

Summary of “Weather for Sailors”, June 5, 2013

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Weather Sources: Avoid popular media. Use online sources only. Faster. More info.

Forecasts: Use the NWS. Key words: national, weather Ruskin. Enter your location.

Page down to lower right. Click on “Hourly Weather Graph.”

This is a complete, 60 second weather page that is suitable for boaters.

Use the interactive map on the local page to select other places.

If you click on water, the format is for boaters. (Winds in knots, wave heights, etc.)

Explore the numerous other information on this web site.

Current Weather: Use the new Sail Flow. Enter your location.

Pull down the orange tab, select Wind Observations.

Most of these reporting stations are not reliable. Recommended stations:

Clearwater Pier, Old Port Tampa (MacDill peninsula, lower left), Egmont.

This is a good triangulation of data from excellent reporting stations.

Also good: St Pete/Clw Airport, St. Petersburg downtown/Whitted.

Worth a look: Some private stations along the beaches: Indian Rocks, Treasure Island, Boca Ciega.

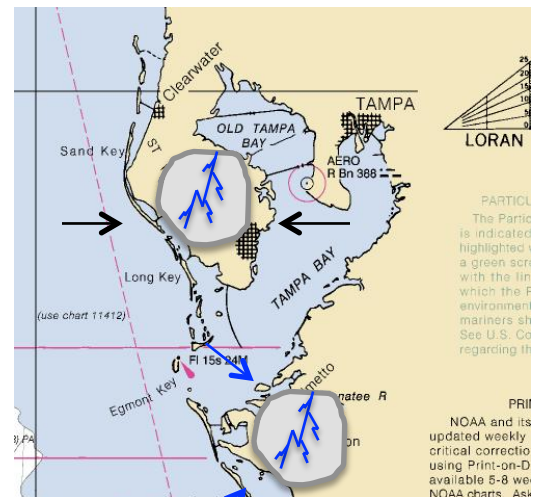
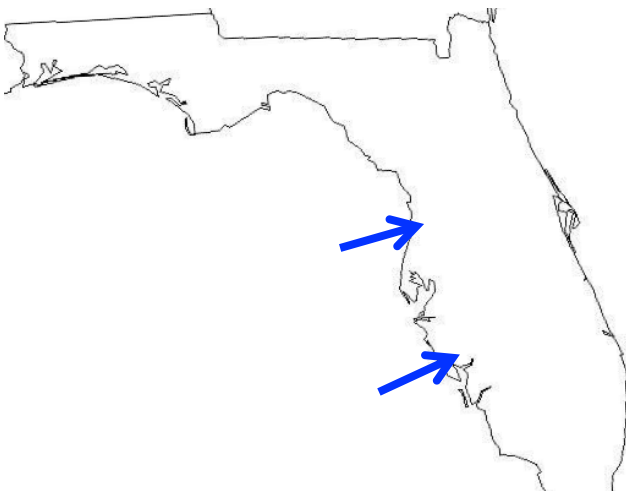
Avoid virtual stations, as they are unreliable.

Sea Breeze Wind Shifts.

The afternoon sea breeze tends to blow from the WSW, or similar direction, if strong. However, when the winds are light, more local breezes, with their own direction, are possible.

The cooler the water and the warmer the day, the greater the potential for a sea breeze.

Storms may form on merging winds.



When Sea Breeze Combines With Large Scale Winds

For Example:

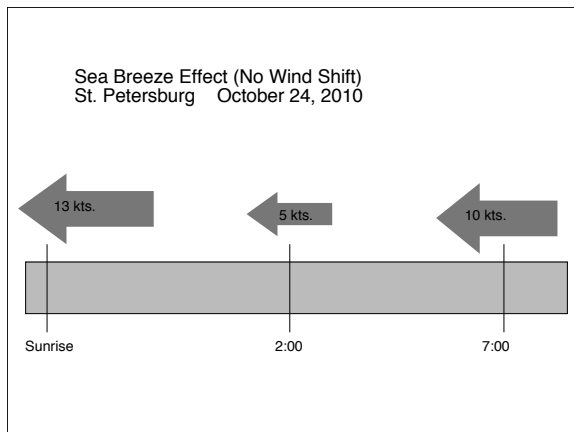


These Two Winds May Combine As...

