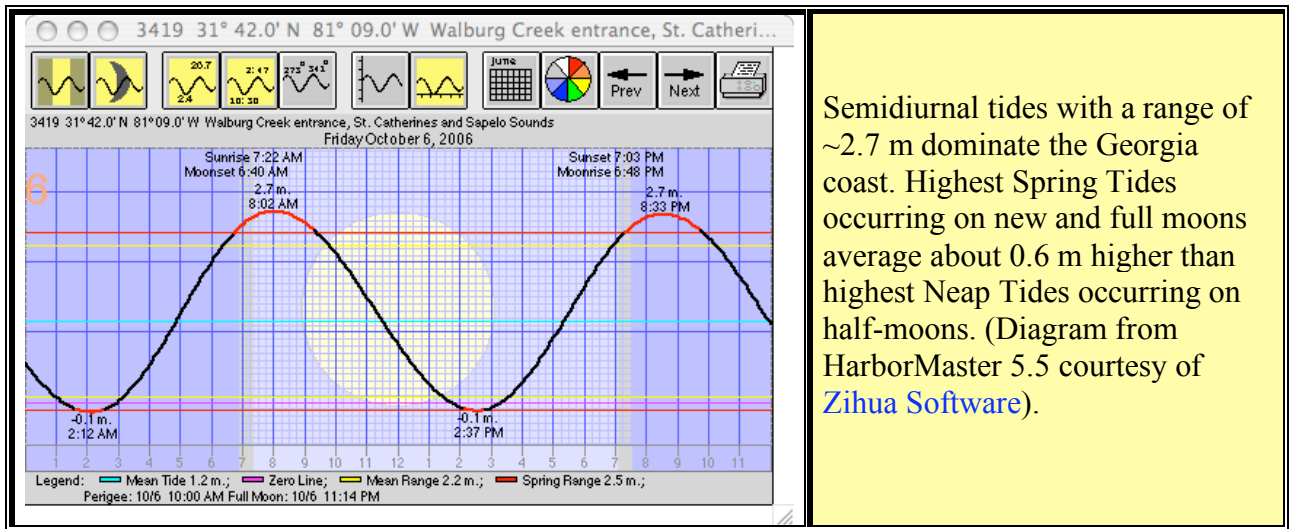


Tides

Below is a tidal chart for St. Catherines Sound, Georgia generated from the program Harbor Master [available from Zihua Software, P. O. Box 51601, Pacific Grove, CA ((408) 372-0155)] for January 6, 1996. The sine curve traces the predicted level of the ocean surface through a 24 hour interval from midnight to midnight. A stipple pattern fills in the time of darkness and partial stipple patterns fill times of twilight. Moon phase is indicated by a partial circle and by a percentage. Annotations give times of twilight, sunrise, sunset, high tide time and height and low tide time and height. Tidal heights are given in meters above average low water level by the scale to the left of the graph. The tidal range is the difference in elevation of the high and low tides.



What is the longitude and latitude of this tidal chart?

Longitude = _____

Latitude = _____

How many high tides are there in this daily cycle?

How many low tides are there in this daily cycle?

What *name* do oceanographers apply to this pattern of tides?

What is the **time interval** from one high tide to the next high tide?

(Remember there are 60 minutes in one hour!)

What is the **time interval** from one low tide to the next low tide?

What is the difference in **height** between the **highest high tide** and the **lowest low tide** for October 6, 2006?

Compute the tidal range in feet for St. Catherines Island.

1 meter = 100 centimeters.

2.54 centimeters = 1 inch.

12 inches = 1 foot.

Time Frame: 1 hour