

March 24th, 2018

A note to the American Radio Relay League and all volunteer amateur radio operators around the world,

Greetings my fellow HAM radio operators. As the incoming Director of the National Hurricane Center, I want to take a moment to thank you for the important work you do to ensure communications continue during and after a disaster.

In the aftermath of Hurricane Katrina, HAM radio was the only remaining method of communication for many of us in the disaster zone. My handheld and the base unit at the New Orleans National Weather Service Office were our only links to the outside world. I cannot stress enough how critical redundant methods of communications are during and after a disaster. As the infrastructure fails, it is you all that keep the two-way dissemination of critical information going.

We at the National Hurricane Center recognize and value the role of WX4NHC and all of the amateur radio operators with whom they connect. As we saw during last year's extremely busy hurricane season, the next hurricane to impact our area is always just around the corner. After experiencing the aftermath of Hurricane Katrina, I can tell you we can't do without WX4NHC to ensure we can continue to perform our mission responsibilities.

We too have to be ready for the next storm. Testing WX4NHC is vital to ensure we are ready for anything the hurricane season will bring.

I cannot thank all the amateur radio volunteers enough for their ongoing dedication to our shared mission of saving lives. 73's to you all and I look forward to working with my fellow HAMs.

Kenneth E. Graham, WX4KEG

National Hurricane Center



Kenneth Graham, WX4KEG, will take over leadership of the National Hurricane Center in Miami, Florida, on April 1.
(NOAA photo)



AMATEUR RADIO STATION AT THE NATIONAL HURRICANE CENTER

WX4NHC 2019 - Who we are and What we do *Our 39th year of Volunteer Public Service at NHC*

Our Mission – to help save lives

WX4NHC is an Amateur Radio Station, also known as “Ham Radio”, located at the National Hurricane Center in Miami, Florida. The station has been totally assembled from donated equipment and is operated by an organized group of volunteer amateur radio operators since 1980.

WX4NHC has been activated whenever a hurricane is within 300 miles of land fall in the areas of the western Atlantic, the Caribbean or the eastern Pacific. We also provide Emergency Backup Communications from NHC to NWS Offices and other agencies in case of local landfall.

The WX4NHC Team is composed of 30 specially trained volunteer operators that operate the Ham Radio station in 3-hour shifts. For example: during the Historic 2005 Hurricane Season the station was on-the-air, sometimes with two to three operators at a time, for more than 500 hours. About 400 Surface Reports were received during Hurricane/Super Storm Sandy. We operated twice from inside the Eye of a hurricane (Katrina and Wilma) and collect hundreds of reports each hurricane season!

These “Surface Reports” provide the forecasters with supplemental weather and damage data that are not normally available to them and are frequently incorporated into their advisories as they provide a human perspective and Eye Witness accounts of what people are experiencing during a hurricane.

The WX4NHC operators work in conjunction with the Hurricane Watch Net, VoIP WX-Talk Hurricane Net and other volunteer networks to collect real-time “Surface Reports” for the NHC Hurricane Specialists via Amateur Radio using many modes such as HF “Shortwave” Radio, VHF/UHF Radio, VoIP (Voice over Internet Protocol) systems; EchoLink and IRLP, Automatic Packet Reporting System (APRS) and volunteer weather observer networks, ON-NHC (Observers Network) & CWOP (Citizen’s Weather Observers Program), using our on-line report form, email and Fax. WX4NHC also relays Hurricane Advisories via the Ham Radio Networks to the hurricane affected areas and governments when conventional communications have been interrupted.

The WX4NHC Team has been nationally recognized for their volunteer international humanitarian efforts by the National Hurricane Conference and the South Florida Hurricane Conference.

NHC and the WX4NHC Team is very grateful for the participation of volunteer Ham Radio Operators before, during and after hurricanes. Whether you are directly affected by the hurricane or a distant relay station, you are an important part of the communications link that provides NHC with those important eye witness surface reports.

Without your efforts to communicate those hurricane reports, WX4NHC would only be listening to static.

