



Mark Gordon
Governor

Wyoming Public Safety Communications Commission

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Darin J. Westby, P.E.
Director

Meeting Minutes

I. Call to Order

The Public Safety Communications Commission (PSCC) met via videoconference on Wednesday, August 9, 2023. Chairman Mark Harshman presided, calling the meeting to order at 1:31 p.m.

II. Roll Call

The following members were present constituting a quorum:

Paul Bertoglio, Commissioner	Dwane Pacheco, Secretary
Matt Carr, Commissioner	Cindi Shank, Commissioner
Karl Germain, Commissioner	Owen St. Clair, Commissioner
Phillip Franklin, Commissioner	Matt Waldock, Commissioner
Mark Harshman, Chairman	John Wetzel, Commissioner
Monte McClain, Vice Chairman	Darin Westby, Ex Officio

Commissioner Mike Choma was absent.

III. Introductions

The following attendees participated in the meeting:

Nathan Smolinski, Chief Technology Officer	Aimee Binning, 911 Planning Coordinator
Mark Kelly, Emergency Communications Manager	Destry Dearden, Lincoln County, Director of Information Technology (IT) and Geographic Information System (GIS)
Neil Gardiner, WyoLink Support Manager	Kimberly Chapman, Commission Secretary

Susan Elliott assisted with virtual meeting management.

IV. Agenda Adjustments

There were no adjustments to the agenda.

V. Action Items

1. Draft Meeting Minutes

It was moved by Vice Chairman McClain, seconded by Commissioner Franklin, and unanimously carried to approve the May 3, 2023, business meeting minutes; the May 2, 2023, education session minutes; the May 8, 2023, special meeting minutes; and the June 23, 2023, special meeting minutes.

2. WyoLink Application

It was recommended by Mr. Gardiner, moved by Commissioner Shank, seconded by Vice Chairman McClain, and unanimously carried to approve the application from the Federal Reserve.

Following a question from Chairman Harshman, Mr. Gardiner reported that the Federal Reserve will be allowed to access a talkgroup assigned to Teton County.

VI. Updates/Discussions

1. Director's Update

Interim Director Westby presented his update.

WYDOT Operating Budget

Interim Director Westby reported that the department is working to finalize its budget for the next fiscal year. He hopes that work will be complete next week. The budget will be reviewed and approved by the Transportation Commission in September.

Joint Transportation, Highways, and Military Affairs Committee (JTC) Meeting

WYDOT leadership is preparing for the upcoming JTC meeting on August 31 in Douglas. The department is preparing materials to submit for the committee packet. The department is also awaiting publication of the committee's draft bills. Once the bills are released, WYDOT leadership will review them and formulate a response.

Governor's Transportation Policy Advisor

Sara DiRienzo is Governor Gordon's new policy advisor on transportation, wildlife, and gaming, and she is the governor's liaison to WYDOT. Ms. DiRienzo has been in the role for two weeks but is quickly becoming acquainted with WYDOT operations.

WYDOT Director Search

Interim Director Westby updated the commission on the search for a permanent agency director. Interviews were held a few weeks ago, and the Transportation Commission submitted a short list of three candidates to Governor Gordon for consideration. The governor is expected to make an announcement soon.

2. Chief Technology Officer's Report

Mr. Smolinski presented his update, with additional information provided by Ms. Binning.

Meeting with Governor's WYDOT Liaison

Mr. Smolinski reported that he and Interim Director Westby will meet with Ms. DiRienzo on Friday, August 12, to provide a brief overview of WyoLink and updates on 911. He will discuss the commission and its operation with her, as well as share some of the main issues his programs are currently addressing.

Wyoming Next Generation 9-1-1 (NG9-1-1) PSCC Update Presentation

Mr. Smolinski, Ms. Binning, and Mr. Dearden updated the commission on the activities-to-date of the NG9-1-1 Technology and Geographic Information Systems GIS workgroups.

Mr. Smolinski reported that the team met with NG9-1-1 stakeholders on July 20, 2023, to provide an update on NG9-1-1 workgroup activities. He shared that various local and state agencies participated in these workgroups, and the collaboration has been vital to bringing NG9-1-1 to Wyoming.

