Mississippi
Wireless Communication Commission

5 Year
Strategic Plan
FY 2026–FY 2030

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Wireless Communication Commission

Strategic Planning and Performance Budgeting

Mission

The mission of the Wireless Communication Commission (WCC) is to promote the efficient use of public resources to ensure that law enforcement personnel and essential public health and safety personnel have effective communications services available in an emergency situation, and to ensure the rapid restoration of such communications services in the event of disruption caused by natural disaster, terrorist attack, or other public emergency. (Miss. Code Ann. 25-53-171)

Philosophy

The WCC is committed to ensuring the operability, interoperability, and continuity of emergency communications throughout the state of Mississippi by providing the strategic framework for integrated local, state, tribal and federal collaboration supporting all hazards communications.

Statewide Goals and Benchmarks

Public Safety and Order

To protect the public's safety, including providing timely and appropriate responses to emergencies and disasters and to operate a fair and effective system of justice

Emergency Preparedness

- Average emergency response time to natural and man-made disasters.

Government and Citizens

To create an efficient government and an informed and engaged citizenry that helps to address social problems through the payment of taxes, the election of capable leaders at all levels of government, and participation in charitable organizations through contributions and volunteerism.

Government Efficiency

- Administrative efficiency: Expenditures on state government administrative activities as a percentage of total operational expenditures.

Overview

PEER, the Joint Legislative Committee on Performance Evaluation and Expenditure Review, concluded in a 2019 report the following:

The Wireless Communication Commission has successfully created and operates a durable, interoperable, emergency communications network with 97% statewide mobile radio coverage.

MSWIN (Mississippi Wireless Information Network) is an LMR (Land Mobile Radio) trunked emergency communications network providing 97% statewide mobile radio coverage and portable coverage in critical buildings, such as courthouses. As of June 2024, there are 156[1] MSWIN towers located throughout the state, including 85 state-owned towers, 64 leased towers, and 7 co-locations. There are currently 62,509 emergency communication devices on the system being used by 660+ state, local, federal, and private entities making an average of over 10.5 million push-to-talks per month.

Background

Throughout the nation, communication between different public safety agencies and jurisdictions has long been a challenge. During everyday scenarios our state and local law enforcement, fire and rescue services, and emergency medical response personnel experience communication problems. These situations are especially evident in times of natural or manmade disasters. The unprecedented events of September 11, 2001, and many disasters since, underscore the need for agencies to share information not only locally but also across state lines. These situations increase the need for a multi-jurisdictional/multi-agency common and interoperable platform. As government budgets shrink greater emphasis has been, and should be, placed on resource sharing in order to efficiently and effectively respond to everyday events and emergencies.

Mississippi began efforts in 1999 to address the interoperability issue when the Mississippi Department of Transportation conducted a technological assessment and needs analysis of its existing two-way radio systems as well as other state agency systems. On February 5, 2003, Governor Musgrove signed Executive Order 874 establishing the State Interoperability Executive Committee (SIEC), charging them with "fostering coordination across state and local entities and studying short- and long-term improvements and developments of a public safety wireless communication system in Mississippi." On August 4, 2004, Governor Barbour signed Executive Order 920, which restructured the SIEC and further defined the needs for short- and long-term interoperability solutions.

On April 1, 2005, S.B. No. 2514 created the WCC (Wireless Communication Commission) to address the strong governance structure necessary to provide the framework in which stakeholders collaborate and make decisions that represent a common objective. As set forth in the legislation, the WCC set out to produce a blueprint for a statewide radio system to ensure emergency responders had access to a common interoperable communications solution which meets public safety reliability standards – the Mississippi Wireless Information Network (MSWIN).

MSWIN is a 700-megahertz Project 25 (P25)/Phase 2 Land Mobile Radio trunked emergency communications network which provides 97% mobile area coverage statewide. P25 is a suite of standards for digital radio communications for use by federal, state/province, and local emergency agencies in North

[1] Of the 156 tower sites, 147 sites were built to WCC specifications for the MSWIN System. In addition to these sites, the WCC has either co-located or leased sites for added MSWIN equipment to enhance portable coverage.

America to enable them to communicate with other agencies and mutual aid response teams in emergencies. P25 is a collaborative project to ensure that two-way radios are interoperable.

LMR systems are designed to meet emergency responders' unique mission critical requirements and support time-sensitive, lifesaving tasks, including rapid call-setup, group calling capabilities, high-quality audio, and guaranteed priority access to the end-user. Because these radio systems support lifesaving operations, they are designed to achieve high levels of reliability, redundancy, coverage, capacity, and can operate in harsh natural and man-made environments. LMR technology has progressed over time from conventional analog voice service to complex systems incorporating digital and trunking features. These enhancements have improved the security, reliability, and functionality of emergency communications. LMR systems will remain the primary tool for mission critical communications for many years to come.

Interoperability

Interoperability is an important issue for law enforcement, fire fighters, emergency medical services, and other public safety and health agencies. By definition, interoperability is the ability of emergency responders to share information via voice and data communications systems on demand, in real time, when needed and as authorized. Emergency responders need to be able to communicate during emergencies and their ability to communicate with one another directly impacts the average emergency response time to natural and man-made disasters. Ensuring operable and interoperable communications among responders during all threats and hazards is paramount to the safety and security of the citizens of Mississippi.

The ability to communicate between responders during emergency and everyday situations is measured in part by the percentage of "busies" across the network. A busy call results when a user presses the push-to-talk button on a radio but is unable to initiate a voice transmission because all channels assigned to the tower site are being utilized by other users. During FY 2024, the total number of calls were 126,837,037 with 7,471 "busies" resulting in an annual busy rate of .005% of the time with an availability rate of 99.999%. As a comparison, according to a recent report issued by North Carolina's Joint Legislative Program Evaluation Oversight Committee, its statewide wireless communications system had an overall percentage of busies of .030%.

