FCC REGULATIONS

Communications on dispatch frequencies are guided by FCC regulations, Part 90, 47 CFR, Chapter 1.

The following selected regulations are cited for information:

a. Each licensee shall restrict all transmissions to the minimum practicable transmission time and shall employ all efficient operating procedures to maximize the utilization of the spectrum.
b. Communications involving the imminent safety of life or property are to be afforded priority by all licensees.
c. Licensees shall take reasonable precautions to avoid causing harmful interference. This includes monitoring the transmitting frequency for communications in progress and such other measures as may be necessary to minimize the potential for causing interference.
d. Stations licensed under this part may transmit only the following types of communications:
    1. Any communications related directly to the imminent safety of life or property.
    2. Communications directly related and necessary to those activities that make the licensee eligible for the station license held under this part.
    3. Communications for testing purposes required for proper station and system maintenance. However, each licensee shall keep such tests to a minimum and shall employ every measure to avoid harmful interference.

The FCC randomly monitors all assigned radio frequencies for compliance with rules and regulations.

RADIO FREQUENCIES AND USAGE

The Spokane County Combined Communications Center (CCC) radio system will consist of a dispatch channel, status channel and multiple primary and secondary tactical channels. Channels marked with an asterisk (*) are narrow band channels.

The Dispatch channel will be used for tone and verbal dispatch of units as a preliminary alarm. Units will acknowledge response and arrival over the designated Primary Channel.

The Status channel will generally be used for non-emergency (unassigned fire resources) radio traffic. Dispatch does *not* need to be notified of a resource being out of their station unless it will change their response status.

Primary Channels

LAW ENFORCEMENT dispatching will be done by radio over the appropriate law enforcement agency channel.

All FIRE dispatches will be done over digital pagers and resources will generally respond on a primary channel that will be predetermined by the geographical area. Dispatch will include in the initial dispatch to all responding units the assigned Primary Channel. Dispatch may assign a different Primary Channel if the normally assigned Primary Channel is busy. The IC and dispatch will work together for the prevention of an overload on the assigned Primary Channel. Primary Channels shall be used for Dispatch to communicate with the incident as well as on-scene command as deemed necessary by the IC.

Tactical Channels
Tactical Channels are usually non-repeated frequencies which are requested by the IC and assigned by Dispatch for on-incident tactical communications. Additional tactical channels may be requested for large incidents and/or as needed. Dispatch will monitor incidents on assigned tactical channels however tactical channels shall not be used to communicate with Dispatch.

The tactical frequencies shall be used for:

a. Coordinating the incident activities of multiple resources assigned to an incident. Note: Divisions/Groups covering large geographical areas are usually assigned their own tactical channel. Divisions/Groups may be combined onto a single Branch channel if assigned.
b. Radio communications between field units that do not require a repeated frequency.
c. Reducing radio traffic during major events to a manageable level.

Participating agencies have access to simplex tactical channels as needed upon coordination with dispatch. Each agency must remember that reception at dispatch may not be possible on simplex channels as these are not repeated and in most cases not voted frequencies.

Involved field units shall identify on the Primary tactical frequency that they are switching to a secondary tactical frequency. Dispatch will monitor all in-use tactical frequencies when possible.

Radio Repeaters
A radio repeater strengthens a weaker signal by re-transmitting it from a base station transmitter that is generally at a better location. When transmitting, pause one-half to one second before speaking. Due to the electronics delay in the repeater your first word may get chopped off. This tends to cause confusion in properly identifying a call sign.

"FIRE DISPATCH FREQUENCY"

Channel Name		Mobile Receive		
Dispatch	(D)	154.430	7A	192.8

Dispatch frequency is RECEIVE only. No mobile transmit capability.

