

Mississippi Wireless Communication Commission



5 Year Strategic Plan

FY 2023– FY 2027

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July 15, 2021

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 its October 29, 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.

The Mississippi Wireless Information Network (MSWIN) is a Land Mobile Radio trunked emergency communications network providing 97% statewide mobile radio coverage and portable coverage in critical buildings, such as courthouses. As of July 2021, there are 147¹ MSWIN towers located throughout the state, including 86 state-owned towers and 61 leased towers. There are currently 50,405 emergency communication devices on the system being used by 614 state, local, federal, and private entities making an average of 8.29 million push-to-talks per month.

Background

Throughout the nation, communication between different public safety agencies and jurisdictions has long been a challenge. During every day 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 every day 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. 2514 created the Wireless Communication Commission (WCC) 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

¹ 147 towers sites were built to WCC specifications for the MSWIN System. In addition to these sites, the WCC has co-located MSWIN equipment on sites across the State 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.

Land Mobile Radio 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. Land Mobile Radio 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. Land Mobile Radio systems will remain the primary tool for mission critical communications for many years to come.

Interoperability

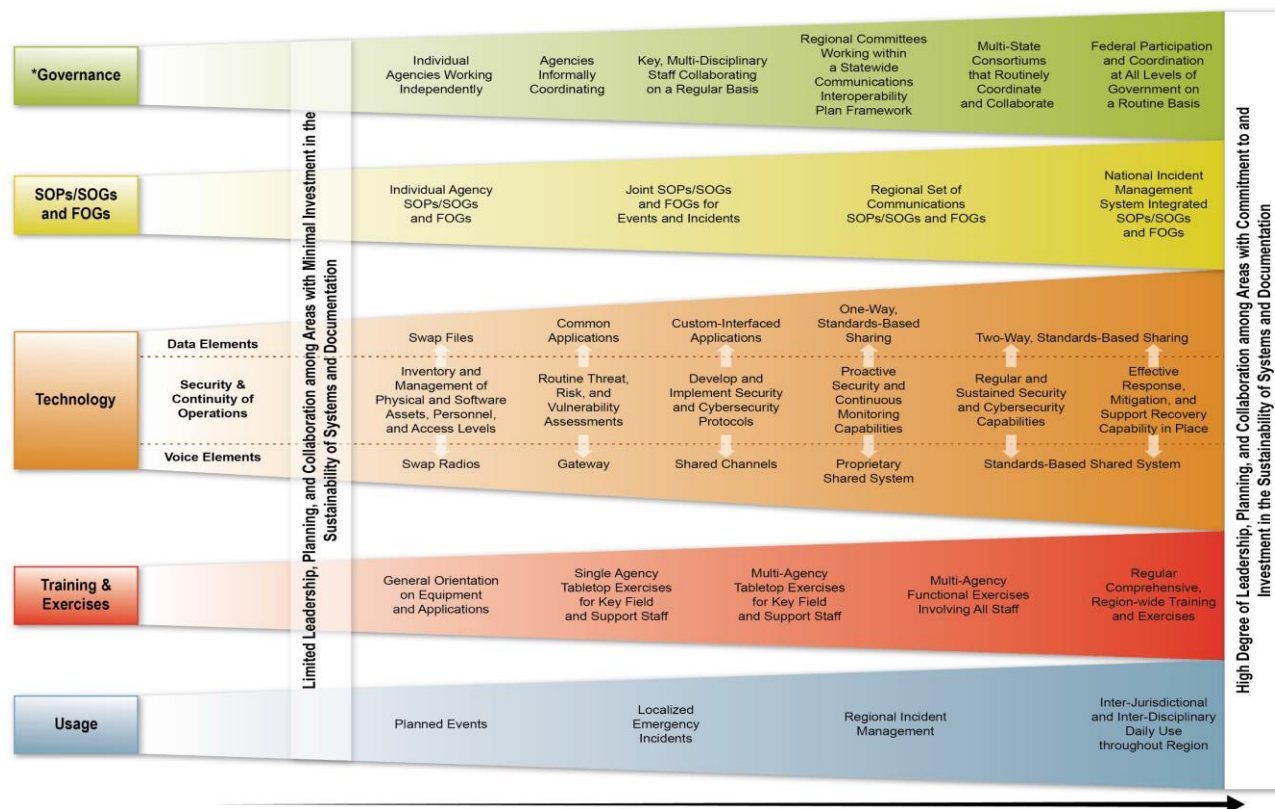
Interoperability is an important issue for law enforcement, fire fighters, emergency medical services, and other public safety and health agencies. By definition, interoperability is the ability of emergency responders to share information via voice and data communications systems on demand, in real 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 2021, the total number of calls were 99,586,202 with 5,323 "busies" resulting in an annual busy rate of .09%. 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 .03%.

