Wijayasekara, Multi-use High-Technology Testbed, Human System Interaction Conference, Portsmouth, UK, presented July, 2016.
- Wilhelmsen, C. and Ostrom, L., Remote Aircraft Composite Inspection Using 3D Imaging, Human System Interaction Conference, Portsmouth, UK, presented July, 2016.
- Verner, K., And Ostrom, L., Utilizing Waste Heat From Hybrid Energy Systems For Pyrolysis And Other Processes, ASME 2016 Power And Energy Conference, Charlotte, NC, presented June, 2016.
- Stack T., Autenrieth, D., and Ostrom, L., Firing of a Cannon, Psychophysical Evaluation of Ergonomic Hazards, present at the Applied Ergonomic Conference, March 2016.
- Ostrom, L., and Wilhelmsen, C., Factoring in Safety Culture into a Risk Framework, Presented at the International Atomic Energy Agency, Vienna, Austria, June 2015.
- Ostrom, L. and Ostrom, L. Technology Education Requirements for Physicians, Presented at the Human System Interaction IEEE Conference, Gdansk, Poland, June 2013.
- Ostrom, L.T., Developing Risk Models for Complex Systems, Presented at the Human System Interaction IEEE Conference, Gdansk, Poland, June 2013.
- Ostrom, L.T., Use of Three Dimensional Imaging to Perform Aircraft Composite Inspection: Proof of Concept, HSI Conference, Perth, Australia, June 2012
- \*Mcburney-Rebol, J., Gunnerson, F., and Ostrom, L., Creation of a Nuclear Criticality Safety Certificate Program, CONTE, Jacksonville, February, 2009.
- Ostrom, L., and Wilhelmsen, C., "Database Tool to Predict Aircraft Inspectors' Reliability," CAES, Kosice, Slovakia, May 2005.
- Ostrom, L., and Wilhelmsen, C., "Visual Inspection of Composite Aircraft," presented at the Ohio State University Aviation Psychology Conference, April 2005.
- Ostrom, L., Kanki, B., and Wilhelmsen, C., "Quantitative Approaches to Examining Inspector Reliability and the Possible Impact on Risk," Invited Paper, presented at PSAM7 in Berlin, June 2004.
- Ostrom, L., and Wilhelmsen, C., "Inspection Risk," presented at the FAA's Risk Symposium in Baltimore, August 2003.
- Ostrom, L., and Wilhelmsen, C., "A Method for Determining an Airline's Probability of Crack Detection," presented at the Ohio State University Aviation Psychology Conference, April 2003.
- \*Valenti, L., Ostrom, L., B.L., \*Hong, B., \*Lyman, S., \*Rosenleaf, M., \*Mason, R., \*Mullin, J., \*Fry, D., and \*Seeley, V., "A Unique Approach to Determining Airport Security Screening Reliability," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.
- Ostrom, L. and Wilhelmsen, C., "Facility Designers and System Safety; Brining them Together," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.
- \*Mullin, J., Ostrom, L., \*Hong, B., \*Lyman, S., \*Rosenleaf, M., \*Mason, R., \*Valenti, L., \*Fry, D., and \*Seeley, V., "Aircraft Maintenance – Hydrazine Leak Risk Assessment," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.

\*Fry, D., Ostrom, L., L., \*Hong, B., \*Lyman, S., \*Rosenleaf, M., \*Mason, R., \*Valenti, L., \*Mullin, J., and \*Seeley, V., "Robot Rx Risk Assessment," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.

Wilhelmsen, C., and Ostrom, L., "Aviation Visual Crack Measurement," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.

Ostrom, L., Wilhelmsen, C., \*Valenti, L., and \*Hanson, E. "Probability of Crack Detection: A Unique Approach to Determining Inspector Reliability," presented at the System Safety Society Meeting, Denver, Colorado, August 2002.

Ostrom, L., Wilhelmsen, C., \*Marlor, M., and \*Leavitt, J., "The Risk Associated with the Changing Nature of Aviation Maintenance Inspection," in the proceedings of the 11<sup>th</sup> Ohio State Univ. Aviation safety Conference, March 2001.

