

Committee on Homeland Security  
Subcommittee on Emergency Preparedness, Response, and Recovery's Hearing  
"Supporting Underserved Communities in Emergency Management."

Good morning, Madam Chair Demings, Ranking Member Cammack, and committee members, my name is Preston Bowlin, Director of Emergency Management Marion County Sheriff's Office. I've been a public servant for over 30 years in the fire service as a Paramedic Firefighter and a sworn law enforcement officer responding to catastrophic disasters within the State of Florida and across state lines. I am privileged to come to the capitol to testify and share experiences and concerns from Marion County, Florida Counties and throughout the nation, through lessons learned and to discuss preparedness for our citizens.

Now as an Emergency Manager for the fifth largest county in the State of Florida here are four concerns that have an impact on rural and underserved counties that effect our citizens to prepare and recover from catastrophic events.

1. Redundant Prime Communication Towers
2. Bi -Directional Amplifier Antenna's in Schools, Hospitals, and Large Industrial Commercial Structures.
3. National Weather Radar Sites
4. Short- & Long-Term Housing Plans for Disasters

**1. Redundant Prime Communication Towers:**

Background: triggered by the tragedy of September 11, Marion County, Florida's Board of County Commissioners authorized the replacement of the public safety radio system in 2005. Approximately five (5) years later, in 2010, the radio system was upgraded to add capacity for additional critical partners and agencies. This same system is implemented in more than 50 counties in Florida and throughout the nation.

P25 was formed in 1990 in an agreement among the Association of Public-Safety Communications Officials (APCO), the National Association of State Technology Directors (NASTD), and agencies of the U.S. Federal Government. Marion County was the first county in Florida to implement a Project 25 7/800 MHz radio system to create a unique user driven process of working with equipment manufacturers to establish wireless land mobile radio (LMR) communication standards that meet the requirements of the public safety community.

Following the terrorist attacks on 9/11, P25 took on a more immediate significance as the need for reliable, interoperable emergency communications was apparent. SAFECOM, a joint venture of the Federal Emergency Management Agency (FEMA) and then newly formed Department of Homeland Security (DHS), was established specifically to improve interoperable communications within the public safety community.

The Marion County P25 700/800 MHz radio system is the County's most critical infrastructure comprising of 10 radio towers and a master site. Due to the advantages provided by its central location with the State of Florida, Marion County serves as an ample nexus point for logistics and planning. More than 40 government departments and divisions, municipal law enforcement, fire

rescue and emergency medical services departments, area hospitals, an airport, and the public safety agencies of neighboring counties rely on the radio system for the emergency operations they conduct. Marion County's chief stakeholders are the citizens and visitors who travel through its borders, public safety agencies, municipalities, and neighboring counties. The current radio system serves the several municipalities and partner agencies.

There is a significant threat that has persisted for Marion County, as with others. Historically, Counties have developed in self-imposed siloes. However, due to increased communicativeness and intentional interoperability developed through mutual-aid agreements between contiguous counties, a common single point of failure in the respective emergency communications infrastructures has become known: the lack of prime tower site redundancy.

A geo-diverse redundant prime site will provide increased resiliency and reliability of the radio system. This consideration is essential due to population density increases across the county as well as an increase in the tornadic activity in the area, the redundant prime site project will provide additional coverage to the areas proximal to it and increase the reliability of the radio system which has a goal of 95% system availability.

On February 07, 2007, a catastrophe befell a neighboring county when a tornado struck their radio system prime site, just 1,500-foot radio tower and destroyed mission critical area communications equipment.

In the past 18 months, three tornadoes have made landfall in Marion County, On March 12, 2022, the third of three tornadoes touched down on a major thoroughfare and proceeded in the direction of Marion County's prime site, and just barely missed it. If any of the three tornadoes were to strike the Marion County prime site, the entire county—both County operations and those of the Ocala Police Department—would go comms dark. It's not a matter of IF it will happen, it's a matter of WHEN, and a matter of WILL we be prepared.

To remedy the situation, and assure that communications remain reliable for the operations, Counties must have the funds and support from our local, state and federal agencies to ensure that public safety communications have redundant prime towers in case of manmade or natural catastrophic events impacting our rural communities. An approximate cost for a rural county our size is 5 million dollars current day pricing.

## **2. Bi-Directional Amplifier Antenna's in Schools, Hospitals and Large Industrial Commercial Structures**

Understanding public safety communication is crucial. With so many unfortunate events happening in our schools and hospitals. Police and firefighters must be able to communicate with each other once they enter these school buildings. We need a reliable emergency communications system installed in these facilities can keep students, staff members and first responders safe. These facilities are solid structures with poured concrete walls and full of steel that make communications for especially 800 MHz sometimes impossible to communicate with each other or to contact our communication centers.

A BDA (Bi-directional Amplifier) system is an in-building communication system that brings wireless signals into the structure from outside, amplifies those signals with a signal booster, and then evenly distributes the amplified signals to our two-way radio service via an antenna system.

This ensures that our first responders can maintain wireless communications within a building during medical emergencies, fires, natural disasters, active shooter and other events.

Marion County has experienced this firsthand like many other Florida Counties responding to emergencies at schools and hospitals and were not able to communicate within our own agency, our communication center and not to mention mutual aid responders during an active shooter event at a local high school.

