1st Draft

MATAGORDA ISLAND UNIT, ARANSAS NATIONAL WILDLIFE REFUGE
Matagorda Island, Texas

ANNUAL NARRATIVE REPORT

Calendar Year 1989

Refuge Manager Date Matagorda Island Unit	Project Leader Date Aransas NWR
Refuge Supervisor Date Review	Regional Office Date Approval

INTRODUCTION

Matagorda Island became entirely state and federally owned on November 30, 1988. For 1989 the north portion of the island was managed by the Texas Parks & Wildlife Department (TPWD) as the Matagorda Island State Park and Wildlife Management Area (MISPWMA) while the southern portion was managed by the United States Fish & Wildlife Service (FWS) as the Matagorda Island Unit of Aransas National Wildlife Refuge (NWR).

The northern upland portion was formally an Air Force installation (the state owns the marshlands and beach). On November 20, 1971 the Air Force and USFWS signed a Memorandum of Understanding, allowing Aransas NWR to manage the installation's wildlife resources. On March 7, 1975 the installation was declared excess and an ensuing battle started between the state and federal government over management of the property. The battle raged from 1975 to December 8, 1982 when a compromise was reached and a Memorandum of Agreement (MOA) was signed by the Department of Interior and the State of Texas and later ratified by Congress.

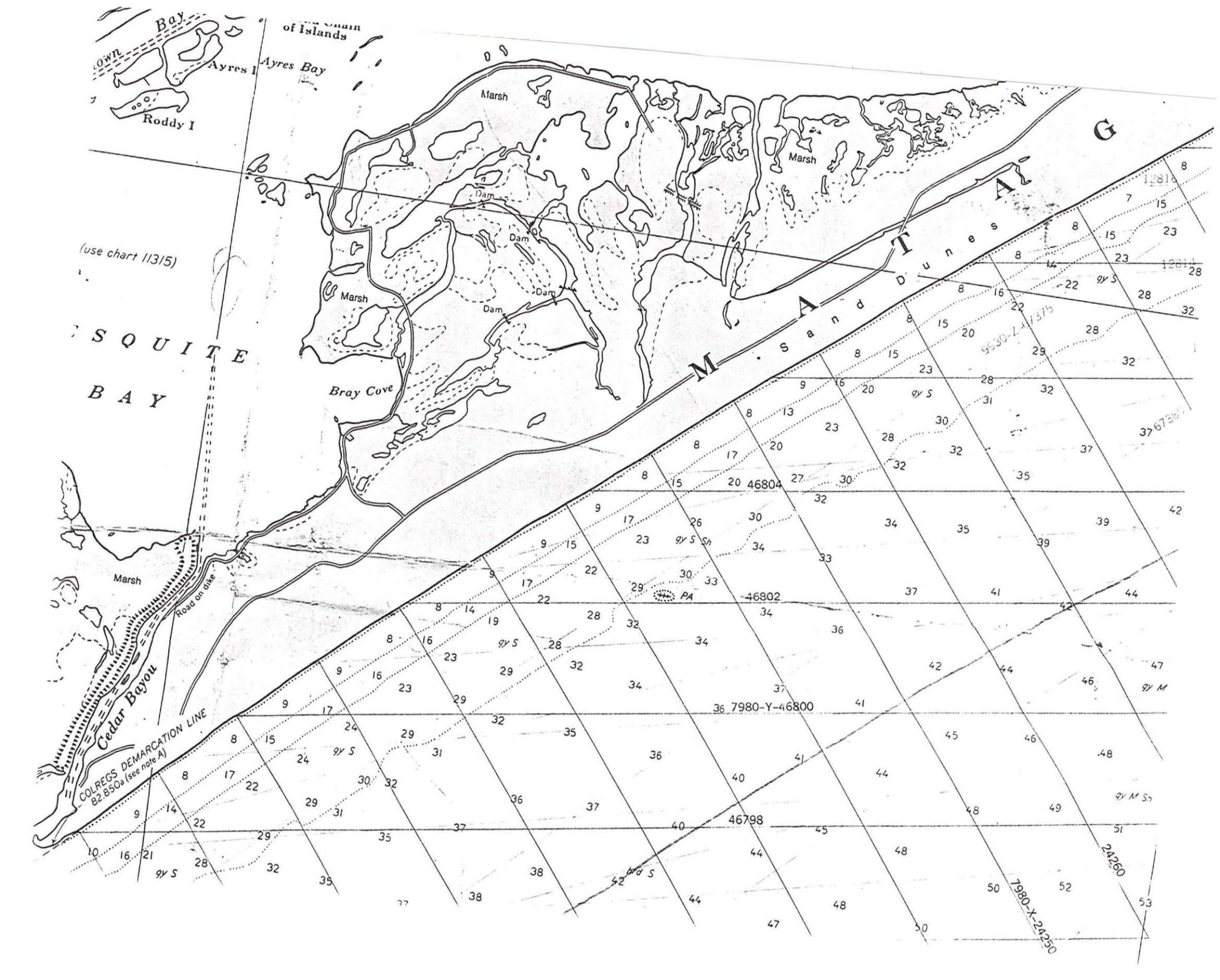
Under the 100 year MOA between the Texas General Land Office (GLO) and the FWS, the Texas Parks & Wildlife Department (TPWD) manages the northern portion of the island as the MISPWMA, a unit of the NWR system. The USFWS became the owners of the Air Force's 19,000 acres of barrier flats (uplands). GLO owns 24,893 acres of bay-side marshes and gulf coast beach. TPWD agreed to manage the 43,893 acres using the principles, goals, and objectives set forth in the NWR System Manual. TPWD would write a management plan every five years that would have to be approved by the FWS and GLO.

The southern portion of the island was a private ranch until December 8, 1986 when the Texas Nature Conservancy (TNC) signed an agreement with Toddie Wynne, Jr. for the purchase of 11,502 acres and improvements. TNC also signed a purchase agreement with the USFWS for the sale of the ranch's southernmost 2,330.36 acres for three million dollars. On Dec 9, 1986 the Matagorda Island Unit (MIU) of Aransas NWR was born. December 22, 1987 five million dollars from the Land and Water Conservation Fund bought 3,657 acres from TNC. On November 30, 1988 the final 5,515 acres were obtained. The state would like to manage the southern portion of the island. The battle over who will manage the southern portion still rages on. TNC still owns the interior of the main buildings and has an agreement allowing them to temporarily (till Sept. 1990) use the facilities for fund raising activities. A written agreement for an additional five years will be included in the Comprehensive Management Plan (CMP) (see Planning).

Matagorda Island is located in Calhoun county, the northern tip is within eyesight of Port O'Connor, Texas. The MIU headquarters can be seen straight south of the Aransas NWR observation tower. Boat trips from Aransas to MIU and Port O'Conner to the old Air Force base are about eight to nine miles. Matagorda extends 38 miles in length and varies between one and four miles in width. Peak elevation above mean sea level is no more than 22 feet. Cavallo Pass separates the north end from Matagorda Peninsula and Cedar Bayou separates the south end from Saint Joseph Island. To the southeast lays the Gulf of Mexico and to the north (from east to west) are Espiritu Santo, San Antonio, and Mesquite Bays.

Matagorda lays in the southern portion of the Central Flyway and is a wintering area for thousands of migrating birds, especially redheads and pintails. Its primary purpose is to provide expansion territory for the endangered whooping crane and to support the goals of the Migratory Bird Treaty Acts. It is a major resting and feeding site for migrating birds making the long trip across the Gulf of Mexico.

Find a general picture place here


Bay
of Islands
Ayres I
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Bray Cove
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82.850a (see note A)
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46804
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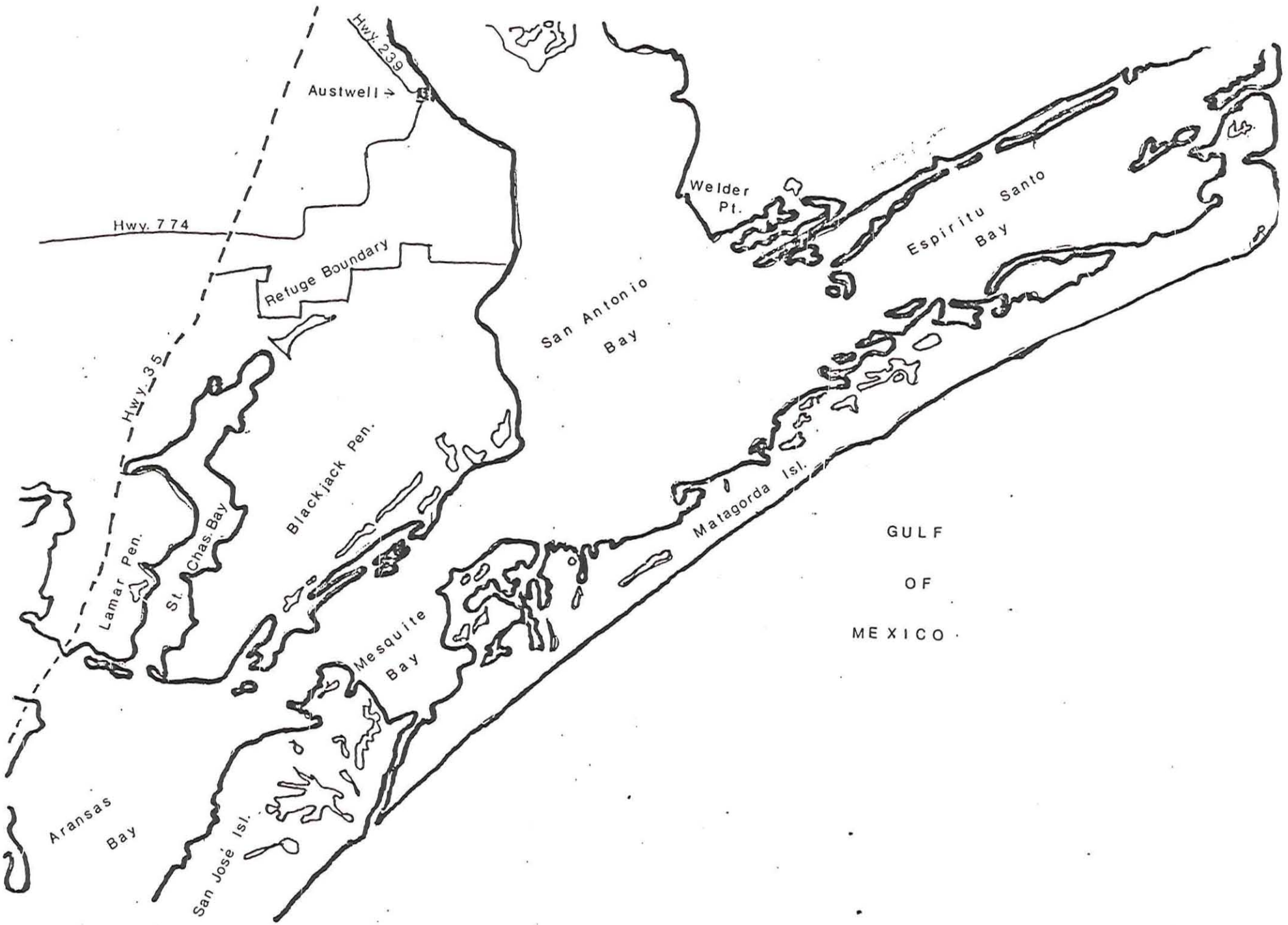
Hwy. 239
Austwell
Hwy. 774
Refuge Boundary
Hwy. 35
Welder Pt.
Espiritu Santo Bay
San Antonio Bay
Lamar Pen.
St. Chas. Bay
Blackjack Pen.
Matagorda Isl.
GULF
OF
MEXICO
Mesquite Bay
Aransas Bay
San José Isl.

