

CURRITUCK NATIONAL WILDLIFE REFUGE

Currituck County, North Carolina

ANNUAL NARRATIVE REPORT

Calendar Year 1996

[Handwritten Signature]

Refuge Manager

4/3/03

Date

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Associate Manager Review

4-17-03

Date

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Regional Office Approval

4/27/03

Date

INTRODUCTION

Currituck NWR is located in northern Currituck County, North Carolina along the Outer Banks barrier island chain. The Currituck Banks are part of an extensive coastal lowland that stretches from Newfoundland southward to Florida, and westward into the Gulf of Mexico. Along the Currituck Banks, inlets have periodically formed and reformed depending on storms, amount of sedimentation, tidal heights, and degree of vegetation on the barrier beach.

Acquisition of Currituck NWR was intended to preserve and protect a part of the NC Outer Banks, one of the largest undeveloped coastal barrier ecosystems remaining on the East Coast. Service ownership ensures perpetuation of basic wetland functions, including nutrient cycling, floodplain and erosion control, and will help preserve the role of Currituck Sound estuaries as nurseries. The sound is an important black duck wintering area. Ownership of the protective buffer east of the productive marshes bordering the sound protects the marsh from direct pollution sources associated with development.

The Outer Banks remained isolated from the mainstream of activity in early America, and those few people who lived there relied heavily on activities associated with the area's natural values for their subsistence. Activity in the Currituck Sound area reached a peak in the late 1800's when commercial fishing and market hunting were at an all time high. A number of hunting clubs were established for sport hunting of waterfowl and drew much of their membership from affluent northern businessmen and professionals.

The navigation hazards along the Outer Banks resulted in numerous shipwrecks along the coast. Lifesaving stations were established along the beach of which several still exist. One station is located on an inholding within the Swan Island Tract (SIT) and is used as a seasonal residence by a private citizen. The Currituck Lighthouse at Corolla still functions throughout the year.

During 1975 and 1976, The Nature Conservancy (TNC) acquired several parcels of land on the Currituck Outer Banks. The two major tracts of land were being utilized by the Swan Island and Monkey Island Hunting Clubs. Funds to purchase these areas were provided by the Melon Foundation, a sponsor of the National Wetlands Project. TNC transferred approximately 500 acres of the Monkey Island Tract to the State of North Carolina for inclusion in the National Estuarine Sanctuary System as the Currituck Banks component. A narrow strip from sound to sea of about 50 acres was retained by TNC between the Sanctuary and the Monkey Island Tract.

The Migratory Bird Conservation Commission (MBCC) met to consider the Currituck Refuge on August 2, 1983. The MBCC approved the boundary of the refuge in two parcels: the Monkey Island Tract, which is 1.5 miles north of Corolla, NC, and the SIT some 3.5 miles further north. Two phases of acquisition resulted in 1,770 acres in fee title, 166 acres in conservation easement and some hunting blind rights at a cost of \$3.9 million. A third tract, 54 acres of marsh and low shrub and hardwood woodland, was acquired in 1988, through a trade with Currituck County, NC, for Monkey Island and is located along the west side of Corolla village. All three tracts comprise about 1,824 acres and have been administered by Mackay Island NWR at Knotts Island, NC, since July of 1990.

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B. CLIMATIC CONDITIONS

As an unmanned station managed by the staff at Mackay island NWR, no weather conditions are monitored at Currituck. Significant weather events that occurred in 1996 include the very near passage of Hurricanes Bertha (July) and Fran (September).

Hurricane Bertha advanced up the southeast Atlantic seaboard for three days prior to making landfall near Wilmington NC on July 13. Just prior to landfall (12 hours south of the refuge) her winds were recorded at 105 mph. Her track brought the eye just west of Mackay Island providing tropical storm force sustained winds at 70 (with gusts between 75 - 80 mph). Late August saw the near passage of Hurricane Fran, a Category 4 storm with sustained winds of 130 mph. The northeastern North Carolina communities were spared on September 2 when it steered a northerly course west of the refuge. The end result of the "near hits" was a significant amount of beach erosion, some lost boundary posts and signs and standing water in the interdunal flats to welcome early arriving waterfowl.