"FIRE" repeated frequencies:

Channel Name		Mobile Receive			Mobile Transmit		
Status	(STA)	154.295	YA	85.4	154.070	YA	85.4
North Primary	(N)	154.190	1B	107.2	153.875	1B	107.2
South Primary	(S)	154.250	4Z	136.5	153.770	4Z	136.5
Valley Primary	(V)	154.385	ZA	94.8	153.950	ZA	94.8
City Primary	(CP)	154.055	7Z	186.2	154.175	7Z	186.2
Southwest Primary	(SW)	154.280	2A	114.8	153.890	2A	114.8
Orange	(O)	154.340	M1	203.5	154.145	M1	203.5
DNR Deer Park*	(DNRDP)	159.4050	5A	156.7	151.2500	5A	156.7
DNR Cheney*	(DNRCH)	159.3675	5A	156.7	151.4675	5A	156.7
Valley Medical*	(VM)	155.2575	6Z	167.9	154.830	6Z	167.9
Spokane Command Mobile Repeater*	(CMDRPT)	154.445	7Z	186.2	150.790	7Z	186.2

Channels marked with an asterisk (*) are narrow band channels.

"FIRE" non-repeated tactical frequencies:

Channel Name		Mobile Receive			Mobile Transmit		
Green	(G)	154.220	CSQ		154.220	3A	127.3
White	(W)	154.010	CSQ	186.2	154.010	7Z	186.2
Yellow	(Y)	154.400	CSQ	179.9	154.400	6B	179.9
Red*	(R)	153.830	CSQ		153.830	CSQ	
City Medical	(CM)	154.160	3B	131.8	154.160	3B	131.8
Amber	(A)	154.130	1Z	100.0	154.130	1Z	100.0
DNR Common*	(DNR)	151.415	CSQ		151.415	1A	103.5

"LAW ENFORCEMENT" repeated frequencies:

Channel name	Mobile Receive		Mobile Transmit	
City of Spokane PD:				
SPD North	159.090	110.9	155.655	110.9
SPD South	159.210	173.8	156.150	173.8
Spokane County Sheriff:				
SCSO CH 1	155.130	103.5	155.685	103.5
SCSO CH 2	154.740	114.8	158.985	114.8

"LAW ENFORCEMENT" non-repeated tactical frequencies:

Channel name		Mobile Receive		Mobile Transmit	
City of Spokane PD:					
SPD	Data	159.150	210.7	159.150	210.7
SPD	Car to Car	159.030	131.8	159.030	131.8
Spokane County Sheriff:					
SCSO CH 6	TAC 6	154.755	127.3	154.755	127.3
SCSO CH 7	TAC 7	154.785	136.5	154.785	136.5
Other Law Enforcement:					
LERN		155.370		155.370	
NLEC		155.475		155.475	

"LAW ENFORCEMENT" repeated tactical frequencies:

Spokane County Sheriff:					
SCSO CH 4	(Data)	153.755	118.8	156.165	118.8
SCSO CH 5	(Phone)	154.800	110.9	153.935	110.9
SCSO CH 8	TAC 8	153.815	156.7	155.625	156.7

Incident Communication Nets
Communication Nets for large incidents will normally be organized as follows:

Command Net: This net will usually be a repeated frequency which serves to link together Incident Command, General Staff, Section Chiefs, Division and Group Supervisors.

Tactical Net: There may be several tactical nets. They are usually not repeated. They may be established around agencies, departments, geographical areas or even specific functions. The determination of how nets are set up should be a joint logistics/operations function. The Communications Unit Leader will develop the communications plan.

Logistics Net: A logistics (support) net will be established primarily to handle the non-suppression logistical support communications (base, ground support, etc.). Logistics nets are usually non-repeated frequencies.

Air To Ground Net: An air to ground tactical frequency may be designated or regular tactical nets may be used to coordinate air to ground traffic.

Air To Air Net: Air to air nets will normally be pre-designated and assigned for use at the incident.

