

To: Tug XXXX towing barge YYYYY

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Departure Forecast for tow from Tampa, FL to New York, NY

Date and Time Prepared: 1630 UTC Wed 15-Dec-21

Desired Departure Date and Time: 1500 UTC Thu 16-Dec-21

Average speed of tow: 6 knots

Weather Factors:

At 1200 UTC Wednesday: Strong high pressure was centered in the St. Lawrence valley northeast of Maine with a strong ridge of high pressure extending south through New England, then southwest along the Appalachians to northern Georgia, and west-southwest from there to the Texas coast. The circulation around the ridge dominates the eastern U.S. and adjacent Atlantic and Gulf of Mexico waters.

The high center will redevelop farther south this afternoon, and by evening will be located over the Atlantic well southeast of Nantucket with the strong ridge extending southwest to the northern North Carolina coast, then west-southwest across the southern Appalachians to the Mississippi delta region. The high center will move southeast through tonight and tomorrow, and the western portion of the ridge will shift slightly south, extending from the Atlantic west through South Carolina by tomorrow evening. The ridge will persist through the end of the week shifting just slightly south and also beginning to weaken a bit.

On Saturday the ridge will continue to shift south, and will continue to weaken, also eroding from the west. By Saturday evening the ridge will extend across the northern Florida peninsula and into the northeastern Gulf. Through the end of the weekend the ridge will continue to shift slowly south and will continue to erode from the west, extending from the Atlantic only into the northern Bahamas by Sunday evening. Low pressure will take shape in the Ohio valley on Saturday and move east to northern Virginia by evening with a cold front extending southwest along the central and southern Appalachians, across southeastern Louisiana and through the northwestern Gulf of Mexico at that time. As the low moves quickly east-northeast over the Atlantic Saturday night and Sunday, the western end of the cold front will push south through the southeastern U.S. and will extend from the central Florida peninsula to the Bay of Campeche by Sunday evening. The front will push south of Florida Sunday night.

A large area of high pressure will build in the Great Lakes later in the weekend with its circulation extending south into the northern Gulf of Mexico and the Atlantic coastal waters of the southeastern U.S. by Sunday evening behind the cold front. This high will move southeast through Sunday night with its circulation expanding farther east over the Atlantic, and by midday Monday the high center will be located over the Chesapeake region. The high will shift only slowly east Monday afternoon and Monday night with its circulation continuing to dominate the southeastern U.S. and the Atlantic coastal waters. Low pressure will take shape in the northern Gulf to the southeast of the Mississippi delta later Monday night. This low will then track east-northeast through Tuesday, emerging off the Georgia coast during the evening, then becoming stronger over the Atlantic through the day Wednesday.

Analysis:

Conditions for departure tomorrow will feature light E winds and fairly quiet seas. Along a direct route south toward the Dry Tortugas, winds will pick up a bit later tomorrow afternoon and will continue to increase tomorrow night. Seas will build a bit through this period, but they should not exceed the 3 foot threshold for beam seas. Winds will ease a bit tomorrow afternoon, but will again pick up rounding the Dry Tortugas tomorrow night. Seas will be higher once south of the Keys, but with the tow heading east at that point, they will not exceed the 5 foot restriction for head seas.

Winds and seas will ease through Saturday and Saturday night which means that as the tow turns more northward on Sunday in the southeastern Florida coastal waters seas will be running well within the restrictions. As the cold front pushes south of Florida Sunday night, winds will increase from the NE and seas will build, and early next week the strong high to the north will produce strong E winds in the Florida coastal waters with seas well above acceptable limits.

The forecast is presented for a departure from Tampa Bay at mid morning tomorrow, and assumes a direct route south to the Dry Tortugas, then a coastwise route from the Florida Keys along the east coast of Florida.

Forecast:

Time: Thursday mid-morning 12/16/2021 (1500 UTC, 1000 EST)

Expected approximate position: departing Tampa Bay, FL

Forecast Winds: E 7-10 kts.

Forecast Sea State: Wind Waves: <1 ft

Primary Swell: nil

Secondary Swell: nil

Comments: Partly cloudy. Winds veering to ESE in the afternoon, seas slightly higher once into the Gulf.

Time: Thursday evening 12/16/2021 (0000 UTC Friday, 1900 EST)

Expected approximate position: 27.1N/82.9W

Forecast Winds: ESE 8-12 kts.