THANK YOU!

www.wx4nhc.org



Ham Radio Ops Play Special Role At Hurricane Center

June 4, 2015 at 10:51 am

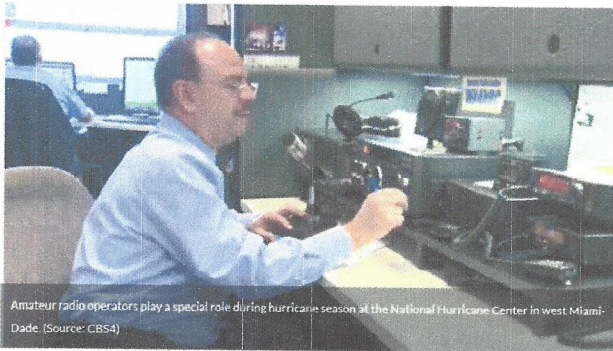
Filed Under: [2015 Hurricane Season](#), [Amateur Radio](#), [Craig Setzer](#), [Ham Radio](#), [Ham Radio Op](#), [Julio Ripoll](#), [National Hurricane Center](#)

MIAMI (CBSMiami) – Believe it or not, 100 year old technology plays a special role during hurricane season at the National Hurricane Center in west Miami-Dade.

They're called amateur radio operators, 'hams' for short and they communicate in ways others can't.

"We have a group of about 30 volunteers and they come in here during hurricanes that are anywhere in the Atlantic," said Julio Ripoll, a ham radio op who volunteers his time at the NHC.

The NHC relies on data and weather observations for their forecasts and reports. Sometimes, however, weather data can't be transmitted either because there is no internet or the weather is really, really bad.



Amateur radio operators play a special role during hurricane season at the National Hurricane Center in west Miami-Dade. (Source: CBS4)

"Many times we basically just fill in the gaps from all the other weather data they get from satellite and air recon, but there are gaps on the surface that they may not have so we fill in those reports," said Ripoll. "We basically take surface reports from other hams that have radio stations and relay them to the forecasters."

Sometimes they not only report the weather, but become part of the action.

"It happened during Katrina, which is not that long ago," said Ripoll. "We lost the regular, conventional communications from some of those National Weather Service stations except the one in Slidell which had a ham radio operator on board. So for six hours we stayed connected with him, in tracking the storm as it landed live over them with weather reports, and then health and welfare."

Ripoll said the ham radio ops who volunteer at the NHC are a diverse set including doctors, architects and engineers who bring unique skill sets in addition to their communication skill.

"We get paid nothing because we're volunteers but we get paid in the satisfaction that what we do is important and we feel it actually does help lives in the long run," said Ripoll.



AMATEUR RADIO STATION AT THE NATIONAL HURRICANE CENTER

NHC Directors express the importance of Amateur Radio Communications.

Max Mayfield, former Director of the National Hurricane Center:

"Ham Radio Operators can give us information that we cannot get from other sources. These surface reports are valuable to us, as they give us information of what is actually happening on the ground. We at NHC appreciate your participation in relaying surface reports from hurricane affected areas, as well as distributing the Hurricane Advisories to those with no other means of receiving these vital warnings."

Bill Read, former Director of the National Hurricane Center:

"In an era with increasing reliance on high speed technology, we still need the capability to relay critical information to and receive critical information from, those communities in their time of greatest need - in times of disaster when most technology has failed. Frequently the only viable form of communication are the dedicated HAM radio operators in or near the disaster area. We at NHC are grateful for the support of the team of radio operators staffing WX4NHC during Tropical Cyclone events and assisting in potentially lifesaving communications."

Richard Knabb, Director of the National Hurricane Center:

"When I was a hurricane specialist here at NHC, especially during the extremely busy year of 2005, I frequently relied on information from dedicated HAM radio operators in the U.S. and in many other countries. They are key partners with us as we disseminate forecasts and warnings and collect all available data both while an active tropical cyclone is out there, and after the event when the crucial task of documenting the impacts is conducted. Our HAM radio friends are as passionate as we are at NHC about disaster safety and preparedness, and they provide a method of communicating that has withstood the test of time, even in the midst of other technological advances. Thank you to all who participate in and support this important community."

