**2016-2020 Regional Public Safety Communications Work Plan**

Beginning in the third quarter of 2018, significant efforts began to add the first additional county to the regional 911 system in 14 years. The addition of the Douglas County Sheriff’s Office and the University of Kansas Public Safety Office to the existing 911 network will be an ongoing effort in 2019. Other counties have expressed interest in joining the regional system as well.

**Mission**

The mission of the regional public safety communications program is to maintain, enhance and coordinate the 911 system as the primary means of access for those in the region who need emergency public safety services and to enhance the ability of public safety personnel and emergency responders to effectively communicate through all phases of emergency incidents and planned events.

**Vision**

- Provide citizens and public safety professionals with a high-quality, financially secure and well maintained system of 911, interoperable radio and data communication services.
- Serve as a model of excellence, ensuring any person needing access to emergency services is able to immediately reach assistance to facilitate a quick response.
- Provide all public safety professionals with a baseline for seamless voice and data communications to ensure an effective public safety response.
- Educate the public, elected officials and public safety professionals about the services provided and the needs to support them.

**Outline Goals and Objectives**

Upon reviewing the goals and objectives from the 2011–2015 strategic plan, accomplishments to date and the outcome of regional workshops, the strategic planning executive committee developed the following goals and objectives for 2016–2020.

**Goal A: Enhance the quality of the regional 911 system to ensure access to public safety communication services that are reliable, current, redundant, secure and diverse.**

**Goal A — Objective 1:**
Continue to improve the accuracy of location data received from non-wireline service providers.

**Project: Call Routing Validation**
Continue to annually review call routing for at least 30 percent of all wireless sectors with a goal of validating routing on each tower sector at least once every three years.

**2018 Progress**

All routing errors received via 911 error reports are researched. If deemed valid, the appropriate carrier is notified for investigation and resolution on their end. If invalid, the PSAP is contacted and an explanation is given so that proper information can be relayed back to the dispatcher and
training provided. As of November 27th, there were over 16,524 cell sectors in the regional map. An old map data layer of cell towers was refreshed for the GeoLynx Server project.

- New towers added: 40
- New cell sectors added: 1,677
- Cell sectors reviewed: 2,409
- Updated cell sectors: 420
- Deleted cell sectors: 33

A full audit with T-Mobile was also completed.

<table>
<thead>
<tr>
<th>Carrier</th>
<th># Records Reviewed</th>
<th>Additions</th>
<th>Deletions</th>
<th>Address Corrections</th>
<th>PSAP Corrections</th>
<th>Placement on Map Correction</th>
<th>Total Corrections</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Mobile</td>
<td>4,892</td>
<td>1,425</td>
<td>93</td>
<td>2,075</td>
<td>392</td>
<td>1,084</td>
<td>5,072</td>
</tr>
</tbody>
</table>

With Douglas County, KS joining the MARC region, all wireless towers and sectors had to be reviewed which was completed in November. There were 1,808 cell sectors reviewed and 495 address corrections made. This information was provided back to the wireless carriers for correction in their system and also to MARC GIS for inclusion in the regional cell tower and sector map layers.

2019 Action Plan

An audit of AT&T Mobility and US Cellular is planned for 2019. The audit will consist of working with each wireless carrier and the regional map provider to compare and update cell tower and sector data. Doing so will ensure the information sent during a 911 call matches what is in the database and that Phase I wireless calls plot on the mapping software correctly.

Public Safety staff will continue to work with MARC GIS to ensure that processes are in place for maintenance of the cell tower and sector map layers.

**Project: Database Audit**

Conduct an annual call-routing review and validation process in the stand-alone ALI database. MARC staff will compare and resolve discrepancies between data from non-wireline service providers (or their appointed database providers) and the region-owned database.

2018 Progress

As of September 21, 2018, there are 6,421 records in the non-wireline routing database, and over 636 changes have been made:

<table>
<thead>
<tr>
<th>Company</th>
<th>Added</th>
<th>Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T</td>
<td></td>
<td>88</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>Sprint</td>
<td>1</td>
<td>452</td>
</tr>
<tr>
<td>Total Changes</td>
<td>96</td>
<td>540</td>
</tr>
</tbody>
</table>
2019 Action Plan

MARC staff will continue to work with carriers and their third-party providers to make database record updates as needed and follow the standards put in place. This is an ongoing project in which records are added, modified and deleted throughout the year.

**Project: Communication with Non-Wireline Service Providers**

Continue to proactively identify and complete interconnection agreements with non-wireline service providers. These agreements ensure service providers are correctly connected to the region’s network, maintain accurate database records and comply with remittance requirements. In an effort to stay informed of new technologies or changes in existing technologies, MARC staff will contact each service provider annually to review existing agreements, provide updates on changes to 911 in the region and gather information on new technologies.

2018 Progress

Frequently, staff receive calls from organizations and companies that have installed a new internal VoIP phone system that has not been programmed to work correctly with 911. Explaining the different components of the process and pointing them in the right direction is imperative. Once programming has been corrected within an organization’s phone system, staff assist with database reviews and testing coordination with PSAPs.

In April, error reports received from PSAPs led the database team to a local VoIP company based in North Kansas City, Mo. After further research, it was determined that their 911 provider had input the main switch addresses for many of their customers. This resulted in over 9,000 records removed from the database and 271 corrections. Periodically, records are searched in the 911 database to ensure accuracy and reported back to the company.

A wireless carrier requested assistance with coordination of 911 testing of a new service. The Lee’s Summit Police Department received numerous test calls and was helpful in the first phase. As a rollout date approached, the carrier identified an issue with audio blanking on calls, and the Overland Park Police Department and Leawood Police Department assisted in additional testing to help troubleshoot. The total number of calls made during this test was approximately 1500.

In September, MidCo was identified as a cable company providing VoIP phone service in the Leavenworth County area. Initial contact was made, and it was discovered that the company uses West Safety Services as its 911 service provider. Discussions will be held to establish an agreement with MidCo.

The United States Postal Service partnered with Comtech Telecommunications to provide location information for mail carriers using GPS in package scanners. Staff researched this solution and assisted in scheduling testing and notifying all primary PSAPs.
2019 Action Plan

Kari’s Law was signed into law in early 2018 for Multi-Line Telephone Systems (MLTS) to allow a direct dial to 911 rather than requiring callers to dial a number to access an outside line before calling. It is anticipated that companies such as hotels, large corporations and government entities with multiple telephone lines will need assistance with information and 911 testing coordination. Staff will work with entities needing assistance.

With the installation of new selective routers, agreements will need to be updated with current providers.

Project: New Services and Technologies
Research new services and technologies available and coordinate interconnection agreements, ensure vendors are properly connected to the region’s network and verify that calls route accurately and plot on the regional map.

2018 Progress

In September, RapidSOS (VESTA 9-1-1 users) and RapidLite (ECS-1000 users) were both implemented in the region to provide enhanced location information for wireless 911 callers. Traditionally, wireless 911 calls have only had two data points to determine location: triangulation from the carrier network and GPS with the accepted margin of error being between 50 and 300 meters.

Uber and other apps that use location services utilize those data sources as well as others, such as Wi-Fi access points and Bluetooth beacons. When Google and other vendors drive around the nation they collect data on the Wi-Fi access points that they “see” while driving. Each Wi-Fi access point has a unique identifier, and its location is recorded. Even if a cellular device has Wi-Fi and Bluetooth turned off, the device still records these networks. When location is determined, all of those data points are combined to come up with a best estimate.

RapidSOS takes that same data combination and makes it available to PSAPs. This does not affect the routing of 911 calls, nor does it replace the carrier provided location, it is only supplemental data.

