



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Lower Suwannee National Wildlife Refuge  
16450 NW 31 Place  
Chiefland, FL 32626  
Telephone: (352) 493-0238  
Fax: (352) 493-1935

February 3, 2011

To whom it may concern:

This is in response to questions regarding bird disturbance on the University of Florida's UAS COA application that includes the Cedar Keys and Lower Suwannee National Wildlife Refuges. We have had long interest in UF's development of a small UAS designed specifically for assessment of wildlife populations and habitat. The UF team has been working on an interdisciplinary project to develop the NOVA UAS Platform. It combines aeronautical engineers, remote sensing specialists, photogrammetrists, statisticians and wildlife biologists specifically to address assessment of wildlife populations and habitats.

The COA will allow the UF UAS Team to further collaborate with ecological researchers and the refuge in assessing effects of climate change on coastal marsh habitats, documenting dramatic changes in oyster reefs, and providing more precise estimates of shore bird populations and colony size of brown pelicans. The latter, as well as similar counts all over the world are often done by observers from the ground or in low flying manned aircraft. Both might provide questionable data, bird disturbance, considerable costs and safety hazards to observers. We believe the small UAS equipped with high resolution, tightly georeferenced sensors will lead to significant improvements in all of those areas.

Previous work the team has done with the NOVA over colonial nesting birds within the Everglades indicates that the electric powered NOVA has no effect on nesting birds. We are aware of Title 50 Code of Federal Regulations, Part 27.34 regarding harassment of wildlife and airspace around a National Wildlife Refuge. We understand that UF UAS mission protocols involve observations of wildlife disturbance such that adjustments in altitude, for example, might accommodate disturbance should it occur. Additionally, we will approve any flights of the NOVA UAS over all land under our jurisdiction, including the Cedar Keys National Wildlife Refuge and the Lower Suwannee National Wildlife Refuge, through the issuance of a Special Use Permit that will include appropriate special conditions to minimize or prevent negative impacts. We not only are supportive of the COA application but are excited to be part of deployment of small UAS for purposes of natural resource assessment.

Sincerely,

John W. Kasbohm, Ph.D.

Refuge Manager