

This document is the 2009-2014 Randolph County Multi-Jurisdictional Hazard Mitigation Plan. The local mitigation plan is the representation of the jurisdictions commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the efforts of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance to prioritize project funding.

For disasters declared after November 1, 2004, a local government must have a mitigation plan approved in accordance with 44CFR Part 201.6 (Disaster Mitigation Act of 2000) in order to receive Hazard Mitigation Project Grants.

To fulfill part 201.6 (4) (iii) of the Disaster Mitigation Act of 2000, (continuing citizen participation requirement) this document is made available to the public for review and comment. This document must be updated every 5 years.

Comments on this document may be made in writing and submitted to:

Randolph County Emergency Management Agency
ATTN: EMA Director
P. O. Box 228
Wedowee, AL 36278

CHAPTER 1

INTRODUCTION

The Randolph County Hazard Mitigation Plan was created to protect the health, safety and economic interests of residents by reducing the impacts of natural hazards through hazard mitigation planning, awareness and implementation. Hazard mitigation is any action taken to permanently eliminate or reduce the long-term risk to human life and property from natural and technological hazards. It is an essential element of emergency management along with preparedness, response and recovery. This plan serves as the foundation for hazard mitigation activities within the county. Implementation of the plan's recommendations will reduce injuries, loss of life, and destruction of property due to natural and technological hazards. The plan provides a path toward continuous, proactive reduction of vulnerability to the most frequent hazards that result in repetitive and often severe social, economic and physical damage. The ideal end-state is total integration of hazard mitigation activities, programs, capabilities and actions into normal, day-to-day governmental functions and management practices. How successful this mitigation effort may be depends upon the dedication and interest displayed by governments, volunteer groups and political entities responsible for its implementation.

Staff of the East Alabama Regional Planning and Development Commission (EARPDC) prepared this document with assistance from many local, state and federal agencies, including: the Randolph County Emergency Management Agency, Jacksonville State University, the State of Alabama Emergency Management Agency, the National Oceanic and Atmospheric Administration (NOAA), the Federal Emergency Management Agency (FEMA), the United States Army Corps of Engineers (COE), and the United States Geological Survey(USGS).

This plan was developed under the authority of the Disaster Mitigation Act of 2000 (DMA 2000), Interim Final Rule 44 CFR Parts 201 and 206. The rule was published February 26, 2002. The interim final rule provides the criteria for development and approval of State as well as local plans required by the legislation.

WHY MITIGATE?

Natural hazards exist with or without the presence of humans and the development we produce. *Natural disasters* occur only when the developed environment happens to be in the way of a natural event and human lives are affected. Mitigation is an ongoing process that attempts to lessen the impact of natural disasters by identifying and planning for the occurrence of natural hazards.

Natural disasters are cyclical. The interval between them may vary, but not their ultimate inevitability. Communities must incorporate the expectation of future disasters into their planning and environmental consciousness. While the disasters are recurrent, the pattern of recovering and rebuilding in the same place and manner that caused the developed areas to be vulnerable in the first place need not be. Effective mitigation breaks this cycle.

The benefits of implementing hazard mitigation are plenty. The following list illustrates some of the more obvious:

- Saving lives and reducing injuries;
- Preventing or reducing property damage;
- Minimizing agricultural losses;
- Reducing economic losses;
- Protecting infrastructure from damage;
- Maintaining critical facilities in working order;
- Minimizing social dislocation and stress;
- Protecting mental health;
- Limiting legal liability of public officials;
- Fostering cooperation between community public and private entities; and,
- Providing a positive template for post-disaster government action.

HAZARD MITIGATION MEASURES

The bedrock of all mitigation activities is a need to focus on planning for future uncertain but plausible natural events. Randolph County and the incorporated areas it contains may choose from a suite of measures to lessen the potential impact of its natural hazards. Local communities usually have the responsibility of choosing which measure is best for their circumstances. Representatives of interested groups within the community that either could be impacted by a potential disaster or would be required by law to play a role should a disaster occur agree in principal to undertake steps to lessen the shock of a prospective disaster.

The physical damage from a natural disaster is typically structural, but the methods used to decrease the chances of such damage in the future need not be. A person can group

mitigation measures into two large categories, non-structural and structural. A community selects mitigation measures from within these broad categories depending upon its legal, political, institutional, fiscal and technical capabilities both before and after a disaster. Communities make plans in the relative calm of normal community life; however, disasters have a tendency to introduce the unforeseen. That is why mitigation is an ongoing process. It takes place in relative calm while incorporating the lessons of previous catastrophes.

NON-STRUCTURAL MITIGATION ACTIVITIES

Non-structural choices are those that do not rely primarily on the construction of some type of structure to provide for mitigation in the face of a predictable future disaster. For instance, the development and use of vulnerable land such as floodplains or potentially unstable slopes might be limited through planning, land acquisition, regulation or a combination of all three. Building, zoning, planning and / or code enforcement officials usually administer these activities.

Non-structural choices are often the least costly option for local governments. Another attraction of these choices is that they can help the local government accomplish its goal of protecting the public health and welfare despite not having the power to dictate activities to local private property owners. Most owners welcome the opportunity to reduce their risk once they become aware that they have exposure. Incentives can be all owners need to act.

The following is a partial listing of useful non-structural mitigation methods:

- Comprehensive planning allowing for growth while protecting the community;
- Enacting zoning that will best protect the community's assets;
- Preserving open space providing buffer zones of protection;
- Developing and enforcing building codes;
- Managing storm water for both quantity and quality;
- Maintaining and improving existing community drainage systems;
- Relocating to less hazardous places;
- Acquiring vulnerable buildings or parcels for relocation or conversion to a more impact resistance use;
- Maintaining adequate hazard insurance;
- Taking positive measures during a hazardous event to minimize its effect such as:
 - warning the members of the community;
 - protecting critical facilities;
 - having a tested emergency response plan in place;
 - evacuation.
- Establishing an ongoing effort to inform the community of the hazards and what each person can do to decrease their risk. Typically, communities do this by:
 - publishing flood maps and data;
 - publishing maps of potentially unstable slopes;
 - publishing maps of soils unsuitable for different purposes;
 - stocking the public library with resources from private and public sources;

- disclosing hazard potential information in real estate transactions;
- providing technical assistance;
- establishing public outreach projects;
- providing hazard education programs to all community constituencies.

Considering the protection already afforded by natural resources and maintaining that through:

- wetlands protection;
- open space set-asides;
- using Best Management Practices;
- using sediment and erosion control measures.

STRUCTURAL MITIGATION MEASURES

Structural measures are just as the name implies. They are physical constructs typically designed by engineers to lessen the impact of a potential disaster of a particular size. Essentially, things are built to keep natural hazards out, or to keep them reigned in, or to let them pass by while causing the minimal amount of damage, or to strengthen existing buildings to withstand greater assaults. A partial list of structural mitigation techniques would include:

- Modifying stream channels so they can produce and accommodate faster flows;
- Building levees or floodwalls to keep streams within their banks;
- Building reservoirs to store excess water until they safely release it downstream;
- Building stream diversion structures to direct floodwaters away from communities;
- Building storm sewers to help drain the community as quickly as possible;
- Retrofitting existing structures to withstand greater pressure from seismic waves or high winds

Specific mitigation measures cannot be applied blindly to any situation. Community leaders may elect to construct several combinations from a palette of choices.

The Natural Hazards Center, located at the University of Colorado, Boulder, Colorado, USA, is a national and international clearinghouse for information on natural hazards and how human behavior changes because of hazards and disasters. The center's prime goal is to increase communication among hazard/disaster researchers and those individuals, agencies, and organizations actively working to reduce disaster damage and suffering.

With funds contributed by the National Science Foundation, the Natural Hazards Center Quick Response Program enables social scientists to travel to the site of a disaster soon after it occurs to gain valuable information concerning immediate impact and response. The findings of these studies cover a broad range of disasters - both natural and human-caused - in diverse settings affecting all types of human communities.

Quick Response Reports #1-#75 are available in printed form from the Natural Hazards Center. Beginning with Quick Response Report #76, the Center began offering these

reports on-line. Where possible, this document incorporates information gathered at disaster sites by the National Hazards Center scientists.

COUNTY OVERVIEW

HISTORY

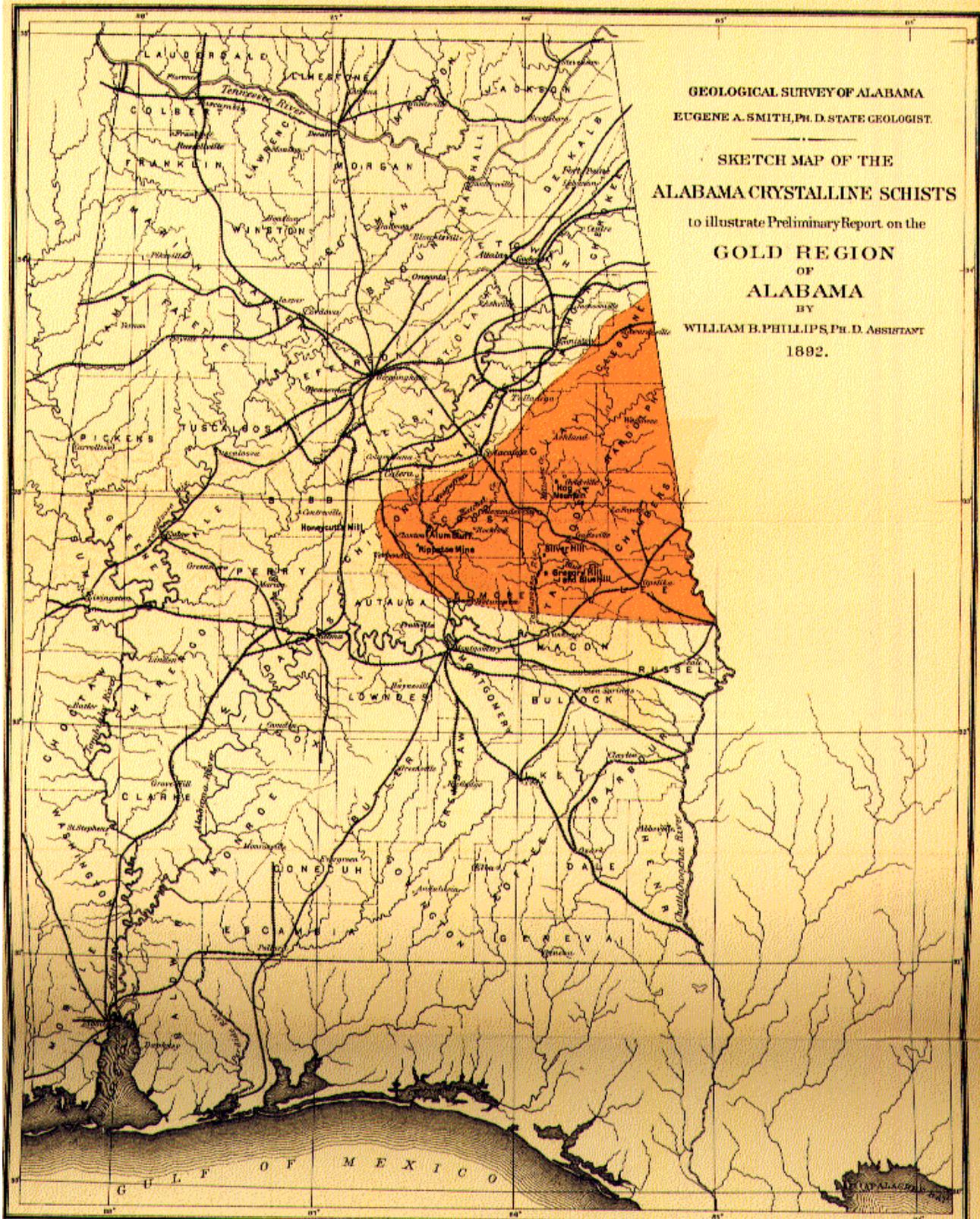
The area now known as Randolph County Alabama was once Creek Indian Territory. In 1802 this land was ceded by the State of Georgia and became part of the Mississippi Territory. Once Mississippi became a State, Congress created the Alabama Territory in 1817. Two years later, on December 14, 1819 Alabama became the 22nd state.

The Alabama General Assembly established Randolph County on December 18, 1832. The county seat was established in Wedowee in 1835. The County was named after a popular U. S. Senator from Virginia, John Randolph. The boundaries of the County have not changed since its inception. One of the oldest towns in America exists today in Randolph County. Originally established in the 1700's, the town of Louiana changed its name in 1903 to Wadley.

Pioneers by the thousands left Tennessee, Georgia, the Carolinas, and Virginia seeking fertile land for growing cotton. After gold was discovered in Georgia prospectors began working in Alabama and had a "Gold Rush" following the discovery of gold in 1830 in Chilton County along tributaries of Blue and Chestnut Creeks. More discoveries were made and for a decade there were thousands of miners working. Then the California gold rush took the miners to the mother lode and the mines were abandoned during the Civil War. After the Civil War, work took place until World War II. In the 1930's, with the rise in the price of gold, there was another boom, which lasted until 1942. Since then Alabama's gold fields have been almost completely idle. From 1830 to 1990 Alabama produced nearly 80,000 ounces of gold. The most important deposits were found in Cleburne, Tallapoosa, Clay and Randolph Counties. Only Cleburne and Tallapoosa Counties produced more than 20,000 ounces of gold. Gold found in Alabama comes from lode and placer sources.

The gold bearing deposits of Randolph County border along the boundary of Cleburne County and are in similar formations to that county. Area streams and branches near Wedowee are most productive. The Pinetucky Gold Mine discovered in 1845 and extensively worked consisted of quartz veins in garnet bearing mica schist and was the site of a 20 stamp mill. The mine was among earliest discoveries of lode veins in Alabama and termed a "rich specimen mine".

In Wedowee, the area creek sands and gravels along the Tallapoosa River have good gold placers. A mine on Wedowee Creek is said to contain lode gold, but nearby stream gravels have placer gold.



The youngest town in Randolph County is Woodland. The town incorporated in 1967. Originally incorporated to attract industry to the town, Woodland has remained a

rural community with little expansion over the past 30 years. The 2000 Census lists the population of Woodland at 192. The area of the town is approximately 1.13 square miles.

As mentioned before, the Town of Wadley was incorporated in 1903. In 1908 what is now the CSX Railway was built along the Little Tallapoosa River in the Southwestern part of Randolph County. There had been a prior settlement across the river called Louina, which dated from the 1830's. The population of this settlement declined because it was bypassed by the railroad and many of its residents moved to the new Town of Wadley. By 1910 there were 426 residents. It was around this time that Mr. Carson Calloway built several commercial buildings and started a bank, with the ultimate purpose of building a cotton mill at Wadley. Subsequently, Mr. Callaway transferred his operations to LaGrange, Georgia and the mill was never built. Among the commercial building built was a hotel and for a number of years this hotel did a thriving business mainly from "drummers" who used it as headquarters for working the area when rail was the principal means of transportation. Another Wadley institution, Southern Union College, opened in 1923. It was a church related school and operated under the names of Bethlehem College, Piedmont Junior College and Southern Union College. It became a state school in 1964.

The Town of Roanoke is the largest community in Randolph County. Roanoke was incorporated by the legislature on December 13, 1900. It was settled in the early 1830's and named "High Pine" because of its altitude and pine forests surrounding the area. In 1840 it was named "Chulafinee" and two years later acquired the name "Roanoke" for the home of John Randolph, in honor of John Randolph's Virginia plantation.

After the Gold Rush of the 1830's agriculture became the areas economic backbone. The Central Georgia Railroad came to Roanoke in 1887, beginning a new growth period during which many of the downtown brick stores were built. A group of visionary business people began a cotton mill, W. A. Handley Manufacturing, and for years, Roanoke had a cotton-centered economy. Roanoke is also the "Home of the Ella Smith Doll". Often referred to as the Alabama Indestructible Baby, the Ella Smith Doll dates back over one hundred years. In 1897, Mrs. Ella Smith repaired a neighbor child's porcelain doll by pouring a mixture of plaster and fiber inside the damaged head to give it strength and durability. From this simple and innovative beginning came the idea for one of the most distinctive dolls ever to grace a nursery. Mrs. Smith experimented with plaster and various fabrics refining her design as she worked. At the height of the little doll's popularity, Mrs. Smith's small factory, with only eight to twelve employees, produced 8,000 dolls a year. She advertised through mail order and displayed the dolls at shows and expositions. While attempting to expand her business, Mrs. Smith met with a series of unfortunate incidents, including the loss of many orders in a train wreck, forcing her to move her factory back into her home. When she died in 1932, her company died with her. Originals of her whimsical little dolls are now extremely hard to find.

The Town of Wedowee is the county seat and is located in the center of the county. It was named for an Indian chief, "Wah-wah-nee" or "Wah-dow-wee", whose

village stood near the present site of the town. The first settler in the town was Hedgeman Triplett, who operated a ferry on the Tallapoosa River several miles west of town. In 1840 the name of the town was changed to McDonald. Four years later the name was changed back to Wedowee.

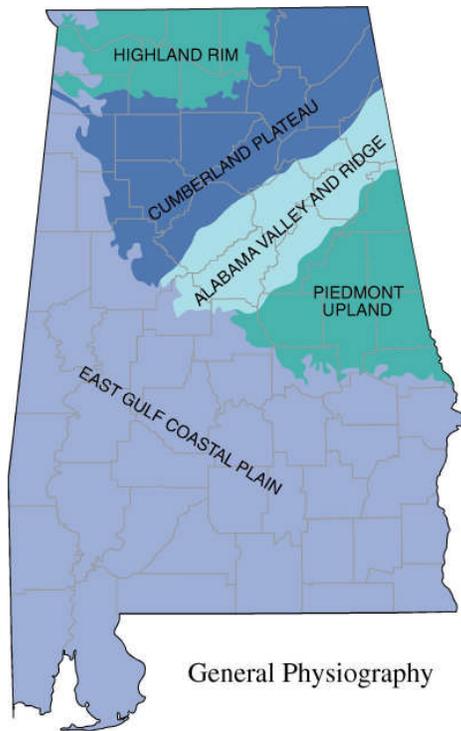
The County is located on the East Central portion of Alabama. Randolph County is bordered on the east by the State of Georgia, to the north by Cleburne County, the west by Clay County and to the south Tallapoosa and Chambers Counties border the county.



PHYSIOGRAPHY

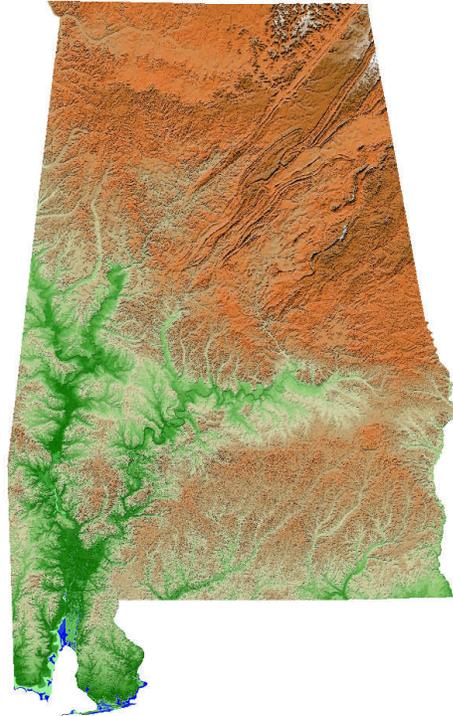
Randolph County lies in the Piedmont Upland District at the foothills of the Appalachian Mountains. This area is characterized by rolling topography with altitudes ranging from 700 to approximately 1500 feet above sea level. Streams occupy broad, shallow valleys separated by broad, rounded divides and have dendritic drainage patterns. Alternating beds of hard and soft Paleozoic sedimentary rocks, folded like the wrinkles in a kicked floor rug, are the hallmark of the Appalachian Valley and Ridge Province. Extending some 900 miles (1500 km) from New York to Alabama, and flanked by flat-lying sedimentary strata to the west and Precambrian metamorphic rocks to the east, this famous belt of parallel structures reflects the several great continental collisions that

formed the Appalachian chain and the Pangaea supercontinent some 300 to 400 million years ago. Coal, iron ore, limestone, and marble are found in this area of Alabama.



General Physiography

Produced by the Dept. of Geography
College of Arts and Sciences
The University of Alabama



Compiled by the Cartographic Research Lab
University of Alabama

WATER SUPPLY

The wells and springs in the County provide an abundant supply of water for farm and home use. The wells are about 30 to 70 feet deep and supply water throughout the year. Rivers and lakes furnish water all year, even in the driest seasons, for cities, industries and livestock. Approximately 200 ponds furnish water for agricultural use and for recreation. The High Pine Creek Watershed Project, which includes nine flood control structures that total 265 acres, provides water to municipalities and for recreational purposes.

