JUNE 2019 HIGHLIGHTS

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1) How often do you use or read the PBC TV Program Guide during the month?
☐ Once per Week ☐ 2 Times per Week ☐ 3 or More Times per Week ☐ Daily
☐ Once per Month ☐ 2 Times per Month ☐ 3 or More Times per Month

2) Do you consider the programming schedule in the program guide helpful?
☐ Yes ☐ No

3) How would you rate the informational insert material about County programs and services in the program guide?
☐ Excellent ☐ Good ☐ Average ☐ Poor

4) Do you complete the word search puzzle included in the program guide?
☐ Yes ☐ No

5) Do you consider the monthly survey a valuable way to provide feedback?
☐ Yes ☐ No

6) What is your favorite section of the PBC TV Program Guide?
☐ Front Cover Letter ☐ Program Schedule ☐ Informational Inserts
☐ Word Search Puzzle ☐ Program Promotional ☐ Survey

7) What do you consider the most important section of the PBC TV Program Guide?
☐ Front Cover Letter ☐ Program Schedule ☐ Informational Inserts
☐ Word Search Puzzle ☐ Program Promotional ☐ Survey

8) Overall, how would you rate the PBC TV Channel 20 Program Guide?
☐ Extremely Satisfied ☐ Satisfied ☐ Neither ☐ Unsatisfied ☐ Extremely Unsatisfied

9) If you could change something about the PBC TV Channel 20 Program Guide, what would it be?

10) Comments

Palm Beach County
Board of County Commissioners
Public Affairs Department
PBC TV Channel 20
P.O. Box 1989
West Palm Beach, FL 33402-1989

Meetings presented live on PBC TV Channel 20:
• Board of County Commissioners meetings
• County Commission workshops
• County Commission budget public hearings
• Zoning Board meetings (BCC)
• Zoning Commission meetings (advisory)
• Planning Commission meetings (advisory)
• Comprehensive Plan public hearings
• Solid Waste Authority Board of Commissioners meetings
• Commission on Ethics meetings
• Inspector General Committee meetings
• Palm Beach County Legislative Delegation meetings
• Palm Beach County School Board meetings

Your Channel for Palm Beach County Programs & Services!
Tel (561) 355-4573
Fax (561) 355-6685
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### JUNE 2019

**Storm Watch 2019**

Are you ready? Palm Beach County emergency managers want you to be prepared before the storm. Emergency Management wants everyone to make a Plan, Build & Be Informed. See how these four critical points could put you on the road to readiness. Tune in for Storm Watch on PBC TV.

**On The Town**

Find the time to sit back for a sampling of some special places in Palm Beach County that will extend the boundaries of your experiences right here in Paradise. Tune in for another edition of the show that celebrates all the great attractions, historical and cultural venues across the Palm Beaches.

**Behind the Star**

In this episode, we will experience the emotion of a special ceremony as Sheriff Ric Bradshaw and all of PBSO honor the deputies who paid the ultimate price to serve and protect the citizens of Palm Beach County. See the recent observance to remember the men and women who gave their lives to protect ours.

**Air Dates**

- **Air Mondays (9:30pm, 10:00pm, 10:30pm)**
- **Air Wednesdays (9:00am, 9:30am, 10:00am)**
- **Air Saturdays (9:00am, 9:30am, 10:00am)**

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**Programs are subject to change.**

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PBC Board of County Commissioners Meetings are presented live on 1st & 3rd Tuesdays. PBC Planning Commission Meetings are repeated live on the 2nd Friday, preempting regular programming on those days.

PBC Zoning Meetings are presented live on the 1st and 4th Thursdays, preempting regular programming on those days.

PBC Commission on Ethics Meetings are presented live on 1st Thursdays, preempting regular programming on those days.

Palm Beach County School District Board Meetings and Workshops are presented live on Wednesdays, preempting regular programming.

- **Airs Mondays at 9:30pm, Tuesdays at 10:00pm, Wednesdays at 11:00pm, Thursdays at 12:00am, Fridays at 1:00am, Saturdays at 2:00am and Sundays at 3:00pm**
### Food
- 1 Gallon of water per person per day for at least 5 days, for drinking and sanitation
- Sandwich bread (freeze until needed)
- 3 Boxes of quick energy snacks (i.e. granola bars or raisins)
- 2 Cans of ready-to-eat-soup
- 1 Box of crackers
- Dry cereal
- 4 Cans of fruit
- 5 Cans of meat
- 4 Cans of vegetables
- 1 Jar of jelly or jam
- 1 Large can of juice
- Instant coffee/tea/powdered drinks

### Storage
- 2 Boxes of large plastic zip bags
- Plastic wrap
- 2 Rolls of aluminum foil
- Assorted plastic containers with lids
- 3 Boxes heavy-duty garbage bags
- Waterproof portable plastic container with lid

### Water
- Water will be needed for drinking, cooking, and bathing. Store enough bottled water for all members of your family and pets before the storm. Clean water that could be used for bathing & washing dishes is in your water heater.