C. LAND ACQUISITION

1. Fee Title

When originally proposed, Currituck Refuge had the potential for approximately 15,000 acres on the North Carolina Outer Banks. The 1,824 acres that currently exist is a fragment of what was envisioned in the final Environmental Impact Statement (EIS) in 1980. Primarily, skyrocketing land prices have prohibited the ambitious acquisition originally envisioned.

With the current onslaught of beach front development, the importance of this fragile coastal barrier island ecosystem has become even more evident. Small tracts of land such as the Covington Tract need to be given serious consideration for acquisition before they are subdivided and developed. These parcels are inherently valuable for migratory birds, endangered species, bio-diversity, water quality, dune protection, and will lessen the indirect affects of increased human activity associated with development.

Late in the 1996, the Realty division was working towards acquisition of approximately 1,100 acres (the Currituck Gunning Club) on the Sound side northwest of the Swan Island Tract.

D. PLANNING

3. Public Participation

As during the past ten years, in June, ten duck blind permits for blinds along the west side of Monkey Island Tract were applied for and granted by the Currituck County Game Commission Board. Traditionally, we have maintained the blinds to falsely create a "rest area" for waterfowl during the hunting season. In November, Acting Refuge Manager Andres and Refuge Officer Panz attended the Currituck County Game Commission meeting at the county courthouse to try to clarify established rest areas and investigate alternatives to the blind situation.

Coincidentally, a coalition of float blind hunters had approached their state representatives about various organizations and individuals that maintain blinds that are not hunted. (A stipulation to having a blind is that one must swear before the Commission that the blind is hunted at least four days during the hunt season). The County Commission is feeling the pressure to resolve the issue.

At a meeting on November 13, in exchange for keeping our blinds near the MIT until we can request a viable rest area and to show good faith, we gave up two blinds in the vicinity of Monkey Island. For more details, see the Currituck NWR Annual Report, Section H.17.

On November 25, Andres notified WHM Biologist Noffsinger on the blind issue to allow him time to ponder the issue before meeting at the Currituck site in early 1997 with Andres and Panz. Noffsinger agreed that the blinds are not exactly the best way to protect the birds and some sort of rest area may be appropriate.

4. Compliance with Environmental and Cultural Resource Mandates

The long ordeal between North Carolina Power (NCP) and the Service came to a successful end in 1996. Since 1992, they had been trying to obtain a right-of-way (ROW) for an underground distribution line across approximately 9,800 feet of the Swan Island Tract (SIT) just south of the community of Carova, North Carolina. Electrical service for Carova via an overhead line from the north was no longer adequate to meet current demand, not to mention future needs as development continues.

Differences between NCP and the Service over the Section 7 Evaluation in August of 1993 that considered the direct (and in early 1994 revised to include secondary) impacts to species covered under The Endangered Species Act resulted in a breakdown of the talks through the remainder of 1994. In February of 1995, the talks resumed to include Currituck County and Carolina Telephone. The consideration of the secondary impacts and mitigation for those impacts were upheld by the Regional Solicitor in April and the Regional Director in June. In July, North Carolina Power agreed to the revised EA to include secondary impacts.

On February 7, Merritt met with NCP and Virginia Power representatives to discuss the revised EA and possible mitigation. In March, the Compatibility Determination and Section 7 were completed for the Carolina Telephone request for ROW through the Monkey island Tract and

sent to Raleigh ES and the RO. In May, 1996, Manager Merritt completed revision of the EA to grant an ROW, the FONSI, EAM and the Compatibility Determination and sent it to the RO and Raleigh ES offices. Also, Carolina Telephone decided to request the same ROW. In July, North Carolina Power accepted the terms of the mitigation and signed the permit. Coincidentally, the EA and the Section 7 for Carolina Power was completed.

On August 14, Managers Merritt and Andres met with representatives of NC Power on the ROW site to review the ROW and the procedures to install the powerline with as little disturbance as possible. On August 26, a \$95,000.00 check was presented to the NC Coastal Wildlife Refuge Society and on September 11, the final ROW agreement was signed.