2 additional pages of Maps (photocopied)

Map of the island. MISPWMA in two colors, state land in yellow, federal land in green, white shows the old Wynne ranch now MIU.

Aerial view of refuge headquarters. Left of center: Hangar, maintenance shops, & stables. Center: TNC quarters, Assistant Managers quarters, pilot house, & generator building. Right of center: Clubhouse & rubble of Manager's house.

A. Highlights

Unusual weather prevailed throughout the year. Nine inches of rain in January to nine degrees in December (see B. CLIMATIC CONDITIONS).

Private contractors remove 170,000 pounds of junk (see I. EQUIPMENT AND FACILITIES, 3. Major Maintenance)

Under ground gas lines and new heaters were installed (see I. EQUIPMENT AND FACILITIES, 2. Rehabilitation)

On November third the refuge manager's office/house exploded and burned to the ground (see E. ADMINISTRATION, 6. Safety & F. HABITAT MANAGEMENT, 9. Fire Management, b. Wildfires).

In November work began on a Comprensive Management Plan for the entire island (see D. PLANNING 2. Management Plan).

ENTER 7

B. Climatic Conditions

Matagorda's climate is classified as humid subtropical. The Gulf of Mexico and its warm, moist air masses dictate the island's weather most of the year. Summer temperatures are lower than inland areas while the reverse is true during the winter months. Winds are prevalent from the south and east most of the year. Strong north winds late in the year bring what winter weather the island receives. Temperature differences between the air and water cause heavy fog during the fall and winter.

The year started hot with 91 degrees recorded on January 7th. The island was usually fog shrouded in the morning and cloudy in the afternoon. The big story of the month was a 9.25 inch rainfall on the 19th. Water stood in places that had not seen water in 21 years.

Winter found the island in February. The months low was 26 degrees on the 6th. Ice formed on the sand dunes and edged many of the freshwater wetlands formed during last month's rainstorm.

After a typical dry March, April became hot and dry. Several days climbed into the 90's with the high of 95 recorded on the 8th. Just 0.5" of rain fell during ~~the~~ three months, the drought was back.

June made up for the previous dry months with 9.05" of rain. The season's first tropical disturbance brought 3.2" of rain from June 22-26 without causing any damage. With all the water and hot humid weather the mosquitoes were out in force.

the results of January

Nine inch rainfall, ~~January~~. CK

in

Ice storm February. CK

July and August were hot and dry with 1.5" and 0.1" rainfall respectively. With lows in the upper 70's and highs in the mid 90's. Hurricane Chantal pushed tides up into the foredunes but caused no damage.

Mid-September brought the first break in the hot temps with the months low of 56 degrees. Rainfall totaled 0.6" for the month. October had temp's in the mid 80's and the last of the seasons hurricanes. Hurricane Jerry visited Galveston giving us high tides and sunny weather. The first cold front of the season showed up on the 17th with the low for the month of 43 degrees and lasted four days. Rainfall was 2.5" for the month of October.

Four cold fronts in the month of November made the thermometer act like a yo-yo. The high was 82 and the low for the month was 43 degrees. Rain fell five times with 6.5" falling on the 18th and a total of 8.5" for the month.

The weather tried it's best to give the island a white Christmas. The 22nd had a high and low of 20 degrees and sleet coated everything with a shinny coat of ice. The 23rd saw the low reach 9 degrees and what water was left in Mesquite bay by the strong north winds froze over. Low or frozen water made travel from Aransas to Matagorda impossible. Corpus Christi's all time record low is 11 degrees which they missed by just 2 degrees. Even the foam on the gulf beach froze. Fresh frozen fish lay scattered on the beach (pictures lost in mail). Precipitation totaled 0.82" for December.

Total rainfall for the year reached 32.82" of which 26.8" (82%) fell in three months (Jan, June, Nov). Three other months had no precipitation at all (Feb, Mar, May). In a total of five days 70% of the year's rainfall occurred (22.85"), when it rains it pours. Because of the young age of this refuge no normal amounts of precipitation have been determined but mainland weather stations nearby average 38 - 40 inches rain per year. The island went from nearly flooded to dry as a bone over the year but if you look at yearly totals the island has been in a drought since it was bought much like the rest of the central flyway.

C. LAND ACQUISITION

1. Fee Title

No new acquisitions, final addition was added November 30, 1988.

2. Easements

The USFWS exchanged easements with the Texas General Land Office for the 19,000 acres of federal lands (old Air Force Base) and 24,893 acres of state wetlands and Gulf lands in the MOA of 1982. The 43,893 acres were then turned over to TPWD for management pursuant to the terms of a 5-year "Matagorda Island Conceptual Plan." Both the 5-year plan and an annual operations plan must be approved by both USFWS and Texas GLO. TPWD is required to adopt and implement the management principles, goals, and objectives set forth in the NWR Service Manual in managing all publicly owned lands within the MISPWMA.

The state of Texas is actively seeking management of the whole island by holding up the sale of the 30,000 acre Hoskin's Mound tract in Brazoria county to the USFWS. A compromise plan is being drawn up to allow the state some input into management of the southern portion of the island (see Planning) to ease the deadlock. A new MOA in principle has been agreed upon that will put the entire island under easement.

D. PLANNING

2. Management Plan

Congress stipulated that no planning to turn over to the state management or ownership of Matagorda would be allowed in fiscal 1989. For fiscal 1990 Congress allowed plans to be drawn up but they could not be implemented without congressional approval. On November 16th Aransas Project Leader (PL) Giezentanner and Assistant Regional Director (ARD) Mazzoni met in Austin with TGLO and TPWD personnel to formulate the planning strategies for development of a Comprehensive Management Plan (CMP) for all of Matagorda Island. A planning team of Aransas PL Brent Giezentanner, Matagorda Island Unit Refuge Manager Jim Clark, Regional Office Planner Minda Stillings, TPWD Karen Leslie, TPWD Dwight Williford, TPWD Craig McMahan, TGLO Terry Blankenship, and TGLO Hal Irby was set up to write the CMP. This plan would cover the entire island and split the management duties between the state and the federal governments. USFWS would be responsible for the wildlife management and the TPWD would handle the public use. In November RM Clark was detailed to Washington D.C. to work on the plan. On December 4, 1989 the team met on the island to start putting together the plan. The schedule is for a draft of the plan to be submitted for public meetings sometime in June of 1990 and if everyone approves implementation in fiscal 1991.

Meanwhile the state finalized its new 5-year plan and submitted it for public comment on August 17, 1989. Aransas and Matagorda FWS received a copy of the plan on August 7th and rushed their comments to regional office. A public hearing was held August 17th in Victoria, Associate Manager Hawthorne, PL Giezentanner, and RM Clark attended. Environmental groups buried the plan in negative comments. GLO and USFWS stated they would not approve the plan if it included cattle grazing. TPWD Commissioners will vote on approving the plan on January 25, 1990. Another first rate battle is shaping up. Numerous congressional inquiries on behalf of the grazer have been made and RM Clark wrote a memorandum titled "Grazing Impacts on Coastal Barrier Island Wildlife" to Associate Manager OK/TX Bill Hawthorne to help answer the inquires.

3. Public Participation

Wilderness Society Representative Pam Eaton visited the refuge on Jan. 13-14. RM Clark took Pam on a tour and discussed past, present, and future management of the unit. Washington office representatives of the Wilderness Society John Sheppard & Dave Wilcox showed up in April and got similar treatment.

In early November seven state environmental groups were scheduled to meet with personnel from USFWS and TPWD to discuss management of the island and the status of the new five year plan. This meeting was cancelled due to the explosion of the manager's house on November 3rd.

5. Research and Investigations

MINWR NR 86 "Documenting Habitat Changes in Absence of Grazing on MINWR."

An ongoing study to monitor response of upland vegetation in the absence of grazing. Robel pole readings and photos were taken to document annual changes in plant communities at earlier established points. Photo and Robel readings were scheduled to be done quarterly but due to personnel vacancies were completed only three times in 1989.

6. Other

(RD) Spear, Assoc. Mgr. Hawthorne, PL Giezentanner, and RM Clark met with Congressional Aid Tim Shea from Jan. 9-11 on the island to discuss future management of the refuge. Tim represents the office of Rep. Silvio Conte (Mass.). TNC Director David Braun also attended the first day of meetings to discuss the TNC's interest in the refuge.

On the 11th, TPWD personnel D. Travis, A. Sansom, and B. Alexander drove down to the refuge and took Tim Shea on another tour of the island, this time showing him how the state operates the north side program. These tours were the first step in formulating the CMP as Rep. Silvio Conte was primarily responsible for the no planning in fiscal 89 wording in the appropriations bill.

RM Clark prepared a Goals and Objectives position paper for directing future management of the refuge in January.

Also in January PL Giezentanner and RM Clark met with two TPWD Planners to discuss the upcoming 5 year plan for the state's north side program. These two planners, Craig McMahan and Herb Kothman, are working exclusively on the Wildlife Division plan; separate planners were used to prepare a Parks plan and another set of planners for the Law Enforcement plan.

Staff from the House Merchant Marine Fisheries Committee toured the island on March 4th & 5th. In attendance were Ed Welch, Don Barry, Tom Melius, and Gina Defarrari. R-2 personnel present were (RD) Spear, ARD Mazzoni, Assoc. Mgr. Hawthorne, PL Giezentanner. The next day TPWD personnel D. Travis, B. Alexander, and A. Sansom gave the group a tour of the north side. These people will have a lot of say when it comes to congressional approval of future management plans for Matagorda island.

A general planning meeting with Texas coast staffers was held on April 28-30. In attendance were Ron Bisbee, Mike Lange, Al Jones, and Ellen Michaels (Brazora NWR complex), Claude Lard and Betty Kuckleburg (Realty), Bob Adamcik (Attwater NWR), Betsy Couch (Anahuac NWR), Steve Von Riper (Laguna Atascosa NWR), and Russ Clapper (National Wildlife Refuge Association).

On May 10th RD Spear, Texas Governor Clements, PL Giezentanner, RM Clark, TPWD Commission Chairman Nash, TPWD Executive Director Travis, and TPWD Sansom met on the island to review the management system in place and receive the governor's views on future management options.

In November PL Giezentanner gave island tours to state personnel involved in the upcoming plan.

E. ADMINISTRATION

1. Personnel

Norman Von Heuvel started work as an intermittent temporary (not to exceed one year) Maintenance Worker on April 10th. Norman runs the refuge barge and assists in the equipment and facilities program. He was the barge operator for TNC the last two years and worked for the Wynne Ranch many years before that so he knows the island well. Norman has worked for the refuge before. He had a 30 day temporary position in October, 1988.

BT Karges left July 25 for an (ARM) job at Kirwin NWR in Kansas. Karges had been a temporary BT before being converted to permanent full time (PFT) on September 25, 1988. The (BT) position was upgraded to a Refuge Manager Trainee GS-5/7/9 position. On September 11 Mark Koepsel came on duty filling the position.

On November 13 RM Clark was temporary duty stationed to Washington D.C. to write a Comprehensive Management Plan for the whole island.

At the end of the year RM Clark was still in Washington and looking for a position there so he could remain with his wife. Jamie Clark transferred from Dept. of Army where she was the Chief Fish & Wildlife Administrator to FWS Endangered Species in Washington D.C.

MW Harris has a much longer history with the island then his entered on duty (EOD) date. He worked on the island's north side until FWS turned it over to TPWD to run and before that he worked for the Air Force on the island.

Staff Photo (2, 3) TS

Nature Conservancy
Staff Photo (4/3 & 2/1) MK.

