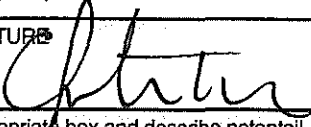
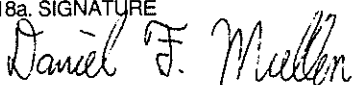


COPY

DFRC REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		DFRC CONTROL NUMBER 00-13		
INSTRUCTIONS: Section I to be completed by Proponent. Sections II and III to be completed by the Safety, Health & Environmental Office. Continue in Block 19 or attach additional sheets as necessary. Reference appropriate item number(s)				
SECTION I - PROPONENT INFORMATION				
1. TO: Environmental Officer Safety, Health & Environmental Office	2. FROM: (Proponent organization and functional address symbol) Airborne Sciences - Code Y	2a. TELEPHONE NO. 2482		
3. TITLE OF PROPOSED ACTION/START DATE NASA DC-8 ARM-FIRE Water Vapor Experiment Mission (AFWEX)		10/30/2000		
4. PURPOSE AND NEED FOR ACTION (Describe why you need to take this action.) This project is designed to perform in-flight basic research studies of the Earth's upper atmosphere. This project is required for the development of instrument technology, data collection for atmospheric studies, and for the validation of ground based instruments.				
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) The project will be temporarily staged at the Dryden Flight Research Center (DFRC) in the Airborne Sciences Experiment Integration Building 1623. Limited calibrations and alignments of the payload instruments will occur at Edwards AFB. Flight operations will include overflight of ground instruments during deployment to Tinker AFB, Oklahoma City, Oklahoma with a return to DFRC. The mission will require approximately 40 flight hours over a 30 day period. All instruments will be operating continuously during flight operations except the LASE, and the ACLAIM laser systems which will not operate during takeoff and landings. (Continued in section 19)				
6. PROPONENT Chris Miller	6a. SIGNATURE 	6b. DATE 9/5/2000		
SECTION II - PRELIMINARY ENVIRONMENTAL ANALYSIS (Check appropriate box and describe potential environmental effects and mitigations.) (+ = positive effect; 0 = no effect; - = adverse effect; U = Unknown effect)				
7. AIR INSTALLATION COMPATIBLE USE ZONE (Noise, accident potential, land use, etc.)	+	0	-	U
8. AIR QUALITY (Emmissions, attainment status, state implementation plan, etc.)	X		X	
9. WATER RESOURCES (Quality, quantity, source, etc.)		X		
10. SAFETY & OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)			X	
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation/solid waste, etc.)			X	
12. BIOLOGICAL RESOURCES (Wetlands/Floodplains, flora, fauna, etc.)		X		
13. CULTURAL RESOURCES (Native American burial sites, archeological, historical etc.)		X		
14. GEOLOGY & SOILS (Topography, minerals, geothermal, Superfund Program, seismicity, etc.)		X		
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	X			
16. OTHER (Potential impacts not addressed above.)				
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATAION				
17.	<input checked="" type="checkbox"/>	PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # 4.2(1) ; OR <input type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.		
18. SHE OFFICE CERTIFICATION Dan Mullen	18a. SIGNATURE 	18b. DATE 10/13/2000		

19. REMARKS: (Continuation sheet. Use additional sheets as necessary)

(Continued from section 5)

Joint permission from the Mission Manager and DC-8 pilot will be required prior to the start of laser transmissions. Airborne research experiments will include the use of Class 4 lasers, gas analyzers, spectrometers, and hygrometers. Small quantities of toxic gases will be used as chemical standards during payload instrument calibrations. No alternatives to this action were considered feasible.

IMPACT ANALYSIS AND PROJECT REQUIREMENTS

AIR QUALITY: Short-term increases in ozone precursor pollutants (VOC and NOx) will occur locally due to engine emissions from aircraft, support equipment, and motor vehicles. These emissions will be minor and are well below the de minimus thresholds for non-attainment areas; therefore, a formal conformity determination is not required. Air quality impacts from this project would not be significant.

Positive impacts to air quality may result from this project as new meteorological and atmospheric chemistry data is incorporated into air quality management practices.

SAFETY AND OCCUPATIONAL HEALTH: A Certified Industrial Hygienist will be in support of this project. All applicable laws, regulations, and standard procedures will be followed for project activities. Hazard risk reduction actions contained in the Project Hazard Reports will be implemented.

Lasers will be operated in accordance with the Laser Safety Plan which is approved by the Dryden Laser Safety Officer (LSO). The LSO will stipulate appropriate requirements.

Toxic gases will be handled in accordance with applicable guidelines contained in the Toxic Gas Installation and Ground Operations Safety Action Plan.

HAZARDOUS MATERIALS/WASTE: Hazardous materials/waste will be handled in accordance with applicable regulations.

SOCIOECONOMIC: A minor positive impact will result in the local economy from the temporary stay of scientists and researchers.

MITIGATION MEASURES: No significant impacts are identified on this project; therefore no mitigation measures are required.

CONCLUSION: Based on the above environmental impact analysis it is concluded that this is a categorically excluded action [NASA 4.2(1)] that do not substantially impact the human environment; therefore, neither an EA nor an EIS is required.

COPY