

**PENNINGTON COUNTY FIRE SERVICE BOARD (FSB)
BEST OPERATING PRACTICES (BOPs)**

ADMINISTRATIVE RULES	DATES	BOP#
RADIO AND COMMUNICATION SYSTEM	Addition: 6/13/1991 Revision: 12/9/1993 5/8/1996 10/9/2013 1/1/2024	FSB03

PREMISE:	It is essential to standardize the operation and usage of the Pennington County fire service radio and communications system.
PURPOSE:	The purpose of this BOP is to establish procedures and to explain methods to be used when using the Pennington County fire service radio and communications system.
SCOPE:	These procedures will apply to all agencies and/or persons using the Pennington County fire radio and communications system.
NOTE:	The geography of Pennington County may hinder the use of digital Talk Groups, or alpha numeric paging systems. The use of analog Zone's may still be utilized for wide area voice communications.

OPERATING PRACTICE:

1) NETWORK CONTROL

- a) The Pennington County Emergency Service Communications Center (ESCC) shall serve as the Communication Control Center (Fire Dispatch) for the Pennington County fire radio and communication system.
- b) Firefighters must be rostered with the Pennington County Fire Administration Office, in accordance with FSB01 and/or rostered with their respective agency recognized by the ESCC to be included within the text-paging system.
 - i) Federal and State Land management agencies must provide a valid agency email address to be included within the text-paging system.
 - ii) Agencies with known poor paging coverage areas may also request use of a text-paging email address approved by the ESCC.

- c) Fire Dispatch shall have authority to control and/or direct all radio communications as deemed necessary. This authority will include, but is **not** limited to:
 - i) Directing agencies and incidents to use other frequencies/Talk Groups,
 - ii) Dispatching agencies based on the information received at the time,
 - iii) Dispatching other agencies if as directed by ESCC protocols and policies,
- d) The Pennington County Fire Administrator (Administrator), the FSB Chair, acting in the absence of the Administrator, and/or the ESCC Director and their designee shall have the authority to direct radio communications in accordance with policy.
- e) The radio call sign for Communication Control shall be "Fire Dispatch."
 - i) The above call sign shall always be used when communicating with Fire Dispatch.
 - ii) Typical radio transmission will follow the Communications Order Model identified in the NIFOG commonly referred to as "Hey you, It's me." The sender shall state the resource/person called, followed by the sender's resource or name.
 - (1) Example:
 - A. "Fire Dispatch, "Department Name" Chief."
 - B. The response is the reverse: "Department Name" Chief, this is Fire Dispatch, go ahead."
- f) The Pennington County Fire Administrator shall serve as the FSB representative to the ESCC Board. Any concerns regarding the ESCC and/or Fire Dispatch shall be submitted to the Administrator in writing.
- g) County fire chiefs and agency heads shall ensure all agency members are trained in the use of the Pennington County Fire Service Radio and Communication System in accordance with policies and procedures.

2) INCIDENT PROCEDURES

- a) Notification:
 - i) The official means of paging and notification for response(s) to an emergency incident for fire departments, ambulance service(s), Search and Rescue teams and other emergency response agencies dispatched from ESCC using the FSB system, will be the FSB owned alpha numeric paging systems.
 - ii) This shall include personal "belt" pagers, station alerting, and other similar systems.
 - (1) "Belt pagers" and station alerting, and other similar systems must be compatible with, and approved for use, by the ESCC.
 - iii) Other third-party paging and notification systems, not owned or controlled by the FSB or the ESCC, are considered an unofficial means of paging and notification.
 - (1) Third party paging software, or similar systems, must be compatible with, and approved for use, by the ESCC.
- b) Communications Responsibilities:
 - i) Agency personnel shall follow the Five Communication Responsibilities as outlined in the I.R.P.G.
 - (1) Brief others as needed.
 - (2) Debrief your actions.