2019 Action Plan

In 2019, staff will continue to research new services and technologies.

Project: Monitor Developments in Location Technology
Monitor advancements in wireless location technology, including, but not limited to, Z-axis (elevation) location information. Technicians will also monitor the Federal Communications Commission for any proposals regarding new location accuracy requirements.
2018 Progress

In 2018, MARC partnered with RapidSOS to receive enhanced location information for wireless callers. Additionally, the big four carriers (AT&T, Sprint, T-Mobile and Verizon) have all committed to providing the same level of location that RapidSOS is able to provide by the end of 2018.

The Federal Communications Commission (FCC) approved the use of the European Union’s Global Navigation Satellite System (GNSS), known as Galileo, to complement the existing Global Positioning System (GPS) which will provide improved availability, reliability and resiliency of location services in the United States of America.

The following chart details Phase II call delivery in the region:

![Carrier Phase II Call Delivery Chart]

Data is representative of a sample of total calls in the region.

2019 Action Plan

Staff will continue to monitor location technology updates as well as Phase II call delivery in the region.

Goal A — Objective 2:
Ensure the geographic diversity and redundancy of 911 systems.

Project: Last-Mile Analysis
Analyze existing last-mile network connections to existing PSAPs and ensure there are cost effective redundant connections.
2018 Progress

In 2018, the “last mile” to several PSAPs was upgraded from leased T-1 circuits to Point-to-Point (PTP) microwave, fiber or Multi-Protocol Label Switching (MPLS) circuits.

T-1 circuits were replaced with microwave and/or fiber connections at:
- Fort Leavenworth Provost Marshal
- Leavenworth Police Department
- Leavenworth Sheriff’s Office
- Overland Park Police Department

Additionally, new Ethernet circuits were ordered for:
- American Medical Response
- Excelsior Springs Police Department
- Miami County Sheriff’s Office
- Ray County Sheriff’s Office
- Sugar Creek Police Department

These new circuits increased network bandwidth capacity and redundancy.

2019 Action Plan

MARC staff will continue to research alternatives to existing legacy connections.

Project: Review Service Provider Central Office (CO) Isolation Plans
MARC staff will annually review and update wireline service providers’ Central Office isolation plans. A Central Office isolation occurs when a Local Exchange Carrier’s (LEC) switch is unable to send or receive landline calls from other switches. The only calls the isolated switch will handle are within its territory. The isolated switch cannot send 911 calls to the selective router nor will it receive 911 calls from the selective router. These plans will be distributed to each PSAP periodically or when MARC is notified of a change by LECs.

2018 Progress

No central office changes were provided by LECs in 2018.

2019 Action Plan

Staff will continue to monitor CO isolation plans and changes provided by LECs.

Project: Interconnection with Other Networks
Work with microwave network owners to establish interconnection agreements that provide access into their networks. These interconnections increase the 911 network footprint and create a backbone network that is diverse and redundant through network elements.
2018 Progress

MARC staff worked with service providers, microwave owners, building owners and city and county officials to develop interconnection agreements. These agreements allowed MARC to utilize other networks to connect PSAPs to the regional 911 backbone network. Staff worked with Clay County, Excelsior Springs, Independence, Johnson County, Kansas City Missouri, Overland Park and the Unified Government of Wyandotte County/Kansas City Kansas to increase the 911 network footprint, bandwidth, reliability and redundancy.

2019 Action Plan

Staff will continue to work with external stakeholders and develop interconnection agreements to build and maintain a reliable, diverse and redundant network. Agreements have been signed to ensure interconnection arrangements between RAMBIS and other microwave networks will remain in place without interruption.

Goal A — Objective 3:
Ensure ongoing quality maintenance and operation of the regional 911 system.

Project: Equipment and Maintenance Reference Information

Continue to keep detailed documentation on maintenance and repair activities, developing a knowledge base that will decrease future repair times for similar trouble reports. Staff will also continue to create how-to postings for troubleshooting by calltakers and dispatchers in the PSAP.

2018 Progress

As of November 27, communications technicians entered 1,572 trouble tickets, the bulk of which were statistical requests or speed dial changes for PSAPs on the VESTA 9-1-1 platform. These tickets are reflected in the following chart:
2019 Action Plan

Trouble tickets will continue to be tracked and analyzed to identify common issues. As remaining PSAPs are upgraded to the VESTA 9-1-1 platform, it is anticipated that the number of software trouble tickets will continue to increase because MARC staff is responsible for system configuration and changes. How-to postings and other specialized training materials will be created on an as-needed basis.

Goal A — Objective 4:
Ensure the effectiveness of back-up plans and disaster-recovery procedures.

Project: Public Safety Program Continuity of Operations Plan (COOP)
Review and conduct an exercise of the program COOP annually and whenever significant programmatic changes occur.
2018 Progress

The Public Safety Program Continuity of Operations Plan was reviewed and updated in 2018, and a tabletop exercise is planned for 2019.

2019 Action Plan

The Public Safety COOP plan will be reviewed and exercised in 2019 and will also incorporate the MARC Continuity of Operations Plan. A notification system will be implemented for internal and PSAP notifications.

Project: PSAP Reroute and Backup Planning
Work with PSAPs and service providers to verify processes and procedures for PSAP reroutes. MARC staff will work with committees, PSAPs and service providers on PSAP backup planning. MARC staff reviews actions taken after every reroute.

2018 Progress

Staff met with agencies, service providers and committee members to ensure backup plans were in place and both accurate and feasible. A template is being developed to standardize backup planning across the region. Additionally, a host failure backup plan was developed in case an entire VESTA 9-1-1 host system fails.

2019 Action Plan

Staff will work with PSAPs and service providers in 2019 to test and validate that reroutes are effective and efficiently performed. Staff will work with committees, PSAPs and service providers to develop predetermined reroute plans, and will also work to determine the practicality of backup PSAPs.

Project: Agency-Specific COOP Planning
MARC staff will assist agencies in preparing their own COOP plans by providing a framework for them to use and share resources as needed.

2018 Progress

No requests for assistance were received from agencies in 2018.

2019 Action Plan

MARC staff will continue to offer assistance to agencies when requested.

Goal A — Objective 5:
Ensure accuracy of the regional 911 database.
Project: MSAG and GIS Improvements
Continue to work with local governments to improve the quality of the regional Master Street Addressing Guide (MSAG) and map data layers through its ongoing review process. MARC staff will continue to conduct meetings, one-on-one sessions or an annual review and outreach process with MSAG coordinators, addressing and mapping personnel and PSAP constituents to explain the importance of accurate map data.

2018 Progress

MARC staff distributed the annual database true-up request to over 35 wireline, VoIP and third party database providers in the region in September. These companies were asked to conduct a comparison of their customer database information in-house with information from the 911 database service provider. From that, over 27,000 corrections were made to customer records.

2018 Database Totals: (as of November 27, 2018)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSAGs changed</td>
<td>865</td>
</tr>
<tr>
<td>MSAGs reviewed</td>
<td>73,353</td>
</tr>
<tr>
<td>TNs affected by MSAG changes</td>
<td>2,729</td>
</tr>
<tr>
<td>TNs reviewed</td>
<td>7,442</td>
</tr>
<tr>
<td>TNs corrected</td>
<td>785</td>
</tr>
<tr>
<td>Error Reports</td>
<td>4,120</td>
</tr>
</tbody>
</table>

Staff have continued to work with local governments to receive new addressing and map updates as well as review existing data. With synchronized data, a larger percentage of wireline 911 calls will plot correctly on the regional map used by PSAPs. This project is also directly related to NG911, in which the MSAG will be absorbed into the map data. Staff provided reports to communities in all counties within the region. This information was obtained from a geocode project that is conducted quarterly, which includes the match rate of map data to customer records in the wireline 911 database, along with a listing of the addresses that did not match. Over 86 communities worked with MARC staff to clean up address data.