### Health & First Aid
- 1 Bottle of shampoo
- 1 Box sanitary hand wipes/liquid
- 1 Large tube of toothpaste
- Antiseptic
- Deodorant
- Tweezers
- Adhesive bandages, assorted sizes
- Rolls of gauze or bandages
- Hydrogen peroxide
- First Aid book
- First Aid tape
- Petroleum jelly
- Rubbing alcohol

### Cleaning & Supplies
- 2 Packages of eating utensils, paper cups, paper plates
- Facial tissues (i.e. Kleenex)
- 2 Rolls of paper towels
- 4 Rolls of toilet paper
- Liquid dish soap
- Mosquito repellent
- Matches
- 2 Pairs of latex gloves
- Broom, mop, and bucket
- Unscented liquid bleach

### First Aid
During a storm, phone and electrical lines go down. Dangerous weather conditions prevent emergency vehicles from responding to emergency situations. Preparing yourself and your family with CPR and First Aid training can save the life of a loved one.

### Preserving Food & Important Documents
Electrical power can be off for several days after a storm, so plan for power outages. Also, use waterproof containers to protect important papers.

### TO DO LIST Before the Season Starts
- Make a family plan. Who does what and where will your family ride out the storm
- Locate your water meter and electrical shutoff
- Know the disaster plan of your child's school or daycare
- Trim trees and store loose objects
- Install/test your smoke detector
- Use a video camera to tape the contents of your home and store videotape with a friend who lives out of town
- Photocopy important papers and store safely
- Make plans to board your pet if you plan to go to a shelter
- Obtain cash or traveler's checks
- Establish an out-of-state contact to call in case of emergency

### Get a Head Start & Be Prepared!

### Keep in a Waterproof Portable Container
- Will, insurance policies, contracts, deeds, stocks, and bonds
- Passports, social security cards, immunization records
- Bank account numbers
- Credit card account numbers and companies
- Inventory of valuable household goods, important telephone numbers
- Family records (birth, marriage, death certificates)
Medications
- Extra supply prescription medication(s)
- Aspirin and/or acetaminophen
- Anti-diarrhea medicine
- Adult vitamins
- Thermometer

Special Needs Shelter
The county Special Needs Shelter only accepts residents with a physical condition requiring medical or nursing care that cannot be provided for in a general population shelter. Individuals must be able to sleep safely on a cot or mat and meet one of the following criteria:
- Need nursing assistance with medications or medical care administration
- Monitoring vital signs or medical conditions or activities of daily living but do not need hospitalization
- Need constant electrical power for medical equipment
Pre-registration is required for individuals needing to use the Special Needs Shelter. To register call: (561) 712-6400

Smart Supplies
- Batteries for camping lantern
- Battery powered camping lantern
- Portable camp stove or grill
- Video or disposable camera

Your Property
Before hurricane season, make a complete inventory of your valuables and personal property. Store important documents and valuables in a safe dry place. If you evacuate, take them with you if you can. Take a photo inventory before the storm and then take photos of any damage after the storm and then take photos of any damage after the storm for your insurance adjuster. Be sure that you are properly insured and understand all of the conditions of your policy prior to a disaster. This will save you from unfortunate surprises during recovery.

Common Tools
- Battery operated radio
- Flashlights
- Flashlight batteries
- Assorted safety pins
- Scissors
- Screwdrivers
- Pliers
- Vise grips
- Hammer(s)
- Heavy-work gloves
- Stove fuel/charcoal, lighter fluid
- Camping or utility knife
- 1 Box disposable dust mask
- Plastic safety goggles

Tune In
Local media are your primary source of information during disaster. They work with the Emergency Operation Center to provide up-to-date information that can keep you safe. Be sure to have a battery-operated radio and stock up on plenty of batteries. Stay informed about weather conditions, hazards, closed roads, curfews, and relief center locations.

Helpful Supplies
- Games/activities for kids/family
- Extra radio batteries
- Local and state road maps
- Gas cans
- Manual can opener

Have Patience
Damage after a hurricane is unpredictable. It can take several days, and in some cases, several weeks to restore power. Crews will begin work as soon as they can to clear roads and restore services. Be patient. Plan for loss of power, phones, water, and cable television. Have activities on hand for your family. Remember that everyone in the community is experiencing the same disaster. DO NOT HOARD FUEL. Work together and help your neighbor.

Heavy Tools
- Plywood & fasteners to cover windows
- Tarpaulin, canvas for temporary roof repair
- Handsaw and/or chain saw & fuel
- Assorted nails
- Wood screws
- Hatchet
- Crowbar

Safety
Most hurricane related injuries occur after the storm when people are cleaning up debris. Wear proper safety gear, make sure you know how to properly use power tools and machinery and never work alone. It may be best to hire skilled and insured professionals to do some work.

Everyday Safety
- ABC certified fire extinguisher
- Smoke detector with battery
- Carbon monoxide detector

Everyday Supplies
Disasters can happen without warning. It is a good idea to have disaster supplies on hand year-round. Make sure you always have a working fire extinguisher, smoke detectors, and a carbon monoxide detector. These items save lives and reduce property damage. To reduce risk of fire, DO NOT USE CANDLES. Never use a generator or charcoal grill inside your home or inside your garage.