The SAFECOM[2] Interoperability Continuum has served as a pillar for the emergency communications and critical infrastructure communities to explain and improve operability and interoperability of public safety communications. However, the Continuum was beginning to show its age as the public safety community began to leverage innovative new solutions, such as cloud integration, and face new threats, such as ransomware and other cyber-attacks. To address this shift in the public safety communications ecosystem, SAFECOM updated the Interoperability Continuum in June 2021. These updates place an

[2] SAFECOM is managed by the Cybersecurity and Infrastructure Security Agency (CISA). Through collaboration with emergency responders and elected officials across all levels of government, SAFECOM works to improve emergency response providers' inter-jurisdictional and interdisciplinary emergency communications interoperability across local, regional, tribal, state, territorial, international borders, and with federal government entities.

additional focus on information security and cybersecurity, as well as utilizing effective governance to highlight the importance of lifecycle funding. The Interoperability Continuum, Figure 1 below, serves as a framework to address all these challenges and continue improving operable/interoperable emergency communications. It is designed to assist emergency response agencies and policy makers with planning and implementing interoperability solutions for voice and data communications.

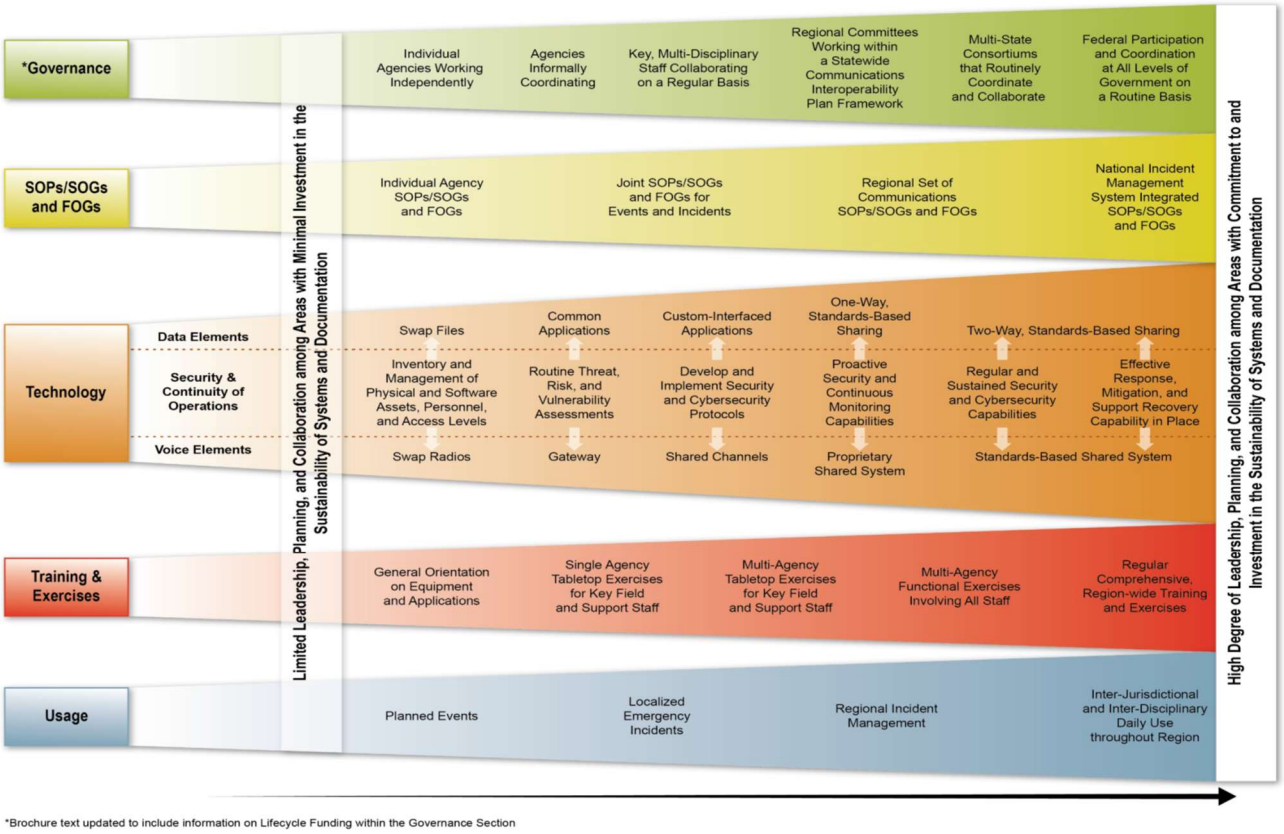

Figure 1: The Interoperability Continuum

The Continuum identifies five critical success elements that must be addressed to achieve a successful interoperable communications solution:

- Governance – Collaborative decision-making process that supports interoperability efforts to improve communication, coordination, and cooperation across disciplines and jurisdictions statewide, routinely collaborating with multi-state consortiums, and encouraging federal participation at all levels of government. Governance is the critical foundation of Mississippi's efforts to address communications interoperability and to foster regular collaborating between agencies.
- Standard Operating Procedures/Standard Operating Guidelines, and Field Operations Guides – Policies, repetitive practices, and procedures that provide formal written instructions and

practices for incident response, procedures for how agencies operate during incidents, and detailed interoperable communications resource information.

- Technology – Systems and equipment that enable emergency responders to share voice and data information efficiently, reliably, securely, and ensuring continuity of operations.
- Training and Exercises – Scenario-based practices used to enhance communications interoperability, familiarize the public safety community with equipment and procedures, and ensure participation with personnel outside of individual organizations.
- Usage – Familiarity with interoperable communications technologies, systems, and operating procedures used by emergency responders to enhance interoperability, including inter-jurisdictional and inter-disciplinary use.

