

Hurricane Tracking Lab

Purpose: To plot the paths of **three (3)** hurricanes; note how hurricanes change direction; make note of changes in strength and try to infer a “cause and effect”; examine North Carolina’s vulnerability to hurricanes.

Materials: Crayons or coloring pencils

Procedures:

1. **PLOT** the storm positions on the Atlantic map provided using the coordinates below. **Plot AND connect** each hurricane’s coordinates **individually** with a regular pencil, using the correct symbol for each hurricane’s points. **You may round to the nearest whole number.**

Hurricane BERTHA (July 15-17, 1996)				Hurricane FLOYD (September 7-19, 1999)			
Date	Lat.	Long.	Strength	Date	Lat.	Long.	Strength
7/5	10 N	34 W	Tr. Dep.	9/7	14.6 N	45.6 W	Tr. Dep.
7/5	11	39	Tr. Storm	9/8	15.3	48.2	Tr. Storm
7/6	13	47	Tr. Storm	9/9	17.1	53.9	Tr. Storm
7/7	15.5	54.8	Tr. Storm	9/10	19.3	58.8	Category 1
7/7	16.5	58.4	Category 1	9/11	21	61	Category 2
7/8	18	63	Category 1	9/12	22.7	64	Category 3
7/9	21.4	69.4	Category 3	9/13	23.2	67.4	Category 4
7/10	24	72	Category 2	9/14	24.5	74	Category 4
7/11	28.3	76.8	Category 1	9/15	27.1	77.7	Category 4
7/12	30.7	78.3	Category 2	9/16	32.1	78.7	Category 2
7/13	35	77.6	Category 1	9/17	40.6	73.5	Tr. Storm
7/13	36.7	77	Tr. Storm	9/18	44.8	67.3	Extr. Storm
7/14	42	71.9	Tr. Storm	9/19	49.5	48	Extr. Storm
7/14	46	66	Extr. Storm				
7/15	51	47	Extr. Storm				
Hurricane FRAN (August 23, 1996-September 10, 1996)							
Date	Lat.	Long.	Strength	Date	Lat.	Long.	Strength
8/23	14	21	Tr. Dep.	9/1	21.7	62.1	Category 1
8/24	14	29	Tr. Dep.	9/2	23.9	67.9	Category 1
8/25	14.5	35	Tr. Dep.	9/3	24.7	71.2	Category 1
8/26	15	41.5	Tr. Dep.	9/3	25.2	72.2	Category 2
8/27	14.6	45	Tr. Storm	9/4	26.4	73.9	Category 3
8/28	15	49	Tr. Storm	9/5	31	77.2	Category 3
8/29	16.4	53.7	Category 1	9/6	35.2	78.7	Category 1
8/30	19.4	59.4	Category 1	9/6	36.7	79	Tr. Storm
8/30	20	60.6	Tr. Storm	9/6	38	79.4	Tr. Dep.
8/31	21	61.4	Category 1	9/7	39.2	79.9	Tr. Dep.
Continue the path with the coordinates to the right →				9/8	44	79	Tr. Dep.
				9/9	44.9	75.9	Extr. Dep.
				9/10	46.7	70	Extr. Dep.

2. A change in strength marks the beginning of that particular phase. Connect the points for each individual storm with crayons/coloring pencils, using the following colors below to indicate strength. **Be sure to change colors when the storm changes strength!!!**

Strength	Color
Extratropical Depression	Gray
Tropical Depression	Blue
Tropical Storm	Green
Category 1	Yellow
Category 2	Orange
Category 3-5	Red

3. Write the **name** of each hurricane at the **beginning** of its path.

Questions and Analysis:

1. At about what **latitude** do these storm systems begin? What might be the **reason** for this?
2. Compare coordinates for these systems. **When** does a system become ***extratropical*** (when the system moves above the tropical latitudes)?
3. **Describe** the general ***path*** of any hurricane from beginning to end.
4. North Carolina is very vulnerable to hurricanes. **Describe** what it is about our coast that makes us more of a target than Georgia or Florida. Refer to your map and answer to #3 above.
5. **Explain** how strength changes when a hurricane makes landfall. **Why** do you think that happens (consider the location and atmospheric conditions of hurricane formation)?

