

Criterion 9B: Communications Systems

The public and the agency have an adequate, effective, and efficient emergency communications system. The system is reliable and able to meet the demands of major operations, including command and control within fire/rescue services during emergency operations, and meets the needs of other public safety agencies having the need for distribution of information.

Summary:

The emergency communications system in the county is managed, maintained, and operated by the Ada County Sherriff's Office 911 Emergency Dispatch's (Dispatch). The communications center boasts a robust infrastructure, featuring cutting-edge equipment and a cadre of highly-trained professional communicators. The county's communications systems are highly reliable with many repeaters throughout the county. To comply with fire code regulations, emergency responder radio coverage is ensured within all buildings. Furthermore, backup radio and phone systems are on standby, ready to take over in case of an unforeseen catastrophic failure. Routine maintenance and testing of these systems are diligently carried out, either by the in-house IT and Facilities Maintenance teams or by trusted third-party vendors.

Contingency measures are in place, including call-back procedures, should the need for additional personnel arise due to minimal staffing levels or significant incidents. Staffing has presented challenges in the past due to shortages, often necessitating the use of overtime to meet minimum staffing requirements. Alarm handling times have fallen short of established standards are department goals.

Performance Indicators:

CC 9B.1 A system is in place to ensure communications with portable, mobile, and fixed communications systems in the field. When an area is identified as not being capable of adequate emergency scene communications, such as inside buildings or below grade level, an operational plan is written.

Description

The Ada County Sherriff's Office 911 Emergency Dispatch's (Dispatch) radio system is a state-of-the-art Motorola-based 700 MHz Project 25 Digital Trunked Radio Network. Officially, it is known as the Southwestern Idaho Wireless Integrated Network (SWIWIN). In Ada County it consists of 8 Radio Sites (Towers) and two Dispatch Centers that are connected to a "Master Site" located at Idaho State Police Headquarters in Meridian. Dispatch uses MCC 7500 Radio Consoles to talk to the First Responders in the field, which connected to the Master Site.

Dispatch provides emergency and non-emergency communications to all emergency responders in Ada County including Meridian Fire and Police, Boise Fire and Police, Kuna Fire, Ada County Paramedics, Star Fire, Eagle Fire, Ada County Sherriff, and others. Dispatch owns multiple towers and channels that support the valley's joint approach to fire and EMS, and automatic aid agreements. Meridian Fire Department engines and apparatus are equipped with Motorola APX 6500 and 8500 mobile radio terminals and all riding positions have an APX 8000 portable radio for VHF 700 MHz communications. All apparatus are equipped with Cradle Point routers to provide data through mobile data terminals (MDTs) through a secure cellular network. Meridian Fire Department inspectors test emergency radio communications during routine fire inspections, and occupancies with dead zones are required to add repeaters in accordance with the adopted 2018 International Building Code adopted by the City of Meridian.

Appraisal

The radio and communications system have effectively met the needs of the fire department. Dispatch's radios have been replaced at a minimum of every 10 years or sooner if needed, and computers have been replaced every 5 years or sooner, ensuring that fixed equipment is always up to date. The department has utilized cooperative purchasing agreements with neighboring departments to ensure that the department can acquire the best communications equipment that is operable with all other agencies.

Plan

Dispatch will continue to update its physical equipment according to replacement schedules. The department will coordinate with dispatch for all communications needs. The department will continue to contract with Ada County Dispatch and review its contract annually to ensure that the services provided continue to meet the needs of the department.

References

- Ada County 911 Training Manual, pg. 55
- ADA Fire Master Fleet map
- Multi-agency Fire Radio Purchase List

9B.2 The emergency communications system is capable of receiving automatic and/or manual early warning and other emergency reporting signals.

Description

The Ada County Sherriff's Office 911 Emergency Dispatch's (Dispatch) can receive automatic and manual emergency warnings from weather, civil defense, and local and state jurisdictions. Dispatch receives direct communications from the National Weather Service and secure teletypes through the National Crime Information Center. Dispatch also monitors an airport radio channel for all air traffic. Radio operability with Idaho State Police ensures that state alerts are received immediately. All engines also carry a cell-phone for company officers to use when away from the engine or the fire station. Dispatch is also able to send emergency alerts to known trusted devices. All field portable radios are equipped with an EMER or emergency button that allows a first responder to signal to dispatch if they are in distress. Dispatch receives automatic alerts when an EMER signal is activated.