Refuge Staff

1. Mark Koepsel, Refuge Manager Trainee, GS-5, PFT, EOD 9-11-89
2. Mickey Harris, Maintenance Worker, WG-8, PFT, EOD 12-09-86
3. Norman Von Heuvel, Maintenance Work, WG-6, TINT, EOD 4-10-89
4. Jim Clark, Refuge Mngr, GS-11, PFT, EOD 5-26-87, TDY 11-13-89
   Washington D.C.
5. Chad Karges, Bio. Tech., GS-5, PFT, EOD 9-25-88, Tran 7-25-89
   Kirwin NWR, Kansas

Nature Conservancy Staff

1. Neal Lillard, Island Coordinator
2. Diane Lillard, Assistant Island Coordinator
3. Joyce Richards, Cook
4. Joe Richards, Groundskeeper
5. Norman Von Heuvel, Mechanic

On December 8th Neal & (soon to become) Diane Lillard were introduced as TNC Island Coordinator's. They will be moving to the island once TNC remodels the old servants quarters. They are responsible for supervising TNC staff which was previously done by the refuge manager.

2. Youth Programs

The refuge does not have a YCC program, but the Aransas YCC group of four spent three days posting boundary and clearing mesquite from the bayside levees from July 12-13 & 27th. An environmental education session (tour) was given to the YCC's while on the island.

3. Other Staffing Programs

TNC maintains the clubhouse facilities for entertaining clientele, guests etc. The Richards worked for the Wynne ranch and were hired by TNC when they bought the place. When FWS took over TNC obtained a agreement to continue use of the clubhouse until September 1990 (a written agreement for 1990 - 95 is pending). The RM became TNC's on site supervisor for their two employees. The RM supervised their daily activities and assisted in resolving conflicts concerning work schedules, vehicle use, visitors, etc. In December when the Lillards were hired they took over supervision of TNC staff.

Backspace
4. Volunteer Programs

In March Dr. Wayne McAlister and his wife Martha visited the island and studied a variety of shorebirds feeding along the bayside marshes. In April he sent a report summarizing his observations. Each species preferred different types of invertebrates and each had its own way of collecting their dinner. A report was on file but was lost in the fire.

The Rockport 4-H club that has adopted Cedar Bayou camped on the refuge from April 2-3. The 13 young beachcombers picked up 82 bags of trash. The group was scheduled to return and clean up again in September but high winds prevented the group from boating out.

Five TNC Volunteers assisted BT Karges remove 1/2 mile of old fence line from the bayside marshes on July 6-8. The group spent two mornings removing barbed wire and pulling fence posts. With all but one of the group over 60 years old this was an admirable job. Afternoon high temperatures made it unsafe to work at that time.

On September 15-17 seven TNC members volunteered for more fence removal. A younger crew with two experienced fencers whipped out one mile of fence in eight hours. This volunteer weekend program continues to be a tremendous success with a waiting list of folks wanting to come out to help.

5. Funding

RM Clark prepared a annual budget analysis for the refuge, including start-up costs. PL Giezentanner boated over to the island on Jan. 17th to discuss the budget proposal. The management of MIU is a subactivity (AWPA) for Aransas NWR. Therefore, the island does not have a separate operating account. The operation cost is supplemented to a large degree by Aransas funds and support personnel.

6. Safety

Many of the facilities on the refuge are outdated (built in the 1930's before most building codes), "gerry-rigged" etc. Add in a whole variety of poisonous creatures, sun stroke and the fact that medical help is a long way off and you begin to get some idea of how unsafe this place can be.

All vehicles are equipped with first-aid kits, and fire extinguishers upon arrival to the island. Refuge radios are installed in all trucks and the grader. The refuge 25 ft Mon Arch boat carries a portable radio that is recharged once a month. The boat also carries PFDs, fire extinguisher and first-aid kit. All passengers are required to wear PFD's.

Radio base stations were located in the managers office, assistant managers office and clubhouse. Portable radios were located in manager's, assistant manager's, and groundskeeper's bedrooms. When only one person is present on the south end of the island radio contact is made with Aransas twice a day to check in. When Aransas can't be reached a marine band radio in the clubhouse can be use to contact the Coast Guard and a helicopter can be sent out with medical personnel.
Backpack In November a portable radio was placed in the refuge manager trainee's residence at Aransas so the island would have after hours contact. Radios are one of our most important safety items.

Besides a first aid station in the clubhouse which TNC now keeps stocked up additional large industrial first aid kits were installed in the generator room, ranch house, laundry room and maintenance shop. Battery operated smoke detectors are present in all residences. Fire extinguishers are numerous and in all buildings, if a fire isn't put out immediately these old wooden buildings will go quickly and there is no fire equipment that can handle a structure fire on the island.

On January 8th a couple got stranded at Cedar Bayou when a northerner blew in with heavy rain and strong winds. The next morning they walked four miles to headquarters. The refuge fed them and contacted friends of theirs by marine band radio and arranged to meet them at Aransas.

In February radon detectors were placed in refuge buildings. Results were 0.8 to 2.1 pCi/l, recommended level should be below 4.0 pCi/l, being as drafty as they are no concentrations built up.

In March MW Harris hurt his back removing outboard motor lower units from the refuge boat. Mickey's doctor made him take 14 days off and put him on light duty. Three months later still with frequent back pain he saw a second doctor who made him take 10 more days off. He is not allowed to lift anything over 20 pounds and at the end of the year is still on light duty.

RM Clark, BT Karges, MW's Harris and Von Heuvel attended the Aransas Defensive Driving Course on April 20th.

Alligator warning signs were posted along ponds bordering the runways and headquarters area. The alligators in these ponds were hand fed by the previous owners and have lost all fear of man. When a person gets near these ponds the alligators come charging up for a handout and if you don't have one it is just as happy taking your hand. A 12 foot gator can be a serious threat, all guests are warned of this problem.

In June RM Clark wrote an interim safety plan to be attached to the Aransas safety plan and revised the hurricane evacuation plan. A complete separate safety plan will be written for the island when the new management plan is approved and the new office building/manager's house is built.

Several bricks of cocaine were found (see H. 17) and the island made the national news. Marijuana has also washed up on the beach. Flare poles used to signal ships have been found at Cedar Bayou. Customs Agents warned staff to stay away from Cedar Bayou at night during the winter when there is little to no public use there. Machine gun toting drug dealers could be a real safety hazard. The cocaine being of high purity is dangerous also. One state employee died from an overdose of cocaine he most likely picked up off the beach.

The TPWD District Game Warden Supervisor set up a shooting range and held their annual qualification shoot on the island. No red flags or any other sign was posted or the area closed off to the public. RM Clark discussed with them the serious safety hazards they were causing and the shooting range was shut down.

The gas line system from the LP tanks to refuge buildings were leaking gas and had become a safety hazard. On September 25 Calhoun Plumbing began work to replace the gas lines to provide a safe place to live. The contractors had to go under the houses to place lines to each room. While under one of the houses a contractor crawled into a scorpion and had to be treated by the refuge manager for stings.

On November third the RM's house/office blew up. Apparently one of the new values installed leaked gas and the gas built up until it reached the pilot light of the hot water heater and exploded. RM Clark was at a project leaders meeting. ARM Koepsel was in the garage two minutes before the explosion. If he had been in the building he would not of received aid until two and one half days later as no one else was on the island and it was a friday evening. Only luck and a dog that missed her owner so much she refuse to eat saved a major injury or death. If the dog (Sophie) had eaten her dog food ARM Koepsel would have been getting dog food in the building when it blew up. Sophie was thrown out of the garage and survived.

New heaters with auto shutoff when the pilot light goes out replaced ones without these features in all buildings heated except the Clubhouse bedrooms. The heaters in the clubhouse bedrooms were not used this winter do to the safety factor. TNC wants to find a heater that will match the old ones to keep the decor of the rooms the same until they do those rooms will be without heat. Extensive pressure tests to all buildings upon completion were observed by staff. Staff had not observed pressure test at the office because the work was still in progress and the heaters had not yet been installed.

Calhoun Plumbing pointed out that the gas line work in the ranch house done just last year is unsafe and against code. The gas line runs into the attic and down into other rooms, and is dangerous because gas is heaver than air and could leak into the room below where it will come in contact with pilot lights for heaters and water heaters. Further investigation into codes showed the lines were legal.

Hopefully when we bring the unsafe wiring up to code we will not burn up another one (or one doesn't burn up before its done).

8. Other Items

On Feb. 22nd R-6 DRD John Sphink, along with three U.S. Army personnel associated with the Rocky Mountain Arsenal in Colorado visited the refuge. The looked into the U.S. Air Force's transfer of their property on Matagorda to the FWS. The Army is exploring avenues to have FWS manage the Rocky Mountain Arsenal as a National Wildlife Refuge.

TPWD Area Manager Dennis Brown and Wildlife Biologist Albert Flores visited the refuge on March 30th. Discussions were held on possible junk salvage operation for the north side.

R-1 ARD Wildlife Enhancement Robert Smith visited the refuge from April 1-3.

R-2 Assoc. Manager Bill Hawthorne, R-2 Realty's Tom Smith and Claude Lard visited the refuge from April 23-25.

On June 26th, the refuge review team boated over and inspected the facilities, discussed the management program, and evaluated how the overall operation is going. The review team consisted of Jim Young, Pat Langley, Bill Hawthorne, and Roger Monson. PL Giezentanner joined the group.

Congressional Aid to Rep. Laughlin Ken Bryan visited the refuge on June 19th. Realty Claude Lard brought Ken over for the day to observe the program, both north and south side. RM Clark spend two hours with them showing off the island.

Legislative Coordinator for the Texas Office of State-Federal Relations Mark Schnabel showed up unannounced with Texas Game Warden Havel on August 29. As usual state coordination with FWS didn't happen and FWS wasn't informed of MR. Schnabel's informal inspection. RM Clark talked to both about island ecology and the FWS's program.

Valley refuge personnel Larry Ditto, John Andrew and Steve Thompson along with Aransas personnel PL Giezentanner, PA Schwindt, B Stehn and RM Clark met with Ecological Services (ES) (no they haven't changed their name to Wildlife Enhancement down here yet) while ES held its meeting on the island October 23-25. RM Clark sat in on the piping plover work session.

The Regional Directorate met on Matagorda Island from November 12 - 15. PL Giezentanner and MW Harris were hosts and cooks.

F. Habitat Management

1. General

Matagorda Island is typical of gulf coastal barrier islands. From the gulf coast across the island to the bays, the major features are: beach, foredunes, dune ridge, barrier flats (grasslands), bayside marshes and tidal flats. Unlike many other barrier islands, Matagorda is characterized by a series of beach ridges and swales incorporated into the barrier flats. Matagorda is growing and each ridge represents the position of a previous shoreline formed during the island's earlier development. The island gains silt from the inland rivers and sand from ocean currents.

Our plastic and lumber warehouse also known as the beach. mk

Dune ridge stabilized by sea oats. nl

From the dune ridges into the barrier flats are many natural depressions and ponds. The salinity regime in these interior wetlands varies from fresh to saline depending on the last time it rained. Some ponds on the island were excavated by the ranch for livestock watering. The refuge has 41 livestock ponds, 15 natural ponds, and 6 artesian wells. Numerous drainage ditches travel across the barrier flats to ponds in an attempt to drain the numerous low spots.

The general vegetation on Matagorda Island is representative of Gulf coastal barrier islands. The foredunes are sparsely vegetated with morning glory, beach tea, railroad vine and sea oats. The dune ridge is vegetated with marsh hay cordgrass, beach evening primrose, beach croton, sea oats, gulf dune and brownseed paspalum. The barrier flats contain a variety of floral communities, all within the grassland community complex. Gulf cordgrass forms the climax over the saltier portions of the island's interior with paspalum and seacoast bluestem occurring in the other sites.