Special Items
- Special foods for special diets
- Extra hearing aid batteries
- Items for denture care
- Spare eyeglasses or contact lens supplies
- 1 Gallon of water per pet
- Leash or pet carrier
- Pet food
- Baby food
- Diapers
- Baby wipes

What You Need
Only you know what you need. Some families will need special items added to their disaster list. These include baby food and baby care items as well as items for your pet. Make sure you have spare batteries for your hearing aid and a spare pair of eyeglasses. Remember pets are not allowed in general shelters. If you live in an evacuation zone, pets can be pre-registered for the Pet Friendly Shelter by calling (561) 233-1266. pbcgov.com/publicsafety/animalcare
South Florida Hurricanes in History

Please note that the following list is not exhaustive and does not include every notable storm. Dollar amounts shown in the value of the year that the hurricane occurred. Information provided by the National Hurricane Center, National Oceanic and Atmospheric Administration (www.nhc.noaa.gov).

Great Miami Hurricane 1926

The "Great Miami" Hurricane was first spotted as a tropical wave located 1,000 miles east of the Lesser Antilles on September 11th. The system moved quickly westward and intensified to hurricane strength as it moved to the north of Puerto Rico on the 15th. Winds were reported to be nearly 150 mph as the hurricane passed over the Turks Islands on the 16th and through the Bahamas on the 17th. Little in the way of meteorological information on the approaching hurricane was available to the Weather Bureau in Miami. As a result, hurricane warnings were not issued until midnight on September 18th, which gave the booming population of South Florida little notice of the impending disaster.

The Category 4 hurricane’s eye moved directly over Miami Beach and downtown Miami during the morning hours of the 18th. This cyclone produced the highest sustained winds ever recorded in the United States at the time. A storm surge of nearly 15 feet was reported in Coconut Grove. Many casualties resulted as people ventured outdoors during the half-hour lull in the storm as the eye passed overhead. Most residents, having not experienced a hurricane, believed that the storm had passed during the lull. They were suddenly trapped and exposed to the eastern half of the hurricane shortly thereafter. Every building in the downtown district of Miami was damaged or destroyed. The town of Moore Haven on the south side of Lake Okeechobee was completely flooded by lake surge from the hurricane. Hundreds of people in Moore Haven alone were killed by this surge, which left behind floodwaters in the town for weeks afterward.

San Felipe-Okeechobee Hurricane 1928

This classic Cape Verde hurricane was first detected over the tropical Atlantic on September 10, although it likely formed several days earlier. It moved westward through the Leeward Islands on the 12th. It then turned west-northwestward, scoring a direct hit on Puerto Rico on the 13th (the feast of San Felipe) as a Category 4 hurricane. The hurricane continued west-northwestward through the Bahamas and made landfall near Palm Beach, Florida on September 16. It turned north-northeastward over the Florida Peninsula on the 17th, a motion which brought the remains of the storm to eastern North Carolina on the 19th. It then turned northward and merged with a non-tropical low over the eastern Great Lakes on September 20.

This hurricane caused heavy casualties and extensive destruction along its path from the Leeward Islands to Florida. The worst tragedy occurred at inland Lake Okeechobee in Florida, where the hurricane caused a lake surge of 6 to 9 ft that inundated the surrounding area. 1,836 people died in Florida, mainly due to the lake surge. An additional 312 people died in

The hurricane continued northwestward across the Gulf of Mexico and approached Pensacola on September 20th. The storm nearly stalled to the south of Pensacola later that day and buffeted the central Gulf Coast with 24 hours of heavy rainfall, hurricane force winds, and storm surge. The hurricane weakened as it moved inland over Louisiana later on the 21st. Nearly every pier, warehouse, and vessel on Pensacola Bay was destroyed.

The great hurricane of 1926 ended the economic boom in South Florida and would be a $90 billion disaster had it occurred in recent times. With a highly transient population across southeastern Florida during the 1920s, the death toll is uncertain since more than 800 people were missing in the aftermath of the cyclone. A Red Cross report lists 373 deaths and 6,381 injuries as a result of the hurricane.
Puerto Rico, and 18 more were reported dead in the Bahamas. Damage to property was estimated at $50,000,000 in Puerto Rico and $25,000,000 in Florida.

Hurricane Donna 1960

One of the all-time great hurricanes, Donna was first detected as a tropical wave moving off the African coast on August 29. It became a tropical storm over the tropical Atlantic the next day and a hurricane on September 1. Donna followed a general west-northwestward track for the following five days, passing over the northern Leeward Islands on the 4th and 5th as a Category 4 hurricane and then to the north of Puerto Rico later on the 5th. Donna turned westward on September 7 and passed through the southeastern Bahamas. A northwestward turn on the 9th brought the hurricane to the middle Florida Keys the next day at Category 4 intensity. Donna then curved northeastward, crossing the Florida Peninsula on September 11, followed by eastern North Carolina on the 12th, and the New England states on the 12th and 13th. The storm became extratropical over eastern Canada on the 13th.

Donna is the only hurricane of record to produce hurricane-force winds in Florida, the Mid-Atlantic states, and New England. Sombrero Key, Florida reported 128 mph sustained winds with gusts to 150 mph. In the Mid-Atlantic states, Elizabeth City, North Carolina reported 83 mph sustained winds, while Manteo, North Carolina reported a 120 mph gust. In New England, Block Island, Rhode Island reported 95 mph sustained winds with gusts to 130 mph.

