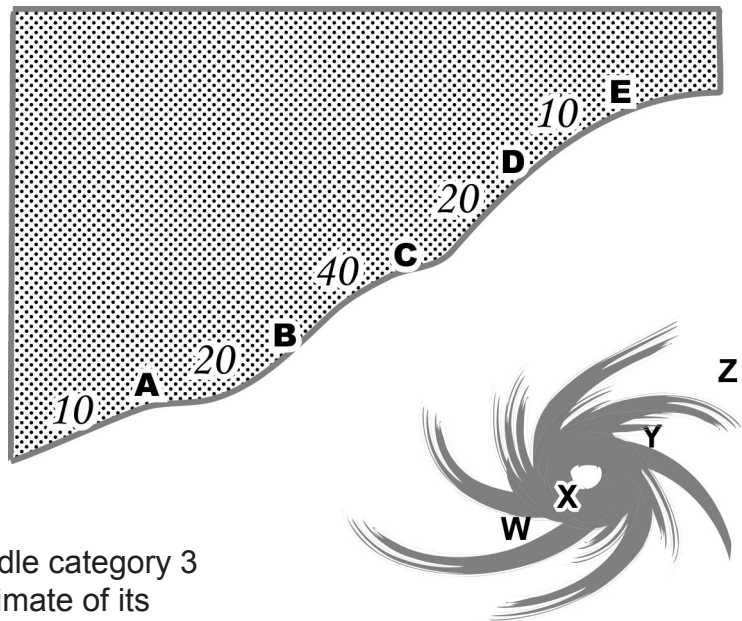


## Hurricane Influence: Landfall Probabilities and Wind Speed

This map shows a prediction of hurricane landfall. Each number near the coast shows the percentage chance that the center (eye) of the hurricane will cross onto the land in that stretch of coast.

Category	Wind mph	Surge Ft.
1	74-95	5
2	96-110	6-8
3	111-130	9-12
4	131-155	13-18
5	156+	19+

100 miles



Please answer the following questions.

1) If this hurricane is expected to be a middle category 3 when it hits land, what is a reasonable estimate of its average wind speed around the eye at that time?

- 60 mph      90 mph      120 mph      150 mph

To figure out what this means for a particular place, you have to combine the information on this map with some other information about hurricanes in general. For example:

- A) winds within a hurricane move counterclockwise around the center
- B) the fastest winds are close to the relatively calm center (eye)
- C) winds about halfway to the edge of the spiral arms are roughly half as strong as winds near the eye; winds near the edge are one fourth as strong.

2. If the hurricane is moving northwest at roughly 10 miles per hour, what actual wind speed is likely at point X next to the eye of the hurricane?

- 70 mph      90 mph      110 mph      130 mph      150 mph

3. If the hurricane is moving northwest at roughly 10 miles per hour, what actual wind speed is likely at point Y within the hurricane?

- 30 mph      50 mph      70 mph      90 mph

4. If it is noon and the hurricane continues to move at ten miles per hour, about what time will the eye of the hurricane reach the coast?

- 2 p.m.      6 p.m.      10 p.m.      2 a.m.

5. What is the chance that the hurricane will hit between points C and D?

- 10%      20%      30%      70%      80%

6. What is the chance that the hurricane will hit southwest of point B?

- 10%      20%      30%      70%      80%

7. What is the maximum wind speed that is likely at point C on the coast?

- 90 mph      110 mph      130 mph      150 mph      170 mph