- (3) Communicate hazards to others.
- (4) Acknowledge messages.
- (5) Ask if you don't know.
- ii) Agency personnel are responsible to follow the communications section of the "Ten Standard Fire Orders," numbers 7, and 8. The Fire Orders are referenced in the I.R.P.G.
 - 7. Maintain prompt communications with your forces, your supervisor, and adjoining forces.
 - 8. Give clear instructions and ensure they are understood.
- c) All agencies shall use plain language, avoiding "10-codes".
 - i) Resources shall report to Fire Dispatch they are "In route," or "On scene", avoiding "10-8," or "10-97," etc.
- d) The agency needs to acknowledge the page from Fire Dispatch.
 - i) This acknowledgement and communication shall be on State Talk Group (PCFD1, PCFD2) or on the Zones as soon as possible.
 - ii) If individual responders and /or resources need to communicate with one another, if practical, they shall first try to establish contact on a Fireground/Tactical frequency.
- e) The first person or resources arriving on scene shall report the following information to Fire Dispatch using a State Talk Group (PCFD1, PCFD2) or on the Zones:
 - i) On scene size up report: What they observe--short and concise.
 - ii) Identify the Incident Commander and Command name (if needed).
 - iii) Following the Pennington County Fire Radio System and Configuration Plan, agencies shall inform Fire Dispatch which State Talk Group (PCFD1, PCFD2) or Zone command will be used for incident to dispatch, initial overhead, initial travel channel, and wide area communications, as needed. Additionally, informing which Fireground / Incident Frequency the operation will be conducted on. Fire Dispatch shall change these as conditions warrant.
 - iv) All further communication between Incident Command and Fire Dispatch will be on a State Talk Group (PCFD1, PCFD2) or on the Zones.
 - v) Using the Pennington County Fire Radio System Plan and Configuration, the Incident Commander will assign as many Fireground or mutual aid / VFIRE frequencies, as necessary.
- f) As additional resources arrive on scene, they will inform Fire Dispatch they are "On scene," using a State Talk Group (PCFD1, PCFD2) or on the Zones.
 - i) After reporting to Fire Dispatch, the resources shall switch to the Fireground / Incident Frequency as assigned by the Incident Commander.
 - ii) If the Incident Commander needs to communicate with incoming resources, they shall communicate with them, if practicable, on the assigned Fireground Frequency first.
 - iii) If for whatever reason the Incident Commander cannot establish radio communications with the resources, they will use a State Talk Group (PCFD1, PCFD2) or on the Zones.

- iv) The Incident Commander shall make every attempt to manage the entire operation on the Fireground / Incident Frequencies.

3) CONTROL BASE STATION OPERATION FOR AGENCIES

- a) Regardless of the status of any agency's control base station, Fire Dispatch shall retain Communication Control.
- b) All communications from Fire Dispatch shall have priority over portable, handheld, mobile, and / or agency base stations. All such resources shall yield to Fire Dispatch.
- c) Radio communication between agency control base station and the Incident Commander shall be on a State Talk Group (PCFD1, PCFD2) or on the zones.
- d) Agency control / base stations and/or designated incident communications shall make non-emergency logistical contacts. (I.E.: phone calls to individual firefighters, employers.)
- e) Fire Dispatch and or the EOC / EM will make calls to utility companies, law enforcement, property owners, and/or other agencies directly involved in the operation as time, policy, and/or procedures permits.

4) OUT OF COUNTY / NON-FIRE AGENCY

- a) Any out of County or non-fire agency that wishes to be dispatched using the Pennington County Fire Service Radio and Communication System shall make a written request to the FSB and the ESCC, which will require User Board approval, in accordance with their policy and procedures.
- b) Any out of County or non-fire agency who is dispatched using the Pennington County Fire Radio and Communication System, shall share in the expense of the system, and shall be bound by the practices, policies, and procedures established by the FSB.

5) PENNINGTON COUNTY FIRE RADIO SYSTEM PLAN AND CONFIGURATION

- a) The Pennington County Fire Radio System Plan and Configuration shall be reviewed by the County Fire Administration Office each year in cooperation with the ESCC. The Plan and Configurations will be distributed by March 1st each year, or earlier if needed.
 - i) See Appendix C
- b) Fire departments are permitted to customize the first two banks / zones within their agency radios with permission of the ESCC. The remaining banks / zones shall be configured in accordance with the ESCC / FSB approved channel plan.

