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INTRODUCTION

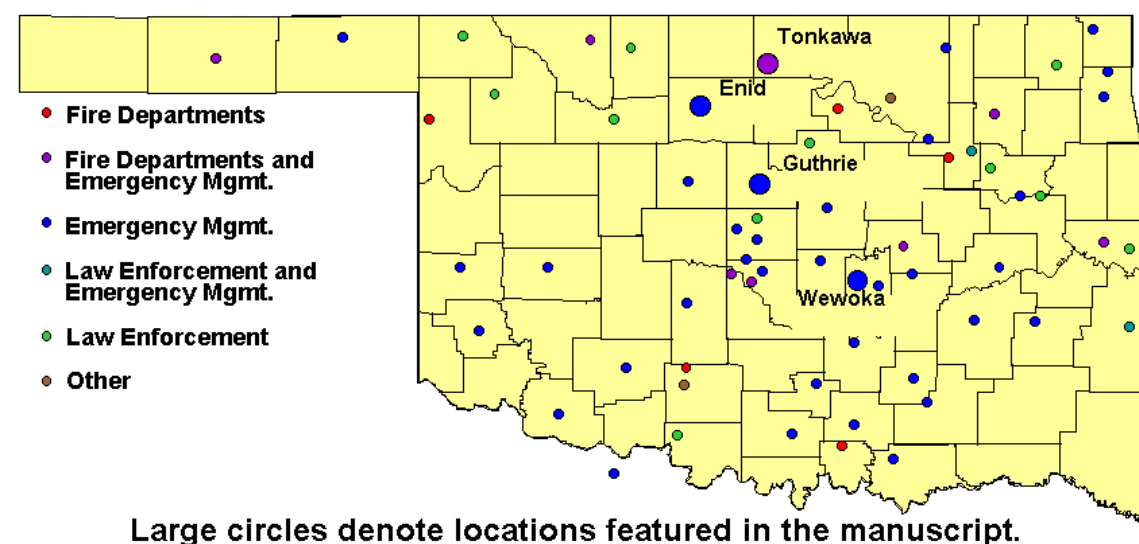
What is OK-FIRST?

An initiative by the Oklahoma Climatological Survey to develop a 21st-century information and support system for public-safety agencies (emergency managers, fire, and police).

Provides real-time access to a suite of environmental information and training materials including data from 15 NEXRAD units, 115 Oklahoma Mesonet stations, and products from the National Weather Service.

Since June of 1997, 65 participants have been trained in the access and use of the system. More participants will be added in 1999 and beyond.

OK-FIRST Participant Agencies

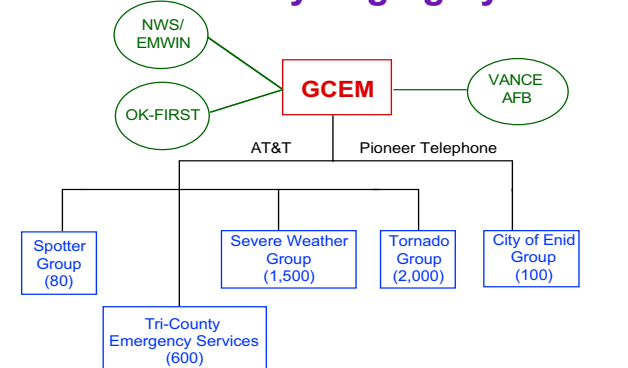


NETWORKING & OUTREACH APPLICATIONS

Garfield County Emergency Management Director Mike Honigsberg has enlisted the help of Lori Painter's 6th grade class as "Junior Emergency Managers". Students monitor the weather during class time and alert Mike when significant weather



