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RE: Airworthiness Statement for the Funtana Phase I UAS

The purpose of this memo is to document the certification process used to certify the airworthiness of the Funtana research unmanned air system (UAS) outlined in this COA application. These UAS, based on the commercially-available Funtana hobbyist airframe, are used solely for research purposes and will be operated at the existing Jackson, Michigan Academy of Model Aeronautics (AMA) field.

Each Funtana Phase I platform is carefully inspected for airworthiness at multiple stages during the assembly of the aircraft, immediately before flight, and immediately following flight. The Funtana airframe is itself a commercially-available aerobatic R/C aircraft. We purchase each airframe, conventionally constructed of natural wood materials and monokote coverings, from R/C hobbyist suppliers. We then integrate a commercially-available electric propulsion and power system along with our avionics package. I am the primary project advisor and am a licensed private pilot as well as an R/C hobbyist. An R/C modeler with over 50 years of experience collaborates in this effort, inspecting and approving all phases of the design, construction, and flight operations process. Each airframe is carefully inspected for integrity and quality of construction by our experienced R/C modeler before and after propulsion, power, and avionics components are added. Each embedded servo is individually tested for performance and range of motion. Propellers are balanced to performance standards and each engine is broken in on the ground with a minimum of four full battery cycles. Immediately prior to launch, each Funtana Phase I platform goes through a detailed pre-flight check, which includes a full airworthiness inspection of control surfaces, battery, motor, and a radio check for range and potential interference issues. After landing, logs are maintained for each airframe including flight times, repairs, and performance and structural evaluations. Associated documents in this COA application further describe the hazard analysis, safety guidelines, and standard operating procedures for our Funtana UAS.

Sincerely,

Ella M. Atkins  
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Certified Private Pilot, ASEL  
AMA member and hobbyist