

# Hazard Analysis Toolbox



## **HAZUS-MH**

<http://www.fema.gov/plan/prevent/hazus/index.shtm>

HAZUS is FEMA's risk assessment program for hurricanes (wind), flood, and earthquakes. As of February 19, 2009 HAZUS historical hurricane data includes the 2004 and 2005 storms while commercial data and building valuations were updated in 2006. Unfortunately, the census data is from 2000. HAZUS requires ArcGIS 9.2 and an intermediate knowledge of geographic information systems to run.

## **MEMPHIS**

<http://lmsmaps.kinanco.com/>

MEMPHIS (Mapping for Emergency Management, Parallel Hazard Information Systems) was created by Kinetic Analysis Corporation and the University of Central Florida's Department of Statistics for the Florida Division of Community Affairs. Although the program has some shortfalls it is a good resource for risk assessments and vulnerability analyses. MEMPHIS is a web-based program and very user friendly. More information can be obtained by contacting Laura Herbert at [laura.herbert@em.myflorida.com](mailto:laura.herbert@em.myflorida.com) or 850-922-5580.

## **United States Landfalling Hurricane Probability**

<http://www.e-transit.org/hurricane/map.asp>

This easy to manipulate website is interesting because it allows one to find the probability that a hurricane will strike a specific county or state for the current year. Unfortunately it only includes coastal counties or counties that are immediately adjacent to the coastline.

## **FEMA Map Service Center- Flood Maps**

<http://www.msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>

The FEMA Map Service Center allows users to make flood maps as well as see historical flood maps and find Letters of Map Change (LOMC).

## **Florida Division of Forestry – Wildland Fire Risk Assessment System**

<http://flame.fl-dof.com/cgi-bin/mapsvr?map=maps/webfras.map>

The Florida Division of Forestry (DOF) website provides risk maps for wildfire. The web-based risk system produces maps for Level of Concern (LOC), Fuels, Wildland Fire Susceptibility Index (WFSI), and the likelihood of the number of fires per 1000 acres per year (FOA). Unfortunately, the website does not offer a vulnerability output in terms of dollars lost and the data was last updated in 2005. Data layers are in the process of being updated and for the release of DOF's new web-based mapping risk assessment program, due out in late 2009 or early 2010.

### **Wildland Urban Interface Mapper**

<http://wui.forest.wisc.edu/website/wui/viewer.htm>

Map shows the different type of land cover for the counties. The information is either from 1990 or 2000.

### **Department of Transportation- Maps and Publications**

<http://www.dot.state.fl.us/mapsandpublications/>

(see bottom left hand side to select map to view)

Airport, seaport, rest area, service plaza, welcome center, weigh station, rail, and seaport maps.

### **Natural Hazards Statistics**

<http://www.nws.noaa.gov/om/hazstats.shtml>

This site contains statistical information on fatalities, injuries and damages caused by weather related hazards since 1940.

### **National Climatic Data Center-NCDC**

<http://www5.ncdc.noaa.gov/pubs/publications.html>

This website acts as a clearinghouse for climate information. Unfortunately, there is a small fee to obtain the data.

### **National Hurricane Center- Archive of Hurricane Seasons**

<http://www.nhc.noaa.gov/pastall.shtml>

The NHC is perhaps the best and most reliable source for historical hurricane and tropical storm data.

### **Tornado History Project**

<http://www.tornadohistoryproject.com/>

The tornado history project allows users to search historic tornado information as well as make maps of past tornado locations and paths. The website is updated when the Storm Prediction Center's data becomes available. Website is generally updated yearly. Last update was July 2008 which completed the 2007 tornado data.

### **National Atlas Online Map Maker**

<http://nationalatlas.gov/natlas/Natlasstart.asp>

This website offers a vast array of easy mapping options. Map layers range from the basic roads and towns to toxic release inventories and seismic hazards. The website is easy to use and loaded with information.

### **Keetch Byram Drought Index (KBDI)**

[http://flame.fl-dof.com/fire\\_weather/KBDI/index.html](http://flame.fl-dof.com/fire_weather/KBDI/index.html)

KBDI provides one more source for drought maps. This website has been put together by the Florida Division of Forestry and it is updated frequently.