Garfield County Paging System

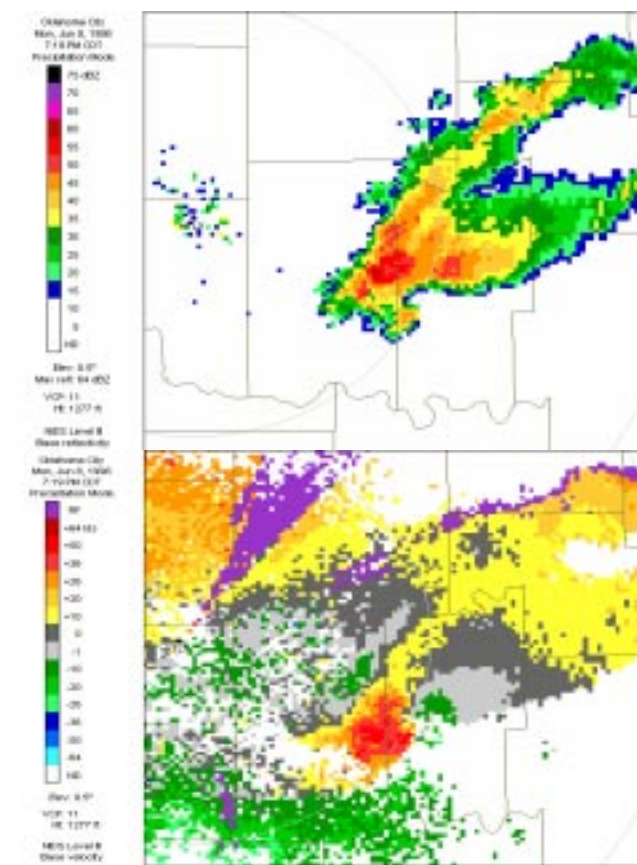


Ovals represent information sources or direct consultations. Five groups receive information from GCEM via pager (blue squares).

(e.g. drylines) occur. Mike donated a pager to the class and they receive alphanumeric weather alerts from the local EOC. The EOC utilizes two paging companies to alert over 4,000 interested parties in the Garfield County area. This partnership allows the students to help protect citizens and property, including Vance Air Force Base.

SEVERE WEATHER APPLICATIONS

Wewoka Tornado, June 8, 1998



Damage sustained to the home of Wewoka resident Ken Webb. (David McDaniel/The Daily Oklahoman)

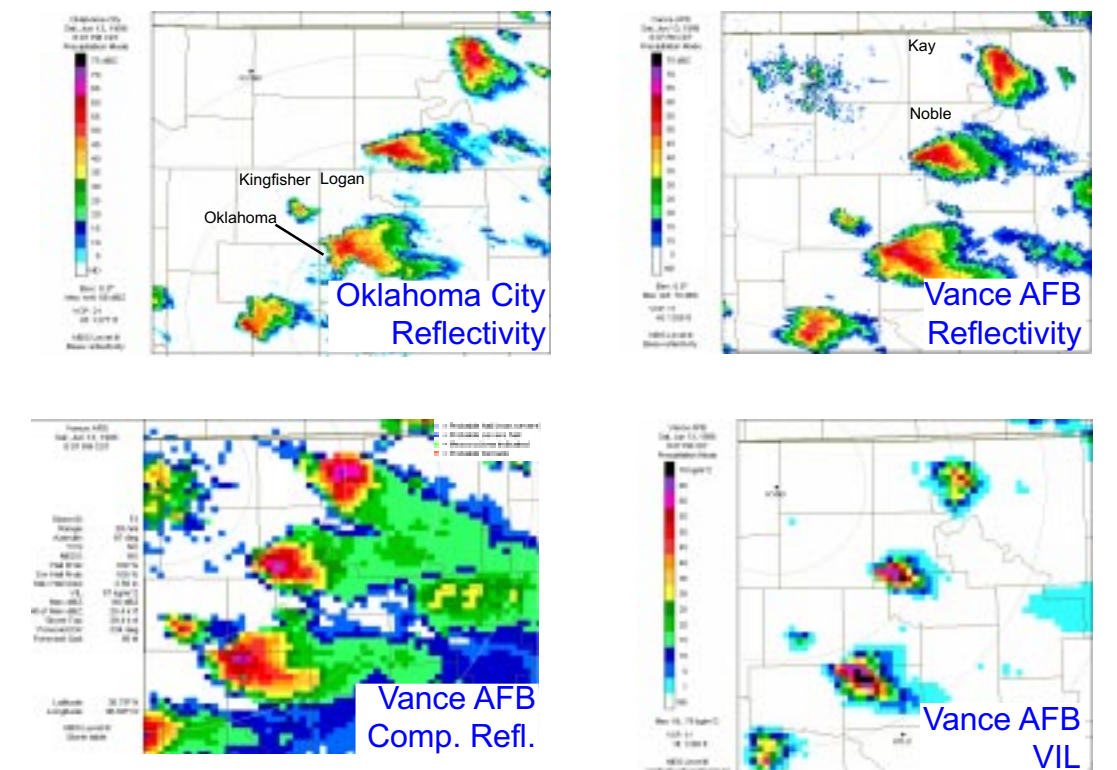
Corresponding base reflectivity (top left) and velocity (bottom left) images viewed by Wewoka Emergency Management Director Lonnie Rowe prior to sounding tornado sirens. Although TV media broadcast live coverage of the storm, the Webb family was not watching television that evening; their only warning came from local officials. Rowe credits OK-FIRST with helping to save their lives.

