

COMMUNICATIONS ANNEX B

B1. Purpose, Situation, and Assumptions

B1.1 Purpose

The purpose of this Communications Functional Annex is to describe emergency communications during a disaster, emergency, or incident within Park County. Communications are an essential part of effective operations for nearly any type of hazard or incident. Limited or ineffective communications can often be a hindrance to performing essential emergency functions in a timely fashion.

B1.2 Situation Overview

Nearly all disaster and emergency situations require some form of communication between dispatch, responders, and other support organizations. This communication can be face-to-face, but with the exceptions of an Incident Command Post or Emergency Operations Center, resources are not often co-located. Public safety radio is the primary form of emergency communications in Park County, the City of Livingston, and the Town of Clyde Park. Pagers are used to dispatch fire responders (except Cooke City where phone calls are used). National Park Service emergency vehicles have satellite phones. In general, these forms of communication are reliable, but not in all locations. Terrain and buildings often limit the range and usefulness of radio communications. In areas lacking clear radio signals, alternative communications methods such as runners, relay vehicles, satellite phones, landline phones, cellular phones, and/or amateur radio may be used.

Public safety communications users in Park County include:

911 Dispatch

- Livingston / Park County 911 Dispatch (all of Park County, except Cooke City, Gardiner, and Jardine areas)
- Yellowstone National Park Communications Center (Cooke City, Gardiner, and Jardine areas)

Law Enforcement

- Livingston Police Department
- Montana Highway Patrol
- Park County Sheriff's Department

Fire Departments / Districts

- Cooke City / Silvergate Fire District
- Clyde Park City Fire Department
- Clyde Park Rural Fire District #2
- Gateway Hose Company
- Livingston Fire and Rescue
- Paradise Valley Fire and EMS
- Park County Rural Fire District #1

- Wilsall Rural Fire District #3

Emergency Medical / Ambulance Services

- Gardiner Ambulance
- Livingston Fire and Rescue
- Paradise Valley Fire and EMS
- Yellowstone National Park Emergency Medical Services

Search and Rescue

- Park County Sheriff’s Department Search and Rescue (Livingston)
- Park County Sheriff’s Department Search and Rescue (Cooke City)

Livingston Public Works and Park County Road Department also use radio communications and Livingston HealthCare has a paging system.

Table B1.2A shows the local public safety frequencies used in Park County, primarily for tactical operations, and Table B1.2B lists the statewide mutual aid frequencies that may be used in Park County. Note that written authorizations are required for use of the public safety, mutual aid, and proprietary frequencies.

Table B1.2A Park County Public Safety Communications Frequencies

Name	Use	Type	Frequency (Transmit / Receive)
Cooke City Repeater	Cooke City Emergency Services Cooke City Search and Rescue	Repeater	153.830 MHz / 154.445 MHz
Coulter Repeater	Cooke City Emergency Services Cooke City Search and Rescue	Repeater	166.975 MHz / 166.375 MHz
Paradise Valley Tactical Repeater	Paradise Valley Tactical Operations	Repeater	154.190 MHz / 158.9625 MHz
Law	Law Enforcement	Simplex	155.595 MHz
Livingston Fire	Livingston Fire and Rescue	Simplex	154.340 MHz
North Repeater	Northern Park County Fire Dispatch	Repeater	154.415 MHz / 158.835 MHz
County Fire	Rural Fire Services	Repeater Simplex	154.415 MHz
YNP North Repeater	Gardiner Emergency Services	Repeater	166.925 MHz / 166.325 MHz

Table B1.2B Montana Mutual Aid Communications Frequencies

Name	Use	Type	Frequency (Transmit / Receive)
Gold	Inter-discipline communications, Command	Simplex	153.905 MHz
Brown	Between Incident Command and Command Staff, Command and Control functions	Simplex	155.820 MHz
Silver	Within Law Enforcement disciplines	Simplex	155.790 MHz
Red	Within Fire disciplines, Tactical channel 3	Simplex	154.070 MHz

Table B1.2B Montana Mutual Aid Communications Frequencies (continued)