In October, North Carolina Power commenced work on the line through Monkey Island and the new ROW across the Swan Island Tracts the last week of the month. On October 28, Acting Manager Andres talked with Raleigh ES regulatory specialist Candice Martino to see where the EA/Compatibility Determination/Section 7 for Sprint Telephone stands. She initially felt that it had been approved and sent to Regional Realty Thomas Hawkins. She then retracted that statement and requested that we resubmit the package that RM Merritt had sent on July 24! At month's end, she called to say that the entire package had been "re-sent" to Realty. Construction of the ROW and line installation continued through November.

On December 10, the Carolina Telephone Compatibility Determination was resubmitted, but by years end, it had not been approved at the RO level.

6. Research and Investigations

On June 18, ARM Andres met with COE, DOD and Currituck County officials at the Monkey Island tract. The meeting was the first visit by DOD officials after the target area was uncovered by a northeaster storm event in spring of 1995. The area was used extensively from the late 1940's through to the early 1950's for aerial target acquisition and gunnery practice. In the vicinity are the remains of the target frames, 50mm rounds and dummy bombs. DOD spent two more days in the area investigating other potential sites and interviewing witnesses. The site investigation will likely result in nothing more than its listing and receiving a low priority for clean up due to the fact that actual live ordinance, aside from the phosphorous and primers, were not used on that target.

Throughout July and August, assistance was given COE Quinn Williams with the final details regarding the ordinance site. DOD required a list of endangered/threatened species that may exist in the area, including plants and marine mammals. Also, they needed information on ponds on the property, any farming practices we intend to start and the burn prescriptions.

E. ADMINISTRATION

1. Personnel

As an unstaffed refuge, Currituck NWR is managed by the staff at Mackay Island. Its inherent isolation makes it difficult to regularly patrol and survey the parcels. While RLEO Panz does spend a considerable part of the summer on the Outer Banks, we depend on interns or volunteers to carry the biological program. On May 10, Student Conservation Associate (SCA), Rebecca Haryeet arrived at Mackay Island. She was a Canadian Forestry and Wildlife graduate and integrated into the staff for 16 weeks conducting sea turtle, piping plover, and seabeach amaranth surveys.

On May 14, Haryeet attended a one-day sea turtle survey and nest management course at FTC Dam Neck in company with the Back Bay NWR biological staff. Afterwards, Back Bay's Biotech Florence James gave her an introductory course in beach driving and how to conduct sea turtle surveys and on May 17, Haryeet completed an ATV safety course.

F. HABITAT MANAGEMENT

1. General

Currituck NWR is located on the Currituck Banks stretch of North Carolina's Outer Banks barrier island. The Currituck Outer Banks are primarily maintained by a variety of coastal processes including long shore currents, tides and tidal currents, wave action, storm surges and wind action.

These dynamic forces cause shorelines to undergo constant change. The adaptability of this coastal strand to constant physical change is a major part of their natural ecology. The approximate size of the habitat types on the refuge are: 13% sand and dune, 48% brush and woodlands and 39% marsh.

2. Wetlands

Two types of wetland areas are situated across the three major land tracts of the refuge; these include the brackish water marshes that border Currituck Sound and the wetland flats between the primary dunes and the ancient secondary dunes.

The most extensive area of the interdunal flats occur on the SIT where the refuge operates a water control structure. This structure is situated in an old ancient dune line where the Flats drain into a creek which empties into Currituck Sound (In the early to mid-1880's, this was the "Old Currituck Inlet", passable by large sailing vessels). The structure is adjusted to maintain moist soil conditions by trapping rainwater through the summer to promote moist soil species.

In 1996, rain was plentiful; so much so that the Flats held water from early spring through to the end of the year. Vegetation response (most grasses) was exceptional. However, rainfall on the

Outer Banks is not dependable. In 1994, a Ducks Unlimited MARSH Site Specific Agreement was signed funding a pump facility for this unit. Plans call for the installation of a permanent pump which will be used to maintain moist soil conditions and allow the unit to be flooded in early fall. It is not clear at this time when the pump will be in place and operating. Thus, the water management plan will be amended when pump facilities are in place. The CAMA permit was in an initial draft stage by year's end.

The second type of wetland on the refuge includes the Currituck marshes along the western side of the refuge. These emergent marshes are dominated by *Juncus roemerianus*, *Typha* spp., and *Spartina cynosuroides*. These sizeable marshes are influenced by wind tides. Management on marshes is limited to prescribed burning. No prescribed burns were conducted in 1996.



