COVID is still a thing. Stay safe!

Interagency Wildland Fire Module Field Guide

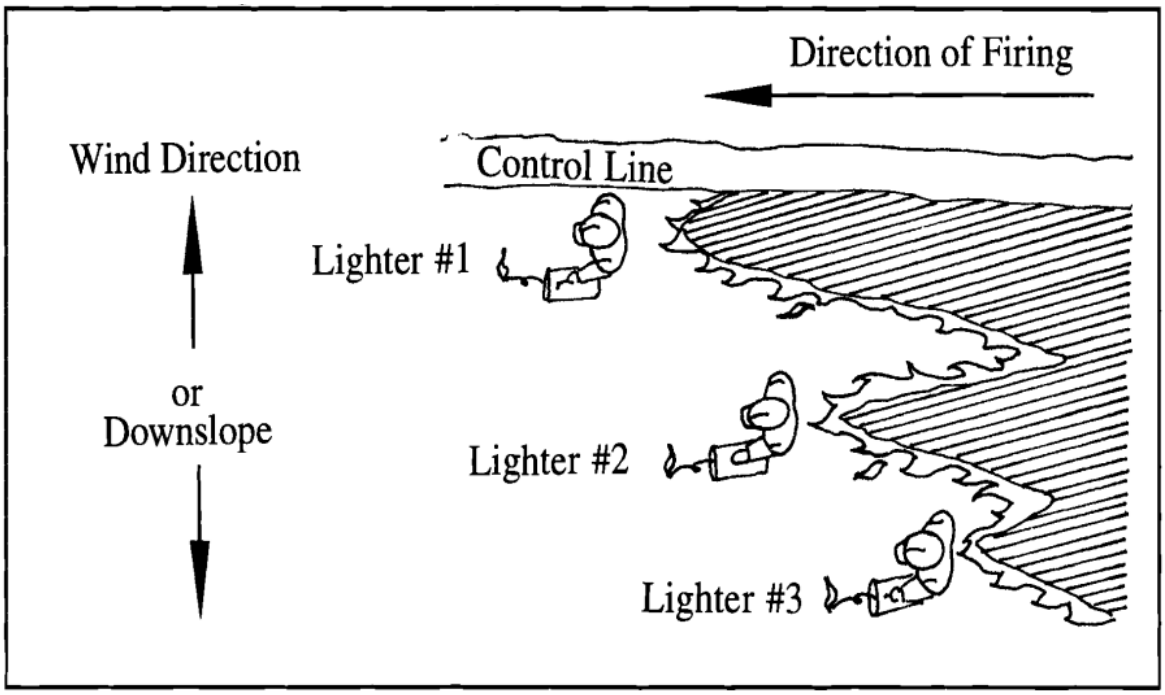
And Newberry Pocket Guide

2021

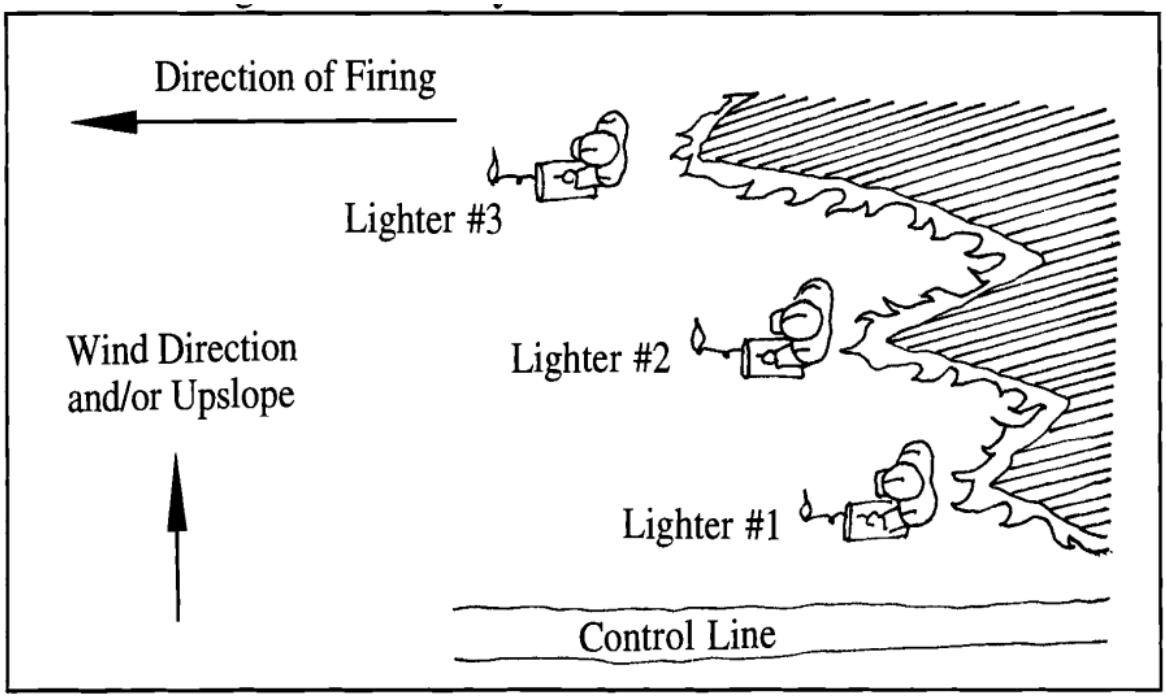
Strip Firing– 1,2,3 vs 3,2,1

LIGHTER 1 IS **ALWAYS** CLOSEST TO THE CONTROL LINE

1-2-3 FIRING PATTERN



3-2-1 FIRING PATTERN



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MISSION AND PURPOSE

The MISSION of the Interagency Wildland Fire Module Program is to develop and provide an innovative, safe, highly mobile, logistically independent, and versatile fire module with a commitment to achieving diverse management objectives.

The PURPOSE of the Interagency Wildland Fire Module program is to facilitate the use of fire and other management techniques involving planned and unplanned wildland fire events. WFMs are highly skilled and versatile fire crews, which provide technical and ecological based expertise in the areas of prescribed fire and wildfire response such as long-term planning, ignitions, holding, suppression, hazard fuels reduction, and fire effects monitoring; with an emphasis in fire fulfilling its natural or historic role to meet resource and management objectives.

This document is intended to supplement, and not replace, existing NWCG approved guides including the Incident Response Pocket Guide (IRPG, NFES 1077) and Fireline Handbook (NFES 0065), among others. In addition, this document is not intended to replace previous editions of the Interagency Fire Use Module Field Guide.

Additions/Changes to this document will be considered by the Interagency Wildland Fire Module Steering Committee and or The Newberry Division Field Guide Decision Making Group (TNDFGDMG).

Special thanks to all who helped develop this guide over the years: Nick Foey for literally designing this entire thing. If you actually read this fine print, stop by his desk for a crisp high five. Hand sanitizer MUST be used prior to high five in order to comply with CDC regulations and guidance.

CHIEF OF PARTY CHECKLIST

General:
- Safety of group at all times is your paramount responsibility
- Accept your role as the leader
- Be ready at all times.
- Work hard, be safe

Mobilization
- Obtain copy of Resource Order and make 5 copies
- Update crew Manifest and make 5 copies
- Update crew Quals sheet and make 5 copies
- Document accountable property you are taking (e.g. Radios, GPS units, etc.)
- Download GPS Maps for assignment location
- Document start mileage for vehicles
- Plan travel route and ETA, make hotel reservations if necessary
- Collect applicable maps from files
- Coordinate with the incident/requesting unit re: Food, Backcountry Gear, etc.
- Copies to Office: Manifest, Travel Authorizations, Travel Route, and ETA
- Coordinate with incident/requesting unit while en route

Check-Out
- Verify that times on CTRs match times on FTRs for each person
- On most incidents, never depart without signed FTRs in hand
- Make copies if possible of all reports, assignments, photos and maps
- Obtain S #'s for all equipment to be fire replaced, treat supply nicely
- Obtain and review crew evaluations
- Notify Home Unit/Duty Officer and dispatch of departure and travel plans (ie: routes, ETA, RONs)
- If moving between incidents, Start time = Departure time from current incident

At Assignment
- Check in: Notify Home Unit/Duty Officer of arrival
- Manifest and time records to overhead
- Obtain radio freqs and program by hand or computer (Never Clone from Incident Radios!!)
- Find out specific assignment, sleeping, food, etc.
- Attend all operational briefings.
- Fill out and submit signed CTR's every day
- Pass along any and all updates on progress, changes and status
- Pre-plan Logistical needs: Place orders by 1300 for next shift
- Log chainsaw use and maintenance
- Fill-out and submit 214s and all Documentation
- AAR every shift

Return to Station
- Notify Duty Officer and Home Dispatch of return
- Tell Dispatch to change status in ROSS for R&R and module availability
- Fuel all vehicles
- Fill out mileage forms
- Clean inside and outside of vehicles
- Disinfect all food containers, cook equipment and water coolers
- Rehab and log all chainsaws, tools, pumps, etc.
- Before departure, all module gear and vehicles are fire ready
- Restock the fire monitoring kits
- Fill out fire report and make copies and send one to Home Unit
- Fire Folder: All reports, trip manifest, resource order, CTR's collated, Maps, Relevant IAP's, Travel documentation, Crew evaluation, fire report, incident replacement requisitions, C of P Guidelines
- Documentation to Home Unit: Time records, fire reports, crew evaluations, travel sheets, mileage forms

CHAINSAW GUIDES

Use caution when making chainsaw carburetor adjustments.
Instructions below are intended for those who are experienced saw tuners.
If you are unfamiliar with these procedures, seek out someone who is.

If your saw fails to start, check the following:

1. Gas (50:1)
2. On/off switch is turned ON
3. Spark plug has spark
4. Exhaust screen is clean
5. Air filter is clean
6. Jets are adjusted correctly: NEVER OVER TIGHTEN JETS
   Turn both jets to the right (clockwise) until snug.
   Then, back to the left (counter-clockwise) until desired setting.

Stihl: high 3/4 turn, low 1/4 turn

7. Carburetor is flooded:
   Tighten high jet until its snug.
   Pull starter cord until saw starts.
   Turn jet left to correct setting.