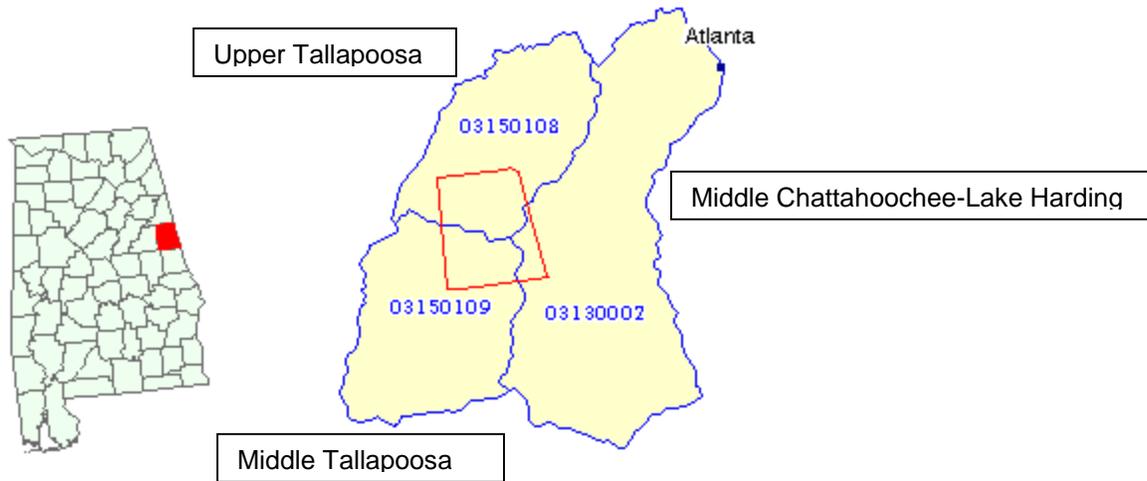
There are five water supply systems located in Randolph County. Combined they have a treatment and supply capacity of 3,104,633 gallons per day. The combined storage capacity of these systems is 6,290,000 gallons. The four incorporated towns each have a water supply system. Some areas of the County are served with public water.

DRAINAGE

Most of the County is strongly dissected by drainage-ways. The sloping areas are along the broad ridges between the interstream divides. The western half of the county

along the Tallapoosa River is steep and has narrow sloping ridge tops. The floodplains are narrow and nearly level.

About 85% of the county drains into the Tallapoosa and Little Tallapoosa Rivers. The rest of the county drains into Wehadkee Creek and then into the Chattahoochee River in Troup County, Georgia. The divide between the two watersheds is 700 to 1,200 feet above sea level. The lowest elevation is in the southern part of the county, and the highest elevation is in the northern part.



The preceding maps represent Randolph County's position across the three watersheds that provide drainage for the County.

POPULATION

According to the 2000 Census, Randolph County and all of its municipalities experienced population growth during the 1990's. The following table describes the 1990 and 2000 Census population data:

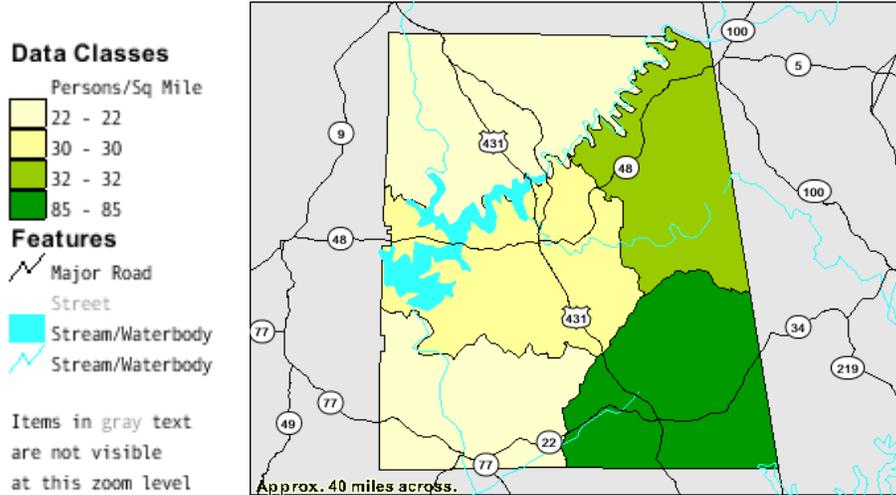
	1990 Census	2000 Census	2007 Census Estimate
Randolph County (Unincorporated Areas)	12,017	14,167	14,126
Roanoke	6,362	6,563	6,603
Wadley	517	640	640
Wedowee	796	818	814
Woodland	189	192	207
TOTAL	19,881	22,380	22,390

2000 Census data revealed a population composition of 10,810 males and 11,570 females in the County. The median age is 37.7 years old. There are 4,675 children under the age of 15 and 4,676 citizens over the age of 60 within the county. The racial composition in the County is 76.4% White or Caucasian, 22.2% Black or African American. The

remaining 1.4% is composed of American Indian, Alaskan Native, Asian, and those claiming two or more races.

The following map shows population distribution in the County:

RANDOLPH COUNTY POPULATION DISTRIBUTION



The educational attainment of the residents of the county varies greatly. Approximately 5,618 residents have less than a high school education, 4,723 residents graduated from high school, 2,942 residents have two years or less of college and 1,479 have a bachelor's degree or higher.

There are 5,181 residents over the age of 5 in Randolph County that claim some type of disability.

HOUSING

According to the U.S. Census 2000 there are 10,285 housing units in Randolph County. There are 7,181 single-family housing units that are not attached to any other dwelling or structure. Approximately 63 single unit-housing structures are attached to other structures (storefronts, etc.) There are approximately 2,502 mobile homes in the county according to the 2000 Census.

PLANNING PROCESS

Original development of this document was completed in 2005. It was developed with the coordination of many Federal, State and local agencies and interested parties. The original document followed the processes and requirements of DMA 2000 and was approved by FEMA on March 25, 2005. One of the requirements of DMA 2000 is that planning documents be updated, at a minimum, every five years. This document serves as the 2009-2014 update of that original plan

Funding from the Alabama Emergency Management Agency made the update of this plan possible. During a meeting of the Alabama Association of Regional Councils All Hazards Task Force, it was pointed out by AEMA staff that some plans lacked consistency and cohesiveness. These were plans that were created during the initial plan development effort of DMA 2000. The Councils inquired about the availability of funds for plan updates. The AEMA informed the RPC's that HMGP funds were available for Mitigation Plan updates.

With this information, staff of the East Alabama Regional Planning and Development Commission (EARPDC) met with the Randolph County EMA Director, County Commission and Mayors of each municipality. The information of planning fund availability was shared and the entities were asked if they were interested in participating in a planning activity which would update the existing Hazard Mitigation Plan. All jurisdictions agreed to participate. With the County's permission, the Alabama Association of Regional Councils prepared and submitted a Hazard Mitigation Planning Grant application.

Upon approval of the planning grant, the EARPDC notified the EMA Director that the application had been approved and the plan update process could begin. The EARPDC verified the names of the members of the Hazard Mitigation Planning Committee. Notifications were then sent out for the first Mitigation Planning meeting. The members of the Hazard Mitigation Planning Committee represent all jurisdictions in the County, as well as the County School System. The members of the Hazard Mitigation Planning Committee representing each jurisdiction are:

Randolph County EMA Director
Randolph County EMA Asst. Dir.
Randolph County Engineer
Randolph County Administrator
Randolph County Sheriff
Randolph County 911 Chairman
Randolph County School Super.

City of Roanoke Mayor
City of Roanoke Utilities Director
City of Roanoke Street Superintendent
City of Roanoke Finance Director
City of Wedowee Mayor
Town of Wadley Mayor
Town of Woodland Mayor

At the initial Plan update meeting held on June 26, 2007, the attendees briefly reviewed the existing plan. This review consisted of familiarization of the sections in the plan, the purpose of the plan and the legislation behind the plan. Staff of the EARPDC presented

attendees with the Scope of Work that had been submitted in the funding application. The committee reviewed the Scope of Work and approved the proposed work to the Risk and Vulnerability section, (consisting of up updating the hazard history and preparing information for the committee to analyze for the vulnerability analysis), the Mitigation Strategy section (which would consist of a review of the goals and determination of their validity and identification of new strategies to be included in the plan if warranted), and the Plan Maintenance section (which would be reviewed to see if it could be simplified). It was also determined that since the project would include jurisdiction specific information that the committee need not meet for all planning issues. The Committee approved the individual jurisdiction work to be done by the EARPDC. For those committee members that were unable to attend due to scheduling conflicts, notes of the meeting were sent to them, followed up by telephone conversation, e-mail and fax for input and feedback on the proposed program work.

The planning committee reviewed the definition of *plan participation* that was developed in the original plan. It was determined that this definition was still valid. The jurisdictions that met this participation requirement are:

- Randolph County (continuing participant)
- Randolph County School District (new participant)
- Roanoke (continuing participant)
- Wadley (continuing participant)
- Wedowee (continuing participant)
- Woodland (Although the Town of Woodland is ineligible for HMGP funding, it was included in the planning process and did meet the participation requirements).

In order to update the risk, hazard history information had to be collected. This was done by researching databases and speaking with local residents and officials in each jurisdiction. Staff of the EARPDC as well as many local jurisdictional staff and citizens contributed to the research efforts. Once an updated hazard history was compiled, the information was translated into an updated risk and vulnerability analysis. This was done during a meeting of the Hazard Mitigation Planning Committee on May 20, 2008. The Committee Members reviewed the hazard history and through discussion and completion of worksheets the vulnerability analysis was updated.

Based on that new information, the committee convened on December 8, 2008 and evaluated the existing goals and strategy. Items were added to the Mitigation Strategy section by individual jurisdictions. Each municipality reviewed its existing Mitigation Strategy and provided information on the status of previously identified projects.

The plan maintenance section was reviewed by individual jurisdictions and all were in agreement that the section could be simplified. The need for this arose from discussion that as part of the maintenance, items would be added and deleted from the plan. These additions could occur during an emergency or disaster declaration and time would be of the essence. Many opportunities could be missed if the plans could not be amended almost immediately.

CITIZEN PARTICIPATION

The initial meeting of the Hazard Mitigation Planning Committee was held on June 26, 2007 and advertised in the Community Information section of the Randolph Leader inviting the public to participate in the planning process. Additionally, notices were posted in public places such as town and city halls, community centers and local vendors. There were no attendees from the public for the initial meeting.

Throughout the update process, staff of the EARPDC spoke at Senior Citizens Centers during their congregate meals to provide information and solicit feedback on the plan and its updates. Staff members also used council meetings as an avenue to engage the public in participating in the planning process by providing status updates of the planning process.

A final public hearing will be held prior to adoption for each municipality and the County, allowing citizens the opportunity to review and comment on the plan prior to adoption. These public hearings will be held at regularly scheduled commission and council meeting times.

INTEGRATION WITH EXISTING PLANS

This document will be adopted as an annex to the Randolph County Emergency Operations Plan administered through the Emergency Management Office.

The City of Roanoke is in the final phase of completing its Comprehensive Plan. Information from that plan has been incorporated in this document.

For future planning efforts, each municipality and the county were asked to provide any information on planning efforts to the County EMA Director as they occur. Through this exchange of information, the plans that may be developed in the future will ensure that mitigation is made one aspect of those plans.

INTERAGENCY COORDINATION

Agencies were chosen based on their relation to hazard mitigation and their interest in areas affected by hazards. The following agencies were sent a copy of the draft plan requesting their input and/or comments:

Randolph County Chapter of the American Red Cross
Jacksonville State University Institute for Emergency Preparedness
Alabama Department of Economic and Community Affairs
National Weather Service – Birmingham Office

HAZARD IDENTIFICATION

Natural hazards that affect Randolph County and the municipalities that lie within its boundaries were identified by conducting background studies through the Birmingham Weather Service, NOAA’s Climactic Data Center, and the Randolph County EMA. Additionally, inquiries were made to local community leaders about past events and effects. Local residents were interviewed regarding their experiences and opinions of hazards with the county. Another source used to identify hazards that can affect the County was previous disaster declarations from FEMA that included the County. The following table identifies the FEMA Disaster Declarations that Randolph County has been included in since 1974:

Disaster Number	Disaster Type	Declaration Date	Declaration Type
3045	Drought	07/20/1977	PA-AB
3074	Flood	03/17/1979	PA-AB
578	Flood	04/18/1979	IA, DH, DUA IFG
856	Severe Storms	02/22/1990	IA, PA-ABCDEFGF, DH, DUA, IFG
861	Severe Storms	03/23/1990	IA, PA-ABCDEFGF, DH, DUA, IFG
3096	Snow	03/15/1993	PA-AB
1034	Severe Storms	07/08/1994	IA, PA-ABCDEFGF, DH, DUA, IFG
1070	Hurricane	10/12/1995	IA, PA-ABCDEFGF, DH, DUA, IFG
1208	Severe Storm	03/17/1998	IA, PA-ABCDEFGF, DH, DUA, IFG
1466	Flood	05/12/2003	IA, PA-ABCDEFGF, CC, DH, DUA, IFG
1549	Hurricane Ivan	9/15/2004	IA
1593	Hurricane Dennis	7/10/2005	PA
3237	Hurricane Katrina	9/15/2005	PA-B

Declaration Type:

	DH= Disaster Housing
DUA= Disaster Unemployment Assistance	IA= Individual Assistance
IFG= Individual & Family Grant	PA= Public Assistance
PA-A= Debris Removal	PA-B= Protective Measures
PA-C= Roads & Bridges	PA-D= Water Control Facilities
PA-E= Public Buildings	PA-F= Public Utilities
PA-G= Recreational or Other	IHP= Individuals & Households

Information obtained through these avenues was presented to the Mitigation Planning Committee and through discussion of this information and the existing Hazard Identification there were no new hazards to incorporated into the Plan. Also, after discussion, the priority of hazards for this planning document remains the same. The committee prioritized hazards that affect the County and municipalities by the frequency of the hazard and the associated costs.

Based on the hazard history and insurance information the Mitigation Subcommittee identified and prioritized the following hazards in Randolph County:

- Tornadoes
- Severe Storms
- Flooding
- Winter Storms

Other hazards that threaten the County less frequently were also identified due to the disruption of daily activities of government and society are:

Hurricanes

Droughts

HAZARD PROFILE

TORNADOES

Description

A tornado is a rapidly rotating funnel (or vortex) of air that extends toward the ground from a cumulonimbus cloud. Most tornadoes do not touch the ground, but when the lower tip of a tornado touches the earth, it can cause extensive damage. Tornadoes often form in convective cells such as thunderstorms or at the front of hurricanes.

Tornado damage severity is measured by the Fujita Tornado Scale, which assigns a numerical value of 0 to 5 based on wind speeds, as shown in the following table. Most tornadoes last less than thirty minutes, but can exist for more than an hour. The path of a tornado can range from a few hundred feet to miles, and tornado widths may range from tens of yards to more than a quarter of a mile.

Category	Wind Speed	Description of Damage
F0	40-72 mph	Light damage. Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage to sign boards.
F1	73-112 mph	Moderate damage. The lower limit is the beginning of hurricane speed. Roof surfaces peeled off; mobile homes pushed off foundations or overturned; moving autos pushed off roads.
F2	113-157 mph	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
F3	158-206 mph	Severe damage. Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; cars lifted off ground and thrown.
F4	207-260 mph	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.
F5	261-318 mph	Incredible damage. Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100-yards; trees debarked.

Since the original development of this Plan, the National Weather Service has implemented the Enhanced Fujita Scale for rating tornadoes. The EF Scale will continue to rate tornadoes on a scale from zero to five, but ranges in wind speed will be more accurate with the improved rating scale. Limitations of the original F Scale may have led to inconsistent ratings, including possible overestimates of associated wind speeds. The EF Scale incorporates more damage indicators and degrees of damage than the original F Scale, allowing more detailed analysis and better correlation between damage and wind speed. The original F Scale historical data base will not change. An F5 tornado rated years ago is still an F5, but the wind speed associated with the tornado may have been somewhat less than previously estimated. A correlation between the original F Scale and

the EF Scale has been developed. This makes it possible to express ratings in terms of one scale to the other, preserving the historical database.

Enhanced F Scale for Tornado Damage
 An update to the original F-scale by a team of meteorologists and wind engineers, implemented in the U.S. on 1 February 2007.

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest 1/4-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40-72	45-78	0	65-85	0	65-85
1	73-112	79-117	1	86-109	1	86-110
2	113-157	118-161	2	110-137	2	111-135
3	158-207	162-209	3	138-167	3	136-165
4	208-260	210-261	4	168-199	4	166-200
5	261-318	262-317	5	200-234	5	Over 200

*** **IMPORTANT NOTE ABOUT ENHANCED F-SCALE WINDS:** *The Enhanced F-scale still is a set of wind estimates (not measurements) based on damage.* Its uses three-second gusts estimated at the point of damage based on a judgment of 8 levels of damage to the 28 indicators listed below. These estimates vary with height and exposure. **Important:** The 3 second gust is not the same wind as in standard surface observations. Standard measurements are taken by weather stations in open exposures, using a directly measured, "one minute mile" speed.

History

The following table was obtained from the National Weather Centers Storm Database. It lists tornadic events from 1970 through April, 2009 within Randolph County.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 <u>RANDOLPH</u>	04/26/1970	1300	Tornado	F2	0	2	25K	0
2 <u>RANDOLPH</u>	02/26/1971	1400	Tornado	F0	0	0	25K	0
3 <u>RANDOLPH</u>	01/26/1974	1700	Tornado	F3	1	7	250K	0
4 <u>RANDOLPH</u>	05/03/1984	1227	Tornado	F2	0	0	250K	0

5 <u>RANDOLPH</u>	05/03/1984	1235	Tornado	F1	0	0	25K	0
6 <u>RANDOLPH</u>	11/10/1984	1550	Tornado	F1	0	0	250K	0
7 <u>RANDOLPH</u>	03/05/1989	1955	Tornado	F2	0	0	2.5M	0
8 <u>RANDOLPH</u>	11/15/1989	1643	Tornado	F0	0	0	25K	0
9 <u>RANDOLPH</u>	11/22/1992	0905	Tornado	F1	0	5	2.5M	0
10 <u>Wedowee</u>	12/16/2000	06:19 PM	Tornado	F0	0	0	5K	0K
11 <u>Wedowee</u>	11/24/2001	05:22 PM	Tornado	F1	0	0	50K	0K
12 <u>Wedowee</u>	05/07/2003	03:40 PM	Tornado	F1	0	0	85K	0K
13 <u>Wadley</u>	04/30/2005	05:26 AM	Tornado	F1	0	0	18K	0
14 <u>Wadley</u>	04/30/2005	05:30 AM	Tornado	F1	0	0	60K	0
15 <u>Corinth</u>	02/17/2008	14:22 PM	Tornado	F1	0	0	100K	0K
16 <u>Wehadkee</u>	02/18/2009	18:55 PM	Tornado	F1	0	0	10K	0K
TOTALS:					1	14	6.178M	0

Location

All areas of Randolph County are equally at risk for tornadic activity.

Extent

Randolph County has experienced 16 tornadoes between 1970 through April 2009. The total property damages for these events are \$6.2 million. There are no reported values for crop damages. The County and municipalities have no record of experiencing an EF5 tornado, but that is not to say it would not happen. Damages from such an event would likely cause destruction of structures, loss to agriculture and livestock, interruption in power and other utility services and casualties. The following text describes the extent of some of the more damaging events.

22 Nov 1992 – An F1 tornado was reported in Randolph County. The path of the tornado was approximately 2 miles long and 50 yards wide. Property damage was reported at \$2.5 million. There were no fatalities but 5 injuries were reported.

16 Dec 2000 - Numerous trees were blown down along the short path of this tornado. No injuries were reported as the tornado remained in mostly rural areas.

24 Nov 2001 - The start of this F1 tornado was approximately 1 mile east of SR 9 on CR 58 where a roof was torn off a barn. On Black's Chapel road near Black's Chapel, several trees were snapped off at mid-trunk. Black's Chapel itself had the steeple torn off with additional roof damage. Across the street, there was extensive damage with a barn

destroyed. A path of damage extended across Ingram Road, Wakefield Road, across Foster's Bridge Road, to Monroe. Several barns were destroyed with widespread tree damage. The storm track continued northeast across Mt. Moriah Road (CR 58) and crossed into Randolph County along CR 82 for about 2 tenths of a mile. The tornado appeared to have a wide path of damage, up to 300 yards at the widest point, with a total length of 6.1 miles. Witnesses in the area reported hearing the load roaring or "freight train" noise as the storm passed.

17 Feb 2008 - The tornado touched down on CR-15 near the Pleasant Grove Church, about 3 miles southwest of Wedowee. It then tracked northeast, damaging five homes, at least two vehicles and three barns. One shop and numerous other outbuildings were significantly damaged or destroyed. Additionally, several dozen trees were either snapped off or were uprooted along the path. The tornado lifted near the Georgia state line at CR-477. A broken squall line, sparked by an advancing cold front and strong upper level storm, caused severe thunderstorms and tornadoes across Central Alabama.