The presentation to the stakeholders included information from the 911 Fees Report, which contained data from surveys conducted in 2019, 2021, and 2022. The information was provided by Wyoming public safety answering points (PSAP). Mr. Smolinski thanked the PSAPs for their participation and Ms. Binning for her dedication to collecting and compiling the information.

Mr. Smolinski highlighted a few pieces of data. Survey results from 2022 shows that 87 percent of all 9-1-1 calls were placed on cell phones, which is a fairly substantial change from previous years. He also emphasized that 9-1-1 services statewide are operating on a \$3 million deficit. The total expenditures reported for 9-1-1 service was \$10,657,850.59, while the total revenues collected to fund emergency call services was \$7,092,600.95.

Mr. Smolinski explained that 9-1-1 funding comes from two primary sources in Wyoming. 9-1-1 fees—up to \$0.75 per connection—are collected by the counties directly from the telephone or internet providers. The prepaid fees—1.5 percent on every retail sale of prepaid wireless access—are collected and sent to the Department of Revenue, which then remits the bulk of the fees to the counties.

Ms. Binning provided an update on the work of the NG9-1-1 Technology Workgroup on behalf of Rick Hawkins, director of the Sweetwater County Combined Communications Center and workgroup chair. The committee's five goals derived from the State of Wyoming NG9-1-1 Plan.

1. Identify emergency services IP network (ESI-Net) requirements;
2. Collect data from neighboring states;
3. Hold discussions with local vendors;
4. Develop a strategy for PSAP connectivity and domain-based message authentication, reporting, and compliance (DMARC); and
5. Complete an inventory of Wyoming PSAPs and request information on systems that play a critical role in implementing NG9-1-1—GIS, computer-aided dispatch (CAD), phone system, phone trunk, and recording system.

The PSAP inventory was completed using data from the annual 9-1-1 fee survey. The committee reviewed data primarily from 2022, but also preceding years' surveys. The data allowed the workgroup to build a concept of operations for NG9-1-1 and brainstorm potential funding and legislative solutions that will better serve Wyoming communities.

To better understand how the funding deficit impacts a PSAP's ability to implement NG9-1-1, the survey asked how many equipment positions exist in primary PSAPs and how many of those positions are funded with 9-1-1 fees. The results showed that only three of the PSAPs have use 100 percent of 9-1-1 monies to fund equipment positions. Most funds are spent on the equipment and resources that connect the PSAP to the selective router.

The survey asked PSAPs to specify how positions are funded. Of the 32 PSAPs that responded, there are a reported 238 telecommunicators employed fulltime and 54 with part-time employment. Of the 238 full-time employees, 190 of those positions were not funded by 9-1-1 fees.

Telecommunicators answer emergency and non-emergency calls through 9-1-1 technology or non-emergency lines. The data collected from the PSAPs shows that 314,105 of the calls received were 9-1-1 calls. Of that total, 185,325 were wireless calls, 114,263 were wireline calls, 13,560 were voice over internet protocol (VOIP), and 957 contacted the PSAP via text.

The workgroup reviewed survey results from 2021 and 2022 to determine growth in a community's capability to implement NG9-1-1. For GIS services, the workgroup noted a 10 percent increase (36 percent to 46) in reported capability for NG9-1-1. This is significant, because the survey asked for respondents' ability to comply with the National Emergency Number Association (NENA) *i3 Standard for Next Generation 9-1-1*. Ms. Binning shared that GIS is the hardest component in NG9-1-1 readiness because of the abundance of local partners providing data to the PSAPs.

The next category assessed was the CAD system, which helps telecommunicators prioritize and route 9-1-1 calls. According to the 2022 survey, 71.9 percent of the PSAPs are already capable or will be NG9-1-1 capable by the end of the year. Another critical component of NG9-1-1 readiness is the phone systems. A comparison of the 2021 and 2022 survey data showed that while over 70 percent of the PSAPS will have NG9-1-1 ready phone systems by the end of 2023, more PSAPs were unsure when they would be NG9-1-1 ready.