JET and IDLE Field Adjustments

1. Clean or replace air filter. You cannot properly tune the carb unless the air filter is clean and in good condition.

2. Run saw at full throttle. Turn HS screw in (clockwise) slowly. As the HS screw is turned in, saw is being leaned out (more air, less gas). Keep leaning as long as the saw flutters. Go to flat line (no flutter) and back off.

3. Release throttle and let saw idle. If saw idles too fast (chain turning) or too slow (dies), adjust idle screw only. Turn screw counter clockwise to stop chain or clockwise if saw dies.

4. Idle for 30 seconds. Do the dump/roll test. Saw should idle in all positions. If saw fails the dump test, tighten (turn clockwise) the LS screw a quarter turn. Fuel is pooling and flooding out the engine. Repeat.

5. Throttle up saw. Saw should immediately respond. If it stutters, the LS is too lean. Back out (counter clockwise) the LS screw a quarter turn or less. Repeat until saw revs immediately. Adjust Idle as needed, and repeat steps 3 thru 5.

6. TACH TUNE ASAP. HIGH RPMS SHOULD BE 13,500 OR LESS. IDLE RPM~2,500.

Purging Instructions:

1. Drain fuel tank.
2. Run saw until it stops.
3. Attempt restarting with choke on until saw fails to detonate.
4. Remove fuel tank cap and invert saw for 5 minutes.
5. Remove spark plug
6. Pull starter cord until piston is at lowest point in cylinder
7. Spray WD-40 into cylinder and pull cord a few times
8. Replace cap and plug

Commonly replaced *STIHL* Parts

Part Description	***STIHL***/Mfg Part #
E clip	9460 624 0801
7 tooth Rim Sprocket	0000 642 1223
Sprocket Washer	0000 958 1032
HD Air Filter	0000 120 1654
Fuel Filter/Pick-up body	0000 350 3504
Spark Plug (NGK)	BPMR 7 A
Spark Plug (Bosch)	WSR 6 F
Round File, Box of 1 Dozen	5605 773 5512
91 Driver **Full Skip Chisel Chain** 3/8" Pitch, .050" gauge	33RSF (specify # of drivers w/ this part #)
28" bar Rolomatic ES 91 drivers 3/8" pitch, .050" gauge	3003 000 9638

MIXING GUIDE: 3:1 SLASH MIX- 5 GALLONS

# of cans	3 Parts Diesel	1 Part Gasoline
1	**3.75**	**1.25**
2	**7.5**	**2.50**
3	**11.25**	**3.75**
4	**15.00**	**5.00**
5	**18.75**	**6.25**
6	**22.50**	**7.50**
7	**26.25**	**8.75**
8	**30.00**	**10.00**

1 CUP	8 ounces
1 PINT	2 Cups 16 Ounces
1 QUART	4 Cups 2 Pints 32 Ounces .946 liters
1 GALLON	4 Quarts 128 Ounces 3.785 liters

	2-CYCLE MIX QUANTITIES (Ounces)				
	Gasoline Quantity				
Mix Ratio	**.5 gal**	**1 gal**	**2 gal**	**2.5 gal**	**5 gal**
24 : 1	2.7	5.4	10.7	13.4	27.0
40 : 1	1.6	3.2	6.4	8.0	16.0
50 : 1	1.3	2.6	5.2	6.4	12.8

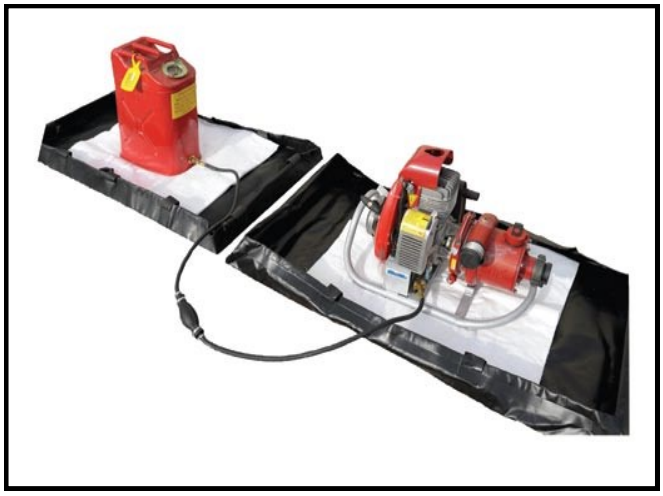
Chainsaws—50:1 Mark III pumps—24:1

Bar Length (3/8", .050)	# of Drivers
25"	84
28"	91
32"	105
36"	114

TACH RPM GUIDE		
Model	**Idle**	**High**
Stihl		
MS360	2800	13500
MS440	2500	13500
MS460	2500	13500
MS660	2500	13500
Husky		
372 XP	2700	13500
385 XP	2700	12500
395 XP	2500	12000

Mark III Set Up

- When ordering a Mark III, **specify with kit**. Order spare pumps if the operation depends on water.



- Locate pump near water level to keep suction lift as low as possible. Make a flat platform for pump.
- Unfold berms and ensure sides are fully extended.
- Place absorbent pads in berms. In rocky terrain, use two pads in pump berm.
- Place pump in one containment berm and fuel can(s) in the other.
- Locate fuel cans as far away from hot engine parts as possible; orient pump so exhaust does not vent directly on fuel can. Store excess fuel away from water source.
- Secure pump and fuel can with cord to prevent vibration creep.
- Connect suction hose to foot valve and pump **(wrench-tight).**
- Place foot valve at least one foot under water. Do not place foot valve directly on sandy or muddy stream beds. Use pack frame, burlap, buckets, etc. to protect foot valve from debris.
- Prime the pump head by using either the hand primer or by filling with pail. Fill to the brim of prime port and wrench tighten cap.
- Connect short hose (pigtail) to discharge side of pump, and check and bleeder valve to pigtail.
- Utilize 1” port on check & bleeder valve or a 1.5 “ gated wye to recirculate water back to the water source.

Mark III Fueling

ENSURE ALL FUEL IS MIXED PROPERLY BEFORE USING PUMP

- If fuel is pre-mixed (red or greenish colored), then no mixing is required. (Alaska provides pre-mixed fuel.) Use a strip of paper to test for oil residue.
- If fuel is straw or clear colored then mix fuel with 2 cycle oil according to Manufactures' recommendation of **24:1** (for every 5 gallons of gas add approximately 1 quart oil):
- Pour approximately one gallon of gas into pump-adapted can.
- Add appropriate amount of 2 cycle oil to gas then shake can vigorously.
- Add remainder of gas and shake can.

- **Label mixed fuel, and store mixed fuel away from unmixed fuel.**
- Attach fuel line to pump adapted can only when ready to start pump.

When refueling:

- Wear eye protection and gloves.
- Fuel spare can away from hot exhaust.
- Do not operate a radio or any other portable electronic device such as a cell phone.
- Replace gas absorbent pads as needed by placing them in garbage bags and dispose of per local protocol.
- If a spill occurs or gas enters the "natural" water source, notify supervisor and resource advisor immediately. Spill containment kits are available at district office and ICPs.

For Mark III operation, generally operate pump at full throttle and adjust pressure with pressure relief valve or gated wye.

Mark III Start-up And Operation

1) Open air vent on top of fuel can.

2) If engine is cold move choke lever to start position. If engine is warm move choke to run position.

3) Move throttle lever to start/ warm up position.

4) Slowly pump fuel bulb until fuel mixture (in clear fuel tube) is just touching bottom of carburetor.

Caution: Follow this step carefully to avoid flooding the engine.

5) If pump is equipped with an on/off switch, turn switch on.

6) Ensure reset rod is pushed in.

7) Pull starter rope with short quick pulls (typically 2 to 4 pulls) until engine 'pops'.

Caution: Several consecutive pulls of rope with choke in start position (after engine 'pops') will flood the engine.

8) Immediately set choke lever to run position.

9) Pull starter rope approximately 1 to 3 more times and engine should start.

10) Allow engine 2 minutes to warm up (throttle lever should still be at start/warm up position) before moving throttle to run.

Mark III Operation And Shut Down

- Water must be flowing through the pump head at all times. Crack nozzles or open check and bleeder valve.
- Grease pump head with one squirt of grease once a shift (or every 8 hours) at grease/zerk fitting.

Shut Down

- Allow engine to idle for one minute.
- Move the throttle to the “stop” position.
- At end of shift remove fuel line from base of fuel can; allow engine to run out of gas.
- In freezing conditions, drain pump head.

If pump will not start or run follow these steps:

1) On the Mark III, check the overspeed reset rod (see page 34). If rod is pushed in, move on to 2. If rod is out the pump has lost its prime. Do not attempt to restart pump until the problem is located and corrected; check for these problems:

- Suction hose connections are leaking.
- Suction hose is defective.
- Priming cap is loose.
- Foot valve not fully submerged in water source (1 foot minimum)

2) Check the spark plug by removing it from the engine. If the spark plug electrode is dry, move on to 3.
If spark plug is wet with fuel, the engine could be flooded. Follow these steps:

Place spark plug on top of cylinder head with spark plug wire attached (spark plug is now grounded).

Mark III Troubleshooting

- Remove fuel supply line from engine.
- Remove crankcase drain plug and copper gasket from engine block to drain excess fuel.
- Reinstall new or clean spark plug.
- With choke and throttle in full open (run/run) position, pull starter cord several times until fuel is exhausted.

- Reinstall crankcase plug with copper gasket.

3) If the spark plug looks normal, move on to 4. If the spark plug has an excess of carbon on the electrode replace the spark plug and try to start.

4) Check for ignition spark:

WARNING: FIRE/EXPLOSION HAZARD

- Ensure spark plug is grounded (see page 34).
- Crank engine and look for spark across spark plug gap. The plastic cover of the IRPG is approximately .020" thick and can be used to check the gap if gauge is not available. Do not use a dime to check the plug gap.

If there is an ignition spark, move on to 5.

If there is no spark, pump will need to be repaired.