Requirements must be made on a state and national level to ensure that all schools, hospitals, and large commercial structures be required to have adequate radio strengths for all first responders responding to life threat incidents. For a rural county our size the cost of a retrofit project for 50 schools is at an approximate cost of 8-12 million dollars. Counties would benefit from assistance from the state and federal government for implementation.

### **3. Weather Radar Coverage – Severe Weather Forecasting and Emergency Warnings**

The National Weather Service activates the Emergency Alert System (EAS) most frequently for imminent and dangerous weather conditions like flash flooding, severe thunderstorms and tornadoes including watches and warnings. The National Weather Service uses the NOAA Weather Radio (NWR) as its primary means to activate the Emergency Alert System (EAS). The Emergency Alert System (EAS) is also activated to enable state and local authorities to communicate important weather messages including warnings and watches. When watches and warnings are issued by the National Weather Service it triggers alert messages for local authorities. Weather data is the critical piece to every weather forecast. Having the right data at the right time is critical to emergency managers so we can make informed decisions and protect our communities before, during and after a severe weather event.

Tornadoes and flash floods are two of nature's most violent events, sometimes leaving incredible damage and casualties in their path. Weather radars are the most important source of information for detecting heavy rainfall, but in poor radar coverage can inhibit forecasters from making critical warning decisions. Using these radars, forecasters can spot the existence of a tornado by detecting airborne debris lofted by the twister's circulation. Warning accuracy for weaker tornadoes, between EF-0 and EF-2 intensity, as well as flash flood warning performance, for areas that are farther from a radar site is significantly compromised.

Currently rural parts of north central Florida contain "dead zones," or zones where tornadoes may not be detected on radar. This has been formally acknowledged by the National Weather Service. The dead zone, where tornadoes may not be detected on radar, is covering a part of north central Florida that has been hit with destructive tornadoes in the past. The greater distance a location is from a radar site, the higher in the sky the radar scans for trouble.

When the radars were initially established, they were positioned in areas that were already or were anticipated to become densely populated areas. The current radar infrastructure and lack of new radars in fast growing parts of our country, can and has prevented more rural communities from receiving timely warning and notifications. These areas tend to consist of thousands of modular homes and large migrant worker populations that rely on the weather radio to provide them with timely warning. Marion County, Florida the 5<sup>th</sup> largest county in the State of Florida is home to over 33,000 modular homes and a large elderly population. Our rural jurisdictions are confronted with these unique challenges, and we must ensure our communities are equipped with

the tools and infrastructure needed to ensure that critical life-saving emergency notifications reach everyone they are intended for.

On March 12, 2022, Marion County, FL experienced an EF-1 tornado that went undetected on radar. Because of that, no tornado warnings were issued by the National Weather Service which in turn did not trigger our local AlertMarion emergency notification system. As a result of this tornado, 184 families had to be relocated in one apartment complex alone and 259 residential structures effected. Within the past 2 years, Marion County, Florida has experienced 3 confirmed tornados that went undetected on radar; therefore, no warnings were issued. In Sumter County, Florida, where The Villages' population continues to boom, they rely on a Tampa area radar, which again, is too far to pick up all the action on the ground. Due to the distance of our county to the closest NWS radar tornados are hard to detect below 10,000 feet. In conclusion, there is a critical need for more robust and additional Federal weather radar coverage in north central Florida. A partnership with rural populations and consideration of rural circumstances in preparing for emergencies will ensure that emergency preparedness is adequately addressed in some of the most vulnerable and underserved communities in the country.

#### **4. Emergency Short-Term and Long-Term Housing**

Community resilience has become a critical focus for emergency managers and policy makers concerned about disaster risk and vulnerability in rural areas. Following a disaster, finding a permanent housing solution for low-income and underserved households may be especially difficult during a housing shortage. Available housing in many high tourist and high income areas may be out of the acceptable rental range for low-income households because they lack the financial resources to begin rehabilitation, reconstruction or to obtain permanent housing. During this time, provisions for basic human needs (food, water, and supplies for sanitation and shelter) may be in short supply or unavailable. Transportation routes may be blocked for days or weeks.

Following the tornado that took place on March 12, 2022, in Marion County, Florida dozens of residents were instantly without housing. Homes were destroyed and an apartment complex was partially condemned. During these times of rising rent pricing and the very limited availability of homes in the State of Florida, securing temporary housing both short-term and long-term poses a critical challenge. The average rent in Marion County, Florida is between 1,500 – 1,700 dollars, so when families are faced with being displaced, producing first, last and the security deposits along with moving, transportation, utilities can be impossible. With additional costs of The State of Florida has a housing contract, but it would require a block grant by FEMA that allows most flexibility for state and counties. The FEMA Individual Assistance (IA) declaration process is flawed. The current mechanisms in place are specifically geared to areas with denser populations. Rural counties are usually, holistically, lower incomes and less tax base versus a dense population with sporadic lower incomes and a significantly higher tax base. While locally we work with our partners such as The American Red Cross and United Way to assist with immediate needs, we find there should be an Individual Assistance (IA) declaration process designed for rural, lower income, lower tax base communities. FEMA should have a swifter process in place to assist the States Division of Emergency Management to assist with emergency housing during State declared emergencies and local events.