Some of the barrier flats were converted to coastal bermuda grass to increase livestock forage and kept that way by site disturbance (disking). Paspalums and blusestems are taking over in the barrier flats region now that the cattle have been removed from the south end. Bayside wetlands communities are comprised of smooth cordgrass, shoregrass, saltgrass, coastal dropseed, saltwort, and glasswort. Woody species on the island are limited to scattered groves of mesquite, baccaris, salt cedar, McCartney rose, and an occasional yucca. Prickly pear cactus is common throughout the island.

No habitat management occurred on MIU this year (we are just caretakers until the politicians are done fighting over this place). Cattle grazing occurs on the north side and TPWD uses prescribed burning to maintain grassland communities on the wildlife management area. A fire management plan was written by RM Clark and submitted through channels but no action was taken on it.

2. Wetlands

MIU has 41 freshwater ponds which were excavated for livestock watering. These wetlands provide habitat for the American alligator and a variety of wading birds and waterfowl. During periods of little of no rainfall Whooping Cranes use these ponds for drinking water. No water level manipulation occur on these ponds.

The refuge has 15 natural ponds located between the dune ridge and barrier flats with a few along the bayside. These ponds are fresh water except when tidal surges from hurricanes breach the dunes. These ponds are not as productive as the stock ponds but do support an alligator or two and black-bellied whistling ducks seem to favor them. The few freshwater wetlands within the marsh receive heavy wildlife use.

No water level manipulation occurs on the tidal wetlands, either on MIU or on the state-owned tidal wetlands. Potential does exist for salt-marsh enhancement on MIU to benefit whooping cranes, waterfowl, shore and wading birds, and marine organisms.

The previous owner, managing for optimum livestock use, constructed dikes across many of the bayside tidal wetlands bordering the ranch. The intent was to dry up (if the sun wouldn't do it his large capacity pumps would) the low lying tidal guts, create a freshwater environment and increase livestock forage.

The state of Texas claims ownership of salt water submerged wetlands which are school fund lands managed by the GLO. GLO sued the previous owners (Wynne) for the illegal taking of state lands, the Wynnes contented that the lands they diked off were fresh water and belonged to them not the state. Toddie Lee Wynne was an oilman's lawyer (oilman himself) and one of the original owners of the Dallas Cowboys professional football team not to mention friends of presidents.

A friendly settlement occurred between lawyers for both sides giving Wynne ownership of all lands inside the second levee system, both systems would be allowed to stand if culverts would be placed to allow saltwater free flow into and out-of the marshes.

The first levee system runs at the start of the marshes and the end of Mesquite bay's open water. The second levee system lays in the middle of the marsh. The land behind it is occasionally fresh water during times of frequent rains and low tides. The present boundary of the refuge is a result of the court settlement.

The culverts were of two types one was metal and have now just about rusted away. The other were short concrete sections fitted together and they have pulled apart. Most still allow a limited amount of flow but not enough for optimum production of the marsh.

A backhoe/loader tractor was ordered and will arrive next calendar year to give us the equipment to replace the culverts. Hopefully next year we can effort the culverts.

The levee system protects many wetlands from air boat disturbance. The placement of culverts along the levee permits tidal exchange, allowing finfish and shellfish to enter and exit nursery and spawning grounds. They also concentrate the fish when they are moving in or out for easy feeding for the birds. Finfish found inside the levee include mullet, flounder, redfish, speckled trout, and several forage species. Shellfish include shrimp and blue crab. Southeasterly winds push water outside the levee, exposing mud flats, attracting tremendous numbers of shorebirds. With northerly winds prevailing, the water is pushed back inside the levee system and hordes of wading birds converge.

Whooping cranes use the wetlands inside both levees. These wetlands are one of three prime expansion areas for crane use. With adjacent state-owned marshes receiving heavy, uncontrolled and mostly unpatrolled hunting pressure these leveed wetlands become critical for the cranes.

The levee system provides the refuge access for patrolling and conducting wildlife surveys. The system also provides a safe and controlled way for the visiting public to see wildlife.

The refuge continued a monitoring program started last year to measure salinity, tidal flow patterns, water depth, and wildlife use of the wetlands inside the levee system. This monitoring will give us an idea what areas need culverts replaced and/or additional ones added. On the outer levee bordering Mesquite bay, some large breaks are present. The breaks allow adequate tidal exchange and are large enough to allow airboat access inside the levee. Placement of new culverts inside these breaks will continue allowing adequate water exchange and at the same time prevent airboats from entering. Any work on the outer levee will require cooperation from the state and those relations are quite strained at this time.

With the large downfalls of rain and then months with out rain salinity levels showed a wide range this year. Salinity levels ranged from 0-90 parts per thousand (ppt). Some of the stock ponds became so low that salt water began to intrude and even fresh water contained 9 ppt at times.

5. Grasslands

The grassland plant species have to deal with a rather hostile environment. Soils are mostly sand with a high saline content. Salt breezes coat vegetation with salt and occasional storms bring salt water onto the grassland and burn it out.

5 lines
4/21

The Levee system. ck

A Metal culvert in levee system. ck

Most of the federally owned land is grassland and the management strategy for those lands will be prescribed fire. Once the political investigations of the Yellowstone National Park fire are over and the ban on let burn wild fires is lifted, that too may be adopted for the island.

TPWD used grazing and prescribed fires to manage the grasslands on the north end of the island. They also disked areas (including roadsides) to disturb grassland sites to encourage the growth of sunflowers so they have a place to take dove hunters.

Another year of Robel pole readings and photo's were taken at previously selected sites. Because of personnel vacancies only three sets of readings were taken this year instead of the usual four. Marsh area sites that have shown no change were removed except for one site that is representative of that habitat. The number of forb species has stabilized but are no longer the dominant plants. Individual forb species presence fluctuate wildly some that were common at the beginning of the sampling have disappeared while others not seen in the beginning have become quite common. Paspalums (grasses) have become the most dominant plant at most sites.

Shrub communities are growing in height but do not seem to be spreading. Mesquite introduced by passing through cattle that were bought from Mesquite dominated areas are confined to soil types formed by emergent tidal delta of washover deposits on the bayside. The sites have to be raised above the water table (the levee system fits the bill perfectly) to accommodate the plants large deep taproot.

Bird watchers are concerned that if we remove the fence posts the birds will have no where to sit. Cattlemen are concerned that without cattle the brush will take over and all there will be is bird perches. We intend to manage the grassland somewhere in between to provide grasses and forbs along with shrubs to perch on.

6. Other Habitats

Matagorda Island has 3,325 acres of gulf beach shoreline. On MISPWMA, these lands extend from mean high tide to 1000 feet offshore. The shared easements places these lands under additional protection of refuge regulations. The gulf beach along the south end (MIU) are not under easement so no active management occurs although FWS does surveys along this beach.

Cedar Bayou has a long history of closures and reopenings. The Bayou was first dredged in 1939 and remained opened until a drought in 1955 cause a closure. Dredging occurred again in 1956 and in 1959. In 1979 TPWD closed the channel to prevent the Mexican Ixtoc I oil spill from entering the Bay system. High tides caused by Hurricane Allen in 1980 reopened the channel, but sand deposition closed the cut in 1985.

In January 1985 local citizens formed a task force, "Save Cedar Bayou Inc." to raise funds to reopen Cedar Bayou. Expenses to dredge and remove 300,000 cubic yards of sand was estimated at $465,000. Private donations to the cause amounted to $105,000 while the remaining $365,000 came from Wallop - Breaux funds (through TPWD with assistance by USFWS-federal aid). The dredging operation started in the summer of 1987 and the cut was reopened on September 19, 1987. To save costs the route dredged was the shortest route to the gulf.

The owner of Saint Joe island gave them permission to locate spoil banks on his island. One of these banks was placed close to the gulf southeast of the channel in the general direction the channel will naturally move. In 1988 Hurricane Gilbert tidal surges moved the cut toward that spoil bank. Now the bayou runs through the middle of the spoil bank. During rough weather large sections shear off into the bayou. That sand along with natural deposits has made the bayou very shallow making boat navigation difficult and could lead to it closing within the next few years. The movement of the channel has created an island in the bayou that is very attractive to birds and campers.

This is a major fish passage and the people and birds know it. A 1940 state law prohibits all boating activity within 2800 feet from the mouth. To obey this law and camp on the beach people would have to carry their tent close to 1/4 of a mile so most people don't obey the law. It is also a convent place for ocean going ships to drop off there illegal cargo of drugs to smaller boats for passages inland without encountering port authorities. Both activities will be brought to a halt by the shallow waters shortly.

7. Grazing

Cattle grazing on Matagorda Island was allowed on MISPWA during 1989. MIU has not been grazed except by an occasional escapee from Saint Joe Island or the north side since April 1987.

Grazing on MISPWMA is conducted under one permit. The grazing permittee, a previous landowner on the island prior to the Air Force condemning the land in the 1940's, grazes 583 animal units on 9,924 acres within a two pasture setup.

FWS and GLO have stated that they will not approve a TPWD Five Year Plan with grazing in it. The CMP also will not have grazing in that plan. The grazer has been told his special use permit for grazing will not be renewed for next year but he will be given until September 1990 to appeal this decision and to find somewhere else to move his cattle. Mr. Joe Hawes will not go quietly. RM Clark sent internal memo's to Assc. Manager Hawthorne explaining the reasoning to the decision as why grazing in its present form is not compatible with refuge objectives. Several congressional inquires were made in Mr. Hawes behalf.

Photo points and Robel pole readings are taken quarterly to monitor the vegetative response to the removal of cattle from the south end.

9. Fire Management

RM Clark prepared a draft Fire Management Plan and Annual Prescribed Burn Plan in January with the intention of a spring burn of 600 acres. Photo points were established to monitor the response to the fire. The refuge draft fire management plan was reviewed in March by PL Giezentanner, B Stehn, and PA Schwint. With no time for spring burning the plan went back to the drawing board for the addition of summer burns for brush control. Backup? Other demands of staff kept summer burns from being possible and the plan was amended again for fall and winter burns. The burn plan was put into channels for approval. By that time the CMP was coming into focus and the grazing issue was heating up. The fire plan was tabled until CMP approval and a new plan could be drawn up covering the whole island instead of just the south end (expect many burns in 1992).

a. Prescribed Burning

The state ran controlled burns on the north end. In early January TPWD burned 400 acres in pasture 7. Three whooping crane pairs used the sight with two pairs consistently staying on the area. Hundreds of sandhill cranes, long-billed curlews, black-bellied plovers, horned larks, and sparrow species used the area. Northern Harriers, white-tailed hawks, and kestrels spent considerable time over the burn.

TPWD inadvertently burned in one of the "conservation areas", these areas were to be left alone as control areas to compare with the areas managed by burning, grazing etc.. TPWD personnel didn't quite understand the meaning of "conservation area" and thought burning was allowable. It seems they don't understand the placement of firebreaks either. TPWD diced 40 foot firebreaks ten yards outside the fences that delineated this area so the fire swept through the fences on both sides. The fence on the north side separated the conservation area from an area that was grazed and had to be quickly repaired to keep the cattle out.

TPWD prescribed burned 350 acres at the end of March to improve grasses for cattle grazing. With sandhill cranes mostly departed and this area past where whooping cranes are found, large numbers of birds were not noticed on this burn.

b. Wildfires

On November 3rd at 4:15 pm the RM's office/house blew up and started a house and grass fire. The water wells and pump are on the same line as the house and the fire shorted out that line. Water pressure was gone meaning the 200 gallons of water in the fire truck was the only water available to fight the fire. The fire truck was used to put out an arm of the fire burning towards the 11,000 gallon LP gas tank. ARM Koepsel the only one on the island at the time used the tractor and mower to mow along the roads to widen these firebreaks and protect the clubhouse and maintenance buildings. At 6:30 pm MW Harris and Aransas MW's Hernandez and Cortez arrived and the crew backfired along the roads surrounding the wildfire. By midnight the fire was contained and by morning 224 acres had burned.

