



**Testimony of Charles Lee
Director of Advocacy
Audubon Florida
House Oversight and Government Reform Committee
Subcommittee on Government Operations
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I am Charles Lee, the Director of Advocacy for Audubon Florida. My business address is 1101 Audubon Way, Maitland, Florida 32751. I have been employed by Audubon for over 41 years, since May, 1972. Audubon is the state's oldest conservation organization, having been founded in Maitland, Florida in March, 1900, nearly 114 years ago. During the time I have served on the staff of Audubon, our organization has been extensively involved in efforts to assure the protection of the extremely important and diverse wildlife habitat that exists within the Kennedy Space Center, Merritt Island National Wildlife Refuge, Canaveral National Seashore, and the waters of Mosquito Lagoon, part of the Indian River Estuary.

The Merritt Island National Wildlife Refuge (MINWR) is home to over 1000 species of plants, over 500 species of birds, fish, and wildlife, some 66 of which are listed by federal and state governments as endangered, threatened, or otherwise imperiled.

In 2012, 1.2 million people visited the Merritt Island National Wildlife Refuge, one of the most popular wildlife viewing sites in the U.S., and over 215,000 sports fishermen utilized the waters of Mosquito Lagoon.

The 140,000+- acre Merritt Island National Wildlife Refuge exists almost entirely upon lands that are owned by NASA. In 1963, the U.S. Fish and Wildlife Service and Department of Interior entered into a cooperative inter agency agreement for management of non-operational lands owned by NASA. This managed area includes a large portion of the open waters of Mosquito Lagoon. Upland and wetland areas of high ecological value are contained within the management agreement area and are comprised of scrub, pine flatwoods, and a unique mixture of subtropical and temperate plants. This mixture includes hammocks comprised of overstory vegetation dominated by temperate species and understory vegetation including many subtropical plants. The Merritt Island National Wildlife Refuge also includes impounded salt marsh areas, and aquatic inland freshwater swamps and marshes. The wetlands and waters within the area managed under this agreement by USFWS support large wintering populations of migratory waterfowl, as well as transient and resident



populations of wading birds. Lands within the Merritt Island National Wildlife Refuge are managed by the USFWS in a capacity subservient to the interests of NASA. Under the agreement, NASA can withdraw lands from the USFWS agreement to construct additional facilities at any time.

The Canaveral National Seashore was established by Congress in 1975 through the enactment of PL 93-626, and is comprised of 67,500+- acres. This act effectively transferred ownership of this land permanently from NASA to the National Park Service. The U.S. Fish and Wildlife Service and the National Park Service jointly manage 34,345 acres of the Canaveral National Seashore lying west of “Beach Road” and extending into Mosquito Lagoon, while the National Park Service exclusively manages those lands east of “Beach Road”.

As I understand the purpose of the hearing today it is to examine the management of NASA’s real property holdings. In regard to that matter I would like to present two recommendations:

(1) The ownership of lands not utilized by NASA for the space program of the United States, and not occupied by public or private space infrastructure should be transferred to the United States

Department of Interior, U.S. Fish and Wildlife Service. Congress appropriately recognized in 1975 through enactment of PL 93-626 that Canaveral National Seashore required the stability of primary control of the land constituting the National Seashore. We believe it is equally appropriate that Congress recognize, and act to do the same thing with regard to a large share of the 140,000+- acres that make up the Merritt Island National Wildlife Refuge. **Exhibit 1 to this testimony**, a letter from the U.S. Fish and Wildlife Service, documents the substantial positive economic impact to businesses in Brevard and Volusia Counties and communities such as Titusville which results from visitor use at the Merritt Island National Wildlife Refuge. The combined impact of the 1.2 million visitors each year results in more than \$60 million in economic activity. These figures do not include the additional economic activity caused by more than 200,000 sport fishing trips documented to occur in Mosquito Lagoon. The stability offered to the continued existence of Canaveral National Seashore by control of the land within its boundaries is robust. While NASA remains entitled to exercise control such as launch day safety closures, the construction of additional permanent NASA infrastructure is precluded. This stability for the National Seashore could only be altered by Congress. In comparison, the basis for the continued existence of the MINWR is fragile. NASA remains the landowner and retains jurisdiction to remove lands from the MINWR, and may construct new space infrastructure facilities within MINWR. Nonetheless, the relationship between NASA and the U.S. Fish and Wildlife Service over the years through the duration of the Apollo and Space Shuttle programs has

