USCG Sector Miami

Waterways Analysis and Management System
For
Intracoastal Waterway Miles 925-1005

WAMS #07301

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Atlantic ICW WAMS mile 925-1005
II. Table of Contents

Enclosures:

1) List of Aids to Navigation
2) Sector Miami WAMS 07301 Memo of 30 March 2018
3) ICW Survey Responses
4) Criticality Work Sheet

III. CHARTS:

11472 Florida Atlantic ICW
11428 Okeechobee Waterway
11475 Fort Pierce Harbor

IV. ACTION SUMMARY

The Waterways Analysis and Management System (WAMS) is the Coast Guard's primary tool for managing the aids to navigation (AtoN) in our waterways. The following is a list of all recommended changes to the Charts and Publications and aids to navigation for the Atlantic Intracoastal Waterway from mile 925 to mile 1005. The last WAMS completed for this waterway was on June 15, 2007.

1. Chart 11472 recommendations:

   A. No chart recommendations at this time.

2. Chart 11428 recommendations:

   A. Add note that tide and current predictions may not be accurate during water discharges from Lake Okeechobee.

3. Chart 11475 recommendations:

   A. No chart recommendations at this time.

4. Light List Volume III recommendations:

   A. No Light List recommendations at this time.

5. Coast Pilot Volume 4 recommendations:

   A. Capron Shoal buoy was recently removed from the Coast Pilot.

   B. (b) (5) (b) (5) The bridges that cross the St. Lucie Canal experience heavy outflow currents during Lake Okeechobee drawdown water discharges.

V. INFORMATION COLLECTION

A. **Narrative Description:** Intracoastal Waterway, Mile 925 to 1005

1. This study encompasses the Atlantic Intracoastal Waterway (ICW) beginning in the north at statute mile 925 in extreme southern Brevard County, FL and continues south to statue mile 1005 in Martin County, FL.

2. There are four inlets located in the portion of the ICW: Sebastian Inlet at mile 936, Fort Pierce Inlet at mile 965, St Lucie Inlet at mile 991, and Jupiter Inlet at mile 1004. Out of these four inlets, only Fort Piece Inlet is a Federal Channel.

3. This portion of the ICW is mostly straight, in a north/south direction, and marked by fixed AtoN. The project depth is 12 feet to Fort Pierce thence 10 feet south to Miami and the project width is 150 feet.

4. There are two areas that typically shoal in this stretch of the ICW. They are at mile 964 just south of the Fort Piece fixed bridge and at mile 988 where the St Lucie River and the ICW meet. This area, locally known as the Crossroads, is currently undergoing maintenance dredging. Both of these shoaling areas are marked by small buoys that are frequently relocated to mark best water. The most recent hydrographic surveys of these areas are located at:

   http://www.saj.usace.army.mil/Missions/Civil-Works/Navigation/Hydro-Surveys/

B. AIDS TO NAVIGATION SCHEME:

1. **Federal AtoN:** This portion of the ICW is marked by 277 Federal AtoN maintained by ANT Fort Pierce and CGC HUDSON which results in an average of 3.5 aids per statute mile. ANT Fort Pierce consistently has the highest Aid Availability Rate in District 7. Most of the fixed aids in this portion of the ICW are single pile wood structures. The most common types of AtoN discrepancies are missing dayboards and battery failures in the LED lights. Due to the heat and humidity in this portion of the country, LED batteries have a life span of 48 months.

2. **Private AtoN:** Numerous Private AtoN mark side channels off the ICW. Sebastian, St Lucie, and Jupiter Inlets are marked by Private AtoN. Some of the Private AtoN remain discrepant due to Hurricane Irma. D7 DPW has notified the owners of these discrepant Private AtoN and directed them to correct these discrepancies.

C. WATERWAY USERS:

1. **Vessels:** Commercial traffic is limited to occasional tug and barge (towing) and small commercial fishing vessels engaged in day trips. The majority of vessel traffic is recreational in nature with the size of the recreational vessels potentially increasing to 250 feet, due to a city of Fort Pierce proposal to convert the Indian River Terminal into a mega-yacht refitting and refurbishing facility.

2. **Transit Frequencies:** Channel 16 and Channel 13

3. **Commodities Carried:** Port of Fort Pierce has limited carriage of cargo via one regulated marine facility. Most of the cargo being transported is construction supplies and equipment via deck barges to the Bahamas and the Caribbean. On average every 12-18 months, the facility conducts one regulated explosive transfer (class 1.1). Additionally, the facility is primarily used by Beyel Bros. as a transportation hub for their marine operations, which is primarily composed of marine construction equipment (tugs, deck barges, cranes) for work along the Florida coast.

