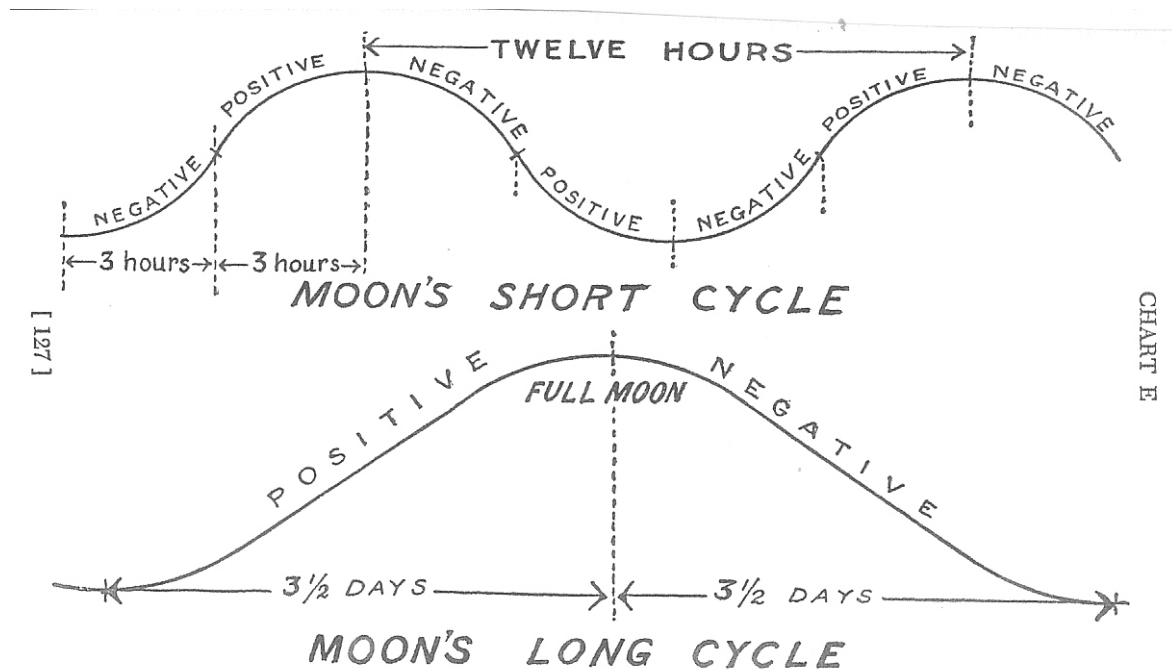


## THE SHORT LUNAR CYCLE AND RAINFALL

Joel Rosenbaum, MS (Meteorology)

### Abstract

Data extracted for the starting time of measurable rainfall for a coastal location in the northeastern United States shows a relationship with the short lunar cycle as explained in the book *Self Mastery and Fate with the Cycles of Life* by H. Spencer Lewis.<sup>1</sup> For the month of April 2006, eighty eight percent of the rainfall began during positive units of the moon's short cycle.



The Moon's short and long cycles from *Self Mastery and Fate with the Cycles of Life*,<sup>2</sup> p. 127.

### Introduction

In his book, *Self Mastery and Fate with the Cycles of Life*, H. Spencer Lewis refers to the long cycle of the moon and the short cycle of the moon. The long cycle of the moon is the lunar month of 28 days. He divides this long cycle into three and one half day periods of alternating positive and negative units. The short cycle of the moon is the lunar month of 28 days. He divides this long cycle into three and one half day periods of alternating positive and negative units. The short cycle of the moon is the twelve hour tide cycle from high tide to high tide.<sup>3</sup> The twelve hour cycle is an approximation. The actual average is twelve hours and twenty-four minutes. This is because when the earth has completed one rotation relative to the sun (the basis for the 24 hour day), the moon will have moved in its orbit around the earth. Thus, a "day" measured relative to the moon as opposed to the sun is 24 hours 48 minutes. That is, if the sun is on the overhead meridian (corresponding to noon, within variability across the manmade time