Appraisal

The current system has been effective at receiving and transmitting emergency reporting signals, as well as relaying early warnings and emergency signals to crews. The emergency alert systems have been tested on a monthly basis.

Plan

Dispatch's system will be updated as required. No plans are currently in place to change the existing systems for receiving and transmitting emergency alerts.

References

- AMBER Alert example
- NOAA Weather alert example
- Ada County 9-1-1 Fire and EMS training Manual, pg. 47

9B.3 The agency's communications center(s) is/are adequately equipped and designed (e.g., security, telephones, radios, equipment status, alarm devices, computers, address files, dispatching circuits, playback devices, recording systems, printers, consoles, desks, chairs, lighting, and map displays).

Description

The Ada County Sherriff's Office 911 Emergency Dispatch's (Dispatch) operates a state-of-the-art facility with up to date equipment, software, hardware, and security. The 25,000 sq. ft. building on three acres is located in the city of Meridian. The building is energy-conscious and below ASHRAE 90.1, while still meeting the needs of the emergency dispatch staff. The building contains an in-row cooling system for the data center using a modulating chiller unit along with a modulating in-row fan system. The electrical system used for dispatch and data center is redundant with a hot-swappable component so the system will not have to shut down for servicing or replacement of parts. The dispatch floor contains multiple call-taking and dispatcher stations, as well as large wall monitors displaying live traffic on area freeways and busy intersections. The facility was also equipped with new computers and radios, including technology that is able to receive 911 text alerts. A back-up communications center is also equipped and located at the Ada County Sherriff's Office Barrister station. All equipment at the backup center is identical to the front-line equipment at the main dispatch center and is tested on a monthly basis.

Appraisal

The current dispatch facility was opened in 2017 and has effectively met the needs of the dispatching personnel, according to the Ada County Sherriff's Office. All equipment, hardware, and software have been replaced according to a replacement schedule.

Plan

Dispatch will continue to upgrade equipment, hardware, software, and security according to schedule, as new technology becomes available, or as budgeting allows.

References

- Dispatch Asset Inventory Report

- <https://www.ktvb.com/article/news/local/ada-county-set-to-open-new-emergency-dispatch-center/277-444858743>

9B.4 The uninterrupted electrical power supply for the primary communications equipment in the communications center is reliable and tested and has automatic backup capability.

Description

The Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) center operates using a redundant, uninterrupted power supply (UPS). The center also has a backup generator and battery bank that can operate dispatch for up to 24 hours without outside power. There is also a separate backup dispatch facility located in Boise that all dispatch control can be transferred to in the event of a massive building failure or compromise. The generator is tested weekly and the battery bank is tested annually, and components are replaced every 5 years or sooner if needed.

Appraisal

The UPS, generator, and battery bank have all passed regular testing and inspections. The backup generator has been capable of meeting the power needs of the systems in the center during electrical interruptions.

Plan

Dispatch will continue to test and inspect all UPS components, battery banks, and generators and replace and update equipment according to schedule.

References

- Generator and Maintenance reports available on site

9B.5 Adequate numbers of fire or emergency telecommunicators, supervisors and management personnel are on duty to handle the anticipated call volume.

Description

The Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) employs 56 dispatchers (including fire, law, and lead dispatchers) as well as various administrative, IT, and technician operators. Many of the positions are shared with the Ada County Sherriff's office. The department operates a minimum staffing of 10 dispatchers and one lead dispatcher.

Appraisal

Since Oct. 20, 2022, the number of daily non-emergency calls handled by dispatch has increased by 27 percent and the number of emergency calls has increased by 43 percent. Dispatch staffing has not increased at all in that time period, and dispatch often operates at minimum staffing levels. According to a recent staffing study, the needed number of dispatchers for dispatch's call volume is 74, or 18 more dispatchers than currently employed. During budget hearings for the proposed 2024 budget cycle, the Sherriff's office requested adding 5 more dispatcher positions. However, Ada County previously asked all departments to not request new positions.

Plan

Dispatch will continue to work with the Ada County Sherriff's office to request more staffing. In order to maintain constant dispatch staffing, Dispatch will hold over or call back dispatchers.

