

PORT CANAVERAL  
ENVIRONMENTAL WATCH

2004/2005 Report





### **Message from the Chairman**

Port Canaveral is a unique environment which, in peak condition, can support the well-being and interests of groups as diverse as the cruise and cargo industries, the coastal residential community, and Florida's special animal and plant populations. It is a workplace, a home and a key element in the planet's system of self-renewal.

One of the Port Authority's most important tasks as Port guardians is to protect this environment. It is our job to maintain and, when necessary, restore the critical balance of physical conditions that allows Port Canaveral to fulfill its many functions — today and far into the foreseeable future.

*Raymond P. Sharkey, Canaveral Port Authority Commission*



### **Message from the Chief Executive Officer**

Port Canaveral is becoming an increasingly important cargo port, a cruise port widely known for its world-class service, and a destination for Brevard County residents to come and enjoy the best in recreation, food and entertainment. To continue on this path, we have to protect what we now have. The way to do that is by serving our environment as we want it to serve us, with care, attention, and an eye to the future.

This care for our environment affects everything we do. We have been steadily implementing plans that guard our inlet from shifting sands, optimize the use of the Port for all of our shipping, protect our water quality, and maintain and expand the habitats of local wildlife. We take great pride in maintaining Port Canaveral as a functional, attractive place in which to do business as well as a clean, healthy habitat where many important species (including our own) can live and play.

*J. Stanley "Stan" Payne*





*When Nature  
Turns Destructive:  
Fast Forwarding  
to Recovery*

Within one month's time in the late summer of 2004, two category three hurricanes brought torrents of rain, damaging winds and wind-driven waves to the Port, costing millions of dollars in damages and economic loss to the Port and its resident businesses.

As Hurricane Frances approached, the Port Authority put evacuation and preparation plans into effect. Vessels were notified of a mandatory evacuation of all harbor waters, subject to \$1000/day fines for failure to comply. Tenants were asked to take safety measures and, by securing loose items, reduce "missile" hazards. These



preparations helped protect lives and property, but couldn't stop Hurricane Frances from shifting massive amounts of sand and shell into the entrance channel, halting all shipping — both cruise and cargo.

With economic losses accumulating for port-dependent businesses and Florida's hard-hit residents blocked from receiving critical recovery supplies by ship, the Canaveral Port Authority made an immediate call to the U.S. Army Corps of Engineers, the agency responsible for channel maintenance. In only three days, the Corps was able to dredge the channel to a depth of 28 feet, restoring access to most shipping traffic.

Unfortunately, even as dredging continued, Hurricane Jeanne struck, depositing more sand into the channel. The U.S. Coast Guard and the Army Corps of Engineers were back on the job before the wind died down, resuming efforts to open the channel and return the Port to full operation in remarkable time.

**Keeping the Harbor  
Free and Clear**

Once full operation was restored after the hurricanes, the Canaveral Port Authority turned its attention to preventing a reoccurrence of the problem that had shut down shipping. The Port retained the services of Olsen & Associates, who recommended construction of a sand trap on the south side of the jetties to help keep sand out of the channel. Based on Port approval of the preliminary plans, Olsen and Associates now is completing final plans and specifications for the project.

The estimated cost to build the new sand trap is just under \$2 million. Funds are being sought for the project from the federal government and state legislature. The Port Authority expects to complete construction before the start of the 2006 hurricane season.

Another project was already under way to prevent sand driven by normal winds and currents, or by extraordinary forces, from blocking the channel. The North Jetty Sand Tightening project, a component of



the Canaveral Harbor Inlet Management Plan, should soon be complete. Fortifying and raising the height of the north jetty and extending it 300 feet to the east will help control the movement of sand in and around the Port entrance and help keep the channel open. A site investigation before construction revealed the presence of a gopher tortoise colony in the area. These special animals have been carefully moved to a suitable new habitat, where they can thrive.

### **Cruise Ships Grow Up: Improving the Environment's Functionality**

The Port Authority is evaluating potential changes to the entrance channel and West Turning Basin that would accommodate the needs of new larger and longer cruise ships. Changes under review include widening the existing channel from 400 to 500 feet and creating a larger turning circle in the Basin.