Frequency Patching: Frequencies may be temporarily patched together to connect talk groups as necessary to meet incident needs by either dispatch or by utilizing a gateway (JPS or other) interoperable device in the Mobile Command Post. Note: This is limited to the patched frequency receiver coverage and it will tie up the patched frequencies involved in the patch for the duration of the patch.

SPOKANE COUNTY MAJOR INCIDENT COMMUNICATION PLAN

Incident Communication Plans
Every Incident Action Plan (IAP) shall have a communications plan to facilitate command and control of incident resources.

The IC will establish the initial communications plan in coordination with Dispatch. As an incident escalates to a major incident with multiple divisions covering a large geographic area or a MIST is assigned an ICS 205, Incident Radio Communications Plan, should be used as part of the written IAP. This communications plan must consider the agencies involved, incident organization, number and type of resources and topography in relationship to communications infrastructure (repeaters, links, etc.).

Single Agency/Single Division Incidents:

- A Command Channel (normally the assigned Primary repeated frequency for the agency with jurisdiction).
- A single assigned Tactical Channel (simplex frequency).

Major Incident/Multi-Division Incidents:

- "Orange" Channel is the default FIRE Command Channel but another repeated frequency may be assigned by FIRE Dispatch. Spokane County Mobile Repeater may be requested if "Orange" is unavailable or out of range.
- Spokane County Sheriff, CH 2, is the default LAW Command Channel but the LAW Enforcement dispatch for the agency with jurisdiction will designate one of the repeated LAW Enforcement channels for this purpose on multi-jurisdictional major incidents.
- Unified Fire/Law enforcement command may decide to share a single Command Channel when appropriate on the incident.
- One or more Tactical Channels. Each Division/Group may have its own assigned frequency normally a "color-coded" channel or DNR Common.
- Law Enforcement and Fire will normally use separate tactical channels.
- Note: Divisions/Groups may be combined on a Tactical Channel as necessary to meet incident needs and provide frequency management.
- Air to Ground Net: DNR Air is the only pre-designated channel available in Spokane County.
- Air to Air Net: DNR Air to Air will be determined by the aircraft and controllers involved.

Major incident/Multi-Branch Incidents:

- Law Enforcement, military and other agencies are generally not able to communicate on our frequencies.
- Early in an incident Branch Directors such as Law or Public Health may be provided with agency radios on our frequencies so they can serve as "human repeaters" to pass information back and forth between these types of agencies. An Aide may be utilized for this task.
- Radio "caches" may be obtained and distributed when available through Logistics.

Command Net Frequencies

A common trigger point for needing a command net is the creation of two or more Divisions/Groups which cover a large geographical area and or deployment of the MIST or IMT. A Command Net will normally default to Channel Orange for Fire and SCSO CH 2 for Law Enforcement however the agency with jurisdiction may designate a repeated primary dispatch channel for this use:

FIRE:

Channel Name		Mobile Receive			Mobile Transmit		
Status	(STA)	154.295	YA	85.4	154.070	YA	85.4
North Primary	(N)	154.190	1B	107.2	153.875	1B	107.2
South Primary	(S)	154.250	4Z	136.5	153.770	4Z	136.5
Valley Primary	(V)	154.385	ZA	94.8	153.950	ZA	94.8
City Primary	(CP)	154.055	7Z	186.2	154.175	7Z	186.2
Southwest Primary	(SW)	154.280	2A	114.8	153.890	2A	114.8
Orange	(O)	154.340	M1	203.5	154.145	M1	203.5
DNR Deer Park*	(DNRDP)	159.4050	5A	156.7	151.2500	5A	156.7
DNR Cheney*	(DNRCH)	159.3675	5A	156.7	151.4675	5A	156.7

Spokane Command (CMDRPT) Mobile Repeater*	154.445	7Z	186.2	150.790	7Z	186.2

LAW ENFORCEMENT:

Channel name		Mobile Receive		Mobile Transmit	
City of Spokane PD:					
SPD North		159.090	110.9	155.655	110.9
SPD South		159.210	173.8	156.150	173.8
Spokane County Sheriff:					
SCSO CH 1		155.130	103.5	155.685	103.5
SCSO CH 2		154.740	114.8	158.985	114.8
SCSO CH 4	(Data)	153.755	118.8	156.165	118.8
SCSO CH 5	(Phone)	154.800	110.9	153.935	110.9

Tactical and Logistics Net Frequencies

"FIRE" <u>non-repeated tactical frequencies</u>:
A Tactical and/or Logistic Net will normally default to one or more (as needed for Divisions, Groups, etc) of the following non-repeated frequencies:

Channel Name		Mobile Receive			Mobile Transmit		
Green	(G)	154.220	CSQ		154.220	3A	127.3
White	(W)	154.010	CSQ	186.2	154.010	7Z	186.2
Yellow	(Y)	154.400	CSQ	179.9	154.400	6B	179.9
Red*	(R)	153.830	CSQ		153.830	CSQ	
Dispatch	(D)	154.430	7A	192.8	154.430	7A	192.8
City Medical	(CM)	154.160	3B	131.8	154.160	3B	131.8
Amber	(A)	154.130	7Z	100.0	154.130	7Z	100.0
DNR Common	(DNR)	151.4150	CSQ		151.4150		103.5

"LAW ENFORCEMENT" <u>non-repeated tactical frequencies</u>:

Channel name		Mobile Receive		Mobile Transmit	
City of Spokane PD:					
SPD	Data	159.150	210.7	159.150	210.7
SPD	Car to Car	159.030	131.8	159.030	131.8
Spokane County Sheriff:					
SCSO CH 6	TAC 6	154.755	127.3	154.755	127.3
SCSO CH 7	TAC 7	154.785	136.5	154.785	136.5
Other Law Enforcement:					
LERN		155.370		155.370	
NLEC		155.475		155.475	

"LAW ENFORCEMENT" repeated tactical frequencies:

SCSO CH 4	(Data)	153.755	118.8	156.165	118.8
SCSO CH 5	(Phone)	154.800	110.9	153.935	110.9
SCSO CH 8	TAC 8	153.815	156.7	155.625	156.7

Air to Ground Net Frequency
Air and ground resources normally communicate on:

Channel Name	Mobile Receive		Mobile Transmit	
DNR Air to Ground*	159.2700	CSQ	159.2700	CSQ
DNR VTAC11	151.1375	CSQ	151.1375	CSQ

Channels marked with an asterisk (*) are narrow band channels.

Air to Air Net Frequency
Air to air frequencies are assigned as part of the communications plan.

MOBILIZATION

Communication is a critical element in safe effective resource utilization. It must be established and maintained throughout an assignment.

a. The VHF analog radio spectrum will be used on state fire mobilization incidents.
b. All state mobilization resources must have programmable VHF capability.
c. All units of a Strike Team/Task Force must have common communication other than REDNET (153.830 MHz) or OSCCR (156.135 MHz).
d. Strike Team/Task Force leaders must have REDNET (153.830 MHz).

REDNET: 153.830 MHz – (Washington State Fire Chiefs statewide mutual aid frequency
This radio frequency is a statewide non-repeated mutual aid frequency. It may be utilized for communications within the Strike Team/Task Force or as a tactical channel if assigned by the communications plan.

OSCCR: 156.135 MHz – Inter-Agency Coordination Communications
A frequency used for incidents when inter-agency communications are necessary for cross discipline coordination, e.g., Fire Department, Police, Utilities and County/State Road Department.

HEAR: 155.34 MHz – Field to Hospital
A field-to-hospital channel that is a recorded-only frequency. It is not monitored by Dispatch. HEAR is used by EMS field units to communicate with the Regional Disaster Control Hospital (see page 14-8).

L.E.R.N. 155.370 MHz – Law Enforcement Radio Network
A statewide law enforcement mutual aid frequency.