References

- Ada County Dispatch Staffing Analysis
- Budget Screenshot
- https://www.idahopress.com/news/local/ada-county-proposed-budget-is-tight-amidst-inflation/article_536c493a-0ebe-11ee-9ea4-c31ff8379a8b.html

9B.6 A maintenance program is in place with regularly scheduled and documented system tests.

Description

All critical infrastructure at Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) is tested and documented regularly. Generator backups are tested weekly by the Ada County Operations team. Software is upgraded 2-3 times a year, with all upgrades tested in an isolated environment before being pushed out to operations. Dispatch has a technical operations team responsible for the maintenance and testing of mobile and portable radios, telephone systems, computer systems, and other equipment.

Appraisal

All systems have been tested and maintained according to their appropriate schedules as determined by dispatch and its partners and contracted agencies. During the last 5 years, field crews have had portable communications fully operational with no interruptions in service. The only outages that were experienced were planned outages for maintenance, none of which resulted in an interruption in service. Due to the redundancies built into the system, when a zone control went offline several years ago the rest of the system was able to compensate and no loss of coverage was experienced by any of the field users.

Plan

Dispatch will continue to be responsible for the maintenance and testing of all of its equipment and facilities, including software and hardware, as well as its backup stations. The department will be responsible for the testing and maintenance of all department-owned radios and base stations.

References

- Maintenance Contract Central Square
- Century Link-Lumen Maintenance Contract

9B.7 The agency has established time-based performance objectives for alarm handling. These objectives are formally communicated to communications center managers through direct report, contracts, service level agreements and/or memorandums of agreement and are reviewed at least annually to ensure time-based performance objectives are met.

Description

Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) uses National Emergency Number Association (NENA) standards for 911 call answering, with the goal of 90 percent of calls being answered in 15 seconds. The department has established time-based performance objectives based on National Fire Protection Association (NFPA) NFPA 1221: *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems* and documented those objectives in the *Meridian Fire Department Community Risk Assessment and Standards of Cover (CRA/SOC)*. The department's contract with service for dispatch states that dispatch is to report quarterly on NFPA 1221 compliance, specifically regarding high-priority (echo) call types. The contract also states that dispatch should work towards NFPA 1221 and NFPA 1061: *Standard for Public Safety Telecommunications Personnel Professional Qualifications* compliance.

Appraisal

Dispatch met the NENA standard for 911 call answering in 2020, but has since seen increasing answering times in 2021 and 2022 that do not meet the NENA standard. The department has established time-based performance objectives in the MFD-SOC based on NFPA 1221 and communicated those objectives to Ada County Dispatch Center in regular Emergency Services (ES) Users meetings. The department has not received quarterly reports from dispatch regarding NFPA 1221 compliance for a number of years now. Based on the department's alarm handling time data from the 2023 CRA/SOC, dispatch has likely been out of contract compliance with these time standards.

Plan

The Deputy Chief of Administration will continue to communicate objectives with Ada County Dispatch Center at regularly scheduled ES meetings as an ongoing agenda item, as well as review performance metrics during annual CRA-SOC reviews. Dispatch will continue to review

its internal call answering and processing times and compare them to NENA and NFPA standards, and request more staffing to improve times. The department will communicate with dispatch its lack of compliance with the terms of its contract regarding NFPA 1221 alarm handling times and create a performance improvement by the end of 2023 to bring alarm handling times back to standard.

References

- Dispatch Staffing Analysis
- Ada County Dispatch Agreement April 2018, pg. 4-5
- NFPA 1221: *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*, 7.4.3, pg. 21
- NFPA 1061: *Standard for Public Safety Telecommunications Personnel Professional Qualifications*

9B.8 Communications training programs for emergency telecommunicators and emergency response personnel ensure adequate, timely, and reliable agency emergency response.

Description

All Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) dispatchers go through a 9-week academy which incorporates computer aided dispatch (CAD) training, law, medical, and fire call taking, CPR training, and incident command system (ICS) training. All dispatchers are required to maintain the following certifications: Emergency Fire Dispatch (EFD), Emergency Medical Dispatch (EMD), Emergency Telecommunicator (ETC), Hazmat ICS-00005, ICS 100, ICS 200, ICS 700, and ICS 800, Idaho Public Safety and Security Information System (ILETS), and Peace Officer Standards and Training (POST) Emergency Communications Academy certifications. Most training uses Priority Dispatch Group as the main certification group and supports ProQA training. All training records are maintained in PlanIT which tracks certification dates and expirations, and notifies employees when certifications are nearing expiration dates.