Ostrom, L.T., Wilhelmsen, C.A., and Lango, T., "Building a Sustainable Ergonomics Program, presented at the Ergon-Axia Conference, Warsaw, Poland, 2000.

Wilhelmsen, C.A., and Ostrom, L., "Ergonomics and the Challenging Employee," presented at the Ergon-Axia Conference, Warsaw, Poland, 2000.

Ostrom, L.T., and Wilhelmsen, C.A., "Task and Risk Analysis of Aviation Maintenance and Inspection Tasks," presented at the Tenth International Symposium on Aviation Psychology, May 1999.

Ostrom, L.T., "Modeling Human Error Analysis for Aircraft Maintenance," presented at the 1999 RMSL Meeting, Detroit, Michigan, June 1999.

Ostrom, L.T., and Wilhelmsen, C.A., "Risk-Based Work Planning," presented at the System Safety Society Meeting, Orlando, 1999.

Ostrom, L.T., and Wilhelmsen, C.A., "THEA – Tool for Human Error Analysis," presented at the System Safety Society Conference, Seattle, Washington, September 1998.

Ostrom, L.T., "Human Error Analysis for Aircraft Maintenance," presented at the 1998 RMSL Meeting, Dallas, Texas, June 1998.

Ostrom, L.T., and Wilhelmsen, C.A., Development of Derived Human Error Probabilities for Digital Systems, *Advances in Occ. Ergonomics and Safety I*, Zurich, 1996.

Wilhelmsen, C.A., and Ostrom, L.T., Alzheimer's Patient Chair Needs, *Advances in Occ. Ergonomics and Safety I*, Zurich, 1996.

Wilhelmsen, C.A., and Ostrom, L.T., "Developing a Safety Culture Survey Instrument," presented at the ANS Safety Culture in Nuclear Installations Conference, Vienna, Austria, April 1995.

Ostrom, L.T., and Wilhelmsen, C.A., "Using the Results of a Safety Culture Survey," presented at the ANS Safety Culture in Nuclear Installations Conference, Vienna, Austria, April 1995.

Wilhelmsen, C.A., Richards, R.E., and Ostrom, L.T., "Ergonomic Assessments of Commercial Aircraft Maintenance Tasks: Hanger Maintenance," in *Advances in Industrial Ergonomics and Safety VII*, June 1995.

Ostrom, L.T., and Wilhelmsen, C.A., "Ergonomic Assessments of Commercial Aircraft Maintenance Tasks: Line Maintenance," in *Advances in Industrial Ergonomics and Safety VII*, June 1995.