Ed Rappaport, Deputy Director of the National Hurricane Center:

"Because there are very few "official" weather stations, the NHC knows the information you provide could be critical to its forecasters, and to the people in your community and to those along the future track of a tropical storm or hurricane. This has been the case many times in the past. In Hurricane Andrew, for example, one special observer provided the highest known surface wind speed for that storm (177 mph), while others observed a central pressure (922 mb or 27.2 inches) that was 10 mb lower than what was expected from the official source (even from reconnaissance aircraft !). More recently, the highest wind speeds noted in North Carolina during Hurricane Fran came from observers like you.

This data is also important to the NHC even if it can't be sent immediately. The NHC reanalyzes every storm after it ends and very often revises its earlier estimates. The data form found on the WX4NHC main menu shows the kind of data that is the most important to the NHC. From previous storms, the NHC, and its sister agency the Hurricane Research Division, have found that several considerations can help improve the reliability of the data.

Thank you. We look forward to hearing from you!"

www.wx4nhc.org



AMATEUR RADIO STATION
AT THE
NATIONAL HURRICANE CENTER
11691 S.W. 17 STREET MIAMI, FLORIDA 33165

How to Contact Amateur Radio Station WX4NHC

Amateur Radio HF Frequencies - (single sideband mode)

20 meters : 14.325 MHz **Hurricane Watch Net** (Main frequency during Hurricanes)

40 meters : 7.268 MHz **Hurricane Watch Net** (secondary frequency), shared Water Way Net

80 meters : 3.815 MHz Caribbean Net, (Alternates: 3.950 : North Florida / 3.940 South Florida)

Amateur Radio EchoLink / IRLP

EchoLink **VoIP Hurricane Net**, Conference: "WX-TALK" (Node 7203)

IRLP Node 9219

Amateur Radio VHF/UHF Frequencies

VHF : 147.470 MHz simplex - Coordination frequency for NHC ops. (*official use only, please*)

VHF : 147.000/146.400 repeater (PL 94.8 Hz), 146.925 backup repeater (PL 94.8 Hz)

UHF : 444.600/449.600 repeater (Local use South Florida PL 94.8 Hz)

UHF : 444.600/449.600 repeater, SARNET (During Florida Hurricanes Statewide PL 167.9 Hz)

APRS mode Frequencies

HF : 30 meters : 10.151 MHz (LSB)

VHF : 2 meters : 144.390 MHz simplex

Internet Home Page : www.wx4nhc.org

Online Hurricane Weather Report Form : www.wx4nhc.org/WX-form1.php

WX4NHC Email : wx4nhc@wx4nhc.org

Amateur Radio Coordinator:

John McHugh, K4AG Email: k4ag@arrl.net

Asst. Amateur Radio Coordinator:

Julio Ripoll, WD4R Email: wd4r@arrl.net



AMATEUR RADIO STATION - WX4NHC
AT THE
NATIONAL HURRICANE CENTER

WEATHER SURFACE REPORT

Hurricane:

Observation Station Call Sign (or full name):

Geographic Location (city, state, country):

Distance from ocean: _____ Height above sea level: _____

GPS Location: (Latitude/Longitude): _____ North / _____ West

Date: _____ Observation Time: _____ GMT LOCAL

WIND SPEED: _____ MPH KNOTS/H KILOMTR/H
(SUSTAINED ONE MINUTE) ESTIMATED MEASURED

GUST WIND SPEED: _____ MPH KNOTS/H KILOMTR/H

WIND DIRECTION: _____

Barometric Pressure: _____ INCHES MILLIBARS
CALIBRATED TO SEA LEVEL? _____ FALLING RISING

Surface Observations: *Flooding, sea level storm surge, Rain amount, Damage Report.*

WX4NHC Operator on duty: _____

Relayed by: HWN VOIP APRS ON-LINE/EMAIL OTHER: _____

Our Mission - to help save lives

www.wx4nhc.org

WHAT IS THE VOIP HURRICANE NET?