The [SAFECOM² 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 of 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.



*Brochure text updated to include information on Lifecycle Funding within the Governance Section

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 the Executive Officer of the WCC, and with the 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 taken significant steps towards achieving 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. 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 staff and ensures 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, 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 \$150 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 is available through Google and Apple stores as of 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 together 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 over 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 147 towers located across the state. Each tower site is equipped with an equipment shelter, emergency power system, network equipment and redundant site controllers. By December of 2012, 142 towers had been deployed to provide 97% mobile coverage. Three additional towers were installed between 2016 and 2018 to increase portable coverage in specific areas of the state (one located near Parchman and two located near Camp Shelby).

In FY 2021, the WCC completed the construction of a new MSWIN site near Canton, MS to increase portable coverage and a co-location at the John C. Stennis Space Center which will allow the National Aeronautics and Space Administration (NASA) to join MSWIN to further increase portable coverage and interoperable communications for emergency responders. In continued efforts to increase portable coverage statewide, the WCC added three co-location sites near Osyka, MS, Craig Springs, MS, and at Holmes County State Park. The WCC also completed a project to increase data capacity at certain MSWIN site locations and to provide continued and increased reliability by adding microwave expansion paths across the state. The WCC will continue to review additional opportunities across the state to determine where co-location of MSWIN equipment can further increase portable coverage for emergency responders.

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.

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 upgrades the necessary system hardware and software on a regular basis to maintain MSWIN at the highest level of support and availability and to provide access to the latest standard and optional features available. System upgrades allow the WCC to sustain operation of MSWIN at the highest level of performance and functionality of system operations; 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 FY 2021, the WCC completed a system upgrade to MSWIN which brought the system to the latest and greatest technology currently available.

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 50,405 users from 504 local, 80 state, tribal and federal first responders, and 30 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, planned events as well as for 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.

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 technology 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 (Communication 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)

TRG-COMT (Communications Unit Technician Course) *on hold per COVID-19*

COMMDRILL (Communications Drill Activities for MCVs) *on hold per COVID-19*

OP-TTX (Communications Focused Tabletop Exercise) *on hold per COVID-19*

COMMUPLAN (Communications Unit Planning and Policies Development) *on hold per COVID-19*

CASM-IMPORT (Communications Assets Survey and Mapping Tool) *on hold per COVID-19*

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. Due to COVID-19, all CISA-ECD related training exercises were canceled in FY 2021. The WCC is working with CISA-ECD to develop remote learning classes and as restrictions are lowered we will schedule in-person training again.

Despite the impact of COVID-19 on the WCC's ability to continue training efforts, basic radio training was provided to two hundred and seventy-seven (277) end users during FY 2021. The MSWIN system was used extensively across the state for COVID-19 response by local and state agencies, including the Mississippi Emergency Management Agency, the Mississippi Department of Health, and the Mississippi MS National Guard. MSWIN was the communication means for COVID-19 testing sites, distribution of Personal Protective Equipment, and later for vaccination distribution and vaccination site coordination across the state. The WCC will continue to provide basic radio training as requested.

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.