This Wind:

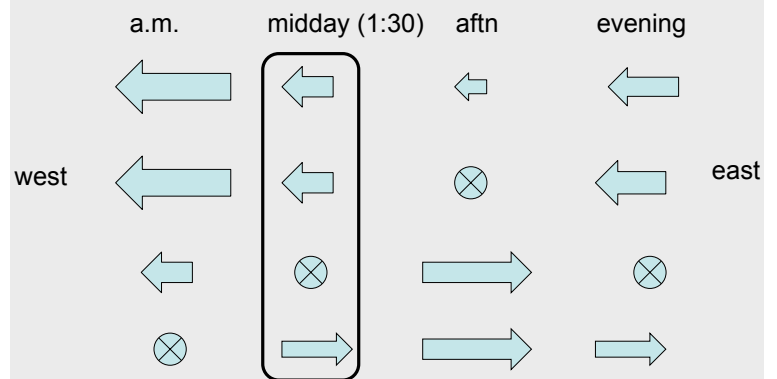


Since the resulting wind direction is not a true sea breeze, but was affected by the sea breeze, think of this as a "Sea Breeze Effect."



When the large scale wind flow is from the east:

Common Patterns for Sea Breeze Combinations with Large Scale Winds:



A classic sign: The light east wind fades in the early to mid afternoon. Like a trail guide on the water, know that this is a sign that a wind shift toward a sea breeze is likely to occur soon. Look for the “sparkles” on the water toward the west to spot the approach of this new breeze.

When the sea breeze and the large scale flow are both from the west:

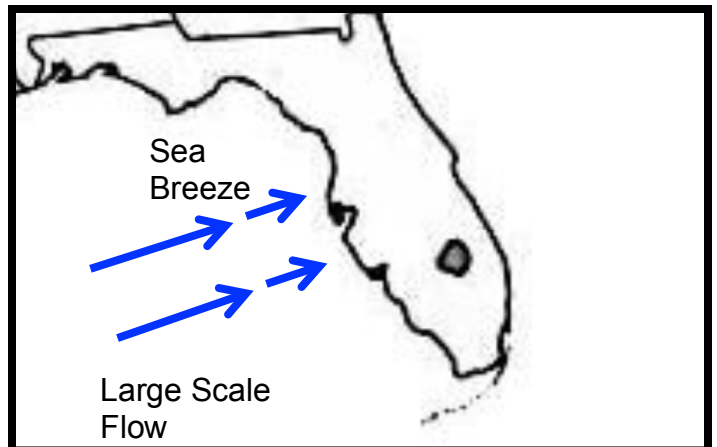
Ex. Feb. , 2004

1:00 Wind W @ 12-15 kts.

5:00 Wind W @ 22 kts.

Due to sea breeze effect.

Good sailing for some,
Unsafe for others.
Anticipate this possibility.



Slanted Wind Combinations

(Large Scale Wind from a northerly or southerly direction.)

One scenario:

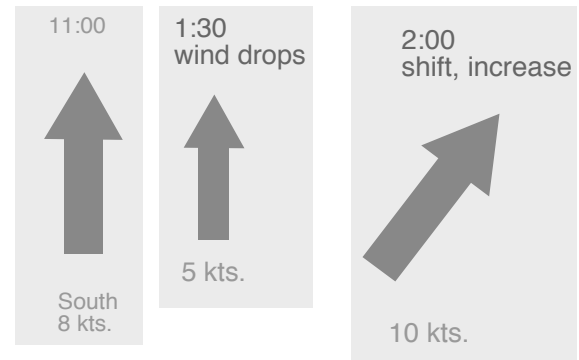
A northeast wind and our local sea breeze often combine into an afternoon northwest breeze:



When a shift in the large scale wind is caused by the sea breeze:

- The breeze often **diminishes** before the wind shift.
- This lighter wind or lull may last 5 to 30 minutes or so.
- The shift sometimes occurs in stages.

