NAUTICAL CHART 11485

INTRACOASTAL WATERWAY

TOLOMATO RIVER TO PALM SHORES

FLORIDA

MERCATOR PROJECTION AT SCALE 1:40,000
SOUNDINGS IN FEET AT MEAN LOWER LOW WATER
NORTH AMERICAN DATUM OF 1983
(WORLD GEODETIC SYSTEM 1984)

Additional information can be obtained at nauticalcharts.noaa.gov.

THE NATION'S CHARTMAKER SINCE 1807

Chart 11485 37th Ed., Nov. 2014

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

Ⓟ Pump-out facilities

HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations.

Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

CAUTION
BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

RULES OF THE ROAD
(ABRIDGED)

Motorless craft have the right-of-way in almost all cases.
Sailing vessels and motorboats less than sixty-five feet in length, shall not hamper, in a narrow channel, the safe passage of a vessel which can navigate only inside that channel.
A motorboat being overtaken has the right-of-way.
Motorboats approaching head to head or nearly so should pass port to port.
When motorboats approach each other at right angles or obliquely, the boat on the right has the right-of-way in most cases.
Motorboats must keep to the right in narrow channels, when safe and practicable.
Mariners are urged to become familiar with the complete rest of the Rules of the Road in U.S. Coast Guard publication "Navigation Rules".

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.995" northward and 0.804" eastward to agree with this chart.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

INTRACOASTAL WATERWAY
Project Depths

12 feet Norfolk, VA to Fort Pierce, FL; 10 feet Fort Pierce, FL to Miami, FL; 7 feet Miami, FL to Cross Bank in Florida Bay.

The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners. Uncharted shoals may exist in areas which have not been recently surveyed. Please report shoals and obstructions at:
http://nauticalcharts.noaa.gov/staff/contact.htm

Distances

The general location of the Waterway is indicated by a magenta line. Mariners are advised to follow the aids to navigation and avoid charted shoals and obstructions.

Mileage distances shown along the Waterway are in Statute Miles, southward from Norfolk, VA, and are indicated thus:
One Statute Mile equals 0.87 Nautical Miles.
Courses are TRUE and must be CORRECTED for any variation and compass deviation.

INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted.

Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways.

When following the Intracoastal Waterway southward from Norfolk, VA to Cross Bank in Florida Bay, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel.

A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

PLANE COORDINATE GRID
(based on NAD 1927)

The Florida State Grid, east zone, is indicated on this chart at 10,000 foot intervals thus:
The last three digits are omitted.

NOTE H

The heavy dashed magenta lines represent launch hazard areas associated with the majority of launches from Cape Canaveral. Launch debris may fall within these areas. See Notice to Mariners or contact the Coast Guard for launch hazard areas specific to each launch and the times they will be in effect.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 4 for important supplemental information.

HEIGHTS

Heights in feet above Mean High Water.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOTE F

Strong tidal currents exist perpendicular to the Bridge of Lions opening. Vessels engaged in towing and pushing operations are advised to transit the bridge opening during slack tide and, if necessary, breakdown the tow in small units or use adequate tugs.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical, Al alternating, B black, Bn beacon, C can, DIA diaphone, F fixed, Fl flashing, G green, IQ interrupted quick, Iso isophase, LT HO lighthouse, M nautical mile, m minutes, MICRO TR microwave tower, Mkr marker, Mo morse code, N nun, OBSC obscured, Oc occulting, Or orange, Q quick, R red, Ra Ref radar reflector, R Bn radiobeacon, R TR radio tower, Rot rotating, s seconds, SEC sector, St M statute miles, VQ very quick, W white, WHIS whistle, Y yellow

Bottom characteristics:
Blds boulders, bk broken, Cy clay, Co coral, G gravel, Grs grass, gy gray, h hard, M mud, Oys oysters, Rk rock, S sand, so soft, Sh shells, sy sticky

Miscellaneous:
AUTH authorized, ED existence doubtful, Obstn obstruction, PA position approximate, PD position doubtful, Rep reported, Subm submerged
(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus:

Ⓟ Pump-out facilites

MARINE WEATHER FORECASTS

NATIONAL WEATHER SERVICE	TELEPHONE NUMBERS	OFFICE HOURS
Jacksonville, FL	*(904) 741-4311	8:30 AM-5:00PM (Mon-Fri)
Melbourne, FL	*(321) 255-0212	8:00 AM-4:00 PM (Mon-Fri)
Miami, FL	(305) 229-4522	24 Hours daily

*Recorded (24 Hours daily)

WEATHER INFORMATION BY MARINE RADIOTELEPHONE

CITY	STATION	FREQUENCY	DAILY BROADCAST-EST	SPECIAL WARNING
Mayport, FL	NMA-10	2670 kHz 157.1 MHz	1:20 a.m. & p.m. 7:15 a.m. & 5:15 p.m.	+On Receipt +On Receipt
Miami, FL	NCF	2670 kHz	*10:50 a.m. & p.m.	+On Receipt