6) WILDLAND / URBAN INTERFACE INCIDENTS

- a) Departments shall follow the Great Plains Interagency Dispatch Center (GPC) Dispatch Center's Radio Protocol for Initial Attack in the Great Plains Zone for South Dakota and Wyoming: GPC Communications Plan for South Dakota, Black Hills and Badland Supplement.

- i) This protocol includes Pennington, Fall River, Custer, Meade, Lawrence and Butte Counties.
- ii) Agencies may contact the County Fire Administration Office for a copy of this plan.

7) MOBILE DEVICES USING WAVE FILES FOR RADIO OVER INTERNET PROTOCOL (RoIP) AND VOICE OVER INTERNET PROTOCOL (VoIP):

- a) Transmitting capabilities on South Dakota State Radio Talk Groups assigned to the Pennington County Fire Service Board using WAVE for RoIP and VoIP:
 - i) Shall only use means and devices approved by the ESCC.
 - ii) Shall require permission by the County Fire Administration.
 - iii) Permission shall be reviewed and approved yearly, at a minimum, by the County Fire Administration.

Radio Communication Related Terminology

- **APCO:** Association of Public-Safety Communications Officials
- **CISA:** Cybersecurity and Infrastructure Security Agency
Part of the U.S. Department of Homeland Security, parent organization to the NIFOG.
- **EM:** Emergency Management
- **EMS:** Emergency Medical Services
- **EOC:** Emergency Operations Center
- **ESCC:** Emergency Services Communications Center
Commonly referred to as “Fire Dispatch” on Talk Groups and Zones, managed and/or owned by the FSB. This includes the Pennington County Radio Shop. Policies and procedures of the ESCC and radio shop are covered under this designation.
- **GPC or GP:** Great Plains Interagency Dispatch Center (GPC) Dispatch Center
- **GPS Coordinates:** Global Positional System
Life Flight: decimal degrees (DD)
Great Plains: degrees decimal minutes (DDM)
- **INT:** Interagency
South Dakota State Radio INT talk-groups are intended for any interagency radio communications, mutual-aid. This allows fire, ambulance, and SAR to communicate with State of South Dakota agencies and other allied resources (IE: Other dispatch centers, LE, Department of Transportation, Conservation Officers, etc.)
- **IRPG:** Incident Response Pocket Guide
Latest edition as issued by the NWCG.
- **IWI:** Incident within an incident (AKA: Dutch Creek Protocol)
An "Incident Within an Incident" is any accident or medical emergency that occurs during an incident directly involving Incident Management Team personnel or assigned resources. See Appendix D and/or the I.R.P.G.
- **LE or LEO:** Law Enforcement or Law Enforcement Officer.

- **NIFOG:** National Interoperability Field Operations Guide
Latest edition as issued by the Cybersecurity and Infrastructure Security Agency, United States Department of Homeland Security.
- **NIFC:** National Interagency Fire Center
- **NIICD:** National Interagency Incident Communications Division of NIFC.
- **NWCG:** National Wildfire Coordinating Group.
- **SAFECOM:**
Part of CISA: responsible for interoperability guidance documents, plans and policies.
Also, Aviation Safety Communications System
- **RCFD:** Rapid City Fire Department
- **ROIP:** Radio Over Internet Protocol
- **SAR:** Search and Rescue
- **SCIP:** Statewide Communication Interoperability Plan
Latest edition, as issued by the South Dakota Public Safety Communications Council.
- **SD-CFOG:** South Dakota Communications Field Operations Guide
- **SDFM:** South Dakota Fire Marshalls
Radio call signs are “FM” followed by a numeric. (IE: “FM-10” = West River Deputy Fire Marshall)
- **SDNG:** South Dakota National Guard
- **SDWLF:** South Dakota Wildland Fire
Part of the South Dakota Department of Public Safety
- **SP OP:** Special Operations
Talk Groups are requested Talk Groups for non-routine operations. Requests for these Talk Groups will be directed through Fire Dispatch / ESCC.
- **SRC:** State Radio Communications
South Dakota State Radio Communications / Bureau of Information and Telecommunications.