When asked about NG9-1-1 readiness in regards to recording services, there was a small decrease in the PSAPS that thought they were ready or would soon be ready to meet NG9-1-1 standards. There was a similar decrease in reported capability to bring phone trunks into compliance with NENA i3 standards. While more communities were self-reporting complete NG9-1-1 readiness in both categories, more were uncertain when they would achieve the necessary capabilities.

The survey obtained information on the call handling solutions used by Wyoming PSAPs and dispatch centers. This was included in the survey, because other states found it helpful to group PSAPs into regional hubs by call handling solution used when joining ESI-Net. The majority of Wyoming PSAPs are using Callworks, several are using Viper, and the rest are using Vesta, Meridian Phone, or WestTel International.

The 2022 survey found that the majority of PSAPs are using the Spillman CAD system, several are using the RIMS CAD, and a few are using EFORCE and Tyler systems.

Survey participants gave opinions on topics related to NG9-1-1 development. The responses helped the workgroup determine agency preference on how the system is funded and maintained. The majority of PSAPs would like to select their own vendors and services and keep call answering equipment, call logging, and call recording under local control. Most of the PSAPs preferred to have a local point of interconnection once an ESI-Net is developed, but there was not a definitive opinion on demarcation of the state contract of vendor responsibility.

When asked if the PSAPs would be willing to give up a percentage of their 9-1-1 fees to fund NG9-1-1, eight of the PSAPs said no. Sixteen said yes, but only if there was a corresponding increase in the surcharge. One PSAP was willing to give between 5 to 10 percent of the current 9-1-1 fees collected, and seven did not respond.

Mr. Dearden, chair of the GIS Workgroup, presented on the activities of the GIS Workgroup. He shared that GIS is the cornerstone of NG9-1-1 as GIS data is foundational to successful emergency call processing and routing. This was the guiding principle for the workgroup.

The workgroup was comprised of a diverse array of individuals, representing the many agencies and entities that handle and produce GIS data. There was representation from the Wyoming Geospatial Organization (WYGEO), the Wyoming GIS Advisory Board, various county and city departments, consultants, telecommunicators, and the Wyoming Geographic Information Science Center. Several groups also helped review the proposed GIS Data Model including the WYGEO board, Datamark, local GIS professionals, the Wyoming Association of Public Safety Communications Officers, and others.

Mr. Dearden reported that Wyoming Enterprise Technology Services (ETS) is required to submit a geospatial maturity assessment (GMA) annually to the federal government. Reports from the last seven years show the progression of state-level action on NG9-1-1—from no involvement in 2017 to the creation of a Wyoming NG9-1-1 GIS Data Model in 2023. Mr. Dearden stated that it was the formation of new relationships, and the resulting collaborations, that allowed for the creation of statewide GIS standards.

The goal of the Wyoming NG9-1-1 GIS Data Model is to produce reliable, statewide GIS data that is harvested from standardized local datasets. The GIS Workgroup used the Kansas NG9-1-1 GIS Data Model v2.1 as a template for Wyoming's data model. The workgroup modified the Kansas model to make it more applicable to Wyoming. Dataset attributes were adjusted to align more closely to NENA standards. The workgroup also modified Kansas' geodatabase attribute domain document and included it in Wyoming's model.

Mr. Dearden stated that to be compliant with NENA standards, the workgroup had to include all potential attributes—which are unique identifiers—for geographic features. The workgroup incorporated images and examples into the data model to counteract the extreme technicality and complexity of the attributes.

The workgroup outlined the several datasets that may be necessary to use the GIS data model. The required datasets include roads, addresses, PSAP boundaries,

sheriff/police/emergency medical services/fire department boundaries, county boundaries, and so on. The datasets that are strongly recommended include the road alias table, city limit boundaries, and other emergency services boundaries. Supplemental databases can be added on to the data model to make it more accessible and useful to dispatchers and telecommunicators.

The workgroup has spent the past month revising and editing the GIS data model based on the comments provided by initial reviewers, but the model will need additional revisions and changes as the data is aggregated at the state level and uploaded to an online portal. Occasional updates from local partners will also be required.