Probability

It is impossible to determine the exact probability of tornadic activity, however, given the long reporting period that data had been recorded for tornadoes, it is reasonable to assume that the average annual occurrence of tornadoes in the County will remain constant with information previously presented. The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
Low	0% - 33%
Moderate	34% - 66%
High	67% - 100%

16 events out of a 39-year reporting period averages to 41% probability annually, which is considered moderate probability of occurrence.

SEVERE STORMS

Description

Wind damage from severe thunderstorms can rival that of tornadic activity. Often times the experts have to refer to damage patterns to discern tornadic wind damage from that of straight-line winds.

History

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 <u>RANDOLPH</u>	03/21/1974	0320	Tstm Wind	0 kts.	0	0	0	0

2 <u>RANDOLPH</u>	05/03/1984	1230	Tstm Wind	0 kts.	0	0	0	0
3 <u>RANDOLPH</u>	05/07/1984	2250	Tstm Wind	0 kts.	0	0	0	0
4 <u>RANDOLPH</u>	04/05/1985	1845	Tstm Wind	0 kts.	2	0	0	0
5 <u>RANDOLPH</u>	06/28/1986	1256	Tstm Wind	0 kts.	0	0	0	0
6 <u>RANDOLPH</u>	07/25/1987	1715	Tstm Wind	0 kts.	0	0	0	0
7 <u>RANDOLPH</u>	04/23/1988	1340	Tstm Wind	0 kts.	0	0	0	0
8 <u>RANDOLPH</u>	04/23/1988	1340	Tstm Wind	0 kts.	0	0	0	0
9 <u>RANDOLPH</u>	04/04/1989	1300	Tstm Wind	0 kts.	0	0	0	0
10 <u>RANDOLPH</u>	06/14/1989	1539	Tstm Wind	0 kts.	0	0	0	0
11 <u>RANDOLPH</u>	06/14/1989	1555	Tstm Wind	52 kts.	0	0	0	0
12 <u>RANDOLPH</u>	02/10/1990	0400	Tstm Wind	0 kts.	0	0	0	0
13 <u>RANDOLPH</u>	02/10/1990	0400	Tstm Wind	0 kts.	0	0	0	0
14 <u>RANDOLPH</u>	08/19/1990	1445	Tstm Wind	0 kts.	0	0	0	0
15 <u>RANDOLPH</u>	04/15/1993	1645	Tstm Wind	0 kts.	0	0	0	0
16 <u>Wedowee</u>	06/09/1994	1845	Tstm Wind	0 kts.	0	0	5K	0
17 <u>RANDOLPH</u>	06/15/1994	1450	Tstm Wind	50 kts.	0	0	50K	0
18 <u>Big Springs</u>	04/11/1995	1240	Tstm Wind	0 kts.	0	0	0	0
19 <u>ALZ001>050</u>	10/04/1995	1200	Hurricane Opal/high Winds	N/A	2	0	0.1B	10.0M
20 <u>Wedowee</u>	01/05/1997	03:15 AM	Tstm Wind	50 kts.	0	0	5K	OK
21 <u>Wedowee</u>	04/22/1997	03:35 PM	Tstm Wind	50 kts.	0	0	5K	OK
22 <u>Wedowee</u>	02/17/1998	04:20 PM	Tstm Wind	55 kts.	0	0	4K	OK
23 <u>Roanoke</u>	06/15/1998	09:30 PM	Tstm Wind	60 kts.	0	0	20K	OK
24 <u>Roanoke</u>	06/19/1998	12:10 PM	Tstm Wind	50 kts.	0	0	5K	OK
25 <u>Graham</u>	03/03/1999	02:04 AM	Tstm Wind	65 kts.	0	0	25K	OK
26 <u>Omaha</u>	03/03/1999	02:05 AM	Tstm Wind	55 kts.	0	0	5K	OK
27 <u>Wedowee</u>	05/13/1999	02:30 PM	Tstm Wind	50 kts.	0	0	OK	OK
28 <u>Countywide</u>	01/09/2000	11:52 PM	Tstm Wind	65 kts.	0	0	150K	OK
29 <u>Graham</u>	02/13/2000	10:50 PM	Tstm Wind	55 kts.	0	0	2K	OK
30 <u>Wedowee</u>	06/14/2000	04:00 PM	Tstm Wind	55 kts.	0	0	3K	OK
31 <u>Wedowee</u>	07/10/2000	02:30 PM	Tstm Wind	60 kts.	0	0	5K	OK
32 <u>Countywide</u>	07/20/2000	06:25 PM	Tstm Wind	60 kts.	0	0	30K	OK
33 <u>Wedowee</u>	07/23/2000	05:40 PM	Tstm Wind	55 kts.	0	0	8K	OK

34 <u>Woodland</u>	07/23/2000	06:17 PM	Tstm Wind	55 kts.	0	0	2K	OK
35 <u>Rock Mills</u>	08/04/2000	05:20 PM	Tstm Wind	50 kts.	0	0	2K	OK
36 <u>Newell</u>	08/10/2000	06:50 PM	Tstm Wind	55 kts.	0	0	2K	OK
37 <u>Woodland</u>	08/10/2000	07:01 PM	Tstm Wind	55 kts.	0	0	10K	OK
38 <u>Newell</u>	11/09/2000	05:57 AM	Tstm Wind	55 kts.	0	0	2K	OK
39 <u>Countywide</u>	02/16/2001	04:32 PM	Tstm Wind	50 kts.	0	0	3K	OK
40 <u>Woodland</u>	07/05/2001	03:30 PM	Tstm Wind	50 kts.	0	0	1K	OK
41 <u>Wedowee</u>	08/18/2001	03:30 PM	Tstm Wind	55 kts.	0	0	4K	OK
42 <u>Roanoke</u>	04/28/2002	11:50 PM	Tstm Wind	65 kts.	0	0	75K	OK
43 <u>Roanoke</u>	04/29/2002	12:20 AM	Tstm Wind	75 kts.	0	0	50K	OK
44 <u>Roanoke</u>	06/04/2002	02:50 PM	Tstm Wind	50 kts.	0	0	2K	OK
45 <u>Roanoke</u>	07/04/2002	05:05 PM	Tstm Wind	50 kts.	0	0	2K	OK
46 <u>Wedowee</u>	05/02/2003	05:50 PM	Tstm Wind	70 kts.	0	0	800K	OK
47 <u>Woodland</u>	05/06/2003	02:38 PM	Tstm Wind	50 kts.	0	0	2K	OK
48 <u>Roanoke</u>	05/07/2003	06:05 PM	Tstm Wind	55 kts.	0	0	37K	OK
49 <u>Wedowee</u>	06/12/2003	03:17 PM	Tstm Wind	60 kts.	0	0	10K	OK
50 <u>ALZ028>029 - 037>038</u>	09/07/2004	12:15 AM	Strong Wind	33 kts.	0	0	6K	0
51 <u>ALZ029</u>	09/16/2004	07:30 AM	High Wind	56 kts.	0	0	125K	0
52 <u>Wedowee</u>	11/23/2004	01:38 PM	Tstm Wind	60 kts.	0	0	75K	0
53 <u>Wedowee</u>	04/22/2005	10:02 AM	Tstm Wind	52 kts.	0	0	125K	0
54 <u>Wedowee</u>	04/22/2005	11:20 AM	Tstm Wind	52 kts.	0	0	3K	0
55 <u>Countywide</u>	04/30/2005	05:09 AM	Tstm Wind	52 kts.	0	0	3K	0
56 <u>Corinth</u>	06/06/2005	02:15 PM	Tstm Wind	50 kts.	0	0	2K	0
57 <u>ALZ013>015 - 017 - 022>025 - 027 - 029>035 - 038>042</u>	06/11/2005	12:00 PM	Strong Wind	40 kts.	0	0	104K	0
58 <u>ALZ020>021 - 026>027 - 029</u>	03/09/2006	06:00 PM	Strong Wind	40 kts.	0	0	10K	0
59 <u>Woodland</u>	06/20/2006	04:35 PM	Tstm Wind	50 kts.	0	0	2K	0
60 <u>Roanoke</u>	06/23/2006	05:10 PM	Tstm Wind	55 kts.	0	0	20K	0
61 <u>Roanoke</u>	07/19/2006	10:55 AM	Tstm Wind	50 kts.	0	0	5K	0
62 <u>Wedowee</u>	07/19/2006	11:40 AM	Tstm Wind	50 kts.	0	0	3K	0
63 <u>Wedowee</u>	08/15/2006	03:15 PM	Tstm Wind	50 kts.	0	0	10K	0
64 <u>Wedowee</u>	08/15/2006	03:28 PM	Tstm Wind	50 kts.	0	0	4K	0
65 <u>Roanoke</u>	10/19/2006	17:45 PM	Tstm Wind	65 kts.	0	0	50K	OK

66 <u>Rock Mills</u>	10/19/2006	17:50 PM	Tstm Wind	50 kts.	0	0	10K	OK
67 <u>Wedowee</u>	06/28/2007	13:38 PM	Tstm Wind	39 kts.	0	0	2K	OK
68 <u>ALZ029</u>	12/20/2007	18:15 PM	Strong Wind	30 kts.	0	0	10K	OK
69 <u>Pine Tuckey</u>	02/26/2008	04:40 AM	Tstm Wind	70 kts.	0	0	75K	OK
70 <u>Wedowee</u>	05/20/2008	19:13 PM	Tstm Wind	50 kts.	0	0	5K	OK
71 <u>Sewell</u>	05/20/2008	19:30 PM	Tstm Wind	40 kts.	0	0	1K	OK
72 <u>Level Road</u>	06/29/2008	17:12 PM	Tstm Wind	50 kts.	0	0	2K	OK
73 <u>Wadley</u>	06/29/2008	17:30 PM	Tstm Wind	40 kts.	0	0	1K	OK
74 <u>Wedowee</u>	06/29/2008	17:30 PM	Tstm Wind	50 kts.	0	0	3K	OK
75 <u>Wehadkee</u>	07/12/2008	14:05 PM	Tstm Wind	50 kts.	0	0	20K	OK
76 <u>Dingler</u>	07/22/2008	12:40 PM	Tstm Wind	70 kts.	0	0	300K	OK
77 <u>Roanoke</u>	07/22/2008	12:55 PM	Tstm Wind	50 kts.	0	0	2K	OK
78 <u>Roanoke Muni Arpt</u>	07/22/2008	12:55 PM	Tstm Wind	50 kts.	0	1	5K	OK
79 <u>ALZ029</u>	04/13/2009	04:30 AM	Strong Wind	37 kts.	0	0	25K	OK
80 <u>Roanoke</u>	05/03/2009	15:30 PM	Tstm Wind	50 kts.	0	0	30K	OK
TOTALS:					4	1	102.364M	10.000M

Location

The entire county is susceptible to damage from severe thunderstorms. Storms can range from small isolated storm cells that do much damage, to large far reaching minor storms that do only minimal damage. It is truly the “luck of the draw” when and where the storms appear.

Extent

Randolph County has experienced 80 severe thunderstorms between 1974 through May 2009. The total property damages for these events are just over \$102 million. There are \$10 million reported for crop damages. Expected damages from this type of event are damaged buildings, downed trees, and damage to aerial utilities (power lines, telephone lines, and cable communications) and in some cases, casualties from airborne debris. There is no detailed data available for events prior to March 1974. The following text describes the extent of some of the more damaging events.

15 Jun 1994 - Numerous trees were reported down in southern Randolph County especially in the areas between Wedowee and Wadley and between Wedowee and Roanoke.

18 Mar 1996 - In the Wadley area, trees and power lines were downed and hail the size of quarters fell.

03 Mar 1999 - A house under construction was damaged on CR 455 just north of Sewell. The home had all its windows broken out, the front porch torn off, damage to the siding, and roof damage. A barn on the property was totally destroyed. Just north of the Bethel East Baptist Church on CR 87, a mobile home was pushed off its foundation, several trees were blown down, and one barn destroyed and one heavily damaged.

09 Jan 2000 - Damaging thunderstorm wind moved across the county around midnight. As the storm entered the county, a barn roof was damaged, and a chicken house lost its roof near the intersection of US 431 and CR 82. A barn was totally destroyed, several homes sustained roof damage, and trees and power lines were blown down along CR 82 across northern Randolph County. In northeast Randolph County on CR 422, chicken houses and homes sustained roof and some structural damage.

20 Jul 2000 - Numerous trees and power lines were blown down across the county. The Randolph County EMA reported that the hardest hit areas were around Wadley and near Wedowee.

10 Aug 2000 - Numerous trees and power lines were knocked down near the city of Woodland.

28 Apr 2002 - Several trees and power lines were blown down, a few radio towers were knocked down, and several windows were blown out of businesses in the Roanoke area. Dime size hail was also reported with this storm.

29 Apr 2002 - Damaging thunderstorm winds moved through the city of Roanoke. One large police communications tower was blown down and landed on a police vehicle. Several trees and power lines were knocked down around the city. A large plate glass window was blown out of the local Ford dealers' showroom.

02 May 2003 - The Randolph County Emergency Management Agency estimated winds of at least 80 mph swept through Roanoke. Numerous trees and power lines were blown down. Two were destroyed by falling trees while 16 other homes sustained major to moderate damage. A light pole at the high school stadium was toppled. The high school, a nursing home, the grammar school, and the recreation center reported minor damage. Six businesses sustained damage including an outbuilding business that suffered major damage. Two chicken houses sustained roof damage. Several trees were reported downed by the wind across the county.

07 May 2003 - Several trees and power lines were blown down in and around Roanoke.

22 April 2005 - Damaging straight line winds affected areas in and around Wedowee. Several homes sustained roof damage, several docks were damaged, one bank sustained major roof damage, and several trees and power lines were blown down. Power outages lasted through a large part of the afternoon.

19 Oct 2006 - A billboard was blown down onto 3 cars in a discount store parking lot. An air conditioner on top of the store was blown over, and a skylight was blown out. Isolated severe thunderstorms developed in the late afternoon.

26 Feb 2008 - An advancing cold front moving through the state caused widespread wind damage and a few tornadoes across Central Alabama, especially in the eastern half of the state. Numerous trees and power lines were blown down across the northern portion of the county. Two permanent houses, 2 mobile homes, and 5 barns sustained varying degrees of damage from fallen trees.

22 July 2008 - A warm and unstable air mass led to the development of numerous showers and thunderstorms, some of which produced damaging winds and large hail. A 75 ton, 40 foot tall, gantry crane on the top of R. L. Harris Dam was moved along its tracks by an apparent microburst. The crane subsequently rolled through its end stops, eventually coming to a stop partially resting over the edge of the dam. The crane itself, and several portions of the dam that it impacted, sustained considerable damage as a result.

Probability

The entire county is equally at risk for damage from winds associated from severe storms. Undeveloped areas that are used for timber production can lose acres of trees. Structures can be damaged from flying debris or the force of the wind itself. With the history of storms that have occurred within the County the probability of a severe storm occurring in any given year is high. These storms do have a seasonal pattern to them. The springtime months (April, May and June) are the peak for severe storm (and tornadic) activity, with another rise in activity in late November or December. There is a high probability of this event occurring in the County. Over the past 35 years, 80 severe storms have been recorded throughout the County. This indicates a 100% (high) chance in any year of a severe storm.

FLOODING

Description

Flooding is the accumulation of water within a water body (e.g., stream, river, lake, or reservoir) and the overflow of excess water onto adjacent floodplains. Floodplains are usually lowlands adjacent to water bodies that are subject to recurring floods. Floods are natural events that are considered hazards only when people and property are affected.

The most common kind of flooding event is riverine flooding, also known as overbank flooding. The amount of water in the floodplains a function of the size and topography of the contributing watershed, the climate, and land use characteristics. In steep valleys, flooding is usually rapid and deep, but of short duration, while flooding in flat areas is typically slow, relatively shallow, and may last for long periods of time.

Flash floods involve a rapid rise in water level, high velocity, and large amounts of debris, which can lead to significant damage that includes the tearing out of trees, undermining of buildings and bridges, and scouring new channels. The intensity of flash flooding is a function of the intensity of and duration of rainfall, steepness of the watershed, stream gradients, watershed vegetation, natural and artificial flood storage areas, and configuration of the streambed and floodplain.

Local drainage floods may occur outside of recognized drainage channels or delineated floodplains for a variety of reasons, including concentrated local precipitation, a lack of infiltration, inadequate facilities for drainage and storm water conveyance, or increased surface runoff. Such events often occur in flat areas, particularly during winter and spring in areas with frozen ground, and also in urbanized areas with large impermeable surfaces.

History

The Flood Insurance Rate Map (FIRM) for Randolph County delineates areas of 100-year and 500-year flood zones. The 100-year flood zones are designated as Special Flood Hazard Areas (SFHA). Many flooding events are the result of a primary event such as torrential rains, thunderstorms or hurricane effects, so the recorded number of flood events is often less than the actual number.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 <u>RANDOLPH</u>	02/10/1995	2220	Flash Flooding	N/A	0	0	50K	5K
2 <u>Countywide</u>	01/07/1998	09:30 AM	Flash Flood	N/A	0	0	25K	5K
3 <u>Countywide</u>	03/08/1998	08:00 AM	Flash Flood	N/A	0	0	500K	30K
4 <u>Roanoke</u>	06/16/1999	05:00 PM	Flash Flood	N/A	0	0	40K	0K
5 <u>Wedowee</u>	09/21/2000	02:00 PM	Flash Flood	N/A	0	0	12K	0K
6 <u>Countywide</u>	09/22/2002	02:00 AM	Flash Flood	N/A	0	0	200K	0K
7 <u>Countywide</u>	05/07/2003	04:00 PM	Flash Flood	N/A	0	0	75K	0K
8 <u>ALZ029 - 038</u>	05/08/2003	08:30 PM	Flood	N/A	0	0	325K	0K
9 <u>ALZ029</u>	05/18/2003	01:45 PM	Flood	N/A	0	0	0	0
10 <u>Countywide</u>	07/01/2003	08:00 AM	Flash Flood	N/A	0	0	10K	0K
11 <u>Countywide</u>	09/16/2004	10:45 AM	Flash Flood	N/A	0	0	4K	0
12 <u>Wedowee</u>	07/10/2005	05:30 PM	Flash Flood	N/A	0	0	2K	0
13 <u>ALZ029>032 - 038>039</u>	07/11/2005	12:00 AM	Flood	N/A	0	0	18K	0
14 <u>Roanoke</u>	11/15/2006	12:30 PM	Flash Flood	N/A	0	0	0K	0K
TOTALS:					0	0	1.261M	40K

Location

The following areas are notorious for experiencing flooding during moderate rain events:

Randolph County:	County Roads 242, 435, 489, 624, 635, 898, and 905. County Road 82 near Fosters Crossroads.
Roanoke:	Satterwhite Street
Wadley:	Tallapoosa Street, Main Street
Wedowee:	4 th Street SW

Extent

The extent of flooding in Randolph County and its municipalities varies greatly. The Town of Wadley lies on the banks of the Tallapoosa River and has experienced flooding of over three feet in the facilities of the Towns largest employer, Plantation Patterns. No other municipalities, including the County have experienced flooding this drastic so far. The unincorporated areas of the County would be subject to road flooding and closures, damage or loss of buildings and property and loss of life would not be unheard of during the most severe of events. Due to its location on the river, there is the potential for the Town of Wadley to be completely inundated by floodwaters. The Town of Woodland experiences mainly nuisance flooding due to its topography. The City of Roanoke has the potential of experiencing major street, property and building damage due to flooding; the same is true of the Town of Wedowee. Due to the large number of streams and rivers located within the County, loss of life can also be expected in extreme flooding events.

The following text describes some of the more damaging flooding events through the County.

10 Feb 1995 - Heavy rains with strong thunderstorms caused flash flooding across central and southern Randolph County. Five places along Highway 48 east of Woodlawn were under water. Water was over a bridge on County Road 58 in Roanoke.

07 Jan 1998 - A strong low pressure system move over Alabama from the Gulf of Mexico, bringing heavy rain to the state. Rivers, creeks and ditches were all out of their banks. Numerous streets were closed due to water over the road.

08 Mar 1998 - After a very heavy rain event, several creeks, including Wedowee and Wehadkee Creeks, overflowed their banks. This washed out 15 to 20 roads and bridges across the county.

16 Jun 1999 - Rainfall up to ten inches in a few hours caused flooding throughout the city of Roanoke. Numerous roads were closed and a few homes had water in them. One family was temporarily trapped in their home before being rescued by the fire department.

21 Sep 2000 - Heavy rainfall in a short period of time caused flooding in Wedowee. Many roads were flooded and creeks briefly ran out of their banks.

8 May 2003 - The Tallapoosa River at Wadley was above the flood stage of 13 feet during this period. A crest of approximately 38 feet occurred in the afternoon of May 8. The crest height and time were estimated because the river gauge on SR 22 bridge over the river was under water. The city of Wadley was cut off on the 8th and 9th due to flooding of SR 22 both west and east of the town. The historic flooding came after an estimated 10 inches of rain fell across a large portion of the Tallapoosa River basin. The R. L. Harris Dam opened five of six gates to release water from behind the dam. A number of buildings were flooded in and around Wadley including a small market on the west side of Wadley on SR 22 which had 3 feet of water inside. Farm equipment was caught in areas near the river and also flooded.