*Local Times
+Preceded by Announcement on 2182 kHz/156.8 MHz

CONTINUOUS MARINE BROADCASTS

CITY	STATION	FREQUENCY	BROADCAST TIMES
Jacksonville, FL	KHB-39	162.55 MHz	24 Hours Daily
Daytona Beach, FL	KIH-26	162.40 MHz	24 Hours Daily
Melbourne, FL	WXJ-70	162.55 MHz	24 Hours Daily

WEATHER RULES FOR SAFE BOATING

Before setting out:

1. Check local weather and sea conditions.
2. Obtain the latest weather forecast for your area from radio broadcasts.

When warnings are in effect, don't go out unless you are confident your boat can be navigated safely under forcast conditions of wind and sea.

While afloat:

1. Keep a weather eye out for:
   A. A sudden vertical cumulus cloud development
   B. A sudden change in wind direction
   C. A sudden noticeable increase in wind velocity
   D. A Drop in temperature
2. Be alert to heavy static on your AM radio which may indicate approaching thunderstorms
3. Check radio weather broadcasts for latest forcasts and warnings

Thunder squalls often occur on warm,moist afternoons and are a great hazard to the mariner. They can have wind gusts up to 80 mph and hit almost without warning. To survive a squall, you must prevent being capsized or blow to leeward into danger.

SAFETY HINTS

1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
4. The compass on your chart shows the variation from true north however, you must also correct your bearing for the deviation of your boat.
5. Constantly use your chart from the beginning to end of each trip. Keep in mind the orientation of your boat with respect to the chart.
6. Maintain your position on the chart by relating charted features with those you can identify in your surroundings.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

PUBLIC BOATING INSTRUCTION PROGRAMS

The United States Power Squadrons and U. S. Coast Guard Auxiliary, national organizations of boatmen, conduct extensive boating instruction programs in communities throughout the United States. For information regarding these educational courses, contact the following sources:
USPS-Local Squadron Commander or USPS Headquarters, Post Office Box 30423, Raleigh, N.C. 27612, 919-821-0281.
USCGAUX - 7th Coast Guard District, 51 Southwest First Ave., Miami, Fla. 33130, 305-350-5697 or USCG Headquarters (G-BAU), Washington, D.C. 20593-0001.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.995" northward and 0.804" eastward to agree with this chart.

CAUTION
BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

CAUTION
SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:
Pipeline Area — Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

TIDAL INFORMATION

PLACE NAME	(LAT/LONG)	Mean Higher High Water (feet)	Mean High Water (feet)	Mean Low Water (feet)
Vilano Beach, Tolomato River	(29°55'N/81°18'W)	4.8	4.4	0.2
St. Augustine, City Dock	(29°54'N/81°19'W)	5.0	4.7	0.2
St. Augustine Beach	(29°51'N/81°16'W)	5.2	4.8	0.2
Smith Creek, Flagler Beach	(29°29'N/81°08'W)	1.1	0.9	0.1
Ormond Beach, Halifax River	(29°17'N/81°03'W)	0.8	0.7	0.1
Daytona Beach Shores, Sunglow Pier	(29°09'N/80°58'W)	4.4	4.1	0.2
Port Canaveral Entrance	(28°25'N/80°36'W)	4.2	3.8	0.2
Halifax River, Ponce Inlet	(29°05'N/80°56'W)	3.2	2.9	0.1
Ponce De Leon Inlet	(29°04'N/80°55'W)	3.5	3.2	0.1
Fort Matanzas, Matanzas River	(29°43'N/81°14'W)	4.3	4.0	0.2

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.
(Sep 2014)

CAUTION
WARNINGS CONCERNING LARGE VESSELS

The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sailboats and sailboards may unexpectedly find themselves unable to maneuver. Bow and stern waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

Last Correction: 11/21/2016. Cleared through:
LNM: 4616 (11/15/2016), NM: 4816 (11/26/2016)

To ensure that this chart was printed at the proper scale, the line below should measure six inches (152 millimeters).
If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.

This chart was distributed as a PDF (Portable Document Format). Printing PDFs may alter the chart scale, color, or legibility that may impact suitability for navigation. Printed charts provided by NOAA certified Print on Demand (POD) providers fulfill a vessel's requirement to carry a navigational chart "published by the National Ocean Service" in accordance with federal regulations, including but not limited to 33 C.F.R. 164.33(a), 33 C.F.R. 164.72(b), and 46 C.F.R. 28.225(a). POD charts meet stringent print standards and can be recognized by an official certification of authenticity printed on the chart. A list of POD providers can be found at: nauticalcharts.noaa.gov/pod