The Statewide Interoperability Coordinator (SWIC), a role filled by WCC Staff, and with the US Department of Homeland Security's Cybersecurity and Infrastructure Security Agency Emergency Communications Division (CISA-ECD) have worked to develop, implement, and update the Mississippi Statewide Communication Interoperability Plan (SCIP). The SCIP is a critical strategic planning tool to help prioritize resources, establish or strengthen governance, and address gaps associated with interoperable and emergency communications. The SCIP closely aligns with the WCC's State Strategic Plan and is updated on a regular basis.

Mississippi has achieved significant steps in interoperable emergency communications, including the build-out of MSWIN, strong coordination with users at all levels of government, and a strong governance structure led by the WCC. However, more remains to be done to achieve Mississippi's vision. Currently, 82 of 82 counties in Mississippi have interoperability communications through special event talkgroups. 78 of the 82 counties use MSWIN every day for permanent use operability/interoperability. It is also important to note that this work is part of a continuous cycle as Mississippi will always need to plan and prepare in order to adapt to issues surrounding operability, interoperability, geography, aging equipment/systems, and emerging technologies.

Element 1 - Governance

Prior to the creation of the WCC in 2005, the state was confronting a number of long-standing mission critical communication issues—notably, operability, interoperability, and continuity challenges among emergency responders. These challenges were compounded by the lack of coordination among emergency communications disciplines and jurisdictions, often leading to disjointed approaches to planning and the acquisition of disparate radio systems that were not interoperable with neighboring localities. Communications interoperability cannot be resolved by any one entity, but rather a partnership among emergency response organizations among all levels of government.

The WCC was created to address these issues. The WCC is comprised of a variety of state and local agencies representing various emergency communications disciplines which includes the following agencies: Mississippi Emergency Management Agency, Mississippi Fire Chiefs Association, Mississippi

Highway Safety Patrol, Mississippi National Guard, Mississippi Department of Wildlife, Fisheries, and Parks, Mississippi Department of Corrections, Mississippi Association of Supervisors, Mississippi Department of Environmental Quality, Mississippi Department of Transportation, Mississippi Department of Public Health, Mississippi Municipal League, Mississippi Office of Homeland Security, Mississippi Department of Information Technology Services, Mississippi Sheriffs' Association, Mississippi Department of Public Safety, and Mississippi Association of Chiefs of Police. The structure of the WCC was established to ensure all disciplines share their expertise, support decision-making, and create unity through interoperable communications.

The WCC has three standing committees: Personnel, Governance/Interoperability, and Procurement.

The Personnel Committee serves as the liaison between the Commission and its Executive Officer to ensure the establishment of proper personnel practices and management.

The Governance/Interoperability Committee is tasked with researching and recommending system operational guidelines, rules, and regulations to the Commission for adoption. This Committee also develops Memorandums of Understanding for access to the statewide wireless communications system and reviews new system designs for interoperability capabilities.

The Procurement Committee administers the established regulations for the acquisition and use of wireless communication (voice and data) devices including, but not limited to two-way radios & accessories, cellular telephones, pagers, personal digital assistant devices, and point-to-point high-speed data communications across physical locations using wireless access points as presented to the Commission by governing authorities, state agencies, and institutions of higher learning. This Committee has reviewed over $166 million dollars in requests to ensure the interoperability of wireless devices and equipment for state and local government.

Through the work of the WCC, Mississippi has achieved the optimal level of leadership which allows multi-disciplinary jurisdictions to work together across the state promoting optimal interoperability.

Element 2 - Standard Operating Procedures/Standard Operating Guidelines, and Field Operations Guides

Strong governance and partnerships can facilitate another key component of successful emergency communications—the development of strategies, plans, operating procedures, and guidelines. Plans, operating procedures, and guidelines are especially critical in the current operating environment, as they can help federal, state, local, and tribal governments manage their future mission critical communications needs and capabilities, as well as the deployment of new mobile data services and applications.

One of Mississippi's highest priorities is to ensure that every emergency responding agency is familiar with the state's approach to all-hazards scenarios. Mississippi's Standard Operating Procedures/Standard Operating Guidelines aim to be the unifying factor in any multi-jurisdictional/multi-disciplinary operation. The WCC maintains Standard Operating Procedures/Standard Operating Guidelines for access to MSWIN and acts as the final approver of procurement agreements for state and local public safety entities.

The WCC is committed to increasing outreach and communications about Standard Operating Procedures/Standard Operating Guidelines as well as procurement procedures in order to ensure technology and equipment purchased at the local level has interoperable capabilities. Additionally, the WCC is continuously developing Standard Operating Procedures/ Standard Operating Guidelines that will clarify standards for MSWIN operations, maintenance, training, and partnerships for bandwidth usage.

The WCC, in collaboration with multiple public safety agencies, developed the Mississippi Tactical Interoperable Communications Plan (TICP) which is a Standard Operating Guideline for how communications amongst emergency responders are handled for incidents/events throughout the state. The TICP is updated on a regular basis. The WCC also developed the Mississippi Field Operations Guide (MS-FOG) which provides detailed interoperable communications resource information about available spectrum, fixed and mobile equipment and how to obtain it, shared resources and how to activate and deactivate them, and other helpful information such as job aids and contact lists to get help when it is needed. In collaboration with CISA-ECD, the WCC developed a MS-FOG application to increase access to this statewide resource. This application was made available through Google and Apple stores in July 2020. Mississippi is one of the first states to offer a Field Operations Guide via an application on a wireless device.