Donna caused storm surges of up to 13 ft in the Florida Keys and 11 ft surges along the southwest coast of Florida. Four to eight ft surges were reported along portions of the North Carolina coast, with 5 to 10 ft surges along portions of the New England coast. Heavy rainfall of 10 to 15 inches occurred in Puerto Rico, 6 to 12 inches in Florida, and 4 to 8 inches elsewhere along the path of the hurricane.

Donna was the fifth strongest hurricane of record to hit the United States. It was responsible for 50 deaths in the United States. One hundred and fourteen deaths were reported from the Leeward Islands to the Bahamas, including 107 in Puerto Rico caused by flooding from the heavy rains. The hurricane caused $387 million in damage in the United States and $13 million elsewhere along its path.

Hurricane Andrew 1992

One of the most destructive United States hurricanes of record started modestly as a tropical wave that emerged from the west coast of Africa on August 14. The wave spawned a tropical depression on August 16, which became Tropical Storm Andrew the next day. Further development was slow, as the west-northwestward moving Andrew encountered an unfavorable upper-level trough. Indeed, the storm almost dissipated on August 20 due to vertical wind shear. By August 21, Andrew was midway between Bermuda and Puerto Rico and turning westward into a more favorable environment. Rapid strengthening occurred, with Andrew reaching hurricane strength on the 22nd and Category 4 status on the 23rd. After briefly weakening over the Bahamas, Andrew regained Category 4 status as it blasted its way across south Florida on August 24. The hurricane continued westward into the Gulf of Mexico where it gradually turned northward. This motion brought Andrew to the central Louisiana coast on August 26 as a Category 3 hurricane. Andrew then turned northeastward, eventually merging with a frontal system over the Mid-Atlantic states on August 28.

Reports from private barometers helped establish that Andrew's central pressure at landfall in Homestead, Florida was 27.23 inches, which makes it the third most intense hurricane of record to hit the United States. Andrew's peak winds in south Florida were not directly measured due to destruction of the measuring instruments. An automated station at Fowey Rocks reported 142 mph sustained winds with gusts to 169 mph and higher values may have occurred after the station was damaged and stopped reporting.

Andrew produced a 17 ft storm surge near the landfall
point in Florida, while storm tides of at least 8 ft inundated portions of the Louisiana coast. Andrew also produced a killer tornado in southeastern Louisiana.

Andrew is responsible for 23 deaths in the United States and three more in the Bahamas. The hurricane caused $26.5 billion in damage in the United States, of which $1 billion occurred in Louisiana and the rest in south Florida. The vast majority of the damage in Florida was due to the winds. Damage in the Bahamas was estimated at $250 million.

**Hurricane Charley 2004**

Charley originated from a tropical wave, developing into a tropical depression on August 9 about 115 miles south-southeast of Barbados. The depression strengthened within a low-shear environment to a tropical storm early the next day in the eastern Caribbean, and became a hurricane on the 11th near Jamaica. Charley's center passed about 40 miles southwest of the southwest coast of Jamaica, and then passed about 15 miles northeast of Grand Cayman as the hurricane reached category 2 strength on the 12th. Charley turned to the north-northwest and continued to strengthen, making landfall in western Cuba as a category 3 hurricane with 120 m.p.h. maximum winds. Charley weakened just after its passage over western Cuba; its maximum winds decreased to about 110 m.p.h. by the time the center reached the Dry Tortugas on the 13th.

Charley then came under the influence of an unseasonably strong mid-tropospheric trough that had dropped from the east-central United States into the eastern Gulf of Mexico. The hurricane turned north-northeastward and accelerated toward the southwest coast of Florida as it began to intensify rapidly. Charley made landfall as a category 4 on the southwest coast of Florida just north of Captiva Island around 3:45 pm. An hour later, Charley's eye passed over Punta Gorda. The hurricane then crossed central Florida, passing near Kissimmee and Orlando. Charley was still of hurricane intensity around midnight when its center cleared the northeast coast of Florida near Daytona Beach. After moving into the Atlantic, Charley came ashore again near Cape Romain, South Carolina on the 14th as a category 1 hurricane. The center then moved just offshore before making a final landfall at North Myrtle Beach. Charley soon weakened to a tropical storm over southeastern North Carolina and became extratropical on the 15th as it moved back over water near Virginia Beach.

Although ferocious, Charley was a very small hurricane at its Florida landfall, with its maximum winds and storm surge located only about 6-7 miles from the center. This helped minimize the extent and amplitude of the storm surge, which likely did not exceed 7 feet. However, the hurricane's violent winds devastated Punta Gorda and neighboring Port Charlotte. Rainfall amounts were generally modest, less than 8 inches. Charley also produced 16 tornadoes in Florida, North Carolina and Virginia. The total U. S. damage is estimated to be near $15 billion, making Charley the second costliest hurricane in U.S. history. Casualties were remarkably low, given the strength of the hurricane and the destruction that resulted. Charley was directly responsible for ten deaths in the United States. There were also four deaths in Cuba and one in Jamaica.

