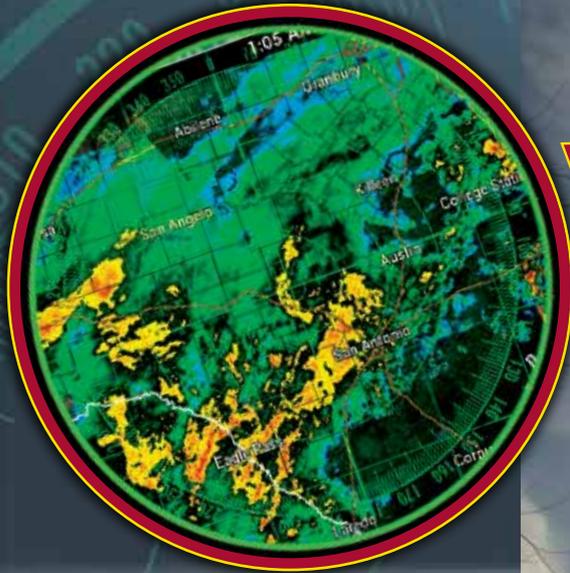


With an avid interest in the weather and geared up to gather the — in Central Texas and nationwide — serve the 125-year-old C



THE BSERVE

By Denise Gamino

DIME BOX — Several years ago, Virginia Shows hired a handyman to trim some trees in her yard. He worked for a few days and then had a question: “Do you stand out there and smoke?” he asked.

“I don’t smoke,” Shows said. “Why do you ask that?”

“Well, you’ve got a big ashtray in your yard.” The 3-foot, silver canister on legs in Shows’ yard in Dime Box isn’t for cigarette butts. Instead, it collects rain for the National Weather Service. Anytime it rains or mists, Shows goes outside at 7 a.m. and pokes a long stick into the tall rain gauge. She notes the measurement, goes inside and emails the information to the federal government’s regional Weather Forecast Office in New Braunfels. Then she’s off to her half-day job teaching literature to middle school students at the Dime Box public school.

Shows is one of the federal government’s 654 official volunteer weather observers in Texas. They are part of the Cooperative Observer Program in operation since 1890. About 50 of these volunteer observers for the National Weather Service live in the 14-county region served by Bluebonnet Electric Cooperative. Nationwide, more than 8,700 volunteers gather weather observation data for this weather service program. Most are motivated to serve because of a keen

interest in weather.

The Cooperative Observer Program provides the federal government with long-running records of weather observations at specific sites. The data is used in a variety of ways, including monitoring the drought, researching effects of weather and climate on crops, developing agricultural growing season zones, and planning roads to withstand flooding.

Shows and other Cooperative Observers “form the backbone of America’s climate record,” said Cory Van Pelt, a National Weather Service hydro-meteorological technician in New Braunfels who supervises the volunteers. “Their observations came into existence long before routine aviation obser-

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details, thousands of volunteers Cooperative Observer Program

ERS



Weather watcher Virginia Shows keeps an eye on the sky next to her National Weather Service-issued 'recording rain gauge' in her backyard in Dime Box. (A close-up of its label, inset.) Shows is one of hundreds of volunteers in Texas collecting data for the Cooperative Observer Program.

Jay Godwin photos

Bluebonnet

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MONTHLY MEETING

Bluebonnet's Board of Directors will meet at 9 a.m. June 16, at Bluebonnet's Headquarters, 155 Electric Ave., (formerly 650 Texas Hwy. 21 East), Bastrop. Find the agenda and last-minute updates June 12 at bluebonnet.coop. Hover your cursor over 'next board meeting' on our home page.

ONLINE

-  Like us on Facebook!
-  Follow us on Twitter!
-  See our videos on YouTube!

CONTACT US

Bluebonnet Electric Cooperative produced the blue-bordered pages 18-25 in this issue of the magazine with content that is of specific interest or relevance to Bluebonnet members. The rest of the magazine's content is distributed statewide to any member of an electric cooperative in Texas. For information about the magazine, contact Janet Wilson at **512-750-5483** or email magazine@bluebonnet.coop.