Probability

Flood probability and magnitude are highly location-specific. Truly accurate determinations of flood probability and magnitude require site-specific engineering studies and data gathering that is beyond the scope of this hazard profile. Countywide, due to development and weather patterns, floods are rated as a high hazard for the county and its municipalities.

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
Low	0% - 33%
Moderate	34% - 66%
High	67% - 100%

Jurisdiction	Annual Probability of Flooding Event per Jurisdiction
Randolph County	71%
Roanoke	86%
Wadley	71%
Wedowee	77%
Woodland	71%

WINTER STORMS

Description

Winter Storms can vary from cold temperatures accompanied by freezing precipitation to blizzards. Randolph County is not accustomed to snow, ice, and freezing temperatures and lacks the equipment such as snowplows to respond to such events. Winter Storms

negatively affect local agriculture, transportation systems, schools, businesses, and utilities. During a winter storm event many of the structures in the county suffer from power outages due to accumulation of ice on power poles or lack proper heating systems rendering the structure too cold to inhabit. Local municipalities may not have available snow removal equipment or treatments, such as sand or salt, for icy roads. Temperatures below freezing also kill tender vegetation such as flowering plants and crops.

History

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 <u>North Alabama</u>	02/11/1995	1300	Snow/ice	N/A	0	0	0	0
2 <u>ALZ001>038</u>	01/06/1996	08:00 PM	Winter Storm	N/A	0	0	380K	38K
3 <u>ALZ028>029 - 035>038 - 040>049</u>	12/18/1996	02:00 PM	Winter Storm	N/A	0	0	240K	320K
4 <u>ALZ001>010 - 016 - 018>021 - 028>029 - 037>038 - 047</u>	12/29/1997	01:00 AM	Winter Storm	N/A	0	0	0K	0K
5 <u>ALZ009>010 - 020>021 - 029 - 038</u>	01/28/2000	06:00 AM	Ice Storm	N/A	0	0	1.1M	0K
6 <u>ALZ021 - 029 - 038 - 047>048</u>	01/03/2002	05:00 AM	Heavy Snow	N/A	0	0	0K	0K
7 <u>ALZ020>021 - 028>029 - 037>038 - 047</u>	01/28/2005	07:45 PM	Ice Storm	N/A	0	0	425K	0
8 <u>ALZ021 - 024 - 027>029 - 031>043 - 047</u>	01/19/2008	06:00 AM	Heavy Snow	N/A	0	0	0K	0K
9 <u>ALZ021 - 024 - 027>029 - 031>043 - 047</u>	01/19/2008	06:00 AM	Winter Weather	N/A	0	0	0K	0K
TOTALS:					0	0	2.155M	358K

Location

The entire county and all municipalities are equally at risk for snow and freezing precipitation from winter storms. What is especially treacherous is when this event occurs on the shady slopes of roadways. The terrain in Randolph County is hilly and the majority of County Roads and State Highways have moderate slopes.

Extent

The extents of winter storms are directly correlated to the strength of the storm and the municipality's ability to handle a storm. In Randolph County and its municipalities the resources to combat the effects of a storm are minimal. The County maintains equipment capable of spreading "cinders" or salt on roads to help in the deicing of roadways. That is about the extent of the County's ability to battle winter weather. During the most brutal of storms, one can expect area wide power outages, loss of life to livestock and humans,

crippled transportation systems and loss of retail and economic activities due to closed roads and power outages. The following text describes some of the storms and their impact on the county in the past.

11 Feb 1995 - A winter storm brought a mixture of precipitation generally to the northern third of Alabama. Snowfall amounts were generally in the one to two-inch range while icing was reported in many locations across northern Alabama as water froze mainly on bridges and overpasses. A number of automobile accidents were attributed to the poor driving conditions.

06 Jan 1996 - A winter storm brought a mixture of freezing rain, sleet, and snow to the northern two-thirds of Alabama. Precipitation began as freezing rain and sleet but quickly changed to snow. The precipitation coated roads and caused serious travel problems across the northern sections of the state that lasted into Monday morning (the 8th). Some higher elevations of the northeast corner of Alabama had travel problems into Tuesday. Amounts were generally light with the highest snowfall reported at Huntsville International Airport with 2 inches. Most other locations across North Alabama reported one-quarter of an inch to an inch and a half.

18 Dec 1996 - A snowstorm that began in the early afternoon hours across the central sections of the state dumped 1 to 3 inches of snow on parts of the state. It was over by early evening. Schools and businesses let out early on the 18th across much of the area affected. A few roads became slick but there were no major travel problems reported. The snow remained on the ground in some areas for about two days. Randolph County received 2 – 3 inches of snow during this event.

29 Dec 1997 - A low-pressure system developed in the Gulf of Mexico and moved ashore, bringing snow to the area. The snowfall began in the early morning hours in the western part of the state and moved to the east, ending by late morning. Snowfall amounts were in the one to two inch range in the Tennessee valley and eastern Alabama, with a few isolated amounts of three to four inches.

28 Jan 2000 - Very light precipitation started falling early in the morning of the 28th. The precipitation was initially a mix of rain, sleet, and snow. Little to no accumulation of snow occurred across the area. As the day progressed, the precipitation changed to light freezing rain and lasted until the afternoon of the 29th. Significant accumulation of ice occurred on trees and bridges mainly in the higher elevations. Most of this same area was hit very hard by an ice storm on the 22nd and 23rd and had not recovered yet. Numerous trees and power lines went down across the area and the falling trees damaged several homes and automobiles. Many roads were impassable and closed. A young man was killed in Dekalb County when a car slid into him while he was riding a four-wheeler. Thousands of people were without power for several hours.

03 Jan 2002 - A second round of snow less than 24 hours after a heavy snow affected a number of counties in eastern Alabama with five counties reporting 2 to 3 inches of

additional snow. Several other counties to the west and south of these five also received snow with amounts less than 2 inches.

29 Jan 2005 - Strong Cold Air Damming along the Southern Appalachians provided a continuous source of surface cold and dry air from the east. This colder air, in combination with an approaching storm system with abundant gulf moisture, changed the rain to freezing rain across a large part of eastern Alabama. Exposed surfaces had ice accumulation to at least one half of an inch with a few locations reporting ice accumulations of around one inch. Numerous trees, tree limbs, and power lines were knocked down and many of the fallen trees temporarily blocked roadways. Several homes and vehicles were damaged by the fallen trees. Several area bridges became totally iced over and were very hazardous for travel. Many roads were temporarily closed due to icing. Power outages were widespread during the early morning hours with up to 30,000 homes and businesses without power. The rain changed over to freezing rain just after sunset on January 28. Icing conditions started in the early evening hours and tapered off to no additional significant accumulations early on January 29.

Probability

From information obtained from the National Climatic Data Center was used to determine the frequency and probability of winter storm events for Randolph County.

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent chance of occurrence in any year
Low	0% - 33%
Moderate	34% - 66%
High	67% - 100%

Randolph County has a moderate probability of occurrence for this type of event.

HURRICANES

Description

A hurricane is a type of tropical cyclone, which is a generic term for a low-pressure system that generally forms in the tropics. The cyclone is accompanied by thunderstorms and, in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. However, winds are not the only hazard that hurricanes present, hurricanes also produce storm surges, tornadoes, and inland flooding. Fresh water floods have accounted for more than half (59%) of U.S. tropical cyclones deaths over the past 30 years. These floods are why 63% of U.S. tropical cyclones deaths during that period occurred in inland counties.

Hurricane Category Chart

Category	Winds	Surge	Central Pressure
<u>1 - Minimal</u>	74 - 95 mph or 64 - 82 kts	4 - 5 feet	greater than 980 mb or 28.94 in
<u>2 - Moderate</u>	96 - 110 mph or 83 - 95 kts	6 - 8 feet	965 - 979 mb or 28.50 - 28.91 in
<u>3 - Extensive</u>	111 - 130 mph or 96 - 113 kts	9 - 12 feet	945 - 964 mb or 27.91 - 28.47 in
<u>4 - Extreme</u>	131 - 155 mph or 114 - 135 kts	13 - 18 feet	920 - 944 mb or 27.17 - 27.88 in
<u>5 - Catastrophic</u>	greater than 155 mph or 135 kts	greater than 18 feet	less than 920 mb or 27.17 in

Though the center of Randolph County is located approximately 250 miles from the Gulf of Mexico, hurricanes and tropical storms have brought high winds and heavy rains to the area as they move north.

History

History teaches that hurricane disasters have occurred in the past and will again in the future. A lack of hurricane education and planning are common threads among all major hurricane disasters. When it comes to hurricanes, wind speeds do not tell the whole story. Hurricanes produce storm surges, tornadoes, and often the most deadly of all - inland flooding. Freshwater floods accounted for more than half (59%) of U.S. tropical cyclone deaths over the past 30 years. These floods are why 63% of U.S. tropical cyclone deaths during that period occurred in inland counties.

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
<u>1 ALZ001>050</u>	10/04/1995	1200	Hurricane Opal/high Winds	N/A	2	0	0.1B	10.0M
<u>ALZ029</u>	09/16/2004	0730	High Wind	56 kts.	0	0	125K	0
<u>2 ALZ029</u>	07/10/2005	1600	Tropical Storm	N/A	0	0	47K	0
<u>3 ALZ011>015 - 017>050</u>	08/29/2005	1600	Tropical Storm	N/A	0	8	34.9M	0
TOTALS:					2	8	134.937M	10.000M

According to the Alabama Emergency Management Agency Public Assistance Division, damages for the last three major Hurricane Disaster Declarations in which Randolph County was included are:

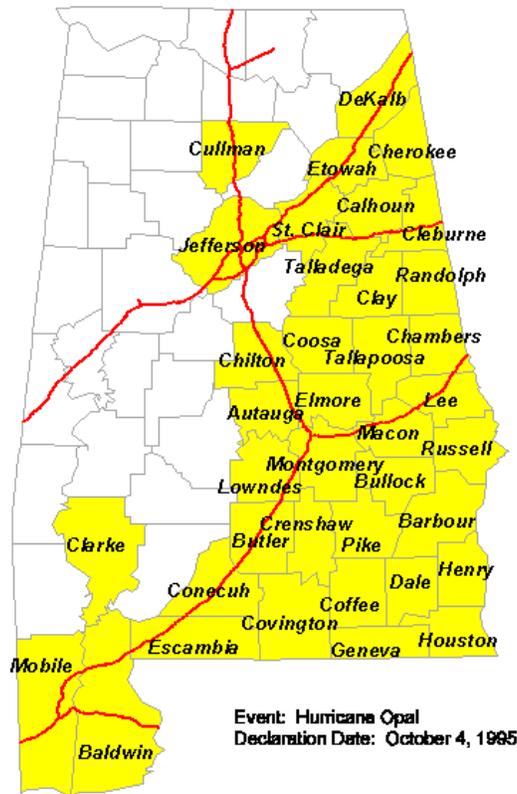
1549-DR Hurricane Ivan	\$0.00
1593-DR Hurricane Dennis	\$158,450.05
1605-DR Hurricane Katrina	\$0.00

Location

Generally, by the time a storm approaches Randolph County, it has been downgraded to a Tropical Storm. The entire County suffers the effects, with the developed areas resulting in more damages.

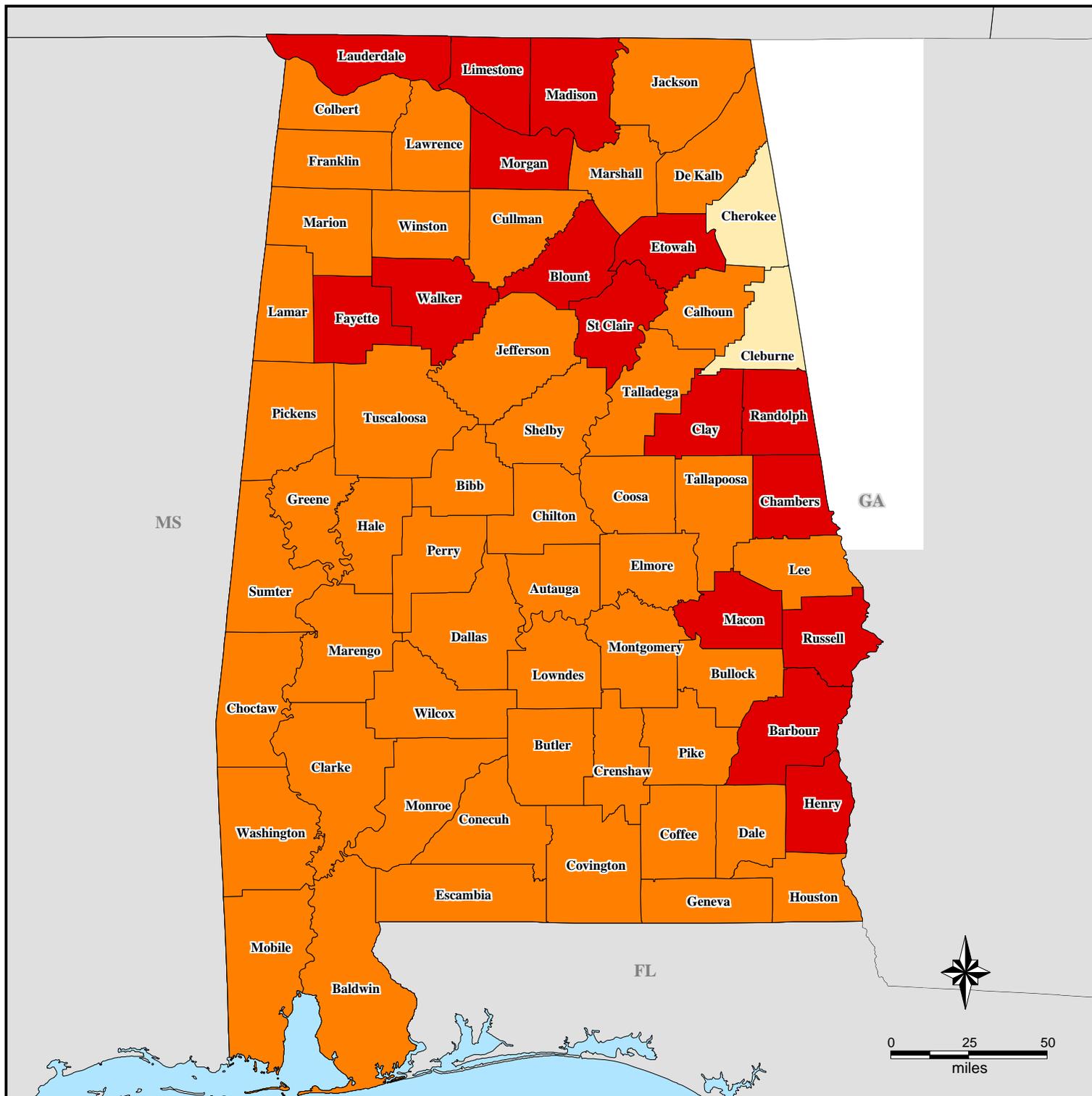
The following maps indicate the previous disaster declarations for the State of Alabama that have included Randolph County: Hurricane Opal in 1995, Hurricane Ivan in 2004 and Hurricanes Dennis and Katrina in 2005.

Hurricane Opal, 1995

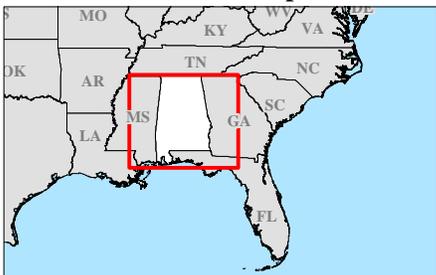


FEMA-1549-DR, Alabama

Disaster Declaration as of 12/03/2004



Location Map



Legend

Designated Counties
(All counties are eligible for Hazard Mitigation)

- Individual Assistance
- Individual & Public Assistance
- Public Assistance



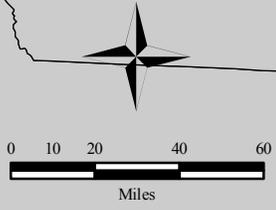
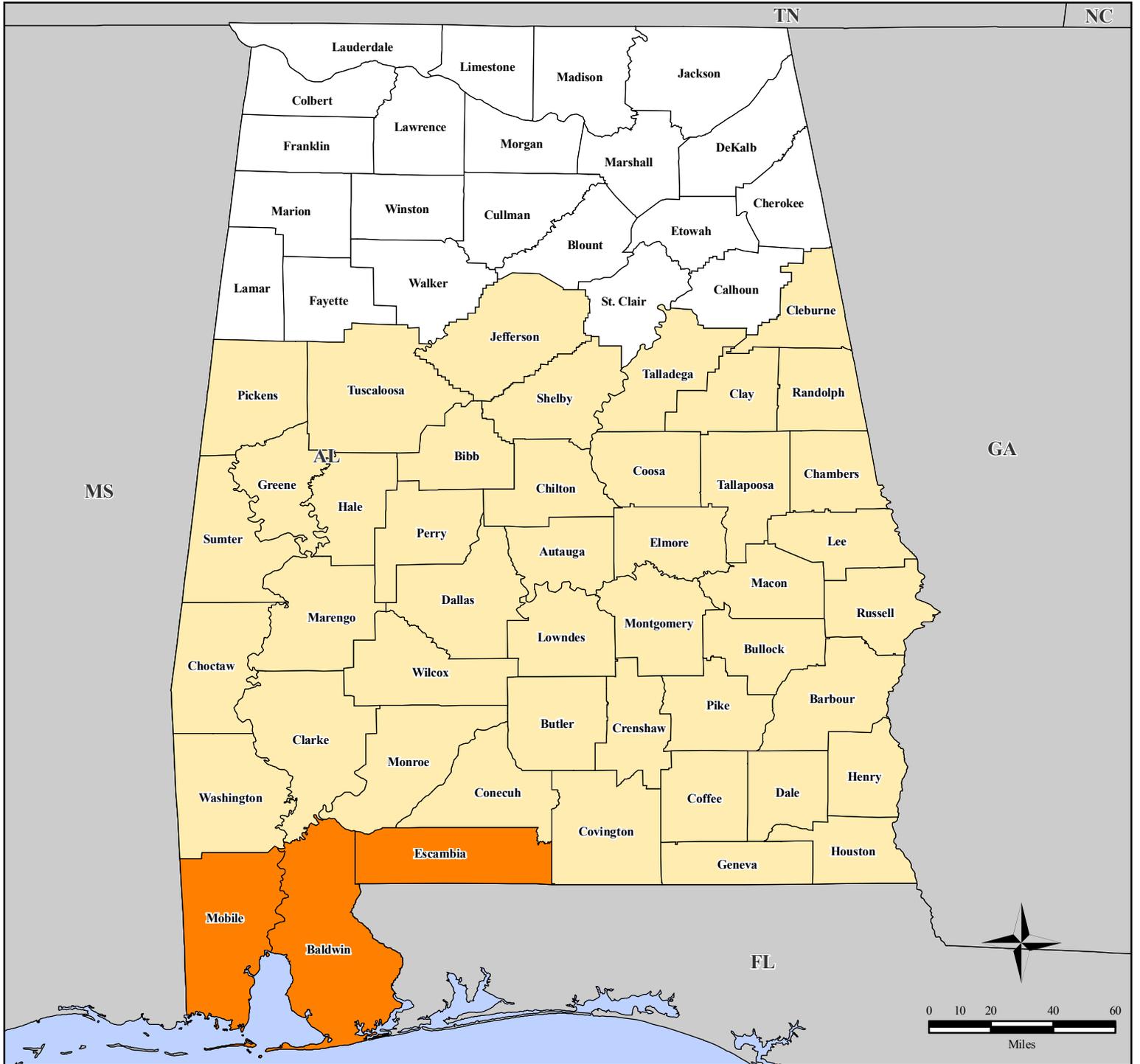
FEMA