**Hurricane Ivan 2004**

Ivan developed from a large tropical wave that crossed the west coast of Africa on August 31, and spawned a tropical depression two days later. The depression reached storm strength on September 3rd and continued to strengthen. By the 5th, Ivan had become a hurricane about 1,150 miles east of the southern Windward Islands. Ivan was a category 3 hurricane when the center passed about 7 miles south of Grenada, a path that took the northern eyewall of Ivan directly over the island. In the Caribbean, Ivan became a category 5 hurricane on the 9th when it was south of the Dominican Republic. The center of Ivan passed within about 7 miles south of Grenada, a path that took the northern eyewall of Ivan directly over the island. In the Caribbean, Ivan became a category 5 hurricane on the 9th when it was south of the Dominican Republic. The center of Ivan passed within about 20 miles of Jamaica on the 11th and a similar distance from Grand Cayman on the 12th, with Grand Cayman likely experiencing sustained winds of category 4 strength. Ivan then turned to the northwest and
passed through the Yucatan channel on the 14th, bringing hurricane conditions to extreme western Cuba. Ivan moved across the east-central Gulf of Mexico, making landfall as a major hurricane with sustained winds of near 120 m.p.h. on the 16th just west of Gulf Shores, Alabama.

Ivan weakened as it moved inland, producing over 100 tornadoes and heavy rains across much of the southeastern United States, before merging with a frontal system over the Delmarva Peninsula on the 18th. While this would normally be the end of the story, the extratropical remnant low of Ivan split off from the frontal system and drifted southward in the western Atlantic for several days, crossed southern Florida, and re-entered the Gulf of Mexico on the 21st. The low re-acquired tropical characteristics, becoming a tropical storm for the second time on the 22nd in the central Gulf. Ivan weakened before it made its final landfall in southwestern Louisiana as a tropical depression on the 24th.

Ivan's storm surge completely over-washed the island of Grand Cayman, where an estimated 95% of the buildings were damaged or destroyed. Surge heights of 10-15 feet occurred along the Gulf coast during Ivan's first U.S. landfall. Peak rainfall amounts in the Caribbean and United States were generally 10-15 inches. The death toll from Ivan stands at 92 - 39 in Grenada, 25 in the United States, 17 in Jamaica, 4 in Dominican Republic, 3 in Venezuela, 2 in the Cayman Islands, and 1 each in Tobago and Barbados. U.S. damage is estimated to be near $14.2 billion, the third largest total on record.

Hurricane Frances 2004

Frances developed from a tropical wave, becoming a tropical depression on August 25 several hundred miles west-southwest of the southern Cape Verde Islands, a tropical storm later that day, and a hurricane the following day. Frances moved generally west-northwestward for the next several days, passing north of the Leeward Islands on the 31st and just north of the Turks and Caicos Islands on the 2nd. During this time, Frances' peak winds reached 145 m.p.h. (category 4) on two occasions while the hurricane underwent a series of concentric eyewall cycles. Westerly wind shear then caused Frances to weaken to a category 2 hurricane by the time it passed over the northwestern Bahamas on the 4th. Frances made landfall near Stuart, Florida just after midnight on the 5th with 105 m.p.h. maximum winds. Frances gradually weakened as it moved slowly across the Florida Peninsula, and became a tropical storm just before emerging into the southeastern Gulf of Mexico early on September 6. Frances made a final landfall in the Florida Big Bend region that afternoon as a tropical storm. Frances weakened over the southeastern United States and became extratropical over West Virginia on the 9th.

Frances produced a storm surge of nearly 6 feet at its Florida east coast landfall, and caused widespread heavy rains and associated freshwater flooding over much of the eastern United States, with a maximum reported rainfall of 18.07 inches at Linville Falls, North Carolina. Frances was also associated with an outbreak of over 100 tornadoes throughout the southeastern and mid-Atlantic states. Eight deaths resulted from the forces of the storm - seven in the United States and one in the Bahamas. U.S. damage is estimated to be near $8.9 billion, over 90% of which occurred in Florida.

Hurricane Jeanne 2004

Jeanne formed from a tropical wave, becoming a tropical depression on September 13 near the Leeward Islands, and strengthening to a tropical storm the next day. Moving west-northwestward, Jeanne struck Puerto Rico on the 15th with 70 m.p.h. winds and then strengthened to a hurricane just before making landfall in the Dominican Republic. Jeanne spent nearly 36 hours over the rough terrain of Hispaniola, generating torrential rainfall before emerging into the Atlantic north of the island. Steering currents in the western Atlantic were weak, and Jeanne moved slowly through and north of the southeastern Bahamas over the next five days while it gradually regained the strength it had lost over Hispaniola. By the 23rd, high pres-
sure had built in over the northeastern United States and western Atlantic, causing Jeanne to turn westward. Jeanne strengthened and became a major hurricane on the 25th while the center moved over Abaco and then Grand Bahama Island. Early on the 26th, the center of Jeanne’s 60-mile-wide eye crossed the Florida coast near Stuart, at virtually the identical spot that Frances had come ashore three weeks earlier. Maximum winds at the time of landfall are estimated to be near 120 m.p.h.

Jeanne weakened as it moved across central Florida, becoming a tropical storm during the afternoon of the 26th near Tampa, and then weakening to a depression a day later over central Georgia. The depression was still accompanied by heavy rain when it moved over the Carolinas, Virginia, and the Delmarva Peninsula on the 28th and 29th before becoming extratropical.