- Departure 11:00 a.m. (Boca Ciega Bay)
- Wind south at 8 kts. Sky clear
- Gulf temp 65°



This is another classic sign of a wind shift. If this drop in the wind occurs in the afternoon, the wind often will soon shift more toward the west and increase in speed.

Sea Breeze Checklist:

What is the forecast large scale wind?

What is the Gulf temperature?

What is the current and recent wind?

How sunny is it?

What time of day is it?

How might these factors lead to wind shifts during my sailing activity?

Example:

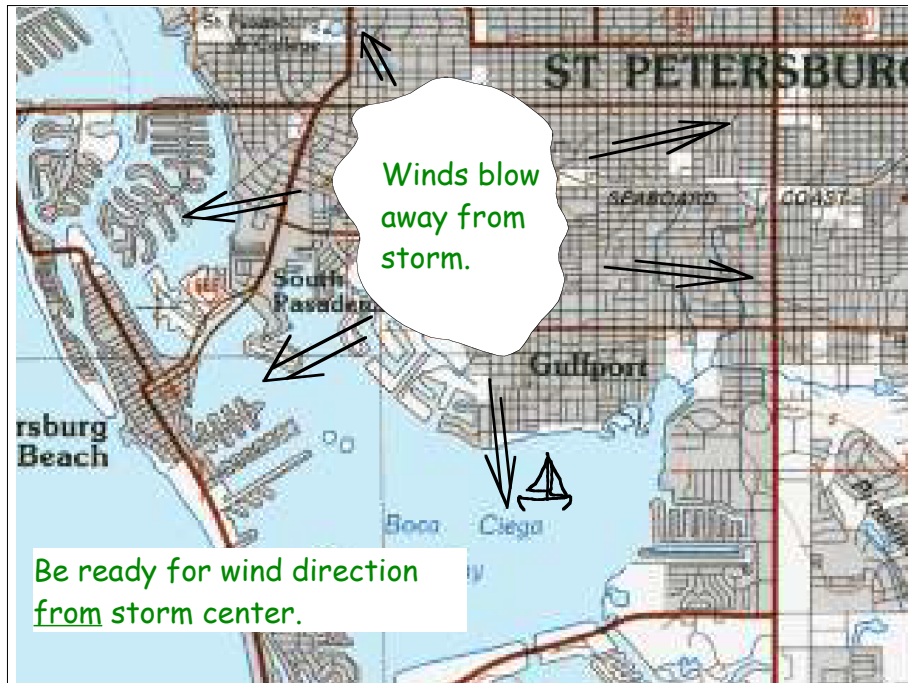
It is a sunny day and Gulf water is cool. I'm sailing along in an 8 kt. south wind at 1:00. At 1:30, the wind gets very light. What change in the weather should I look for?

Ans. A possible shift toward the west, perhaps to a southwest or westerly direction. The weather conditions indicate a strong potential for a sea breeze, which would combine with the south wind to form a new breeze, likely from the southwest or west.