- Ostrom, L.T., and Wilhelmsen, C.A., "Using Ergonomic Principles to Improve Workplace Design," presented at the 1995 NSPI Conference, Atlanta, Georgia, March 1995.
- Wilhelmsen, C.A., and Ostrom, L.T., "Performing an Ergonomic Assessment and Improving Workplace Design," presented at the 1995 NSPI Conference, Atlanta, Georgia, March 1995.
- Ostrom, L.T., Rathbun, P., Leahy, T.J., and Novack, S.D., "Analyses of Radiation Therapy Events," presented at the Winter American Nuclear Society Meeting, Washington, D.C., November 1994.
- Ostrom, L.T., and Wilhelmsen, C.A., "Methods Development to Evaluate the Risk of Upgrading to DCS: The Human Factor," presented at the Water Reactor Safety Meeting, Washington, DC, 1994.
- Ostrom, L.T., "Using Human Error Analysis Techniques Throughout a Medical Device Life Cycle to Reduce Risk and Improve Quality," Abstract in the Amer. Nuc. Soc. Trans. for the 1994 Annual Meeting, June 1994.
- Ostrom, L.T., Gilbert, B.G., and Hill, S.G., "Ergonomic Assessment of the Idaho National Engineering Laboratory Laundry and Respirator Cleaning Facility: *Advances in Ergonomics and Safety IV*, Taylor and Francis, Bristol, Pennsylvania, June 1994.
- Ostrom, L.T., "The Pros and Cons of Using Human Reliability Techniques to Analyze Misadministration Events," In the *Proceedings of the PSAM-II Conference*, March 1994.
- Gertman, D.I., Haney, L.N., and Ostrom, L.T., "Evidence of the Need to Model Errors of Commission in Risk Assessments for Varied Environments," In the *Proceedings of the PSAM-II Conference*, March 1994.
- Ryan, T.G., Ostrom, L.T., and Gertman, D.I., "Managing Human Induced Risk Involving Technological Systems and Processes," In the *Proceedings of the PSAM-II Conference*, March 1994.
- Ostrom, L.T., Leahy, T.J., Novack, S.D., and Nelson, W.R., "Lessons Learned from the Interaction of Health Care Professional and Automation: Applications to General Industry," In *Advances in Agile Manufacturing*, IOS Press, 1994.
- Ostrom, L.T., "The Human Factor in a Lethal Misadministration." Abstract in the *Proceedings of the 37<sup>th</sup> Human Factors Society Meeting*, Seattle, Washington, October 1993.
- Romero, H.A., Ostrom, L.T., and Wilhelmsen, C.A., "What Difference Can the Data Make?" In the *Proceedings of the 37<sup>th</sup> Human Factors Society Meeting*, Seattle, Washington, October 1993.
- Ostrom, L.T., "Use of a Neo-Cognitron Artificial Neural Net to Optimize the Traveling Salesman Problem." Presented at the Seventh Annual Idaho National Engineering Laboratory Computing Symposium, October 1993.
- Ostrom, L.T., "Human Decision Error (HUMDEE) Trees." In the *Eleventh International System Safety Society Conference Proceedings*, Cincinnati, Ohio, August 1993.
- Ostrom, L.T., "Ergonomics of Office Design." Presented at the 1993 National Society for Performance and Instruction, Chicago, Illinois, April 14, 1993.
- Gertman, D.I., Ostrom, L.T., Wilhelmsen, C.A., and Romero, H.A., "The ECOG: A Modeling Framework for Human Performance in Automated Environments." *Proceedings of American Nuclear Society Topical Meeting on Nuclear Plant Instrumentation, Control, and Man-Machine Interface Technologies*, Oak Ridge, Tennessee, 1993.

- Ostrom, L.T., Romero, H.A., Gilbert, B.G., and Wilhelmsen, C.A., "Ergonomic Assessments of Three Idaho National Engineering Laboratory Cafeterias." Presented at the M.M. Ayoub Occupational Ergonomics Symposium April 16 and 17, 1993, Lubbock, Texas, 1993.
- Ryan, T.G., Haney, L.N., and Ostrom, L.T., "Crucial Role of Detailed Function, Task, Timeline, Link, and Vulnerability Analysis in PRA." In *Proceedings of the Reliability and Maintainability Symposium*, Atlanta, Georgia, January 1993.
- Gertman, D.I., Ostrom, L.T., Galyean, W.J., and Wilhelmsen, C.A., "Risk Impact of New Technologies." *Proceedings of the Water Reactor Safety Meeting*, Washington, D.C., October 1992.
- Ostrom, L.T., Gertman, D.I., and Blackman, H.S., "Assessing Human Reliability in Space." Invited Paper, *AIAA Space Programs and Technologies Conference*, Huntsville, 1992.
- Wilhelmsen, C., Gertman, D., Ostrom, L., Nelson, W., Galyean, W., and Byers, J., "Reviewing the Impact of Advanced Control Room Technology." *Proceedings of the Human Factors and Power Plants Conference*, June 1992.
- Ostrom, L.T., Gilbert, B.G., and Hill, S.G., "Development of an Ergonomic Assessment Checklist and its use Evaluating an EG&G Idaho Print Shop." *Advances in Ergonomics and Safety IV*, Taylor and Francis, Bristol, Pennsylvania, June 1992.
- Hill, S., Byers, J., and Ostrom, L., "Hazardous Materials, Hazardous Waste, and Hazardous Humans? Assessing the Risk of Human Error." *Proceedings of the 1992 Regional Conference on Hazardous Materials and Waste*, April 1992.
- Ostrom, L.T., Hill, S.G., Close, J.A., Lash, J.D., and Hemming, W.C., "Developing an Emergency Procedures Writers' Guide: A Case Study." *Proceedings of the 10<sup>th</sup> Annual System Safety Society Conference*, July 1991.
- Ostrom, L.T., Smith, J.L., and Ayoub, M.M., "The Effect of Box Height on Maximum Acceptable Weight of Lift." *Advances in Ergonomics and Safety III*, Taylor and Francis, Bristol, Pennsylvania, June 1991.