The White Sand Dunes and Green Marshes of Currituck NWR

3. Forests

Forty-eight percent of the total refuge consists of maritime shrub and forest habitat. A dense shrub thicket occurs on the protected west side of the primary dune system. Dominant shrub species include American holly, yaupon holly, wax myrtle, and live oak. Farther west from the primary dunes, a low, laterally branching maritime forest dominated by live oak and red cedar is found. West of ancient secondary dunes the forest becomes taller and exhibits a more open

canopy where loblolly pine is dominant. All of these shrubs and woodland areas provide important resting and cover habitat for neotropical passerines and raptors.

6. Other Habitats

Approximately 243 acres of beachfront and sand dune are contained within the Swan Island and Monkey Island tracts. The refuge's fee title ownership extends along the beachfront out to the mean high water line. The intertidal zone falls within the state's ownership according to state law.

G. WILDLIFE

1. Wildlife Diversity

A rich wildlife diversity occurs across the Currituck Outer Banks due to the diversity of habitats along this area. Avian species comprise the bulk of the wildlife diversity as indicated by over 240 species having been documented at Back Bay NWR which lies some ten miles north of Currituck NWR. The Currituck Outer Banks serves as a migration corridor for a variety of birds such as accipiters, falcons, neotropical warblers, shorebirds, gulls, terns, and many waterfowl species. Periodic monitoring covers waterfowl and the threatened piping plover.

2. Endangered Species

Several endangered and threatened species utilize the Currituck Outer Banks and the refuge. Of these species, piping plovers use the refuge and its' adjoining beach most during the year. Piping plovers have used the beach from Penny's Hill to Carova Beach from April through September to breed and rear young. The Asheville Endangered Species Office again transferred funds (\$2,000.00) to support monitoring breeding production of piping plovers on the Currituck Banks. The funding paid the SCA fee for Ms. Rebecca Haryet.

From June 1 - 9, the refuge participated in the 1996 International Piping Plover Census. SCA Haryet, assisted by Volunteer John Redmond, conducted daily piping plover surveys of the 10.4 miles of beach between the Virginia and North Carolina state line and the ramp at Corolla, NC. While they never observed any plover, she was able to conduct sea turtle crawl surveys, make a number of public use contacts and generally "show the flag" in and around the Outer Bank parcels.

Piping plover production did not fair well again this year. No nest was found on the refuge. From late July through mid-August a couple of sightings were made of transient piping plovers that used the beach for feeding near the refuge.

In June, ARM Andres discussed a joint venture between MacKay Island and Back Bay in an upcoming beach/interdunal survey looking for seabeach amaranth. The time frame set was late July to early August. While Back Bay had less chance of finding the plant in their dunes, they

were very interested in helping us find any specimens. Andres sent Biologist John Gallegos a copy of the Service recovery plan draft in preparation for the survey.

Due to various evolutions at both refuges, the amaranth survey did not occur until mid-August. No specimens discovered, however, SCA Haryet continued efforts into September.

Loggerhead sea turtles have used the Currituck Outer Banks in the past for nesting but no nests were documented or heard of in 1996. This low use is likely influenced by the human use and development, commercial fishing, and vehicular traffic on the beach North of Corolla to the state line.

Modest numbers of peregrine falcons pass over the refuge coastline during their fall migration; some occasionally feed and roost in various refuge habitats during this time. A few bald eagles may seasonally pass by the refuge in the fall-winter period.

3. Waterfowl

The survey data for 1995/1996 was insufficient and data analysis could not be done.

	10/18	11/17	12/03	12/17
Swan	10	1135	128	90
Canada goose	7	575	40	25
Snow goose	350	2750	2370	1100
Mallard	125	952	202	5
Am black duck	52	215	148	157
Gadwall	17	107	95	100
Gwt	103	239	20	110
Am wigeon	95	332	70	25
No shoveler	-	28	12	10
Bufflehead	-	-	22	15
Ruddy duck	38	70	15	-
Mergansers	15	10	-	4
Am coot	64	587	610	22

4. Marsh and Water Birds

Many of the 20 species of marsh and water birds that use Mackay Island also frequent wetlands of Currituck NWR either year round or seasonally. Most heron use is by great blue, little blue and green-backed herons. Common egrets, snowy, and cattle egrets are found on the refuge throughout the year. Glossy ibises and tri-colored herons seasonally frequent refuge marshlands. Other seasonal water bird use is derived from coots, pied-billed grebes, and double-crested cormorants. King and Virginia rails, are the most common rails on most refuge tracts. Infrequent marsh birds include sora, clapper rails, and least bitterns.