zone), then approximately 24 hours will have elapsed when the sun is again on the overhead meridian the next day. (The caveat “approximately” applies because the elliptical shape of the earth's orbit causes slight variation in this 24 hour period, but averaged over a year, the 24 hour period is correct.) However, if the moon is on the overhead meridian, approximately 24 hours 48 minutes will elapse before the moon is again on the overhead meridian the next day or night, because the moon will have moved on its orbit around the earth. Half of this period is 12 hours 24 minutes. Lewis divides the twelve hours into alternating positive and negative three-hour units. He notes that the six hours of time preceding the maximum point of high tide are strengthening and the six hours immediately following the hour of high tide are weakening in their effect on the psychological and psychic process of life.<sup>4</sup> To determine whether the short lunar cycle is related to the onset of rain for a northeastern United States coastal location, the starting time of rainfall and its relation to the short lunar cycle or tidal cycle were documented for the month of April 2006.

Bradley Beach, N.J., a community on the Atlantic Ocean about fifty five miles south of New York City, has a continuously recording weather station that is available for viewing through the Weather Underground personal weather station sites on the internet.<sup>5</sup> The personal weather stations provide weather observations, including rainfall, every five to ten minutes. Tide tables for Asbury Park, N.J., about one mile north of Bradley Beach, are available on the internet from the Asbury Park Press fishing and boating section.<sup>6</sup> A table was constructed comparing the time of rainfall onset, nearest time to low or high tide, and the positive or negative units on the short lunar cycle when the rain began.

A continuously recording personal weather station at Monmouth Beach, N.J., about eight miles north of Bradley Beach on the Atlantic coast, was used as a back up station when radar echoes indicated rain over Bradley Beach but none was recorded. In one case Weather Channel radar echoes were used to confirm rain over Bradley Beach while Monmouth Beach was recording measurable rain and Bradley Beach was not.<sup>7</sup> Trace rainfall amounts were not recorded by these stations. The Glossary of Meteorology defines trace as “an unmeasurable (less than .01 in.) quantity of precipitation.”<sup>8</sup>

In order to be considered for the data, rain had to occur eight hours after each occurrence of measurable rainfall. This was to filter out the effects of intermittent rainfall occurring throughout the day.

## **Results**

There were seven days of measurable rain at Bradley Beach that fit the required criteria in April 2006. On five of the days the rain began less than three hours before the time of low tide. This time is known as the ebb tide. These five occurrences were during positive three hour units of the moon's short cycle. An additional occurrence was just before high tide. These were also during positive units. Seven of the eight or 88 percent of the rainfall events began during positive units. On April 14<sup>th</sup> measurable rain was recorded at Monmouth Beach but not at that time at Bradley Beach, weather channel radar for that time showed rain over Bradley Beach. The results are presented in the following table:

Date	Rainfall Started	Tide	Remarks
April 1	2:02 pm	low 3:12 pm	positive unit
April 3	4:32 pm	low 5:44 pm	positive unit
April 4	4:57 am	low 6:51 am	positive unit
April 5	10:39 am	low 7:59 am	negative unit
April 8	10:17 am	low 10:47 am	positive unit
April 14	12:17 pm *	low 2:29 pm	positive unit
April 22	2:02 am	high 2:39 am	positive unit
April 24	3:07 am	high 4:49 am	positive unit

**Table 1. Bradley Beach, NJ Rain and Tides April 2006**

**\*Monmouth Beach, N.J. weather station used**

## Discussion

The results revealed a relationship between the short lunar cycle and the onset of rain for a coastal location in the northeast United States. There are factors that may alter this relationship in this location and in other parts of the world. These factors include hurricanes, large coastal storms, seasonal monsoon winds, and local geographic features.