### **U.S. Drought Monitor**

<http://drought.unl.edu/dm/monitor.html>

The U.S. Drought Monitor is sponsored by NOAA and the USDA. It is updated less frequently than DOF's drought monitoring website but it still contains very useful information.

### **U.S. Environmental Protection Agency (EPA) – Natural Disasters & Weather Emergencies – Extreme Heat**

<http://www.epa.gov/naturalevents/extremeheat.html>

The EPA website offers good information on how to prepare for extreme heat, and it even offers some good examples of how communities are attempting to mitigate against extreme heat and energy consumption by installing green roofs. On the left side of this website there are other links to EPA websites which are also filled with valuable information on wildfires, drought, flooding, hurricanes, and tornadoes.

### **National Seismic Hazard Maps**

<http://gldims.cr.usgs.gov/nshmp2008/viewer.htm>

This USGS website has a map of seismic probabilities with the option to export some of the data in GIS format.

### **USGS- Florida Earthquake Information**

<http://earthquake.usgs.gov/regional/states/index.php?regionID=9>

One can come to this website and get information about the history of earthquakes in Florida as well as view maps.

### **Florida Geological Survey- Sinkholes**

<http://www.dep.state.fl.us/geology/geologictopics/sinkhole.htm>

This website contains lots of information about sinkholes including a sinkhole inventory. The website also contains a large map explaining the types of sinkholes that are likely to form across the State. Unfortunately, the inventory is not a complete list of Florida's sinkholes but it is one of the best sinkhole resources available. The Department of Environmental Protection attempts to update the website yearly.

### **Florida Wind Borne Debris Region**

[http://www.dca.state.fl.us/FBC/maps/1\\_maps.htm](http://www.dca.state.fl.us/FBC/maps/1_maps.htm)

The map illustrates Florida's most recent wind borne debris areas.

### **U.S. States and Territories National Tsunami Hazard Assessment: Historical Record and Sources for Waves**

[http://nthmp.tsunami.gov/documents/Tsunami\\_Assessment\\_Final.pdf](http://nthmp.tsunami.gov/documents/Tsunami_Assessment_Final.pdf)

Although tsunamis are not prevalent in Florida, the article at this website is an excellent resource for tsunami information.

### Coastal Risk Atlas

<http://www.ncddc.noaa.gov/cra>

Learn about DVAT- Demographic Vulnerability Assessment Tool and the MHVAT- Multi-Hazard Vulnerability Assessment Tool as well as obtain other coastal risk information.

### Coastal Risk Atlas Mapper

[http://www.ncddc.noaa.gov/website/CRA\\_Florida/viewer.htm](http://www.ncddc.noaa.gov/website/CRA_Florida/viewer.htm)

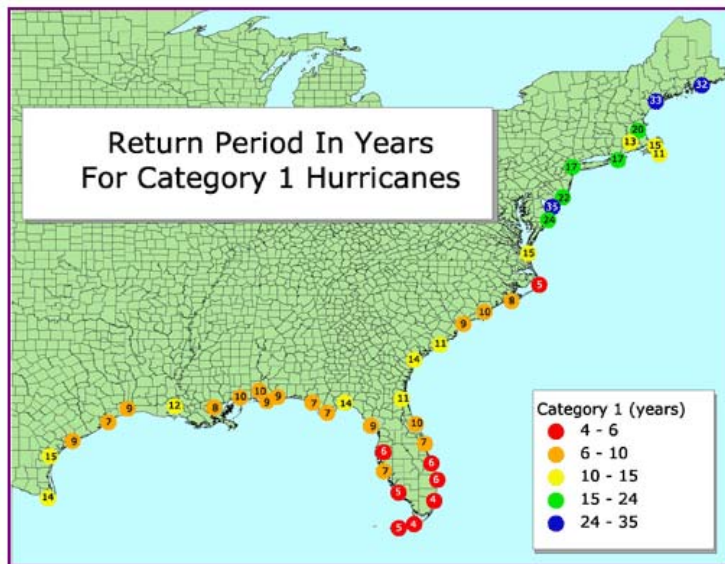
An interactive web mapping website

### Tropical Cyclone Climatology & Return Periods

<http://www.nhc.noaa.gov/pastprofile.shtml>

On this website you can get the return period for category 1-5 hurricanes direct link is

<http://www.nhc.noaa.gov/HAW2/english/basics/return.shtml>.



To provide feedback or get other websites added please email

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