Hams Respond to Thai Flooding, p. 13

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On the Cover: Hiroyuki Nagasawa, 7K1PYG, operating QRP portable in Stockholm, Sweden. Details on page 92.

public service

BY RICHARD FISHER,* KI6SN

Cluster of Winter Tornadoes Whips Hams into Action

Arkansas SKYWARN® Team Wrestles with 'Unlucky 7' Twisters

Dense fog hung in a chilly sky over Little Rock, Arkansas the early morning of January 22, a pall of drizzle and temperatures in the high 30s, Danny Straessle, KE5WLR, remembers. That is hardly the weather to trigger a severe weather warning for later in the day, or so some longtime residents thought.

Around 4 p.m., however, the fog began to lift as temperatures climbed. Dangerous storms were forming in central Arkansas. As the state's SKYWARN® Program Coordinator, Straessle received a call from the National Weather Service Little Rock Forecast Office (see photo B).

An ominous posting on the Arkansas SKYWARN® Facebook page reported: "As of 4:22 p.m. the temperature at Little Rock has jumped to 63, with a dew point of 61. And, according to radar, convection is starting to develop. This could be the start of the action this evening."

Oh, baby.

Straessle (photo C) is responsible for scheduling net control operator shifts at NWS Little Rock and quickly summoning a team, headed for the Weather Forecast Office. Around 5:30 p.m., Daryl Stout, AE5WX (photo D), brought up the Weather Watch Net, a pre-net for Arkansas SKYWARN®. A few severe thunderstorm warnings were issued and Stout took several check-ins as certified amateur radio storm spotters began to fan across the area.

"By the time the Arkansas SKYWARN® net control team was in place shortly before 6 o'clock," Straessle said, "the first tornado warning was issued and a quick and seamless transition was made from one net to the other."

Daryl, KE5WLR, and Shane Lee, KF5FBR, were at the microphone, assisted by Mona Blacklaw, KM5ONA.

"As darkness fell, activity picked up," Straessle said. Most of the action was south and east of Little Rock in less-densely populated areas of the Delta region of the state. "Because of this, it was extremely difficult to see storm development and more so dangerous to try to spot it."

Arkansas SKYWARN® relied upon certified amateur radio storm spotters from the area to be "the eyes and ears of the National Weather Service," KE5WLR said. "Troy Singleton, N5ARK, was the most valuable player of the entire night. He was raised in southeast Arkansas and knew the area like the back of his hand, which was instrumental in his safe navigation of the farm roads in the area to safely spot developing tornadic supercells."

APRS played a significant role in helping the team at the NWS Little Rock office pinpoint Troy's *exact location* when making his reports. "Although Troy knew the area well, it helped on the net-control end to explain to NWS forecasters where his reports originated —*and* it allowed monitoring stations to follow along, too," Straessle said.

"At times this was the only information coming from that area of the state, and the National Weather Service Little Rock Forecast Office was very thankful to have reports come in from Troy. Also in the area, and a little farther to the east in Arkansas County, were members of the Grand Prairie Amateur Radio Club. *(**IN DEPTH:** Pictures and narrative of the GPARC tour of the NWS Little Rock office: <http://on.fb.me/A06C9L>.—ed.)*

Weather reports were collected through a simplex net and relayed to club president Randy Geater, K5NDX, who in turn relayed to Arkansas SKYWARN® at the National Weather Service."

At one point a tornado headed toward Randy and his crew and they took shelter in the county sheriff's bunker for about 20 minutes, KE5WLK reported. The twister "was completely rain-wrapped and all they could see was power flash after power flash as the tornado took down high-voltage transmission

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Photo A–A church built in 1852 and 2.8 miles west-northwest of Kingsland in Cleveland County, Arkansas, was leveled when an EF2 tornado (winds 111–135 mph) tore through the region in January. (Courtesy of National Weather Service)

Photo B– National Weather Service Meteorologist Willie Gillmore watches storms developing in Grant County on the evening of January 22, which prompted Arkansas SKYWARN® to swing into action. The NWS Little Rock Operations Center has six workstations, tenabling meteorologists to track multiple storms simultaneously. (Courtesy of NWS)

lines." *(It appears the tornado staring down Randy and spotted by Troy was on the ground for 19 miles: <http://1.usa.gov/xxxnbs>, photo E.—ed.)*

The storms moved quickly through the Little Rock County Warning Area and were out of the state by 10 p.m. "The Arkansas SKYWARN® net was brought to a close shortly before then."

About 60 certified amateur radio storm spotters checked into the net. "And while the storms tracked through areas of the state in counties where the amateur radio population is practically nil," Straessle said, "those from neighboring areas stepped up and provided a public service when it was needed most."

Photo C– Danny Straessle, KE5WLR, Arkansas SKYWARN® Program Coordinator. (Courtesy of KE5WLR, QRZ.com)

Photo D– Around 5:30 p.m., Daryl Stout, AE5WX, shown here at his home station, brought up the Weather Watch Net, a pre-net for Arkansas SKYWARN®, taking a few check-ins "as certified amateur radio storm spotters began to fan across the area." (Courtesy of AE5WX, QRZ.com)

Unlucky 7 Tornadoes: The Tale of the Tape

The National Weather Service documented at least seven tornados in the storms that ripped through Arkansas on January 22.

Tornado No. 1
Path: 19.2 miles *(see photo E in main text)*
Rating: EF2, winds 111–135 mph
Damage: **Calhoun County:** Damage was mostly limited to timber. **Dallas County:** Significant damage to houses northwest of Fordyce, Fordyce Country Club (photo G), and electrical power transmission towers. **Cleveland County:** Church in North Kingsland, built in 1852, destroyed *(see photo A in main text).*

Tornado No. 2
Path: 16.9 miles
Rating: EF2, winds 111–135 mph
Damage: **Jefferson County:** Trees down, grain bins destroyed (photo H), damage to metal buildings, farm machinery overturned. **Arkansas County:** Trees down. Mobile homes damaged.