been good. NASA worked carefully with the USFWS to keep the major infrastructure needed for these space programs south of State Road 402. Closure of public access to the MINWR Mosquito Lagoon, and the Canaveral National Seashore has been minimized by the directional characteristics of launch trajectories that do not launch vehicles over the majority of lands in MINWR or these other public use areas. State Road 402 was also relocated to the north to accommodate continued public access to the eastern portions of MINWR and Canaveral National Seashore while Space Shuttle Vehicles were on the northernmost launch pad. The location and design of space infrastructure south of SR 402 has facilitated USFWS' continuous management and open public access to the majority of MINWR, Mosquito Lagoon and Canaveral National Seashore with only brief public closures for a few hours on launch days.

The "Kennedy Space Center - Future Development Concept" prepared by NASA, in 2012 http://www.nasa.gov/centers/kennedy/pdf/634026main_future-concept.pdf (Excerpted in Exhibit 2 to this testimony) constitutes NASA's most recent "Master Plan" for the future of space infrastructure. These plans provide for meeting future spaceport development needs to the year 2031, including both the NASA space program of the United States and development sites for private industry space launch facilities. None of the proposed space infrastructure development areas extend north of State Road 402. These future - development plans divide the natural areas of MINWR into two zones. The first zone constitutes all of the lands north of SR 402 and is designated as "Operational Buffer Conservation 1". The second zone consists of those natural areas which are interspersed between existing and proposed NASA and private enterprise spaceport facilities south of State Road 402, which is designated Operational Buffer Conservation 2".

As described in detail with regard to our second recommendation below, the surge in interest in development of NASA lands by private space launch providers in our view makes the following steps necessary if the integrity of the Merritt Island National Wildlife Refuge is to be preserved:

Audubon believes that it is appropriate to immediately transfer ownership of all the land in "Operational Buffer Conservation 1" to the U.S. Fish and Wildlife Service, thereby placing both Canaveral National Seashore and the publically accessible area in MINWR on the same land ownership footing.

With regard to those areas classified as "Operational Buffer Conservation 2" south of SR 402 that NASA plans to retain in natural habitat without development, Audubon recommends that NASA and USFWS be directed to review the status of the larger blocks of these lands to determine which portions of this land are appropriate for ownership transfers to USFWS. A specific timeline for this review and ownership transfers should be established.

(2) NASA should be required to make locations for Commercial Space Launch projects available south of State Road 402 in previously disturbed areas and primarily by repurposing existing space infrastructure sites. NASA should be required to make such sites available on terms satisfactory and attractive to private space industry companies.

In 2008 NASA conducted an analysis of possible sites for private space launch ventures at Merritt Island, including potentially on lands within the publically accessible portions of Merritt Island National Wildlife Refuge north of SR 402. At the conclusion of this process, the controversial sites for possible private launch facilities north of State Road 402 were removed from consideration. An outgrowth of this site search study was the “Kennedy Space Center - Future Development Concept” prepared by NASA, in 2012 (**Exhibit 2 to this testimony**) which proposes uses of NASA’s land in the period 2012-2031.

