

Name _____

Date _____

Title: Latitude and Longitude of a Hurricane Storm Track

Purpose:

- Students are to graph the latitude and longitude of a hurricane to produce a storm tracks to help in forecasting the movement of the storm.
- Reinforce reading and plotting of latitude and longitudinal coordinates

Materials: pencil, map (should be on back page of this lab packet)

Procedure:

- 1) From the hurricane data sheet from the position column read and plot the latitude and longitude of the storm track by placing a dot at that coordinate on the map for each date listed. You do not have to label the dot on the map with the coordinates.
- 2) Connect the dots to show the storm track.
- 3) Label in with a red capital "V" at the position with the highest wind velocity.
- 4) Label in with a blue capital "P" where the air pressure was measured the lowest.
- 5) Label with a capital "L" where the hurricane made landfall (there may be several).
Land fall is when the hurricane first comes off the ocean and hits the landmass.
- 6) Answer the discussion questions

Discussion Questions: Answer in complete sentences.

1. In which Earth's spheres did this hurricane form? (circle one)
a. Lithosphere b. Atmosphere c. Thermosphere d. Hydrosphere
2. In which latitudinal hemisphere are all the Latitude coordinates? _____
3. In which longitudinal hemisphere are all the Longitude coordinates? _____
4. a. In which general compass direction is the hurricane moving toward the end of the storm track that you plotted? _____
b. Why do you think the hurricane is moving in this direction?

5. What coordinates and what state will the hurricane first make landfall?
Lat. _____
Long. _____
State _____
6. What is latitude coordinates based on?

Tropical Depression Katrina System Track (2005):

Advisory #	Advisory Date (UTC)	Name (UTC)	Position		Direction	Speed (kts)	Pressure (mb)	Winds (kts)
			Lat	Lon				
1	2100 TUE AUG 23	Tropical Depression Twelve	23.2N	75.5W	NW	7	1007	30
2	0300 WED AUG 24	Tropical Depression Twelve	23.4N	76W	NW	6	1007	30
3	0900 WED AUG 24	Tropical Depression Twelve	24N	76.4W	NW	6	1006	30
4	1500 WED AUG 24	Tropical Storm Katrina	24.7N	76.7W	NNW	7	1006	35
5	2100 WED AUG 24	Tropical Storm Katrina	25.6N	77.2W	NW	8	1002	40
6	0300 THU AUG 25	Tropical Storm Katrina	26N	78W	W	7	1001	45
7	0900 THU AUG 25	Tropical Storm Katrina	26.2N	78.7W	W	7	1000	45
8	1500 THU AUG 25	Tropical Storm Katrina	26.2N	79.3W	W	5	997	50
9	2100 THU AUG 25	Category 1 Hurricane Katrina	26.1N	79.9W	W	5	985	65
10	0300 FRI AUG 26	Category 1 Hurricane Katrina	25.5N	80.7W	SW	7	984	65
11	0900 FRI AUG 26	Category 1 Hurricane Katrina	25.3N	81.5W	W	4	987	65
12	1500 FRI AUG 26	Category 1 Hurricane Katrina	25.1N	82.2W	W	6	981	70
13	1530 FRI AUG 26	Category 2 Hurricane Katrina	25.1N	82.2W	W	6	971	85
14	2100 FRI AUG 26	Category 2 Hurricane Katrina	24.8N	82.9W	WSW	7	965	85
15	0300 SAT AUG 27	Category 2 Hurricane Katrina	24.6N	83.6W	WSW	7	965	90
16	0900 SAT AUG 27	Category 3 Hurricane Katrina	24.4N	84.4W	W	6	945	100
17	1500 SAT AUG 27	Category 3 Hurricane Katrina	24.5N	85W	W	6	940	100
18	2100 SAT AUG 27	Category 3 Hurricane Katrina	24.6N	85.6W	W	6	945	100
19	0300 SUN AUG 28	Category 3 Hurricane Katrina	25N	86.2W	WNW	6	939	100
20	0600 SUN AUG 28	Category 4 Hurricane Katrina	25.1N	86.8W	WNW	7	935	125
21	0900 SUN AUG 28	Category 4 Hurricane Katrina	25.4N	87.4W	WNW	9	935	125
22	1200 SUN AUG 28	Category 5 Hurricane Katrina	25.7N	87.7W	WNW	10	908	140
23	1500 SUN AUG 28	Category 5 Hurricane Katrina	26N	88.1W	WNW	10	907	150
24	2100 SUN AUG 28	Category 5 Hurricane Katrina	26.9N	89W	NW	11	902	145
25	0300 MON AUG 29	Category 5 Hurricane Katrina	27.6N	89.4W	NNW	9	904	140
26	0900 MON AUG 29	Category 4 Hurricane Katrina	28.8N	89.6W	N	13	915	130
27	1500 MON AUG 29	Category 3 Hurricane Katrina	30.2N	89.6W	N	14	927	110
28	2100 MON AUG 29	Category 1 Hurricane Katrina	31.9N	89.6W	N	16	960	65
29	0300 TUE AUG 30	Tropical Storm Katrina	33.5N	88.5W	NNE	19	973	50
30	0900 TUE AUG 30	Tropical Storm Katrina	34.7N	88.4W	NNE	16	981	45
31	1500 TUE AUG 30	Tropical Depression Katrina	36.3N	87.1W	NNE	18	985	30

HURRICANE TRACKING CHART

REMEMBER. hurricanes are large powerful storms that can suddenly change direction. Check frequently on the storm's progress until all Watches and Warnings for your area from the National Weather Service are canceled.