Jeanne produced extreme rain accumulations in Puerto Rico and Hispaniola, with nearly 24 inches reported in Vieques. Rains from the cyclone resulted in historic floods in Puerto Rico, and deadly flash-floods and mudslides in Haiti, where over 3,000 people lost their lives and roughly 200,000 were left homeless. Three deaths occurred in Florida, and one each in Puerto Rico, South Carolina, and Virginia. In the United States, damage is estimated to be near $6.9 billion.

Hurricane Katrina 2005

Katrina was one of the most devastating hurricanes in the history of the United States. It is the deadliest hurricane to strike the United States since the Palm Beach-Lake Okeechobee hurricane of September 1928. It produced catastrophic damage - estimated at $75 billion in the New Orleans area and along the Mississippi coast - and is the costliest U. S. hurricane on record.

This horrific tropical cyclone formed from the combination of a tropical wave, an upper-level trough, and the mid-level remnants of Tropical Depression Ten. A tropical depression formed on August 23 about 200 miles southeast of Nassau in the Bahamas. Moving northwestward, it became Tropical Storm Katrina during the following day about 75 miles east-southeast of Nassau. The storm moved through the northwestern Bahamas on August 24-25, and then turned westward toward southern Florida. Katrina became a hurricane just before making landfall near the Miami-Dade/Broward county line during the evening of August 25. The hurricane moved southward across southern Florida into the eastern Gulf of Mexico on August 26. Katrina then strengthened significantly, reaching Category 5 intensity on August 28. Later that day, maximum sustained winds reached 175 mph centered about 195 miles southeast of the mouth of the Mississippi River. Katrina turned to the northwest and then north, with the center making landfall near Buras, Louisiana on August 29 with maximum winds estimated at 125 mph (Category 3). Continuing northward, the hurricane made a second landfall near the Louisiana/Mississippi border with maximum winds estimated at 120 mph. Weakening occurred as Katrina moved north-northeastward over land, but it was still a hurricane near Laurel, Mississippi. The cyclone weakened to a tropical depression over the Tennessee Valley on 30 August. Katrina became an extratropical low on August 31 and was absorbed by a frontal zone later that day over the eastern Great Lakes.

Katrina brought hurricane conditions to southeastern Louisiana, southern Mississippi, and southwestern Alabama. The Coastal Marine Automated Network (C-MAN) station at Grand Isle, Louisiana reported 10-minute average winds of 87 mph on August 29 with a gust to 114 mph. Higher winds likely occurred there and elsewhere, as many stations were destroyed, lost power, or lost communications during the storm. Storm surge flooding of 25 to 28 feet above normal tide level occurred along portions of the Mississippi coast, with storm surge flooding of 10 to 20 feet above normal tide levels along the southeastern Louisiana coast. Hurricane conditions also occurred over southern Florida and the Dry Tortugas. The National Hurricane Center reported sustained winds of 69 mph on August 26 with a gust to 87 mph. Additionally, tropical storm conditions occurred along the northern Gulf coast as far east as the coast of the western Florida Panhandle, as well as in the Florida Keys. Katrina caused 10 to 14 inches of rain over southern Florida, and 8 to 12 inches of rain along its track inland from the northern Gulf coast. Thirty-three tornadoes were reported from the storm.

Katrina is responsible for approximately 1,200 reported deaths, including about 1,000 in Louisiana and 200 in Mississippi. Seven additional deaths occurred in southern Florida. Katrina caused catastrophic damage in southeastern Louisiana and southern Mississippi. Storm surge along the Mississippi coast caused total destruction of many structures, with the surge damage extending several miles inland. Similar damage occurred in portions of southeastern Louisiana southeast of New Orleans. The surge overtopped and breached levees in the New Orleans metropolitan area, resulting in the inundation of much of the city and its eastern suburbs. Wind damage from Katrina extended well inland into northern Mississippi and Alabama. The hurricane also caused wind and water damage in Miami-Dade and Broward counties.
Hurricane Wilma 2005

The massive and powerful Wilma formed from a broad area of disturbed weather that stretched across much of the Caribbean Sea during the second week of October. A surface low pressure system gradually became defined near Jamaica on October 14, leading to the formation of a tropical depression on October 15 about 220 miles east-southeast of Grand Cayman. The cyclone moved erratically westward and southward for two days while slowly strengthening into a tropical storm. Wilma became a hurricane and began a west-northwestward motion on October 18. Later that day, Wilma began to explosively deepen. On October 20, Wilma weakened slightly and turned northwestward toward the northeastern Yucatan Peninsula. Late on October 21, the slow-moving hurricane made landfall over Cozumel, followed by landfall early the next day over the northeastern Yucatan Peninsula - both at Category 4 intensity. Wilma moved slowly and weakened over northeastern Yucatan, emerging over the Gulf of Mexico early on October 23 as a Category 2 hurricane. Later that day it accelerated northeastward toward southern Florida. The hurricane strengthened over the Gulf waters, and its center made landfall near Cape Romano on October 24 as a Category 3 hurricane. Wilma briefly re-intensified just east of Florida, then weakened thereafter. The hurricane moved rapidly northeastward over the western Atlantic and became extratropical about 230 miles southeast of Halifax, Nova Scotia late on October 25. The remnants of Wilma were absorbed by another low late the next day.