4 ways to report an outage to Bluebonnet

1. Call our automated outage hotline, 800-949-4414.
2. Use TextPower with a smartphone. To register, text BBOUTAGE to 85700 and follow the prompts. Once you have registered, report an outage on your mobile device by texting OUT to 85700. You can receive updates by texting STATUS to the same number.
3. Go online to bluebonnet.coop. If you have an online account, click Report Outage in the top task bar or hover over the Outage Report icon and click Report an Outage. Log in and follow the prompts.
4. Use our mobile app for iPhone and Android smartphones and tablets. Just tap Report Outage on the home page or log in to your online account.

Questions? Call a member service representative at 800-842-7708 during business hours. Or email memberservices@bluebonnet.coop.

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ventions at airports, so they give us a picture of the country's weather and climate back to the late 1800s."

Shows carries on a long family tradition with her duties as a daily weather observer in Dime Box. Her maternal uncle, Gerhard Kissman, was the local weather observer for the National Weather Service from 1982-1988. Then, Shows' mother, Alene Cottrell, took over the Cooperative Observer volunteer duties and sent weather information to the federal government for about 25 years before illness prevented her from continuing. Cottrell, who died in April at age 88, also served as the Dime Box postmaster for more than 34 years.

Shows, who shares a large backyard with the house where her mother lived, assisted her mother for a few years and then became the official Cooperative Observer in 2011.

Around Dime Box, everyone likes to talk to Shows about the weather. Someone always asks about rain levels. One of Shows' friends teases her when she receives more rain than Shows. "Well,

it doesn't matter because this is the official," Shows tells her. "This is what goes to Washington."

Shows' husband, John, also joked about her weather job before his death in 2007, sometimes threatening to pour water into the weather service rain gauge. He had a ranch in Beat Five (a dot on the map between Dime Box and Giddings), and if the ranch got more rain than her backyard gauge, he always had an explanation: "It rains on the Baptists, and it sprinkles on the Lutherans."

Shows grew up in Dime Box and has taught school here for 45 years. She spent more than 30 years with kindergarten students. She has an undergraduate and a master's degree in education from Texas A&M University. She has taught just about every subject offered at the Dime Box school district.

"Cooperative Observers really do come from all walks of life," the weather services' Van Pelt said. "Farmers, ranchers, weather enthusiasts, business owners, city governments, federal agencies, state parks,

retirees, doctors, lawyers, teachers, TV meteorologists, current and former National Weather Service employees and many others.

"A common thread is an interest in weather, and a sense of pride in serving their country by providing critical data that helps their fellow citizens and becomes a permanent part of America's weather history."

Van Pelt, who lives just north of Luling, is a Bluebonnet member. For a few years, Van Pelt served as an official Cooperative Observer for the weather service in his hometown of Sabinal, an hour west of San Antonio. When he moved to Alaska in 2002, his mother took over the weather-watching duties. He was hired by the forecast office in New Braunfels in 2012, just in time to present his mother with a 10-year service award for her Cooperative Observer work.

Individual weather observers can make a difference, Van Pelt said. For example, during the Dust Bowl of the 1930s, an insurance company refused

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Step-by-step: When an outage occurs, it triggers

Weather is the most common cause of power outages, especially in Texas where climate extremes are the norm.

Birds, snakes and just about any animal that can climb a pole or walk a wire can also cause an outage. Sometimes, things just break or accidents happen.

No matter what causes a power loss, the first step in getting electricity restored is notifying your electric provider. Bluebonnet has an automated, efficient system for reporting outages and restoring power. Every power outage notification we receive sets in motion a tightly choreographed process that ends only when power is fully restored.

1 A power outage occurs. 

2 Members report the outage to Bluebonnet in one of four ways:

- By calling our automated outage reporting system at 800-949-4414
 - Online at bluebonnet.coop
 - With the mobile app via smartphone or tablet
 - By texting BBOUTAGE to 85700 and following the prompts
- 

3 The outage report is sent to our control center, which is staffed 24 hours a day, 7 days a week. 

4 Control center operators send a signal through the power line to meters in the outage area to determine how many homes or businesses are affected and to identify the possible cause of the outage. 



At the National Weather Service office in New Braunfels, hydro-meteorological technician Cory Van Pelt scans the sky next to a temperature sensor that measures the maximum and minimum temperatures during a 24-hour period. Cooperative Observers in the Bluebonnet service area report to Van Pelt, who lives just north of Luling. He is a Bluebonnet member.