Mark III Troubleshooting

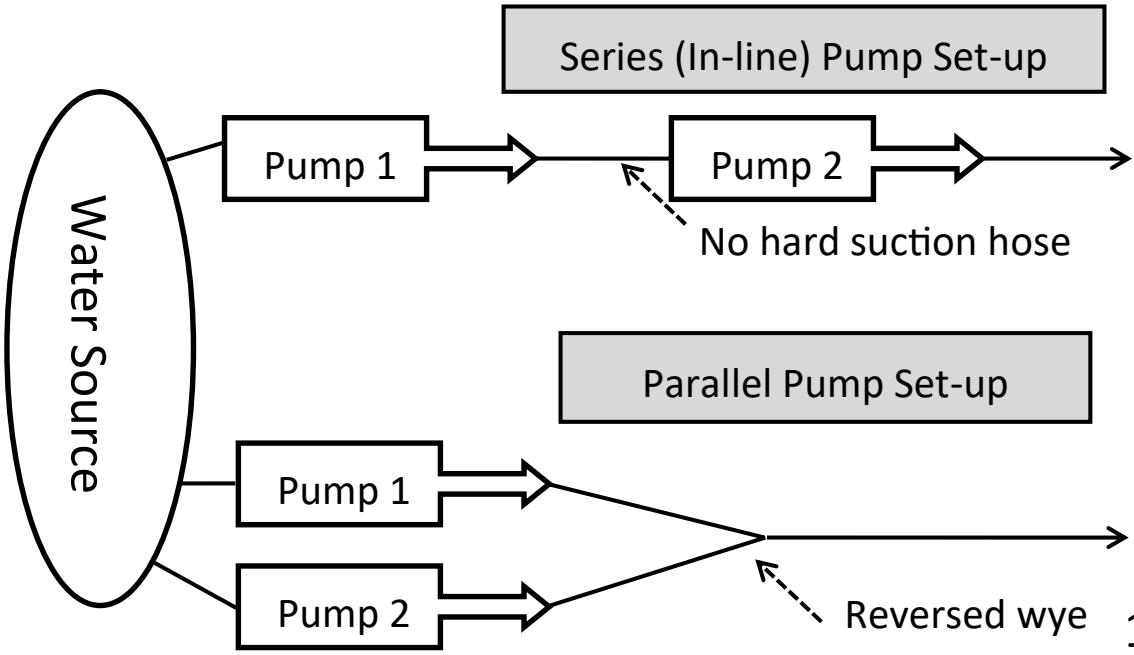
5) Check fuel system for these problems:

- Loose connections; fuel leaking
- Fuel can is not vented
- Fuel supply line defective
- Water or dirt in the fuel system

6) Use flagging to identify any mechanical problems with pump.

Water Handling Information

- Consider the distance and elevation change (+ or -) to determine the equipment needs and most effective set-up.
- Plan for additional spare hose when ordering.
- A standard progressive hoselay requires: 1-1.5 “gated wye, 1-1.5” to 1” reducer, 100 ft of 1” hose, and 1– 1 “nozzle for every 200 Feet.



Series Pump

2 pumps are connected inline (the distance between the pumps will vary based on slope). **This will increase pressure for uphill hoselays.**

Pump 1 (lower)

1. Set-up the lower pump near the water source, and attach 1.5" pigtail with a pressure relief valve and check and bleeder valve to the pump discharge.
2. Run lower pump at maximum pressure to push water uphill.

Pump 2 (upper)

1. Place the upper pump where water flow is adequate for pump operation, but maximum elevation is achieved. Some testing may be required (the trunk must still be firm).
2. Connect trunk hoselay to the suction port on pump with 1.5" double female coupling **(do not use hard suction hose) .**
3. Connect a 1.5" gated wye to the pump discharge using a pig tail. Use this gated wye to adjust the water flow through the upper pump. Add a check and bleeder valve above the gated wye, and connect the uphill hose lay to the check and bleeder valve.

Operation:

Operation requires a pump operator at each location.

1. Start pump 1 (lower) and allow to warm up then bring to full throttle.
2. Once water reaches pump 2, use the gated wye on pigtail to reduce water flow through pump 2. Start pump 2 (upper) and allow it to warm up (adequate flow to pump 2 is required before starting).
3. Slowly increase the speed of pump 2 (upper) until cavitation is imminent, (intake hose will flatten) then back off on throttle. Use gated wye to control flow from pump 2 (upper) and run pump at highest possible RPM.
4. Constant attention will be required to both pumps and all the hardware between them to prevent cavitation of upper pump.

Note: If possible, separating the pumps with a middle Fold-a-tank will make operation easier.

For Mark III operation, ALWAYS operate pump at full throttle and adjust pressure with pressure relief valve or gated wye.

Parallel Pumping Procedures:

2 pumps from the same water source are connected with a gated wye into a single hoselay. **This will increase volume on long-distance hoselays without increasing pressure.**

Set-up:

1. Set–up 2 pumps at the same water source. Keep both pumps close together for ease of operation.
2. Attach a check and bleeder valve to each pump using a 1 1/2" pig tail. This will prevent water hammering.
3. Use a Siamese gated-wye (may not be readily available), or use 2 double female couplings and a double male coupling to invert a regular gated-wye. This will connect the two pumps into one hose-lay.

Operation:

1. Start each pump using the standard operation of a Mark III.
2. An operator should be near the pumps to ensure proper operation.

Note: Ensure that you have a large water source, as running two pumps will require more water.

Either pump can be started or stopped at anytime.

Fuel Consumption:
Mark III, 5 gal/ 3 hrs
Shindaiwa 5 gal/ 10 hrs

Troubleshooting Hose Lays and Pumping Solutions

Long hose lay on flat ground

1. Not enough water getting to end of the hose lay.

- Are there a lot of nozzles being used? More flow is needed. Consider Parallel Pumping to increase volume of water being supplied. Ensure there is adequate water supply.

-If there are more than 7 or 8 nozzles being used, consider parallel pumping.

-Change nozzles to a lower flow nozzle (e.g. switch from KK to Forester nozzle).

2. Water pressure on all nozzles is inadequate.

-Is there a long section between the pump and the first nozzle?

- Parallel pumping may fix this issue as well and is easier to set up and run.

- Consider Series Pumping or Stage Pumping to an intermediate water source (e.g. fold-a-tank).

-Install parallel hose lay between pump and first nozzle to decrease friction loss in the hose lay.

Up hill hose lay

1. Inadequate water being supplied to the fire.

-There is most likely a problem overcoming the head pressure. Consider installing more pumps in series or Stage Pumping or a combination of the two.

Can you pump it from the top???

Downhill Hose Lays

1. Lots of blown hose far down the hill.

-Stage pumping will help with blown hose from head pressure. Each stage will require a pump operator.

-Once the hose lay is filled, bleed off lots of water through the recirc to keep the pump running and water readily available when it is needed.

-Keep water flowing out of nozzles. This will (obviously) use more water so action must be taken to ensure your water source is adequate.

2. **Pumps have fouled plugs due to being run at idle for long durations.**

-Keep pumps running at full throttle. Utilize recirc to keep adequate water in hose lay without having to adjust the throttle. Recirculate with 1.5” gated wye that is necked down to desired output pressure.

Reminders:

Install a check and bleeder valve in order to prevent backflow thereby potentially causing cavitation. (not included in Alaska kits)

ALWAYS RUN PUMP AT FULL THROTTLE. DO NOT ADJUST THROTTLE UNLESS SHUTTING DOWN OR WARMING UP. Adjust pressure and flow at the recirc valve.

These steps are to ensure pump resiliency and effectiveness.

NFES ORDERING FORM

ITEM DESCRIPTION	NFES ORDER #	UNIT OF ISSUE
Battery AA (Package of 24)	0030	PG (pakage)
Clamp Hose 1” to 1 ½ ”	0046	EA
Cubie Container (5 Gallons)	2058	EA
Double Male 1 ½” NH	0856	EA
Double Female 1 ½”	0857	EA
Foam concentrate class A (5 gal)	1145	PL (pail)
Foldatank w/frame 1500 gal.	0664	EA
Foldatank w/frame 1000 gal.	0661	EA
Hose 1 ½” Synthetic 100’	1239	Length
Hose 1” Synthetic 100’	1238	Length
Hose 1 ½” CJRL 100’	0967	Length
Hose 1” CJRL 100’	0966	Length
Hose Toy ¾” 50’ lengths h	1016	Length
Hose Suction 2”x 8’	0914	Length
Hose Suction 1 ½” x 8’	1808	Length
Mark 3 Kit	0870	EA
Nozzle Forester (Twin tip combo)	0024	EA
Nozzle 1”KK	1081	EA
Pump lightweight 25-45 GPM	0124	EA
Pump Bladder Bag	1149	EA
Reducer 1 ½” to 1”	0010	EA
Reducer 1” to ¾”	0733	EA
Spout Jeep Can	0210	EA
Tank Pumpkin 300 gallons	0220	EA
Torch (Drip)	0241	EA
Wetting Agent 1 Quart	1316	EA
Wrench Spanner 1” to 1 ½”	0234	EA
Wye 1 ½” Gated	0231	EA
Wye 1” Gated	0259	EA

1 Hose Kit includes the following:		
NFES ordering #	Description	Quantity
1239	Hose 1 ½” Syn	50(5000 ft)
1238	Hose 1” Syn	25(2500 ft)
0231	1 ½” Gated Wye	25
0010	1 ½” – 1” reducer	25
0024	Forester Nozzle	25
0870	Mark III Kit	2
0664	Folda Tank	2 (1500 Gal. ea).
0914	2” x 8 ft Hose Suction	2

- When ordering a hose kit, approximate the size of the fire by looking at the map.
- 1 section = 1 square mile
- 1 mile = 5,280 feet (1 water handling unit contains 5,000 feet of 1 ½” hose.)
- 1 section = 640 acres

STRUCTURE PROTECTION TIPS

1) Identify fire hazards that need to be mitigated to protect cabin

a. Is the roof clear?
b. Are the eaves clear?
c. Are there building materials or fire wood stacked against the cabin?
d. Are there trees, snags, or other vegetation that pose a direct hazard to the cabin?

2) Sprinkler system set up tips

a. Sprinkler coverage should wet all surfaces of the structure.
b. **Sprinklers at the structure corners provide the best coverage**
c. Vary heights to provide the best coverage.
d. Set two sprinklers at opposite corners above the roof line and the other two below the roof line.
e. Adjust sprinklers for long range spray or short range mist.

3) Sprinkler head attachment methods.