Name	Use	Type	Frequency (Transmit / Receive)
Tan	Within EMS disciplines Between Regional Hospitals and Ambulances	Simplex	155.340 MHz
Blue	Within Law Enforcement disciplines, Emergency Notification Between Law Enforcement and Ambulances	Simplex	155.475 MHz
Black	Law Enforcement Tactical Team coordination	Simplex	153.800 MHz
Maroon	Fire command and control, Expanded command	Simplex	154.280 MHz
Coral	Fire ground operations, Water operations	Simplex	154.265 MHz
Scarlet	Fire ground operations, Tactical channel 2	Simplex	154.295 MHz
Ruby	Within Fire disciplines	Simplex Repeater	153.830 MHz
Garnet	Fire control	Simplex Repeater	159.345 MHz
White	Between Local Hospitals and Ambulances	Simplex	155.280 MHz
Pink	Between EMS disciplines and dispatch	Simplex	155.385 MHz
Gray	Within EMS disciplines (MCI incidents only)	Simplex	155.325 MHz
Violet	Within Search and Rescue disciplines	Simplex	155.160 MHz
Purple	Within Search and Rescue disciplines	Simplex	155.220 MHz
Yellow	Montana DNRC	Simplex	151.220 MHz
Green	US Forest Service	Simplex	171.475 MHz
Alpha	Emergency Repeater	Repeater	172.225 MHz / 170.475 MHz
Bravo	Emergency Repeater	Repeater	172.375 MHz / 170.575 MHz
Charlie	Inter-discipline communications	Narrowband	154.4525
Delta	Inter-discipline communications	Narrowband	155.7525
Echo	Inter-discipline communications	Narrowband	158.7375
Fox	Inter-discipline communications	Narrowband	159.4725

Source: State of Montana Mutual Aid and Common Frequencies, June 2005.

The primary communications problems in Park County are limited coverage, especially south of and including Yankee Jim Canyon, Springdale, north of Clyde Park, and the Main and West Boulder areas, interoperability, and responder training.

B1.3 Planning Assumptions

- Effective coordination of emergency response requires some form of communications.
- Communications systems may fail during a disaster or emergency.
- During period of heavy activity, some channels may become saturated with radio traffic.
- Lack of communications discipline and proper technique can reduce the effectiveness of communication systems.

B2. Concept of Operations

Communications are an essential aspect of coordinated emergency response and the Incident Command System. To facilitate the use of emergency communications, the following decision points provide guidance on communications usage and alternatives.

- Decision Point: *Public safety radio communications are needed for a relatively small incident.*

The **Gold** frequency is used for communications with incident command, dispatch, mutual aid, and interdisciplinary responding resources. The **Local Tactical** frequencies are used for incident operations.

- Decision Point: *Expanded communications are needed for more complex incidents.*

See Table B1.2B for the [Montana Mutual Aid channels](#) and their intended uses for expanding incidents.

- Decision Point: *Responders need to communicate with each other during a disaster or emergency.*

The following guidelines are provided to facilitate effective emergency communications and are in compliance with National Incident Management System guidelines:

- Clear text: Avoid agency specific language, acronyms, and ten-codes.
- Common terminology: Terminology, particularly for organizational functions, resource elements, and facilities, as outlined by the Incident Command System should be used.
- Span of control: An individual's span of control should range between three and seven. This span of control should be supported by the communications system, if possible.
- Standard procedures: Procedures, such as the five-step, positive message acknowledgement sequence, should be established and standardized across communication system users.

Source: State of Montana Mutual Aid and Common Frequencies, June 2005.

- Decision Point: *Radio communications need to be prioritized.*

Radio traffic is prioritized in the following way, based on Priority Use Levels established on the state mutual aid and common frequencies:

1. Immediate Peril – An immediate threat to human life exists
2. Disaster or Extreme Emergency – An imminent threat to human life or of large scale property destruction exists
3. Routine Emergency – Distinguished from the above by scale or nearness of threat
4. Urgent Administrative and Itinerant
5. Training, Drills, and Administrative

Source: State of Montana Mutual Aid and Common Frequencies, June 2005.

Given that many disasters will require a relatively large number of responders, operational communications will probably take place on tactical channels. The types of communications over the command channels will likely be limited to:

- Initial dispatch of resources to the incident

- Communications between Incident Command and 911 Dispatch
 - Communications between Incident Command and the Emergency Operations Center, if activated
- Decision Point: *A communications plan is needed.*

During larger and escalating incidents, a written communications plan may be needed. Attached to this annex is [ICS Form 205: Incident Radio Communications Plan](#). This plan format can be used for all types of incidents and is an important element of an Incident Action Plan.

- Decision Point: *Public safety radio communications systems have failed or are ineffective.*

When radio communications are not an effective means of communicating during a disaster or emergency due to the lack of coverage, equipment failure, or any other reason, the following should be considered:

- Is the incident small enough to use only face-to-face communications?
- Can cellular and/or satellite phones be used for more distance communications with dispatch and others not on scene?
- Is a portable repeater an option?
- Is an amateur radio net warranted and can it be established?

- Decision Point: *Amateur radio communications are needed.*

Groups such as Amateur Radio Disaster Services (ARES) and Radio Amateur Civil Emergency Services (RACES), including Montana based groups, exist to support emergency response. During incidents where communications systems fail or need to be supplemented, requests for amateur radio assistance can be made through Park County Disaster and Emergency Services.