N.L.E.C. 155.475 MHz – National Law Enforcement Channel
A national law enforcement mutual aid channel.

ROUTINE COMMUNICATION PROCEDURES

Dispatch Identification
The CCC shall be referred to as “Dispatch” on all frequencies. Any field unit requesting the CCC shall include “Dispatch” in their transmission.

Field Unit Identifiers
The Combined Communications Center Policy Board, Policy Statement #97-02, shall determine unit identifiers.

Each unit shall use its proper identifier when transmitting. Acknowledging receipt of calls or radio transmissions will be done by responding unit using the unit identifier.

Language and Codes
To facilitate clear understanding of messages between all agencies and dispatch and to ensure that radio transmissions meet the requirements of brevity, plain text/language shall be used.
Exceptions:

a. Code 13 - Law enforcement is needed and the on-scene crew does not want the parties involved to hear the request. Request law enforcement "no code" as soon as possible.
b. Code 99 - Law enforcement is needed immediately, fire personnel are in trouble.
c. Code 1106 – Obvious dead body.

Phonetic Alphabet
The military phonetic alphabet will be used to clarify the spelling of words or letters when appropriate.

A-ALPHA	**H**-HOTEL	**N**-NOVEMBER	**T**-TANGO
B-BRAVO	**I**-INDIA	**O**-OSCAR	**U**-UNIFORM
C-CHARLIE	**J**-JULIETTE	**P**-PAPA	**V**-VICTOR
D-DELTA	**K**-KILO	**Q**-QUEBEC	**W**-WHISKEY
E-ECHO	**L**-LIMA	**R**-ROMEO	**X**-X-RAY
F-FOX TROT	**M**-MAMA	**S**-SIERRA	**Y**-YANKEE
G-GOLF			**Z**-ZULU

Phonetics shall be used for all letters if it is necessary to spell a name.

General Radio Calling
Emergency communication shall supersede all other forms of traffic and will be acknowledged immediately. State “Emergency Traffic” within the transmission. “Emergency Traffic” is limited to transmission of imminent threats to life or other serious emergencies (see 17-8).

To decrease radio transmission time all traffic directed to dispatch should relate to:

a. Status of units.
b. Messages necessary to mitigate an incident.
c. Messages required for incident reporting purposes.
d. Authorized non-emergency traffic.

It is not necessary to notify dispatch for any non-emergency messages that do not change a resource’s STATUS. Resources will be dispatched as shown on the run card, unless a unit is

OUT OF SERVICE or is otherwise not available for response. The exception is radio transmissions necessary to record a time for reporting purposes with dispatch. These would include times responding, arrival times, arrival of utilities, returning to station, etc.

In order for the dispatcher to accurately receive and record your transmission, address "Dispatch" from your unit identifier, then pause prior to continuing with your message.

If fire personnel happen upon an incident inform dispatch of situation and request needed resources.

Example #1
Unit: *Dispatch from Engine 421, in service, returning to station or location.*
Dispatch: *Engine 421 returning.*

Example #2
Unit A: *Brush 44 from 420, switch to Orange frequency*.
Unit B: *Brush 44 switching to Orange frequency*.

Example #3
Calls to Dispatch: *Dispatch from Brush 1101*.
Calls from Dispatch: *Spokane Medic 1 from dispatch*.

All traffic shall include the identifier for who is being called followed by the identifier for who is calling. The unit identifier used as a response shall be recognized as an acknowledgment by the unit.

Example # 4
Dispatch: *Spokane 20 from dispatch, call the office*.
Unit: *Spokane 20, call the office*.

Portable radios assigned to units shall be identified with a unit identifier.

Addressing and Communications
Five-digit address or unit numbers shall be grouped one and two and two (for example, 12832 will be stated: *One twenty-eight thirty-two)*.

Four-digit address or unit numbers shall be grouped two and two (for example, 1012 will be stated: *Ten twelve)*.