#### **Presentations:**

- Ostrom, L., Ergonomic Assessments of Unique Workplaces, American Posture Institute, Recorded on January 24, 2022, for presentation the end of February, 2022.
- Ostrom, L., and Wilhelmsen, C., Training Advanced Reactor Operators, Presented at the Human Interaction & Emerging Technologies Conference, Paris, August 2021.
- Ostrom, L., Risk of Future Technologies, Intelligent Human Systems Integration: Integrating People and Intelligent Systems, San Diego February 2019.
- Ostrom, L., Human Performance (panel presentation), Northwest Hydropower Association Conference, Portland, OR, February 2019.
- Ostrom, T., Use of a Survey to Identify Potential Safety Hazards in High-Energy Physics Laboratories., ATMAE Conference, November, 2018.
- Ostrom, L., and Stack, T., Standing up on the Job, Presented at the CSHEMA Regional Conference, Boise, ID March 2015.
- Ostrom, L., and Wilhelmsen, C., Use of LIDAR and Three-Dimensional Imaging to Inspect Composite Materials, ATINER, Athens, Greece, June 2014.

- Ostrom, L., Wilhelmsen, C., and Scott, R., Risk Framework for Aircraft Composite Visual Inspection, to be presented at Airlines for America NDT Forum, Indianapolis, September 23rd to 26<sup>th</sup>, 2013.
- Wilhelmsen, C., Ostrom, L.T., and Scott, R., An Update on the Visual Inspection of Composite Materials, A4A NDT Symposium, Seattle, WA, September 2012
- Ostrom, L.T., Wilhelmsen, C., Scott, L., Whiting, E., and Grover, S., Use of Three Dimensional Imaging Technology to Support Visual Inspection of Composite Materials, A4A NDT Symposium, Seattle, WA, September 2012.
- Ostrom, L.T., Wilhelmsen, C., and Stack, T., Dynamic Task Analysis Using Borg Scale, submitted for presentation at the 2011 Applied Ergonomics Conference, March 2011, Orlando, FL
- Ostrom, L., Wilhelmsen, C., and Stack, L., Learning the Real Story: Participatory Ergonomics Case Studies, Applied Ergonomics Conference, San Antonio, March 2010.
- Ostrom, L., Rothwell, C., and Stack, T., Integrating Systems Safety, Lean Engineering, and Ergonomics, NDIA E2S2 Conference, Denver, May 2009.
- Ostrom, L. and Rothwell, C., The Intersection of System Engineering, Lean Engineering, and Ergonomics, presented at the NDIA Systems Engineering Conference, San Diego, October 22, 2008.
- Ostrom, L., and Wilhelmsen, C., "Visual Inspection of Composite Materials, 2007 NASA ISGC Research Symposium, Moscow, ID, September, 2007
- Ostrom, L., and Wilhelmsen, C., " What Types of Visual Composite Damage Clue Inspectors into Using NDT Instrumentation? 50th Annual ATA NDT Symposium, Orlando, FL, August 2007
- Ostrom, L., and Wilhelmsen, C., "Visual Detectability of Dents in Composite Materials," ATA Non-Destructive Testing Forum, Fort Worth, October, 2006.
- Ostrom, L., and Wilhelmsen, C., "System Safety for Facility Design," presented at the Military Tri-Services safety Workshop in Bingen Germany, April 2002.
- Wilhelmsen, C.A., and Ostrom, L., "Ergonomics-At What Age Do You Begin?" presented at the Computer-Aided Ergonomics and Safety Conference, Maui, Hawaii, 2001.
- Ostrom, L.T., and Wilhelmsen, C.A., "What We Learned or Surviving in an Anti-Ergonomic World," presented at the Computer-Aided Ergonomics and Safety Conference, Maui, Hawaii, 2001.
- Ostrom, L.T., and Wilhelmsen, C.A "Electronic Procedures for Aircraft Maintenance," presented at the Computer-Aided Ergonomics and Safety Conference, Maui, Hawaii, 2001.