Mr. Dearden outlined state-level benefits and challenges of adopting the data model. The benefits include statewide NG9-1-1 readiness; a portal to house statewide, fully aggregated datasets; increased continuity with emergency response across state lines; and an improved score for Wyoming's GMA. There are two significant state-level challenges: funding and buy-in from local partners.

He also detailed local-level benefits and challenges of using the model. The benefits include NG9-1-1 readiness, standardized datasets that can be more easily used across county lines, greater continuity with emergency response across PSAP and county lines, and access to statewide datasets in the online portal.

Mr. Dearden shared several local-level challenges. One of the most significant hurdles for local entities will be aligning local datasets with statewide standards. Mr. Dearden believes that it will take a great deal of creativity, coordination, and communication between towns and counties to standardize the datasets. Local entities use a variety of database and GIS platforms to store and organize data, and this could create challenges in achieving greater data uniformity. A final challenge is that some counties contract GIS services to a third party, and those contracts may not require adherence to NG9-1-1 standards.

Adoption of the NG9-1-1 GIS Data Model

Mr. Dearden requested that the commission move to adopt the Wyoming NG9-1-1 GIS Data Model.

Vice Chairman McClain, Commissioner Pacheco, and Chairman Harshman thanked the workgroups for their commitment and effort to ensure Wyoming's NG9-1-1 readiness.

Action: It was recommended by Ms. Binning and Mr. Dearden, moved by Vice Chairman McClain, seconded by Secretary Pacheco, and unanimously carried to adopt the Wyoming NG9-1-1 GIS Data Model.

WyoLink Funding/American Rescue Plan Act (ARPA)

Mr. Smolinski updated the commission on the ARPA funds allocated to WYDOT for WyoLink. To date, \$11 million of the \$35 million total award has been spent. The two projects recently approved by the commission—the two additional WyoLink towers and the microwave backhaul—will be fast-tracked to meet the December 31, 2026, fund expiration deadline.

A kickoff meeting will be held in late August for the two new WyoLink sites. The northern Sheridan County site will be a greenfield project. Mr. Smolinski and program staff will meet with the utility provider next week to discuss utility installation. The Saratoga-Needles Peak site will be a collocate with Union Wireless.

3. Emergency Communications Program Manager's Report

Mr. Kelly provided an update on the Emergency Communications Program. The update also included information presented by Mr. Gardiner regarding WyoLink operations.

Mr. Kelly reported that the radio installations for Wyoming Highway Patrol (WHP) vehicles in Districts 3 and 5 are complete. WHP vehicles in the remaining districts will be upgraded once the department receives an order of vehicle repeaters.

Radio installations for the WYDOT maintenance fleet are underway: Districts 2 and 3 are 30 percent complete, District 4 is 25 percent complete, District 5 is 60 percent complete, and work has just begun in District 1.

As part of the ongoing effort to donate old WYDOT subscriber units to Wyoming county and municipal entities, the program is preparing to send 30 portable units to Park County. The code plug, which is a file containing all of the programming information for a radio, is being developed, and the radios should be sent soon. The program will send old, trunked Motorola Quantar units to Utah as no Wyoming entity wanted them.

Critical Connect

Mr. Kelly reported that one of the current users of the Critical Connect system is WHP Division O, which is assigned to capitol security and the Governor's protection detail. The WHP is using Verizon devices for this service. Sweetwater County is also on the system and uses FirstNet enabled devices.

WYDOT is developing a memorandum of understanding to allow interoperable communication with Montana. Their Critical Connect system will need to be upgraded before the agreement can be finalized, but Montana's talkgroup has been created in the patch panel. South Dakota has also expressed interest in establishing interoperable communications with Wyoming. The goal is to unify communications with all bordering states using Critical Connect.

16 Tower Buildout Report

Mr. Smolinski reported that construction has resumed at several tower sites. He hopes that all projects will be complete by the end of the season.

The Northern Big Horn County-Little Sheep Mountain site went active in July and has a fiber and microwave backhaul.

The Ten Sleep-Meadowlark site was still inaccessible in July due to snowpack and poor road condition. The remaining work at the site includes the installation of the field network equipment and minor shelter modifications.