- **Talk Groups:** SRC assigns agencies and dispatch centers digital “Talk Groups” that allow for wide area communications. Designated Talk Groups are also assigned for communications with Fire Dispatch and/or other dispatch centers.
- **VOIP:** Voice Over Internet Protocol
- **WAVE:** State Radio Communications (SRC) Radio Over Internet Protocol (ROIP) solution.
- **WUI:** Wildland Urban Interface

Guidance Documents

- **Aviation Communications Reference:**
 - SD and East WYO 2022 RMCC IA Map WebView V4_1_22 (CUI) GPC aviation Commo 4-1-2022
- **Great Plains Interagency Dispatch Center (GPC) Dispatch Center: Radio Protocol for Initial Attack in the Great Plains Zone for South Dakota and Wyoming GPC Communications Plan: South Dakota, Black Hills and Badland Supplement.**
 - Including Pennington, Fall River, Custer, Meade, Lawrence and Butte Counties.
 - Contact the County Fire Administration Office for a copy of this plan.
- **IRPG: Incident Response Pocket Guide**
 - Latest edition as issued by the NWCG.
 - <https://www.nwcg.gov/publications/461>
- **IWI: Incident within an incident (AKA: Dutch Creek Protocol)**
 - An "Incident Within an Incident" is any accident or medical emergency that occurs during an incident directly involving Incident Management Team personnel or assigned resources.
 - See Appendix D and/or the I.R.P.G.
- **NIFOG: National Interoperability Field Operations Guide**
 - Latest edition as issued by the Cybersecurity and Infrastructure Security Agency, United States Department of Homeland Security
 - https://www.cisa.gov/sites/default/files/publications/NIFOG%20Ver%202.0_5082%20Version_FINAL%20-%2011%2015%2021_1%20%28002%29.pdf
- **Radio Communications for the Fire Service: A Planning Guide for Obtaining the Communications System You Need for Enhanced Safety and Emergency Preparedness from IFCA, NVFC, CFSI, LODDLSI**
 - [FireDecisionManual921 \(iafc.org\)](http://iafc.org/FireDecisionManual921)
- **SD-CFOG: South Dakota Communications Field Operations Guide**
 - sdpscc.sd.gov
- **SCIP: South Dakota Statewide Interoperability Plan**
 - Latest edition, as issued by the South Dakota Public Safety Communications Council
 - [211476.pdf \(sdlegislature.gov\)](http://sdlegislature.gov/211476.pdf)
 - Contact the County Fire Administration Office, Emergency Management, or South Dakota State Radio for a copy of this plan.

- **United States Fire Administration:** Voice Radio Communications Guide for the Fire Service: June 2016
 - [Voice Radio Communications Guide for the Fire Service \(fema.gov\)](https://www.fema.gov)
- **United States Forest Service Rocky Mountain Region Aviation Information Bulletin**
 - No. RMIB 23-02 Date: 15 July 2023, Page 1 of 1
 - Contact the County Fire Administration Office for a copy of this plan.

Appendix C

STATE TALK GROUPS -- Primary Talk Groups for both dispatching of resources and communication between the Incident Commander and Fire Dispatch or the control station. - Command / Overhead / Incident to dispatch	
PCFD 1	Pennington County Fire 1
PCDF 2	Pennington County Fire 2
Co ADMN 1	Pennington County Fire for overhead communications, is not available at Fire Dispatch - Wide area communications -
RC FD 1	SD State Talk Group assigned to the RCFD: Command / Overhead / Incident to dispatch <ul style="list-style-type: none"> • Initial Talk Group if responding to an Incident within RCFD primary jurisdiction. • Initial Talk Group for incidents at the Rapid City Regional Airport
RC FD 2	SD State Talk Group assigned to the RCFD: Command / Overhead / Incident to dispatch
INT	Fire Dispatch has access to the INT Talk Groups <ul style="list-style-type: none"> • Use these for interagency communications (IE: LEO, State snow plows)
PHIL INT	For incidents in Jackson and Haakon County
RC INT	Pennington County and immediate adjacent areas
NH INT	Lawrence and Meade County
SH INT	Custer and Fall River County