ITS Mapping and Analysis Center
Washington, DC

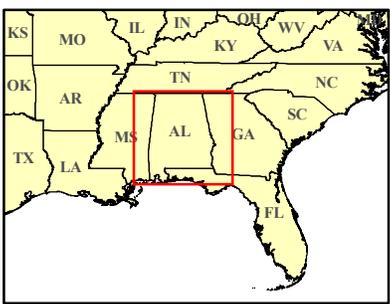
12/03/2004 -- 15:29:28 EST

FEMA-1593-DR, Alabama

Disaster Declaration as of 08/04/2005



Location Map



Legend

Designated Counties

- No Designation
- Individual and Public Assistance
- Public Assistance

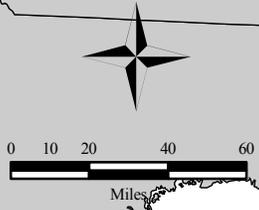
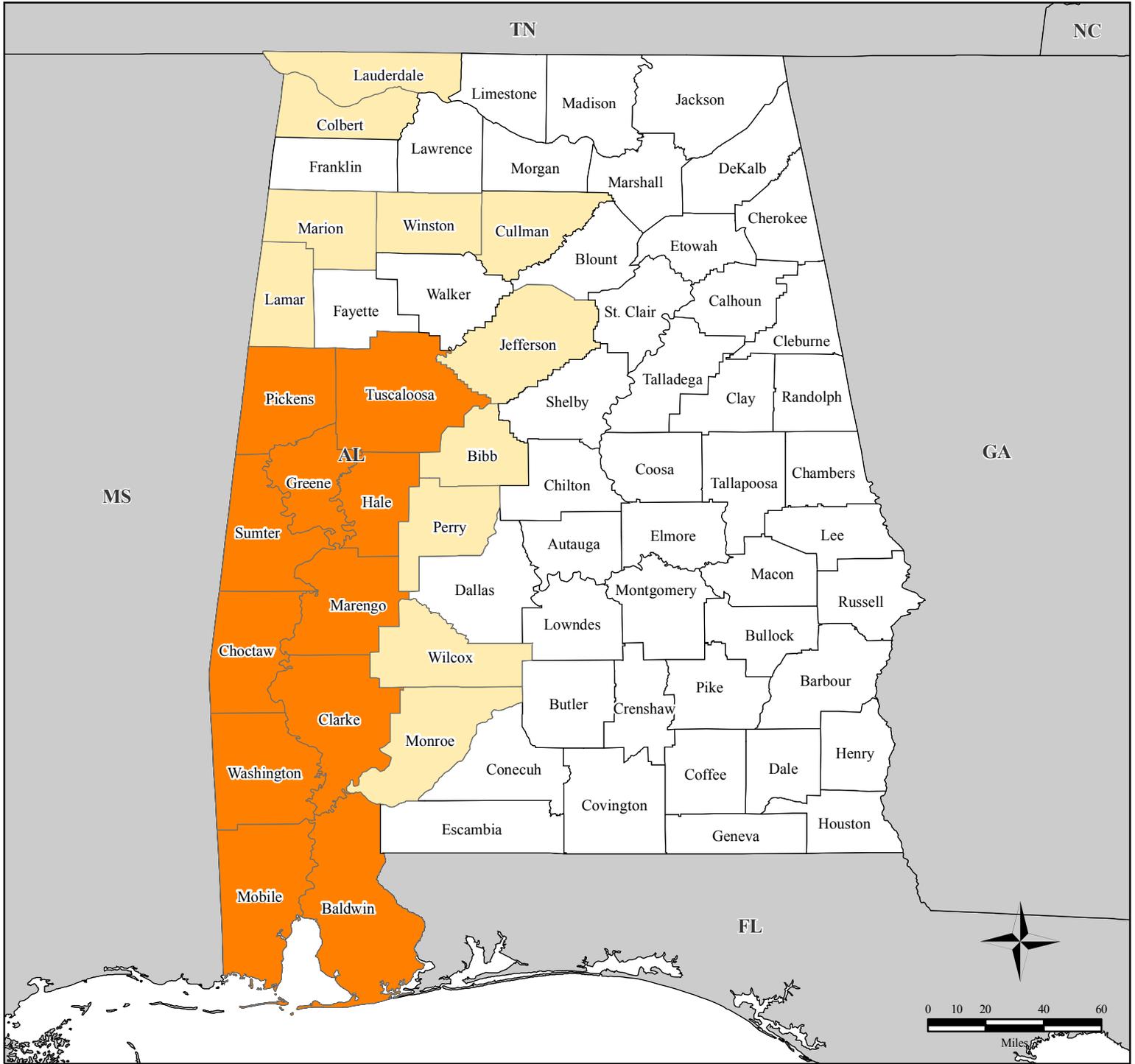


FEMA

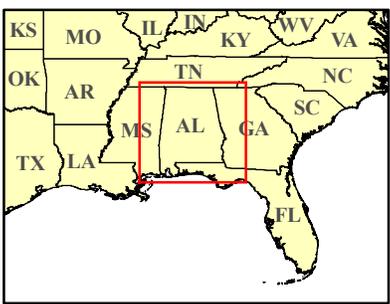
*ITS Mapping and Analysis Center
Washington, DC
08/05/05 -- 09:15:00 EDT*

FEMA-1605-DR, Alabama

Disaster Declaration as of 10/05/2005



Location Map



Legend

Designated Counties	
	No Designation
	Individual and Public Assistance
	Public Assistance



FEMA

ITS Mapping and Analysis Center
Washington, DC
10/05/05 -- 18:04:00 EDT

Extent

Due to its location, Randolph County would experience secondary effects from hurricanes and tropical storms consisting of strong winds, heavy rain and tornadic activity spawned from the dying hurricane. Street flooding, property damage and damage to buildings can be the extent expected with these types of events. Frequently, power outages accompany these storms when they reach the area. In a “worst case” scenario, the effects of Hurricane Opal would exist compounded with widespread flooding.

04 October 1995 – Hurricane Opal. Hurricane Opal moved ashore in the Florida Panhandle then moved north-northeast across the state of Alabama. Damage was extensive and no county in the state was spared some effect of the storm. Damage was the greatest in the eastern counties with damage decreasing from east-to-west across the state. Damage also decreased as you went north in the state. Damage varied with many trees, signs, and power lines downed. At the worst, 2.6 million people in Alabama were without electricity, some for over a week. The center of the storm entered the state near the Covington/Escambia County line on the Florida border. It moved north-northeast with the center moving just west of the city of Montgomery, near the City of Talladega, and near Fort Payne before exiting the state near the northeast tip. Primary damage came from strong wind that toppled trees and power lines and damaged signs. Mobile homes were damage both by falling trees and by strong wind.

16 Sep 2004 – (Ivan) Hundreds of trees and power lines were knocked down across the county. At least 5500 customers were without power and the power was not fully restored in a few places for 2 to 3 days. One home was totally destroyed and 10 to 20 others received mainly minor damage. Maximum wind gusts were estimated around 65 miles an hour. Doppler radar and ground observations indicate as much as 5 inches of rain fell during Ivan. A few homes received minor water damage and one road was washed out.

10 July 2005 – (Dennis) Several trees and power lines were knocked down in association with Dennis. At least one structural fire was reported due to power lines.

29 Aug 2005 – (Katrina) The County and its municipalities experienced minor wind effects and some flooding associated with this event.

Probability

Twenty-six hurricanes have affected the State of Alabama since 1926, which translates into an annual probability of 31% that a hurricane would affect the State. Randolph County lies approximately 250 miles from the nearest coast. The severity of the storm would define the probability of the County feeling the effects of the storm. Hurricane Katrina had minimal impact on the County, while Hurricane Opal left the County and its municipalities crippled for days due to the infrastructure impact (power outage).

The Hazard Mitigation Planning Committee ranked probability of occurrence by the number of events over a specified time frame. The following table represents the scale of probability:

Probability Ranking	Percent Chance of Occurrence in any Year
Low	0% - 33%
Moderate	34% - 66%
High	67% - 100%

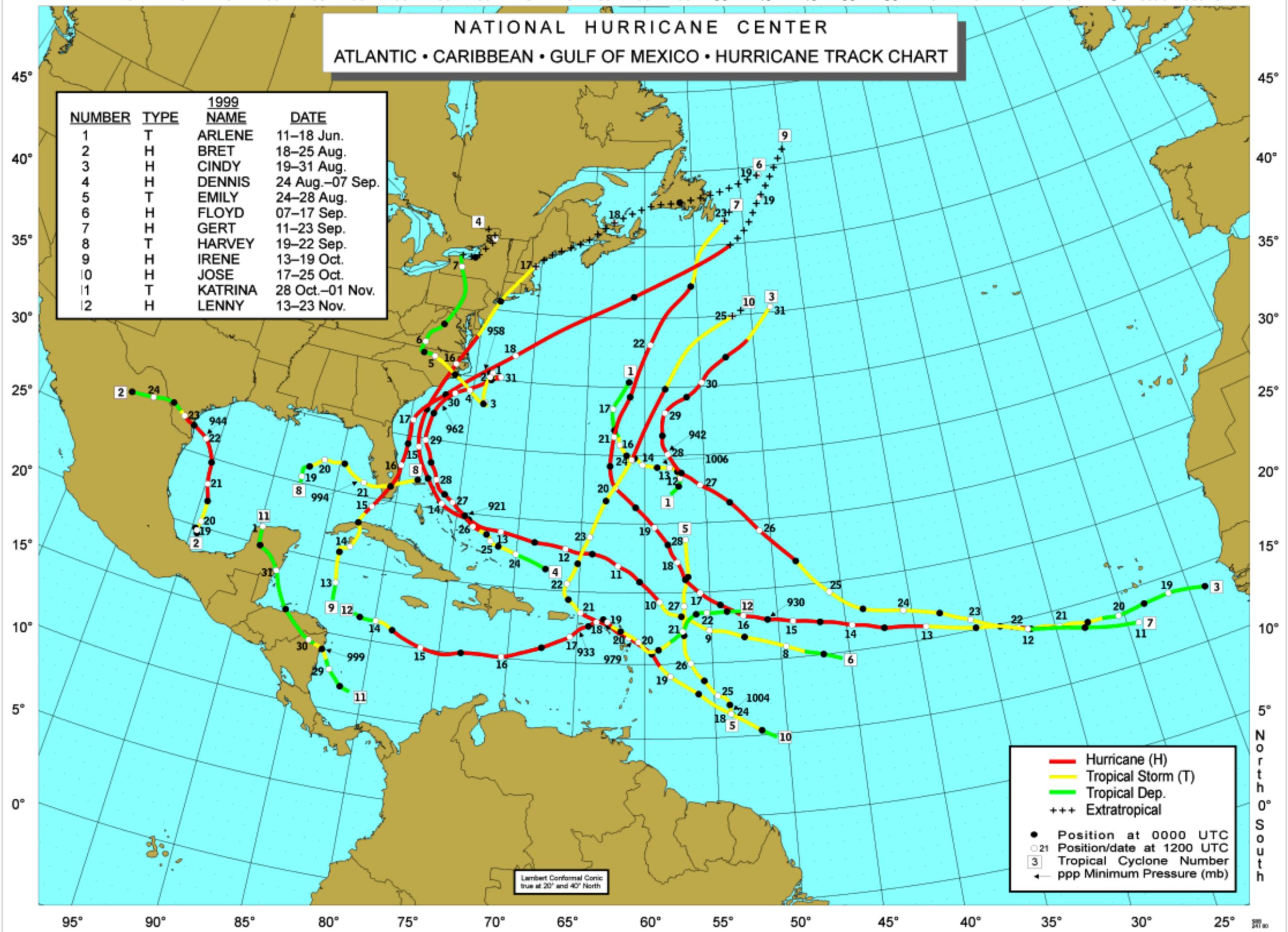
Randolph County has a low probability of occurrence for this type of event.

The year 2005 was an unusually active year for hurricane activity. The State of Alabama was issued two Presidential Disaster Declarations for two out of 27 named storms. The following maps represent hurricane tracks for the past ten years.

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	1999 NAME	DATE
1	T	ARLENE	11–18 Jun.
2	H	BRET	18–25 Aug.
3	H	CINDY	19–31 Aug.
4	H	DENNIS	24 Aug.–07 Sep.
5	T	EMILY	24–28 Aug.
6	H	FLOYD	07–17 Sep.
7	H	GERT	11–23 Sep.
8	T	HARVEY	19–22 Sep.
9	H	IRENE	13–19 Oct.
10	H	JOSE	17–25 Oct.
11	T	KATRINA	28 Oct.–01 Nov.
12	H	LENNY	13–23 Nov.



- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- Position at 0000 UTC
- ₂₁ Position/date at 1200 UTC
- ₃ Tropical Cyclone Number
- ← ppp Minimum Pressure (mb)

Lambert Conformal Conic
true at 20° and 40° North

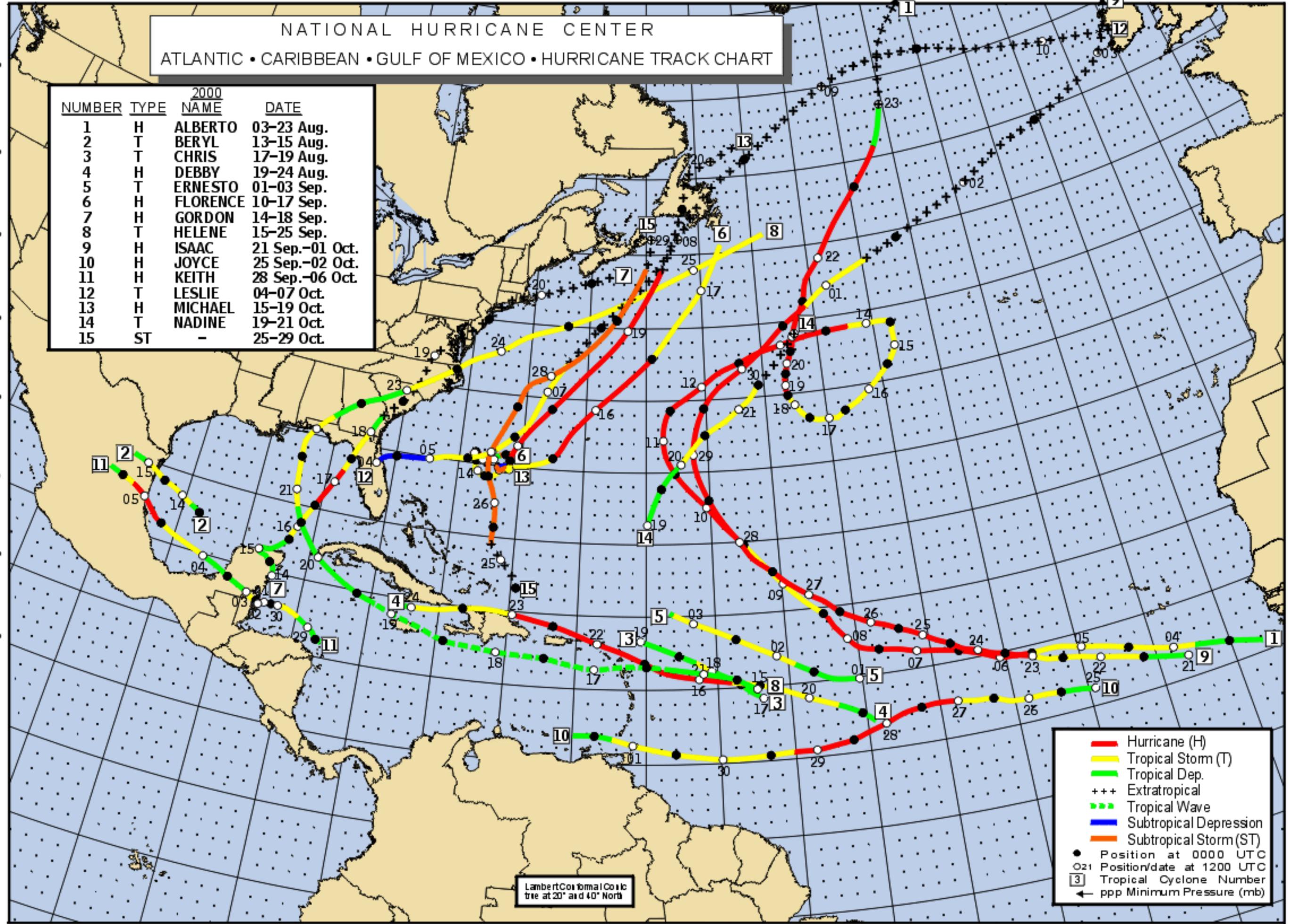
North
0°
South

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER
ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2000 NAME	DATE
1	H	ALBERTO	03-23 Aug.
2	T	BERYL	13-15 Aug.
3	T	CHRIS	17-19 Aug.
4	H	DEBBY	19-24 Aug.
5	T	ERNESTO	01-03 Sep.
6	H	FLORENCE	10-17 Sep.
7	H	GORDON	14-18 Sep.
8	T	HELENE	15-25 Sep.
9	H	ISAAC	21 Sep.-01 Oct.
10	H	JOYCE	25 Sep.-02 Oct.
11	H	KEITH	28 Sep.-06 Oct.
12	T	LESLIE	04-07 Oct.
13	H	MICHAEL	15-19 Oct.
14	T	NADINE	19-21 Oct.
15	ST	-	25-29 Oct.



Lambert Conformal Conic
Projection at 20° and 40° North

- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- - - Tropical Wave
- Subtropical Depression
- Subtropical Storm (ST)
- Position at 0000 UTC
- Position/date at 1200 UTC
- [3] Tropical Cyclone Number
- ← ppp Minimum Pressure (mb)

45°
40°
35°
30°
25°
20°
15°
10°
5° North
0° South

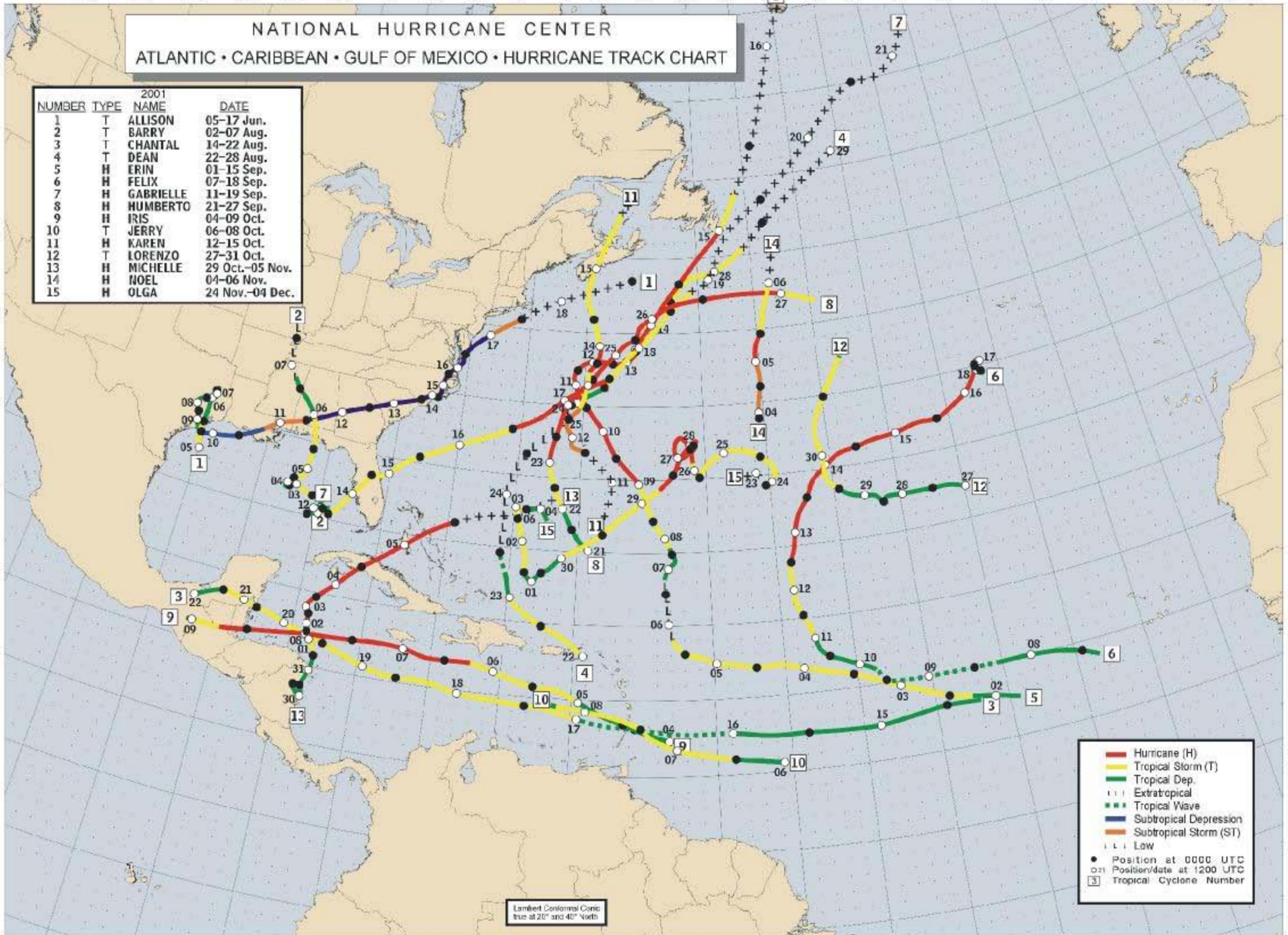
45°
40°
35°
30°
25°
20°
15°
10°
5° North
0° South

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2001 NAME	DATE
1	T	ALLISON	05-17 Jun.
2	T	BARRY	02-07 Aug.
3	T	CHANTAL	14-22 Aug.
4	T	DEAN	22-28 Aug.
5	H	ERIN	01-15 Sep.
6	H	FELIX	07-18 Sep.
7	H	GABRIELLE	11-19 Sep.
8	H	HUMBERTO	21-27 Sep.
9	H	IRIS	04-09 Oct.
10	T	JERRY	06-08 Oct.
11	H	KAREN	12-15 Oct.
12	T	LORENZO	27-31 Oct.
13	H	MICHELLE	29 Oct.-05 Nov.
14	H	NOEL	04-06 Nov.
15	H	OLGA	24 Nov.-04 Dec.



- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- ... Extratropical
- - - Tropical Wave
- Subtropical Depression
- Subtropical Storm (ST)
- L L L Low
- Position at 0000 UTC
- Position/date at 1200 UTC
- 3 Tropical Cyclone Number

Lambert Conformal Conic
true at 20° and 40° North

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

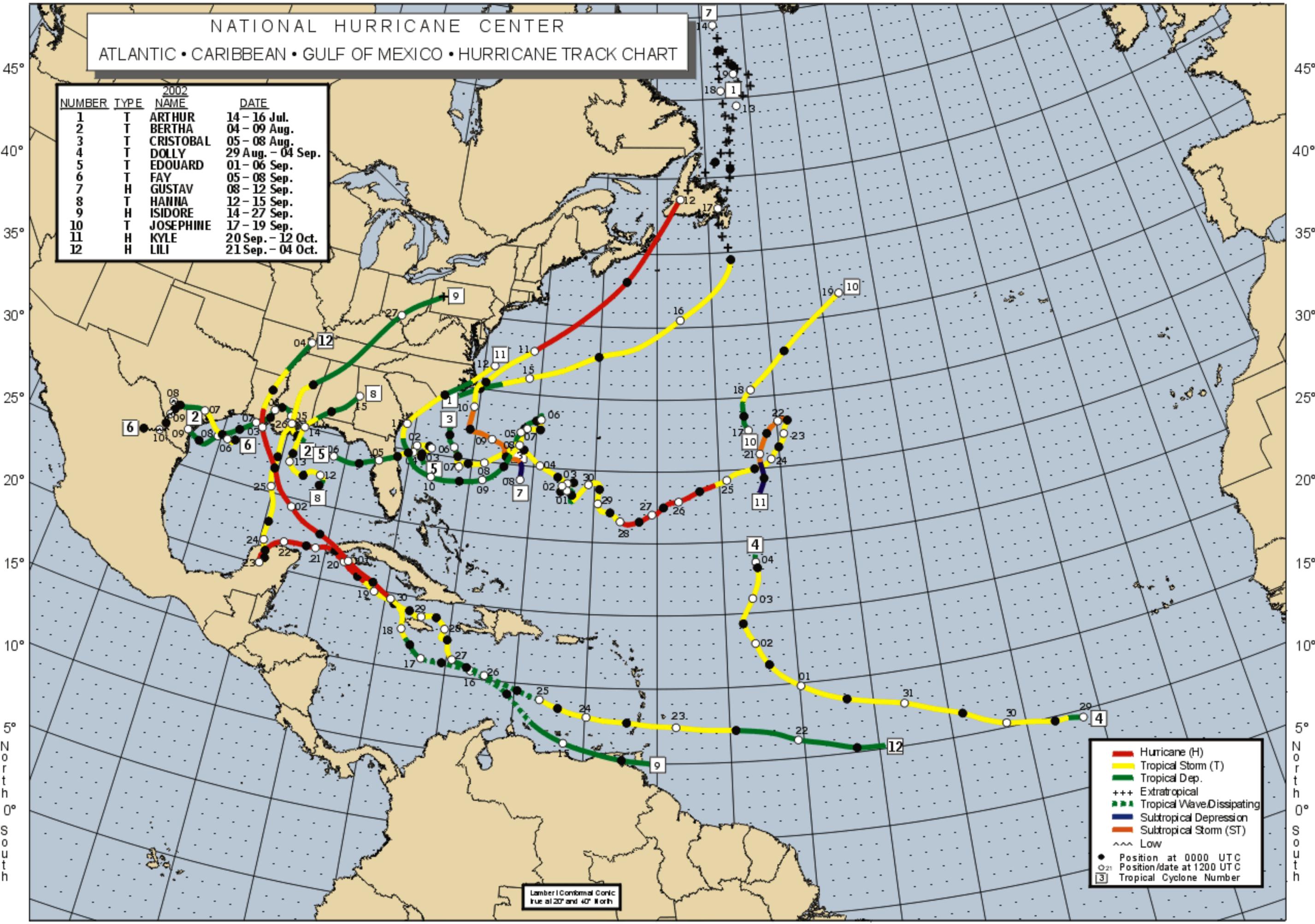
North
0°
South

North
0°
South

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER
 ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2002 NAME	DATE
1	T	ARTHUR	14 - 16 Jul.
2	T	BERTHA	04 - 09 Aug.
3	T	CRISTOBAL	05 - 08 Aug.
4	T	DOLLY	29 Aug. - 04 Sep.
5	T	EDOUARD	01 - 06 Sep.
6	T	FAY	05 - 08 Sep.
7	H	GUSTAV	08 - 12 Sep.
8	T	HANNA	12 - 15 Sep.
9	H	ISIDORE	14 - 27 Sep.
10	T	JOSEPHINE	17 - 19 Sep.
11	H	KYLE	20 Sep. - 12 Oct.
12	H	LILI	21 Sep. - 04 Oct.



- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- Subtropical Depression
- Subtropical Storm (ST)
- ~ Low
- Position at 0000 UTC
- Position/date at 1200 UTC
- ☐ Tropical Cyclone Number

Lambert Conformal Conic
 True at 20° and 40° North

North
0°
South

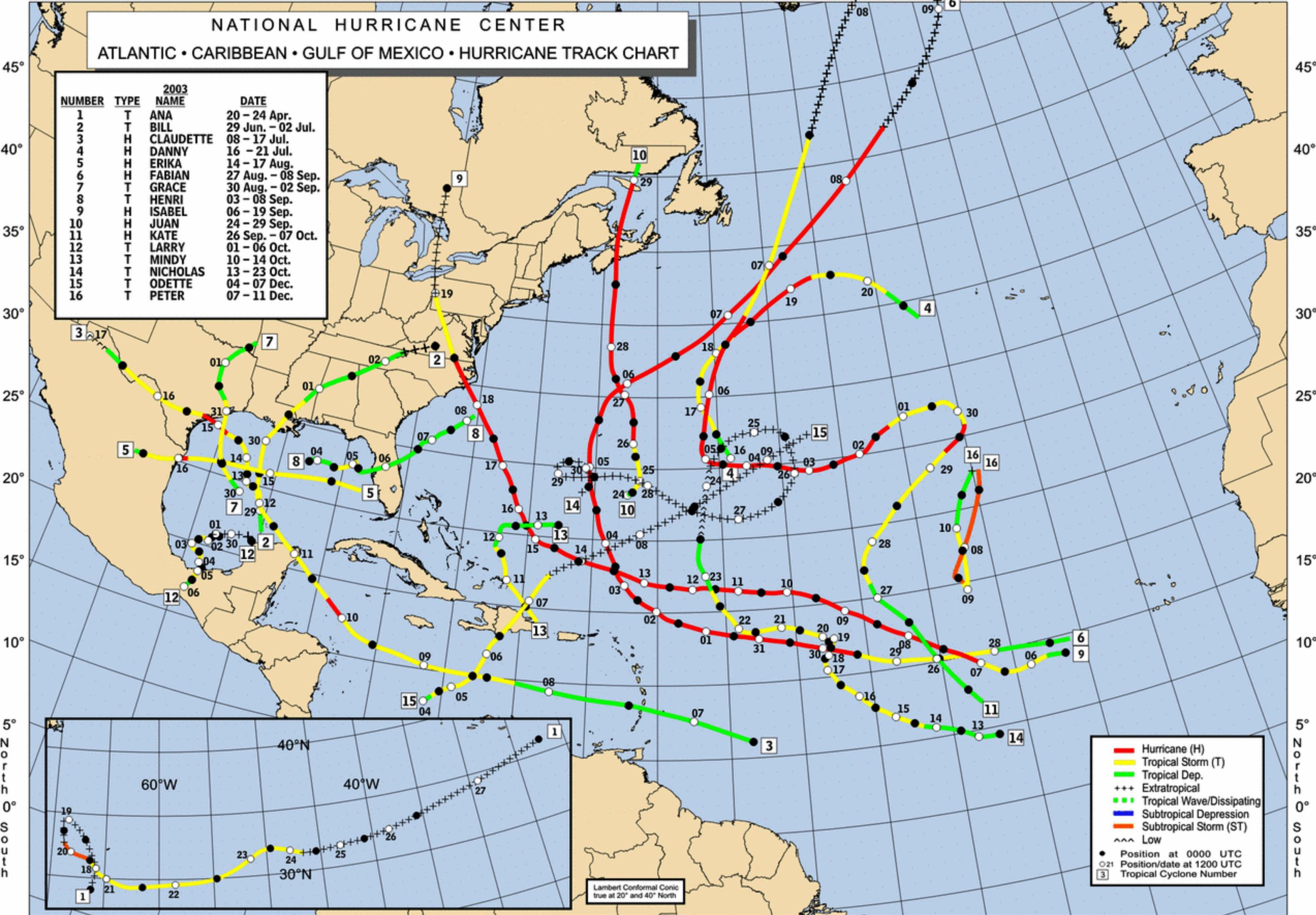
North
0°
South

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER
ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2003 NAME	DATE
1	T	ANA	20 - 24 Apr.
2	T	BILL	29 Jun. - 02 Jul.
3	H	CLAUDETTE	08 - 17 Jul.
4	H	DANNY	16 - 21 Jul.
5	H	ERIKA	14 - 17 Aug.
6	H	FABIAN	27 Aug. - 08 Sep.
7	T	GRACE	30 Aug. - 02 Sep.
8	T	HENRI	03 - 08 Sep.
9	H	ISABEL	06 - 19 Sep.
10	H	JUAN	24 - 29 Sep.
11	H	KATE	26 Sep. - 07 Oct.
12	T	LARRY	01 - 06 Oct.
13	T	MINDY	10 - 14 Oct.
14	T	NICHOLAS	13 - 23 Oct.
15	T	ODETTE	04 - 07 Dec.
16	T	PETER	07 - 11 Dec.



Legend:

- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- Subtropical Depression
- Subtropical Storm (ST)
- ~ Low
- Position at 0000 UTC
- Position/date at 1200 UTC
- ☐ Tropical Cyclone Number

Lambert Conformal Conic
 true at 20° and 40° North

North
0°
South

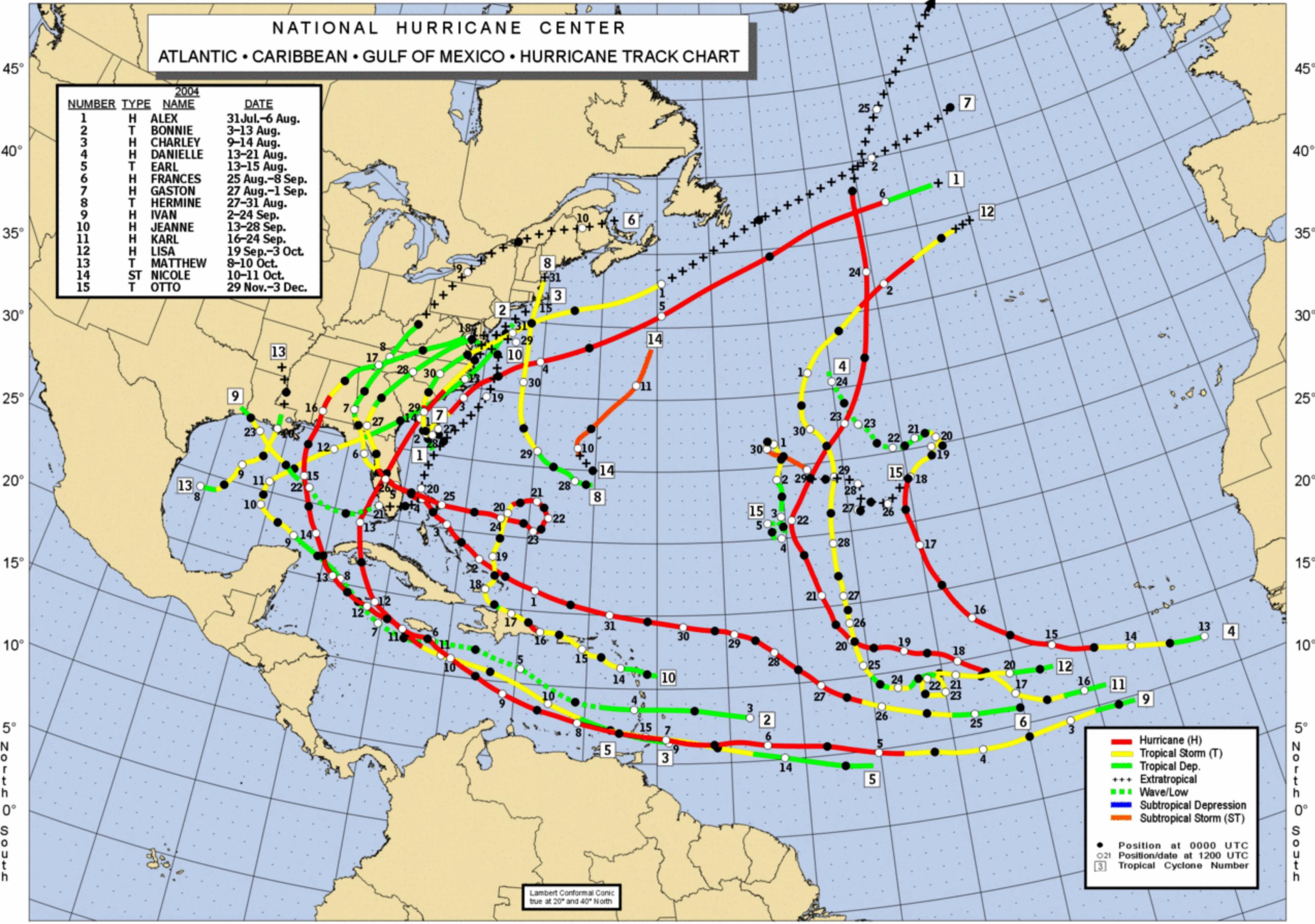
North
0°
South

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER
ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

2004			
NUMBER	TYPE	NAME	DATE
1	H	ALEX	31 Jul.-6 Aug.
2	T	BONNIE	3-13 Aug.
3	H	CHARLEY	9-14 Aug.
4	H	DANIELLE	13-21 Aug.
5	T	EARL	13-15 Aug.
6	H	FRANCES	25 Aug.-8 Sep.
7	H	GASTON	27 Aug.-1 Sep.
8	T	HERMINE	27-31 Aug.
9	H	IVAN	2-24 Sep.
10	H	JEANNE	13-28 Sep.
11	H	KARL	16-24 Sep.
12	H	LISA	19 Sep.-3 Oct.
13	T	MATTHEW	8-10 Oct.
14	ST	NICOLE	10-11 Oct.
15	T	OTTO	29 Nov.-3 Dec.



- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- - - Wave/Low
- Subtropical Depression
- Subtropical Storm (ST)

- Position at 0000 UTC
- Position/date at 1200 UTC
- ③ Tropical Cyclone Number

Lambert Conformal Conic
true at 20° and 40° North

95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

North
0°
South

North
0°
South

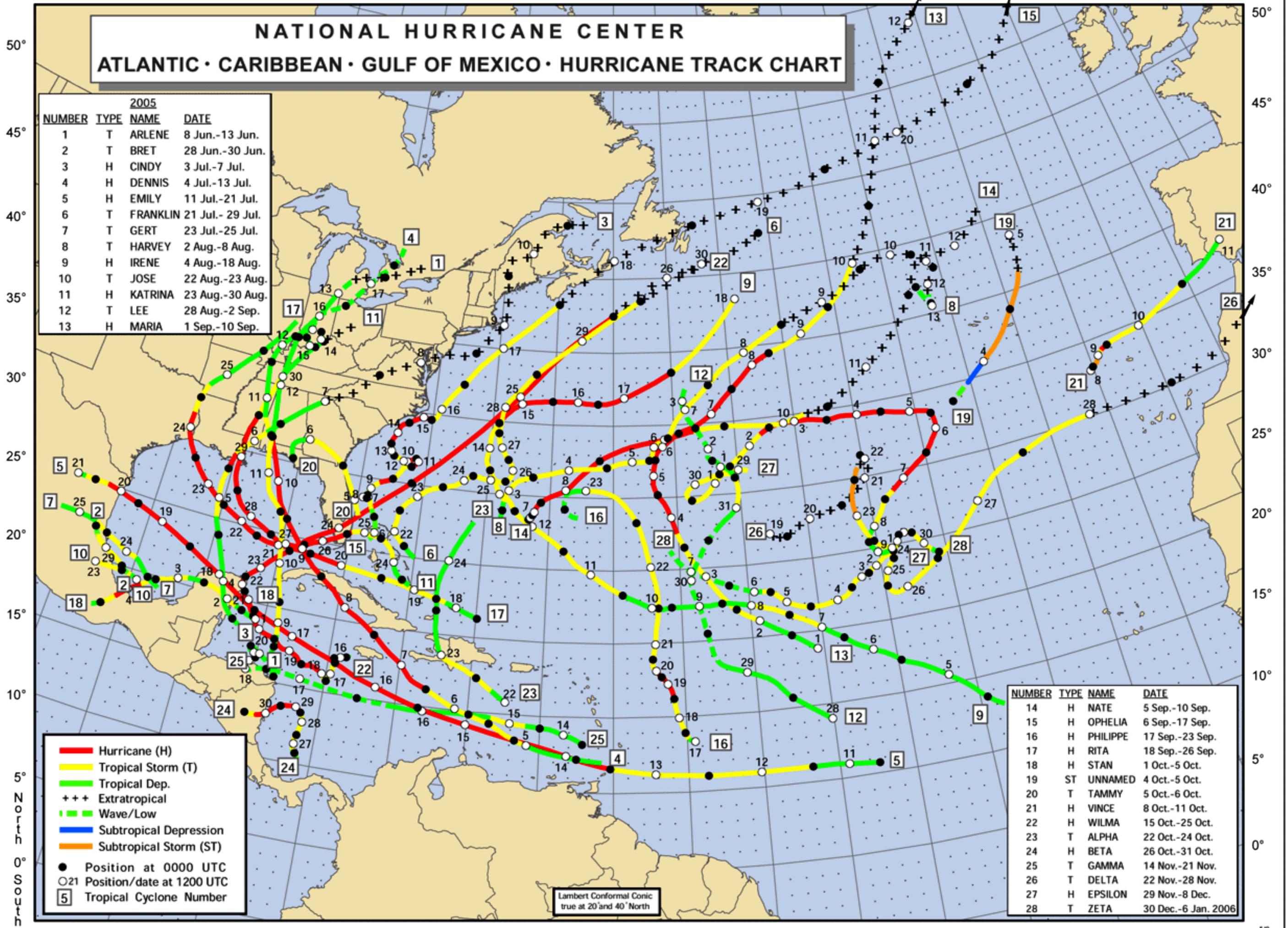
NATIONAL HURRICANE CENTER ATLANTIC · CARIBBEAN · GULF OF MEXICO · HURRICANE TRACK CHART

2005			
NUMBER	TYPE	NAME	DATE
1	T	ARLENE	8 Jun.-13 Jun.
2	T	BRET	28 Jun.-30 Jun.
3	H	CINDY	3 Jul.-7 Jul.
4	H	DENNIS	4 Jul.-13 Jul.
5	H	EMILY	11 Jul.-21 Jul.
6	T	FRANKLIN	21 Jul.-29 Jul.
7	T	GERT	23 Jul.-25 Jul.
8	T	HARVEY	2 Aug.-8 Aug.
9	H	IRENE	4 Aug.-18 Aug.
10	T	JOSE	22 Aug.-23 Aug.
11	H	KATRINA	23 Aug.-30 Aug.
12	T	LEE	28 Aug.-2 Sep.
13	H	MARIA	1 Sep.-10 Sep.

