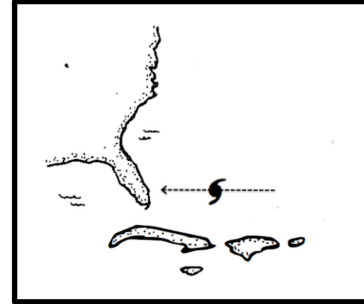


- 5) You are on the beach of Miami, Florida, facing due east, and Hurricane Esteban is moving due west toward you. The storm is expected to make landfall with a forward speed of 35 knots. (See figure to the right.) Which one of the two scenarios, a) or b), would you expect to bring faster winds at your location? Explain your answer.
- a) Esteban making landfall as a minimal Category 1 hurricane (64 knots) just to your south.
 - b) Esteban making landfall as a minimal Category 3 hurricane (96 knots) just to your north.



The categories are based on the Saffir-Simpson Hurricane Wind Scale³, which rates intensity according to the storm's maximum sustained wind speed. The region of maximum winds is located on the hurricane's forward flank (to the right of the storm) where the rotational winds point in the same direction that the center of the hurricane is moving. (See to Figs. 12.6, 12.7 and 12.11d of the H&P). It may help to sketch a diagram, similar to Fig. 12.11d, where you show your location relative to the center of the hurricane, the rotational speed of the vortex, and the forward speed of the hurricane.

³ <http://www.nhc.noaa.gov/aboutsshws.php>