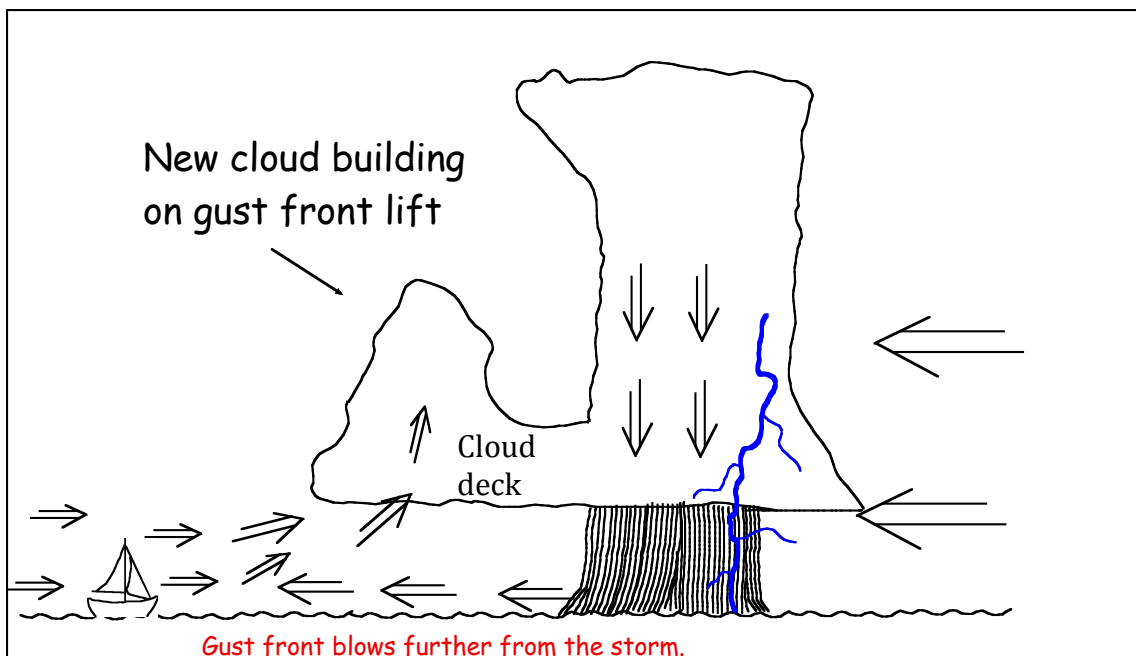
Thunderstorm Wind Shifts

Winds blow toward a developing storm. (Before rain begins to fall.)

During the rainy stage, winds blow downward toward the earth and then spread away in all directions:

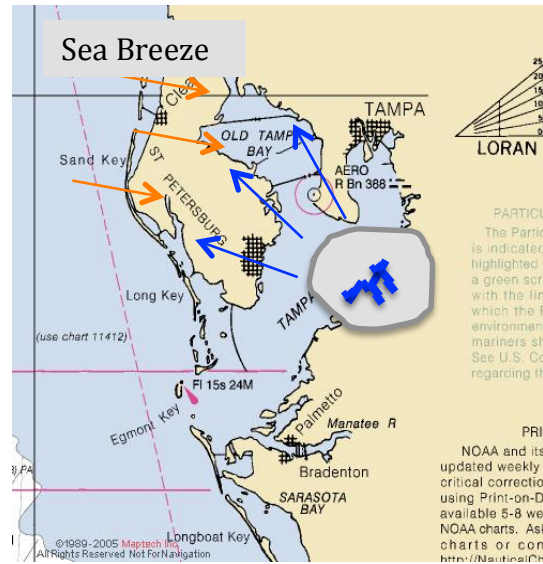
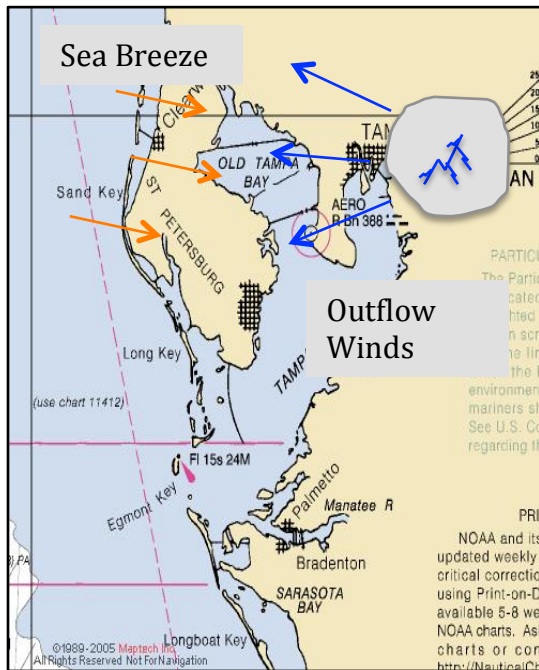


A boater may see a dark rain shaft at a distance, but the cloud deck shown below will extend ever further from the storm, sometimes many miles. These invisible winds can surprise the boater not expecting this common weather feature.



Outflow winds from summer thunderstorms may blow 10 to 15 miles away from the dark rain shaft. They may reach a boater enjoying a sunny afternoon who is ignoring the sounds of distant thunder.

These winds always radiate from the direction of the storm's center. This makes it possible to anticipate the wind shift caused by these distant storms.



Time to make a decision. This storm will affect you soon.