Appraisal

Dispatch's training program has been adequate for their needs, according to the Ada County Sherriff's office. All dispatchers have maintained their certifications according to Ada County Sherriff's office requirements based on national standards.

Plan

Dispatch is in the process of adding specific protocols for emergency fire dispatching (EFD) and is currently training all dispatchers on EFD protocols. Dispatch will continue to maintain current training certifications for all dispatchers. EFD training requirements will be incorporated into annual training requirements as dictated by Ada County Sherriff's office.

References

- Academy 11 Schedule
- Ada County 9-1-1 Training Manual
- Ada County 9-1-1 Fire and EMS Training Manual

9B.9 The interoperability of the communications system is documented, tested and evaluated.
The agency has processes in place to provide for interoperability with other public safety agencies in the field including portable, mobile and fixed communications systems, tools and equipment.

Description

Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) operates 700 MHz trunked and VHF simplex radio systems for 12 different first responder agencies, including police, fire, and EMS. All Ada County Emergency agencies use the same radio communications equipment, thus making interoperability easy and seamless. In addition, neighboring agencies in Canyon County use a 700 MHz system that is accessible on all portable radios. All portable radios carried by Meridian Fire Department Personnel include 25 different radio zones with 16 channels each, including shared channels with Gem, Canyon, and Boise counties, the Bureau of Land Management, and local air ambulances. All talk groups and radio channels are on a radio network and are tested daily.

Appraisal

The existing radio channel fleet map has been appropriately configured, allocating specific frequencies for both the local fire, EMS, and police departments. This comprehensive setup ensures the availability of essential channels for seamless communication between various departments. Every vehicle and staff member within the department is equipped with radios featuring interoperability capabilities. In the last 5 years, the department has consistently achieved a 100% success rate in communicating with the agencies that are part of the Ada County Dispatch radio system. Additionally, the radios have been configured with channels to enable interoperable communication with entities beyond the local area, including aerial operators and the BLM.

Plan

Dispatch and the department will continue to work together with area partners to maintain an interoperable radio communications system. Dispatch will be responsible for testing the interoperability of the system and maintaining records of interoperability testing.

References

- Ada Fire Master Fleet Map

9B.10 The dispatch process utilizes a formal and recognized emergency medical dispatch (EMD) system that allows for pre-arrival instructions and adequate triaging of medical calls for service.

Description

Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) uses Priority Dispatch ProQA Call taking software to deliver Medical Priority Dispatch System (MPDS) to Meridian Fire Department and all other Ada County/City Emergency Services Systems (ACCESS) users. Emergency Medical Dispatch (EMD) has been used by all area agencies for at least the last 5 years. Dispatch fire response lists (FRLs) and their related EMD call types and levels are reviewed regularly with the Emergency Services (ES) Users group. Priority Dispatch medical call determinants are reviewed and updated annually by the Priority Dispatch company and any significant change must be approved by the department's medical directorate.

Appraisal

FRLs have been regularly reviewed in ES users group meetings by all fire and EMS agencies that use dispatch. Priority Dispatch EMD call determinants are reviewed by the company with software updated having been pushed out quarterly, minor call determinant updated pushed out annually, and major protocol changes pushed out every two years (such as bystander Narcan use and hands only CPR, subject to medical directorate approval). Dispatch has maintained a quality assurance and case review contract with Priority Dispatch to review 25 cases/week to validate if the ProQA call determinants are being used correctly, as well as to alert Priority Dispatch to any consistent issues with call determinants. Dispatch reports that Priority Dispatch EMD protocols work well for the agency and enhance the level of service that they provide.

Plan

Dispatch reports that they have no future plans to change its EMD provider with Priority Dispatch. The ES users committee will continue to review FRLs with dispatch on a regular basis. Dispatch will be responsible for determining if Priority Dispatch and EMD call determinants continue to meet the needs of their operation. Priority Dispatch will continue to update their software and call determinants according to schedule, and dispatch will review any needed calls with Priority Dispatch's quality assurance program.