The annual error report contest was conducted using a full year’s worth of data. PSAPs were encouraged to submit every valid 911 and map error discovered. Twenty-nine agencies submitted valid error reports, and the winning PSAPs were awarded the traveling trophy. A perpetual plaque located in the 911 training center was also updated with the names of the agency winners. MARC staff visited every PSAP in the region, providing an opportunity to talk about GeoLynx Server and provide additional training, discuss current issues, give an update on NG911 and also deliver donuts to express appreciation.

Staff continued to assist in the coordination of the AED (Automatic External Defibrillation) database, which contains records of AED devices that have been registered as well as contacts for each community. As of November 27, 2018, over 260 entries were added and 134 were updated, deleted or verified in the database.
With Douglas County joining the regional 911 system, initial analysis was done to MSAG and map data layers. A kick-off meeting occurred with an anticipated cutover date in early 2019. Significant work is needed to import map data for GeoLynx Server.

2019 Action Plan

Staff will continue working with MARC GIS staff to receive and enhance regional map data, and work with local governments to receive new addressing and map updates and review existing data. Staff will also continue to review geocode reports and provide data to local governments in an attempt to ensure that accuracy continues to improve. These efforts support the region’s transition to NG911.

Project: Database Provider

Continue to work closely with the 911 database provider, conducting conference calls to address current projects and outstanding issues. MARC staff will also continue to request and analyze Very Large Query (VLQ) reports from the 911 database provider for comparison with the community, county and carrier totals previously provided. Cleanup work will continue based on trends and discrepancies found in the data that may not be identified using other methods. Provide progress reports to the Public Safety Communications Board.

2018 Progress

In 2018, MARC staff received quarterly VLQ database downloads from the wireline database provider. From this data, reports were run to study totals and trends and help identify areas in need of special attention. As of September 18, 2018, the regional database totals had increased slightly, by 0.14% from the previous year.

The Private Switch (PS911) project continued in 2018. It was determined that the listing of PS911 customers was outdated, so staff attempted to obtain a fresh copy from AT&T. This proved to be a challenge, but a list was developed by MARC staff and AT&T. Before the new school year started, staff attempted to contact school districts in the region that subscribe to PS911, requesting they review and update database records as appropriate.

2019 Action Plan

MARC staff will continue to monitor services provided by the regional wireline database provider and other carrier activity by participating in monthly conference calls. VLQ requests will continue on a quarterly basis, with a detailed analysis conducted and a summary provided. Staff will attempt to identify areas that need further attention and work with carriers to correct errors.

Project: Database Software

MARC staff will research technology and software solutions to improve automation of identifying database discrepancies or errors.
2018 Progress

MARC GIS and database staff continue to use add-on tools for existing ESRI software to conduct quality control of map data and compare different sources of data used for 911. These tools were used primarily by GIS staff at MARC for quarterly geocoding, topology quality control (QC), Kansas NG911 statewide data preparation and other data layer comparisons.

A ShareFile system was established which took the place of the old web portal used for sharing map data.

The GeoLynx Server installation was completed in 2018, which meant that the aerial imagery and address point map layers were used for the first time.

2019 Action Plan

The automated process for Johnson and Miami Counties was put on the hold in 2018 due to the GeoLynx Server project. Staff anticipates this project being completed in 2019. Also, staff will look at other counties or data layers in which this process may be more efficient. Staff will also seek out technology or software that is capable of automating processes.

**Project: Agency-Initiated Emergency Notification Systems**

Continue to work with local governments — by assisting with agreements and obtaining, analyzing and providing data — to establish or improve their emergency notification systems.

2018 Progress

In May, MARC staff worked with Cass County to complete agreements with the database service provider and obtain data for the county’s emergency notification system. Also, in September, data for Leavenworth County was obtained. Data was also received from several VoIP companies that were identified in those areas. Trends show a decline in the use of emergency notification systems due to cost, the availability of social networks and other systems.

2019 Action Plan

MARC staff will continue to work with local governments to provide assistance with agreements, data requests and data analysis as needed.

**Goal A — Objective 6:**

Ensure accuracy of the regional GIS data.

**Project: GIS Constituents**

MARC staff will continue to work with GIS coordinators, addressing personnel and PSAP constituents to provide and maintain accurate map data.
2018 Progress

2018 marked the ninth year that staff worked with the MARC GIS department to maintain regional GIS data. MARC GIS provides an annual report and meets regularly with MARC staff.

The following updates were made in 2018: (as of November 27, 2018)

<table>
<thead>
<tr>
<th>Tracking Packets</th>
<th>Street Segment Updates</th>
<th>Boundary Changes</th>
<th>ESN Changes</th>
<th>Address Point additions/changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>397</td>
<td>6,476</td>
<td>13</td>
<td>18</td>
<td>937,452</td>
</tr>
</tbody>
</table>

All other map data layers were updated throughout the year.

The group of Map Super Users was reestablished and met to gather feedback on the dispatch map, additional map data layers and collect information on a map quick reference guide for dispatchers.

MARC staff continues to be active in the Kansas NG911 project on the GIS Committee, and worked with state approved contracted vendors and local governments to clean up data.

The 2002 version of the regional mapping policy, which focuses on the use and protection of the map data, was updated and approved by the Public Safety Communications Board in September.

2019 Action Plan

Staff will continue to improve GeoLynx Server map views and will continue to identify strengths and opportunities for improvement of the map update process, such as automating processes and improving workflow efficiency.

Project: Regional Aerial Imagery

Research the opportunity to include aerial imagery in the regional 911 map.

2018 Progress

Regional aerial imagery was made available for dispatchers to use on the GeoLynx Server map. With the 2018 flyover project and Douglas County joining the region, a new data layer will be established using the same method. Unfortunately, this data is a composite of the most current data for each particular area, which requires piecing together views from different years. As a result, some areas are more outdated than others and may not have the same clarity or colors.

2019 Action Plan

The next aerial data collection will take place during the winter of 2019, meaning that the updated aerial imagery will be available from MARC GIS in late 2020. Once completed and approved, the newest aerial imagery for a particular area will be made available.
Project: Map Data Layers
MARC staff will incorporate existing map data to enhance the 911 map and provide better call location detail. MARC staff will also work with users to determine additional map data needs and identify the resources necessary to obtain them.

2018 Progress

In 2018, all map data layers were updated in the regional mapping software as part of the GeoLynx Server project. The initial address point map file was also completed for inclusion in the new map application. New map data layers were identified, obtained and are being reviewed for inclusion to the regional map data for dispatchers.

2019 Action Plan

MARC will continue to clean up the address point map data from local governments, which will be incorporated into a regional dataset to increase accuracy. Staff will also attempt to identify additional data layers that could be beneficial to 911.

Project: Trails Mapping for Public Safety
Continue to work with local constituents to identify and develop trail data to be incorporated into the regional 911 map. Continue to provide information to communities interested in installing emergency location signage.

2018 Progress

Staff continued to work with local governments to implement trails mapping and signage in their jurisdictions. During the year, 12 trail segments were added or updated, and 43 trail sign address points were added to the regional file and incorporated into the regional mapping software. Staff again assisted at Smithville Lake with the gathering of GPS data along trails and sign location addressing.