Element 3 - Technology

Technology is a critical tool for improving interoperability, but it is not the sole driver of an optimal solution. Successful implementation of voice and data communications technology is supported by strong governance and is highly dependent on effective collaboration and training among participating agencies and jurisdictions.

The MSWIN platform employs Internet Protocol (IP) wide area network (WAN) system architecture. This solution provides Mississippi with a highly reliable, interoperable, and seamless voice and data communications across the entire state. MSWIN consists of three interconnected regional subsystems, zones that operate as a seamless statewide network. Regional control center master sites are located in Hattiesburg, Jackson, and Batesville. These three regional subsystems are connected to operate as one network but have the capability to operate independently. In addition to this system architecture, the WCC has implemented Dynamic System Resiliency (DSR) through which a zone is automatically backed up by a non-geographically contiguous zone.

Each regional subsystem of MSWIN contains a primary control point and all network elements for controlling and processing voice/data messages. The system's regional wide area controller protection scheme consists of collocated redundant wide area controllers. The online controller's operation is monitored by the backup unit. If a failure occurs, the backup unit takes control of that portion of the system. Each regional subsystem includes a network management system collocated with the regional control center master site. A centralized network monitoring system for the entire network is located in Jackson, MS.

The telecommunications backbone portion of MSWIN is a multi-loop configured monitored hot-standby Multiprotocol Label Switching (MPLS) microwave radio system. The microwave radio network meets the alternate routing requirements of the state and links the remote radio repeater tower sites, regional control center master sites, and dispatch locations together.

MSWIN is comprised of 156 towers located across the state. Of those tower sites, 85 are state-owned, 64 are leased, and 7 are co-locations. Each tower site is equipped with an equipment shelter, emergency power system, network equipment and redundant site controllers. The first 142 tower sites were complete and fully operational by December of 2012 providing 97% mobile coverage across the state. Currently, the WCC is expanding coverage with four sites across the state. These additional sites will add portable coverage across the state increasing interoperability for the public safety community.

The WCC continues to maintain system hardware and software at these sites on a regular basis to sustain MSWIN at the highest level of support and availability and to provide access to the latest standard and optional features available. System preventative maintenance allows the WCC to sustain operation of MSWIN at the highest level of performance and functionality; ensure network security by providing protection against system vulnerabilities that may compromise security and confidential information; provide the ability to expand the system for increased coverage and additional users; protect initial capital investment against premature deterioration and obsolescence which extends the system lifespan; and provide fiscal stability by mitigating the risk of unplanned expenses as an inability to perform required maintenance services can result in degradation of system operations.

In addition, the Legislature appropriated additional funding in FY2023 for the WCC to begin a multi-year MSWIN Refresh project for $22M. The first $11M was appropriated for FY2023 and additional funding was secured in FY2024 with the remaining balance available for use in FY2025. As MSWIN was built and deployed from 2008 through 2013, the system has aged and needs a refresh to keep the system reliable, survivable, and interoperable. The MSWIN Refresh project includes upgrades to the Multiprotocol Label Switching (MPLS) microwave system including hardware and software. In addition, the DC power plants that provide primary and backup power for the microwave portion of the system are being refreshed. The Uninterrupted Power Supply (UPS) battery and power modules that provide back power for the radio frequency portion of the system. The last portion of the refresh project will include a System Upgrade Agreement (SUA) to release the most recent software system-wide. The first year of upgrades is complete and the WCC is currently working on the remaining system refresh with an anticipated completion date of June 30, 2025.

MSWIN system monitoring, and operations includes a Motorola on-site Jackson based Customer Support Manager and System Support Center located out of state as well as a Network Operations Center (NOC) which is located at the WCC offices and is monitored daily. The System Support Center remotely monitors the MSWIN system and physical building alarms throughout the network on a 24 hour by 7 day a week basis. This ensures a timely response to problems and immediate system restoration should a fault occur. Additionally, the WCC utilizes a combination of full-time WCC technicians and contractors to provide

routine and preventive maintenance, restoration services, and repairs/replacements during warranty and post warranty periods.

The WCC has deployable assets that can be used to implement or enhance communications in an area affected by a disaster. The master site on wheels (MSOW) can be used as fully functional backup to MSWIN's three regional control master sites. The MSOW is rapidly deployable and has the same functionality and redundancy as a permanent regional control center master site. In addition, the WCC has three radio repeater sites on wheels (SOWs) that can be used to restore the wide area functionality of the network infrastructure anywhere in the state when it is damaged or destroyed. These transportable sites have the same functionality as a permanent radio repeater site. The WCC also maintains a cache of mobile and portable radios with battery backups that can be deployed in the event of an emergency.

Through the use of MSWIN, our state and local emergency responders are able to communicate with each other and, thus, achieve enhanced coordination, timely response, and efficient and effective use of communications equipment. The system currently has over 62,509 users from 660+ local, state, tribal and federal first responders, and non-governmental organizations, however the system can support up to 250,000 users. MSWIN is used by these in-state agencies for day-to-day operations, training exercises, planned events, as well as emergency incidents. MSWIN has proven its performance and resilience during several emergency events when remote tower facilities have successfully switched to back-up generators without loss of service. The focus of the WCC's strategy to improve interoperability is to continue to provide a cost-effective network that offers dynamic solutions to its user base. Neighboring states of Louisiana, Alabama, Tennessee, and Arkansas have the ability to interface with MSWIN to coordinate contraflow lane reversal and other interstate emergency management activities.