HURRICANE WATCH: hurricane may threaten within 36 hours

- Be prepared to take action if a warning is issued by the National Weather Service.

- Keep informed of the storm's progress

HURRICANE WARNING: hurricane expected to strike within 24 hours

- Leave beachfront and low-lying areas
- Leave mobile homes for more substantial shelter
- Stay in your home if it is sturdy, on high ground, and not near the beach, but if you are asked to leave by authorities, Go!
- Stay tuned to radio, NOAA Weather Radio, or television for hurricane advisories and safety information.



NOAA/PA 77020

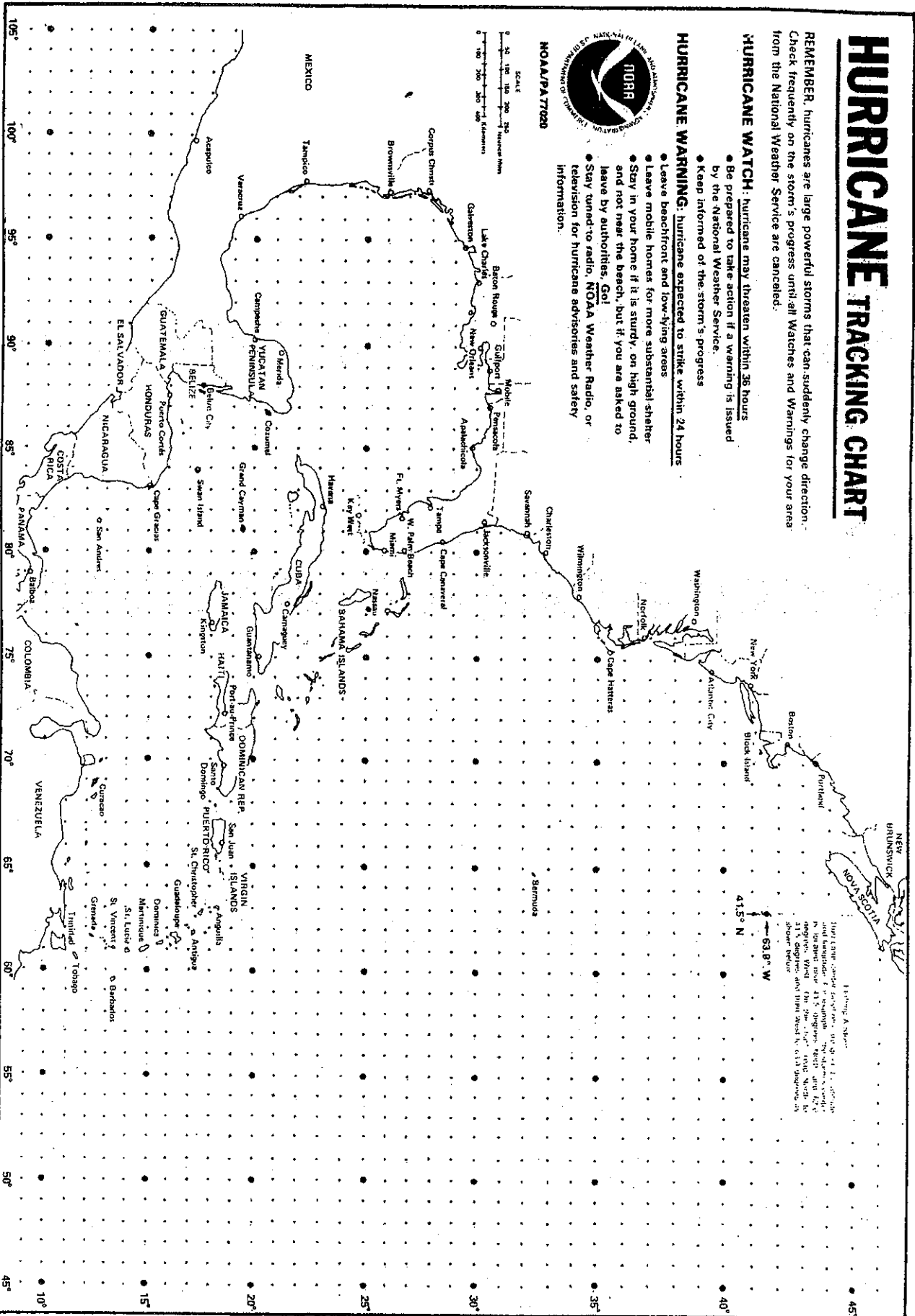
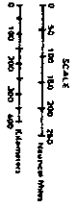


Figure 4 Hurricane Tracking Data