Skywarn's purpose, and our primary objective, is to help save lives and property thru the identification and cautious field evaluation of threatening or dangerous weather and hazardous conditions and facilitating the timely gathering and dissemination of this information. The Echolink *WX_TALK* conference server node: 7203 was merged with IRLP reflector channel 9219 to create this net which provides another means for people in the field to submit reports to the National Hurricane Center and its Amateur Radio Station, WX4NHC, as well as for the National Hurricane Center and local National Weather Service forecast offices to be able to easily stay in contact with one another via Amateur Radio. After Echolink and IRLP hosted separate weather nets from 2002-2003, Kevin Anderson, KD5WX, Echolink wx-talk net manager and Danny Musten, KD4RAA, IRLP Raleigh reflector net manager began working together in 2004 to help make this combined net possible. This net requires a large amount of time and effort to be expended by a lot of dedicated people and its effectiveness is achieved by the combined efforts of all of the participants involved and most importantly, support from the local area impacted by a hurricane and they are all very much appreciated. In 2006, Rob Macedo-KD1CY, became the director of operations for the VoIP Hurricane Net and continues to run operations today.

VOIP HURRICANE PREP NET

Please join us for the VoIP Hurricane Preparation Net at 8 PM ET/7 PM CT/6 PM MT/5 PM PT. The net meets weekly in the hurricane season months of June to November and monthly from December to May. For the December net, the meets one hour earlier at 7 PM ET/6 PM CT/5 PM MT/4 PM PT immediately following SKYWARN Recognition Day. If there are special topics or training being held, they will be announced separately over the email list on Yahoo Groups and via the Facebook and Twitter social media. The Yahoo group name is VOIP-WXNET. You may join us by connecting to the Echolink *WX_TALK* conference server node #:7203, and IRLP reflector 9219 through any of the many linked repeaters in this network worldwide or via your pc or mobile device/tablet using Echolink. Please check in with us or at least monitor if you are able.

NET ACTIVATION

The VoIP Hurricane Net is activated when the following criteria are met:

- The National Hurricane Center station, WX4NHC, is active with hurricane net operations.
- There are Echolink and/or IRLP nodes in or near the affected area of the hurricane or another means to gather storm reports from the affected area via social media and other mechanisms.
- An Emergency Management Agency or Non-Governmental Organization (NGO) requests net activation.
- The VoIP Net Management determines there is a need for a net and self-activates.

LIKE TO BE A NET CONTROL?

The VoIP hurricane net is looking for net control operators (ncos) to assist with its hurricane preparation net and during hurricane net activations. Not only does each net have a primary net control operator, but also a backup nco and both the Echolink *WX_TALK* conference node: 7203 and IRLP reflector 9219 have standby net monitors to control link management and additionally, a liaison station is in place to assist in passing traffic to the served government agencies. Contact : Rob Macedo-KD1CY VoIP Hurricane Net Director of Operations at kd1cy@voipwx.net for more information.

FOR MORE INFORMATION

For more information, please check out the following:

Web Site: <http://www.voipwx.net>

Email List: <https://groups.io/g/voip-wxnet/>

Facebook: <http://www.facebook.com/voipwxnet>

Twitter: <http://www.twitter.com/voipwxnet>



THE HURRICANE WATCH NET

Bobby Graves – KB5HAV and Brad Pioveson – W9FX

Hurricanes have been a part of nature since the beginning of time. History records the tracking of these storms, as well as forecasting tracks and issuing warnings, as early as 1870⁽¹⁾.

1965, a time in which hurricane forecasting was still in its infancy, Hurricane Betsy came roaring across the Bahamas, the Florida Keys and then hammered southeast Louisiana on Labor Day Weekend. Betsy was the first hurricane to make landfall in the United States resulting in over \$1 billion in damages⁽²⁾. The storm became known as "Billion Dollar Betsy".

Jerry Murphy, K1NAP (now holds the license K8YUW) while stationed at the U.S. Naval Mobile Construction Battalion Center in Davisville, Rhode Island, handled countless phone patches and messages to and from military deployed personnel as a member of the Intercontinental Amateur Radio Net (IARN) on 14.320 MHz. As Hurricane Betsy was moving through the Bahamas, Jerry, along with Marcy Rice, KZ5MM located the Canal Zone (Panama), helped relay weather information between those in south Florida and the Bahamas. There was so much interest in what the storm was doing that it created a major disruption in IARN activities. Jerry suggested to the Net Manager to move those interested in the storm up 5 MHz to get them off the net, the Net Manager agreed. Marcy followed Jerry, and together they established the first "Hurricane Watch Net" on 14.325 MHz.