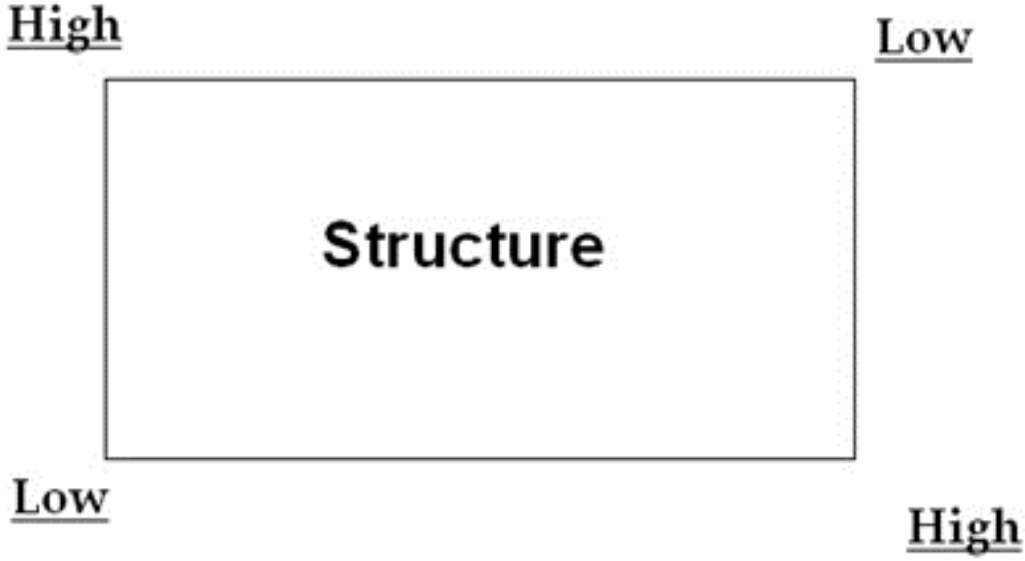
a. Set sprinkler heads on poles, tripods, or stands to get them above ground/cabin

4) Pumps

a. Shindaiwa type pumps work well close to water sources
b. Use 5 gal can and fuel line attachment in Sprinkler Kit for Shindaiwa
c. Mark III type pumps work well when the structure is far from, or high above the water source.

Misc.

a. Use extra sprinklers on wood piles or surrounding fuels
b. Make sure your hose lay is protected
c. Take the extra step to prevent water from entering the structure



BASIC CABIN PROTECTION ORDER

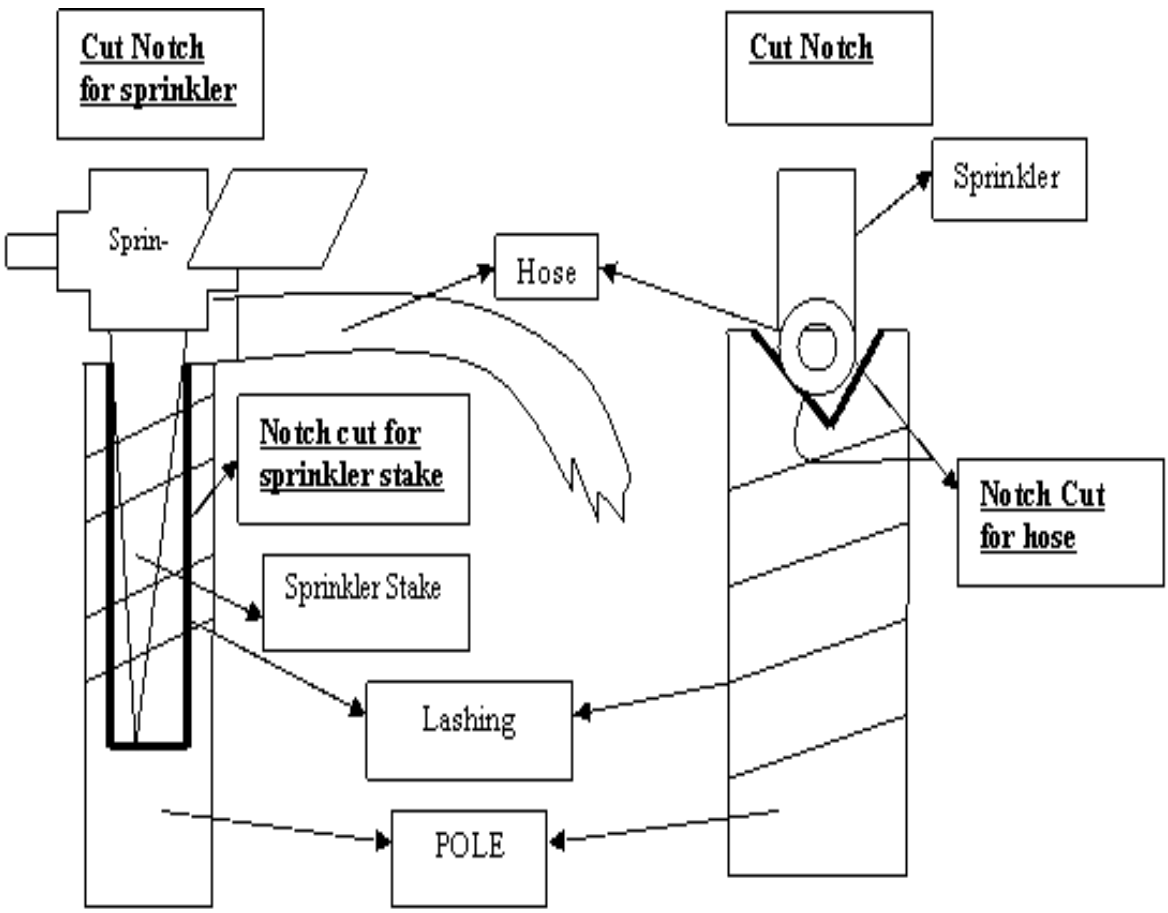
-1 pump kit (#0870) -700’ of 1” hose (#7273)
-10 gallon premix (#7358)
-1 sprinkler kit (either #0920 or #1048)

SPRINKLER KIT CONTENTS

Cache Item: NFES 1048 (new kit as of 2008)

Cache Item	qty	Description
0010	1	REDUCER - 1 1/2" NH-F (9 TPI) TO 1" NPSH-M (11 1/2 TPI)
0136	1	NOZZLE - GARDEN HOSE, 3/4" NH, ADJUSTABLE, BRASS
0137	1	NOZZLE - PLASTIC, 60 GPM, 1 1/2'' NH-F X 4 3/4'' LONG
0235	1	WRENCH - SPANNER, 11", 1 1/2" TO 2 1/2" HOSE SIZE
0321	1	HAMMER - CLAW
0394	12	TIE WRAPS - ONE WAY, 15" - 17"
0402	4	REGULATOR - WATER PRESSURE, R.V.,40-50 PSI, 3/4" M/F-H BRASS
0473	1	WRENCH - ADJUSTABLE, 10"
0538	12	PIN - PANEL, HOLD DOWN, 8" LONG
0721	5	GASKET - GARDEN HOSE, 3/4"
0729	1	FORM, - INSTRUCTIONS SPRINKLER KIT ()
0731	4	TEE - HOSELINE, 1 1/2" NH-F X 1 1/2" NH-M X 1" NPSH-M W/ CAP
0733	4	REDUCER - 1'' NPSH-F (11 1/2 TPI) TO 3/4'' NH-M (11 1/2 TPI)
0744	1	PACKSACK - WATERPROOF, W/STRAPS
0808	1	CARTON - FIBERBOARD, 16" X 14" X 12", DOUBLE WALL W/ HAND HOLDS
0824	2	BLOCK - WOOD, 2" X 4" X 6"
0835	4	VALVE - SHUT OFF, BRASS, BALL, 3/4" NH

0835	4	VALVE - SHUT OFF, BRASS, BALL, 3/4" NH
0882	1	NAILS - DUPLEX, DOUBLE HEAD, 16D, 3"
0904	2	VALVE - WYE, GATED, BRASS, 3/4" NH-F X 3/4" NF-M X 3/4" NH-M
0913	8	STAKE - W/CLAMP, SPRINKLER, METAL, 18" X 1" X 1"
0937	1	SAW - PRUNING, 10"
0999	4	SPRINKLER ASSEMBLY - 1/2", SPRINKLER HEAD W/COUPLINGS
1016	5	HOSE - GARDEN, SYNTHETIC, 3/4" NH X 50'
3305	2	CORD - NYLON, 1/8'' X 100'
3318	1	BAG - COTTON, LUNCH OR TOOL, 10'' X 24''



— WRAPPING STRUCTURES —
TIPS & CONSIDERATIONS

Structure wrap (NFES #0881) comes in 54" x 300' (1350 ft^2).

Suggested order list:

- Ladders (min. 2) tall enough to reach roof peak
- Staplers and staples (order extra)
- Scissors
- Needle-nose pliers
- Sharpies/Permanent markers
- 3" Aluminum tape (avail in rolls of 360')

Things to think about:

- Take some time to plan.
- Start from the bottom of the building so your seams don't catch embers.
- Consider likely wind/fire-front direction when deciding how to overlap vertical seams.
- Using aluminum tape on seams should reduce the number of staples needed.
- Draw windows on outside of wrap to prevent breaking them in the process of wrapping & unwrapping.
- Can you safely work on the roof (if necessary)? Will it support your weight? Are there other options?
- Will you still need access to the inside of the building?
- Consider the unwrapping stage when deciding how many staples to use.

Mobile Radio Programming Guide

Old King DMH (Truck Radio)

Select a channel group to be programmed.
Press and hold [FCN] button on the microphone and the far right soft switch on the front of the radio simultaneously.
Enter "000000"
Press the [ENT] key to proceed to programming mode. The display will change to "PRG CH00"

New BK-150R (Truck Radio)

SCAN: Enables/disables Scan function. Turns green in scan mode.
PSCN: Enables/disables Priority Scan. Turns green in priority mode.
ZONE: Used to select zones 1-32. Can also be accessed by the # key
on the MIC.
TXCG: Transmit tone picklist for tones 1-32. See "User TX Tones" section for further instructions.