**Other Training and Reports:**

Most current Navy Ergonomic courses:

- Ostrom, L.T., and Stack, C., 32-hour Navy Ergonomics Course, Naval Station Newport, RI, September 2012.
- Ostrom, L.T., and Stack, C., 32-hour Navy Ergonomics Course, Marine Corps Base Beaufort, SC, October 2012.
- Ostrom, L.T., and Stack, C., 32-hour Navy Ergonomics Course, Naval Station Great Lakes, July 2012.

- Ostrom, L.T., and Stack, C., 32-hour Navy Ergonomics Course, NAS Whidbey Island, August 2012.
- Ostrom, L.T., and Wilhelmsen, C., 32-hour Navy Ergonomics Course, Marine Corps Base Hawaii, June 2010.
- Ostrom, L.T., and Wilhelmsen, C., 32-hour Navy Ergonomics Course, Naval Station Great lakes, August 2010.
- Stack, T, and Ostrom, L.T., Lean Engineering and Ergonomics, 2010 Tri-Services Professional Development Conference, Norfolk, March 2010.
- Stack, T, and Ostrom, L.T., Office Ergonomics, 2010 Tri-Services Professional Development Conference, Norfolk, March 2010.
- Ostrom, L.T., and Wilhelmsen, C., 2-Day Advanced Ergonomics Course, 49th Navy and Marine Corps Public Health Conference. March 19-25, 2010, Hampton, VA
- Ostrom, L.T., and Wilhelmsen, C., 32-hour Navy Ergonomics Course, Marine Corps Base Okinawa, April 2009
- Ostrom, L.T., and Wilhelmsen, C., 32-hour Navy Ergonomics Course, Marine Corps Base Hawaii, May 2009
- Stack, T, and Ostrom, L.T., Lean Engineering and Ergonomics, 2009 Tri-Services Professional Development Conference, San Diego, March 2009.
- Stack, T, and Ostrom, L.T., Office Ergonomics, 2009 Tri-Services Professional Development Conference, San Diego, March 2009.
- Ostrom, L.T., Wilhelmsen, C., and Stack, T., Ergonomic Assessment of the Artillery Instructional Battery Firing the M198 Howitzer, Letter Report for US Marine Corps, December 2009.
- Ostrom, L.T., Wilhelmsen, C.A., and Young, A.A., Risk and Task Analysis of Aviation Tasks, FY-99 Progress Report, INEEL-99-01002, 1999.
- Ostrom, L.T., Wilhelmsen, C.A., and Owen, R., Important Issues in Aviation Maintenance and Operations-1998, INEEL/EXT-98-01255, 1998.
- Ostrom, L.T., Nelson, W.R., Haney, L.N., Richards, R.E., Wilhelmsen, C.A., and Owen, R., Structured Human Error Analysis for Airplane Maintenance and Design, INEEL/EXT -97-01093, 1997.
- Ostrom, L.T., Leahy, T.J., Novak, S., Summary of 1991 and 1992 Misadministration Event Investigations, EG&G Idaho Formal Report, EG&G-2707, NUREG/CR-6088, 1994.
- Ostrom, L.T., Galyean, W.J., Wilhelmsen, C.A., Haney, L.N., and Jones, J.L, Results from the Reports Analysis of the Sequoyah Very Small-Break Loss (Con't) of Coolant Accident Sequence, Draft Letter Report, August 1994.
- Gertman, D.I., Ostrom, L.T., Wilhelmsen, C.A., and Romero, H.A., Methodologies for Assessing the Risk Impact of New Technology, Draft NUREG/CR, March 1994.
- NUREG-1480, Loss of an Iridium-192 Source and Therapy Misadministration at Indiana Regional Cancer Center, Indiana, Pennsylvania, on November 16, 1992. U.S. Nuclear Regulatory Commission, February 1993.
- Gertman, D.I., Byers, J.C., Galyean, W.J., Nelson, W.R., Ostrom, L.T., and Wilhelmsen, C.A., Risk Impact of New Technology. Final Feasibility Letter Report. EGG-HFRU-10293, May 1992.