Wilma brought hurricane conditions to the northeastern Yucatan Peninsula and the adjacent islands, as well as to southern Florida. In Florida, a South Florida Water Management District (SFWMD) station in Lake Okeechobee reported 15-minute average winds of 92 mph with a gust to 112 mph on October 24, while a nearby SFWMD station in Belle Glade reported a gust to 117 mph. Ten tornadoes occurred in Florida due to Wilma.

Twenty-two deaths have been directly attributed to Wilma: 12 in Haiti, 1 in Jamaica, 4 in Mexico, and 5 in Florida. The hurricane caused severe damage in northeastern Yucatan, including Cancun and Cozumel, and widespread damage estimated at $16.8 billion in southern Florida. Wilma also produced major floods in western Cuba.

Hurricane Irma 2017

Irma was a long-lived Cape Verde hurricane that reached category 5 intensity. The catastrophic hurricane made seven landfalls, four of which occurred as a category 5 hurricane across the northern Caribbean Islands. Irma made landfall as a category 4 hurricane in the Florida Keys and struck southwestern Florida at category 3 intensity. Irma caused widespread devastation across the affected areas and was one of the strongest and costliest hurricanes on record in the Atlantic basin.

Irma originated from a tropical wave that departed the west coast of Africa on August 27. By 30 August, satellite images indicated that a well-defined surface circulation had developed and since deep convection was already sufficiently organized, it is estimated that the system became a tropical depression at this time when it was centered about 138 miles west-southwest of São Vicente in the Cape Verde Islands. Banding features increased after genesis, and the depression became a tropical storm 6 hours later.

While moving westward to the south of a mid-level ridge over the eastern Atlantic, Irma strengthened rapidly in environmental conditions of low vertical wind shear and a fairly moist lower troposphere while it was over marginally warm sea surface temperatures (SSTs). Irma developed a ragged eye around the time it became a hurricane on August 31, which was only 30 hours after it became a tropical depression. Irma reached hurricane strength when it was still located over the eastern Atlantic about 460 miles west of the Cabo Verde Islands. Later on 31 August, Irma turned west-northwestward as the ridge to the north of the cyclone weakened a little. Meanwhile, Irma continued to rapidly strengthen, and it reached major hurricane status September 1, only two days after genesis. This increase in intensity over a 48-hour period is a remarkable rate that is only achieved by a small fraction of Atlantic tropical cyclones (about 1 in 30). Although Irma was a very intense hurricane at this time, the inner core was quite compact with hurricane-force winds estimated to extend no more than 17 miles from the center.

By early on September 4, Irma’s eye was growing in size and becoming better defined, and deep convection around the eye was gaining symmetry. Irma was on a strengthening trend once again, likely due to the completion of an eyewall replacement cycle, and it was headed toward the northern Leeward Islands. Irma turned west-northwestward, due to the erosion of the western side of the mid-level ridge, and went through another round of rapid intensification. As a category 5 hurricane, Irma made landfall on Barbuda on September 6 with maximum winds of 178 mph.

After crossing Barbuda, Irma continued to exhibit an im-
pressive satellite appearance and made its second landfall on St. Martin later that day, with the same wind speed and pressure as for its Barbuda landfall. Still moving west-northwestward to the south of a mid-level ridge, Irma made its third landfall on the island of Virgin Gorda in the British Virgin Islands even later on September 6 as a category 5 hurricane. Later that day, as Irma moved away from the Virgin Islands, reconnaissance data from the Air Force indicated that the major hurricane had weakened slightly and had a double wind maximum, indicative of concentric eyewalls. The double eyewall structure was also evident in Doppler radar data from San Juan, Puerto Rico. Even though Irma was no longer at its peak intensity, it remained a category 5 hurricane with a larger wind field than it had previously. The eye of Irma tracked about 58 miles to the north of the northern shore of Puerto Rico and the Dominican Republic from September 6 to September 7, with the strongest winds to the north of the center.

The eye of Irma passed just south of the Turks and Caicos Islands on September 8, and it made landfall on Little Inagua Island in the Bahamas that day at category 4 intensity. This slight weakening ended Irma’s 60-hour period of sustained category 5 intensity, which is the second longest such period on record (behind the 1932 Cuba Hurricane of Santa Cruz del Sur). Irma then turned slightly to the left, due to a building subtropical ridge, and moved toward the northern coast of Cuba. Reconnaissance and microwave data indicate that the inner core had become better organized, and it is estimated that Irma strengthened to a category 5 hurricane again later on September 8, only 18 hours after weakening below that threshold.

Irma then intensified a little more and made its fifth landfall near Cayo Romano, Cuba, on September 9, with estimated maximum winds of 167 mph. This marked the first category 5 hurricane landfall in Cuba since Huracan sin Precedentes in 1924. Irma tracked along the Cuban Keys throughout that day, and its interaction with land caused it to weaken significantly, first to a category 4 storm a few hours after landfall in the Cuban Keys and then down to a category 2 hurricane later that day when the eye was very near Isabela de Sagua. Shortly after that, the forward speed of Irma slowed, and it began to make a turn to the northwest, which caused the core of the hurricane to move over the Florida Straits early on September 10.