Not all responders have access to map data on mobile data terminals (MDTs), so MARC GIS staff developed a web map of trails and trail sign locations. This is currently being used by the Clay County Park Rangers at Smithville Lake and the Kansas City, MO Police Department.

Geographic data from area parks was also added to the map.

2019 Action Plan

MARC staff will continue to assist local governments with the trails mapping project.

Goal A — Objective 7: Continued implementation of Next Generation 911 (NG911) technologies.
**Project: Next Generation 911 Upgrade**

MARC staff will monitor developments in NG911 technologies, and will work with the Public Safety Communications Board and its subcommittees to develop regional NG911 standards that align with national standards. MARC staff meets with the service provider on a bi-weekly basis to review VESTA upgrade plans including budgeting, scheduling individual PSAP upgrades, as well as network and server upgrades. Meetings with PSAPs are scheduled prior to ordering equipment to verify connectivity, schedules and PSAP modifications. Monthly conference calls are held with Motorola to discuss specific issues.

Staff will work with an external consultant, Motorola and service providers to determine bandwidth and equipment requirements necessary to provide NG911 technologies. MARC staff will continue to participate in local, state and national organizations and activities to learn about NG911 technologies and services.

**2018 Progress**

The Fort Leavenworth Provost Marshal, Leavenworth County Sheriff’s Office, Leavenworth Police Department and Overland Park Police Department were upgraded to the VESTA 9-1-1 platform in 2018. There are three remaining PSAPs to be upgraded; one is awaiting a new circuit installation, and a planned PSAP remodel is scheduled for the other two. The remaining PSAPs to be upgraded are:

- American Medical Response
- Kansas City Kansas Fire Department
- Kansas City Kansas Police Department

The selective router project agreement was signed in December, 2017. The acquisition of the Airbus DS VESTA product line by Motorola delayed the planning and implementation of the selective routers until the third quarter of 2018.

**2019 Action Plan**

Staff will continue to work with vendors and service providers to address network bandwidth and determine the appropriate equipment necessary to provide NG911 technologies. Staff will also participate in local, state and national organizations and activities to learn about NG911 trends, technologies and services, and will continue to work with microwave owners, fiber providers and local governments to ensure all PSAPs have dual connection points into the regional 911 network. Selective router installation is anticipated to begin in the second quarter of 2019.

**Project: Texting to 911**

MARC staff will continue working with wireless providers to implement SMS to 911 in a phased approach, beginning with the largest PSAPs. A texting subcommittee will assist with the development of outreach materials and training tools for the PSAPs. MARC staff will continue to work with wireless providers and the 911 equipment manufacturer to ensure the region has the most efficient texting solution available.
2018 Progress

In 2018, RapidSOS was implemented in the MARC region, which providing enhanced location information.

Text to 911 information was shared during outreach presentations, in print form throughout the region and at the annual Missouri State Fair. Outreach materials are updated as needed to reflect policy and technology changes.

2019 Action Plan

In 2019, MARC staff will continue to work with PSAP personnel as needed to address concerns regarding text call handling. Text to 911 will be tested on a by-PSAP and by-carrier basis at the direction and discretion of MARC staff and committees. Training materials will continue to be updated as necessary.

Project: Connection to Kansas Statewide 911 Network
MARC staff will work with service providers, wireline carriers, wireless carriers, committees and Motorola to connect to the Kansas statewide 911 network. MARC staff will ensure this connection is built with redundancy, diversity and with high-level network security.

2018 Progress

No progress was made in 2018, as connecting to the state network is dependent on the purchase and installation of NG911 selective routers in the region.

2019 Action plan

Staff will communicate and collaborate with the state of Kansas as it continues to build out the statewide ESINet.

Project: Network Security
Work with the regional service provider, Motorola, NENA and APCO to ensure network security is compliant with industry standards. MARC staff will provide provisions and policies to prevent unauthorized access, misuse, modifications to the 911 network.

2018 Progress

Through a partnership with the Department of Homeland Security Office of Emergency Communications (OEC), the United States Navy and the Science Applications International Corporation (SAIC), MARC participated in a Cybersecurity Risk Assessment free of charge. This assessment examined both physical and cybersecurity, including but not limited to password policies, best practices and network entrance points. The scope included a sample of PSAPs, the MARC office, RAMBIS towers, VESTA 9-1-1 host sites and the wireless selective routers. Staff anticipate creating a cybersecurity policy based on the recommendations made in the assessment.
MARC technical staff completed the installation of hardware RJ-45 locks on all open ports found in workstations, servers, switches and routers. The Technician ID badge policy was enacted, which requests that all PSAPs verify the identity of both MARC and Commenco technicians when they arrive on site to provide service. Photos of all staff are available to PSAP personnel on the 911 Intranet.

2019 Action Plan

Staff will continue to follow industry cybersecurity recommendations and best practices. Antivirus software will be installed on all 911 workstations and servers during the year.

Goal B: Enhance collaboration and communications capabilities among all regional public safety and emergency services agencies.

Goal B — Objective 1:
Collaborate on delivering shared services to regional agencies when possible.

Project: Shared Systems and KC Scout Fiber
Work with KC SCOUT, the city of Kansas City, Missouri, Johnson County, Kansas, and the MARRS Management Council to implement and manage the fiber connection between Kansas City and Johnson County. The fiber connection will be provided for public safety purposes, such as redundancy and diversity of computer-aided dispatch and 911 needs.

2018 Progress

Two dark strands of fiber on the KC SCOUT network became available for public safety use. If approved by the MARRS Management Council at its January, 2019 meeting, MARC will connect multiple CWDM devices to break out the strands by color, and begin the process of connecting 911 equipment to the system.

2019 Action Plan

In the future, other agencies may connect to the fiber at their cost. Johnson County, Kansas, and Kansas City, Missouri can potentially share CAD systems with the approval of the MARRS Information Technology Subcommittee and Management Council, as well as KC SCOUT. MARC will install CWDM devices on the fiber if approved by the Management Council in January, 2019. Selective routers and 911 host sites will then be connected to the system.

Project: Collaboration with Other MARC Programs
Public Safety staff work with other program areas within MARC to meet regional goals. Included in this effort is:

- Administrative and technical staff support for the Kansas City Regional Mortuary Operational Response Group (KCRMORG)
- Area Maritime Security Committee
- Coordination of Regional Information Technology Managers Association (RITMA)
• Complex Coordinated Terrorist Attack Communications Committee (CCTA)
• Coordination of WebEOC Committee
• Local Emergency Planning Committee (LEPC)
• MARC Emergency Services Planning and Exercise Committee
  o Kansas Speedway Terrorist Exercise
• MARC Emergency Team
• MARC Employee Council
• MARC Information Technology Staff Support
• MARC Local Government Shared Services Projects:
  o Cybersecurity
  o Data Storage
  o Supplemental Support Services
• MARC Transportation Autonomous Vehicle Planning Committee
• Mid-America Regional Council Emergency Rescue Committee (MARCER)
• Regional Homeland Security Coordinating Council (RHSCC)
  o Law Enforcement Subcommittee

Goal B — Objective 2:
Support and coordinate regional interoperability.

Project: Metropolitan Area Regional Radio System (MARRS)
Provide support to the MARRS Management Council and all committees that report to the council. This will include scheduling meetings, monitoring and facilitating agreements between agencies and maintaining MARRS-related documents, such as standard operating procedures.

2018 Progress
MARRS Management Council and subcommittee meetings were held throughout the year. The process of reviewing and updating MOU documents and interagency agreements was started.

2019 Action Plan
Staff will continue to review and update MARRS governance documents and ensure that an archive containing all agreements is maintained at MARC. The City of Lee’s Summit and the City of Excelsior Springs are currently constructing P-25 radio systems, and anticipate joining MARRS in 2019.