Menu

Scan List: Select channels within zone to scan.
Cloning: Opens cloning menu **see directions on page 4.**
Squelch Set: Squelch adjustment both preset or user set. Up arrow opens squelch (more sensitive) down arrow tightens squelch (less sensitive).
Zone Scan List: Select/deselect zones with +/- key
Zone Scan: Used to enable or disable Multi-Zone Scanning.
Versions: Info about the radio.
Monitor: Allows users to change Monitor modes, default set to "off".
User RX Tones: Receive tone picklist for tones 1-32. See "User RX Tones" for further instructions.
Backlight: Allows users to change screen brightness of display.
Keypad Program: Allows users to hand program.

BK-150R Mobile Radio and BK-150S Radio Use
Truck = 150R Handheld = 150S

Scan- Add and delete channels in scan list and scan channels within the current zone that you are in.

- Within desired zone press the Menu button. Scroll up or down to Chan Scan List using the D-Pad and press OK. This will bring you to the Channel Scan List page.

Zone Priority Scan- Add a priority scan channel that will take precedence over the other scan channels or current channel you're on in the selected zone.

- From the home screen push the Orange button. This will bring you to the Pri Chans Menu.
- Scroll up or down to Zone # P1 Chan and press OK. This will bring you to the Priority 1 Menu. You will be presented with the following options:
  - **Off** – turns Zone Priority selection off.
  - **Use Main** – also known as 'follow me' priority. When priority scan is enabled, your priority channel is the selected channel on the radio. When you change channels, the priority will change with the selector.
  - **Select:** - allows you to select a specific Priority Channel in the current zone.

System Priority Scan (Mobile only)- Add a priority scan channel that will have priority over your other scan channels or current channel selected, similar to Zone Priority. The System Priority setting will allow you to use the selected priority channel across the **entire radio**. Setting up a System Priority is similar to the procedure for selecting a Zone Priority. **Note: When System Priority 1 or 2 is enabled, all Zone Priorities of the corresponding number will no longer be functional!!!**

- Navigate to the priority menu as described in the previous section, scroll to System 1 P1 Chan and press OK. This will bring you to the System Priority 1 Menu.

BK-150R Mobile Radio and BK-150S Radio Use (cont.)

User TX Tones (Transmit Tone Select)- (For use in areas that use tone guards. California is a regular example of this). Gives you the ability to choose tones 1-32 from a picklist for a transmit frequency with no tone. Must be chosen for each frequency.

- From the home screen press "TXCG"
- This will bring you into the User TX Tones Menu.
- Using the number pad, type in the tone you would like to select or use the up and down arrows to scroll to desired tone.
- While on the desired tone press enter.
- This will automatically take you to the home screen and you will see the TCG icon is now highlighted. **Note: Bottom Line of Display will toggle between Frequency and Selected TX tone, ie TX# or blank if default tone is selected.**

Keypad programming— Navigate to "Keypad Prog" and enter "000000" for the password. Select Zone and Channel you want to program

"Channels"

- **Chan Label:** Using "ENT" select Chan Label. Clear text. Like an old cell phone use the numbers on the number pad to enter text. Pressing 0 once will give you a space and the ✳ and # key will give you special characters. Press enter when done.
- **Rx Freq:** Select RX Freq (receive frequency). Clear frequency. Using number pad enter in your receive frequency. Press enter when done.
- **RX Mode:** Select RX mode. Unless instructed always select analog. Press enter when done.
- **RX Guard:** Select RX Guard (receive tone). Clear Tone. Using the number pad enter your receive tone. Press enter when done.
- **RX NAC:** Unless instructed do not use. If you have to program copy RX Guard instructions.
- **Squelch Mode:** Not in use.
- **TX Freq:** Select TX Freq (transmit frequency). Clear Frequency. Using the number pad enter in your transmit frequency. Press enter when done.
- **TX Mode:** Select TX Mode. Unless instructed always select analog. Press enter when done.

BK-150R Mobile Radio and BK-150S Radio Use (cont.)

- **Bandwidth:** Select Bandwidth. Unless instructed always select 12.5 kHz. Press enter when done.
- **TX Guard:** Select TX Guard (Transmit tone). Clear tone. Using the number pad enter your transmit tone. Press enter when done.
- **TX NAC:** Unless instructed do not use. If you have to program copy TX Guard instructions.
- **TGID:** Not in use.
- **Secure Mode:** Not in use. Always keep in clear unless instructed to change.
- **Key:** Not in use.
- **Key Lock:** Not in use. Always keep off unless instructed to change.
- **Low Power Lock:** Not in use. Always keep off unless instructed to change.
- **Plist Disable:** **Only use this if you didn't program tones (RX Guard/TX Guard) in the channel you are programming. This will allow you to turn a channel into a tone select channel. It will always be defaulted to off.** Using square button select Plist (Pick list tone's 1-32). Using triangle buttons to scroll up or down select on or off (depending on applications). Press enter (square button) when done.

Zone Params- Using square button select Zone Prams. This will bring you to the Select Zone Menu where you can select the zone you would like to edit. Do not edit anything except the Zone Label, TX on Pri 1 (transmit on priority 1), Enable UCG (keypad tone select) and UCG TX only.

- **Zone Label**- Using square button select Zone Label. Press the upside down triangle to clear text. Like an old cell phone use the numbers on the number pad to enter text. Pressing 0 once will give you a space and the ✳ and # key will give you special characters. Press enter (square button) when done.
- **Pri 1 Chan**- ***Can be edited at the home screen.***
- **TX on Pri 1**- Using square button select TX on Pri 1 (transmit on priority 1). Using triangle buttons scroll up or down select OFF or ON. **Off will take away the ability to transmit on P1.**

BK-150R Mobile Radio and BK-150S Radio Use (cont.)

- **Enable UCG-** Using triangle buttons scroll up or down to select on and then press enter (square). This will allow you to key-pad tone select tones 1-16. You will still need to hand program tones 1-16 in each transmit guard section. Example, channel 1 will need tone 1 (110.9) programed into the transmit guard section of Channels program area, Channel 2 will need tone 2 programmed etc.
- **UCG TX Only-** Using triangle buttons scroll up or down to select on and then press enter (square) button. If you are going to use the Enable UCG function you must turn this function or you will change tones on the receiver.

Global Prams- Using square button select Global Prams. Do not edit anything except the Bklight Mode and Bklight Dur (Backlight).

System Prams (Mobile radio only)- Press OK to select System Parms. This will open the System menu where you can select/edit the following parameters:

- **System Pri 1 Chan– Can be edited from the home screen using the orange button.**
- **TX on Pri 1**- Press OK to select TX on Pri 1 (transmit on priority 1). Using the D-pad scroll up or down select OFF or ON. **Off will take away the ability to transmit on P1.**
- **System Pri 2 Chan- Can be edited from the home screen using the orange button.**
- **P25 Unit ID-** Feature is only active when using Digital channels, this will provide a unique ID for each radio, but is not required to talk on conventional digital channels.
- **Scan Hold Time-** Not in use or set by technician.

Giving a clone (Handheld instructions)

- Using adequate cloning cable attach the master radio to a compatible king radio such as the KNG P/M, DPH/DMH, etc.
- Press the menu button, scroll to cloning, press enter.
- This will bring you into the Clone Menu.
- Select Active Zone.
  - **Active Zone:** Copies zone from the master radio and programs it into the target radio's selected zone.
  - **Zone- to-Zone:** Allows you to scroll through the zones of the master radio, select and clone to a target radio's selected zone. This function only works when you are cloning from KNG to KNG radio.
  - **Entire Radio: Allows you to clone the entire radio (only works when cloning from KNG to KNG).**
- This will bring you to the Zone Clone Menu. It will ask if you would like to clone UCG/PL. Using the left triangle button select **NO**.
  - **No- This is the preferred method please use first unless instructed.** It will disable UCG parameters (keypad tone select) in the zone programming and ***is the radio default set by technician.*** If tone select is needed please use the picklist option in the menu.
  - **Yes-** This isn't the preferred method**. S**elect yes if you want a user to tone select by keypad and if you have a tone programmed in each channel 1-16. *Note UCG options have to be configured. Please follow instructions under **Zone Params.** Tone standard is located on last page.
- Your clone should have started and the radio will tell you if the clone was successful or if it failed.
- Repeat steps E-G for next radio.

Receiving a clone (Handheld instructions)- navigate to desired zone and receive clone.

Receiving a clone (Mobile instructions)-

Receiving a clone (mobile instructions)

- Navigate to the group you would like to have cloned.
- Using the touchscreen on the control head or the right and left arrows and the OK button on the MIC, select the menu button.
- Using the d-pad, scroll up or down to the Cloning option and press the OK button.
- Using arrows scroll to Destination Clone.
- The Screen will say Destination Clone Mode Waiting.