Hurricanes are large low pressure areas with winds in excess of sixty four knots in the Western Hemisphere. The name comes from “huracan,” a Taino and Carib god. West of the date line in the central North Pacific Ocean these storms are called typhoons. These storms bring heavy winds, large rainfall amounts, rough seas and flooding.<sup>9</sup> Hurricanes and typhoons occur in all tropical oceans except the South Atlantic.<sup>10</sup>

Large coastal storms in the northeastern United States are called northeasters. They are large low pressure areas with winds over the coastal areas being from the northeast. They usually develop in the lower-middle latitudes (30 degrees-40 degrees N). They usually bring rain or snow, high winds, rough seas and flooding to the affected areas. On the southeast coast of Australia a similar storm is called a black northeaster.<sup>11</sup>

A monsoon is a seasonal wind. The term is derived from the Arabic “mausim” a season.<sup>12</sup> Monsoons occur in Spain, northern Australia, parts of Africa, Texas, the west coast of the United States and Asia.<sup>13</sup> The monsoon effect is particularly noticeable in Vietnam. The Southwest Monsoon is the rainy season inland and dry along the coast. The Northeast Monsoon is the dry season inland and rainy along the coast.<sup>14</sup>

As a USAF Weather Officer stationed along the central coastal area of Vietnam, I kept a detailed weather diary. During the southwest monsoon interior Vietnam was subject to frequent afternoon thunderstorms while the coastal area remained dry. During the Northeast Monsoon coastal Vietnam would experience rain showers after the sun went down and in the morning hours while the interior of Vietnam remained dry.<sup>15</sup>

Local geographic features that may affect the onset of rainfall include mountains and large lakes. Mountains can serve to either block rainfall or increase rainfall.<sup>16</sup> Large lakes such as the Great Lakes between the United States and Canada add moisture to eastward moving weather systems generating snow storms. This is sometime referred to as Lake effect snow storms.<sup>17</sup>

## Conclusions

The data provided in one month's rainfall and tide data for a location on the east coast of the United States revealed some promising relationships between the short lunar cycle or tidal cycle and the onset of rainfall. More data and locations need to be analyzed. Those who wish to pursue this relationship need only local tide tables and a continuously recording weather station with rainfall data. In the United States most newspapers in coastal areas provide daily tide data. Tide data for coastal United States locations is also available online.<sup>18</sup> The Weather Underground web site provides access to personal weather stations which show time of rainfall onset throughout most of the United States. Researchers should be aware of the factors discussed that may alter the short lunar cycle rainfall onset relationship.

## Notes

1. Lewis, H. Spencer. *Self Mastery and Fate with the Cycles of Life*. Twenty fifth ed. San Jose: Supreme Grand Lodge of AMORC, Inc., 1970, p. 125.
2. Lewis, p. 127.
3. Lewis, p. 125.
4. Lewis, p. 126.
5. [www.wunderground.com](http://www.wunderground.com) (accessed May 24, 2006)
6. [www.app.com](http://www.app.com) (accessed May 24, 2006)
7. [www.yahoo.com](http://www.yahoo.com) (click on weather on their home page)
8. [www.ametsoc.org](http://www.ametsoc.org) (accessed May 24, 2006), members page *Glossary of Meteorology* online (available for non-member purchase as: *Glossary of Meteorology*, 2<sup>nd</sup> ed. CD Rom, American Meteorological Society, 2000.)
9. *Glossary of Meteorology* – definition.
10. Taylor, George F. *Elementary Meteorology*. New York: Prentice-Hall, 1954, p. 252.
11. *Glossary of Meteorology* – definition.
12. *Glossary of Meteorology* – definition.
13. *Glossary of Meteorology* – definition.
14. Climate of Republic of Vietnam, 1<sup>st</sup> Weather Wing Special Study 105-9 (revised). Department of the Air Force 20<sup>th</sup> Weather Squadron, 1<sup>st</sup> Weather Wing. March 1969, pp. 3-11.
15. Belshaw, Jim. "Diary of a Weatherman." *VVA Veteran*, Jan/Feb 2005, pp. 29-30.
16. Taylor, p. 99.
17. *Glossary of Meteorology* – definition.
18. [www.tidesonline.com](http://www.tidesonline.com) (accessed May 24, 2006)

Notable Quote by Ben Franklin (1706-1790): "Some people are weatherwise, some are otherwise."