

# UAS Human Factors Research at UND

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# UND UAS Center of Excellence – Human Factors Core



Department of Psychology

**Northern Plains Center for Behavioral Research**  
**G Lindseth, R Ferraro, T Petros, E Yurkovich & LHeuer**

**Project funded by NIH grant #1 C06 RR022088-01**

# Translating Human Factors Research to UAS systems



**Flight Simulator**



**MQ-9 Ground Control Station**

**G Lindseth, R Ferraro, T Petros and others**

**NIH Grant #1P20RR023489-01**

# Translating Metabolic Research



## Comparing Measures of Nutrient Intakes in Healthy Pilots

**Authors:** G Lindseth, E Yurkovich, L Heuer & D Fossum

**Dissemination:** Journal of the American Dietetic Association

# Nutritional Effects on Sleep



**Authors:** G Lindseth, P Lindseth & M Thompson

**Dissemination:** Western Journal of Nursing Research

# Dietary Effects on Cognition and Flight Performance

**PRMRP Grant # DAMDIT-03-1-0010**



**Authors:**

**G Lindseth, P Lindseth; T Petros; W Jensen**

**Dissemination:**

- **International Journal of Aviation Psychology**
- **Military Health Research Forum Associated Press**
- **Airline Pilots Association**

# Nutritional Effects on Cognition, Mood and Flight Performance

PRMRP Grant #W81XWH 1010454



**Authors: G Lindseth, P Lindseth, T Petros & W Jensen**

# Dietary Effects of Aspartame on Cognition



**Authors:** S Coolahan, F Ye, G Lindseth, T Petros & L Heuer  
**Dissemination:** NASA– Johnson Space Center

# Effect of Fluid Consumption on Cognitive Function



**Authors:** G Lindseth, T Petros, P Lindseth & W Jensen  
**Dissemination:** Military Medicine (In Review)

# Quality of Life Concerns of Military Combat Veterans



**Authors: A. Fuller (G. Lindseth, Faculty Sponsor)**

# UAS Human Factors Collaborating Partners

- Airline Pilots Association (ALPA)
- National Aeronautics and Space Administration(NASA)
  - Mesaba Airlines
- U.S. Army Telemedicine and Advanced Technology Research Center (TATRC)
  - US Army Peer Reviewed Medical Research Program (PRMRP)
    - National Institutes of Health (NIH)
      - Mayo Clinic
      - Statistical Consulting Services
    - North Dakota Air National Guard
      - Bell Laboratories
    - North Dakota Dept. of Commerce

*Thank you to our Collaborating Partners!*

# UAS-COE Human Factors Core Goals and Outcomes

R Ferraro, G Lindseth, T Petros & P Lindseth

**Purpose:** To examine bio-behavioral factors affecting Unmanned Aircraft Systems pilots and sensor operators; and increase funding for human factors research infrastructure at UND.

## Human Factors Investigators accomplishments :

- Disseminated over 180 research papers addressing UAS human factors issues.
- UAS research and infrastructure funding resulted in 29 jobs.
- Designed and facilitated research addressing stressors and health issues for UAS pilots, operators and support personnel.
- Established a Mayo Clinic Aerospace Medicine Residency partnership