Advances in technology by two-way radio LMR vendors is enhancing interoperable communication. First, new technology is allowing two-way radios to roam/switch from LMR to LTE (Long Term Evolution or broadband) to Wifi, depending on which technology is available for the user. In addition, voice-activation of radios is now possible, allowing information searches through traditional push button devices. For the MSWIN system, technology has advanced allowing MSWIN, as a P25 LMR system to interoperate with other P25 LMR networks and broadband PTT users regardless of jurisdictional boundaries. While MSWIN is still advanced in the ability to interop throughout the state, this advanced technology, once operational, will allow MSWIN to communicate across the nation, if necessary. As emergency incidents are non-respective of borders, these advances in technology allow for communicating information regardless of the device, network, or location.

Element 4 - Training

The WCC actively works to identify user needs as technological improvements are made to MSWIN. One continuing challenge is ensuring proper training accompanies technological upgrades and expansions. Emergency responders need to be familiar with interoperable and emergency communications equipment and procedures, so they are better prepared for responding to real-world events. Training remains a persistent challenge in Mississippi.

Through the WCC's active engagement with CISA-ECD, technical assistance is provided to the state which covers all five lanes of the Interoperability Continuum. These offerings are designed to help emergency responders continue to communicate during disasters or large-scale planned events. The following technical assistance requests have been awarded to the state through the WCC:

TICP (Tactical Interoperable Communications Plan) Workshop

SOP (Standard Operation Procedure) Workshop

COMT (Communications Unit Technician)

COMMEX (Communications Unit Exercise)

COML (Communications Unit Leader)

INTRADIO (Intro to Interoperable Radio Operations)

OP-PSCC (Interoperability for Dispatchers)

OP-ASMT (Operational Communications Assessment)

TRG-INCM (Incident Communications Center Manager Training)

TRG-INTRADIO TTT (Interoperable Radio Operations Train-the- Trainer Course)

SCIP-WKSP (Statewide Communication Interoperability Plan Workshop)

GOV-COMUPLAN (Communications Unit Planning and Policies, Project Management)

TIC-FOG (Tactical Interoperable Communications Plan & Field Operations Guide)

OP-FE (Communications Focused Exercises)

ENG-NG9-1-1 (Next Generations 9-1-1)

APP-FOG (Electronic Field Operations Guide (e-FOG) Development)

GOV-COMUPLAN (Communications Unit Planning and Policy Development)

CASM-TOOL (Communications Assets Survey and Mapping Tool)

911PSAPCYBR (Cybersecurity Awareness Webinar)

COMMDRILL (Communications Drill Activities for MCVs)

OP-TTX (Communications Focused Tabletop Exercise)

Individuals in Mississippi have received communications training through the COML, COMT, and TRG-INCM programs offered by the WCC and CISA-ECD. Other training opportunities are offered in conjunction with pre-existing local, federal and state exercises and drills. The WCC is working with CISA-ECD to offer classes in FY 2025.

During FY 2024, training efforts were provided through the classroom and conferences. The University of Mississippi Medical Center's Mississippi MedCom continued providing First Hands and First Voice classes to first responders. The WCC staff provided training and information locally at the MS Fire Chief's Mid-Winter Conference, MS Partners in Preparedness Statewide Conference, the MS Civil Defense Emergency Management Association Annual Conference, the MS Chiefs of Police Annual Conference, Patriot South Training Exercise included participants from the military and private sector, Department of Public Safety Law Enforcement Summit, MS 911 Conference, MS Society of Certified Public Managers Annual Conference, and the MS Certified Public Managers Executive Seminar. In addition, on the national level, staff participated as a panelist discussing rural interoperability at the International Wireless Communication Expo (IWCE) in Orlando, Florida. Further training included collaborative training with federal partners for the U.S. Naval Small Craft Instruction and Technical Training School (NAVSCIATTS) operating under the United States Special Operations Command at the John C. Stennis Space Center.

The WCC has a goal to further the end user training program development by:

- Establishing a uniform training curriculum to ensure new users are properly trained on MSWIN
- Establishing a COMU program to support the state's efforts to training manage, and deploy personnel and equipment when needed
- Ensuring current and future users will have access to exercise-based communications training
- Increasing the opportunities for MSWIN communications training in multi-agency, multi-discipline training environments

Element 5 - Usage

Regular usage of MSWIN ensures the maintenance of and familiarity with interoperability capabilities in case of an incident and ensures responders adopt and familiarize themselves with interoperable and emergency communications technologies, systems, and operating procedures in the state. Mississippi's users utilize MSWIN for all-hazards, multi-disciplinary responses that require continuous reliable service during events.

The WCC created 40 special event talk groups to ensure interoperability between local, state, federal, and tribal entities. Every user operating on MSWIN has the special event talk groups programmed into their radios. This enables multi-jurisdictional interoperability by allowing first responders to communicate

directly with one another during an emergency or a planned event or exercise. The WCC regularly works with MEMA and other public safety entities to develop the incident radio communications plan (ICS 205) for use during these events.

The WCC continues to increase interoperability among emergency responders by allowing public safety non-governmental organizations (NGOs) access to the MSWIN system. Per Federal Communications Commission (FCC) rules, a public safety NGO is eligible so long as it "provides services, the sole of principal purpose of which is to protect the safety of life, health, or property". The WCC, as system operator, makes these determinations on a case-by-case basis depending on the entities proposed use of the system. Under no circumstances can a public safety NGO use the system for services made commercially available to the public.

