Graphing Tropical Storm Gabrielle Data Activity

Instructions: Using the data below, graph the results for wind speed, barometric pressure, and rainfall coinciding with the approach & landfall of Tropical Storm Gabrielle. Put each factor's data in a different color on the same graph. When your graph is complete, answer questions at the end of the activity.

Wind Speed in km/hr (Graph using left vertical axis. Connect each point with straight lines.)

13 September	12:00am	12 km/hr	14 September	12:00am	18 km/hr
	3:00am	25 km/hr		3:00am	15 km/hr
	6:00am	10 km/hr		6:00am	64 km/hr
	9:00am	14 km/hr		9:00am	80 km/hr
	12:00pm	15 km/hr		12:00pm	18 km/hr
	3:00pm	13 km/hr		3:00pm	35 km/hr
	6:00pm	15 km/hr		6:00pm	42 km/hr
	9:00pm	16 km/hr		9:00pm	24 km/hr

15 September	12:00am	16 km/hr
	3:00am	12 km/hr
	6:00am	40 km/hr
	9:00am	30 km/hr
	12:00pm	24 km/hr
	3:00pm	22 km/hr
	6:00pm	14 km/hr
	9:00pm	10 km/hr

Barometric Pressure in millibars (mb) (Graph using inside right vertical axis. Connect points with a straight curve.)

13 September	12:00am	1012 mb	14 September	12:00am	1007 mb
	3:00am	1011 mb		3:00am	1000 mb
	6:00am	1012 mb		6:00am	995 mb
	9:00am	1010 mb		9:00am	997 mb
	12:00pm	1010 mb		12:00pm	1001 mb
	3:00pm	1010 mb		3:00pm	1003 mb
	6:00pm	1009 mb		6:00pm	1004 mb
	9:00pm	1008 mb		9:00pm	1005 mb

15 September	12:00am	1006 mb
	3:00am	1007 mb
	6:00am	1008 mb
	9:00am	1008 mb
	12:00pm	1009 mb
	3:00pm	1009 mb
	6:00pm	1010 mb
	9:00pm	1011 mb

Rainfall in cm: (Make a bar graph to show the rainfall amounts. Measure and mark one of the vertical axes in centimeters. Plot the following data, **USING A HIGHLIGHTER**, by coloring up to the amount of received rainfall, for each time period measured. Trace amounts are so small that they should be plotted just above zero.)

13 September	12:00am	0 cm	14 September	12:00am	trace
	3:00am	0 cm		3:00am	.25 cm
	6:00am	0 cm		6:00am	.25 cm
	9:00am	0 cm		9:00am	3 cm
	12:00pm	trace		12:00pm	4 cm
	3:00pm	trace		3:00pm	5 cm
	6:00pm	.25 cm		6:00pm	3 cm
	9:00pm	0 cm		9:00pm	.5 cm

15 September	12:00am	0 cm
	3:00am	0 cm
	6:00am	0 cm
	9:00am	.25 cm
	12:00pm	0 cm
	3:00pm	trace
	6:00pm	0 cm
	9:00pm	0 cm

Analysis questions relating to the completed graph.

1. During what time and on which day was wind speed the highest?

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2. During what time and on which day was barometric pressure the lowest?

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3. Looking at your graph, what correlation do you see between the two sets of data above?

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4. When was rainfall the highest?

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5. During what time period do you think most sharks left the protection of the estuary? INDICATE this on the prepared graph in yet another color, with diagonal lines running from top to bottom of the graph in a column.

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Graph of Weather Conditions from 13 - 15 September 2001, in Terra Ceia Bay, Florida