Project: MARRS Maintenance Upgrades
System maintenance costs will be reviewed and a new five-year subscriber and port-cost model will be developed. Long-range needs for infrastructure upgrades and replacement will be identified.
2018 Progress

The MARRS sustainment project was completed by a consultant in 2017, and reviewed by the Management Council. System participants were provided the life-cycle costs for the system and reviewed options to fund long-term costs, but opted not to make any changes.

2019 Action Plan

MARC staff will continue to work with the MARRS Management Council and agencies to determine the best way to maintain system infrastructure in subsequent years. Staff will also work with agencies that have shown interest in regional options.

**Project: Connection of MARRS to State Systems**

The Regional Interoperability Communications Committee and the MARRS Technical Committee will work with state agencies to ensure interoperable communications and regional talkgroups are in place and operating. Testing and training will be conducted.

2018 Progress

The MARRS system was connected to the Missouri Statewide Interoperability Network (MoSWIN) in 2016. Users on both systems were able to communicate successfully in 2017 during multiple incidents. No changes were made in 2018.

2019 Action Plan

There are no plans to connect to the Kansas state radio network in the near future. The MARRS system will continue to interoperate with the MoSWIN system as needed in 2019.

Goal B — Objective 3:
Maintain RAMBIS to support communications among public safety professionals.

**Project: Support Web Emergency Operations Center (WebEOC) Activities**

Provide administrative support for the monthly WebEOC subcommittee meetings and serve as a liaison between end users and vendors to address the software functionality as it relates to the needs of the region.

2018 Progress

In May, Intermedix transitioned to an independent company called Juvare. With this change, much of the WebEOC support team has changed and local administrators have been helping the new Juvare staff get up to speed on regional needs. In August, a webinar was offered for local WebEOC administrators.

Staff provided support to the WebEOC subcommittee co-chairs and members during monthly meetings and as needed throughout the year.
2019 Action Plan

Staff will continue to provide support to the WebEOC subcommittee co-chairs and members during monthly meetings and as needed throughout the year.

Project: RAMBIS Maintenance and Upgrades
Continue to monitor the RAMBIS network and other connected systems to ensure optimal performance. This will be accomplished by system monitoring, routine maintenance and upgrading components as needed.

2018 Progress

Annual RAMBIS maintenance activity for antennas, HVAC units, generators and UPS units was performed throughout the year. Before activities commence, PSAPs receive a brief summary of the maintenance work to be completed. These activities included replacing batteries in UPS units, replacing failed equipment and repairing HVAC units. Staff also worked with site owners to address issues concerning facility upkeep, as well as with service providers and vendors to upgrade alarm monitoring capabilities in each of the RAMBIS sites. Monitoring capability for UPS units was added to WhatsUp Gold.

2019 Action Plan

MARC staff will continue to develop and implement RAMBIS maintenance procedures for all microwave network components and interconnection facilities. Staff will work to plan and implement a microwave overlay, one of the three capital projects identified by the Public Safety Communications Board. This overlay will add significant bandwidth to the RAMBIS microwave network.

Additionally, staff will review and enhance procedures for monitoring, repairing and upgrading network elements of the radio equipment, microwave equipment, DC power equipment and antennas. Staff will continue to work with a consultant to update the existing map indicating all interconnections and their respective capacities used in the regional microwave system.

Due to the cost of upgrading the RAMBIS radio system to Ethernet and the widespread use of the MARRS system, the UHF and VHF channels were decommissioned. Retirement of the 800 MHz channels is still under review by a subcommittee of the Public Safety Communications Board.

Project: Monitoring and Participating in FirstNet Activities
Coordinate with members of the Regional Interoperability Communications (RIC) Committee and the state points of contact to remain current on FirstNet activities. This will include gathering information as requested and coordinating outreach efforts.

2018 Progress

MARC staff facilitated several meetings with the local FirstNet team in an effort to develop a regional pricing structure for agencies in the MARC region. A survey was created and
distributed to over 100 local agencies in an effort to gauge the number of devices that could potentially be added to the FirstNet system. Approximately one-third of the agencies surveyed responded; based on the results, the current state pricing offered by FirstNet would apply. Therefore, it was the decision of the MARC FirstNet Working Group to no longer pursue a regional FirstNet implementation and recommend each agency pursue this effort on an individual basis.

2019 Action Plan

With both Missouri and Kansas joining FirstNet, the focus will be on ensuring interoperability between both states and a coordinated implementation plan with emphasis on little to no service impact.

Goal B — Objective 4: Ensure that the TICP continues to be exercised, evaluated and modified as needed.

Project: TICP Review
MARC staff, along with the RIC Committee, will annually review the Tactical Interoperable Communications Plan (TICP). The Communications Unit (COMU) subcommittee has identified training objectives, which include ensuring the TICP is a component in yearly training exercises. MARC staff will present revision recommendations to the Public Safety Communications Board.

2018 Progress
Throughout 2018, MARC staff made necessary content updates to the TICP Plan which were limited to area personnel and position changes. Additionally, the TICP Plan was exercised during a regional Communications Exercise (COMMEX) in October.

2019 Action Plan
The TICP will continued to be updated and exercised as needed to support the region.

Goal C: Enhance communications, networking and information exchange among public safety agencies and strengthen relationships with public service agencies and professional organizations.

Goal C — Objective 1: Enhance communications with and among agencies.

Project: Information Sharing
MARC will use various existing resources, such as the public safety intranet, the PSAP managers’ forum, the MARC website and the Metro Communicator newsletter to provide up-to-date public safety communications information. MARC will ensure information is distributed using the most appropriate method based on the sensitivity and target audience of the correspondence.
2018 Progress

Two issues of the Metro Communicator newsletter were sent electronically to all public safety communications contacts and committees in 2018. Links to current and past issues are available on the MARC public safety website and the 911 Intranet. The yearly training calendar, which includes class schedules and other information, was made available online. Staff also increased the level of regional situational awareness of the 911 network.

2019 Action Plan

MARC staff will continue to encourage local agencies to share stories with the rest of the region through the Metro Communicator. Staff will also continue to provide valuable information to agencies through the 911 Intranet site. A notification system will be implemented in 2019 to improve communications efforts with PSAPs.

Project: Assist Agencies in Implementing Operational Changes
Assist PSAPs with operational requests that will allow them to work in an effective and efficient manner.

2018 Progress

Staff assisted the Avondale Fire Department, the North Kansas City Fire Department, Raytown EMS and the West Peculiar Fire Department with changes to their PSAPs, and the Wood Heights Police Department was decommissioned. These changes required working with the database provider, GIS department and sending PSAP notifications.

911 technical staff assisted in the renovation or move of the following PSAPs:

- Independence Police Department
- Johnson County Emergency Communications Center
- Johnson County Sheriff’s Office
- Kansas City Kansas Police and Fire Departments
- Miami County Sheriff’s Office
- Overland Park Police Department

Public Safety staff facilitated discussions and began researching budget, technical and GIS requirements with the following counties interested in joining the regional 911 system:

- Atchison County, Ks.
- Douglas County, Ks.
- Franklin County, Ks.

Project RETAINS was used by Lee’s Summit Fire Department and Overland Park Police Department to help determine appropriate staffing level needs.
A request was received by a PSAP for shift work information, so a survey was conducted to determine how agencies are handling shifts. The results were provided to those PSAPs that requested the information.

Meetings between United Way 211 and public safety staff were conducted in an attempt to develop a stronger understanding and relationship between the two groups.