Statewide usage of the MSWIN system is measured by the number of Push-To-Talks (PTT's) which continued to increase during FY 2024. MSWIN users logged an average of 347,499 push-to-talks daily. The total number of push-to-talks in FY 2024 totaled 126,837,037 with a monthly average of 10,569,753. MSWIN push-to-talks increased by 5.5% from FY 2023 to FY 2024. The system push-to-talks monthly usage during FY 2024 is indicated in Figure 2 below:

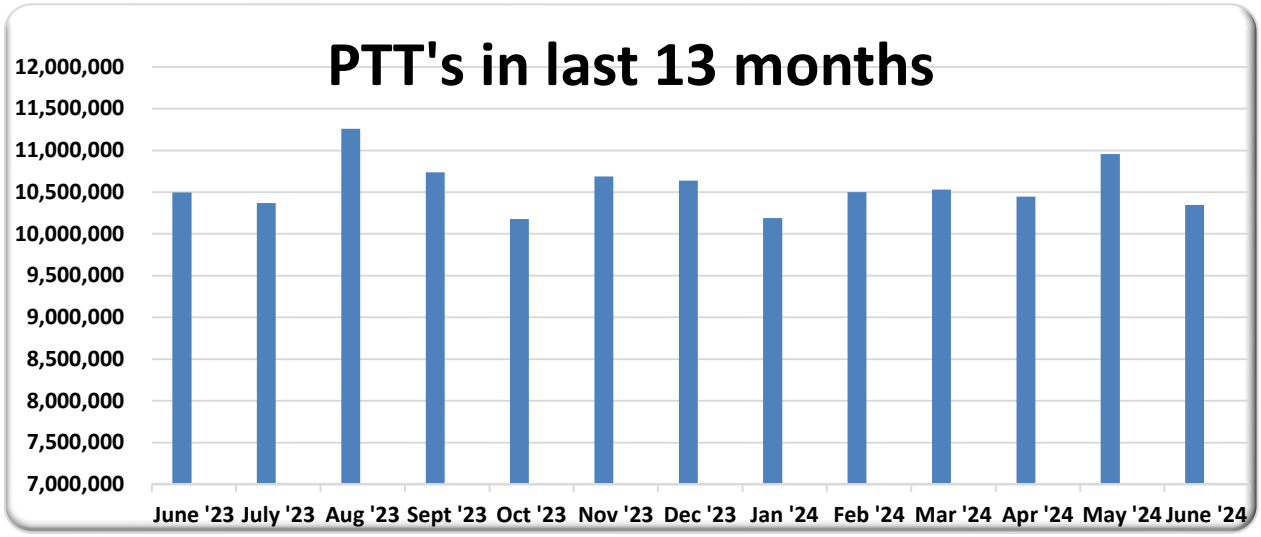

Figure 2: Push-to-Talks for FY 2024

The number of MSWIN users continues to grow each year. From FY 2023 to FY 2024, the number of users increased by 6.3%. Currently, 62,509 first responder subscribers are utilizing MSWIN. In FY 2025, the number of subscribers utilizing MSWIN is expected to increase by another 5%. MSWIN usage by the Top Ten State Agencies by System Use and the Top 10 Local/Other Agencies by System Use for June 2024 is outlined in Figures 3 & 4 below:

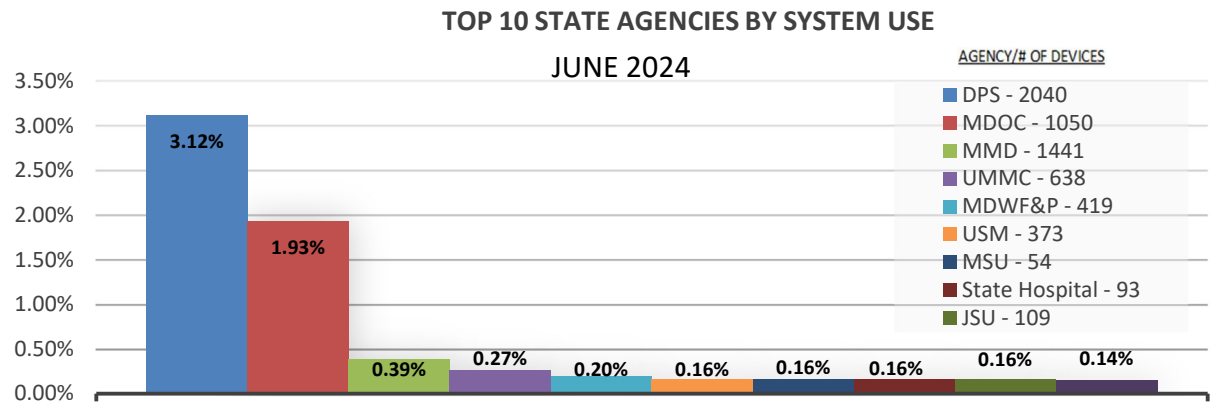

Figure 3: State Agency Usage & Number of Devices for June 2024

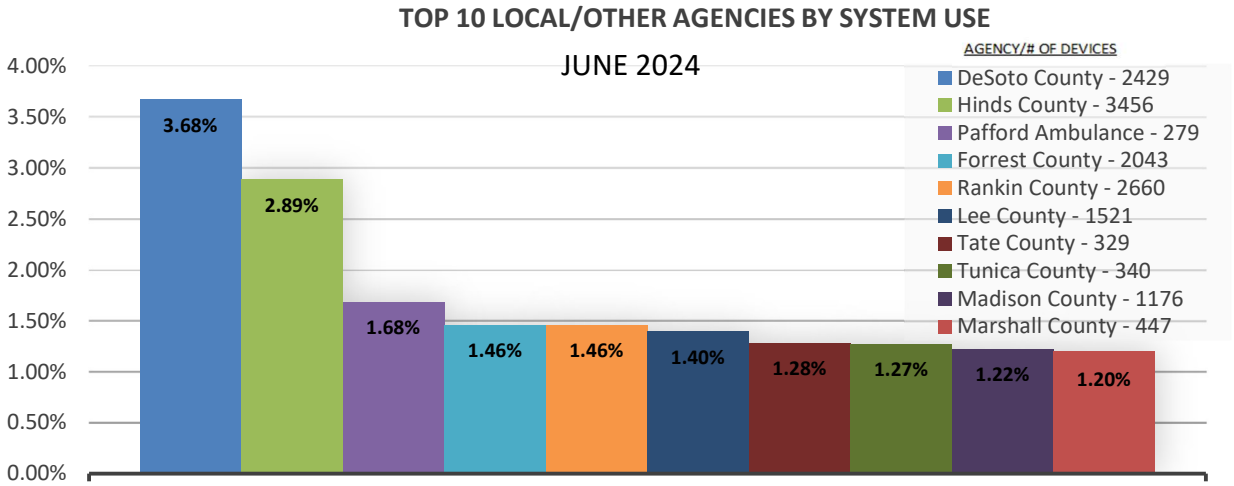

Figure 4: Local/Other Agency Usage & Number of Devices for June 2024

MSWIN was designed and built for statewide mobile (in vehicle) coverage. While the majority of users benefit from the 97% mobile area coverage currently provided by the MSWIN network, some localities require increased portable coverage to ensure adequate in-building coverage for their mission critical communication needs. In order to ensure increased interoperability among first responders, the WCC partners with these localities to integrate these additional local-owned sites into the MSWIN network. This provides a cost savings to the county as they save funds by utilizing MSWIN infrastructure. In addition, most counties allow all MSWIN users to roam on their local-owned sites which increases the MSWIN coverage area.

To date, the WCC has successfully integrated the local-owned infrastructure of Lee County, Jones County, Forrest County, Hancock County, Rankin County, Hinds County, Warren County, Lafayette County, Oktibbeha County and DeSoto County into the MSWIN network. In addition, the Choctaw Nation is adding

three MSWIN sites, adding more mobile and portable coverage in three centrally located counties. DeSoto County is adding a MSWIN site on the northwestern portion of the State that will enhance mobile and portable coverage.

During the FY2023 and FY2024 Legislative Session, the Legislature appropriated $3.9M through House Bill No. 603 to increase MSWIN coverage within the State. During FY2025 these additional funds will continue to be utilized for expansion in areas identified as having coverage issues to include Tate County, Pearl River County, Tippah County, and Oktibbeha County. The WCC expects to make use of existing tower sites that meet specifications or, if needed, to build tower sites in these counties to provide increased coverage for the first responders serving and communicating in these areas. The WCC will continue to review additional opportunities across the state to determine areas in need of increased portable coverage for first responders.

WCC External/Internal Assessment

Over the next five years, Mississippi will encounter basic challenges with advances in technology and with infrastructure, due to aging equipment. Additional challenges include the system's long-term effectiveness through a need for additional portable coverage, entities building their own independent emergency communication systems rather than joining MSWIN, and deficiencies in training as we now have more than 62K subscribers on the system.

For Mississippi and the nation, public safety communications are effectively achieved through the use of multiple technologies, each with varying capabilities, standards, and requirements. No single technology is expected to replace the other. Technologies, and advances in technologies, allow for supplement capabilities to provide backup or a secondary means of communication if the primary means of communications fail. Even today, the public safety community recognizes that LMR (Land Mobile Radio) is the primary tool providing mission-critical voice, interoperability, and reliability.

In the public safety technology world, FirstNet is racing to the finish line to provide a national broadband/LTE (Long Term Evolution) answer for first responder communication using cellular devices and next generation tools. At the same time LMR vendors are enhancing the existing two-way radios to communicate data and provide roaming from LMR to LTE to Wifi- making interoperability even more seamless. In addition, LMR vendors provide the ability for communication beyond one particular LMR system. While barriers to intrastate communication are insignificant in Mississippi when compared with other states, thanks to MSWIN, this technology allows for interstate communication or communication outside the state lines. All of these technological advances are moving interoperable communication for the national public safety community forward.

SAFECOM[2] of the federal government provided the following statement per its assessment of public safety communications:

Although the federal government is allocating funding for FirstNet, elected officials and decision-makers must understand the public safety community will continue to rely on LMR as a primary means of communication. The community will likely integrate new or improved LMR capabilities, features, functions, and services for years to come to elongate the return on the sizable investments. Public safety agencies recognize that LMR systems provide a crucial capability during response operations – mission – critical voice communications – that will not be immediately available through FirstNet. Therefore, public safety agencies must continue to seek funding for LMR systems, equipment, and enhancements in order to sustain and improve mission-critical voice communications among public safety responders. Decision-makers must consider the needs of public safety agencies and the impact of funding decisions on the ability of public safety responders to communicate effectively during day-to-day incidents, emergencies, and natural and made-made disasters. Without continued investment in LMR systems to sustain mission-critical voice communications, capabilities could be compromised during response operations.

With that said, the MSWIN network maintained by the WCC will continue to be a mission-critical communication tool for the future serving all the Mississippi first responders in the public safety community. Continued funding by the Legislature is imperative to support those who serve as first responders across the State and for the protection of her citizens.

The key priorities for Mississippi in the near term are as follows:

- Maintain the infrastructure, technology, and services provided to assess opportunities for improvement to sustain mission-critical communication for the state.
- Continue working with users across the state to identify coverage opportunities.
- Continue working on the four coverage expansion sites.
- Continue providing MSWIN options to those counties (4) not fully utilizing MSWIN as a permanent use/everyday communication solution.
- Continue working with the legislature to secure funding for the maintenance and sustainability of critical infrastructure and for the expansion of coverage in areas of need across the state.
- Offer basic and advanced training to all users across the state creating a cadre of all-hazards response communications experts at all levels of government, including Tribal government.
- Monitor emerging technologies and the ecosystem (LMR, broadband, alerts, warnings & notifications, Next Generation 911, Push to Talk over Cellular, and cybersecurity) to determine a cost-effective means of integration while continuing to provide interoperable emergency communications solutions.
- Working with the contiguous states to test and secure seamless interoperability for when the need arises.