Ostrom, L.T., Wilhelmsen, C.A., and Kaplan, B.K., A Comparison of 1988 and 1991 EG&G Idaho Safety Norm Surveys. EG&G Idaho Internal Technical Report, EGG-HFRU-9835, August 1991.

Ostrom, L.T., Gilbert, B.G., and Wilhelmsen, C.A., Summary of the Ergonomic Assessments of Selected EG&G Idaho Work Places. EG&G Idaho Formal Report, EGG-2652, July 1991.

Ostrom, L.T., and Wilhelmsen, C.A., 1991 INEL Safety Norm Survey. EG&G Idaho Internal Technical Report, EGG-HFRU-9635, April 1991.

### **Grants and Contracts Awarded:**

University of Idaho

Managing INL Educational Contract, \$1.8 million a year.

Alex Vakanski and Lee Ostrom, (2018) American Society of Non-Destructive Testing, to put an NDT course online, \$10,000.

Lee Ostrom and Cheryl Wilhelmsen, Idaho Department of Labor, (2016) Develop and Academic Certificate in Fire Protection Safety, \$250,000.

Lee Ostrom, Akira Tokuhiko, Milos Manic, Hybrid Energy, NEUP/DOE, September 2014 to present, \$800,000.

Fred Gunnerson, Akira Tokuhiko, and Lee Ostrom Nuclear Criticality Certificate Training Grant by the NRC, August 2008 to December 2009, \$138,000

Lee Ostrom and Cheryl Wilhelmsen, A Risk-Based Approach to Assessing Inspection and Measurement Reliability, NASA Ames Research Center, October 2002-May 2005, \$332,000 and September 2003 received additional \$23,000.

Lee Ostrom, Analyzing the Impact of Risk and Task Analysis and Human Factors Principles on the Outcome of Maintenance, Operations, and Inspection Risks, May 2000-September 2002, NASA Ames Research Center, \$499,000.

Idaho National Laboratory

Lee Ostrom, Risk Impact of Aviation Tasks, January 1998-December 1999, NASA Ames Research Center, \$350,000.

Lee Ostrom, Human Error Analysis for Aircraft Design, July 1994-December 1997, NASA Ames Research Center, \$1,400,000.

### **SERVICE:**

#### **Major Committee Assignments:**

Faculty Senate, 2011 to Spring 2014 and January 2017 through Fall 2017

Graduate Counsel – Outside Member, 2009 to Spring 2012

University Promotion and Tenure Committee, 2012

College of Education Promotion and Tenure Committee, 2006 to 2008

Parking Lot Committee in Idaho Falls, 2000-01



**Professional and Scholarly Organizations:**

Association of Technology Management and Applied Engineering  
National Fire Protection Association  
American Chemical Society  
American Society of Engineering Management

In the past I have belonged to:

American Society of Engineering Education  
The Human Factors Society  
The American Institute of Aeronautics and Astronautics  
The American Society of Safety Engineers  
The American Industrial Hygiene Association  
The Society of Automotive Engineers  
The System Safety Society  
Association of Non-Destructive Testing

**Outreach Service:**

Helped develop a student video on methamphetamine in Southeast Idaho.

I have done numerous television and newspaper interviews on the Hobo Spider and am considered an expert on the critter.

We have also conducted services for the City of Idaho Falls on Emergency Preparedness as a part of some of our classes. For instance, we mapped all the hazardous material sites in Idaho Falls and provided this information to the Fire Department.