

RH15-8

1. **Research Title:** Application Development for the Optimization of Aeromedical Evacuation Patient Placement

2. **Individual Sponsor:**

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

Operations Research / Engineering Management / Computer Science (MS or PhD Level)

4. **Objectives:** A challenging factor during Aeromedical Evacuation (AE) is patient placement. In current operations this process is completed manually and may need to be repeated to accommodate for changing patient loads or mission delays. Therefore, the primary objective of this effort is to develop a user-friendly interactive tool to assist AE personnel in the development of patient load plans optimizing patient placement to enhance patient safety and pain management.

5. **Description:** Aeromedical Evacuation is the transport of ill or injured patients between treatment facilities. AE patient transport occurs nationally and globally during normal and other military operations and in disaster response. Prior to each mission, an AE member designs a patient placement load plan with consideration of the following factors: patient type (litter or ambulatory), injury/illness, acuity, and destination. Utilizing their clinical and flight expertise, an AE crew member assigns each patient a litter location or seat (in the case of ambulatory patients). Additionally, this patient load plan includes seat assignments for the flight crew, AE crew, non-medical attendees, and other passengers. To accomplish the objectives of this project, an understanding of current patient placement strategies must be acquired with the support of the Strategic AE/CCATT Research Team and an interactive tool to facilitate patient placement activities will be developed.

6. **Research Classification/Restrictions:** Unclassified

7. **Eligible Research Institutions:** Indicate to what organizations this topic should be provided



**DAGSI** (Wright State University, AFIT, Ohio State University, University of Dayton, Miami University, Ohio University, University of Cincinnati) NOTE: Topics submitted to DAGSI must be approved for public release. PA Approval # 88ABW-2014-2960, 711 HPW/XPO 17 June 2014

**AFIT (only)**

**USAFA (only)**

If you are submitting a topic for the USAFA, indicate if you are also interested in sponsoring a USAF Cadet in summer 2015 (Average cost for USAF Cadet for 33 days is \$5000)

**Yes**

**No**