Jay Godwin photo

s a carefully choreographed and rapid response

5 Control center operators check Bluebonnet's automated vehicle locating system

to see which Bluebonnet employee or contractor is available in the outage area to respond, depending on type of outage.



7 Repairs are made.

Restoring power can be as simple as replacing a fuse, which takes a few minutes, or as time-consuming as removing a toppled tree and repairing downed power lines or replacing a broken pole or faulty transformer.



8 Ongoing: Day or night, weekday or weekend, control center operators dispatch appropriate personnel to restore power as safely and quickly as possible.

Members can monitor



power outages and follow the electricity restoration progress via **Bluebonnet's outage map viewer** on the co-op's home page at **bluebonnet.coop**.

6 A power restoration crew is dispatched. The crew could include a journeyman lineman, a first responder and a helper. Additional crews are called as needed.



Planning ahead for hurricane season can save lives and property

By Lisa Ogle and Denise Gamino

Hurricane season 2015 begins on June 1. And since Atlantic Ocean hurricanes are frequent visitors to Texas, it's never too early to prepare for a weather emergency.

Hurricanes travel with destination unknown. While we see them coming, they often make last-minute side trips that can catch us off guard.

Just seven years ago, Hurricane Ike slammed into the Galveston area with 110-mph winds, killing 59 people in Texas directly or indirectly, and causing an estimated \$20 billion in damage. The September 2008 storm prompted the largest evacuation in Texas history, causing severe traffic jams as residents fled coastal areas, including Houston and Galveston, where 80 percent of the buildings were destroyed.

Hurricane Ike left millions of residents along the coast and in East Texas without power for weeks and even months. Flooding and storms disrupted large areas of Texas, so dry areas stepped up to provide shelter and resources for those displaced.

The residual effects of the hurricane left about 8,000 Bluebonnet members temporarily without power, mostly in Washington and Burleson counties. After power was restored to members there, Bluebonnet crews went to assist neighboring cooperatives who suffered much more extensive damage.

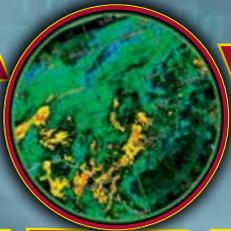
Planning ahead can save lives and homes, and offer peace of mind.

To help you prepare for hurricane season, we've gathered key resources, including what to do when the power goes out, which you can cut out and keep near your flashlight or on your fridge. You can find details about how to report an electrical power outage, a checklist of key items to have on hand during power outages, and information about creating a family plan for emergencies.

Remember: Evacuate if ordered to do so. Call 211 if you are not sure of the evacuation boundaries and shelter locations.

BE PREPARED FOR A

STORM EMERGENCY



8 things to have when the power goes out

1. Flashlights and spare batteries
2. A battery-powered or hand-crank radio
3. A cooler, ice, freezer packs (to keep food colder longer) and canned food (plus a manual can opener)
4. A telephone that doesn't need outside electricity to work
5. Drinking water — at least a gallon per person, per day
6. A first-aid kit and prescription medications (and copies of prescriptions), eyeglasses, hearing aids and other necessary health equipment
7. Copies of important documents and records, including photo IDs and insurance papers
8. Cash — credit cards and ATMs may not work in power outages

5 steps for creating a family plan

1. Put together an emergency supply kit (modeled on the necessity items listed above for a power outage).
2. Discuss escape routes from each room of the house as well as from your neighborhood.
3. Make sure all family members know how to get in touch with one another even if phone service is disrupted, such as meeting at a designated place or reporting in with emergency responders.
4. Create a checklist of what to do before you leave, such as boarding or shuttering windows, trimming tree branches that could hit your home, turning off electricity at the circuit breaker or fuse box, and turning off gas at the meter or tank.
5. Plan what to do with pets and livestock.

Sources: *Texas.gov*; *Texas Extension Disaster Education Network (EDEN)*

OUTAGE RESPONSE: Bluebonnet employees move fast when an outage occurs. After a recent thunderstorm in Brenham, Keith Knobloch, top right, secures power lines the storm had ripped off of a home. Working from the Brenham Service Center, Greg Wolf, middle right, uses his cell phone and computer to direct linemen to outages caused by the overnight storm. After restoring power to a Brenham-area home, Blake Schramm, right, waits for instructions about the next outage to restore.



