

## RECORD OF ENVIRONMENTAL CONSIDERATION

### 1. Description and location of proposed action:

The projects under consideration here are 3 different projects that all affect the 14x22 wind tunnel. The goal of the first project is to enhance the 14x22 Wind Tunnel complex rotor test cell control room, test equipment and instrumentation to improve data quality and operational effectiveness and to expand the test capabilities at this complex, particularly for rotorcraft research. This enhancement will improve the basic research product and throughput particularly for the ARMD Fundamental Aeronautics Program, Subsonic Rotary Wing Project. This project will increase the size of the rotor test cell control room, provide environmentally controlled cabinets for new model interface (MIF) racks and upgrade test equipment and instrumentation thus improving the research data quality and the data throughput.

For the second project, the contractor shall design, fabricate and install a mechanism to position an acoustic phased array within the test section of the 14x22 Wind Tunnel. The Traverse Mechanism automatically operates between the existing crane rails in the test section of the facility and fits into the existing structure below the acoustic treatment on the test section ceiling. The mechanism allows the acoustic phased array to be moved forward and back (with respect to the air flow in the test section) to position the array appropriately for the acoustic survey to be performed. The mechanism accommodates the cabling required to support the microphones, inclinometers, accelerometers and other instruments located on the phased array structure.

The third project would add a jet engine simulator for acoustic and propulsion integration testing. In order to add the jet engine simulator, a pressurized fuel system will need to be installed. This will include a propane tank and a nitrogen tank on the outside of the building and a piping system for both through the walls of the building. The nitrogen system is a purge system for safety. Due to the proposed external modifications, the project was reviewed by the Historic Preservation Officer who determined that these modifications did not cause an adverse effect on the historic nature of the buildings in the area. Additionally, the propane system will need to be added to our air permit equipment list and propane usage will need to be tracked and data submitted to the Environmental Management Branch for compliance with our air permit. Additionally, the cumulative effects of all of these proposed actions on the environment are minimal.

The project manager for this is Robert Bush. (757) 864-7561.

2. The duration of proposed action is to occur from December 2009 to April 2011.
3. It has been determined that the above actions qualify for Categorical Exclusion #7 under 14 CFR 1216.305 (d), which describes NASA's Criteria for determining if an environmental assessment under NEPA is needed and has no special circumstances which would suggest a need for an Environmental Assessment. Specifically 14 CFR 1216.305 (d) (3) provides for a Categorical Exclusion for minor construction of facilities, including rehabilitation, modification, and repair.

**Determination:** This action is categorically exempt from further environmental assessment based on the information provided in the project description. If there are changes to the location and scope or other aspects of the project, then this document may be invalidated and the action may be reassessed.

  
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Project Manager

~~CONCUR~~  
NONCONCUR

10/08/09  
Date

  
\_\_\_\_\_  
Head, Environmental Management  
Branch

CONCUR  
NONCONCUR

10/8/09  
Date