In a letter dated March 1999 from Jerry Murphy, he recalls the following: *"We received the latest advisories and bulletins from various Florida hams, one of them worked for the city of Miami. Sometime later, maybe a year or two later, Ellie Horner, K4RHL subscribed to a teletype network and had an RTTY system installed in her home. That kept us better informed in future storms"*.

Fifteen years later, in 1980, the National Hurricane Center saw its first amateur radio station installation using the callsign "W4EHW". When W4EHW (now operating as WX4NHC as of 2004) opened for business at the NHC, it became a lot easier for the HWN member stations to provide real-time information to those in the areas affected by tropical storms. Ground truth observations were gathered and relayed to the NHC's forecasters in a much timelier manner.

In the 50 plus years since Jerry Murphy's efforts in 'Billion Dollar Betsy', there have been over 550 named storms in the Tropical Atlantic basin. More than 130 storms have come ashore as a category one hurricane, or higher, and the Hurricane Watch Net was active for each one. The net also activated for many tropical storms as they were either forecast to become a hurricane prior to landfall or there was a request by forecasters at the National Hurricane Center to do so.

The Hurricane Watch Net generally activates whenever a hurricane is within 300 statute miles of expected landfall. Our area of coverage includes the Caribbean, Central America, Eastern Mexico, Eastern Canada, as well as all US Coastal States. When activated, you will find us on 14.325 MHz by day and 7.268 MHz by night. Why do we state these frequencies without a plus or minus amount? Because those who are operating using marine radios have to program in the frequencies – marine radios do not have a VFO or RIT. Furthermore, these two frequencies come preprogrammed into many marine radios. Many non-hams listen in via shortwave radio and know this is where to find us when we are activated. Before any net activation, if either frequency is in use, we always ask permission to use them. Additionally, it is our practice of being on the air ahead of the amateur radio station at the National Hurricane Center – WX4NHC – for the explicit purpose to establish our net operating frequency, to issue advisory data, and to line up reporting stations. It helps us tremendously to know the operator's locations, names, and weather measuring capabilities in advance of the storm's arrival.

There are three primary purposes of the HWN:

- 1) Disseminate the latest advisories issued by the National Hurricane Center. We do so for marine interests, Caribbean Island and Central American nations, and other interests where public media is not readily available. During hurricane events, these people receive their weather information from the United States, mostly by Amateur Radio!
- 2) To obtain real-time ground level weather conditions and initial damage assessments, from amateur radio operators in the affected area and relay that information to the forecasters at the National Hurricane Center by way of WX4NHC (the amateur radio station located at NHC).
- 3) To function as a backup communications link for the National Hurricane Center, National Weather Service Forecast Offices, the Canadian Hurricane Centre, Emergency Operations Centers, Emergency Management Agencies, Non-

Personal Weather Station Siting Information

The following information provided by Davis (<http://www.davisnet.com>)

The standards for siting a station are to have temperature sensors 4 to 6 feet (1.2 to 2.0 m) above the surface, and 30 feet (9 to 10 m) for wind. But there is more to consider than just height. An anemometer at 33 feet in the narrow alley between two 100-foot buildings and a temp sensor exactly 5 feet above a large black asphalt parking lot will not give you very usable data. But, what if what you want to know is how hot it gets in the parking lot, or how fast the wind whistles down that urban canyon? The point is, you want data that pertains to your specific needs and environment.

Siting standards are guidelines that most users probably can't meet perfectly. You want to mount your weather station as close to the standards as possible, but odds are, you won't be able to find the perfect site.