Area burned in wildfire and control burnouts. mk

c. Training

BT Karges attended the refuge fire training courses, S-190 Basic Fire Fighter and S-190 Basic Fire Behavior, at Wichita Mountains NWR from March 27-31. BT Karges used his new knowledge and assisted RM Clark in drawing up the fire management plan. He didn't get a chance to burn here but Kirwin NWR will put the new skills to use.

12. Wilderness and Special Areas

In 1984 the 5-year management plan form MISPWMA established two conservation areas: a 2100 acre site encompassing a two mile managed beach and the lighthouse interpretive area, and an 1800 acre site between the old Wynne grazing lease and the existing grazing permittee's lease. The objectives of these areas are to restore the island's natural communities to conditions prior to colonial settlement and provide a baseline to evaluate management actions on other areas.

G. Wildlife

1. Wildlife Diversity

The island's combination of location, coastline, barrier flats, and tidal marshlands provides the medium for a tremendous abundance and diversity of wildlife. During migration 100 different species of birds can be counted in one weekend.

2. Endangered and/or Threatened Species

Nineteen state or federal threatened and/or endangered species have historical records of occurring on the island.

a. Whooping Crane

Use of the island by whooping cranes is the primary reason the 11,502 acre Wynne ranch was purchased. The cranes are closely monitored by Aransas Biologist Tom Stehn and are reported in Aransas's Narrative Report so the coverage of this subject will be brief here.

Whooper activity on the island occurs primarily between Twin Lakes south to Shell Reef Bayou. Crane activity on the MIU occurs primarily between Little Brundrett Lake north to Cottonwood Bayou. Waterfowl hunting and airboating still occur within state marshes bordering the refuge. Wetlands that are hunted are not frequented by the cranes while the hunters are present. During breaks in the season or at the end of the season, cranes will start using those wetlands again.

PL Giezentanner wrote a memorandum to Associate Manager Hawthorne giving arguments for a airboat closure while the cranes are here. Politics will make this difficult to achieve.

January had an average of 25-27 cranes present on the island and February had 24-26. Two chicks were present in January while only one could be found from February on. In January a hunter (lawyer) on the next island (St. Joe) mistook a female whooper for a snow goose and shot it. In April two subadults that had not been seen since November showed up on the island. The last sighting of cranes on the island occurred May first.

Whooping cranes were first spotted on the island by aerial surveys on October 18th. Several trips by island staff to find them failed so the two of the birds came to find the staff. On October 21st two subadults visited Stilt Flats less than 1/2 mile from headquarters. On November 11th aerial surveys located 28 adults and three chicks on the island. One of the chicks belong to parents who had never brought a chick all the way to the coast. Their chick of three summers ago finally found the coast after two winters of living in southern Oklahoma and northern Tx.

Beach dining at its finest, royal tern under peregrine falcon. ck

b. Peregrine Falcon

The peregrine falcon visits the island in fall and winter usually just passing through on the way south. Common knowledge has them spending most of their time on the beach but ARM's sightings were just the opposite. November had five sightings of which one was on the beach and December had 3 sightings also with one being on the beach. Records for sightings made before November were destroyed in the office fire although the monthly activities reports state that three peregrine's were seen in February in the upland portions of the island and one on the beach. In May a peregrine was so engrossed in feasting upon a freshly killed royal tern that BT Karges was able to get a photo without a telephoto lens.

c. Brown Pelican

Brown pelicans are an everyday sight during the summer months. They feed and rest along the island's coastline and the shallows bordering the bayside marshes. The birds nest in the "second chain of islands" which are small islands that divide Mesquite and San Antonio bays.

Cedar Bayou weekend surveys recorded brown pelican numbers of:

September	65	13/survey
October	426	47.3/survey
November	150	21.4/survey

Brown Pelican resting on navigation pole marking dredged channel to the island. ck

On October 28th 193 adult and 148 juvenile brown pelicans were seen loafing on sandbars at Cedar Bayou, the peak concentration for the year. In the early 1970's then Biologist Giezentanner noted a total of three nesting pairs of brown pelicans on the second chain of islands. They have made a dramatic comeback on the Texas coast.

The cold weather moved them out, Cedar bayou surveys on the December weekends averaged 6.4/survey (peak of 11) until the 16th then none were sighted the rest of the month. The Audubon Society found four dead on the second chain of islands. The society has easement/leases to protect these islands for nesting birds.

d. Piping Plover

Matagorda's beach and bayside marshes provide important wintering habitat for this bird. TPWD is in the middle of a three year study of piping plover use of the bay side marshes. They use an air boat to get around and claim the plovers don't seem to mind.

RM Clark and ARM Koepsel surveyed 20 miles of beach on September 21st and spotted 135 piping plovers, the largest number seen on the beach so far. The nine miles of beach front along MIU is surveyed once a week, for results not lost in the fire see below.

Month	low	high	total	avg/survey
October	17	46	141	35.25
November	0	50	70	17.5
December	0	7	9	1.8

The cold weather apparently moved the birds farther south. Beach sightings vary from week to week. Periods of north winds tend to cause sand to blow out of the dunes across the beach and the plovers find other places with better cover. Numerous other factors are involved in determining whether the birds will be on the beach, bayside marshes or off island altogether.

The Piping Plover Great Lakes/Northern Great Plains Recovery Team visited the island in 1988 and has recognized the importance of the island as critical wintering habitat.

f. Eskimo Curlew

A bird that has been labeled extinct more than once only to show up again has never been positively recorded on the island. They have been seen on Galveston island up the coast. The isolation of Matagorda and St. Joe island might be the reason more sightings have not been made. Spring burning should give us the habitat the birds prefer and staff the opportunity to spot them.

g. Sea Turtles

National Marine Fisheries personnel are brought over to the island by TPWD and driven the entire beach to locate stranded turtles. The refuge is also a participant in the Sea Turtle Stranding and Salvage Network. Beach Surveys for turtles were conducted twice a month on the lower nine miles of beach until October when the were done once a week along with the bird survey. This gives some data to determine the effects of Turtle Excluder Devices (TEDs) and shrimping seasons on turtle strandings.

The island is close to a high brown shrimp production area offshore and its bays provide nurseries grounds for young shrimp. This draws shrimp boats to both the bays and gulf around the island. Sea turtles occurring off the Texas coast include Kemp's ridley, Atlantic hawksbill, leatherback, loggerhead, and green.

Two live tagged turtles from the Headstart Program at Padre Island National Seashore have been found on the island in previous years. A live Kemp's ridley sea turtle was found on the beach baring tag QQA-977 on its right front flipper on May 28th. The turtle did not appear injured, just tired. Large amounts of seaweed and strong southeast winds had forced it ashore. The turtle measured 12.5 inches in length and 9.5 inches in width. Matagorda may become a second release site if the program is successful.

NMFS found six stranded turtles on the island in 1989. Four of these turtles were loggerhead and the other two were Kemp's ridley. USFWS personnel found the before mentioned live turtle and one dead loggerhead.

h. Alligator

This species is one the threaten list only because of its similar appearance to the American crocodile. The alligators on the south side were feed by ~~the~~ previous owners and several have lost their fear of humans. They tend to charge vehicles and people expecting a handout. At present with little to no public use we have avoided an accident if public use increases a few may have to be moved or removed.

An estimated 15 - 20 alligators live on the south end of the island with TPWD estimating and additional ten live on the north end. The December freeze killed two of the north side alligators. Surveys done in the previous dry years found that one alligator used no more than three ponds and the maximum distance between ponds were three miles. The heavy rainstorms of this year seem to throw out those findings. When ditches were full and wetlands everywhere alligators could not be found in stock ponds with any regularity.

One of our too friendly alligators. mk

Alligators young hatch around August and at that time the refuge was short of staff so no nests were located or production noted but six alligators whose size indicate that were hatched in 1989 have been seen in 1990.

State endangered horned lizard (horny toads!) are multiplying on the island. nl

State Listed Threatened or Endangered Species

Reddish egret, wood stork, white-faced ibis, white-tailed hawk, and horned lizard are common on the island at certain times of the year. American swallow-tailed kite and sooty tern have been seen passing through on migrations. The state is particularly interested in the horned toad which is almost impossible to find on the mainland but common here. The grazing permittee is using the horned lizard (horny toad) in trying to protect his cattle, saying burning kills the toad while grazing does not.

3. Waterfowl

Matagorda's bayside marshes provide excellent habitat for thousands of wintering waterfowl. R-2 Pilot Winship and Coastal Biologist Neaville flew monthly aerial surveys to census the island's wintering waterfowl (see tables below).

Mottled Ducks occur throughout the year and are the only waterfowl that bred on the island. Pair and brood count data was lost in the fire. The resident populations is estimated to be under 250.

Matagorda Island Waterfowl Survey Results

Year Month	Species Malrd	Gadwl	Pintl	Gwtel	Bwtel	Widgn
Jan, 1988	36	9,027	7,515	3,840	21	3,050
Jan, 1989	4	292	3,522	2,375	45	145
Feb, 88	2	3,208	9,139	1,733	69	1,578
Feb, 89	0	187	1,479	2,595	121	190
Mar, 88	1	2,780	871	3,045	661	893
Mar, 89	0	196	13	118	642	177
Sept, 88	0	10	126	896	446	329
Sept, 89	0	0	93	27	671	2
Oct, 88	0	827	2,324	174	15	920
Oct, 89	0	16	5,565	768	71	357
Nov, 88	5	183	6,269	490	4	1,905
Nov, 89	4	173	17,054	293	24	2,602
Dec, 88	31	285	21,009	110	0	545
Dec, 89	16	198	38,610	640	20	3,914
Total	75	16,320	47,253	10,288	1,216	9,220
Total	24	1,062	66,366	6,816	1,594	7,387
% change	-68	-94	+40	-34	+31	-20

Matagorda Island Waterfowl Survey Results

Year Month	Species Shovl	Redhed	Ruddy	Buffh	Lssc	Hdmr
Jan, 88	1,651	12,619	60	90	1,194	18
Jan, 89	230	40,820	0	183	431	13
Feb, 88	503	28,882	155	216	614	28
Feb, 89	409	55,037	0	113	522	25
Mar, 88	1,765	115	800	143	1,125	0
Mar, 89	721	13	188	118	972	41
Sept, 88	44	0	0	0	0	0
Sept, 89	30	0	0	0	0	0
Oct, 88	80	22,895	0	0	0	2
Oct, 89	70	755	0	0	0	0
Nov, 88	202	25,190	0	15	18	16
Nov, 89	192	74,326	110	25	15	39
Dec, 88	33	43,774	2	38	114	22
Dec, 89	348	43,945	9	38	133	28
Total	4,278	133,475	1,017	502	3,065	132
Total	2,000	214,896	307	477	2,073	146
% change	-53	+61	-70	-5	-32	+11

Mottled duckling caught napping. mk

Matagorda Island Waterfowl Survey Results

Year Month	Species Mottld	Total Ducks	Sno	Dark	Total Geese
Jan, 88	193	39,199	100	425	525
Jan, 89	214	48,276	0	35	35
Feb, 88	212	47,045	0	254	254
Feb, 89	131	60,830	250	20	270
Mar, 88	273	13,256	0	3	3
Mar, 89	109	4,364	0	0	0
Sep, 88	217	2,074	0	0	0
Sep, 89	216	1,041	0	0	0
Oct, 88	54	27,435	0	0	0
Oct, 89	118	7,724	0	0	0
Nov, 88	283	34,795	0	71	71
Nov, 89	227	95,096	0	19	19
Dec, 88	427	66,444	0	115	115
Dec, 89	283	88,173	0	331	331
Tot, 88	1,659	230,248	100	868	968
Tot, 89	1,298	305,504	250	405	655
% change	-22	+33	+150	-53	-32

The total ducks column shows an increase of 75,256 ducks from 1988 to 1989. Subtract the increase of redheads (81,421) and you have a decrease of 6,165 ducks. Removing redheads from the total ducks column makes a 2.7% decrease in duck numbers instead of a 33% increase.

