

Department of Energy and Environmental Protection

Specifications

Project:

Connecticut DEEP is looking to conduct an aerial deer census experiment to test the accuracy of various types of census techniques and equipment using fixed wing thermal imagery. The fixed wing thermal survey characteristics are detailed below.

Data Requirements:

- 1) Thermal imagery analysis, deer count, GIS data layer with deer locations (GPS) delivered 6 months after final survey is completed.
- 2) A summary report with all raw and processed data delivered in digital GIS format (shapefiles, TIFFs, JPEGs) on portable hard drive 6 months after final survey is completed.
- 3) GPS locations of start and end points of transect flight lines.

Flight Services:

- 1) Vendor will need to have flexibility to fly transects between December and April, on days with low winds <15mph.
- 2) Infrared sensor system with the ability to detect at least 0.1°F and at least 800 x 400 pixels.
- 3) Cessna aircraft with a fixed-winged thermal census forward-looking infrared (FLIR) mounted on a wing.
- 4) Sensor gimbal should allow for 330° of azimuth and 90° of elevation.
- 5) Thermal infrared sensor operator should be certified as a Wildlife Biologist by the Wildlife Society and have >5 years of experience conducting and interpreting wildlife counts from FLIR.
- 6) Pilot should have >3,000 hours of flying time.