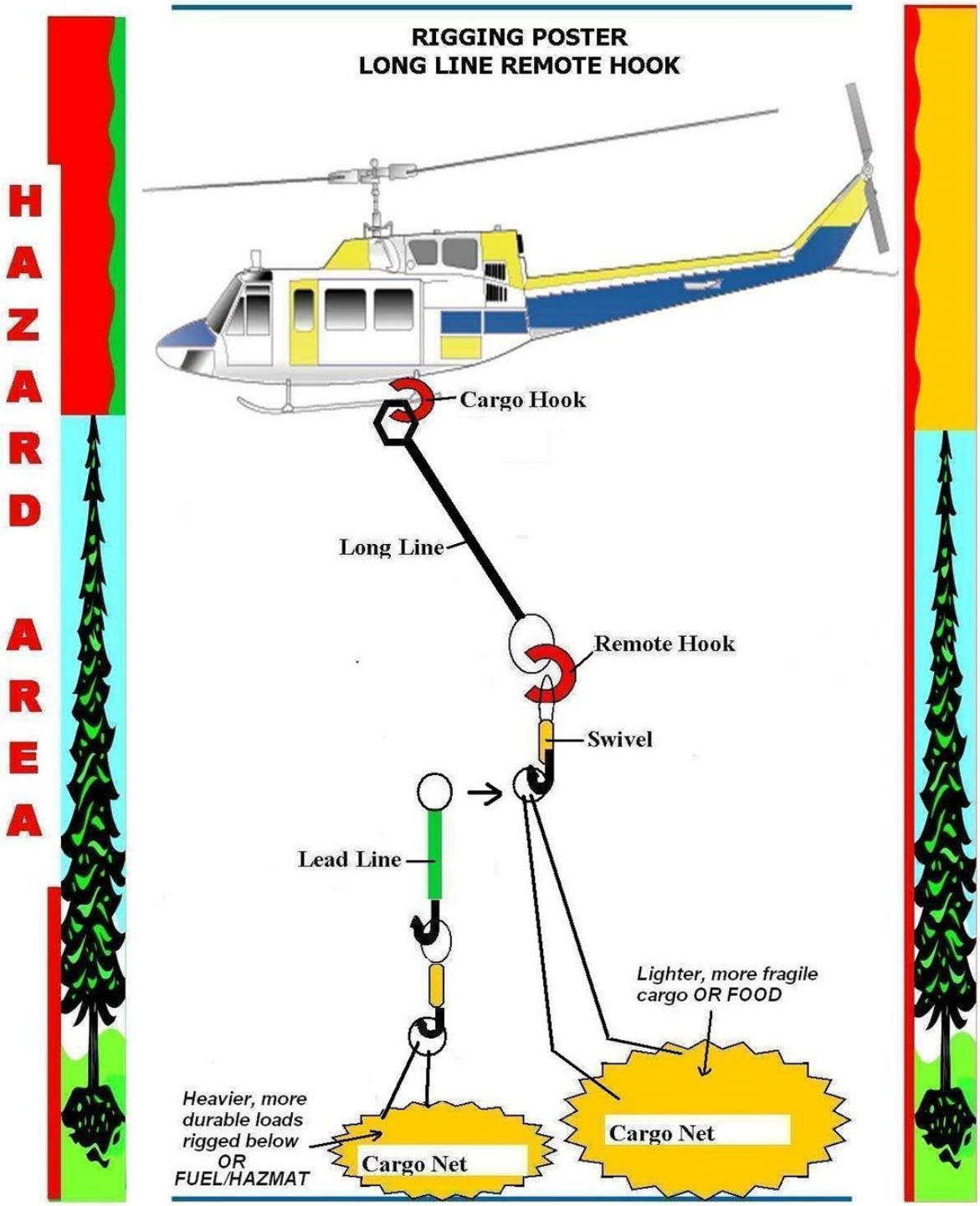
Using the “Octopus Cable” connect the “Octopus” side of the cable to MIC port of the display of the MIC port on the RF Deck under the back seat if it is a remote mount radio. Then attach the Master radio to the appropriate connection on the cloning cable.

RF Deck installed under back seat. This will only be present if the radio is a remote mount. Note: this port is usually faster to clone to and from if present.

- Start The Clone. The Display will say Destination Clone Started. Wait for the radio to reboot. Once the radio reboots you should have the clone in the chosen group

NOAA WX Freqs
RX 162.400
RX 162.425
RX 162.450
RX 162.475
RX 162.500
RX 162.525
RX 162.550

Tone 1-16	Tone 17-32
110.9	67.0
123.0	71.9
131.8	74.4
136.5	77.0
146.2	79.7
156.7	82.5
167.9	85.4
103.5	88.5
100.0	91.5
107.2	94.8
114.8	97.4
127.3	118.8
141.3	173.8
151.4	179.9
162.2	186.2
192.8	203.5



- ALL nets get a swivel. Use a LEAD LINE when “daisy chain-ing” loads
- Ensure adequate long-lines by providing helibase with accurate tree heights!

Use of non-federally approved aircraft

Imminent Threat: In an emergency circumstance, where lives and property are immediately threatened in the current burning period, by wildland fire on federal lands under federal protection, a local federal line officer may, with state concurrence, take operational control over state contracted airtankers if sufficient federal aircraft are not available to protect the public.

Federally non-approved aircraft: Any non-agency aircraft without an interagency approval card or agency letter.

Example: ODF: DC-7 airtankers

Protection responsibility	Imminent Threat	Fire Status	SORO Duty Officer Approval	Payment	Documentation	Remarks
State	Not a Factor	No Federal Resource Involvement	No	N/A	No	
State	Not a Factor	Federal personnel acting as agent of state may take control of aviation assets. Including ATGS	No	State	No	Federal firefighter assigned to state incident may direct non-federally approved aircraft. Federal lead planes may be used with non-federally approved aircraft
Federal	No	Federal Protection	No	No	No	Includes fires of no imminent threat and or independent actions
Federal	Yes	Fire spread from federal to state protection	Yes	Federal	SORO Responsibility	Resource ordered by federal or by agreement. Payment to be determined by agreement
ODF-BLM Protection Agreement	Not a Factor	On lands covered by agreement	No	Per Agreement	No	

Map & Compass

Orienting a map:
When comparing a map to the ground it represents, it is useful to align the map with ground features. This will make it easier to identify distant features.

-Set the compass to north.

-Turn yourself, the map, and the compass until you are roughly facing north.

-Align the edge of the compass with the north arrow on the map.

-Slowly turn the map and compass until both are pointing north.

This will align the map to magnetic north. To align the map to true north, it is important to first set the declination of the compass.

Declination:
Declination represents the difference between true north and magnetic north. Declination changes over time. In the United States, everything west of the Mississippi river has a declination that is east of true north, which means the declination is added. Everything east of the Mississippi river has a declination that is west of true north, which means the declination is subtracted.

The declination in central OR is currently 16.5 degrees east. Some compasses allow for the declination to be set, while on others the declination has to be added to the bearing each time.

World Magnetic Model - 2020 Magnetic Declination

NOAA National Centers for Environmental Information (NCEI)