5. Shorebirds, Gulls, Terns, and Allied Species

subsequently, twenty horses were herded north onto private, state, and federal lands (including the refuge). This further exacerbated the problem of feral horses on and off the refuge with an existing horse population, which is already causing significant environmental damage.

After trying unsuccessfully to block the required state and federal permits to build the fence, (the FWS first wanted a management plan in place to protect endangered species outside of the Refuge boundary), plans to erect the fence commenced. One condition of the permit was the requirement to form a committee to develop a long range management plan made up of representatives of the refuge, Corolla Wild Horse Fund, Currituck County, and NC Department of Environment, Health and Natural Resources. One of the resolutions of the committee was to make the number one priority a basic census to determine how many horses are present, age and sex ratios, band composition, etc.



Curious Feral Horses

A 1994 solicitors opinion confirmed the belief that the horses are not owned and the Service can remove them within the guidelines of 50 CFR. The realities are that independent removal by the Service would be very expensive, violate County ordinances, cause a public relations problem, and become a political nightmare.

Currently, horse use of the refuge is best described as daily. Infrequent visits to Currituck do not adequately document the horse use. The electric fence erected in early 1995 has eliminated the severe competition that the horses gave to feeding wading birds and waterfowl on the Swan Island Flats, however they continue to feed on unprotected native dune and marsh vegetation and

The coastline of the Currituck Banks provides important migratory habitat for a variety of shorebirds during their spring and fall passages. The beach of the Currituck Outer Banks are especially valuable during shorebird migrations due to the lack of regularly exposed tidal (i.e., lunar) mudflats in Currituck Sound and Back Bay where irregular wind tides infrequently expose mudflats in these areas. Several species using this beachfront such as sanderling, least sandpiper, and black-bellied plovers are recognized by the Service as species of special concern which have probably suffered recent declines in their continental populations. Sanderling, ruddy turnstone, semipalmated plovers, and black-bellied plovers are among the most abundant migrants along the Currituck Banks during both migrations.

The Flats, high refuge marsh, and irregularly exposed mudflats on the Currituck Sound are foraged over by greater and lesser yellowlegs, solitary and spotted sandpipers, and by willet during spring and fall migrations. Exposed mudflats on the east side of Currituck Sound are heavily used by yellowlegs, semipalmated plovers, and other shorebirds for protection and forage zones during spring Nor'easter storms.

A variety of gulls and terns use the beachfront and other water areas of the refuge tracts. Ring-billed, herring, great black-backed, and laughing gulls are the most common gulls. Common, royal, sandwich, Forester's and least terns frequent the refuge beachfront from spring through fall.

6. Raptors

Moderate numbers of raptors use the refuge during the fall migration. Stopovers are made by American kestrels, sharp-shinned hawks, merlin, and Cooper's hawks. In early October, several peregrine falcons were witnessed on a daily basis passing over the refuge. Northern harriers are commonly seen over marshlands from December through March.

15. Animal Control

Unfortunately, several types of non-native animals including feral horses, feral pigs, and domestic cattle have been left to range over refuge tracts. Also, with the increased numbers of year-round human residents, no doubt there are also domestic pets on the Currituck tracts. By far, the most prominent issue in recent years has been the existence of what the locals refer to as the "wild" horses.

The origin of the horse herds on the Currituck Banks is unclear. Little has been done to control their numbers and competition with native plants and wildlife has been apparent in recent years. Throughout 1996, the horses were commonly found in the inter-dunal flats and along the beachfront grazing on native grasses and herbs; again, with the population upswing of full-time residents, the horses are increasingly found near the beachfront homes grazing on grass yards and ornamental flowers and shrubs as well as seeking shelter in the leeward side and carports of the homes.

