

## **DAGSI Research Topic**

**1. Research Title:**

Making Do with More: Investigating the Training Needs of Warfighters Teaming with AI

**2. Sponsor:**

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**3. Academic Area/Field and Education Level:**

Research Psychology or Human Factors (MA/MS or PhD levels)

**4. Objectives:**

The goal of this research is to investigate training needs and predictors among DAF's Airmen and Guardians likely to partner with artificial intelligence (AI). Guidance from both the Air and Space Forces has emphasized the importance of consistent mission readiness, underscoring the need to maximize all existing and novel capabilities to ensure the edge over our adversaries. Failure to advance the efficacy of human/machine teams (HMTs) will exacerbate current limitations by producing operators unable to fully leverage cutting-edge tools.

**5. Description:**

Use of AI and autonomous systems represents tremendous potential for increasing operational efficacy and lethality, but only if the tools are used appropriately. The focus of this research is on the training needs of operators and specialists partnering with a machine teammate.

Findings from this work will be used to inform best practices and ensure the technology supports mission goals while enabling the human user to remain informed and in control, while avoiding complacency. The researcher will work on a cross-disciplinary team and investigate topics such as those listed below:

- The domains in which use of AI is most beneficial,
- How use of AI and autonomous tools improves with training, and
- Potential readiness benchmarks aligning with mission-essential competencies.

Tasks for the researcher supporting this effort may include technical writing, data collection, interviewing participants and experts, data analysis and model development, scenario development, and validation of metrics.

**6. Research Classification/Restrictions:**

Work requires a Secret security clearance; foreign nationals are ineligible.

**7. Eligible Research Institutions:**

Schools in the ODHE program; those local to WPAFB are preferred but not required.