2019 Action Plan
MARC staff will continue to assist regional PSAPs with operational changes as needed.

It is anticipated that United Way 211 will establish training for telecommunicators in both 911 and 211. Map data may also be provided to help build on their robust dataset.

Goal C — Objective 2:
Continue to involve and expand stakeholder participation in various committees.

Project: PSAP Manager Orientation
Continue to provide orientation and a PSAP managers’ handbook for new public safety communications personnel at the management level on an as-needed basis. The orientation will provide an overview of MARC’s services and role in regional public safety communications.

2018 Progress
Two orientation sessions were held for new PSAP managers in 2018.

2019 Action Plan
Orientation sessions will be held as needed throughout the year.

Goal C — Objective 3:
Participate in national associations to support professional development and technical proficiency.

Project: Public Safety Association Participation
MARC staff will continue to take an active role in public safety communications committees, including training, database, technical, public outreach, education and other industry-related committees.

2018 Progress
MARC staff members continued to play an active role with state associations by participating in committee work and obtaining board memberships. Many staff members hold memberships with APCO and/or NENA, and MARC 911 is a member of the Missouri 911 Director’s Association. In addition, the Training Coordinator is a member of the Missouri Governor’s Advisory Council on EMS and the Kansas Training Standards Subcommittee. The Peer Support Coordinator has memberships with the Crisis Intervention Team (CIT) International and the International Critical Incident Stress Foundation (ICISF). The Database/GIS Manager is also a member of Mid-
America GIS Consortium (MAGIC). Three staff members continue to provide active support to the Kansas 911 Coordinating Council.

In 2018, the Peer Support Coordinator joined two workgroups: 911 Suicide Prevention and Emergency Communications Center Crisis Response. The Database/GIS Manager completed work as a member of the Location Validation Consistency workgroup.

2019 Action Plan

MARC staff will continue to take an active role with associations, committees and groups related to public safety communications. As the Missouri 911 Service Board works on implementation of new 911 statutes, staff will assist the Board as needed. Staff will also look for other opportunities to represent the region by participating in regional, state and national meetings and conferences.

Project: Regional Training Standards

2018 Progress

Legislation for Kansas Training Standards did not pass during the last legislative session, but the 911 Coordinating Council put together a document identifying training standards. The document primarily speaks to competencies needing development by each agency. Before any other legislation on training standards for 911 is introduced, discussion on strategy to find agreement on licensing and standards versus requirements is needed.

2019 Action Plan

Staff will continue to participate on the Kansas 911 Coordinating Council to work towards a comprehensive set of standards and best practices acceptable to all PSAPs in the state.

Project: Public Safety Staff Professional Development

Ongoing education is a priority to developing MARC staff to keep current on the changing environment of 911.

2018 Progress

Several staff members attended either the APCO or NENA national conferences in 2018. The Peer Support Coordinator attended a Grant Management workshop and the Crisis Intervention Team course, as well as receiving her Master’s degree in Public Administration from the University of Kansas. The Technical Services Manager completed the GTI Supervision Certificate program, and the Administrative Manager began the program. The Database/GIS Manager attended the MAGIC conference and completed the APCO Registered Public Safety Leadership (RPL) program.

2019 Action Plan

MARC staff will continue to attend relevant conferences and training.
Goal C — Objective 4:
Ensure program excellence through quality assurance.

Project: Customer Satisfaction
MARC staff will use various quality assurance methods to measure program quality and satisfaction. Public safety staff will distribute surveys through email and online, as well as offer feedback forms at the conclusion of trainings and outreach events. MARC staff will review and consider the results when preparing the following year’s action plans.

2018 Progress
A customer satisfaction survey will be made available online and via email in November to allow staff to report findings at the final Public Safety Communications Users Committee and Communications Board meetings of the year.

2019 Action Plan
Customer satisfaction is an ongoing goal of the program, and the survey is a tool used to measure both performance and the needs of the region. Staff will continue to distribute the survey to PSAP management, which will be enhanced to include all appropriate program areas. Staff will research new ways to obtain feedback from PSAP customers in 2019.

Goal D: Ensure the financial stability of the regional 911 and public safety communications systems to sustain their long-term viability as models of excellence.

Goal D — Objective 1:
Ensure that the costs of 911 and public safety interoperability systems are shared equitably among participating jurisdictions.

Project: Financial Planning
Implement the financial planning policies enacted by the Public Safety Communications Board as part of the 911 system budget process. A new MARRS cost model and long-range financial infrastructure sustainment plan will be developed.

2018 Progress
The Public Safety Communications Board approved an increased contribution to the capital projects fund in December, 2016, to pay for three significant upgrades over the next several years. The first of these projects, the migration to the GeoLynx Server mapping platform, was completed in 2018. Planning for the project to replace the 911 selective routers was started in 2018, and research on the proposed microwave overlay continues. Projects are being completed on a pay-as-you-go basis, and are therefore dependent on cash on hand.
2019 Action Plan

Staff will continue to work with the Public Safety Communications Board to ensure that appropriate financial planning policies are in place to maintain the integrity of both the 911 and regional radio systems. Selective router installation will begin in 2019.

Project: System Inventory
Continue to keep a detailed inventory of the region’s growing physical and digital assets. An annual true-up will be conducted to ensure that all assets are accurately accounted for.

2018 Progress

System inventory is updated as equipment is installed or decommissioned. With three PSAPs still on the legacy equipment, the annual true-up will be deferred to 2019.

2019 Action Plan

Once all PSAPs are upgraded to the VESTA 9-1-1 platform, a full system inventory will be conducted.

Goal D — Objective 2:
Seek additional funding to support regional public safety communications systems.

Project: Grant Opportunities
Research and seek out grant funding on an annual basis and as new grant opportunities become available.

The MARC Public Safety program will continue to seek funding to strengthen survivability and disaster recovery for the regional 911 system and to support the national priorities established by the U.S. Department of Homeland Security.

As part of the Complex Coordinated Terrorist Attack (CCTA) grant, funding was received to review the effectiveness of public safety communications during multiple simultaneous critical events. Included are communications between PSAPs, emergency management organizations via WebEOC and eICS, which is a hospital incident command software that indicates bed availability.

In 2018, the National Telecommunications and Information Administration (NTIA) and the National Highway Traffic Safety Administration (NHTSA) introduced a revised version of the 911 Grant Program specific to the improvement of 911 services, E-911 services and NG911 services and applications. The purpose of the program is to provide federal funding to support the transition of PSAPs and their interconnecting 911 network and core services, to facilitate migration to an IP-enabled emergency network, and adoption and operation of NG911 services and applications.
Applications may only be submitted by states, rather than cities or regions, so MARC staff have begun discussions with representatives in both Kansas and Missouri to coordinate requests. Current plans are to use any funds awarded to help pay for the microwave overlay capital project, which will increase the bandwidth capacity of the regional microwave network in preparation for NG911.

**Project: Missouri and Kansas 911 Legislation**
Monitor legislation at the state and federal level that could have an impact on 911 and communications in the region. When necessary, MARC staff will represent the region by presenting testimony or providing information to elected officials.

**2018 Progress**

In Missouri, 911 legislation passed after many years of effort. The new law will give counties the opportunity to put a 911 tax on the ballot of up to $1.00 per month for all devices capable of calling 911. Prepaid fees will automatically begin being collected on January 1, 2019, a portion of which will be returned to counties. Remaining funds will be used to build a grant fund for the 16 Missouri counties that do not currently have 911.

**2019 Action Plan**

MARC staff will continue to work with regional stakeholders in Missouri on the implementation of new 911 statutes and proposed revisions.