After numerous "horse-human conflicts", in 1993, after a meeting in Corolla NC, the Refuge was left with a less than acceptable solution to the horse problem. Without consulting with the refuge, the County and local populace agreed upon constructing a surf to sound fence north of Corolla;

a threat to nesting terns and plover and the endangered seabeach amaranth as well as a nuisance and danger to the ever increasing beach vehicular traffic.

On May 29, Refuge manager Merritt met with representatives of the Corolla Wild Horse Fund, Outer Banks Conservationists, Inc.(OBC), Currituck County and the North Carolina Estuarine Research Reserve to discuss the draft 5 year management plan. OBC had raised serious objections to the plan concerning the premise of the plan and basic land uses mentioned in the plan. The County agreed to revise the draft and to alleviate their concerns.

On October 16, 1996, a Currituck County "emergency meeting" was called. Assistant Manager Andres attended the meeting in the Corolla County Satellite Office. Also in attendance were founding leaders of the Corolla Wild Horse Fund Rowena Dorman and Debbie Westner, County Mgr Bill Richardson, Corolla Commissioner Paul O'Neil, Carova Commissioner Ernie Bowden and the Commissioner-at-large Owen Etheridge and North Carolina Estuarine Research Reserve's David Wojnowski, members of the press and approximately 60 citizens of the communities directly affected by the horses.

The meeting was called primarily because of the increase of full-time residents, many questioned the Wild Horse Fund spending as well as the logic behind the aforementioned "surf to sound" fence. Some questioned the official Refuge stand of "no new horses", but for the most part were satisfied that the first official coordinated aerial and ground horse survey was planned for in November. In fact, on November 16, the survey occurred with Andres in the air and hundreds of volunteers coordinated by the "Fund" on the ground. Final numbers were 24 counted by the air and 41 counted on the ground (strong northeast winds may have pushed some horses into maritime forest for shelter making them invisible from the air). In past aerial surveys conducted in 1994 and 1995, the numbers ranged from 27 to 43 from Corolla, NC to the Virginia/North Carolina state line. Generally, both the Monkey Island and Swan Island Tracts have held anywhere from 10-25 on each unit.

While in the aircraft, Andres was filmed and recorded for a CBS documentary/news magazine show to be aired in January, 1997 along with footage of Manager Merritt being interviewed in October.

While the cattle issue has all but disappeared with very few sightings recorded in 1996, the horses continue to consume wetland and dunal vegetation and impact refuge resources.

Rooting by small numbers of feral pigs was very obvious in the late winter - spring period on the Flats and the Monkey Island Tract wetlands.

On occasion, free-roaming dogs range through the refuge and are a disruption to various wildlife.



Lone Surf Caster

4. Interpretive Foot Trails

10/17: Andres met with North Carolina DEHNR's Dr. John Taggart and David Wojnoski on the potential VCS and Environmental Education site. While partial funds (\$95,000.00, payment for the Power Right of Way, Swan Island Tract) are available in an account being maintained by Alligator NWR for a prospective VCS, the EE site is in the initial planning stages. The site being considered traverses both NC Estuarine Reserve and USFWS parcels in the north section of Corolla.

6. Interpretive Exhibits/Demonstrations

10/16: RM Andres completed the second review and approved the eight panels for future information kiosks at Mackay Island and Currituck NWRs. The entire package was sent to Wilderness Graphics in Tallahassee, Florida.

November: Throughout the month, extensive phone/fax correspondence occurred between refuge staff and Wilderness Graphic, Inc. pertaining to the kiosk and tabletop interpretive panels. Primarily, clarification was required to determine copyright infringements with use of Volunteer Wales' photography (a signed volunteer agreement met their needs) and certain labels used throughout the panel maps.

H. PUBLIC USE

1. General

The refuge is open to beach activities, hiking, birdwatching and photography with visitation estimated at 5,000. Travel to the refuge is via NC 12 to Corolla and then northward on the beach between the dune line and the ocean. Over 30,000 vehicles travel the beach each year to access the communities of Ocean Beach, Seagull, Swan Beach, North Swan Beach and Carova Beach. It is also the only route for surfers, sunbathers and surf-fishermen. The refuge presently has no facilities or trails, but visitors may freely explore the dunes and maritime forests during daylight hours. Camping, fires and free roaming pets are not permitted.