B3. Organization and Assignment of Responsibilities

The responsibilities listed here are specific to this function. Note that all entities, whether listed or not, are also responsible for their basic disaster and emergency responsibilities as outlined in the [Base Plan, Section 3.2](#), as applicable.

The following entities are not specific to jurisdiction. Therefore, in an emergency, the jurisdiction(s) affected will have the responsibility for these roles, and other non-affected jurisdictions may also be involved through mutual aid.

All Entities

- When acting as Incident Command, establish incident communications.
- When arriving on the scene, check in with Incident Command via radio communications or otherwise.

911 Dispatch

- Alert and dispatch local emergency responders.
- Coordinate communication channel usage.
- Work with Incident Command to assign tactical incident frequencies based upon geographic and functional separation.
- Evaluate the need for additional communications resources.

Disaster and Emergency Services

- Fulfill communications requests, as needed. Examples include, but are not limited to:
 - Amateur radio resources
 - Portable repeaters and other communications equipment

Law Enforcement

- Provide support with search and rescue portable repeaters, if requested.

Voluntary Organizations Active in Disasters (VOAD)

- Provide communications support, as requested. (ARES and RACES groups)

Other Entities

- Evaluate the need for additional communications resources.
- Request additional communications resources in coordination with 911 Dispatch, Incident Command, and/or the Emergency Operations Center.
- Perform other duties as needed and assigned.

B4. Direction, Control, and Coordination

Incident Command will vary depending on the incident requiring public safety communications but will most often involve law enforcement, fire departments, emergency medical services / ambulance, and/or 911 dispatch based on their regular use of radio communications. Additional information on the direction and control function can be found in the [Direction and Control Annex](#) and [Base Plan, Section 4](#).

Other related local plans (horizontal coordination) include:

- Proposed Park County Fire Incident Communications Plan

Other related state and federal plans (vertical coordination) include:

- State of Montana Mutual Aid and Common Frequencies Manual

B5. Information Collection and Dissemination

B5.1 Information Collection for Planning

Table B5.1A lists the key information needed and possible sources for public safety communication system information.

Table B5.1A Possible Information Sources

Information Type	Source
Operating status of public safety communication systems	- 911 Dispatch
Potential communication resources	- Disaster and Emergency Services

B5.2 Public Information

In general, public information is not an element of emergency public safety communications. Please refer to other annexes for public information considerations during different types of incidents or functions. If alternate communications systems are used during an incident, this may be mentioned as part of a public information package. Information regarding the public information function can be found in the [Public Information Annex](#).

B6. Communications

The communications methods, frequencies, and usage during disasters, emergencies, and incidents are at the discretion of the Incident Commander and 911 Dispatch. See [Table B1.2A](#) and [Table B1.2B](#) for more details on the frequencies available in Park County.

B7. Administration, Finance, and Logistics

B7.1 Finance/Administration

For additional information on the Finance/Administration function, particularly the importance of recordkeeping, see the [Base Plan, Section 7.1](#).

B7.2 Logistics

Communications equipment is often highly specialized and requires the technical knowledge and expertise of individuals for installation and implementation. For additional information on disaster and emergency logistics, see the [Base Plan, Section 7.2](#).

B8. Plan Development and Maintenance

See the [Base Plan, Section 8](#) for additional information on annex development, review, revision, and exercise.

B9. Authorities and References

B9.1 Authorities / References

- Montana Department of Administration, *State of Montana Mutual Aid and Common Frequencies*, June 2005.
- Proposed Park County Fire Incident Communications Plan, January 13, 2011.
- South Central Montana Interoperability Consortium, *Interoperable Communications Plan*, August 29, 2005.

B9.2 Acronyms

See the [Base Plan, Section 9.4](#) for the list of acronyms used in this plan.

B10. Attachments

Incident Radio Communications Plan, ICS Form 205
Communications List, ICS Form 205A

ICS 205 Incident Radio Communications Plan

Purpose. The Incident Radio Communications Plan (ICS 205) provides information on all radio frequency or trunked radio system talkgroup assignments for each operational period. The plan is a summary of information obtained about available radio frequencies or talkgroups and the assignments of those resources by the Communications Unit Leader for use by incident responders. Information from the Incident Radio Communications Plan on frequency or talkgroup assignments is normally placed on the Assignment List (ICS 204).

Preparation. The ICS 205 is prepared by the Communications Unit Leader and given to the Planning Section Chief for inclusion in the Incident Action Plan.

Distribution. The ICS 205 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit. Information from the ICS 205 is placed on Assignment Lists.

Notes:

- The ICS 205 is used to provide, in one location, information on all radio frequency assignments down to the Division/Group level for each operational period.
- The ICS 205 serves as part of the IAP.