An updated version of the Kansas 911 Act will be sent to state legislature in 2019 for approval. This legislation would raise the surcharge on devices capable of contacting 911 to $0.90 per month, as well as other minor changes.

**Goal D — Objective 3:**
Seek innovative cost-saving initiatives while maintaining or improving the quality of regional systems.

**Project: 911 Migration to ESINet**
Work with service providers, wireline carriers, wireless carriers, committees and Motorola to continue migrating 911 traffic from the present network to an ESINet platform. MARC staff will ensure the ESINet platform is built with redundancy, diversity and has a high level of network security.

**2018 Progress**

Staff worked with local government representatives and service providers to identify and implement new network interconnections, increase network capacity and open up new facility access. New tower agreements were completed, which were necessary for MARC to interconnect with other networks, other service providers and provide network links to regional PSAPs.
2019 Action Plan

MARC staff and the regional service provider will continue to install new microwave links and upgrade PSAPs. Staff and local government representatives will work closely to identify the best backbone options. These collaboration activities help determine the best network options available.

Project: Public Safety Vendor Review

MARC staff will continue to review contracts, services and financial reports provided by existing vendors, and ensure the region is receiving the most competitive pricing for vendor services.

2018 Progress

Staff reviewed vendor pricing and services on a regular basis. Competitive bids were received from vendors for multiple projects. A billing audit with AT&T was initiated; staff are awaiting further information from the vendor.

2019 Action Plan

Staff will continue to ensure vendors are providing competitive pricing for services.

Goal E: Provide high-quality training and education programs for public safety professionals.

Goal E — Objective 1:
Explore and implement alternative training delivery methods.

Project: Training Delivery Methods

MARC staff will research new and innovative ways to deliver training to the region’s public safety communications professionals. Pilot classes will help measure the effectiveness of alternative training delivery methods. Alternate methods planned for consideration and further study include taking certain courses on the road, developing online courses and use of alternate facilities to increase capacity.

2018 Progress

An increasing number of classes were conducted offsite in 2018 and more are scheduled throughout the end of the year. In the first three quarters of 2018, eight classes totaling sixteen days were conducted offsite, including two Basic Telecommunicator courses.

The 911 Technical Services Manager continued to produce a number of 911 Intranet training sessions in video format to help train all levels of 911 personnel on new and upgraded systems such as RapidSOS.
2019 Action Plan

Staff will assist in identifying topics for online PSAP 911 Intranet courses via video, continue to develop and produce a minimum of four new courses a year and solicit feedback from students, supervisors, and the Public Safety Communications Users Committee for subject inclusion and development. Staff will also work with MARC’s Public Affairs department on a new Internet software system to develop online courses, available on demand, for authorized 911 personnel in the region.

Goal E — Objective 2:
Ensure that the regional public safety training program is kept current, with contemporary training topics that appeal to various constituencies, and provides participants the opportunity to meet all applicable training requirements.

Project: Training Program Development
The MARC Training Coordinator will attend appropriate local, state and national conferences to learn about new and emerging topics in public safety and monitor industry publications for material that can be used to update the program’s curriculum. The public safety training program will strengthen its instructor pool by seeking knowledgeable and effective teaching professionals. The public safety training coordinator will conduct an annual instructor workshop to provide new teaching techniques and continue to develop instructors’ teaching abilities.

2018 Progress

Instructor workshops were held regionally and nationally. Five national conferences were attended, and subjects, along with speakers, were sought for Professional Development presentations at MARC. Four new courses were introduced in 2018 including an Infection Control in the PSAP course and the Regional Active Shooter Plan framework for Telecommunicators. Four additional courses were modified to meet the needs of regional PSAPs requiring offsite training.

2019 Action Plan

Staff will attend national and state APCO conferences for new training opportunities and topics. Additionally, contracts will be developed with speakers for the Professional Development Series and other special classes to enhance and further develop the training program. An annual instructor workshop will be hosted. More offsite courses are scheduled to meet the needs of our region.

Project: Training Needs Assessment
MARC staff will conduct a training needs assessment to identify any gaps within the public safety training program. The public safety training coordinator will develop recommendations, based on the results of the assessment, to be presented to the Public Safety Communications Board.
2018 Progress

Staff continued to teach courses offsite to meet the needs of the region, as well as outside the region for members of the Training Consortium. GeoLynx Server was installed and implemented. The software was similar enough to the previous version that classes were smoothly conducted in the MARC 911 Computer Lab and classes were added to the schedule to assist in getting more people trained. Online video training was also produced.

2019 Action Plan

Staff will explore and determine the need for additional GeoLynx Server training onsite or in the PSAP, and continue to solicit input throughout the year from PSAP Managers and Supervisors for topics they would like to see presented. Solicitation of input from the technology sector, guest instructors, and subject matter experts will continue to help the region address changes in the profession and communities before they become issues.

Project: Regional Interoperable Training

Public Safety staff found and forecast resources to fund interoperable communications training that no longer required funding assistance from the Regional Homeland Security Coordinating Committee’s Training and Exercise Subcommittee to continue to fund and provide interoperable communications training to public safety personnel. Communications Unit Leader (COML) courses will be offered annually. MARC’s public safety training program will host applicable interoperable communications courses as they become available.

2018 Progress

In 2018, the following classes were provided:

- (1) COML course
- (4) Interoperability courses
- (4) MARRS courses
- (3) TICP Courses

Each class was updated and modified to assist in providing the latest information to attendees due to the dynamic nature of regional systems.

Communications exercises and task book completion opportunities were conducted two times during the year at the Kansas Speedway in coordination with other regional training events.

2019 Action Plan

Staff will work with the state training coordinator and the Emergency Services training coordinator to try to obtain federal and state approval for a COML course in 2019. Staff will also continue to update and conduct classes in other areas of interoperability to enhance the understanding of the MARC regional system as more are able to build out and participate in the MARRS system. A COMMEX will be integrated into interagency exercises to allow for task
book completion and hands-on training for COML personnel. The Kansas Speedway and the U.S. Coast Guard are two partner agencies staff will work with to help train and validate Communications Unit Leaders (COML), Communications Technicians (COMT) and other critical components of the communications network.

**Project: Peer Support Program**

The goal of the peer support program is to promote mental wellbeing through immediate peer support, stress reduction training and resiliency tools to prevent burn out and fatigue. This creates a healthy workplace and safer community.

**2018 Progress**

The Regional Peer Support Policy was approved by the Public Safety Communications Board in April, 2018. The Peer Support Advisory Committee grew to 28 members in August and has deployed 30 times to critical incidents such as deaths, suicides and officer involved shootings inside and outside of the MARC Region. Regional 911 Telecommunicators participated in two national-level research projects. In July, twelve Commanders piloted a 40-hour peer support training customized to their unique stressors. The group is modeling the successful 911 roving team by forming the first roving command level team consisting of all first responder disciplines (Police, Fire and EMS) and has deployed 10 times. The team is housed under CCTA and the RHSCC, and was featured in the online edition of *EMS World*, a national magazine, in November, 2018 and the printed edition in December. The Commanders were also featured in the Missouri EMS Connection magazine in December and is scheduled to appear in the Kansas Association of Chiefs of Police (KACP) printed magazine in January.

The Public Safety and Aging and Adult Services departments at MARC met and agreed to partner by launching a pilot retiree roving peer support team as a crossover between the two departments.

**2019 Action Plan**

Per the regional peer support policy, staff will continue to ensure annual training hours are being met for each team member to maintain roving team eligibility. The Advisory Committee will launch seven new event chairs, with subcommittees, to help grow the program. Staff will continue engaging in national-level research projects as they become available; a third research project is anticipated in March, 2019. The 911 Roving Team will be featured in NENA’s *The Call*, a national magazine, in January, 2019, to bring awareness to our successful model.