Congress has been reluctant in recent years to authorize new expansion projects for federally

maintained channels such as Port Canaveral. The Canaveral Port Authority felt strongly about the need to consider such plans, however, and took the proactive step of instituting its own feasibility study under Section 203 of the Water Resources Development Act of 2000. Funding includes \$1.2 million from the Florida Department of Transportation's Strategic Intermodal System Program.

A meeting with the U.S. Army Corps of Engineers, Jacksonville District, in July 2005, set parameters for the study. It will cover all the engineering and economic issues involved, as well as include a full environmental impact analysis. This will ensure that the effects of the proposed changes on water quality, plant life, animal life, etc. will be known and addressed in advance. The study is expected to be complete in 18 months.



### **Integrating the Needs of Turtles and Law Enforcement**

Port Canaveral adopted its first Exterior Light Management Plan in 2001. Its purpose was to reduce the potential for disorientation in sea turtle hatchlings. To survive, these night-born babies must head for the sea. Instinct leads them toward areas of bright light, such as the moonlit surf or, unfortunately, man-made lighting.

The Port's management plan addressed this problem by calling for limited pole heights, light shielding measures and use of low-pressure sodium lights or other responsive technology in all new construction.

The newly revised Exterior Light Management and Security Alternatives Plan strikes a balance between the goal of protecting endangered turtles and the new security requirements of the Florida Department of Law Enforcement. It divides the Port into usage zones and includes both minimum standards and helpful guidelines for Port tenants in their use of exterior lighting.

The Canaveral Port Authority has submitted this new plan to the Florida Fish & Wildlife Conservation Commission and the U.S. Fish and Wildlife Service for review.

*Sea turtle photos courtesy of Jim Angy*



*Steel sheet pile being added to the jetty to help reduce the amount of sand that can get into the inlet*

*Increasing Fish Habitat:*  
**Artificial Reef Expansion**

On March 15, 2004, the Port Authority acquired a new permit from the U.S. Army Corps of Engineers to expand each of two artificial reef sites it had previously established. The sites, located 30 miles offshore in 125 feet of water, are being expanded from 9.3 acres to 51.7 acres each.

The original materials used to build these reefs include steel and concrete vessels, a concrete culvert, a space shuttle booster mock-up, surplus Air Force tankers and a Titan rocket transporter from Cape Canaveral Air Force Station.

In December 2004, the Canaveral Port Authority authorized Lockheed Martin to add a second Titan transporter

to Site #1. The City of Cocoa donated more than 500 pieces of concrete water pipe to site #2 in June 2005. The Florida Fish & Wildlife Conservation Commission (FFWCC) issued a grant of \$33,800 for deployment of these materials, matched by \$9,500 of funding from the Florida Sport Fishing Associates (FSFA). The Port Authority currently is overseeing plans to deploy a number of other items to the reef sites in 2005, including two additional Titan transporters and State Road 520's old Banana River bridge.

To ensure that the sites are becoming viable habitats, ongoing acoustic monitoring and research is being carried out by Dr. Grant Gilmore with funding from FFWCC.

*Maintaining the Area's Water Quality:*  
**New Study Finds No Problems**

The Brevard County Near Shore Ocean Nutrification Analysis Project, a \$100,000 study jointly funded by the Canaveral Port Authority and Brevard County, and carried out by the National Oceanic and Atmospheric Administration (NOAA), concluded that there is no evidence of a water quality problem in the form of elevated bacteria or nutrient levels along Brevard County beaches south of the Port.

The study was the ultimate outcome of the efforts of a task force in which the Canaveral Port Authority joined with other concerned Brevard agencies to address public and media concerns about local water quality.

NOAA's study did note that the data available on nutrient levels along this area of coast is limited. The Port Authority responded by adding three new stations to its ongoing water-quality monitoring program. These stations, located on the coastline between the Port's Jetty Park and State Road 520 in Cocoa Beach, will generate samples to be evaluated every month for nitrogen, phosphate and silica levels, in line with NOAA's recommendations.



*Rubber seals being removed from concrete water pipes prior to placement on the reef site*



### **Carrying the Initiative Into the Future**

Port Canaveral is one of the cleanest deepwater seaports in the United States, and has been acknowledged as a leader in the preservation of Florida's beaches. In the years ahead, the Port Authority will continue to augment ongoing plans and programs with new initiatives that make the best and highest use of the unique environmental niche that is Port Canaveral.

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