

## **Attachment 1 – Operational Description**

### **Program Executive Summary:**

The USDA Agriculture Research Services has established a small unmanned aircraft system program (“the Program”) to assist in monitoring agricultural growth and development. The program will provide aerial photograph of particular agricultural fields that are of interest using the Leptron Avenger, a sUAS, that is equipped with a camera system that provides real-time video and photograph to the ground station. The sUAS team will be responsible for evaluating the mission parameters and ensuring that all flights comply with FAA regulations and COA mitigation steps. All operators will be trained by a manufacture representative or qualified pilot as set forth in this COA application.

### **Operational Summary:**

The Program will conduct all operations clear of Class B airspace. Operations will be conducted during VFR conditions with at least Class E weather minimums. The operator will maintain line of sight of the aircraft and of airspace in which the aircraft is operating. The aircraft will not exceed 400 feet AGL. All operations will be in compliance with Part 91 regulations.

All operators of aircraft will be appropriately trained as set forth in this COA application. The operators will have a VHF radio available to communicate with other aircraft in the vicinity of the operation and with air traffic control when operating in the Class C airspace of Kahului. In addition, the operators will have cell phone access so that they may be in ready communication with air-traffic control. The operator shall notify all nearby air-traffic control facilities at least 15 minutes prior to launching and at the conclusion of operations. Such notification will include contact information for the operators, site location for the intended operation, anticipated duration of the operation and a proposed altitude of the operation.

The aircraft will be equipped with a mode C transponder. Before any flight operation the pilot in command will obtain a discrete squawk code to be used for the entire duration of that flight.

The initial purpose of the COA is to permit the Program to conduct training and evaluation of the aircraft. Once the agency obtains sufficient skills in flying the aircraft, the USDA will then conduct aerial photography flights over the designated areas.

All operations will be conducted in accordance with the USDA-ARS’ policy for the use of unmanned aircraft systems, which has been provided in this COA application. In addition, all operations will be conducted in accordance with manufacturer's recommendations and checklists.