PAGING SYSTEMS –	
System West	Seth Bullock Tower
System East	Sage Creek Tower
System Rapid	Rapid City Water Tower (Mt. Rushmore Rd.)
System North	Creighton/Mooney Hill Tower

ZONES (Analog) - To be used as a backup system to the digital Talk Groups or where there is no digital talk group coverage. -Wide Area Coverage-	
Zone West	Seth Bullock Tower
Zone East	Sage Creek Tower: provides coverage in the Wasta Hole – See Appendix E)
Zone Rapid	Rapid City Water Tower (Mt. Rushmore Rd.)
Zone North	Creighton/Mooney Hill Tower: provides coverage in the Creighton Hole

***SIMPLEX* FREQUENCIES** are not monitored or capable of being used by Fire Dispatch

PENNINGTON COUNTY FIREGROUND *SIMPLEX* FREQUENCIES – to be used for Structural Fireground and rescue operations, not Wildland incidents.	
Fireground 1	Used for fireground operations by RCFD within the Rapid City Metro-plex.
Fireground 2	
Fireground 3	
Fireground 4	

NIFOG: FIREGROUND *SIMPLEX* FREQUENCIES for Mutual Aid, Wildland / Urban Interface, and SAR incidents.	
VF21	First in Structural Protection: GPC Plan for WUI incidents
VF22	GPC Plan / Pennco Fire Zone & Channels
VF23	GPC Plan / Pennco Fire Zone & Channels
VF24	NAT MA-A in the Pennco Fire Zone & Channels
VF25	NAT MA-A in the Pennco Fire Zone & Channels
VF26	NAT MA-A in the Pennco Fire Zone & Channels

NIFOG: EMS *SIMPLEX* Mutual Aid	
VMed28	<u>Air to Ground:</u> Air Ambulances, MedEvac – SAR Operations involving the SDNG and WUI Incidents. See Aviation Communications Reference NAT MA-A in the Pennco Fire Zone & Channels

**Incident Within An Incident (IWI)
AKA: Dutch Creek Protocol
Medical Incident Report**

FOR A NON-EMERGENCY INCIDENT: Work through chain of command to report and transport injured personnel as necessary.

FOR A MEDICAL EMERGENCY: Identify on-scene incident commander by name and position and announce, "**Medical emergency**" to initiate response from IMT communications/dispatch.

Use the following items to communicate situation(s) to communications/dispatch.

1. CONTACT COMMUNICATIONS/ DISPATCH (Verify correct frequency prior to starting report)

Ex: "Communications, Div. Alpha. Stand-by for Emergency Traffic."

2. INCIDENT STATUS: Provide incident summary (including number of patients) and command structure.

Ex: "Communications, I have a Red priority patient, unconscious, struck by a falling tree. Requesting air ambulance to Forest Road 1 at (Lat. | Long.) This will be the Trout Meadow Medical, IC is TFLD Jones. EMT Smith is providing medical care."