Block Number	Block Title	Instructions
1	Incident Name	Enter the name assigned to the incident.
2	Date/Time Prepared	Enter date prepared (month/day/year) and time prepared (using the 24-hour clock).
3	Operational Period <ul style="list-style-type: none"> • Date and Time From • Date and Time To 	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
4	Basic Radio Channel Use	Enter the following information about radio channel use:
	Zone Group	
	Channel Number	Use at the Communications Unit Leader's discretion. Channel Number (Ch #) may equate to the channel number for incident radios that are programmed or cloned for a specific Communications Plan, or it may be used just as a reference line number on the ICS 205 document.
	Function	Enter the Net function each channel or talkgroup will be used for (Command, Tactical, Ground-to-Air, Air-to-Air, Support, Dispatch).
	Channel Name/Trunked Radio System Talkgroup	Enter the nomenclature or commonly used name for the channel or talk group such as the National Interoperability Channels which follow DHS frequency Field Operations Guide (FOG).
	Assignment	Enter the name of the ICS Branch/Division/Group/Section to which this channel/talkgroup will be assigned.
	RX (Receive) Frequency (N or W)	Enter the Receive Frequency (RX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions. The name of the specific trunked radio system with which the talkgroup is associated may be entered across all fields on the ICS 205 normally used for conventional channel programming information.
	RX Tone/NAC	Enter the Receive Continuous Tone Coded Squelch System (CTCSS) subaudible tone (RX Tone) or Network Access Code (RX NAC) for the receive frequency as the mobile or portable subscriber would be programmed.

Block Number	Block Title	Instructions
4 (continued)	TX (Transmit) Frequency (N or W)	Enter the Transmit Frequency (TX Freq) as the mobile or portable subscriber would be programmed using xxx.xxxx out to four decimal places, followed by an "N" designating narrowband or a "W" designating wideband emissions.
	TX Tone/NAC	Enter the Transmit Continuous Tone Coded Squelch System (CTCSS) subaudible tone (TX Tone) or Network Access Code (TX NAC) for the transmit frequency as the mobile or portable subscriber would be programmed.
	Mode (A, D, or M)	Enter "A" for analog operation, "D" for digital operation, or "M" for mixed mode operation.
	Remarks	Enter miscellaneous information concerning repeater locations, information concerning patched channels or talkgroups using links or gateways, etc.
5	Special Instructions	Enter any special instructions (e.g., using cross-band repeaters, secure-voice, encoders, private line (PL) tones, etc.) or other emergency communications needs). If needed, also include any special instructions for handling an incident within an incident.
6	Prepared by (Communications Unit Leader) <ul style="list-style-type: none"> • Name • Signature • Date/Time 	Enter the name and signature of the person preparing the form, typically the Communications Unit Leader. Enter date (month/day/year) and time prepared (24-hour clock).

ICS 205A Communications List

Purpose. The Communications List (ICS 205A) records methods of contact for incident personnel. While the Incident Radio Communications Plan (ICS 205) is used to provide information on all radio frequencies down to the Division/Group level, the ICS 205A indicates all methods of contact for personnel assigned to the incident (radio frequencies, phone numbers, pager numbers, etc.), and functions as an incident directory.

Preparation. The ICS 205A can be filled out during check-in and is maintained and distributed by Communications Unit personnel. This form should be updated each operational period.

Distribution. The ICS 205A is distributed within the ICS organization by the Communications Unit, and posted as necessary. All completed original forms must be given to the Documentation Unit. If this form contains sensitive information such as cell phone numbers, it should be clearly marked in the header that it contains sensitive information and is not for public release.

Notes:

- The ICS 205A is an optional part of the Incident Action Plan (IAP).
- This optional form is used in conjunction with the ICS 205.
- If additional pages are needed, use a blank ICS 205A and repaginate as needed.

Block Number	Block Title	Instructions
1	Incident Name	Enter the name assigned to the incident.
2	Operational Period <ul style="list-style-type: none"> • Date and Time From • Date and Time To 	Enter the start date (month/day/year) and time (using the 24-hour clock) and end date and time for the operational period to which the form applies.
3	Basic Local Communications Information	Enter the communications methods assigned and used for personnel by their assigned ICS position.
	• Incident Assigned Position	Enter the ICS organizational assignment.
	• Name	Enter the name of the assigned person.
	• Method(s) of Contact (phone, pager, cell, etc.)	For each assignment, enter the radio frequency and contact number(s) to include area code, etc. If applicable, include the vehicle license or ID number assigned to the vehicle for the incident (e.g., HAZMAT 1, etc.).
4	Prepared by <ul style="list-style-type: none"> • Name • Position/Title • Signature • Date/Time 	Enter the name, ICS position, and signature of the person preparing the form. Enter date (month/day/year) and time prepared (24-hour clock).