



## Lelu, Kosrae Dates of very high tides December 2013 to February 2014



Sea levels (and high tide levels) will be higher than normal for the next 3 months, by on average 4 inches (0.1 m)

### Dates of higher than normal high tides (predicted tide + forecast mean sea-level fluctuation)

December 2013						
Su	Mo	Tu	We	Th	Fr	Sa
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 2014						
Su	Mo	Tu	We	Th	Fr	Sa
05	06	07	08	09	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

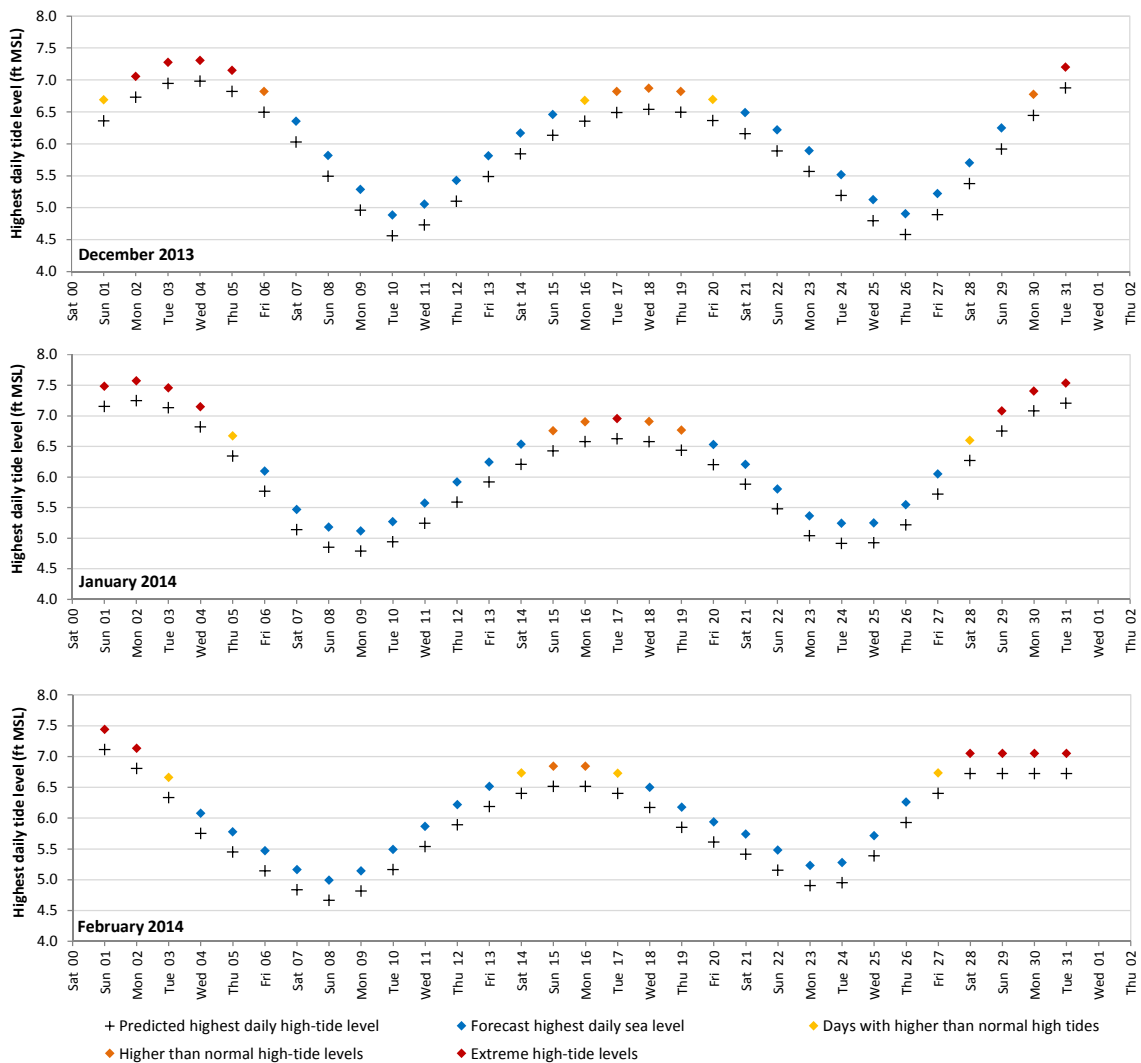
February 2014						
Su	Mo	Tu	We	Th	Fr	Sa
02	03	04	05	06	07	08
09	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

**Days with extreme high-tides**  
 >= 99% combined cumulative exceedance of high tide and mean level of the sea fluctuation.

**Days with much higher than normal high tides**  
 >= 97.5% combined cumulative exceedance of high tide and mean level of the sea fluctuation.

**Days with higher than normal high tides**  
 >= 95% combined cumulative exceedance of high tide and mean level of the sea fluctuation.

### Daily highest water levels (predicted tide + forecast mean sea-level fluctuation) compared to predicted daily highest tide levels



#### Did you know?

1. On Kosrae high tides are a major factor causing coastal flooding, particularly if they coincide with large waves or swell.
2. Highest tides generally occur a few days after Full or New Moon and when the Moon is also closest to the Earth (in its perigee).
3. Higher than normal tides tend to occur around December (Nov to Feb) and June (May to Aug) when the effect of the sun on tides is greatest.
4. Water levels (and hence tide heights) also tend to be raised between November and April due to the trade winds from the north-east.
5. Water levels (and hence tide heights) tend to be **lower** during periods of strong **El Niño** but tend to be **higher** during periods of **La Niña**. Hence if La Niña conditions are occurring around December to February (as in 2007/08 and 1999/00) more coastal flooding is likely.
6. Coastal flooding on Kosrae is not limited to the dates indicated above. Particular weather conditions, e.g. a typhoon or storm conditions that create large waves or swell, can cause flooding and coastal damage at any time. Such weather conditions are generally only predictable a few days in advance.