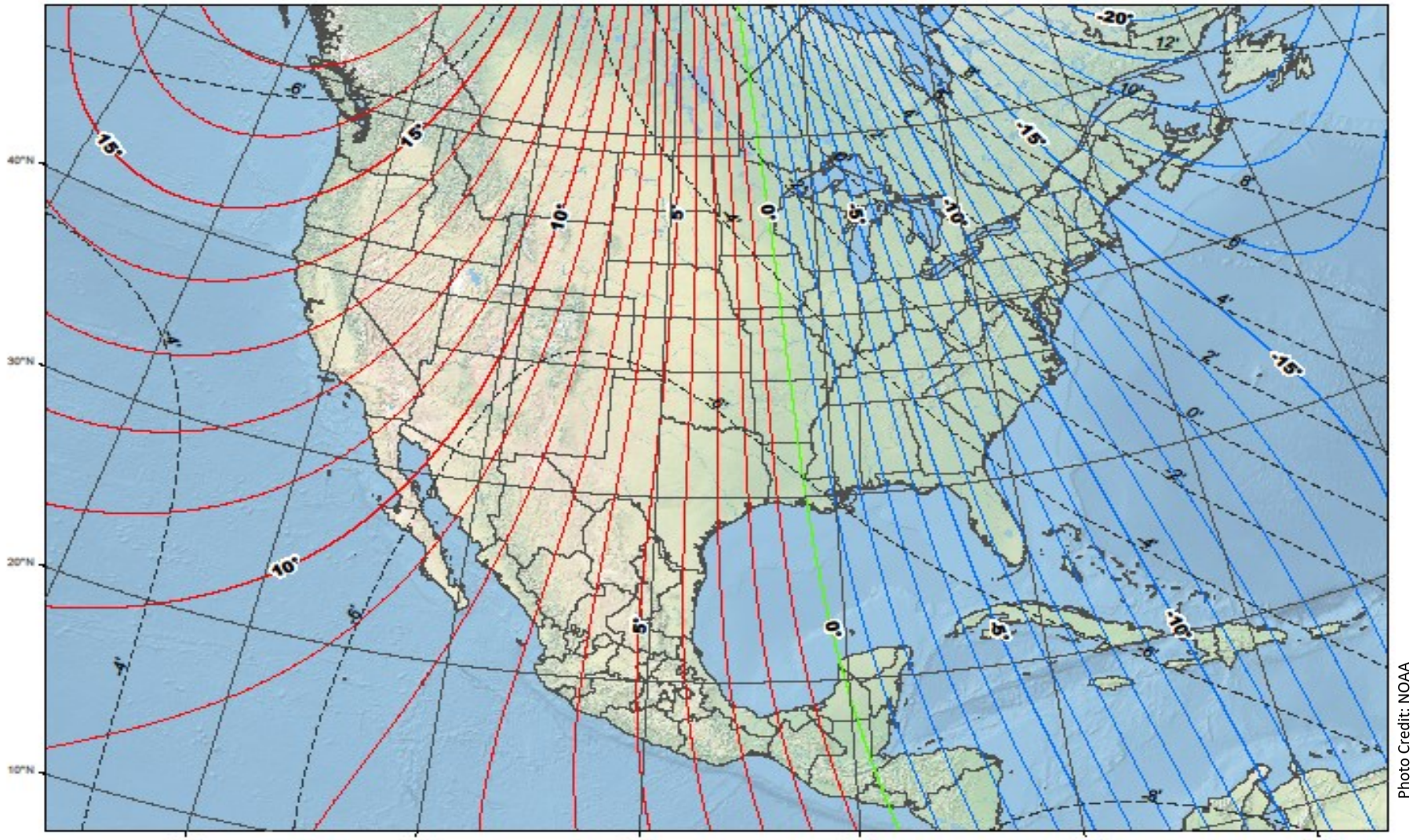


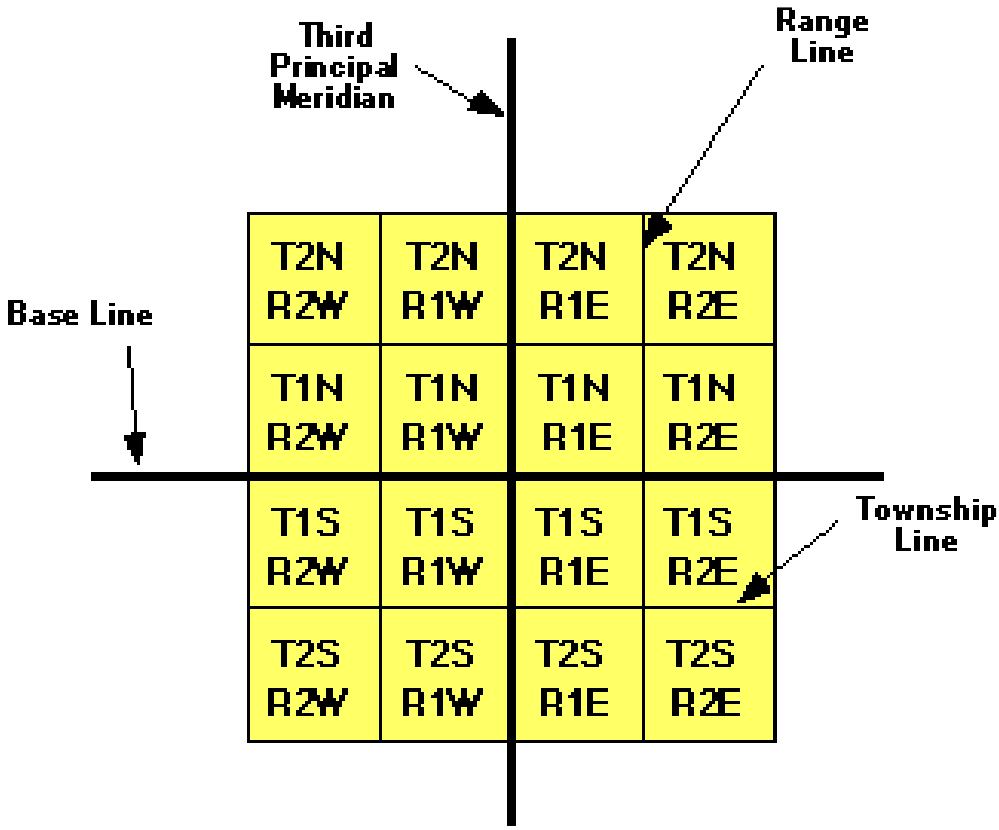
Photo Credit: NOAA

TOWNSHIP/RANGE SYSTEM OF LAND MEASURE

Township Lines run EAST to WEST six miles apart
Range Line run NORTH to SOUTH six miles apart
Within each township are 36 sections, each one mile square.
Each section contains 640 acres.

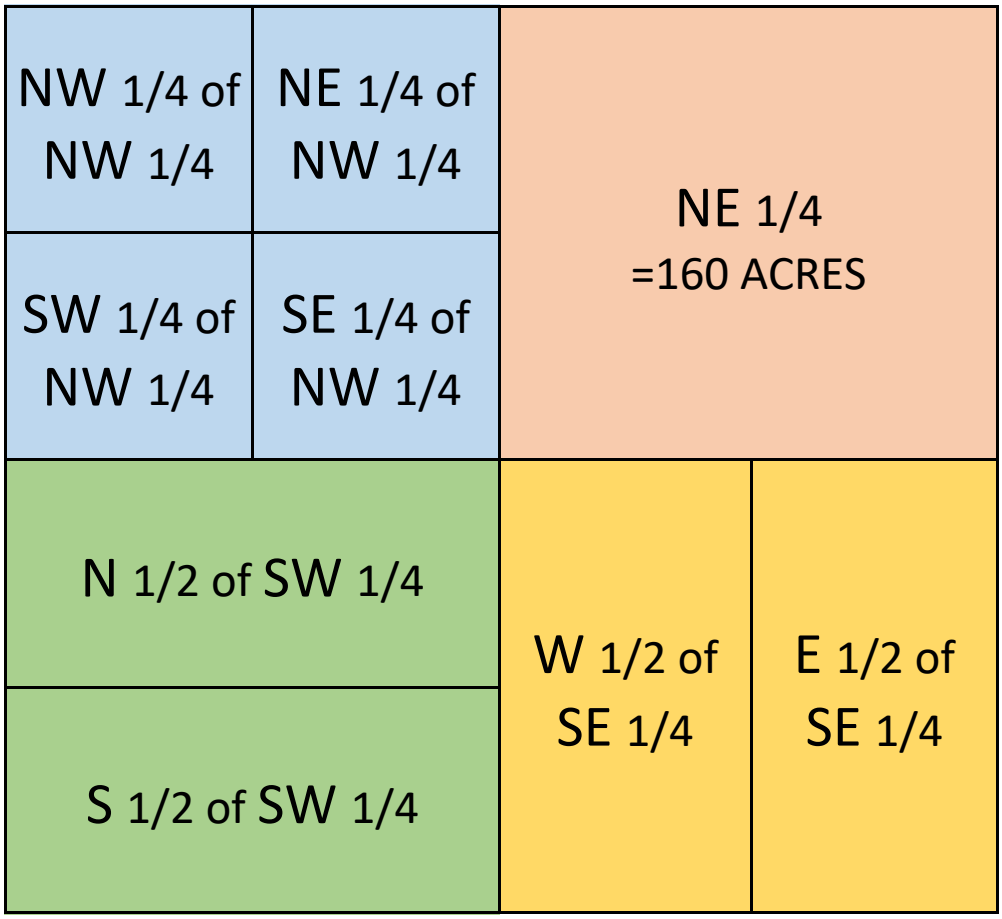
Section Numbers in a Typical Township

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36



Within each section, the land is referred to as half and quarter sections. A one-sixteenth division is called a quarter of a quarter, as in the NW1/4 of the NW1/4.

The descriptions are read from the smallest division to the largest. ↓↓



CONVERTING LATITUDE LONGITUDE

*****BY FAR THE EASIEST WAY TO DO THIS IS WITH AVENZA*****

Avenza Maps – in the map view, simply click on the coordinates displayed at the bottom center of the screen. All possible coordinate formats will be displayed. Make a selection.

If you do not have that option, do this:
Latitude and Longitude may be shown in three different formats

FORMAT	WHAT IT LOOKS LIKE	HOW YOU SAY IT (Radio Etiquette)
A. Degrees Decimal Minutes (*Aircraft*)	48° 36.12’ 114° 08.12’	“Four-eight degrees, three six point one two minutes.”
B. Degrees Minutes Seconds (*many maps*)	48° 36’ 12” 114° 08’ 12”	“Four-eight degrees, three six minutes, and one two seconds.”
C. Degrees Decimal Degree (seldom used)	48.3612° 114.0812°	“Four-eight point three six one two degrees.”

To convert **Degrees Minutes Seconds** to **Degrees Decimal Minutes**, divide seconds by 60.

- Example: 48° 20’ 30” ⇨ **(**30” /60 = .5’ ⇨ 48° 20.5’

To convert **Degrees Decimal Minutes** to **Degrees Minutes Seconds**, multiply hundredths
(i.e. .12) by 60.

- Example: 48° 20.5’ ⇨ .5’ x 60 = 30” ⇨ 48° 20’ 30”

- One degree of latitude or longitude = 60 minutes (60’)
- One minute of latitude or longitude = 60 seconds (60”)
- A 7.5 minute quad covers 7.5 minutes of longitude and 7.5 minutes of latitude

Aviation Datum = WGS 84
Units: Decimal/Minutes
(ddd mm.mmm’)

AVENZA & MOBILE MAPPING GUIDE

Acquiring Maps (Avenza Specific):

- Under the “store” tab, click on the “+” sign at the top right side of the screen

- Click “get a map from the store” to download topos, park and forest maps, etc

1) It’s usually best to click “find maps” and filter for “free maps only”, OR

- Click on the QR symbol at the top right side of the screen if there’s an incident QR, OR

- Go to ftp.nifc.gov/incident_specific_data/ to download maps from large incidents, OR

- For iPhone users, AirDrop a map to your friend

1) Open the map you’d like to share and click on the symbol (bottom right)

2) Click on the symbol (bottom right) to export

3) Use a straightforward “filename”, send to “airdrop”, select “custom” data and make sure you’ve checked the box next to the map. Click “apply”

4) Click “Export” (upper right), make sure your AirDrop is turned on, and wait for your friend’s AirDrop to show up.

5) *Note: This is also the same process for sharing points and lines in Avenza

Recording Tracks and Calculating Acreage

- While in the map view where your perimeter will go, click on the “wrench” tool (bottom right)
- Click “record GPS Tracks” and click “Start”. Walk the perimeter. Click “Stop” when you’ve finished the track or completed the perimeter.
- This is the “track” you’ll send to whomever needs it. Unfortunately it won’t give you acreage directly, so you’ll have to

1) Click on the “wrench” tool again

2) Click on “measure” and click on the “protractor” icon to switch to “area calc”

3) Click on the “+” symbol repeatedly as you trace over your perimeter and watch as the acreage is calculated on the fly. Relay this info to whomever needs it.

ESRI Collector Quick Guide (iPhone only)

Log in—Open app. Use shortname_nifc or shortname_usfs. Typically Fire personnel have a NIFC account if qualified as ICT5 or higher.

Get access to maps—This is done by contacting your Forest GIS Wizard or by getting to access through Plans Section (Large fire).

Downloading maps (offline area) - Select "offline area." Zoom to the area of map you want. It will allow you to select a level of detail. More detail will be a larger file and take longer to download/load features. Cities-towns are good sizes for most applications.

Collect feature—

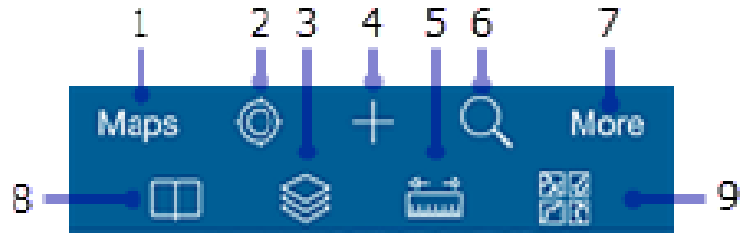
1. Tap Collect New (a panel tab on iPad).
2. Choose the feature type to create.
3. Fill out the form – tap a field to edit it, tap Done when field is complete.
4. (If adding Photos) Tap Attachments and tap Add for each attachment. Tap a photo to rename it, save it to your device, or delete it. Tap Done.
5. Tap Map to see the map.
6. Tap the map to place the feature on it or use Point & shape editing tools. By default, new point features are placed at your current location.
7. Tap Collect Attributes to return to the form, if needed.
8. Tap Submit.

View information/details—

1. Tap the feature to show its summary info.
2. Tap the feature's summary to view full details.
3. View form information, attachments, and related records. Tap Action to access all the available feature options (copy, edit, delete, zoom to, directions to).
4. Tap Map to return to the map.