Jay Godwin photos

4 steps to take during a power outage

1. Locate your home's electrical panel and check the circuit breakers to see if a breaker switch is tripped or a fuse is blown.
2. Find out if your neighbor's power also is out.
3. Visit Bluebonnet's website, bluebonnet.coop, on a battery-powered laptop, tablet or smartphone. Click on the Outage Map button. A gray area with a black border represents Bluebonnet's service area. The page updates automatically every 5 minutes.
4. If you have an outage, call 800-949-4414. If you're signed up for TextPower, text OUT to 85700.



Want to be a Weather Watcher?

The National Weather Service does not currently need additional Cooperative Observer Program volunteers to monitor weather in the 14 counties served by Bluebonnet but encourages people to get on the waiting list.

About four Cooperative Observers resign or retire in each state annually, statistics show. The National Weather Service strives to have a volunteer weather watcher every 25 miles, and sometimes a new observer location is created. The weather service prefers that volunteers own the property where the government installs the monitoring equipment, but renters and leaseholders are also encouraged to apply.

To get on the waiting list, contact the regional Weather Forecast Office: 2090 Airport Road, New Braunfels, TX 78130, Attn: Data Acquisition Program Manager.



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to pay some Kansas farmers for their drought losses. But a court used the rainfall records of a Cooperative Observer in the affected area to order the insurance company to pay the farmers what they were owed.

“Without the data collected by that volunteer, the farmers may have lost everything,” Van Pelt said.

The National Weather Service has two devices in Shows’ yard. The tall rain gauge that she checks daily is a government hand-me-down that was used by her uncle. Nearby is a solar-powered electronic recorder that detects changes in precipitation of one hundredth of an inch every 15 minutes. It looks like a small white rocket ship. Shows is 5 feet 5 inches tall, and the white gauge is about an inch taller. Once a month, she opens this device, inserts a USB flash drive and downloads the digital rain data, which takes about 15 minutes. She then emails it to the federal weather office in New Braunfels.

Before the weather service converted to digital reporting in 2011-2012, Shows and her mother had to use a more hands-on method of reporting precipitation to the National Weather Service. Shows measured rainfall at 7 a.m. and then reported by telephone to an automated weather data collection system.

She punched in her Dime Box location code, 412462, then punched in the type of precipitation using this code: 1 for rain, 2 for freezing rain, 3 for drizzle, 4 for freezing drizzle, 5 for snow, 6 for snow pellets, 7 for snow grains, 8 for ice pellets and 9 for hail. She entered rainfall amounts using no decimals, so that 2.10 inches of rain was entered as 210.

In addition, Shows previously had to keep a paper chart of the daily amount of precipitation that included the time of day when it rained or snowed the hardest. To determine that, “I just looked out the window,” she said.

When there is frozen precipitation, Shows must chip ice from the tall, silver rain gauge and bring it inside to melt so she can measure the amount. If there is snow, she has to use a household ruler to measure the snowfall on a flat surface, such as her outdoor picnic table.

Almost all volunteer weather observers use a computer to submit their data, but a handful in Texas and the other states still mail paper forms with weather information that must be manually entered into the National Weather Service’s data system, Van Pelt said.

The weather service originally paid a small stipend to the observers because of the time — and sometimes gas money — needed to collect data. With automation and federal budget cuts, the program returned to its original volunteer-only roots.

June always brings varying amounts of rain to Dime Box. Shows and her mother measured 13.26 inches of rain in June 2004, the highest monthly rainfall in Dime Box observation history. Just five years later, Shows measured 0.26 inches for June 2009, the third driest month in Dime Box history. She measured 39.33 inches of total rain for 2014.

Shows has a personal interest in the Dime Box weather that goes beyond the family history of observing weather for the government. She and her three sons own a Dime Box ranch that’s been in their family for more than 130 years.

“This community and farming and ranching are very important to me, and the weather is crucial to our ranch’s success and our local economy,” Shows said. “It is an honor to serve the weather bureau and my community in accurately reporting our local results.”

Just don’t try to tell her you got more rain than she did. ■