Forecast Sea State: Wind Waves: 1-2 ft, period 2-4 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Partly cloudy, a brief passing shower possible overnight. Winds increasing farther south through the night, seas a bit higher

Time: Friday morning 12/17/2021 (1200 UTC, 0700 EST)

Expected approximate position: 25.9N/83.0W

Forecast Winds: ESE 13-17 kts.

Forecast Sea State: Wind Waves: 2-3 ft, period 3-5 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Variable clouds, chance of a couple of showers through the day. Winds easing a bit later in the afternoon..

Time: Friday evening 12/17/2021 (0000 UTC Saturday, 1900 EST)

Expected approximate position: north-northwest of Dry Tortugas

Winds: ESE 11-15 kts

Forecast Sea State: Wind Waves: 2-3 ft, period 3-5 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Variable clouds, a few passing showers. Winds a bit stronger once around the Dry Tortugas, seas higher to the south of the Keys

Time: Saturday morning 12/18/2021 (1200 UTC, 0700 EST)

Expected approximate position: southwest of Marquesas Rock

Forecast Winds: ESE 13-17 kts

Forecast Sea State: Wind Waves: 3-5 ft, period 4-6 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Variable clouds, a few passing showers. Winds becoming lighter through the day, seas subsiding.

Time: Saturday evening 12/18/2021 (0000 UTC Sunday, 1900 EST)

Expected approximate position: south of Bahia Honda Key

Forecast Winds: ESE 9-13 kts.

Forecast Sea State: Wind Waves: 2-4 ft, period 4-6 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: A few passing showers overnight. Winds veering to SSE, a bit lighter. Wind waves subsiding, but some swell remaining.

Time: Sunday morning 12/19/2021 (1200 UTC, 0700 CDT)

Expected approximate position: southeast of Key Largo, FL

Forecast Winds: SSE 7-10 kts

Forecast Sea State: Wind Waves: 1 ft, period 3-5 seconds

Primary Swell: 2-3 ft from the NE, period 4-6 seconds

Secondary Swell: nil

Comments: Partly cloudy. Winds light and variable at times through the day, becoming E toward evening.

Time: Sunday evening 12/19/2021 (0000 UTC Monday, 1900 CDT)

Expected approximate position: east of Hollywood, FL

Forecast Winds: E 6-9 kts.

Forecast Sea State: Wind Waves: <1 ft

Primary Swell: 1-2 ft from the SE, period 2-4 seconds

Secondary Swell: 1 ft from the N, period 4-6 seconds

Comments: Variable clouds, a couple of showers possible. Winds backing to NE and increasing overnight, seas building.

Time: Monday morning 12/20/2021 (1200 UTC, 0700 CDT)

Expected approximate position: east of Stuart, FL

Forecast Winds: NE 9-13 kts.

Forecast Sea State: Wind Waves: 3-5 ft, period 4-6 seconds

Primary Swell: 1-2 ft from the E, period 9-10 seconds

Secondary Swell: 1 ft from the NE, period 12-13 seconds

Comments: Partly to mostly cloudy, showers likely in the afternoon. Winds increasing through the day, seas building.

Time: Monday evening 12/20/2021 (0000 UTC Tuesday, 1900 EST)

Expected approximate position: approaching Cape Canaveral, FL

Forecast Winds: E 21-25 kts.

Forecast Sea State: Wind Waves: 7-9 ft, period 8-9 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Showers.

Time: Tuesday morning 12/21/2021 (1200 UTC, 0700 EST)

Expected approximate position: east of Flagler Beach, FL

Forecast Winds: E 18-22 kts.

Forecast Sea State: Wind Waves: 6-8 ft, period 8-9 seconds

Primary Swell: nil

Secondary Swell: nil

Comments: Periods of rain.

NOTE: Positions given above are not necessarily intended to be waypoints, but rather just a general location for purposes of providing weather conditions in that area. These positions should not be used for navigation.

Recommendations:

Recommendation is to plan to depart tomorrow morning, but to arrange for a stop at Fort Lauderdale early next week as conditions will build above the threshold for beam seas Sunday night and will deteriorate more significantly on Monday in the central east coastal waters of Florida.

At this time, it appears that conditions could allow for a departure from Fort Lauderdale later next week, perhaps as early as late Wednesday, but more likely Thursday. It is uncertain, though, how far the tow would be able to proceed before requiring another stop.

Call or email with any questions. I will send another forecast tomorrow morning prior to departure. If there is a change in plans, please let me know.