

Procedure

1. Using the data table below that provides the coordinates for the hurricanes and the wind speeds, plot each point on the map corresponding to the date in September.

For example, if the coordinates are 38° N and 74° W, find the latitude line that corresponds to 38° North, find the longitude line that corresponds to 74° West, and follow the lines toward each other until they intersect. This will be the coordinate point for the location of the hurricane at the given date or time.

2. Classify the storm for each reading according to wind speed. Classify the following stages as necessary:

Tropical Depression—cyclone-type storms with wind speeds of 38 mph or less

Tropical Storm—cyclone-type storms with wind speeds of 39 mph—73 mph

Use the Saffir-Simpson Hurricane Wind Scale below for all hurricane categories:

Saffir-Simpson Hurricane Wind Scale

Category	Pressure (mb)	Wind Speed (mph)	Possible Storm Surge (ft.)	Damage
1	980 or less	74—95	4—5	Minimal
2	965—979	96—110	6—8	Moderate
3	945—964	111—130	9—12	Extensive
4	920—944	131—155	13—18	Extreme
5	Less than 920	Greater than 155	More than 18	Catastrophic

3. If necessary, name the storm. Write the name of the storm and the date that it would have been named on the blank below. **Remember:** The storm is not named until it reaches tropical storm status.

Storm _____ Date named _____

Data for Storm Event in Atlantic Ocean, September

Date	Latitude °N	Longitude °W	Wind Speed (miles/hour)	Classification

Hurricane Alert

03	8.0	35.0	35	
04	8.5	36.0	40	
05	9.3	41.4	69	
05	9.5	43.4	74	
05	9.8	45.1	98	
05	10.2	46.8	127	
06	10.6	48.5	132	
06	11.0	52.5	127	
07	11.3	57.8	109	
07	11.6	59.4	115	
08	12.0	62.6	132	
08	13.0	67.0	138	
09	13.3	68.3	150	
09	13.7	69.5	161	
09	14.2	70.8	161	
10	15.7	73.8	144	
10	16.8	75.8	138	
11	17.7	78.4	144	
11	18.0	79.0	167	

Hurricane Alert

12	18.2	79.6	167	
12	19.1	82.1	150	
13	20.4	84.1	161	
13	20.9	84.7	161	
14	21.6	85.1	161	
15	24.7	87.0	138	
15	26.6	87.4	138	
16	28.9	88.2	127	
16	30.0	87.9	121	
16	31.4	87.7	81	
16	32.5	87.4	58	
17	33.8	86.5	35	
18	37.0	80.5	23	
18	38.4	76.7	17	
18	38.0	75.5	29	
19	32.8	75.8	40	
20	31.0	77.5	40	
20	26.4	79.1	29	
21	25.8	81.7	29	

22	25.1	86.1	29	
22	26.5	88.6	35	
23	27.1	89.5	40	
23	29.2	92.7	46	
24	30.1	94.2	29	
24	9.7	27.6	inland	

Checking For Understanding

1. Was it necessary to name the storm? On what date did you name the storm?

2. Why did you name the storm on that particular date?

3. Estimate how long it took for the storm to strengthen from a tropical depression to hurricane strength. Name the dates involved with your estimate.

4. Estimate how long it took for the storm to strengthen from a Category 1 on Sept. 5 to a Category 5.

What do you think this means for the people that might be affected by hurricanes?

5. Many people think that after a hurricane's strength starts to decrease, the hurricane is "dying out". What does the data about this hurricane tell you about that idea? Explain.

6. Many people think that after a hurricane passes them, the danger is over. What does the data about this hurricane tell you about that idea. Explain.

7. Which cities or towns do you think should receive advisories, storm watches, or storm warnings on September 15? (See the Vocabulary section for definitions of tropical storm watch and tropical storm warning).

8. Which cities or towns do you think should receive advisories, storm watches, or storm warnings on September 22, a week later?

9. Why would the storm still be a threat to these areas on Sept. 22 even though it lessened to tropical depression status?