Three-digit address or unit numbers shall be grouped one and two (for example, 540 will be stated: *Five forty)*.

Two-digit address or unit numbers shall be grouped as two (for example, 28 will be stated: *Twenty-eight)*.

In the event a location is a rural route or does not have an address, dispatch shall use the nearest road name or nearest address location in the initial dispatch.

Unit Status
All units shall use the following terminology to identify status:

AVAILABLE ON SCENE -	In service at an incident, available for response.
DELAYED RESPONSE -	Unit is out of first-in response area, e.g., at Training Center. Dispatch will send a closer resource.
IN SERVICE -	Ready for response, in or out of station.
ON THE SCENE -	At the incident scene; not available for response until dispatch is notified.
OUT OF SERVICE -	Not available for response.
RESPONDING -	Responding to an incident, not available for response.
RETURNING -	Returning to station or detail; can be in or out of service, must clarify.
STAGED -	On scene at staging area awaiting a tactical assignment. Dispatch will assume the last status identifier given by a unit to be its current status.

Quarters Change
During the course of a day it is sometimes necessary for units to either physically change quarters to replace a piece of apparatus or to cover the run area of another unit. The CAD system can accomplish this if you notify dispatch of your status changes. This would allow for example, E92 going to Station 94 and assuming E94's first-in response area and E94 going to Station 92 to assume E92's first-in response area. The CAD will then look at all quarters changes when recommending units for responses.

Whenever a quarters change takes place the unit(s) required through the "UP" function in CAD must be paged. They will not receive the page through the quarter change/swap.

Response Information
All responding units shall repeat briefly on initially assigned tactical channel the address and nature of the incident they are responding to, e.g., structure fire, brush fire, medical. If a unit is aware of another unit responding to an incident to which it is closer, notify dispatch of unit location, that unit is responding and request dispatch to cancel the other unit.

Additional Information
Additional information will be given to responding units over the radio or by pagers. This information includes, but is not limited to, patient information, drugs taken, alarm and zone details and specific locations. Reports shall be as brief as possible.

Additional pager information will be limited to cancellations, additional resources and any information that would affect the incident.

Repeating Pertinent Information
Dispatchers and responding units shall repeat all pertinent information using a paraphrase format.

Arrival Information
Upon arriving at an incident scene the first arriving unit shall give a report of conditions found and establish command. This allows all communications to be directed to a single Incident Commander. All communications from the incident to dispatch will come through the Incident Commander; exception shall be emergency traffic.

ADDITIONAL EMERGENCY COMMUNICATION RESOURCES

Spokane County Mobile Command Vehicle (MCV)
The Spokane County Mobile Command Vehicle is equipped with VHF, UHF and 800 MHz radios as well as satellite, cellular and standard telephone communications. It is also equipped with an interoperable gateway device to allow interoperability or patching of any of the radio or phone systems.

Amateur Radio Emergency Service (ARES)
Radio Amateur Civil Emergency Service (RACES)
Spokane County ARES/RACES consists of licensed and trained radio amateurs from the Spokane area who have voluntarily registered their qualifications and equipment for communications duty in the event of a disaster or large local or area wide emergency.

Dispatch may call upon ARES/RACES to supplement and compliment our communication system if it is anticipated that our system may become overloaded or is disabled. ARES/RACES can also supply communication services where no other established links exist.

Mobile Emergency Radio System (MERS)
FEMA's Mobile Emergency Radio System (MERS) is a mobile multi-channel, multi-band and inter-operable communications unit. It includes qualified operators and technicians. Its purpose is to augment existing communications systems and/or establish a communications system with satellite up-link to outside sources.

National Interagency Fire Center (NIFC) Radio Kits
NIFC radio kits may be ordered by a Communications Unit Leader through the Washington Department of Natural Resources (WADNR) or Department of Emergency Management (DEM). Portable radio kits are available with programmable VHF radios. Programmable VHF repeater kits and satellite radios and phones are also available.