4. Marsh and Water Birds

Matagorda is the spot in fine dinning for marsh and wading birds. The levee system on MIU draws the birds to the culvert of their choice. Not only do the culverts concentrate food as it passes back and forth through the culvert they also keep some of the water from flowing out of the marsh at low tide due to their elevation. As this water drys up it also concentrates fish for easy pickings.

All wading birds found in Texas can be found dining at Matagorda. The only ones that are not an everyday occurrence are the white-faced ibis which prefers more freshwater and the wood stork who only spend the summer recovering from the breeding season. It is believed but not proven that the wood stork on the island come from breeding grounds in Mexico if they came from Florida they would be an endangered species. Great blue, little blue, tri-colored, green-backed, black-crowned and yellow-crowned night heron, great, snowy, cattle, and reddish egret, roseate spoonbill, and white ibis can be seen everyday all year round. These bird breed on small islands in the bay system. Even though frequent reports of pink flamingos are reported they do not exist on the island.

Shrimpless winter marsh means a pale roseate spoonbill. mk

Sandhill cranes generally arrive in September and remain until March, this year they were not seen until October 17th. The 224 acres that burned when the house exploded concentrated the birds on what had already been their prime feeding area. On November 15th 371 sandhill cranes were seen feeding in the burn area.

The MIU has three major roosting sites for sandhill cranes. Roost lake is a tidal lake bordered by a levee located just south of the burn area. The other two sites are in Stilt Flats, one close to the bay (west) the other at the opposite end of the flats (east). Low water this fall often left these areas with one inch or less of water. Peak numbers of each site follows:

Site	1988	1989
Roost Lake	110	124
Stilt Flats east	30	52
Stilt Flats west	200	40

Sandhill cranes numbers were higher this year than last most likely due to the burn. While two roost sites surpassed old peak numbers total bird numbers at the roost were down most likely due to the low water levels at the roosting sites. On November 16th 281 cranes were seen flying from Matagorda Island to Saint Joe Island at sunset this along with the 124 at Roost Lake made at least 405 cranes using the MIU that day. Other marshes roost cranes also but these sites average ten or less birds and do not have a central dependable site making surveying difficult. The cranes using the bayside marshes tend to roost in family groups and do not roost at the same site every night.

White pelicans can be found in small numbers in the summer. In the fall and winter flocks of up to 100 gather to feed in the bayside marshes and at Cedar Bayou. The peak number at Cedar Bayou was 92 on December 16th. Double-crested cormorants arrive in the winter in flocks of 1000 or more. They spend the winter dinning in the bays and gulf and resting on the beach and bayside sandbars.

Pied-billed grebes winter on the island and in past years concentrations in the hundreds were counted on Little Brundrett and Big Brundrett lakes (brackish tidal lakes). This winter no such concentrations were observed. Every stock pond held three to ten birds. Eared grebes can be seen in the bays and offshore occasionally feeding at the mouth of Cedar Bayou. Common loons frequent the same locations as the eared grebe.

Rails and bitterns are common on the island but are so secretive they are almost never seen. Occasionally a bittern will be spotted along side the road caught dining on snake or horned toad and then try to blend in with the grass. Clapper and sora rails also get caught out in the mud flats to far from cover to disappear before you arrive and you get a glimpse as they dart for cover.

5. Shorebirds, Gulls, Terns, and Allied Species

Matagorda Island is of major importance to shorebirds. The bayside marshes, tidal flats, and the gulf coast beach provide outstanding resting and refueling stops for many resident and migrant shorebird species. Survey methods for such a large area of habitat with an unpredictable, wind influenced minor tide are hard to come by. The island is going to have to be flown over by someone knowledgeable on estimating shorebird numbers and then ground checked for species composition.

Once we have some solid survey data the island will be nominated for inclusion in the Western Hemisphere Shorebird Reserve Network (WHSRN). We believe that the island will qualify to be labeled Hemispheric in importance (250,000 birds/year).

Year-round shorebird residents include snowy, Wilson's, and black-bellied plover, black-necked stilt, killdeer, long-billed curlew, sanderlings, willet, American oystercatcher, and American avocet. Black-necked stilts, American avocet and willet nest on the tidal flats during summer.

Black-necked stilts hatching. mk

not enough room for picture
going to have to shift things around

Black-necked stilt late for an important date. mk

The spring migration of shorebirds is spectacular. Tens of thousands of plovers, phalaropes, dowitchers, and "peeps" converge on the mud flats and shoreline of Matagorda drilling the mud like mad sewing machines. When they have recharged their fat reserves they are off for the breeding grounds. Those good at shorebird identification can pick out marbled godwit, white-rumped, baird's, pectoral and spotted sandpiper, red knot and whimbrel which occur in lesser numbers among the crowd.

The fall migration is a long drawn out affair that starts in mid-July when flocks of female dowitchers, least & western sandpipers, lesser & greater yellowlegs start to appear. By the end of August the males show up and finally the juveniles. Some of these birds only linger to fatten up for the long trip across the gulf while others stay most of the fall and early winter. This year's records of who showed up when went up in smoke.

Rough weather in the gulf can bring large numbers of gulls to the island to wait out the storm. Gulls rest on the island after gorging themselves on the unwanted fish the shrimp boats kill and other creatures the barges stir up from the bottom. Cedar Bayou and tidal flats on the bay side also provide food for the large number of gulls. Laughing gulls dominant all year round while ring-billed and herring gulls come in large numbers for the fall and winter. Bonaparte's gulls and Franklin's gulls can be seen in lesser numbers. TPWD staff said Frankin's gulls tried to nest on Panther Point but failed to successfully raise any young.

Black skimmers try nesting on the island but pick areas where fishermen and beach combers travel and end up abandoning their nests. The skimmers remain most of the year only leaving in December when cold northers blow in and return in early spring. Caspian and royal terns are present all year round with royal terns often in flocks of 100 - 500.

Least terns try nesting on the runway on the north end but TPWD uses this runway to shuttle people to the beach and the birds failed to rear any young. We are trying to convince TPWD that with an inseparable sub species (interior least tern) slated to be added to the endangered species list the vehicle route should be changed next year.

Forster's, black, gull-billed and Sandwich terns are frequently seen on the island. Forster's and Sandwich terns are common all winter. Sandwich terns can also occasionally be seen in the summer but usually spend their time out in the gulf.

I'm not sure gulls have any allies but lets dump coots and morehens in as allied species just because no one else wants to be associated with them. Coots spend the winter in small numbers and morehens spend the summer. Purple gallinule are much rarer but do occur.

Magnificent frigatebirds frequent the bays and sit on the poles that mark the channel to the island. Little Brundrett lake has fence poles that run through the middle of it and these birds often spend the night there. The first one showed up on April 24th. Usually gone before winter one was frequently seen in November and December.

Black skimmer protests the intrusion. mk

6. Raptors

Turkey vultures soar throughout the year, maybe that is why this place is called the island of starvation. Black vultures venture over to the island from the mainland during the summer. Barn owls and black-shouldered kites raised young this year. White-tailed & red-tailed hawk and crested caracara also live on the island all year round but nests were not spotted.

Peregrine falcons migrate along the coastline with a few over wintering (See G.2). Other wintering raptors include northern harrier, merlin, and American kestrel. Ospreys were sighted several times this fall. For about a week three ospreys played musical antennas. The RM's tv antenna, the refuge radio antenna and the ARM's tv antenna were favorite perches and the birds could not seem to decide which one was best so they frequently switched positions. When one failed to yield his position on the refuge radio antenna the other handed out on the edge and broke one arm off.

Short-eared, great horned and burrowing owls winter on the island. TNC's guests seem to enjoy driving the roads at night looking for the roadside feeding burrowing owls. Barn owls are year round residents and raise young in the boat house and hanger most years.

7. Other Migratory Birds

Spring migration of passerines can be a colorful event. March started it off with barn and tree swallows, lark sparrows, and black & white warblers. April brought in orioles, thrushes, buntings, sparrows, grosbeaks, and more warblers. An albino yellow-headed blackbird also spent a week around the headquarters. April also brought a northern gannet to the island. By the end of May most of the birds have reached their breeding grounds and the island quiets down.

A small part of the island falls into the Aransas NWR 15 mile circle Christmas bird count. ARM Koepsel found 56 species and a total of 2,444 birds. Last years totals were 62 species and a total of 1587 birds. Low water and bad weather had many of the shorebirds sitting it out on Matagorda.

Hooded Warbler. ck

8. Game Mammals

The only game mammal on the island is the white-tailed deer. TPWD flew over the MISPWMA by helicopter and counted 572 deer. This flight occurred right after the deer season. The buck/doe ratio was 1/1.73 (0.58) and the fawn/doe ratio was 1/3.81 (0.26). The past grazing practices, predator control and supplemental feeding provided excellent conditions for deer. MIU has an estimated deer population of 350. Roadside deer counts in MIU recorded a fawn/doe ratio of 0.30 and a buck/doe ratio of 0.44.

9. Marine Mammals

On January 8th BT Karges found a beached bottlenose dolphin at Cedar Bayou. The dolphin appeared to have been shot. This isn't the first time a shot dolphin has washed ashore. ARM Koepsel found a dead bottle-nosed dolphin on the beach November 15. Bottle-nosed dolphin can be seen in the bays and intercoastal canal most of the year. Shortly after the freeze MW Von Heuvel noted eight dolphins dead in the intercoastal canal in the short stretch that he travels to get to the island. National Marine Fisheries scoffed at the idea that the cold weather killed them.

Stranded bottlenose dolphin, mk

10. Other Resident Wildlife

One flock of ten turkeys hung around the burn area all winter and roosted on the hanger, maintenance buildings and gas pump. These birds were introduced by previous owners. Their numbers are slowing shrinking. Three chukar partridge also introduced reside within the headquarters area.

Bobwhite quail were fed and provided shelters by past owners. That practice has been discontinued but the population is still doing well. TPWD discs along the road and one large plot on the north end to encourage partridge pea and sunflower for the bobwhite. Then drives hunters along the road so they can shoot the birds in the fall. Hunters seldom have to go more then 20 steps away from the vehicle to shoot their quail.

Other mammalian species on the island include coyote, badger, raccoon, feral pig, and black-tailed jackrabbit. Bobcat tracks have not been seen for the last four years and armadillo tracks haven't been seen for the last three years.

Lets not forget 13 species of snake and several species of frog one of which sounds like sheep.

Rattlesnake claims right of way. nl

11. Fisheries Resources

Fishery resources along the island are truly amazing. The bayside marshes provide excellent nursery grounds for blue crab, brown shrimp, redfish, mullet, and flounder. Oyster beds abound throughout the bayside and within the levee system. Several oyster beds were froze out do to low water and the cold weather in December. The cold weather killed large numbers of fish and could effect the fishing for quite some time.

14. Scientific Collection

Dr. Wayne and Martha McAlister are allowed to collect invertebrates and plants. The McAlister's are authors of the Guidebook to Aransas NWR and are interested in writing a guidebook for Matagorda Island. They are in the process of vegetative mapping the island's plant communities. Their interest in shorebirds also have them probing the mud to determine what the birds are eating.

The National Marine Fisheries Service does a bi-weekly beach survey for stranded turtles and marine mammals. If they find specimens fresh enough they do collections.

H. Public Use

1. General

No transportation is provided to the island. If you arrive at the north end at the old Air Force docks and made previous arrangements with TPWD the state will drive you to the beach. The state drove 1,398 people to the beach this past year. Right next to the docks at the north end camping is allowed. Shade shelters with picnic tables and barbecue grills are present. During state run hunts the state hooks up a horse trailer with bench seats to take hunters to blinds or out to shoot doves and quail.