In the case of the *(Davis) Vantage Vue (or other all-in-one personal weather stations)*, the two sensors cannot be separated, so they must be mounted at the same height. A compromise would work, but perhaps a better way to look at it would be to consider which information is most important to you. If you live where wind is the most interesting weather variable and you have many trees sheltering your yard, mounting on the roof, 6 feet above the surface, will be the best option. (But bear in mind that you will need to access your station for routine maintenance.) If you really are more interested in rain and temp, then finding a spot where the station can be mounted at 5 or 6 feet will give you accurate readings for temp and rain and will allow easy maintenance. (Bear in mind that wind readings will be affected by obstructions on the ground.)

Additional Information on Personal Weather Station siting:

<http://weather.gladstonefamily.net/CWOP-Siting.pdf>

<http://www.acurite.com/acurite-sensor-siting>

<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1260.pdf>

Wire Antenna Calculator

http://www.ws6x.com/ant_calc.htm

Specs for a 20 meter flat-top dipole cut for 14.300 MHz

Full length of dipole - 32 ft. 8.8 inches | Each Leg - 16 ft. 4.4 inches

Specs for a 20 meter inverted V cut for 14.300 MHz

Full Half-Wave Invert Vee - 32 ft. 0.8 inches | Each Leg - 16 ft. 0.4 inches

Minimum vertical height - 6 ft. 0 inches

Minimum horizontal spread - 29 ft. 8.4 inches

Specs for a 40 meter flat-top dipole cut for 7.200 MHz

Full length of dipole - 65 ft. 0 inches | Each Leg - 32 ft. 6 inches

Specs for a 40 meter inverted V cut for 7.200 MHz

Full Half-Wave Invert Vee - 63 ft. 8.4 inches | Each Leg - 31 ft. 10.2 inches

Minimum vertical height - 11 ft. 10.8 inches

Minimum horizontal spread - 59 ft. 1.2 inches

NVIS Emergency Antennas

<http://static.dxengineering.com/pdf/WP-NVIS-Rev2.pdf>

<http://www.w0ipl.net/ECom/NVIS/nvis.htm>

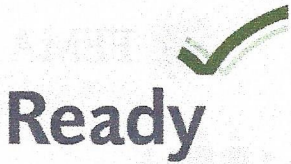
<http://www.hamuniverse.com/k6sojnvis.html>

<http://hfpack.com/antennas/minibac/>

Commercially Made Wire Antennas

<http://alphaantenna.com/>

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



Family Emergency Plan



Prepare. Plan. Stay Informed. ®



Make sure your family has a plan in case of an emergency. Before an emergency happens, sit down together and decide how you will get in contact with each other, where you will go and what you will do in an emergency. Keep a copy of this plan in your emergency supply kit or another safe place where you can access it in the event of a disaster.

Out-of-Town Contact Name: _____ Telephone Number: _____
 Email: _____
 Neighborhood Meeting Place: _____ Telephone Number: _____
 Regional Meeting Place: _____ Telephone Number: _____
 Evacuation Location: _____ Telephone Number: _____

Fill out the following information for each family member and keep it up to date.

Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____
 Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____
 Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____
 Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____
 Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____
 Name: _____ Social Security Number: _____
 Date of Birth: _____ Important Medical Information: _____

Write down where your family spends the most time: work, school and other places you frequent. Schools, daycare providers, workplaces and apartment buildings should all have site-specific emergency plans that you and your family need to know about.

Work Location One Address: _____ Phone Number: _____ Evacuation Location: _____	School Location One Address: _____ Phone Number: _____ Evacuation Location: _____
Work Location Two Address: _____ Phone Number: _____ Evacuation Location: _____	School Location Two Address: _____ Phone Number: _____ Evacuation Location: _____
Work Location Three Address: _____ Phone Number: _____ Evacuation Location: _____	School Location Three Address: _____ Phone Number: _____ Evacuation Location: _____
Other place you frequent Address: _____ Phone Number: _____ Evacuation Location: _____	Other place you frequent Address: _____ Phone Number: _____ Evacuation Location: _____

Important Information	Name	Telephone Number	Policy Number
Doctor(s):			
Other:			
Pharmacist:			
Medical Insurance:			
Homeowners/Rental Insurance:			
Veterinarian/Kennel (for pets):			



Ready

Family Emergency Plan

Prepare. Plan. Stay Informed.