Severity of Emergency / Transport Priority	<input type="checkbox"/> RED / PRIORITY 1 Life or limb threatening injury or illness. Evacuation need is IMMEDIATE . <i>Ex: Unconscious, difficulty breathing, bleeding severely, 2° - 3° burns more than 4 palm sizes, heat stroke, disoriented.</i> <input type="checkbox"/> YELLOW / PRIORITY 2 Serious injury or illness. Evacuation may be DELAYED if necessary. <i>Ex: Significant trauma, unable to walk, 2° - 3° burns not more than 1-3 palm sizes.</i> <input type="checkbox"/> GREEN/ PRIORITY 3 Minor injury or illness. Non-Emergency transport . <i>Ex: Sprains, strains, minor heat-related illness.</i>	
Nature of Injury or Illness and Mechanism of Injury		<i>Brief Summary of Injury or Illness (Ex: Unconscious, Struck by Falling Tree)</i>
Evacuation Request		<i>Air Ambulance Short- Haul/Hoist/ Ground Ambulance Other</i>
Patient Location		<i>Descriptive Location and Lat. Long. (WGS84)</i>
Incident Name		<i>Geographic Name + Medical (Ex: Trout Meadow Medical)</i>
On-Scene Incident Commander		<i>Name of on-scene IC of Incident within an Incident (Ex: TFLD Jones)</i>
Patient Care		<i>Name of Care Provider (Ex: EMT Smith)</i>

3. INITIAL PATIENT ASSESSMENT: Complete this section for each patient as applicable (start with the most severe patient).

Patient Assessment: See <i>IRPG</i> page 106.
Treatment:

4. EVACUATION PLAN:

Evacuation Location (if different): (Descriptive Location (drop point, intersection, etc.) or Lat./ Long.) Patient's ETA to evacuation location:
Helispot / Extraction Site Size and Hazards:

5. ADDITIONAL RESOURCES/ EQUIPMENT NEEDS:

Example: Paramedic/EMT, crews, immobilization devices, AED, oxygen, trauma bag, IV/fluid(s), splints, rope rescue, wheeled litter, HAZMAT, extrication
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6. COMMUNICATIONS: Identify State Air/Ground EMS Frequencies and hospital contacts as soon as applicable.

Function		Channel Name/#	Receive (RX)	Tone/ NAC	Transmit (TX)	Tone/ NAC
COMMAND						
AIR-TO-GROUND						
TACTICAL						

7. CONTINGENCY CONSIDERATIONS: If primary options fail, what actions can be implemented in conjunction with primary evacuation method? Think ahead.

8. ADDITIONAL INFORMATION: Updates/Changes, etc.

REMEMBER:

- Confirm ETAs of resources ordered.
- Act according to your level of training.
- Be Alert. Keep Calm. Think Clearly. Act Decisively.

Wasta Area Radio Communications: AKA “The Wasta Hole”

When responding to incidents in the Wasta area and along the Cheyenne River Valley and River Breaks, please remember the “Wasta Hole,” or potential coverage gaps on the State of South Dakota P-25 Radio Network.

This specifically affects responding fire departments, ambulance services, Pennington County Search and Rescue and any agencies using the digital / Talk Groups of Pennington County Fire 1 or 2, (PCFD 1 / PCFD 2), Phillip and Rapid City Interagency (INT), Special Ops (SP-OP), dedicated hospital Talk Groups, Black Hills Fire 2 (BH Fire 1 / BH Fire 2), and other any related digital Talk Groups that use the State of South Dakota System.

The Zone East analog repeater, located on the 180’ tower at Sage Creek, southwest of Wall, is known to specifically cover the “Wasta Hole.” This repeater allows resources to talk to Pennington County Fire Dispatch and serves as the command/overhead channel. This includes the incident to dispatch channel.

The Wasta Volunteer Fire Station is in Wasta, in the heart of the “Wasta Coverage Gap.” Please remember this when Wasta Fire is called to an incident. They often must use Zone East for Command and to talk to dispatch. Additionally, individual firefighters may initially only be equipped with portable radios, which adds to the coverage and talk back issues.

As part of your communications plan when responding to incidents in the “Wasta Hole,” please monitor Zone East (analog) and be prepared to use it. Expect to use this to communicate with members of Wasta Fire who are responding to the same incident, and for contact with Fire Dispatch.

If you are getting “bongs” on the digital Talk Groups (the beep-beep channels), these are an immediate indicator of lack of coverage caused potentially, by several issues. Do not be afraid to switch over to one of the analog repeaters to allow communication with Fire Dispatch.