The state runs a visitor center (trailer) at Port O'Conner (POC) on six acres of Federal land (old Air Force Docking Facilities). There is some question on how the island visitor numbers (see below) are obtained.

w/1 page

The "Army hole" is a popular attraction for winter fisherman. The hole was created by the Air Force when they needed fill material and is just offshore of the island. It is one of the deeper holes in the bay and attracts fish when the shallower water turns cold. This draws fisherman even in bad weather and is why December visitations are the highest of the year.

TPWD Visitors

Month	POC	Island
January	556	347
February	497	206
March	966	556
April	1079	621
May	830	798
June	669	516
July	1540	582
August	752	239
September	1435	362
October	662	141
November	672	176
December	531	664
Total	17,659	5,208

Cedar Bayou at the south end of the island is open for overnight camping and day-use. Its peak use is in the summer when personnel was lacking to survey the area. Starting in September the bayou was surveyed each weekend day for public use (see following table).

Backpage

Overnight tents (OT) were recorded to get some idea of overnight use. The total number of people seen was divided by the number of surveys that month to get number of people/survey (P/S). Use fluctuates wildly on two factors, how well the fish are biting, and how strong the wind is. Strong winds make the bays too rough for small boats to reach the bayou.

Visitors to Cedar Bayou

Month	Peak	Low	Total	P/S	OT
Sept	38	2	62	12.4	7
Oct	56	8	259	28.8	34
Nov	26	0	89	12.7	10
Dec	5	0	5	0.5	0

In January a Canadian Broadcasting Company (CBC) crew visited the refuge. The crew works for a program called "Journal" which is the Canadian equivalent of 60 minutes. The group is working on a show about the Nature Conservancy. RM Clark served as tour leader for the group.

In September 40 county extension agents gathered on the island for their yearly meeting. The group was given a slide show by RM Clark and tours by Clark and ARM Koepsel.

The annual Texas Beach Cleanup was held September 23rd. The refuge barged over a garbage truck which then drove up to the north end where volunteers had boated in to clean the beach. The garbage truck was then barged back to the mainland in the afternoon.

2. Outdoor Classrooms - Students

The Summer Ocean Awareness Retreat (SOAR'S) taught 44 kids from 10-16 years of age about marine & marsh ecology. Instructors were three county extension agents and the refuge staff. Most of the children live along the coast but had never been in a boat or caught a fish. Instructors for two days tried to teach the kids the many values of marshes.

3. Outdoor Classrooms - Teachers

The SOAR's camp started 2.5 days before the kids arrived with 30 adult teachers. The same classes, demonstrations and tours were given to both kids and teachers. The idea was to get the teachers not only to know the value of marshes but ways they could use to teach their pupils.

4. Interpretive Foot Trails

MIU is only open to the public at Cedar Bayou with hiking allow along the beach. No interpretive foot trails are present. The North end run by TPWD has a foot trail to the beach and to a historic light tower yet have no interpretive sights along the trail and barely enough direction signs to find your way.

5. Interpretive Tour Routes

RM Clark took every TNC group for a tour on the levee system. He also spent a large amount of his personal time giving tours to TNC's groups. When TNC hired the Lillards as island coordinators this practice stopped. Now the Lillards give the interpretive tours. Two routes have been set up one of about two hours in length and the other closer to four hours. Both use the levee system and give views of marsh habitat and whooping crane territories.

7. Other Interpretive Programs

The annual Matagorda Island Adventure was held on the north side. Four days of historical and bird tours were given to about 200 visitors. The event is held by the nonprofit organization the Friends of Matagorda Island Inc, to promote the importance of keeping the island for what it is: a unique and relatively undeveloped barrier island.

people to see the island and become aware of its fragile beauty and tremendous natural and historical values. The Friends hire a boat and only charge its costs to visitors, for many people this is the only affordable means of seeing the island. RM Cark led the advanced birder tours while Doris Wyman a volunteer at Aransas NWR led the beginners tours.

In April RM Clark gave a presentation about the refuge to the Coastal Bend Audubon Society in Corpus Christi.

8. Hunting

Public hunting on the island's uplands is permitted on the north side only. Unrestricted waterfowl hunting within the state's navigable waters along the bayside marshes is open to the general public.

White-tailed deer hunting on the north side is done by lottery. Lucky winners have to boat over in December before daylight. They are then driven out to a mowed trial that leads to their stand. The stand is a ten foot metal tower with a seat attached they are not allowed to leave that tower until they have shot their deer or 12:00 noon. Success ratio's are close to 100%, one hunter took 29 shots to kill his deer. The 41 bucks averaged 76.7 pounds with an average age of 3.7 years and averaged 7.8 points on their rack. The does averaged 63.9 pounds and were averaged 3.5 years of age.

Dove and quail hunts are provided on a first-come, first-served bases. Early cool fronts moved large numbers of doves to the island before the hunting season. The dove hunts start before the quail season does, overlap into the quail season and then ends before quail season. Before quail season opened 107 hunters spent 386 hours harvesting 885 dove. They averaged 8.27 doves per hunter and failed to retrieved 131 doves. During the joint dove and quail hunt 83 hunters spent 325 hours to harvest 311 dove and 114 quail. They averaged 3.7 dove and 1.3 quail per hunter and failed to retrieve 47 dove and 38 quail. After dove season ended 17 hunters spent 76 hours harvesting 41 quail and failed to retrieve 3 birds.

Nine controlled waterfowl hunts were provided to hunt upland ponds. The last hunt ends January 7, 1990 but to simplify matters all the hunts will be included in the 1989 narrative. The hunter must arrive before sunrise and go through a brief orientation that informs them about regulations and whooping cranes. Then they are driven down the road to mowed trails that lead to blinds. They are picked up along the road at noon and then have to go through a check station. With bad weather making it difficult to get to the island only 84 hunters came. They claimed 909 shots, 6 cripples and brought in 188 birds (see below).

Waterfowl Harvest

	male	female	total
pintail	41	27	68
mottled	9	1	10
widgeon	22	8	30
shoveler	9	17	26
gadwall	3	1	4
l. scaup	2	2	4
redhead	2	0	2
gw teal	24	7	31
bufflehead	1	0	1
duck total	113	63	176
white front			1
Canada			5
Geese total			6

The state owned bayside marshes are opened to uncontrolled hunting. General observations seemed to indicate the island received light hunting pressure. The rough weather and last years sting operations kept the airboats tied up. A good deal of the hunting on the island was through guide services some of which went out of business because of the sting law enforcement operations and the fact that people are not willing to pay 45 dollars for three ducks.

Game Harvest

Species	1988	1989
Deer	38	54
Dove	619	1,196
Quail	436	155
Waterfowl	190	188

RM Clark assisted in the Aransas NWR archery hunt doing law enforcement patrol. ARM Koepsel assisted in the archery and gun hunt at Aransas NWR working the check station.

9. Fishing

Fishing is outstanding in the waters surrounding Matagorda Island. Prime finfish species are redfish, speckled trout, flounder and black-tipped shark. Blue and stone crabs, shrimp and oysters occur offshore and in the marshes. On the island's north side, the "Army Hole" is the prime fishing spot during the winter. Cedar Bayou draws them in during the summer at the southern end.

11. Wildlife Observation

Most of TNC guests come for wildlife observation (bird watching).

12. Other Wildlife Oriented Recreation

Beach-combing is permitted along the beach at both ends. Most of the activity is done by family of the fishermen.

13. Camping

Overnight camping is permitted at Cedar Bayou. No facilities or potable water are available. State law does not allow boats within 2800 feet of the mouth and the bayou has become shallow enough to make it difficult to be able to boat to the beach where camping is allowed. Even with all these minuses camping is slowing picking up (34 tents in October). As the bayou moved through a spoil bank it created an island that people are using for a camping ground.

backspace <

TPWD has shade shelters and a mowed area for camping. There are two chemical toilets but no potable water. Campers must pack out what they brought in (no trash barrels). TPWD parks personnel reported 1,203 people camped overnight in 1989. Much of the camping is done by sailboat people coming from Houston headed to Corpus Christi.

14. Picnicking

TPWD has picnic tables and grills at the north end since most trips are an all day affair picnic lunches are the rule. Fishermen bring coolers with lunch hoping that once the lunch is eaten the cooler can be filled with fish. Sometimes it even works that way.

16. Other Non-Wildlife Oriented Recreation

Children swim in Cedar Bayou and play in the surf while daddy wade fishes.

17. Law Enforcement

Five state game wardens assigned to Matagorda stay on the island on a round-robin schedule, rotating every two or three days so that in theory one warden is present at all times. The state game warden contingency on the north side made a few patrols at Cedar Bayou but the bayou is the county line and they don't believe its their jurisdiction. The Rockport state game warden also made a few visits to Cedar Bayou but he believes it is not his jurisdiction either so spends very little time there. The refuge staff makes frequent weekend trips to Cedar Bayou.

The U.S. Coast Guard ~~and Customs~~ kept a close eye on the island, by flying over with helicopter and AWACS's plane, on the look out for drug dealers. In June fishermen found a brick of cocaine on the beach and in July MW Harris and Realty's Lard found a kilo of cocaine on the beach. Customs agents met RM Clark at Aransas to retrieve the drug. In July refuge staff met with two U.S. Customs Agents to discuss the local drug scene. A Drug Incident Report was prepared and sent to the FWS DC office.

On January 5th a Navy training plane made an exceptionally low pass over the refuge headquarters. Minutes later the plane buzzed Aransas. A formal complaint was filed with U.S. Naval Air Station at Corpus Christi. The Navy investigated and a board of inquiry met with PL Giezentanner and RM Clark at Aransas on January 23rd. The board was boated over to the island and explained the dangers to island residents and wildlife and the dangers to the plane colliding with large flocks of birds. The pilot was disciplined and almost court-martialed.

The FAA was informed that the island is a NWR and flight maps should be amended to show this change. The letter also asks that standard flight restrictions for aircraft flying over NWR's be instituted for the island.

On May 17th an airplane landed on the beach at Cedar Bayou. ARM Koepsel notified the pilot that was not allowed. The pilot claimed a state warden had run him off the private island to the south and told him he could land on Matagorda. No ticket was written. PL Giezentanner discussed this situation with the Rockport Area Supervisory Game Warden.

RM Clark attended the R-5 Law Enforcement Refresher at Eastern Shore of Virginia NWR, April 10-14.

I. EQUIPMENT AND FACILITIES

Matagorda Island Unit headquarters is the old Wynne Star Brand Cattle Ranch headquarters (see photo in Introduction). The main building is a 13,000 square foot clubhouse. Five bedrooms can sleep 12 ~~people~~ guests at present. When TNC remodels another building and moves out there will be one more bedroom that can sleep four. This building is owned by the FWS but its interior is owned by TNC. TNC maintains and runs the building with FWS allowed to have use of it two weeks a year at per diem rates. Meaning FWS personnel pay 35 dollars a night to sleep two in a room, four to a bathroom with no air conditioning. Per diem rates are also charged for meals.

The ranch foreman's house became the RM's home and office. It was built in 1927 and was sitting on three foot concrete legs so it is the only building out here that had not been flooded. In November this building exploded and burned to the ground.

The ranch house is a pieced together building that housed the cowboys that worked on the ranch. Two rooms of this building became the BT/ARM apartment, another room in the building became the BT/ARM's office. Three other bedrooms are available for FWS guests and one room is TNC's laundry facilities. Future plans are to remodel this into an environmental education center maintained by TNC. The ARM's quarters will be moved before the education center comes about.

The pilot house was where the ranch's airplane and boat pilots stayed. It's three rooms are now used by MW's and PL Giezentanner when they need to stay overnight on the island. It is close to the generator building and is not the best place to try and sleep.

