

Hurricanes

By Edmund Gallizzi

As we approach hurricane season and expect to view numerous spaghetti models of the predicted hurricane paths, it is interesting to note that an early correct hurricane prediction was made by the Italian, Christopher Columbus in 1502. He noticed various weather and sea surface patterns that he had learned about on previous voyages indicated an impending hurricane. He warned the governor of Hispaniola of the storm and moved his small fleet to relative safety. The governor instead sent a large treasure fleet to Spain. Twenty-five boats sank and only one arrived.

We can explain the development of hurricanes by borrowing from Aristotle's four elements of nature—earth, fire, water and air. Hurricanes need heat (Aristotle's fire) from the sun, need rotation resulting from the Coriolis Effect caused by the earth's rotation, and need water as the medium that stores and transfers energy as latent heat. Because of the requirement for heat and rotation, hurricanes generally form in a band from 5° to 20° latitude (in both the northern and southern hemispheres). The Coriolis Effect is not strong enough closer to the equator than 5° and the water temperature is not hot enough (needs to be more than 80°F) farther than 20° from the equator. Even though the Gulf of Mexico is above 20° north latitude, because it is a mostly enclosed shallow basin, its summer time water temperature is around 90°F.

Two weather systems that have a major effect on how hurricanes impact us on Coquina Key are El Nino and the Bermuda High. Last year's inactive hurricane season was related to El Nino which is a weather pattern that increases the water temperature in the tropical Pacific Ocean resulting in high upper level winds in the mid-Atlantic Ocean. These upper level winds inhibit hurricane development by causing upper-level shearing which carries off some of the heat (energy) needed to build the storm.

The Bermuda High is a large high pressure system which is located in the mid-Atlantic during the summer. Hurricanes that develop off the west coast of Africa are driven by the easterly Trade Winds and move westward across the Atlantic Ocean. As they move through the mid-Atlantic, the clockwise rotation around the Bermuda High can steer hurricanes northward on the west side of the Bermuda High. Depending on the location of the High, the storms may swing around the High, stay in the ocean and head toward Europe. Sometimes they impact in the mid-Atlantic states or the east coast of Florida.

Hurricanes that develop in the Gulf or Caribbean, usually at the beginning or end of hurricane season, may move northward and be influenced by mid-latitude weather patterns (like cold fronts) which may steer them to the east with a possible impact on Florida, as was the case with the powerful storm Wilma (October 2005).

Last year was a wonderfully inactive season and we can hope the same for this year. Each year computer forecasts (spaghetti models) become more and more accurate allowing us to be better prepared.



The *Other* Hurricane

Recipe submitted by Edmund Galizzi

On a stroll down Bourbon Street you might notice something red and shapely. If it is a glass, it is the other infamous hurricane for which New Orleans is known. New Orleans has had its share of hurricanes, including Katrina and the cocktail developed at Pat O'Brien's Bar. Pat O's hurricane is a signature New Orleans cocktail which carries on the long New Orleans tradition of rum which initially, 300 years ago, was made from locally grown sugar cane. A Pat O's hurricane includes rum, fruit juice, simple syrup and grenadine for the sensual red color. It is served in an alluringly shaped glass which is called a hurricane glass. The glass' name probably comes from the shape of the glass chimney of a kerosene/hurricane lamp.

The traditional recipe is:

2 oz light rum

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2 oz passion fruit juice

1 oz orange juice

½ oz fresh lime juice

½ oz simple syrup

½ oz grenadine (enough for a nice red color)

Shake all ingredients with ice in a cocktail shaker, strain into a crushed ice filled hurricane glass and garnish with an orange wheel and cherry. Optionally this can include 151 rum.

A little side note on rum: Have you ever wondered why most rum seems to be made by some guy named Ron like Ron Rico, Ron Cacique, Ron Montilla, Ron Diplomatico and others? The reason is, ron is the Spanish word for rum.