NUMBER	TYPE	NAME	DATE
14	H	NATE	5 Sep.-10 Sep.
15	H	OPHELIA	6 Sep.-17 Sep.
16	H	PHILIPPE	17 Sep.-23 Sep.
17	H	RITA	18 Sep.-26 Sep.
18	H	STAN	1 Oct.-5 Oct.
19	ST	UNNAMED	4 Oct.-5 Oct.
20	T	TAMMY	5 Oct.-6 Oct.
21	H	VINCE	8 Oct.-11 Oct.
22	H	WILMA	15 Oct.-25 Oct.
23	T	ALPHA	22 Oct.-24 Oct.
24	H	BETA	26 Oct.-31 Oct.
25	T	GAMMA	14 Nov.-21 Nov.
26	T	DELTA	22 Nov.-28 Nov.
27	H	EPSILON	29 Nov.-8 Dec.
28	T	ZETA	30 Dec.-6 Jan. 2006

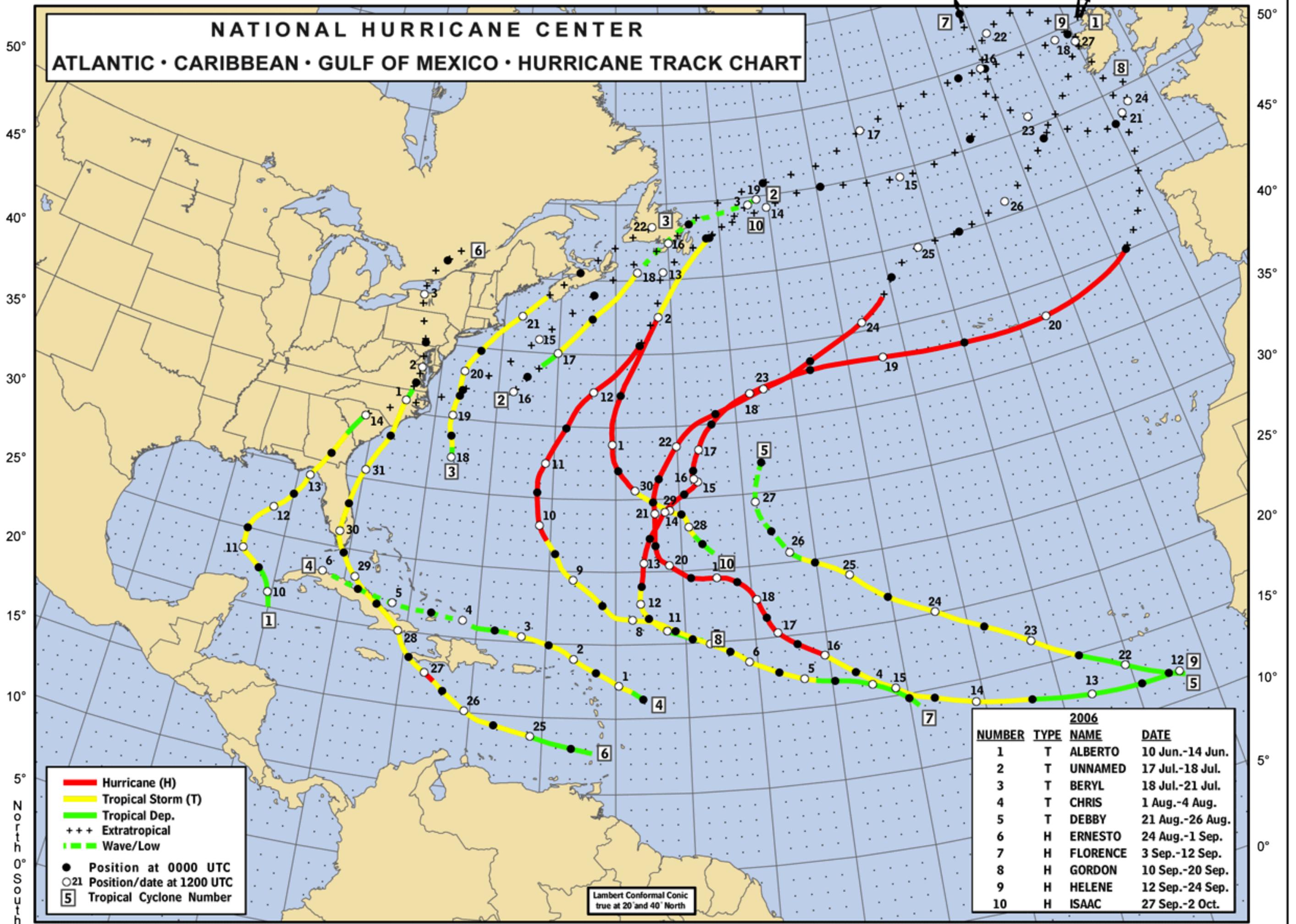
- Hurricane (H)
- Tropical Storm (T)
- Tropical Dep.
- +++ Extratropical
- - - Wave/Low
- Subtropical Depression
- Subtropical Storm (ST)
- Position at 0000 UTC
- Position/date at 1200 UTC
- 5 Tropical Cyclone Number

Lambert Conformal Conic
true at 20° and 40° North



120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART



— Hurricane (H)
— Tropical Storm (T)
— Tropical Dep.
 +++ Extratropical
- - - Wave/Low
 ● Position at 0000 UTC
 ○ Position/date at 1200 UTC
 [5] Tropical Cyclone Number

Lambert Conformal Conic
true at 20° and 40° North

2006			
NUMBER	TYPE	NAME	DATE
1	T	ALBERTO	10 Jun.-14 Jun.
2	T	UNNAMED	17 Jul.-18 Jul.
3	T	BERYL	18 Jul.-21 Jul.
4	T	CHRIS	1 Aug.-4 Aug.
5	T	DEBBY	21 Aug.-26 Aug.
6	H	ERNESTO	24 Aug.-1 Sep.
7	H	FLORENCE	3 Sep.-12 Sep.
8	H	GORDON	10 Sep.-20 Sep.
9	H	HELENE	12 Sep.-24 Sep.
10	H	ISAAC	27 Sep.-2 Oct.

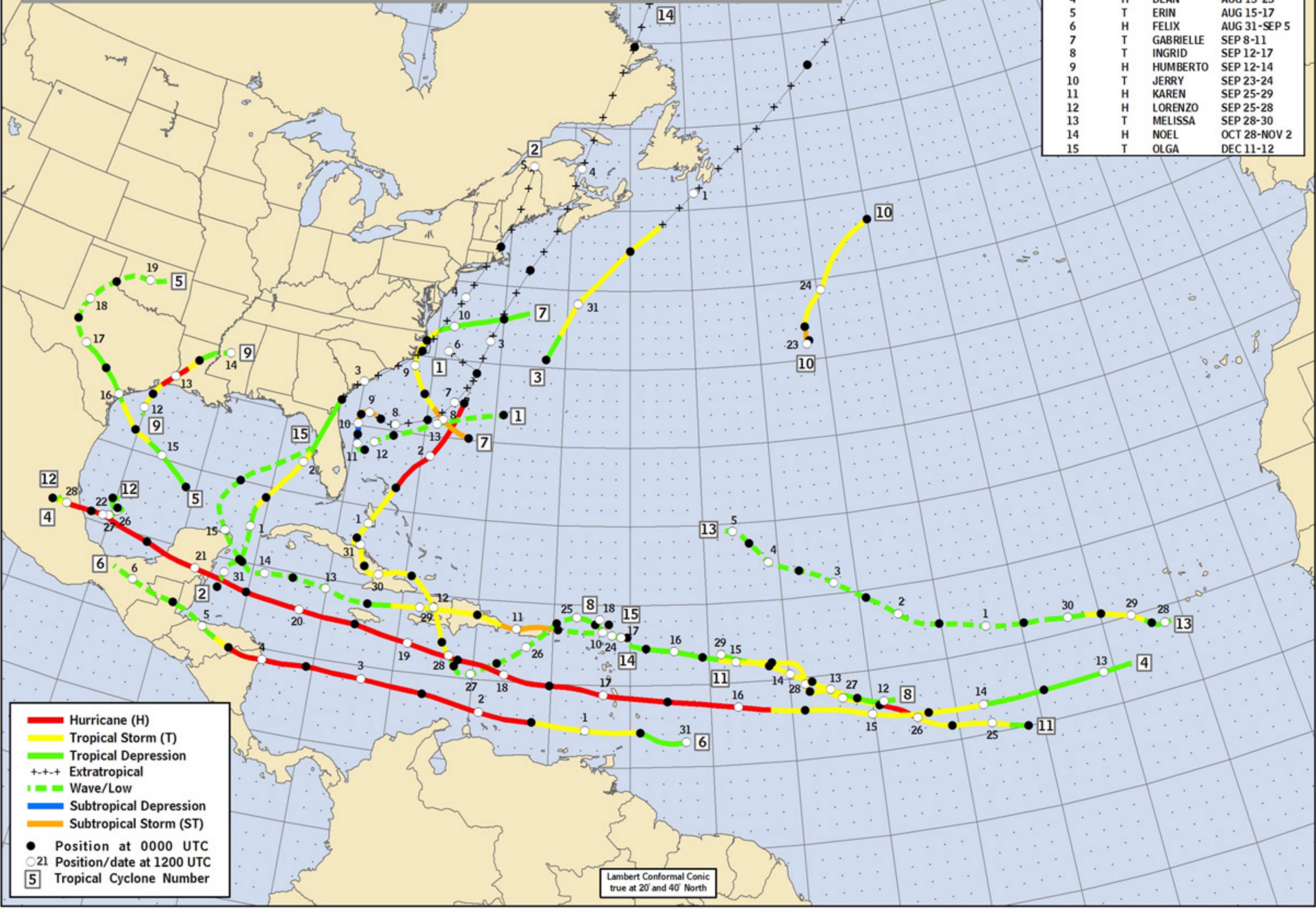
North
0°
South

90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25°

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

NATIONAL HURRICANE CENTER ATLANTIC • CARIBBEAN • GULF OF MEXICO • HURRICANE TRACK CHART

NUMBER	TYPE	2007 NAME	DATE
1	ST	ANDREA	MAY 9-11
2	T	BARRY	JUN 1-2
3	T	CHANTAL	JUL 31-AUG 1
4	H	DEAN	AUG 13-23
5	T	ERIN	AUG 15-17
6	H	FELIX	AUG 31-SEP 5
7	T	GABRIELLE	SEP 8-11
8	T	INGRID	SEP 12-17
9	H	HUMBERTO	SEP 12-14
10	T	JERRY	SEP 23-24
11	H	KAREN	SEP 25-29
12	H	LORENZO	SEP 25-28
13	T	MELISSA	SEP 28-30
14	H	NOEL	OCT 28-NOV 2
15	T	OLGA	DEC 11-12



- Hurricane (H)
- Tropical Storm (T)
- Tropical Depression
- +--+ Extratropical
- - - Wave/Low
- Subtropical Depression
- Subtropical Storm (ST)
- Position at 0000 UTC
- | Position/date at 1200 UTC
- 5 Tropical Cyclone Number

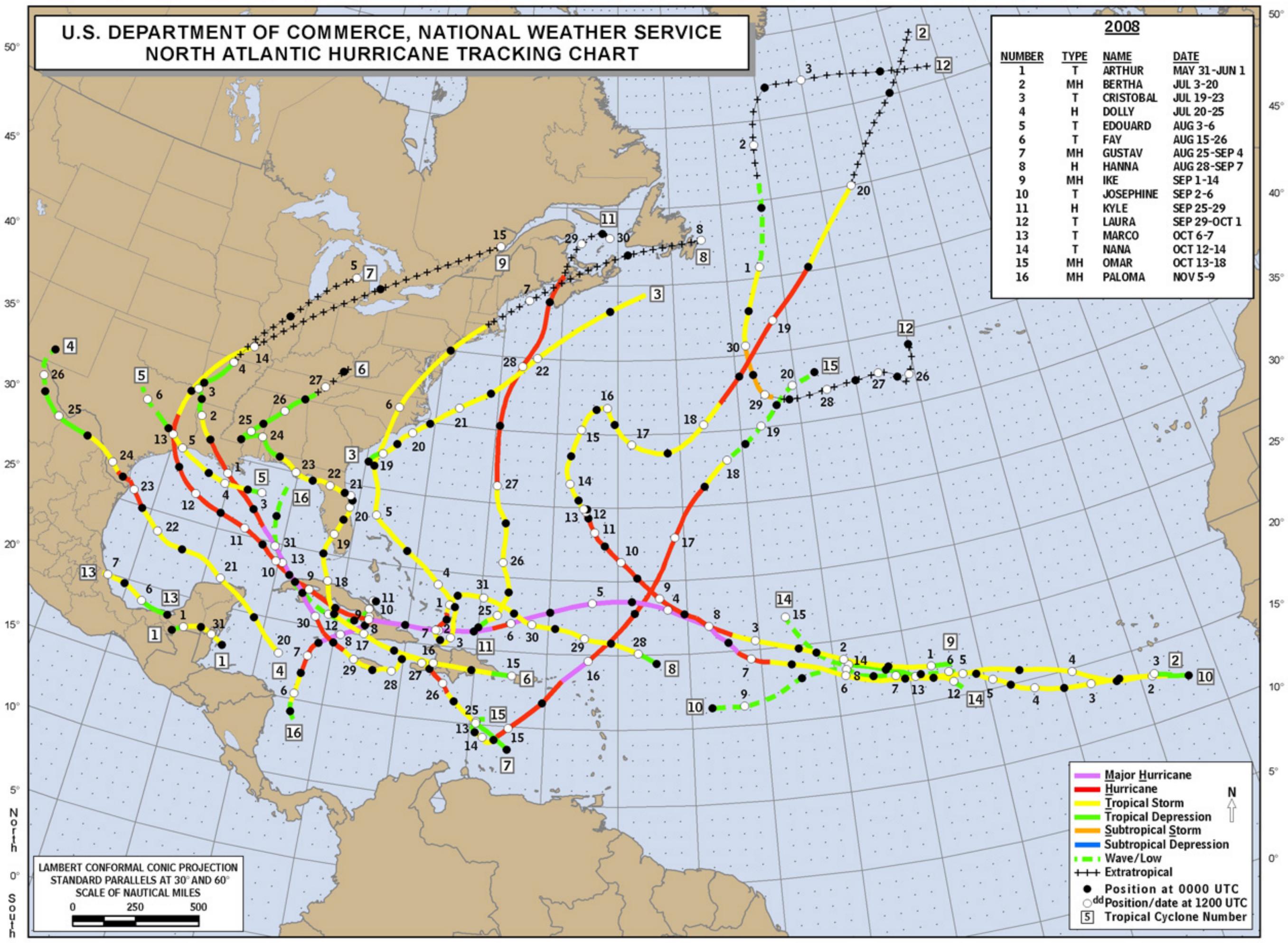
Lambert Conformal Conic
true at 20° and 40° North

North
South

120° 115° 110° 105° 100° 95° 90° 85° 80° 75° 70° 65° 60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° West 0° East 5°

**U.S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE
NORTH ATLANTIC HURRICANE TRACKING CHART**

2008			
NUMBER	TYPE	NAME	DATE
1	T	ARTHUR	MAY 31-JUN 1
2	MH	BERTHA	JUL 3-20
3	T	CRISTOBAL	JUL 19-23
4	H	DOLLY	JUL 20-25
5	T	EDOUARD	AUG 3-6
6	T	FAY	AUG 15-26
7	MH	GUSTAV	AUG 25-SEP 4
8	H	HANNA	AUG 28-SEP 7
9	MH	IKE	SEP 1-14
10	T	JOSEPHINE	SEP 2-6
11	H	KYLE	SEP 25-29
12	T	LAURA	SEP 29-OCT 1
13	T	MARCO	OCT 6-7
14	T	NANA	OCT 12-14
15	MH	OMAR	OCT 13-18
16	MH	PALOMA	NOV 5-9



LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS AT 30° AND 60°
SCALE OF NAUTICAL MILES
0 250 500

— Major Hurricane
— Hurricane
— Tropical Storm
— Tropical Depression
— Subtropical Storm
— Subtropical Depression
- - - Wave/Low
- - - Extratropical
● Position at 0000 UTC
○ Position/date at 1200 UTC
5 Tropical Cyclone Number

DROUGHT

Description

Drought is a normal part of virtually every climate on the planet, including areas of both high and low normal rainfall. Drought is the result of a natural decline in the expected precipitation over an extended period of time typically one or more seasons in length. The severity of drought can be aggravated by other climatic factors, such as prolonged high winds and low relative humidity.

A droughts severity depends on numerous factors, including duration, and geographic extent as well as regional water supply demands by humans and vegetation. Due to its multi-dimensional nature drought is difficult to define in exact terms and also poses difficulties in terms of comprehensive risk assessments.

Drought differs from other natural hazards in three ways. First, the onset and end of a drought are difficult to determine due to the slow accumulation and lingering if effects of an event after its apparent end. Second, the lack of an exact and universally accepted definition adds to the confusion of its existence and severity. Third, in contrast with other natural hazards, the impact of drought is less obvious and may be spread over a larger geographic area. These characteristics have hindered the preparation on drought contingency or mitigation planning by many governments.

Droughts are difficult to predict since they are based on slowly accumulating effects. Randolph County has experienced a few periods of drought in the past. There is no indication that this will change in the future. Droughts are cyclical in nature and will continue to afflict the area.

History

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
1 <u>ALZ011>015 - 021>025 - 027>038 - 041 - 043</u>	07/18/2006	07:00 AM	Drought	N/A	0	0	0	0
2 <u>ALZ011>015 - 017>050</u>	08/01/2006	12:00 AM	Drought	N/A	0	0	0	0
3 <u>ALZ011>015 - 017>050</u>	09/01/2006	12:00 AM	Drought	N/A	0	0	0	0
4 <u>ALZ011>015 - 017>020 - 022>035 - 039</u>	04/01/2007	00:00 AM	Drought	N/A	0	0	OK	OK
5 <u>ALZ011>015 - 017>035 - 039</u>	05/01/2007	00:00 AM	Drought	N/A	0	0	OK	OK
6 <u>ALZ011>015 - 017>045 - 047</u>	06/01/2007	00:00 AM	Drought	N/A	0	0	OK	OK
7 <u>ALZ011>015 - 017>029 - 032</u>	02/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
8 <u>ALZ011>015 - 017>029 - 032</u>	03/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
9 <u>ALZ011 - 013>015 - 017>021 - 023>029 - 032>038 - 040>045 - 047</u>	04/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK

10 <u>ALZ011 - 013>015 - 017>021 - 023>029 - 032>038 - 040>045 - 047</u>	05/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
11 <u>ALZ017>021 - 024>029 - 036>038 - 043 - 045 - 047</u>	06/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
12 <u>ALZ017>021 - 024>029 - 036>038 - 043 - 045 - 047>048 - 050</u>	07/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
13 <u>ALZ011 - 013>015 - 017>019 - 021 - 023>029 - 034>038 - 043 - 045>048 - 050</u>	08/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
14 <u>ALZ021 - 029 - 038</u>	09/30/2008	06:00 AM	Drought	N/A	0	0	OK	OK
15 <u>ALZ029 - 038</u>	10/01/2008	00:00 AM	Drought	N/A	0	0	OK	OK
TOTALS:					0	0	0	0

Location

Drought is a widespread event. The precipitation that falls during rain events has a far reaching pathway that will affect many avenues of water resources such as crop irrigation, refilling lakes and ponds from runoff, ground water storage from seepage into the ground and stream and river flows. There are no areas of the County that are not susceptible to drought effects. All areas are equally at risk.

Extent

Drought impacts are wide-reaching and may be economic, environmental, and/or societal. The most significant impacts associated with drought in Randolph County are those related to agriculture, but can also cause soil to compact and not absorb water well, potentially making an area more susceptible to flooding. An ongoing drought may also leave an area more prone to wildfires. Water supply can also be of concern during periods of prolonged drought. Drought impacts increase with the length of a drought.

The following text describes the extent of droughts in recent history. The most recent drought left the City of Roanoke with only days left in their water supply for the City. Fortunately, sparse rainfall kept the water source from becoming unusable.

August 16, 1977 – FEMA issued a Disaster Declaration to include Randolph County on this day. Disaster Declaration number 3054 was issued for Public Assistance for Debris Removal and Protective Measures.

Since 1998 Randolph County has had fire alerts issued due to drought emergencies. In 1999, and continuing through 2001 “No Burn Orders” were issued due to the severity of the dry conditions in the county. In 2001, Randolph County was authorized to receive livestock assistance due to the drought-diminished production of grass and hay.

On October 28, 1999, Agriculture Secretary Dan Glickman had designated Georgia and 65 counties in Alabama as agricultural disaster areas due to losses caused by the 1999 drought.

During the drought from 1999-2000 an outbreak of the Southern Pine Beetle occurred. They thrive during dry spells and can kill entire forests. Through June of 2000, \$28 million worth of trees were dead, an economic loss of nearly \$291 million to the timber industry.

The following notice from the Associated Press, reported in the Montgomery Advertiser is an indicator of the severity of the most recent drought (2007-2008) experienced by the area:

MONTGOMERY — The Small Business Administration says the deadline for drought disaster victims in 11 counties to apply for disaster loans is Aug. 12, 2009.

The SBA's disaster declaration for the 2008 drought covers Barbour, Chambers, Cherokee, Cleburne, DeKalb, Henry, Houston, Jackson, Lee, Randolph and Russell counties.

The SBA says the loans are available to farm-related and non-farm-related small businesses, small agricultural cooperatives and most private, nonprofit organizations that suffered financial losses from the drought. The loans carry a 4 percent interest rate.