When Irma moved over the warm waters of the Florida Straits, the hurricane re-intensified once again. Data from the Air Force Hurricane Hunters indicate that Irma became a category 4 hurricane on September 10 when it was centered about 63 miles south-southeast of Key West, Florida. Meanwhile, Irma had turned to the north-northwest in the flow between a subtropical ridge over the western Atlantic and a mid- to upper-level low pressure system over the Gulf of Mexico. The category 4 storm made yet another landfall near Cudjoe Key in the lower Florida Keys later that day with maximum winds of 132 mph.

The convective pattern of the hurricane then became more ragged, likely due to increasing southwesterly vertical wind shear, and in response, Irma weakened to a category 3 hurricane late on September 10. Irma made its final landfall near Marco Island, Florida, on September 10, with estimated maximum winds of 115 mph. Once inland over southwestern Florida, Irma weakened quickly, due to the influences of land and strong wind shear, while moving north-northwestward on the east side of a large cyclonic gyre that was centered over the Gulf of Mexico. Irma’s center tracked just east of Naples and Ft. Myers by September 11 as a category 2 hurricane and passed between Tampa and Orlando that day as a category 1 storm. Although Irma was weaker while over Florida, the wind field of the hurricane spread out significantly, with tropical-storm-force winds extending up to 414 miles from the center.

Irma weakened to a tropical storm on September 11 when it was centered about 23 miles west of Gainesville, Florida. While Irma was moving across northern Florida, most of the deep convection was located well to the northeast of the center, and the strongest winds were confined to the northeast coast of Florida and southeastern Georgia. The center of Irma moved over southern Georgia just west of Valdosta later that day with maximum winds of 51 mph, and the system became a remnant low with 29 mph winds once it crossed into Alabama on September 12. The remnant low continued northwestward while weakening and dissipated on September 13 over southeastern Missouri.

Irma caused 47 direct deaths across the Caribbean Islands and the southeastern United States. The majority of the causalites were in the Caribbean Islands. In the United States, 10 direct deaths were reported, and an additional 82 indirect deaths occurred, 77 of which were in Florida. About 6 million residents in Florida were evacuated from coastal areas.
IMPORTANT: Not all shelters will be opened at the same time. Stay tuned to local TV and radio for shelter opening announcements.

1. Independence Middle School
   4001 Greenway Dr, Jupiter 33458
2. Palm Beach Gardens High School
   4245 Holly Dr, Palm Beach Gardens 33410
3. Dr Mary McLeod Bethune Elementary School
   1501 Avenue U, Riviera Beach 33404
4. Seminole Ridge High School
   4601 Seminole Pratt Whitney Rd, Loxahatchee 33470
5. West Gate Elementary School
   1545 Loxahatchee Dr, West Palm Beach 33409
6. Forest Hill High School
   6901 Parker Ave, West Palm Beach 33409
7. Palm Beach Central High School
   8499 Forest Hill Blvd, Wellington 33411
8. John I Leonard High School
   4701 10th Ave N, Greenacres 33463
9. Park Vista High School
   7900 Jog Rd, Lake Worth 33467
10. Boynton Beach High School
    4975 Park Ridge Blvd, Boynton Beach 33426
11. Atlantic Community High School
    2455 W Atlantic Ave, Delray Beach 33445
12. Boca Raton High School
    1501 NW 15th Ct, Boca Raton 33486
13. West Boca Raton High School
    12811 Glades Rd, Boca Raton 33498
14. Lake Shore Middle School
    425 W Canal St N, Belle Glade 33430
15. Pahokee Middle School
    850 Larrimore Rd, Pahokee 33476

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2019 Atlantic Storm Names Word Search

ANDREA
BARRY
CHANTAL
DORIAN
ERIN
FERNAND
GABRIELLE

HUMBERTO
IMELDA
JERRY
KAREN
LORENZO
MELISSA
NESTOR

OLGA
PABLO
REBEKAH
SEBASTIEN
TANYA
VAN
WENDY
**IMPORTANT PHONE NUMBERS**

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<td>Public Safety</td>
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<td>TDD (Hearing Impaired)</td>
<td>(561) 712-6343</td>
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<td>Senior Helpline</td>
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<td>Consumer Assistance Hotline</td>
<td>(800) 227-8676</td>
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<td>Contractor Certification</td>
<td>(561) 233-5525</td>
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<td>Engineering &amp; Public Works</td>
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<td>(561) 681-6392</td>
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<td>(561) 697-8000</td>
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<td>Palm Tran</td>
<td>(561) 841-4200</td>
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<td>Palm Tran Connection</td>
<td>(561) 649-9838</td>
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<td>Parks and Recreation</td>
<td>(561) 966-6600</td>
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<td>Price Gouging Hotline</td>
<td>(866) 966-7226</td>
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<td>Public Affairs Department</td>
<td>(561) 355-2754</td>
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<td>Roads, Drainage, Traffic</td>
<td>(561) 684-4018</td>
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<td>Salvation Army</td>
<td>(561) 686-3530</td>
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<td>Sheriff (PBISO) – Non-Emergency</td>
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<td>(561) 640-4000</td>
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<td>(561) 683-6885</td>
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<td>United Way</td>
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<td>*PBC Water Utilities</td>
<td>(561) 493-6000</td>
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<td>Emergency Repairs 24 hrs</td>
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*Check your water bill to determine who provides your water.

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**2019 Atlantic Storm Names Word Search Answer Key**

![Word Search Answer Key](image-url)