Since FY 2015, the WCC has continued 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 which continued to increase during FY 2021. MSWIN users log an average of 272,839 push-to-talks daily. The total number of push-to-talks in FY 2021 totaled 99,586,202 with a monthly average of 8,298,850. MSWIN push-to-talks monthly average increased by .9% from FY 2020 to FY 2021. The system push-to-talks monthly usage during FY 2021 is indicated in Figure 2 below:

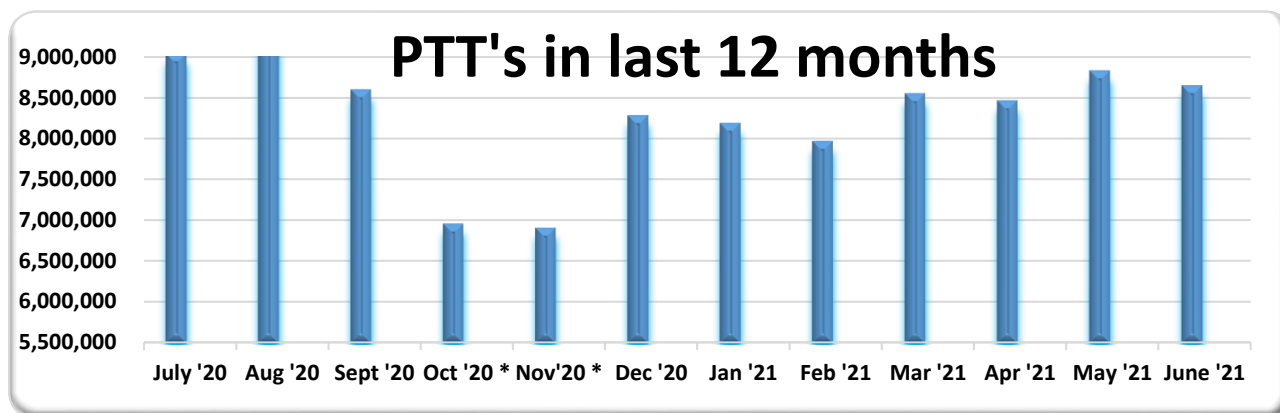


Figure 2: Push-to-Talks for FY 2021

**new server installed; limited data transfer*

The number of MSWIN users continues to grow each year. From FY 2020 to FY 2021, the increase of users was again significant with an increase of 10.89%. Currently, 50,405 emergency subscribers are utilizing MSWIN. In FY 2021, the number of subscribers utilizing MSWIN is expected to increase by 5% a year. MSWIN usage by the Top Ten State Agencies by System Use and the Top 10 Local/Other Agencies by System Use is outlined in Figures 3 & 4 below:

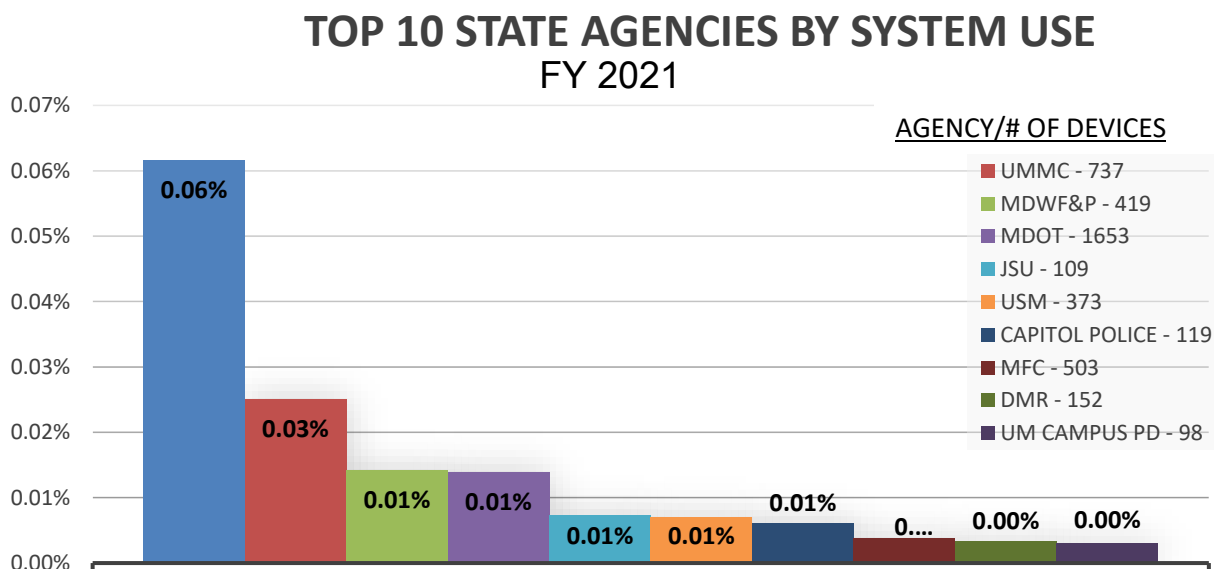
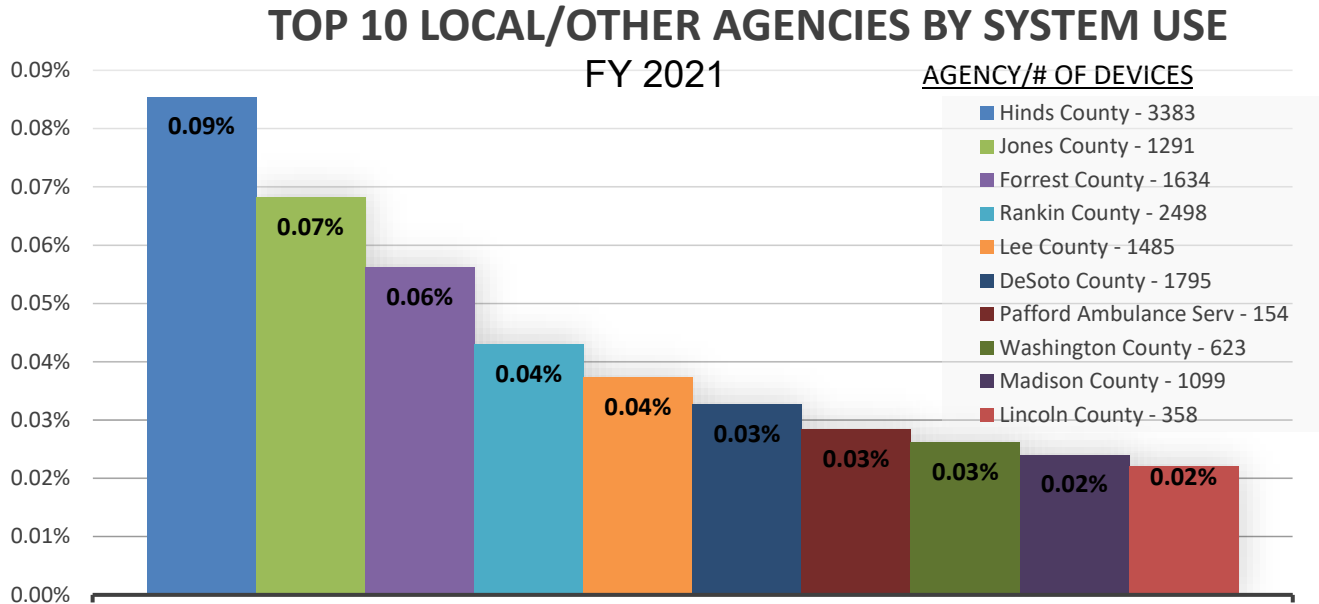


Figure 3: State Agency Usage & Number of Devices for FY 2021

Figure 4: Local/Other Agency Usage & Number of Devices for FY 2021



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, and Desoto County into the MSWIN network.

While over 50,405 subscribers currently utilize MSWIN, constrained budgets complicate the decision of local agencies to join or continue to use MSWIN services. Using MSWIN in its current free capability form is often a local agencies only option for emergency communications and enables the state to increase its communications interoperability.