Regardless of NASA’s decision to forgo the development of private space launch provider sites north of State Road 402, as expressed in the 2012-2031 NASA plan, “Space Florida”, an agency of the State of Florida, has stepped forward to demand that a 200 acre site at a location within MINWR approximately 10 miles north of State Road 402 known as “Shiloh” be removed by NASA from MINWR and transferred in ownership to Space Florida to establish a private commercial launch site. Concerns about the serious threat this proposal would cause to MINWR are detailed by the U.S. Fish and Wildlife Service in **Exhibit 1** to this testimony. We will not go into great detail about all of the many the serious threats to the refuge this proposal would cause other than providing a copy of the USFWS letter, and indicating that Audubon strongly agrees with USFWS with regard to the agency’s stated concerns. Some of the most compelling concerns worth noting here are that the location of the proposed Space Florida facility would result in rocket trajectories over the northern portions of MINWR, Mosquito Lagoon and Canaveral National Seashore, imposing numerous public access closures never experienced by visitors previously. The area near the proposed Space Florida site has been under restoration to reestablish scrub habitat for the endangered Florida Scrub Jay. In the past 5 years, in excess of \$2 million has been spent by USFWS in this habitat restoration effort. If the Space Florida facility is located at this site it is likely that much of this habitat near the proposed Space Florida Site could no longer be managed through controlled burning as Scrub Jay habitat, and therefore the previous USFWS habitat restoration expenditures would in essence be wasted.

Space Florida’s insistence on establishing a freestanding private space launch site at this remote location is based on a claim that SpaceX, and other private space launch companies cannot or do not want to operate



within the NASA security zone or security zones at the Canaveral Air Force Station. Space Florida's personnel have claimed that SpaceX and other private space launch companies cannot obtain, or have difficulty obtaining security clearances for their customers, contractors, and payloads to be admitted to NASA and Air Force properties. Representatives of Space Florida have vocalized these claims at numerous public meetings, however the record is scant on any direct and specific statements about this problem coming from the companies (such as SpaceX) themselves. A second reason that Space Florida cites in its demand that 200 acres be removed from MINWR and developed as a freestanding commercial launch site is a claim that NASA and the Air Force will not cooperatively coordinate with private space launch companies on airspace and launch timing. Again, to the best of our knowledge, this claim is stated by Space Florida, and not made directly from the private space launch companies themselves. We are somewhat skeptical of Space Florida's claims in this regard, because we know that regardless of what may be happening within the knowledge of Space Florida, the rest of the nation and the world are aware that SpaceX and other companies are vigorously exerting efforts to negotiate directly with NASA to obtain private launch sites within the plentiful developed areas of space infrastructure that exist south of State Road 402.

If, in fact, these assertions by Space Florida regarding the concerns of private space launch companies are correct, then we believe that NASA, and the U.S. Air Force have the capability to resolve this problem through policy and regulation changes. Ultimately, the U.S. Congress has the ability to step in (and perhaps should step in) to demand that NASA and the Air Force make whatever policy and regulation changes are necessary to fully accommodate the growth of the private space launch industry at appropriate, environmentally benign locations south of State Road 402.

We believe that priority should be placed on repurposing existing NASA infrastructure for private space launch provider companies. However, if, in the final analysis, additional "greenfield" sites for development of private space launch facilities are needed, and some natural areas must be developed and sacrificed, these impacts should be concentrated in areas south of State Road 402 which have no public recreation access and where space infrastructure development already fragments the natural landscape.

The more pristine areas north of State Road 402 which serve at least 1.2 million visitors per year, should not be fragmented, developed, and removed from the Merritt Island National Wildlife Refuge due to the mere inability of government agencies to untangle their policies and regulations to allow for the robust



development of private space industry launch sites where they do no significant environmental harm. We believe the following actions are necessary:

Audubon recommends that Congress determine whether NASA and the U.S. Air Force are appropriately modifying policies and regulations to make sites south of State Road 402 attractive to, and available consistent with the needs of companies in the private space launch industry. If this is not being done, Congress should take steps to require NASA and the US Air Force to make reasonable and appropriate modifications to their policies and regulations to accommodate the private space launch provider companies in areas south of State Road 402 and to resolve the concerns of these companies regarding security clearances and launch schedule coordination.

In conclusion, we at Audubon Florida thank the Committee for the opportunity to make these comments and recommendations. We will be pleased to answer any questions and to work with Congress and the appropriate federal agencies to assure that Merritt Island National Wildlife Refuge is preserved and managed appropriately while the space program of the United States and the emerging private space launch industry are enabled to grow and thrive.

Charles Lee
Director of Advocacy
Audubon Florida
1101 Audubon Way
Maitland, Fl. 32751
(407) 620-5178