



FEDERAL AVIATION ADMINISTRATION
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From: Aviation Maintenance Human Factors Program Manager, ATO-P R&D HF
To: Aviation Maintenance Human Factors TCRG

Subj: Human Factors Maintenance Considerations of Unmanned Aircraft

Ref: (a) Aviation Maintenance Human Factors TCRG, July 7-8, 2005 meeting minutes

1. Requirement Background: to investigate what human factors maintenance unmanned aircraft issues need be addressed so that the Federal Aviation Administration can begin to “develop policies, procedures, and approval processes to enable operation of unmanned aerial vehicles” (Federal Aviation Administration’s Flight Plan 2004-2008, objective two: reduce the number of fatal accidents in general aviation, strategy: establish standard procedures and guidelines for general aviation operators).
2. Project’s Objective: to identify human factors issues related to UAVs that will need to be addressed by the FAA for incorporation into SFAR documents. The requirements include, but are not limited to the following issues:
 - a. Determine the maintenance technician qualifications and training requirements for various types of unmanned aircraft, including the types of knowledge and skills required by a maintenance technician to certify that an unmanned aircraft is safe to fly.
 - b. Compare and contrast maintenance technicians on-the-job requirements to perform a maintenance task between conventional aircraft and unmanned aircraft.
 - c. Identify aircraft maintenance tasks that are unique to unmanned aircraft.
 - d. Compare and contrast the type of resources required by aircraft maintenance facilities and unmanned aircraft maintenance facilities.
 - e. Identify what would be a typical unmanned aircraft maintenance facility.
 - f. Determine what type of human factors training would be required to maintain unmanned aircraft.

maintenance facilities operations. Report will include all interim reports. (February 2007).

- viii. Prototype application to predict discriminability of specified target set (December 2005)
 - ix. Quarterly (December, March, June, September) research progress status reports: Informal e-mail reports from the program manager aviation maintenance human factors to General Aviation Human Factors TCRG.
 - x. Annual five page report
 - xi. Program Review: Grantee will participate in the annual program review.
5. AFS-300 Responsibility
- Identify point of contact who will serve as AFS-300 representative between the researcher and ATO-P R&D HF for this project
 - Make available personnel and resources to investigator

William K. Krebs