4. **Pilot Associations:** The Palm Beach Pilots provide Pilotage Service for the Port of Fort Pierce. Pilotage in the Port of Fort Pierce is compulsory for all foreign vessels and U.S. vessels under register in foreign trade that draft more than seven feet. The Port of Fort Pierce primarily receives yachts with the occasional foreign-flagged commercial vessel.

D. CASUALTY HISTORY:

1. Information regarding marine casualties was obtained from Florida Fish and Wildlife Conservation Commission. The most recent marine casualties have involved search and rescue incidents which were due to disabled vessels. There are no indications of significant casualties or incidents that can be attributed to waterway design or deficiencies to the AtoN system.

2. One area of concern that has continuous bridge allisions by commercial traffic (tug and barges) navigating across the Okeechobee Waterway, is the St. Lucie River Railroad Bridge (Stuart FEC Railway Bridge). The allisions are typically caused by the current conditions in a narrow channel with three consecutive bridges in a short transit distance leaving no room for error or helm correction. Continuous and more severe allisions could potentially impact the condition and operability of the bridge.

E. CHARTS AND SURVEYS:

The primary charts used in this WAMS were charts 11428, 11472, and 11474.

F. WATERWAY USER FEEDBACK:

1. Two online surveys were advertised in the Local Notice to Mariners (LNM) to gather input regarding the ICW and the St. Lucie River and Loxahatchee River railroad bridges.

2. An article ran in the LNM included correspondence information via email. No email correspondence was received.

3. CGC HUDSON is one of the largest users of this waterway and the Commanding Officer reports that the AtoN "as is" meets the needs of all users of this portion of the ICW. The Sector Miami AtoN Officer and Aids to Navigation Team Fort Pierce Officer-in-Charge also conducted an underway trip along the ICW from Fort Pierce to Vero Beach and did not identify any additional AtoN needs.

Additionally, the ANT Fort Pierce Officer-in-Charge did a ride along with the Army Corps of Engineers along the entire ICW from Mile 925-1005 and did not identify any additional AtoN that was necessary along this stretch of waterway.

VI. PREVIOUS WAMS ACTION ITEMS

A. No actions recommended from previous WAMS

VII. PUBLIC COMMENT COLLECTION

A. Public comment from various commercial and recreational boaters was requested by two online surveys advertised in the LNM. The first online survey covered the ICW. The second online survey covered the St. Lucie and Loxahatchee railroad bridges. At the request of District 7 Waterways, both surveys were extended for two months because of the large amount of public interest.

B. The ICW online survey was advertised for 22 weeks starting with LNM 46/17 and ending with LNM 13/18. Only two respondents completed this survey and their comments did not address any desired AtoN changes or deficiencies.

C. The St Lucie and Loxahatchee railroad bridge survey was advertised for 15 weeks starting with LNM 46/17 and ending with LNM 08/18. This survey received significant public interest (3640 respondents) due to proposed changes to the St. Lucie and Loxahatchee railroad bridge operating schedules to accommodate future use for high speed passenger rail service. Sector Miami recommended regulatory changes to ensure equitable usage for waterways to the District 7 Bridge Branch via enclosure (2).

VIII. COMMENTS AND SUGGESTIONS

A. Public comments and suggestions for improvements or changes to the AtoN in this portion of the ICW did not support any AtoN changes.

B. The survey for the railroad bridges garnered a large number of public comments, but most of the respondents were not mariners. We noticed a large spike in survey participation that we attributed to Representative Mast adding a link to the survey on his Congressional blog.

IX. CRITICALITY DETERMINATION

The working definition of a navigationally critical waterway is "where degradation of the aids to navigation system would result in an unacceptable level of risk of a marine accident, due to the physical characteristics of the waterway, difficult navigational conditions, aid establishment difficulties, or high aid discrepancy rates."

Sector Miami utilized the Navigation and Environmental Criticality Work Sheet (enclosure 4) and determined this waterway is considered Non Critical Navigationally and Environmentally.

X. RECOMMENDATIONS AND ANALYSIS

A. The AtoN network in this section of the ICW is effective and no changes are recommended.

B. Sector Miami Waterways will continue to engage the ACOE regarding maintenance dredging in the two areas of known shoaling in this section of the ICW. ANT Fort Pierce will continue to relocate the buoys in these shoaling areas to mark best available water.

C. For the St Lucie River and Loxahatchee River railroad bridges, the increased use by the Brightline trains will reduce the amount of time that waterway users can access the ICW. Sector Miami recommended that the regulations covering these bridges be modified to be similar to those on the New River Railroad Bridge found in Title 33, Code of Federal Regulations, Part 117.313. However, while the regulations established should provide equitable usage times for the waterway users, they do not have to be exactly the same as those established for the New River railroad bridge.