



# HIGH TIDE BULLETIN

Center for Operational Oceanographic Products and Services  
National Oceanic and Atmospheric Administration

**Fall  
2018**



In 2023, NOAA's seasonal High Tide Bulletin was superseded by a digital Monthly Outlook. NOAA formatted its record of past bulletins into the following portable document format (PDF) to provide interested users with a free, downloadable historical archive.



# HIGH TIDE BULLETIN

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## Fall 2018

*When you may experience higher than normal tides between September and November 2018.*



## Regions

- Northeast Outlook
- Mid-Atlantic Outlook
- Southeast Outlook
- Gulf Coast Outlook
- West Coast Outlook
- Pacific Islands Outlook
- Alaska Outlook

## Overview

The rising and falling of the sea is a phenomenon upon which we can always depend. Tides are the regular rise and fall of the sea surface caused by the gravitational pull of the moon and sun and their position relative to the earth. There are some factors that cause the tides to be higher than what is “normally” seen from day to day. This bulletin tells you when you may experience higher than normal high tides for the period of time between September and November 2018.

We also publish annual high tide flooding reports that present a broad outlook of what to expect for a given year in terms of high tide flooding, as well as a summary of high tide flooding events for the previous calendar year.

This fall, an El Niño is predicted to form. If that happens, it will bring a higher chance of flooding along the U.S. East and West Coasts this fall and winter.





# Northeast Outlook

*Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York*



## When will the tides be higher than normal?

- September 9-11
- October 8-10

## Where might I expect high tide flooding?

Tide stations at the following locations have the greatest chance of seeing high tide flooding:

- Providence, RI
- Kings Point, NY
- Bergen Point, NY

## Why will they be higher than normal?

- Mean sea level is generally higher in the early fall months in the northeast due to warmer, expanding ocean water and changes in weather patterns.
- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth. Higher than normal high tides and lower than normal low tides will occur.
- An El Niño is forecasted to begin strengthening in the fall. Along the east coast, atmospheric patterns during El Niño typically drive extratropical storms closer to the coast. They also change wind patterns which push water higher along the coast. This creates a combination of higher sea levels and a higher frequency of storm surges.

## What kind of impacts might I expect along the coast?

- Due to the topography of the northeast (less low lying areas), high tides alone will not likely cause a significant impact on the coast unless accompanied by storm or strong winds.



# Mid-Atlantic Outlook

*New Jersey, Delaware, Pennsylvania, Maryland, District of Columbia, Virginia*

## When will the tides be higher than normal?

- September 8-10
- October 8-10

## Where might I expect high tide flooding?

Includes New Jersey, Delaware, Pennsylvania, Maryland, District of Columbia, Virginia.

## Why will they be higher than normal?

- Mean sea level is generally higher in the early fall months in the Mid-Atlantic due to warmer, expanding ocean water and changes in weather patterns.
- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth. Higher than normal high tides and lower than normal low tides will occur.
- An El Niño is forecasted to begin strengthening in the fall. Along the east coast, atmospheric patterns during El Niño typically drive extratropical storms closer to the coast. They also change wind patterns which push water higher along the coast. This creates a combination of higher sea levels and a higher frequency of storm surges.

## What kind of impacts might I expect along the coast?

- Minor tidal flooding along the coast, in particular in low-lying areas.
- If a storm occurs at this time, increased levels of tidal flooding and coastal erosion may occur.
- Lower than normal low tides will also occur.



# Southeast Outlook

*North Carolina, South Carolina, Georgia, Eastern Florida coast*

## When will the tides be higher than normal?

- September 7-10
- October 7-10

## Where might I expect high tide flooding?

Tide stations at the following locations have the greatest chance of seeing high tide flooding:

- Myrtle Beach, SC
- Charleston, SC
- Fort Pulaski, GA
- Fernandina Beach, FL

## Why will they be higher than normal?

- Mean sea level is generally higher in the fall in the Southeast due to changing weather patterns and typical short-term decreases in Gulf Stream transport.
- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth. Higher than normal high tides and lower than normal low tides will occur.
- An El Niño is forecasted to begin strengthening in the fall. Along the east coast, atmospheric patterns during El Niño typically drive extratropical storms closer to the coast. They also change wind patterns which push water higher along the coast. This creates a combination of higher sea levels and a higher frequency of storm surges.


## What kind of impacts might I expect along the coast?

- Minor tidal flooding along the coast, in particular in low-lying areas.
- If a storm occurs at this time, increased levels of tidal flooding and coastal erosion may occur.
- Lower than normal low tides will also occur.



# Gulf Coast Outlook

*Texas, Louisiana, Mississippi, Alabama, Western Florida coast*



## When will the tides be higher than normal?

- The Gulf Coast will not be significantly impacted.

## Where might I expect high tide flooding?

Includes Texas, Louisiana, Mississippi, Alabama, Western Florida coast.


## Why won't they be impacted?

- In many locations of the Gulf Coast, the tidal range is relatively small compared to other regions of the U.S., so they will not be as significantly impacted by a perigeon spring tide.



# West Coast Outlook

*California, Oregon, Washington State*



## When will the tides be higher than normal?

- September 7-9
- November 23-25

## Where might I expect high tide flooding?

Tide stations at the following locations have the greatest chance of seeing high tide flooding:

- San Diego, CA (in Sep)
- Toke Point, WA (in Nov)

## Why will they be higher than normal?

- Mean sea level is generally higher in the early fall months along the southern west coast due to warmer, expanding ocean water and changes in weather patterns.
- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth. Higher than normal high tides and lower than normal low tides will occur.
- An El Niño is forecasted to begin strengthening in the fall. Along the west coast, sea levels are typically elevated during El Niño.

## What kind of impacts might I expect along the coast?

- Minor tidal flooding along the coast, in particular in low-lying areas.
- If a storm occurs at this time, increased levels of tidal flooding and coastal erosion may occur.
- Lower than normal low tides will also occur.



# Hawaii & the Pacific Islands Outlook

*Hawaii, Guam, American Samoa, Midway, Kwajalein, and Wake Island*

## **When will the tides be higher than normal?**

- September 9-10

## **Where might I expect high tide flooding?**

Includes Hawaii, Guam, American Samoa, Midway, Kwajalein, and Wake Island.

## **Why will they be higher than normal?**

- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth. Higher than normal high tides and lower than normal low tides will occur.

## **What kind of impacts might I expect along the coast?**

- Minor tidal flooding along the coast, in particular in low-lying areas.
- If a storm occurs at this time, increased levels of tidal flooding and coastal erosion may occur.
- Lower than normal low tides will also occur.





# Alaska Outlook



## When will the tides be higher than normal?

- November 23-25

## Why will they be higher than normal?

- A perigean spring tide will be occurring. This is when the moon is either new or full and closest to earth, higher than normal high tides and lower than normal low tides will occur.
- An El Niño is forecasted to begin strengthening in the fall. Along the west coast, sea levels are typically elevated during El Niño.

## What kind of impacts might I expect along the coast?

- Due to the topography, in particular for southeast Alaska (less low lying areas), tidal flooding will generally not have a significant impact on the coast unless there is a severe storm.