Tornadoes and Severe Thunderstorms, June 13, 1998

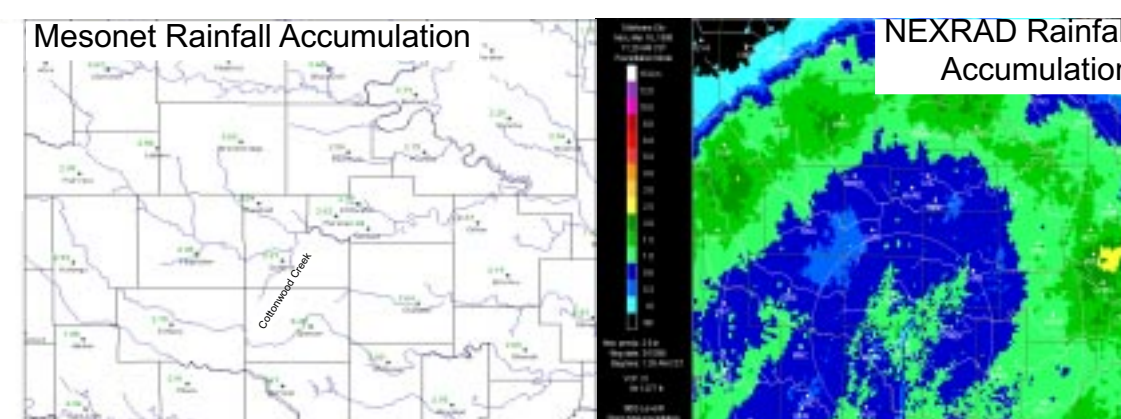
An outbreak of tornadoes and severe thunderstorms occurred across Oklahoma on June 13, 1998. OK-FIRST participants in Kingfisher and Logan Counties used radar data from OK-FIRST to anticipate tornado warnings issued for their counties at 5:15 and 6:30 p.m., respectively.

By 8:07, another thunderstorm spawned a series of tornadoes in Oklahoma county (upper left). Other damaging storms were located in Noble county and in Kay County (upper right). OK-FIRST users accessed storm algorithm output (lower left) and

Vertically Integrated Liquid (lower right) to help assess the severity of the storms. The Kay County storm produced 70 mph winds and golfball-sized hail. Although the media focused their coverage on the OKC storm, local officials could still view timely radar data through OK-FIRST.