The WCC has a goal to continue to identify and build out portable coverage as funding permits.

WCC External/Internal Assessment

Within the next five years, Mississippi will encounter challenges relating to operability, interoperability, geography, aging equipment/systems, and emerging technologies. Wireless voice and data technology is

evolving rapidly and efforts are underway to determine how to leverage these new technologies to meet the needs of emergency responders.

Integrating capabilities such as broadband provide an unparalleled opportunity for the future of interoperable emergency communications in Mississippi. It may result in a secure path for information-sharing initiatives, Public Safety Answering Points (PSAPs), and Next Generation 911 (NG911) integration. Broadband will not replace existing Land Mobile Radio systems in the foreseeable future due to implementation factors associated with planning, deployment, technology, and cost. A cautious approach to this investment is needed. Therefore, robust requirements and innovative business practices must be developed for broadband initiatives prior to any implementation. Investments in Land Mobile Radio will continue to be necessary and in the near term, wireless data systems or commercial broadband will complement Land Mobile Radio.

Challenges for the system's long-term effectiveness include geographic areas of inadequate portable radio coverage, the threat of state government entities building their own independent emergency communication systems rather than join MSWIN, and deficiencies in MSWIN user training.

Key priorities for Mississippi in the near term are:

- Continue engagement with local governments and public safety agencies to build a multi-disciplinary user base across the state.
- Maintain existing quality of service while expanding the existing user base to further goals of interoperable emergency communications.
- Expand in-state training capabilities to create a cadre of all-hazards response communications experts at all levels of government, including Tribal government.
- Monitor emerging technologies to determine a cost effective means of integration while continuing to provide interoperable emergency communications solutions.
- Continue to assess the emergency communications ecosystem (Land Mobile Radio, public safety broadband, alerts, warning, and notifications, and Next Generation 911).

Mississippi has taken significant steps towards enhancing interoperable and emergency communications through the build out of a statewide interoperability network, 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 statewide goals for emergency communications. This work is only part of a continuous cycle as Mississippi will always need to adapt to evolving technologies, operational tactics and challenges to support communication for emergency responders.

Agency Goals, Objectives, Strategies, and Measures by Program
FY 2023 – FY 2027

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 \leq \$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								
FY23 Budget and Strategic Plan FY23 - FY27		STRATEGIC PLAN DATA						
	Actuals FY20	BUDGET DATA			Projected FY24	Projected FY25	Projected FY26	Projected FY27
		Actuals FY21	Estimated FY22	Projected FY23				
\$ Output: MSWIN sites in operation (# of sites) ¹	146	147	148	148	148	148	148	148
\$ Output: MSWIN sites development (# of sites)	1	1	1	0	0	0	0	0
\$ Output: Public Safety subscribers utilizing MSWIN (# of subscribers)	45,453	50,405	52,925	55,572	58,350	61,268	64,331	67,548
\$ Output: MSWIN public safety subscriber push to talks (# of PTTs)	8,223,123	8,298,850	8,713,793	9,149,482	9,606,956	10,087,304	10,591,669	11,121,253
\$ Output: Fiscal Year Total Expenditures	\$10,639,874	\$10,438,937	\$11,052,341	\$11,052,341	\$11,052,341	\$11,052,341	\$11,052,341	\$11,052,341
\$ Output: Fiscal Year Administrative Expenses	\$ 593,499	\$ 546,729	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000
\$ 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 \leq \$4.23 per person	\$3.56	\$3.49	\$4.23	\$4.23	\$4.23	\$4.23	\$4.23	\$4.23
\$ Efficiency: Administrative costs of MSWIN \leq 10 % of total operating expenses	5.6%	5.2%	10.0%	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	11.88%	10.89%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
\$ Outcome: MSWIN subscribers ptt increase by 5% annually	2.7%	0.9%	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 enhance portable coverage.								
System Efficiency								
Output: Push-to-Talks Annualized		99,586,202						
Output: Total "busies" Annualized		5,323						
Efficiency: Total % of "busies" Annualized		0.005%						