Make sure your family has a plan in case of an emergency. Fill out these cards and give one to each member of your family to make sure they know who to call and where to meet in case of an emergency.

Blank lined area for notes.

Blank lined area for notes.

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION:

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION:

< FOLD
HERE >

Family Emergency Plan



EMERGENCY CONTACT NAME:
TELEPHONE:

OUT-OF-TOWN CONTACT NAME:
TELEPHONE:

NEIGHBORHOOD MEETING PLACE:
TELEPHONE:

OTHER IMPORTANT INFORMATION:

DIAL 911 FOR EMERGENCIES

Ready 

Family Emergency Plan



EMERGENCY CONTACT NAME:
TELEPHONE:

OUT-OF-TOWN CONTACT NAME:
TELEPHONE:

NEIGHBORHOOD MEETING PLACE:
TELEPHONE:

OTHER IMPORTANT INFORMATION:

DIAL 911 FOR EMERGENCIES

Ready 

Blank lined area for notes.

Blank lined area for notes.

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION:

ADDITIONAL IMPORTANT PHONE NUMBERS & INFORMATION:

< FOLD
HERE >

Family Emergency Plan



EMERGENCY CONTACT NAME:
TELEPHONE:

OUT-OF-TOWN CONTACT NAME:
TELEPHONE:

NEIGHBORHOOD MEETING PLACE:
TELEPHONE:

OTHER IMPORTANT INFORMATION:

DIAL 911 FOR EMERGENCIES

Ready 

Family Emergency Plan



EMERGENCY CONTACT NAME:
TELEPHONE:

OUT-OF-TOWN CONTACT NAME:
TELEPHONE:

NEIGHBORHOOD MEETING PLACE:
TELEPHONE:

OTHER IMPORTANT INFORMATION:

DIAL 911 FOR EMERGENCIES

Ready 



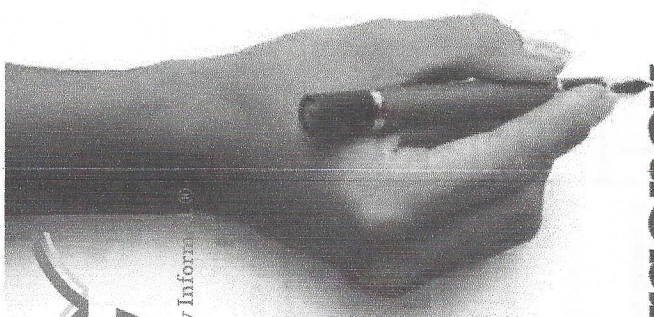
Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from www.ready.gov
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles or other activities for children



Ready

Prepare. Plan. Stay Informed.



Emergency Supply List



FEMA

www.ready.gov

Recommended Items to Include in a Basic Emergency Supply Kit:

Water, one gallon of water per person per day for at least three days, for drinking and sanitation

Food, at least a three-day supply of non-perishable food

Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both

Flashlight and extra batteries

First aid kit

Whistle to signal for help

Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place

Moist towelettes, garbage bags and plastic ties for personal sanitation

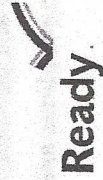
Wrench or pliers to turn off utilities

Can opener for food (if kit contains canned food)

Local maps

Through its Ready Campaign, the Federal Emergency Management Agency educates and empowers Americans to take some simple steps to prepare for and respond to potential emergencies, including natural disasters and terrorist attacks. **Ready** asks individuals to do three key things: get an emergency supply kit, make a family emergency plan, and be informed about the different types of emergencies that could occur and their appropriate responses.

All Americans should have some basic supplies on hand in order to survive for at least three days if an emergency occurs. Following is a listing of some basic items that every emergency supply kit should include. However, it is important that individuals review this list and consider where they live and the unique needs of their family in order to create an emergency supply kit that will meet these needs. Individuals should also consider having at least two emergency supply kits, one full kit at home and smaller portable kits in their workplace, vehicle or other places they spend time.



FEMA

Federal Emergency Management Agency
Washington, DC 20472