Oceanography 101 Name(s):

**Hurricanes and Global Climate Change – Part 1**

**Part 1 Hurricanes:** Examine the website below (you can follow link the on the class website) to answer the following questions <http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/home.rxml>

[**Definition and Growth**](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/grow/home.rxml)--What is the definition of a hurricane?

* What conditions are needed for a hurricane to form?

[**Stages of Development**](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/stages/home.rxml)- What are first 2 stages of hurricane development and how fast (in miles/hour) are the winds at each stage?

Name Wind Speed

Stage 1:

Stage 2:

* How long is the typical hurricanes “life cycle?”

[**Movement**](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/mvmt.rxml)

* Show the direction of the following wind belts for **both hemispheres** on the diagram below (be sure to **label** the diagram: Polar Easterlies, Prevailing Westerlies, and the Tropical Easterlies(= Trade Winds).

90°N

60°N

30°N

60°N

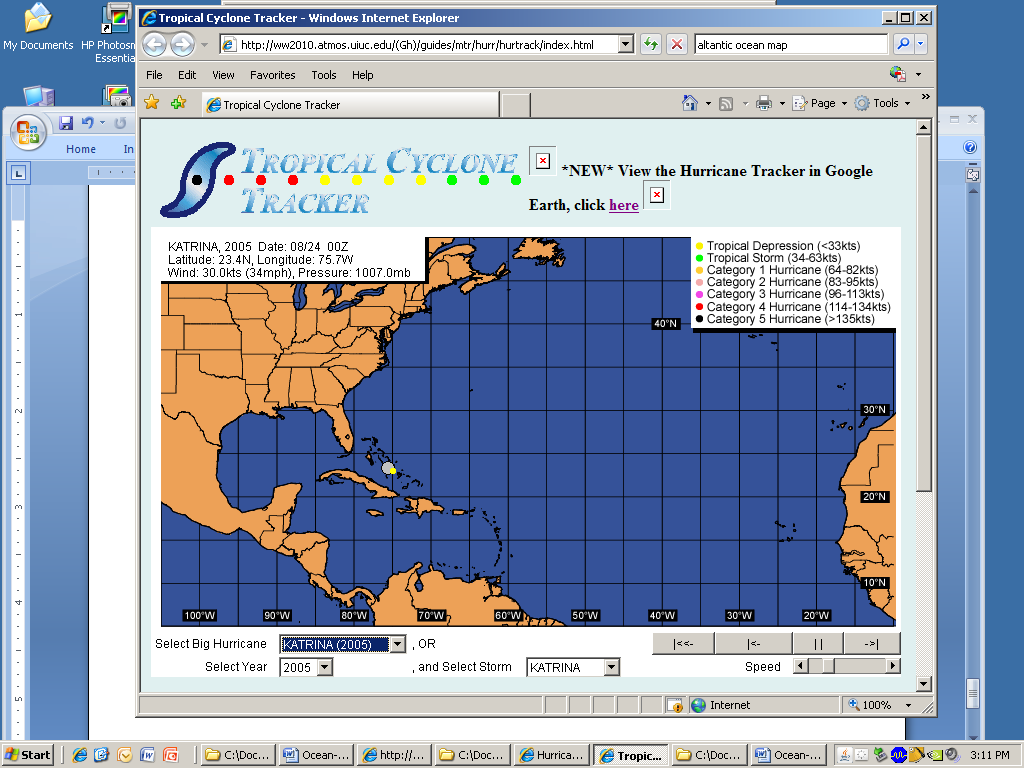
0°

30°S

90°S

* In what direction will a storm initially move if it originates in the tropical (0°N to 30°N) Atlantic?
* How will the motion of the storm change after it moves north of to 30°N

Click on the link to “[**Hurricane Tracks**](http://ww2010.atmos.uiuc.edu/guides/mtr/hurr/hurtrack/index.html)” or “[Interact with Atlantic hurricanes from 1950-2007!!](http://ww2010.atmos.uiuc.edu/guides/mtr/hurr/hurtrack/index.html)”

* How many **hurricanes** were there in the Atlantic Ocean in 2007 ?
* Which hurricanes passed over the USA?
* 2005 was a record year for Hurricanes. How many **hurricanes** were there 2005 ?
* The biggest storms in 2005 were **Katrina, Rita**, and **Wilma**. Show the approximate path of each storm on the map below. (Use a different color for each storm and LABEL each storm path)
* Fill in the table below describing the strength of each storm:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Storm | Date | Maximum Strength | Strength at 1st landfall | Strength at2nd landfall  (if applicable) |
| Katrina |  |  |  |  |
| Rita |  |  |  |  |
| Wilma |  |  |  |  |

[**Damage and Destruction**](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/damg/home.rxml): What types of damage do hurricanes cause?

[**Global Activity**](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/hurr/glob.rxml): tropical cyclones are reported annually, but only % of these storms are located in the Atlantic Ocean.