References

- Priority Dispatch Contract
- EMD Protocol Manual

9B.11 The agency has a documented and tested system in place for the notification and recall of off-duty agency personnel and telecommunicators for unplanned, large-scale incidents.

Description

The department uses *Vector Scheduling* (Formerly *Crew Sense*) to notify and recall off-duty personnel for emergency call-back and critical incident staffing. The use of *Vector Scheduling* for emergency call-back is governed by department policy and the Collective Labor Agreement between City of Meridian and Meridian Firefighters IAFF Local 4627. Shift battalion chiefs manage and initiate emergency call-backs. Employees receive call-back alerts as a text message on their phone and as an alert on the *Vector Scheduling* application or website. The City of Meridian also utilizes *AlertSense* to notify all city employees of emergency events via text message.

Appraisal

Vector Scheduling has proved to be an effective way to communicate with off duty personnel about emergency shift coverage. *Vector Scheduling* all-calls reach 100% of eligible employees. While the department has been fortunate to never experience a large, critical incident, the alert system has been used for emergency call back when personnel are needed urgently to cover vacancies.

Plan

The department will continue to use *Vector Scheduling* to request emergency coverage and will regularly review the effectiveness of the software. The operations chief alongside the battalion chiefs will be responsible for monitoring the effectiveness of the system and address any policy or contract language that needs updating in the future.

References

- AP-300 Staffing and Callback
- Collective Labor Agreement between City of Meridian and Meridian Firefighters IAFF Local 4627, Article 23, pg. 24, 26-27

9B.12 The agency has a documented plan, which is reviewed and tested annually, to ensure continuity in communicating during any partial or total disruption or failure of a communications system or facility.

Description

Ada County Sherriff's Office 911 Emergency Dispatch (Dispatch) has multiple redundancies built into its system in the event of a partial or total communications failure. Each dispatcher and call-taking station has backup radios and software capabilities. There is a secondary dispatch center in the event that the entire communications building is compromised. The radio system has both 700 MHz and VHF frequencies in the event that one channel goes down. The backup center is tested monthly using a full call load by transferring all dispatch functions and dispatchers to the backup center.

Appraisal

Dispatch has a documented plan in its LEAD manual regarding continuity in communications during any partial or total disruptions of the communications system. This plan is considered confidential by Dispatch and is not released to the public or partner agencies. Dispatch states that the plan has been tested regularly and that Dispatch has been able to function in multiple failure modes. Per Dispatch, the LEAD manual and the plan will be made available during a site review on request but will not be released as a reference for this document.

Plan

Dispatch will continue to maintain and test a communications failure plan, and be responsible for its review and implementing any changes.

References

- LEAD Manual (available on site)

CC 9B.13 **A formal and documented appraisal is conducted, at least annually, to determine the effectiveness of the emergency communications systems and their impact of meeting the agency's goals and objectives.**

Description

A documented appraisal of Ada County Sherriff’s Office 911 Emergency Dispatch (Dispatch) was completed for the first time this year. The appraisal examined inputs such as the cost for services as well as outputs such as compliance with the contract for services and alarm handling times. Dispatch services are part of an outside agency that contracts for service with the Meridian Fire Department which limits the departments analysis of any internal improvements or assessments.

Appraisal

Dispatch has not provided quarterly compliance reports to the department on National Fire Protection Association (NFPA) 1221: *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems* alarm handling standards, particularly for high priority (echo-level calls). Data obtained for the *2023 Meridian Fire Department Community Risk/Assessment Standards of Cover (CRA/SOC)* indicates that Dispatch is likely out of compliance with this standard. Alarm handling times across all call types were excessive as determined in the CRA/SOC.

Plan

The department will notify Dispatch of their non-compliance with the contract for services and create a performance improvement plan for alarm handling times in the next year. The department will continue to conduct appraisals of the communications system through dispatch and will seek out a more collaborative approach to appraisals in the future. Appraisals will primarily measure alarm handling times and contract requirements, but will investigate causes of non-compliance such as lack of appropriate staffing.

References

- Annual Program Appraisal_9B.13 Communications
- *Meridian Fire Department Community Risk Assessment Standards of Cover*, pgs. 107-121, 130-140

- NFPA 1221: *Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*, 7.4.3, pg. 21
- Dispatch Agreement April 2018