-12/5: Final text and graphics approval submitted to Wilderness Graphics. The displays will be placed at both Mackay and eventually Currituck Refuges

8. Hunting

The refuge is closed to public hunting. Waterfowl hunting rights were retained by the Swan Island Hunt Club when the Swan Island Tract was purchased.

Waterfowl hunting blind rights were acquired by the Service with the purchase of the Monkey Island Tract. Each year the refuge buys ten blind licenses from the county game commission and builds duck blinds along the shore. County regulations restrict hunting within 500 yards of a licensed blind, thereby providing a rest area between the refuge and float blind hunters.

17. Law Enforcement

Refuge Officers have patrolled on an irregular basis due to the 1.5 hour drive to Currituck NWR. A portable building (CONEX) was obtained from military surplus and placed on the Swan Island Tract in 1995. It holds two ATV's, posts, signs and tools to maintain nearly everything. Travel time is now cut to 20 minutes by boat and patrols are accomplished via ATV. County Deputies enforce state and county laws along the beach strand and have been most cooperative in reporting violations of vehicular trespass above the dune line. NC Wildlife Officers patrol the refuge tracts but did not encounter any violations this year. A total of 67 patrols were made this year which resulted in 110 reported incidents and the issuance of 33 violation notices and 20 written warnings.

A breakdown of incidents by category:

Type of incident	# reported	# written warnings	# violation notices
Aircraft	1		
Assist Other Agency	8		
Campfire	2	2	
Controlled Substance	1	2	
Disorderly Conduct	1	2	
Dogs at large	1	1	
Firearms	3	2	1
Littering	1	1	
MBTA	2	2	
Traffic	2	2	
Trespass: Closed Area	1	1	6
Horse	1	1	
Vehicle	79	10	20
Vandalism	7		
*Totals	110	20	33

*These are included in the Mackay Island Summary

On May 27, An unidentified vehicle had run over two refuge boundary signs and the electrified wire fence around the Swan Island Flats. One fence post, eight wire insulators and all four wire strands were destroyed in the incident discovered by RLEO Panz the following day. Temporary repairs were completed immediately and permanently repaired the following week at a cost of \$500.00.

6/5-6: LEO Panz and ARM Andres patrolled the MacKay and Currituck boundary via Marsh Master (5th) and ATV (6th). The patrol was to prepare for the upcoming fall hunts and to acquaint Andres with refuge lands and introduce him to neighboring land owners.

7/4: LEO Panz and ARM Andres patrolled the MacKay and Currituck Refuges during the holiday weekend. While things were relatively quiet on the Island, Panz had his hands full on the Currituck side.

10/30: Andres and Panz met with Currituck County Game Commissioner Billy Rose to discuss the potential release of our 8 blinds in exchange for establishment of a rest area in the area of Monkey Island.

11/13: Andres and Panz met with Currituck County Game Commission to discuss the potential release of our 8 blinds in exchange for establishment of a rest area in the area of Monkey Island.

11/13: Andres and Panz attended the Currituck County Game Commission meeting at the county courthouse. In attendance were local state officers as well. A good portion of the meeting was dedicated to issues the local community and the officers had with game law enforcement. Paramount was to resolve the float blind versus Refuge point blind issue and initiate proceedings for potential rest areas on Refuge contiguous waters. We were able to convince the board to allow us to hold the blinds for the remainder of the year until I can bring my bosses up to speed on the issue. To show good faith, we relinquished two blinds on Mary's Islands with the understanding that if the issue could not be resolved satisfactorily, we would retain the right to "rebrush" them next year.

11/25: Andres notified Biologist Noffsinger on blind issue to allow him time to ponder the issue before meeting at the Currituck site in early 1997 with Andres and Panz. Noffsinger agreed that the blinds are not exactly the best way to protect the birds and some sort of rest area may be appropriate.



Beginning of Another Long Day Patrolling the Beaches

J. OTHER ITEMS

3. Items of Interest

4. Credits

K. Merritt - Sections A, C, D, E, I
M. Panz - Section H
K. Piper - Final Editing

B. Nottingham - Sections B, F, G, J
P. VanZant - Typing, Colating

Photo Credits

BN - Ben Nottingham
JM - Jessie McCleskey
KM - Ken Merritt