FLOODING APPLICATIONS

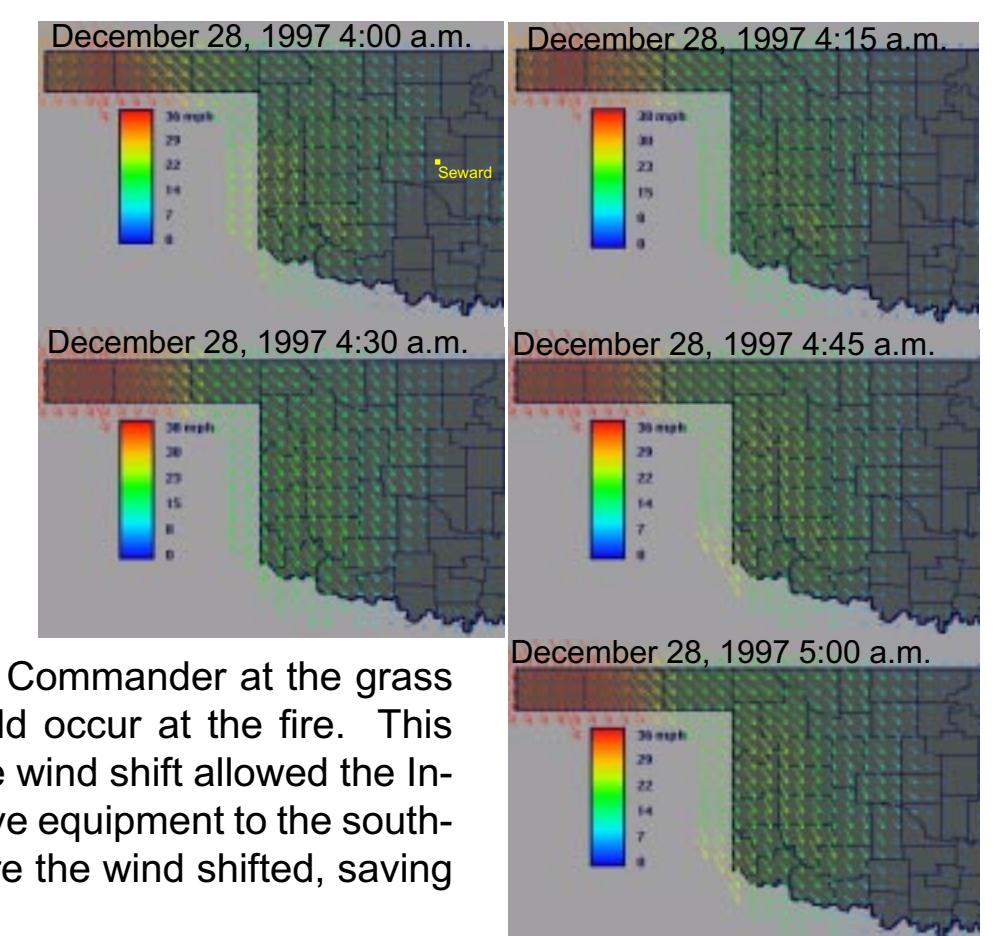


On March 15-16, 1998, nearly three inches of rain fell over northern and central Oklahoma as depicted by Mesonet (upper left) and NEXRAD (upper right) rainfall totals. Data from a stream gauge located on Cottonwood Creek upstream (southwest) from the flood-prone Guthrie area indicated a maximum stage of 23.4 feet. Flood stage for this gauge is about 22 to 23 feet. Local experience with this stream gauge has shown that an 8-hour lag exists between the maximum stage and flooding in Guthrie. This stream gauge data is collected by the Oklahoma Climatological Survey in cooperation with the Oklahoma Water Resources Board.

FIRE-FIGHTING APPLICATIONS

In December of 1997, a large grass fire occurred near Seward, in Logan County. John Lewis, Logan County EM, tracked a wind shift moving through his county using animations of Mesonet winds like those shown to the right. The wind shift was also detected on the Oklahoma City WSR-88D.

John notified the Incident Commander at the grass fire that a wind shift would occur at the fire. This advance knowledge of the wind shift allowed the Incident Commander to move equipment to the southeast edge of the fire before the wind shifted, saving



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