Tornado No. 3
Path: 14.4 miles
Rating: EF2, winds 111–135 mph
Damage: **Arkansas County:** Steel transmission towers blown down (photo I), damage to farm outbuildings, numerous trees down, travel trailer blown over, elevator blown off grain bins.

Tornado No. 4
Path: 9.4 miles
Rating: EF1, winds 86–110 mph
Damage: **Arkansas County:** Trees, power lines, and power poles blown down; carports and sheds blown away. Large limb crushed cab of a pickup truck. House had windows blown out and pieces of wood wedged into its siding. Mobile home destroyed with its contents blown into a nearby field. Metal buildings damaged or destroyed. Roof blown off tractor shed.

Tornado No. 5
Path: 5.8 miles
Rating: EF1, winds 86–110 mph
Damage: **Monroe County:** Trees and power poles down. Irrigation pivot flipped over. Large storage shed tossed over a farm building.

Tornado No. 6
Path: 3.8 miles
Rating: EF1, winds 86–110 mph
Damage: **Jefferson County:** Flying shed damaged roof of farm shop. Empty 12,000-gallon fuel tank blown into a field. Irrigation pivot overturned and torn apart. Trees down. Foundation of concrete block house damaged.

Tornado No. 7
Path: .75 miles
Rating: EF1, winds 86-110 mph
Damage: **Lonoke County:** Irrigation pivot flipped over, landing in nearby ditch. Tree limbs snapped off.

Photo G– Much of the bathhouse at the Fordyce County Club was blown into the pool. (Courtesy of NWS)

Photo H– An EF2 tornado destroyed grain bins along Arkansas Highway 88 at Sweden in Jefferson County, Arkansas. (Courtesy of NWS)

Photo I– A large electrical power line transmission tower lies on its side in Arkansas County after storms ravaged the area. (Courtesy of NWS)

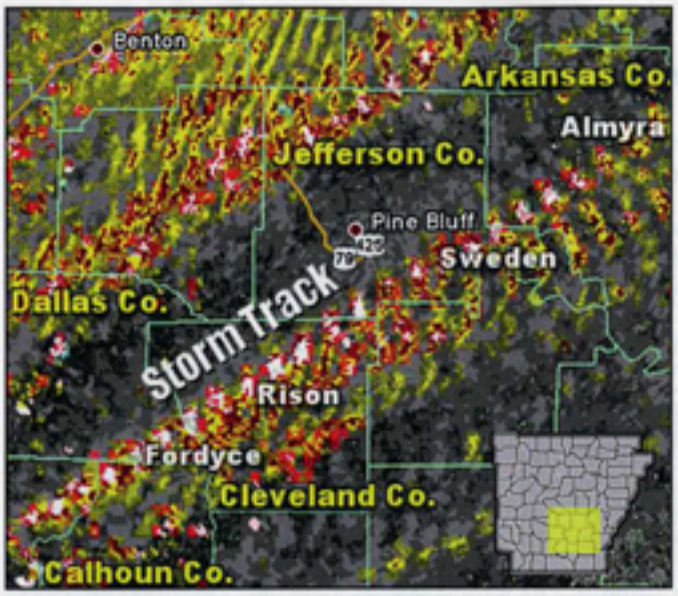

Photo E– "One storm in particular had a history of producing tornadoes," noted the NWS. "The first tornado (rated EF2) was confirmed from 3.0 miles west-southwest of Thornton (Calhoun County) to 4.9 miles southwest of Rison (Cleveland County). The path was just over 19 miles." (Courtesy of NWS)

The following day, a damage assessment team from the NWS rated at least one of the several tornadoes as an EF2—111 to 135 mph winds. Later it was determined that three of the seven twisters reached EF2. ***(SEE:** "'Unlucky 7' Tornadoes: A Tale of the Tape."—ed.)*

"While this event occurred in the middle of winter, it was not unusual," according to NWS Little Rock, "especially when *La Niña* conditions exist (http://bit.ly/xXA2zZ). Fifty-six tornadoes were spawned on January 21–22, 1999. The same *La Niña* pattern was in place when a long-track tornado ripped through seven counties in the north on February 5, 2008, a 122-mile path. By the way, 1999 and 2008 were the most active tornado years on record in the state."

The Arkansas SKYWARN® net is streamed live on a RadioReference feed provided by the Central Arkansas Radio Emergency Net (CAREN Club) at <http://bit.ly/jk012v>.

Accounts of the role amateur radio played during this severe weather event were chronicled on the Arkansas SKYWARN® Facebook Fan page: <http://on.fb.me/xsYWTq>.

"Although there are numerous social media sites in the state covering weather, Arkansas SKYWARN® takes an approach that not only serves amateur radio operators but exists to educate the general public about the role radio amateurs play in saving lives and property." ***(VISIT:** Arkansas SKYWARN® at: <http://www.arkSKYWARN.org>.—ed.)*

"We didn't get it as bad as Alabama," KE5WLR noted, "but we *did* have several tornadoes, and I am proud to say the amateur radio population rose to the occasion in a sparsely populated area of the state and provided information when it was needed most."

This month we highlighted the storms in Arkansas in January and how ham radio played an important part in providing a vital service. If you have a story to tell, please e-mail me at <ki6sn@cq-amateur-radio. com>. "When all else fails" . . . amateur radio comes through.

73, Richard, KI6SN

Photo F– A video posted on YouTube by Basehunters storm chasers shows the unpredictability and confusion that accompanies severe weather, especially when it occurs at night: <http://bit.ly/xHyVoS>. (YouTube screen grab)