Mississippi continues to be a forerunner in mission-critical interoperable communication when compared with other states across the nation resulting from the MSWIN System, strong coordination with users at all levels of government, and a strong governance structure led by the WCC. While more remains to achieve Mississippi's statewide goals for emergency communications, this work is only part of a

continuous cycle as Mississippi will always need to adjust to developing technologies, operational tactics and challenges to support communications for emergency responders.

Agency Goals, Objectives, Strategies, and Measures by Program
FY 2026– FY 2030

Program 1: MSWIN Communication System

Goal A: Develop, Implement and Maintain the MSWIN System to ensure that emergency responders have access to communications services which provides a cost efficient multi-jurisdictional/multi-agency common and interoperable platform

Objective A: 1. Development of an interoperable communications system across Mississippi which increases communications access to emergency responders.

- Outcome: *Mobile Coverage across state equals 97%*
- Outcome: *Emergency subscribers utilizing MSWIN – increase by 5% annually*
- *Outcome: MSWIN emergency subscribers push to talks increase by 5% annually*

A.1.1. Strategy: Work with subscriber entities to determine where increased capacity for interoperability is needed.

- Output: *MSWIN sites under development (# of sites)*
- Efficiency: *MSWIN construction project managed in accordance with both the time schedule and within budget (%)*
- Explanatory: Increased communications interoperability among emergency responders provides the ability to effectively reduce emergency response time to a natural or man-made disaster. (statewide benchmark)

A.1.2. Strategy: Monitor and provide technical direction for maintenance of an interoperable communications system for emergency responders across Mississippi

- Output: *MSWIN sites in operation (# of sites)*
- Efficiency: MSWIN availability to emergency subscribers >99%
- Explanatory: A fully functioning communications system will provide a reliable method to ensure an effective emergency response time to natural and man-made disasters. (statewide benchmark)

A.1.3. Strategy: Increase coordination among multi-jurisdictional and multi-agency personnel to ensure effective communications services during emergency response time to natural and man-made disasters. (Statewide benchmark)

- Output: Emergency subscribers utilizing MSWIN (# of subscribers)
- Efficiency: MSWIN emergency subscriber push to talks (# of PTTs)

- Explanatory: Regular usage by emergency personnel ensures the maintenance of and familiarity with interoperability capabilities that improve emergency response time to natural and man-made disaster. (statewide benchmark)

Objective A: 2. Maintain a cost-efficient interoperable communication system for emergency responders.

- Outcome: MSWIN annual operating cost per Mississippian ≤ $4.23 per person

A.2.1 Strategy: Monitor the administrative costs of the MSWIN communication system at or below 10% of total operating costs.

- Output: Fiscal Year Total Expenditures (actuals)
- Output: Fiscal Year Administrative Expenses (actuals)
- Efficiency: Administrative costs of MSWIN as percentage of total operating expenditures (statewide benchmark)
- Explanatory: Monitoring actual administrative expenditures will assist the WCC in maintaining a cost-efficient operation

Wireless Communication Commission								
Performance Measures - WCC Strategic Plan and Budget								
FY26 Budget and Strategic Plan FY26 - FY30				STRATEGIC PLAN DATA				
		BUDGET DATA						
	Actuals	Actuals	Estimated	Projected	Projected	Projected	Projected	Projected
	FY23	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
§ Output: MSWIN sites in operation (# of sites)[1]	147	156	159	161	161	161	161	161
§ Output: MSWIN sites development (# of sites)	0	3	3	2	0	0	0	0
§ Output: Public Safety subscribers utilizing MSWIN (# of subscribers)	58,805	62,509	65,634	68,916	72,362	75,980	79,779	83,768
§ Output: MSWIN public safety subscriber push to talks (# of PTTs)	10,015,456	10,569,753	11,098,241	11,653,153	12,235,810	12,847,601	13,489,981	14,164,480
§ Output: Fiscal Year Total Expenditures	$ 11,134,207	$11,352,814	$11,968,985	$12,103,011	$ 12,341,011	$ 12,579,011	$ 12,817,011	$13,055,011
§ Output: Fiscal Year Administrative Expenses	$708,653	$839,090	$942,275	$1,076,827	$ 1,076,827	$ 1,076,827	$ 1,076,827	$ 1,076,827
§ Efficiency: MSWIN construction project managed in accordance with both time schedule and within budget (%)	100%	100%	100%	100%	100%	100%	100%	100%
§ Efficiency: MSWIN annual operating cost per MS ≤ $4.23 per person	$3.72	$3.80	$4.00	$4.05	$4.02	$4.02	$4.02	$4.02
§ Efficiency: Administrative costs of MSWIN ≤ 10 % of total operating expenses	6.4%	7.4%	7.9%	10.0%	10.0%	10.0%	10.0%	10.0%
§ Outcome: MSWIN availability to public safety subscribers >99%	99%	99%	99%	99%	99%	99%	99%	99%
§ Outcome: Public safety subscribers utilizing MSWIN – increase by 5% annually	9.3%	6.3%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
§ Outcome: MSWIN subscribers ptts increase by 5% annually **	9.0%	5.5%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
§ Outcome: Mobile Coverage across state equals 97%	97%	97%	97%	97%	97%	97%	97%	97%
[1]These sites were built specifically for the MSWIN system. In addition to these sites, the WCC has co-located MSWIN equipment on sites across the state to								
System Efficiency								
Output: Push-to-Talks Annualized	126,837,037							
Output: Total "busies" Annualized	7,471							
Efficiency: Total % of "busies" Annualized	0.0058902%							