Staff will continue working with the MARC Aging department to form a new retiree peer support team which may cross over to include Public Safety retirees.

**Goal F: Educate the public and elected officials about regional public safety communications services and the resources needed to provide them.**

**Goal F — Objective 1:**
Educate and reach out to the public about the proper use of 911.
**Project: Volunteer Base**
MARC will conduct volunteer orientations for current and prospective public outreach and education volunteers on an as-needed basis. These orientation sessions will ensure a consistent message is delivered throughout the region and will provide volunteers with the tools, information and confidence to make presentations in schools and at outreach events.

**2018 Progress**
MARC staff provided materials and helped coordinate multiple outreach events that took place in 2018, including numerous community events, the annual Telecommunicator Appreciation Celebration (TAC) and 911 Day at the Ballpark. Additionally, students from area school districts were educated in the proper use of 911. One child was recognized as a 911 Hero for using 911 to get help for a family member who needed emergency medical attention.

**2019 Action Plan**
Staff will continue to partner with agency personnel to deliver 911 education to schools around the region, and participate in regional events to provide 911 information to the public.

**Project: Education and Outreach Materials**
MARC staff will continue to update the Important Tips about Calling 911, and Text-to-911 brochures as well as the 911 legislation, interoperability and mapping fact sheets. Other education and outreach resources will be updated as needed.

**2018 Progress**
911 materials were reviewed and updated as needed throughout the year.

**2019 Action Plan**
Outreach materials will continue to be available for all regional agencies to reserve and use in their public education and outreach efforts.

**Project: Wounded Warrior Project**
MARC staff will work with the region’s local governments to identify, develop and maintain an ongoing list of employment opportunities. These job listings will be shared with the regional Wounded Warrior Project contact to be used in their employment acclimation efforts for returning veterans.

**2018 Progress**
MARC staff continued to maintain a weekly listing of available employment opportunities based on data obtained with the cooperation of local governments. Over 4,000 employment opportunities have been listed for the Warriors to Work and Wounded Warrior Project.
MARC staff also partnered with the KC Degrees program to provide job opportunities weekly.

2019 Action Plan

Staff will continue to work with local governments and the Wounded Warrior program to coordinate the available employment opportunities. These job postings will be organized, recorded and shared with the Wounded Warrior and Warriors to Work Projects. Tracking of the submissions on a year-to-date fashion will be digitally stored at MARC.

Goal F — Objective 2:
Educate elected officials about policy and financial issues related to public safety communications.

Project: Informed Regional Leadership
MARC staff will respond promptly to requests from local officials to provide updates on projects and activities within the program. MARC staff will also provide timely information for the Metro Communicator, ReMARC and other news outlets.

2018 Action Plan

MARC staff met with officials in each county to discuss emerging regional public safety communications issues, such as funding options and emerging technologies, as well as ongoing legislative initiatives.

2019 Action Plan

Staff will continue to work with local leaders and regional agencies to ensure they are fully informed of regional projects and plans.
Glossary

ALI (Automatic Location Identification): A record automatically displayed at an answering position indicating the location corresponding to the caller’s telephone number. The ALI record may also indicate the ESN, the X, Y coordinates and other pertinent information associated with the caller’s location.

ANI (Automatic Number Identification): The telephone number of the 911 caller.

CAD (Computer-Aided Dispatch): A computer-based system that aids PSAP personnel by automating selected dispatching and record-keeping activities. CAD systems are connected to the 911 equipment that allows ANI and ALI to “spill” into the CAD.

CENTRAL OFFICE (CO) ISOLATION: A Central Office isolation occurs when the Local Exchange Carrier’s switch is unable to send or receive landline calls from other switches. The only calls the isolated switch will handle are within its territory. The isolated switch will not send 911 calls to the Selective router nor will it receive 911 calls from the selective router.

COMMEX (Communications Unit Leader Exercise): An exercise which follows the Communications Unit Leader (COML) training course. Its focus is on helping COML trainees demonstrate skills and complete requirements in the Position Task Book (PTB).

COMU (Communications Unit): A regional subcommittee formed under the Regional Interoperable communications Committee in charge of the vetting process for COML/COMT applicants as well as planning and coordinating communications objectives and training.

COOP (Continuity of Operations Plan): MARC public safety program’s plan for continuing to provide essential functions for the regional 911 and interoperability systems should the MARC facilities be destroyed or rendered unusable in an emergency or disaster.

ESN (Emergency Service Number): A three- to five-digit number that tells the switch how to route 911 calls. For wireline calls, unique ESNs are assigned to each community’s police, fire and EMS responders. Wireless and VoIP ESNs are assigned by PSAP.

GEOCODE: Geocode is the term MARC staff uses to describe the comparison of two databases to determine discrepancies. In most cases, this is done using the street centerline map and VLQ reports, but other database files can be used.

GIS (Geographic Information Systems): A computer technology that combines geographic data and other types of information to generate visual maps and reports.

MARC (Mid-America Regional Council): The association of local governments and metropolitan planning organization for the bi-state Kansas City region. MARC serves as facilitator of the regional 911 system.

MARRS (Metropolitan Area Regional Radio System): A consortium of 700 MHz and 800 MHz trunked radio systems in the MARC region that comply with APCO Project 25 standards and with Inter Sub-system Switch Interoperability (ISSI) standards that allow authorized radio users to achieve interoperability and have voice and data communications through each of the consortium radio systems.

MSAG (Master Street Address Guide): Tabular listing of all street names with the low and high address ranges that fall within a specified community and a unique ESN. Used for 911 database verification.
pANI (Pseudo Automatic Number Identification): A non-dialable routing number used to support routing of wireless 911 calls. A pANI identifies the particular cell sector from which a call originates.

PSAP (Public Safety Answering Point): A facility equipped and staffed to receive 911 calls. A primary PSAP receives an initial 911 call. Secondary PSAPs do not receive initial 911 calls, but will have 911 calls transferred to them.

RAMBIS (Regional Area Multi-Band Integrated System): A multi-band system consisting of VHF/UHF/800MHz cross-banded repeaters. RAMBIS is a simulcast radio system that uses a microwave network as a means of connecting 11 tower sites in the MARC region. The RAMBIS system is based on existing UHF and 800 MHz mutual aid/NPSPAC channels.

RIC (Regional Interoperability Communications) Committee: A sub-committee of the Public Safety Communications Board. Its responsibilities include recommending the regional communications interoperability plan and recommending enhancements for regional interoperability capabilities.

SOC (Systems Operation Center): MARC’s “one-stop shop” for all regional PSAP technical requests and issues. MARC Communications Technicians staff the SOC Monday through Friday from 8:00 am to 5:00 pm. Outside of these hours, calls are answered by MARC’s 911 service provider. All 911 technical issues experienced at regional PSAPs should be directed to the SOC hotline at 816-421-2911. The number is answered 24 hours a day, seven days per week.

T-1(Transmission System 1): Commercial phone circuits used to transport non-wireline 911 calls and data throughout the region.

TICP (Tactical Interoperable Communications Plan): A plan that documents regional interoperable communications resources, identifies who controls each resource and outlines the rules of use or operational procedures that exist for the activation or deactivation of each resource. Every agency has access to the TICP.

TICFOG: Tactical Interoperable Communications Field Operations Guide

TN: Telephone number

VLQ (Very Large Query): A report provided by AT&T that contains the 911 wireline database records for the entire region.

VoIP (Voice over Internet Protocol): Technology that allows voice calls using an Internet connection instead of traditional phone lines.