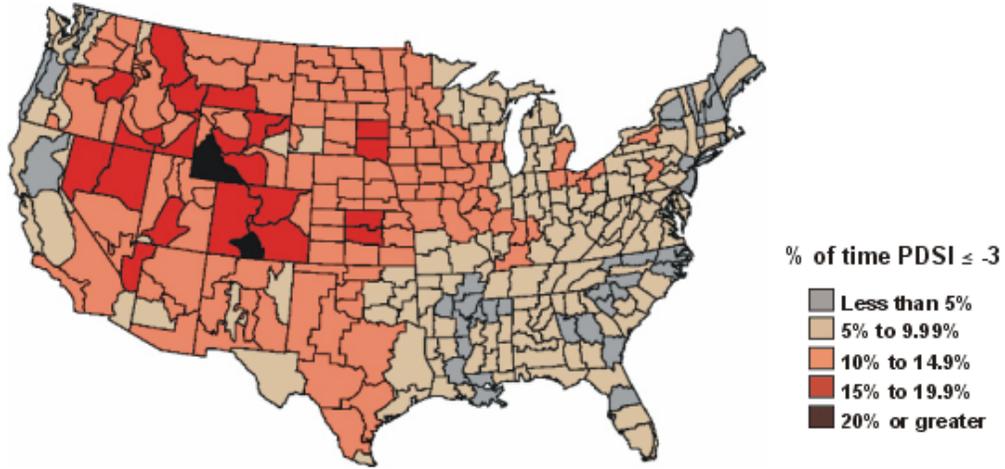
Probability

Over short timeframes it is difficult to determine the probability of drought, but the study of drought cycles over longer periods indicate certain levels of historic frequency that can assist forecasters. According to the Palmer Drought Severity Index 1895-1995, Randolph County experienced severe and extreme drought 5-9.99 percent of the time during that 100-year period. As a result of drought conditions that have occurred during the last decade, the HMPC determined that this hazard should receive a probability ranking of low.

Palmer Drought Severity Index

1895–1995

Percent of time in severe and extreme drought



SOURCE: McKee et al. (1993); NOAA (1990); High Plains Regional Climate Center (1996)
Albers Equal Area Projection; Map prepared at the National Drought Mitigation Center

CHAPTER 5

**VULNERABILITY ASSESSMENT
OVERVIEW**

POPULATION DISTRIBUTION

The following table describes the distribution of population in Randolph County and its municipalities:

JURISDICTION	CENSUS 2000 POPULATION	2003 POPULATION ESTIMATE	2007 POPULATION ESTIMATE
Randolph County	14,167	14,137	14,988
Roanoke	6,563	6,489	6,891
Wadley	614	636	644
Wedowee	818	808	858
Woodland	192	203	201

**TOTAL POPULATION EXPOSED TO HAZARDS
2007 POPULATION ESTIMATES**

	Tornado	Severe Storm	Hurricane	Winter Storm	Flood ⁺	Drought
Randolph County	14,988	14,988	14,988	14,988	150	14,988
Roanoke	6,891	6,891	6,891	6,891	69	6,891
Wadley	644	644	644	644	6	644
Wedowee	858	858	858	858	9	858
Woodland	201	201	201	201	2	201

⁺Based on 1% of the population.

The impacts of each identified hazard on the County and its municipalities can vary greatly with the intensity of the hazard. The following table illustrates estimated financial impacts for the County and municipalities per type of event. The estimates are based on an average of losses and damages reported over a 39-year time frame.

ESTIMATED FINANCIAL LOSS PER TYPE OF EVENT (1970-2009)

	Tornado [#]	Severe Storm	Hurricane/ Tropical Storm	Winter Storm	Flood [#]	Drought
Randolph County	\$541,818	\$337,355	\$1,339,290	\$279,222	\$126,100	Insufficient Data
Roanoke	<\$1	\$24,364	\$1,339,290	\$279,222	\$108,416	Insufficient Data
Wadley	\$39,000	\$26,333	\$1,339,290	\$279,222	\$126,100	Insufficient Data
Wedowee	\$47,000	\$55,409	\$1,339,290	\$279,222	\$108,416	Insufficient Data
Woodland	<\$1	\$3,400	\$1,339,290	\$279,222	\$126,100	Insufficient Data

[#] Several flooding reports listed countywide flooding. These amounts include all jurisdictions in the countywide events, as well as jurisdiction specific events.

[#] A less than \$1 loss rating does not mean that the event will not incur damages in the jurisdiction. Merely that historical record indicates that there have been no recorded events of this type for that jurisdiction.

The following table summarizes the amounts that are used to calculate losses when using FEMA's Cost Benefit module for computing losses when applying to the Hazard Mitigation Grant Program. This information is useful as it can serve as a guide for communities to familiarize themselves with what kind of information will be required when applying for the Hazard Mitigation Grant Program, as well as what types of recordkeeping initiatives to put in place regarding damages and disasters.

Summary of Costs Associated with Elements Lost	
Displacement Time (Residential)	Occupants of flood damaged buildings are displaced for 30 days if building damages equal 10% of building replacement cost. Occupants are displaced for an additional 8 days for each percentage point that building damages exceed 10%, up to a maximum of 365 days total.
Displacement Time (Personal)	Damages consisting of lost time have a value of \$21.16 per person per hour.
Functional Downtime	Each day of functional downtime for police, fire and patient care facilities costs society 10 times their daily budget.
Emergency Shelter	Providing emergency shelter has a value equal to 10 times the federal per diem rate for that place. The maximum per diem rate for Birmingham Alabama is \$138 per day (FY 2009).
Electrical Service	Losing electrical service costs society \$188.00 per resident per day.
Water Service	Losing all water service costs \$103 per day per resident.
Potable Water Service	Loss of potable water only costs \$43 per day per resident.
Firefighting Service	Loss of water for firefighting services has an associated loss of \$17.50 per resident per day.
Waste Water Treatment	Treatment losses are calculated at \$33.50 per resident per day.
Roads	Loss for road use is calculated at \$32.23 per vehicle per hour of delay plus the Federal personal vehicle rate for each vehicle mile travel of detour. For FY 2009 the Federal Personal Vehicle Rate is \$0.55 per mile.

The following table summarizes the types of structures that are located throughout the county that are vulnerable to the identified hazards.

Types of structures vulnerable to hazards						
	Tornado	Severe Storm	Hurricane/ Tropical Storm	Winter Storm	Flood	Drought
Residential	10,545	10,545	10,545	10,545	106	10,545
Agricultural	18	18	18	18	2	18
Mining	1	1	1	1	0	1
Utilities	3	3	3	3	0	3
Manufacturing	21	21	21	21	0	21
Wholesale Trade	10	10	10	10	0	10
Retail Trade	94	94	94	94	1	94
Warehousing	32	32	32	32	0	32
Finance and Insurance	28	28	28	28	0	28
Real Estate	19	19	19	19	0	19
Professional	21	21	21	21	0	21

Waste Management and Remediation	8	8	8	8	1	8
Educational	5	5	5	5	0	5
Health Care	43	43	43	43	0	43
Food Services	29	29	29	29	0	29
Other	43	43	43	43	0	43

POVERTY AND PARTICIPATION IN GOVERNMENT PROGRAMS: From 2005-2007, 22 percent of people were in poverty. Thirty-three percent of related children under 18 were below the poverty level, compared with 11 percent of people 65 years old and over. Sixteen percent of all families and 52 percent of families with a female householder and no husband present had incomes below the poverty level.

CHAPTER 6

MITIGATION STRATEGY

Ultimately, the goal of mitigation is to reduce or eliminate the long-term risk to people and their property from hazards and their effects. The members of the Randolph County Hazard Mitigation Committee, as well as all jurisdictions participating in the mitigation plan have identified the following goals for this mitigation plan:

- To protect human life and health,
- To protect natural resources and farmland,
- To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges,
- To increase public awareness of risk and mitigation,
- To minimize expenditure of public money for costly flood control projects,
- To minimize prolonged business interruptions,
- To help maintain a stable tax base by providing for the sound use and development of flood prone areas,
- To do all these things in a manner that is equitable to all citizens of the County.

A review of these goals was performed by the Mitigation Planning Committee for the 2009 Plan Update and the members were in agreement that these goals are still applicable. No revisions were made.

Existing Mitigation Activities

One of the existing ongoing activities in Randolph County is participation in the National Flood Insurance Program. The following table describes the municipalities and their level of participation in the NFIP.

National Flood Insurance Participants		
Jurisdiction Name	Date of Entry to NFIP	CRS Rating
Randolph County	11/05/2003	10
Roanoke	05/03/1995	10
Wadley	08/19/1985	10
Wedowee	10/29/1998	10
Woodland	Not Participating	N/A

As of May 2009, according to records from the Alabama State Flood Plain Manager with the Office of Water Resources, there have been no repetitive loss claims in Randolph County or the NFIP participating communities.

Continued compliance with the NFIP will be maintained through the most cost effective measures. Randolph County and its municipalities are primarily rural areas with limited resources. Through analysis of measures that could be taken to continue compliance with

the NFIP, the following were found to be the most reasonable for the County and its municipalities:

- Maintain enforcement of the NFIP ordinance.
- Improve maintenance of County and municipal storm water drainage facilities.
- Provide technical, zoning and policy information regarding flood hazards to developers, interested parties and the general public.

Cost-benefit review

Priority mitigation projects will only be implemented if the benefits are maximized and outweigh the associated costs of the proposed projects. The Hazard Mitigation Planning Committee performed a general evaluation of each mitigation measure, which might require FEMA funds. The Committee weighed the estimated costs for each mitigation measure against the projected benefits to be derived. For example, a project to acquire properties within the flood plain would provide the following benefits: (1) the project eliminates flood damages to of acquired properties, (2) the project reduces flood response costs, (3) the project reduces flood insurance claims, and (4) the project could increase the Community Rating System (CRS) rating. A more detailed benefit-cost analysis will be required for each priority project to determine economic feasibility during the project-planning phase. Projects will also require a more detailed evaluation for eligibility and feasibility including social impact, environmental impact, technical feasibility and other criteria that measure project effectiveness. This detailed evaluation of projects will be performed in the pre-application phase of a grant request. Further, project implementation will be subject to the availability of FEMA grants and other sources of funds from year-to-year.

The following list of projects have been reviewed and submitted by the Hazard Mitigation Committee as projects prioritized by hazard frequency and cost. The Committee prioritized (or ranked) the hazards and based on the finding that flooding and high winds (from thunderstorms and/or tornadoes) are the most costly and recurring hazards the following list address the most crucial mitigation needs. Individual municipalities and the County have their own project lists.

As with the development of the original plan, the planning committee reviewed various mitigation activities that could address the hazards identified and prioritized in the hazard analysis. Those that were deemed practical and cost beneficial were included in this document.

Project Prioritization

The action items for each municipality are prioritized based on the hazards that most frequently affect the jurisdictions. These items and areas have been identified as those that the municipalities are constantly putting resources into when events occur, or items that would identify future mitigation action items. Additionally, items that would provide safe haven and protect existing structures have been included as a priority to protect human life and minimize damage to public facilities.

MITIGATION ACTION ITEMS

RANDOLPH COUNTY

Installation of severe weather sirens. The County is approximately 80% covered by severe weather sirens. The purchase and installation of 3 weather sirens would provide complete warning coverage for the County. The sirens cost approximately \$16,500.00 each (parts and installation).

Estimated total project cost is \$ 49,500.00

Estimated Time Frame: 5 years

Responsible Party: County EMA Director

Funding Sources: County Funds, HMGP, PDM, CDBG

The county has acquired and installed 8 sirens over the past 2 years. It is in the process of acquiring 3 more. Once these three are installed, an additional 3 would be required for complete county coverage.

Hazards Addressed: Severe Storms, Tornadoes, Winter Storms

This project addresses existing as well as future buildings.

The County Engineer has identified several bridges and pipes that overtop during 25-year flooding events. While other sites do exist within the County, these sites have been prioritized based on the resources that the County is constantly putting into them. For each site the engineer proposes a hydrologic study be performed. Based on that study the cost for each site would be determined. The study itself for all 7 sites is estimated to cost approximately \$40,000.00. The following pipes and bridges have been identified as top priority:

Pipe	County Road 635	<20 feet in length
Bridge	County Road 624	<20 feet in length
Pipe	County Road 905	>20 feet in length
Pipe	County Road 898	<20 Feet in length
Pipe	County Road 435	<20 feet in length
Bridge	County Road 242	<20 feet in length
Bridge	County Road 489	<20 feet in length
Pipe	County Road 67	<25 feet in length
Pipe	County Road 45	<25 feet in length

2009 – The County has reviewed this project and has continued interest in its completion. 2 roads have been added. Budgetary restraints have prevented this from being implemented thus far.

Estimated total project cost is Unknown at this time; contingent upon hydrologic study.

Estimated Time Frame: 7 years

Responsible Party: County Engineer

Funding Sources: County Funds, HMGP, PDM, CDBG, DoT, AL DoT

Hazards Addressed: Flooding

This project addresses existing as well as future buildings.

Acquire backup power generator for the County Courthouse and County Jail.

Estimated Cost: Jail: \$60,000.00
Courthouse: \$45,000.00

Estimated Time Frame: 7 years

Responsible Party: County Commission

Funding Sources: DHS, CDBG, County Funds

Hazards Addressed: Severe storms, tornadoes, winter storms

This project addresses existing buildings.

Promote membership in the NFIP for non-participating entities.

Estimated Time Frame: Immediately

Estimated Cost: 500.00

Responsible Party: Randolph County EMA

Funding Source: Non-participating member funds

Hazards Addressed: Flooding

This project addresses existing as well as future buildings.

Randolph County has not deleted any previously identified mitigation projects.

ROANOKE

Initiate a storm water study with particular interest on the retrofit of bridges and improving drainage in troubled areas.

Estimated total project cost is \$ 150,000.00

Estimated Time Frame: 5 years

Responsible Party: Roanoke Public Works Director

Funding Sources: City Funds, HMGP, PDM, CDBG

2009-the City has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

Hazards Addressed: Flooding

This project addresses existing as well as future buildings and structures.

Installation of Community Storm Shelters.

Estimated Time Frame: 3 years

Estimated Cost: \$7,500.00

Responsible Party: Roanoke City Council

Funding Source: HMGP, PDM, City funds

Hazards Addressed: Severe Storms, Tornadoes, Winter Storms

This project addresses existing as well as future buildings.

The City of Roanoke has not deleted any previously identified mitigation projects.

WADLEY

Installation of Community Storm Shelter

Estimated Time Frame: 3 Years

Estimated Cost: \$25,000.00

Responsible Party: Wadley City Council
Funding Source: HMGP, PDM, City Funds
Hazards Addressed: Severe Storms, Tornadoes, Winter Storms
This project addresses existing as well as future buildings.
2009-the City has reviewed this project and has continued interest in its completion.
Budgetary restraints have prevented this from being implemented thus far.

The Town of Wadley currently participates in the National Weather Services “Flood Ready” program. Public education is a major part of this program. The town proposes to apply for mitigation grant funds to purchase flood monitoring equipment and public education equipment (such as magnets, brochures, etc.). The approximate cost of this project is \$1,500.00.

2009 – The Town of Wadley continues its participation in the NWS “Flood Ready” Program. Community education and outreach is an integral part of this program.

Hazards Addressed: Flooding
This project addresses existing as well as future buildings.

The Town of Wadley has not deleted any previously identified mitigation projects.

WEDOWEE

Purchase a backup generator for Wedowee Water Authority. At this time if the power supply is interrupted for the water authority the water supply for the community is limited to 30 hours. The purchase of a backup generator will ensure to operation of this critical facility for residents as well as emergency services.

Estimated Cost: \$25,000.00

Estimated Time Frame: 3 Years

Responsible Party: Wedowee Water Authority

Funding Source: HMGP, PDM

Hazards Addressed: Severe Storms, Tornadoes, Winter Storms

This project addresses existing buildings and infrastructure.

4th Street SW – Currently during extended periods of precipitation the creek overflows onto the roadway and onto residential property. Increasing the pipe size should eliminate this, however to determine the proper pipe size, a hydrology study would be required.

Estimated cost of the project is:

Hydrology Study \$50,000.00

Increase pipe size across creek \$50,000.00

Estimated Time Frame: 5 Years

Estimated Cost: \$100,000.00

Responsible Party: Wedowee Utilities Department

Funding Source: HMGP, PDM, CDBG

Hazards Addressed: Flooding

This project addresses existing as well as future buildings.

2009-the City has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

The Town of Wedowee has not deleted any previously identified mitigation projects.

WOODLAND

Investigate the feasibility of retrofitting City Hall and the Woodland Senior Citizens Center to withstand winds of 200 MPH (the recommended wind rating based on wind zones in the southeast).

Estimated Time Frame: 3 Years

Estimated Cost: Unknown cost at this time.

Responsible Party: Woodland City Council

Funding Source: HMGP, PDM

Hazards Addressed: Severe Storms, Tornadoes, Winter Storms

This project addresses existing as well as future buildings.

2009-The Town has reviewed this project and has continued interest in its completion.

Budgetary restraints have prevented this from being implemented thus far.

The Town of Woodland has not deleted any previously identified mitigation projects.

Chapter 7
PLAN MAINTENANCE

The Plan Maintenance Procedures were reviewed by the Hazard Mitigation Planning Committee and through discussion and reflection of past disaster declarations, it was determined that changes should be made regarding the verbiage of incorporation of action items into the planning document between plan updates. Specifically, this change involves replacing the meeting requirement for immediate need project inclusion with a consultation requirement.

Monitoring, Evaluating and Updating the Plan

Municipal employees that serve on the Hazard Mitigation Planning Committee will be responsible for monitoring the status of their own mitigation measures. The municipalities will report on an annual basis to the EMA Director with an update of the status of the implementation items, specifically which items have been completed, are in progress or are no longer considered a viable action. Regular plan maintenance and monitoring will be the responsibility of each individual municipality. The following are the positions with this responsibility:

Randolph County:	County Engineer and EMA Director
Roanoke:	Street Superintendent
Wadley:	Mayor
Wedowee:	Utilities Administrator
Woodland:	Mayor

The plan will undergo a comprehensive review every five years by the Randolph County EMA, Hazard Mitigation Committee, municipalities involved and citizens. This will allow for evaluation of the effectiveness of the plan and allow for any review and revision of the hazard vulnerability, risk factors, and mitigation strategies. It will be the responsibility of the Randolph County EMA Director to notify Mitigation Planning Committee members, municipalities and the public of the plan review. Following each disaster declaration the plan will be reviewed to add any necessary changes or updates. At the first semiannual LEPC meeting during the year, municipalities will have the ability to add any additional mitigation strategies by proposing the strategies to the LEPC. It is realized that some amendments or revisions may occur during emergencies or disasters and therefore, timeliness will be essential. It is for this reason that the committee has deemed it not necessary to hold a meeting but rather, have consultation with other committee members for plan updates and revisions. These consultations, especially during times of emergency or disaster declarations, can take place via telephone, e-mail or in writing, or in person. The entire Committee need not be consulted for this amendment however; at a minimum those consulted will consist of:

- The Chief Elected Official of the Municipality wishing to amend the Plan
- A member of the EMA Staff
- A member of the Randolph County Commission or the County Administrator

Additionally, if changes are made that affect only one jurisdiction, the changes to the Plan need only be readopted by the affected jurisdiction.

In determining whether to recommend approval or denial of a Plan amendment request, the following factors will be considered:

1. There were errors or omissions made in the identification of issues or needs during the preparation of the Plan;
2. New issues or needs have been identified that were not adequately addressed in the Plan;
3. There has been a change in information, data or assumptions from those on which the Plan was based.

Incorporation into Existing Planning Mechanisms

This document will be incorporated into the Randolph County Emergency Operations Plan administered through the EMA office. This plan will also be adopted as an amendment to all local comprehensive plans in localities that have an adopted plan in place (Currently the City of Roanoke is the only entity within the County that has participated in Comprehensive Planning and is anticipating adoption of their Comprehensive Plan under development within the next six months).

Hazard Mitigation Planning Committee Members involved in existing planning mechanisms will be responsible for integrating appropriate elements of the Hazard Mitigation Plan into those planning efforts. During the planning process for new, amended, revised, or updated local planning documents, the local party responsible for the planning document will provide a copy of the hazard mitigation plan to each respective advisory committee member or departmental staff person. The local planning entity will recommend the advisory committee members or departmental staff person to ensure that all goals and strategies of new, amended, revised and updated local planning documents are consistent with the hazard mitigation plan and will not contribute to an increase in the local jurisdiction's vulnerability to the impacts of natural hazards.

Plans to which this provision may apply include, but are not limited to:

- Comprehensive Plan
- Capital Improvements Plan
- Transportation Plan

and other local planning documents, when appropriate.

County government is very limited in scope and authority in the State of Alabama and does not have the manpower, authority or fiscal capabilities to guide and control development within the unincorporated areas of the County. There are no mandatory State imposed planning requirements in Alabama for counties or municipalities. A municipal government may participate in planning (Zoning, Comprehensive Planning and Capitol Improvements Plans) on a voluntary basis.

Continued Public Involvement

The existing public involvement process has served the County and municipalities well in the past and the Hazard Mitigation Planning Committee has determined no changes are necessary in the way that continued public participation will be obtained.

The EMA Director will have the obligation of notifying the public and stakeholders of the annual plan review which can be incorporated in the public announcement for the LEPC meetings. Written comments on the plan will be accepted by the Randolph County EMA at any time. The plan will be available to the public via the Randolph County EMA. Copies of the completed, formally adopted plan will be maintained at each municipality, located at the governmental administrative offices. The Randolph County Commission will maintain a copy at the Commission Offices and at the Randolph County EMA Directors Office.