All of the agreements are in place for the Newcastle site, which is a collocate with Union Wireless. Construction crews need to finish a few remaining items on the tower.

Mr. Smolinski estimates that the tower will be online later this month or early in September.

Crews began civil construction on the Bondurant site the week of July 24, 2023. This site is a collocate with Sublette County. Work was halted by rain, but Mr. Smolinski received word that the crew was back on site this morning. Site conditions are not ideal and some clean-up work is necessary following the storms.

Mr. Smolinski thanked Sublette County, especially Sheriff K.C. Lehr, for assisting WYDOT with site accessibility. Sheriff Lehr has arranged for the Sublette County Road and Bridge department to grade the road leading to the site to make it accessible for the construction crews.

WyoLink Site Map

Mr. Smolinski reviewed the WyoLink Local Towers and Locations Site Map that was included in the commission packet. The Portable Coverage Enhancement Sites in Service are collaborations between WYDOT and the local community to improve coverage in that area. The Core Sites in Service are typically the legacy, mountaintop sites. The 800MHz Locally Owned Sites in Service are part of the WyoLink network, but are owned and operated by the city and/or county. A Microwave Only Site has no VHF or 800MHz radio frequencies at the site and solely serves to support the microwave backhaul.

Chairman Harshman commented on the vast amount of progress shown on the map. Mr. Smolinski praised his team for all their efforts in the project over the years. He reported that the map will become a standard item in the commission packet.

WyoLink Operational Updates

WyoLink System Reports

Mr. Gardiner shared WyoLink usage data from the third quarter (Q3) of 2023. There was an average of about 1.97 million push-to-talks (PTT) and 1138,000 minutes of airtime for the quarter.

The top 20 talkgroups for Q3 were mainly law enforcement agencies from 10 different counties, plus the WHP dispatch and Natrona fire department dispatch.

WyoLink System Upgrades

Mr. Gardiner reported that the GTR fixed station/repeater upgrades are proceeding rapidly. In October 2022, 35 sites needed upgrades; in August 2023, only nine sites remain. All of the sites should be upgraded by the middle of September.

Mr. Gardiner thanked Motorola, CommTech, Emergency Communications Program staff, and the Afton WYDOT shop for their work on this project. Once all of the sites have upgraded equipment, the system software can then be upgraded from version 7.17.3 to one of the latest versions of the software. The system upgrade is currently scheduled to take place in May 2024. Mr. Gardiner reported that the department will try to conduct the upgrade sooner, if possible, but three months of planning is needed for a smooth, successful upgrade process.

The GTR upgrade process also included the creation of additional channels for five sites. The Lander site received two channels, and the upgrade will be completed by August 12. The Copper Mountain site will also receive two channels, but the upgrade will be completed last because of the complexity of the [radio] combiner design. The extra channels will help with capacity issues.

Mr. Gardiner reported that the team has installed new Nokia service aggregation routers in a few locations to provide a more resilient backhaul network. The routers installed in Zone 2 (northern Wyoming) have not been activated. Technicians recently visited those sites to upgrade the routers with the latest firmware and software versions. Mr. Gardiner received word today that the Copper Mountain and Waltman Hill sites were successfully converted to Ethernet today, so the team will visit sites in Zone 2 next week to convert those sites.

The first routers installed in this project created a loop between Cheyenne and Casper. The team will upgrade those routers as well and replace sim cards to make the routers uniform.

Mr. Gardiner reported that the department is also considering upgrading the management and monitoring service to better maintain the routers and backhaul network. This will allow the team to provide a more efficient and fault-tolerant traffic management system.

Field technicians and WyoLink office staff received training on the microwave system equipment, the GTR repeaters, and the Nokia service aggregation routers to better support the upgrade process.

Mr. Smolinski added that the original completion date for the GTR repeater upgrades was in 2026. He stated that, with the assistance of Motorola and using the ARPA funding, the team was able to complete these upgrades far more quickly than originally planned. Furthermore, the equipment and software was becoming so outdated that it was questionable whether equipment could be repaired if it failed. By moving the upgrade schedule forward, the team has ensured a reliable and functional network.