The generator room houses two Cat engines that supply our electricity. It also contains a plumbing parts room and the groundskeeper's carpenter shop.

The servants quarters housed the maids and other servants that worked in the clubhouse. This building will be remodeled to house TNC's four staff members who currently reside in the clubhouse.

The former ranch house now BT/AM's quarters and office. ck

The ranch foreman's house then the RM's house & office. ck

And now rubble. mk

2. Rehabilitation

The major rehabilitation project for the year was the replacing of the underground gas lines from the LP tank to all buildings. New gas lines under and into the pilot, clubhouse and manger's house were also installed. New heaters were installed to the new lines and put in the ranch house. The new heaters are vented and have auto shutoff values that cut gas off when the pilot lights go out. These heaters replaced old unsafe non-vented heaters that continued to release gas when the pilot lights blew out. In the process of this work the manager's house blew up and burned to the ground. The work was supposed to prevent this very thing from happening. Last year another contractor installed gas lines in and under the ranch house, this years contractors pointed out that this work was not done to code. The gas lines go into the attic and down to other rooms (see E. 6).

The old and new gas lines. mk

On November 8th the barge Miss Matagorda went into Redfish shipyard at Aransas Pass for 80,000 dollars worth of rehab. work. The problems with this contract will be in next year's (and at the rate its going the year after that) narrative.

Testenger Inc. an engineering firm was brought out to look at the deficiencies of the electrical system and estimate the cost to the rehab it. Much of this place was wired in the 1930's when national electrical codes had not been thought of. The clubhouse alone would cost 100,000 dollars to bring up to code.

A kitchenette was installed at the pilot house in April out of a small storage area. A refrigerator was installed and cabinets along with a small table fills the room. The table will be replaced with a stove next year.

In April two septic systems were installed at the 1929 managers house/office. The plumbing system received a major overhaul also. A window mounted air-conditioner (new) was installed in May. All this work was lost in the fire in November.

3. Major Maintenance

In mid-January MW Harris convinced a junk dealer it would be worth his time to remove all the scrap metal laying around the refuge. The refuge provided the barge transportation and a place for the crew to sleep. The junk dealers called it quits in mid-March having hauled off 170,000 pounds of junk. Once the junk piles were gone MW's graded the bare spots smooth and let mother nature do her stuff.

Some of the 170,000 pounds of junk removed. ck

More junk. ck

MW Harris had to work on the 115 horse Mercury outboard boat motors several times. The lower units broke down often. In fact it became such a problem two new motors were purchased (see I. 4). In July the 23 foot cabin MonArk developed another crack in its hull and problems with one engine. With MW's back hurting the boat was hauled out and taken in for repairs. The refuge uses a 21 foot open MonArk with two 80 horse motors as a back up boat.

BT Karges attempted to fix the back roof of the ranch house. It still leaks. The ranch house like most buildings out here was pieced together. The back roof was the last addition giving the cowboys a rec. room behind their bedrooms. Bedroom windows that use to look outside now look into the rec. room. The contractors that installed the heaters discovered the problem when they cut through the roof to install the vents. They say the problem isn't with the back roof. The leak is in the bedroom roof it then runs down the original roof and flows down the joists which go into the back-room. When the original roof leaked so bad that another layer of shingles would not stop the leaks they put a second roof over the top of the original roof. Most buildings have more than one roof out here.

4. Equipment Utilization and Replacement

Vehicles come and go rather quickly because they usually arrive with 70,000 miles on them and if their motors don't go their bodies are consumed by the salt air rather quickly.

We received Aransas's old one ton fire truck and 200 gallon slip in fire unit in April when they obtained a new one. The slip in fire unit had only been operated 15 hours so it is like new. The truck is also in excellent shape and has the fewest miles of any vehicle out here.

Aransas obtained two front-end loaders on surplus and sent their old front-end loader to the island in April.

Wynne (previous owner) left a tank trailer for hauling fuel and in April we obtained a tractor truck off of surplus from the Navy to pull it.

In September we received a 1981 Ford pickup from Parker Fishery Assistance Office, Parker, AZ on surplus.

In October we received a 1985 Suburban from the Fort Worth Ecological Services (ES) on surplus.

In August, two 135 hp Mariner outboard motors were purchased and installed on the 23 ft cabin MonArk. The motors cost 4,190 dollars each.

BT Karges and MW Von Heuvel completed training in heavy equipment operation in June. MW Von Heuvel still needs to be checked out on the road grader.

A John Deere seven foot wide offset disk with hydraulic lift was purchased for 3,620 dollars. Our old 40 horse Allis Chalmer tractor is going to be hard pressed to pull this.

Two short bed two-wheel drive pickups and one four door station wagon were removed from the island for excess. In December MW Von Heuvel removed an engine from one of the pickup trucks and placed it into another truck at Aransas. That pickup will be sent to the island next year. The engine removed from that truck was placed in the back of the truck to be excessed. Who ever claims it will have to install the engine.

See I.6. for the computer equipment obtained.

5. Communication Systems

A cellular phone system was purchased with 1988 funds and was installed in 1989 in the RM's office. This building burned down in November. The phone system was not very private with oil company's calling Aransas NWR complaining Matagorda (they could listen in and tell who was using the line) was tieing up the repeater. One report even said a portable radio in the Port O'Conner courthouse picked up the conversations on our phone. The refuge has done without a phone since the fire.

Communication with Aransas NWR is done by Motorola radios. A base station at the clubhouse and the RM's office use a 90 foot tower outside the clubhouse. The RM's base station was lost in the fire. A base station in the ranch house uses a 20 foot tower. Radios are installed in motor vehicles. A portable radio and charger were kept in the RM's bedroom, BT/ARM's bedroom, and TNC groundskeeper's bedroom.
A Motorola man came out in November to replace the antenna the osprey broke and tune up the radios. We were having receptions problems like listing to Prime Hook and Parker River NWR's but not being able to hear or talk to Aransas NWR.

TNC installed a marine band radio in the clubhouse and brought out four portable units also. These units can be used to call for the Coast Guard Helicopter if a emergency arises.

6. Computer Systems

The refuge received from regional office a Compaq 286e computer system with built in hard drive, 5 1/4 inch floppy disk drive, 3 1/2 inch (not as) floppy disk drive and modem. Along with the computer came a NEC MultiSync monitor and a NEC P5300 pinwriter printer. Software included Lotus 123, WordPerfect 5.0, MS-DOS, and Crosstalk. The systems cost was 5,054.38 dollars. ARM Koepsel set it up when he arrived in mid-September.

Before the new computer was set up all typed material was done on the RM's personal Leading Edge computer. The RM's computer and data was lost in the fire. The new system is great, although the modem and communication software is presently useless. The phone we had till November was not capable of computer transmissions and since November we have no phone.

7. Energy conservation

To save fuel we eliminated one house (burned down) and had two positions vacant for two months each. No actually to save LP gas the underground gas-lines were replaced along with new heaters that would not leak gas when the pilot lights went out.

The old gas lines under the buildings leaked considerable amounts of gas. The gas lines put in the ranch house in September of 1988 also helped reduce gas use (loss). A reduction in use by TNC also saved, as all the land was FWS property this year TNC had to eliminate their hunting programs (TNC pays 25% of all fuel costs). LP gas use was 8,050 gallons down from 16,212 gallons in 1988. Reduced use and reduced cost of the gas saved the refuge 2,848 dollars.

J. OTHER ITEMS

1. Cooperative Programs

The refuge participates in the National Marine Fishery Service's (NMFS) Turtle Stranding and Salvage Network. The state ferries NMFS people to the island and drives them down the beach every other week. During peak stranding periods refuge staff covers the beach on the alternate week. The refuge also participates in NMFS's Marine Mammal Stranding Network.

2. Other Economic Uses

All oil and gas operations are on the north end of the island. A firm wanted to drill on the south end but could not get organized in time to meet the October 15 cut off date. They will wait till next year. Geo. Southern Energy Corp. operates wells on the federal lands, while Hughes Oil conducts oil and gas operations on state lands. The following companies have rights of way or well sites on Matagorda Island:

Florida Gas Transmission Company and Southern Natural Gas operate a 24-inch pipeline across the island to carry production from the gulf.

Northern Natural Gas company has a permit to operate and maintain a 30-inch natural gas pipeline across the island and a permit to construct an additional 30-inch line.

Corpus Christi Oil and Gas Corp. operates and maintains an 11-inch pipeline across the island.

Geo Southern Energy Corp. operates three gas well sites on the island, while Hughes has two wells.

NRG Exploration Inc. has a permit to construct and operate a 4-inch gas pipeline on the island to serve the above mentioned gas wells. The pipeline runs to the Matagorda Island Offshore Pipeline System (MOPS), the previously listed lines running from the gulf across the island.

4. Credits

The entire narrative was written and edited by ARM Koepsel. Plagiarism occurred from the 1988 Annual Narrative and the Monthly Activities Reports written by RM Clark before ARM Koepsel arrived in mid September. MW's Harris and Von Heuvel had their brains picked for pertinent information. The quality and number of this years photographs has slipped as Jim Clark's professional quality slides went up in smoke.

K. FEEDBACK

Welcome to the FWS! After ten years of seasonal work with the FWS and two years permanent with NMFS I finally got where I have wanted to be since I was ten years old. Then they give me this section so I can end my career before it gets started.

I am not a assistant manager not just because I need a manager to be an assistant to but because the politicians will not let me be one. This is the third narrative for the Matagorda Island Unit and all that's been done in those three years is custodial work. We try to make old decaying buildings safe and livable and wait for someone to decide who will run this show. The amount of money spent on the island is a credit to Aransas and Regional Office for coming up with the funds. The politicians don't want to spend money if the place is going to be turned over to the state. The state on the north end is encountering the same problems as its politicians think on similar lines.

The island takes care of itself and does a fine job of it. The island and the Alaska refuges may be the only refuges that can get away with taking care of itself. The whole ecosystem is here, I would hate to see a refuge with just a fragment of the ecosystem be so neglected but I know its happening as more and more land is bought while personnel ceilings and O&M budgets remain the same.

The working arrangement with TNC is original but look for more of this in the future. In New Mexico the Gray's Ranch is coveted by FWS and the Nature Conservancy (NC). If NC buys the ranch it will want wording allowing them some say in its management before turning it over to the FWS. On Matagorda they turned it over without any stipulations and have had to bargain to be allowed to stay on the island. In future deals they will stipulate their role before turning it over, that is if congress agrees. If congress refuses to fund purchases with stipulations then the conservancy will have to run it themselves or try to get state governments to agree to the stipulations when they buy the land. This is a very political sticky wicket.

Do we want to share management of the land with NC? If not do we lose the help of the conservancy in purchasing land? Many of the refuges in Texas have land that was first purchased by TNC.

At the end of this year TNC had four staff members living on the refuge while FWS had one, making it appear that TNC runs the place. Other nature groups are envious of TNC's exclusive rights and the general public is outraged at the elite's (TNC's guests are wealthy) special privileges. Steps are being taken to allow the general public access (at least on foot) where TNC can drive but that may take two years to achieve. I can imagine the comments we will get when the common folk walking, sweating and being eaten alive by mosquitoes is passed by an air conditioned van with TNC guests sipping drinks.

Between the public use complaints, the fear the federal government is getting control of too much land and the outrage generated by FWS trying to remove a grazer whose ancestors have grazed the area for 150 years this place generates all kinds of bad publicity and political inquiry. Yet we are still confused with the state. No one confuses the national parks with state parks why can't they tell the difference between the USFWS and the state's parks and wildlife department, natural resource department or what ever that particular state calls it's agency?

Welcome to the new age, where a degree in public relations and political science are needed much more that any in wildlife. I recommend the FWS go out and recruit these type people and set them lose in Washington D.C. They have the potential of doing far more good for wildlife then wildlife managers.