Tower Inspections

Mr. Gardiner reported that technicians have used drones to inspect around 30 tower sites, capturing over 19,000 images. The team recently used the scans to investigate a problem at one of the sites, and the information provided by the drones was crucial in identifying the issue.

Statewide Interoperability Coordination (SWIC) Updates

Mr. Smolinski and Mr. Kelly provided the SWIC updates.

Mr. Kelly reported that the Wyoming Statewide Communications Interoperability Plan (SCIP) Workshop was held on July 19, 2023, in Casper. A revised version of the plan should soon be available to stakeholders for review and comment. Stakeholder feedback will be incorporated into the final draft.

Mr. Smolinski reported that the SCIP update process was a multi-month project with engagement from many local agencies. One of the goals of the project was to ensure shared ownership of the plan with buy-in from the local partnering agencies.

The SCIP is a three-year plan, but the pandemic delayed the update process by two years. The updated plan focuses on challenges, emerging issues, risks, and threats, while also considering the current and desired states for interoperable communications. The plan includes goals and objectives and addresses a number of topics including land mobile radio (LMR) push-to-talk networks, 9-1-1, public safety broadband, emergency alerts and warnings, public safety cybersecurity, and funding. Mr. Smolinski will have the plan ready for commission review and approval at the October business meeting.

One of the topics that came up in discussions of current and desired states was governance. Mr. Smolinski shared that the workshop attendees' discussion on governance coincided with the PSCC's goals for the working groups. He reminded the commission that, based on previous discussions, two working groups will be formed on interoperable communications/WyoLink and 9-1-1. The goals and objectives in the SCIP will guide the working groups.

Commercial Emergency Communications Services Update

Mr. Kelly reported that he and Mr. Smolinski will meet with T-Mobile on August 23, 2023, to discuss T-Mobile test units. The units will be distributed to field technicians and staff to assess network coverage and service compared to AT&T, Verizon, and Union Wireless. He will report the findings at the October commission meeting.

Mr. Smolinski shared that T-Mobile's first responder network is very similar to AT&T's FirstNet and Verizon's FrontLine. T-Mobile's network is called Connecting Heroes. The testing will determine if this network is a viable option for Wyoming.

Mr. Smolinski shared that AT&T FirstNet is required to submit a report to the governor on the progress of their five-year buildout. The governor's office has requested that FirstNet deliver a presentation detailing their progress to the PSCC at the October business meeting. An official report will accompany this presentation and will be approved by the commission before it is submitted to the governor's office.

Following a question from Commissioner Pacheco, Mr. Smolinski said that WYDOT has not yet placed a compact rapid deployable (CRD) unit in western Wyoming. The commission will receive more information on the CRDs at the October meeting and unit deployment messaging will be discussed at that time.

VII. Public Comment

There was no public comment.

VIII. Announcements

Ms. Chapman announced that the next meeting will be October 24-25, 2023, in Cheyenne. The business meeting will be held on the morning of October 25, and the team is planning an education session for the afternoon of the October 24. The workshop will include demonstrations of the high frequency (HF) trailer and the CRD unit, as well as a

possible presentation from AT&T FirstNet. Chairman Harshman requested more information or a demonstration of Critical Connect. Commissioners are invited to provide input to Mr. Smolinski and Ms. Chapman on other topics of interest.

Ms. Chapman informed the commission that the 2024 PSCC meeting schedule will be set soon. If commissioners have any feedback on meeting dates or times, they are invited to share them with Ms. Chapman or Mr. Smolinski. The slate of meeting dates will be presented for commission consideration at the October meeting.

Chairman Harshman welcomed Matt Waldock to the commission. Commissioner Waldock is the Commander of Regional Enforcement and OIS Teams for the Wyoming Division of Criminal Investigation and is located in Casper. He is the division's representative on the PSCC.

IX. Adjournment

It was moved by Commissioner Bertoglio, seconded by Vice Chairman McClain, and unanimously carried to adjourn the August 9, 2023, business meeting at 3:00 p.m.