Quick Reference—Map tools

1. Show list of maps
2. Go to your GPS location
3. See and change layer visibility
4. Add new feature
5. Measure
6. Search
7. Show all the tools
8. Go to a bookmark
9. Change basemap



Quick reference – Point & shape editing tools

While creating or editing a feature, go to the map to use these tools to edit the feature's location or shape. You can also place points by tapping the map, or move them by selecting and dragging.

1. Add a point at your location (if doing GPS averaging, this averages the required number of points)
2. [Lines, polygons] Delete the selected point
3. Undo the last change
4. [Lines, polygons] Delete the shape
5. [Lines, polygons] Start streaming (automatically collecting points while you walk/drive)—use Settings to change the frequency of when points are added. When in progress, this shows Pause. Pause to make manual edits. [iPad shows Start streaming and Pause streaming]

Sync

You should sync when you have good connectivity. Recommended whenever you can.

1. Tap Maps to go to the list of maps. The open map is at the top of the list.
2. If a count shows next to Sync you have local changes, so tap Sync .
3. Wait for it to complete.

Making Edits

1. View the details of the features you want to edit.
2. Tap **Action** and tap **Edit**.
3. To edit Attributes: Update the form – tap a field to edit it, tap **Done** when field is complete.
4. To edit Attachments: Tap **Attachments** . Tap **Add** to add each attachment, tap an existing attachment to download or delete it. Once downloaded, tap to rename or save to your device. Tap **Done** when attachment changes are in place.
5. TO edit geometry: Tap **Map** to see the map.
6. Update the feature on the map (use Point & shape editing tools).
7. Tap **Collect Attributes** to return to the form, if needed.
8. Tap **Update**.

Collect New **Map** **Attachments** **Sync** **Attributes** **Action**





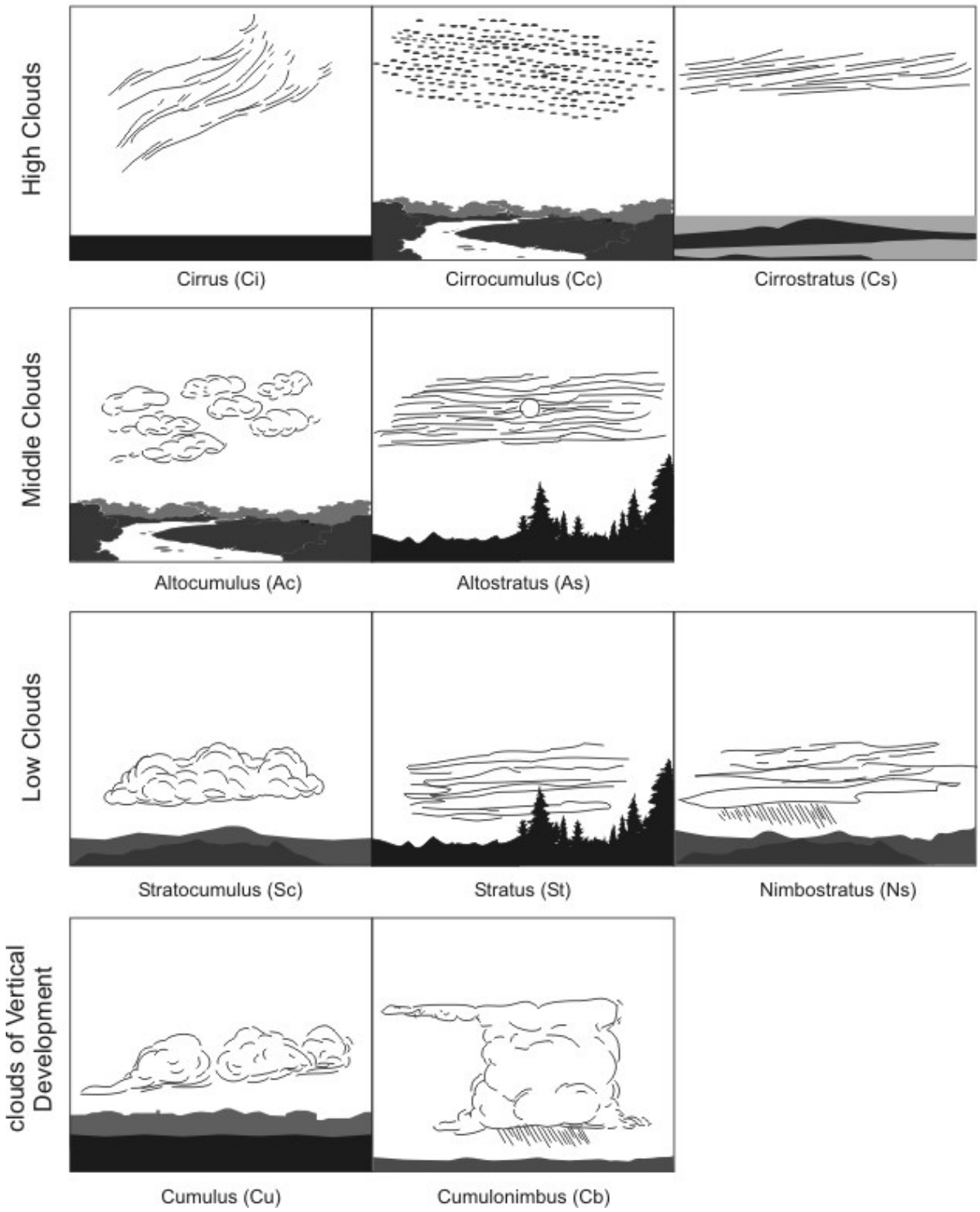

CONVERSION CHARTS

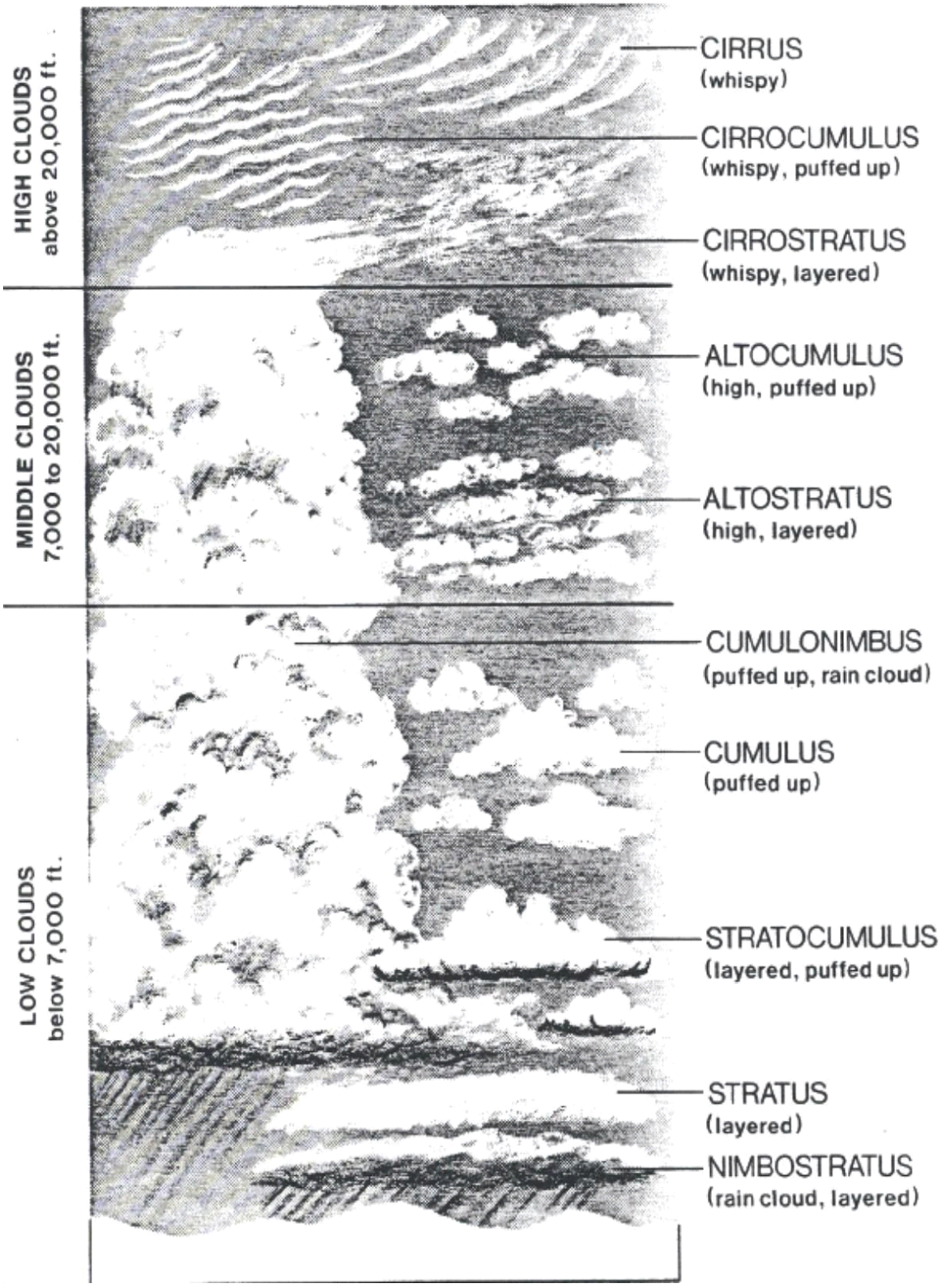
UNITS OF MEASURE	
1 inch	2.54 centimeters
1 foot	.3048 meters
1 Meter	3.28 feet 39.37 inches
1 Kilometer	.623 miles 1,093.6 yards 3280.8ft
1 Chain	66 feet 20.11 meters
1 Acre	10 square chains 208.7 x 208.7 ft 43,560 sq. feet .405 hectares
1 Mile	5280 feet 80 chains 1.6 kilometers
Township	36 square miles
Section	1 square mile 640 acres

1 CUP	8 ounces
1 PINT	2 Cups 16 Ounces
1 QUART	4 Cups 2 Pints 32 Ounces .946 liters
1 GALLON	4 Quarts 128 Ounc-es 3.785 liters

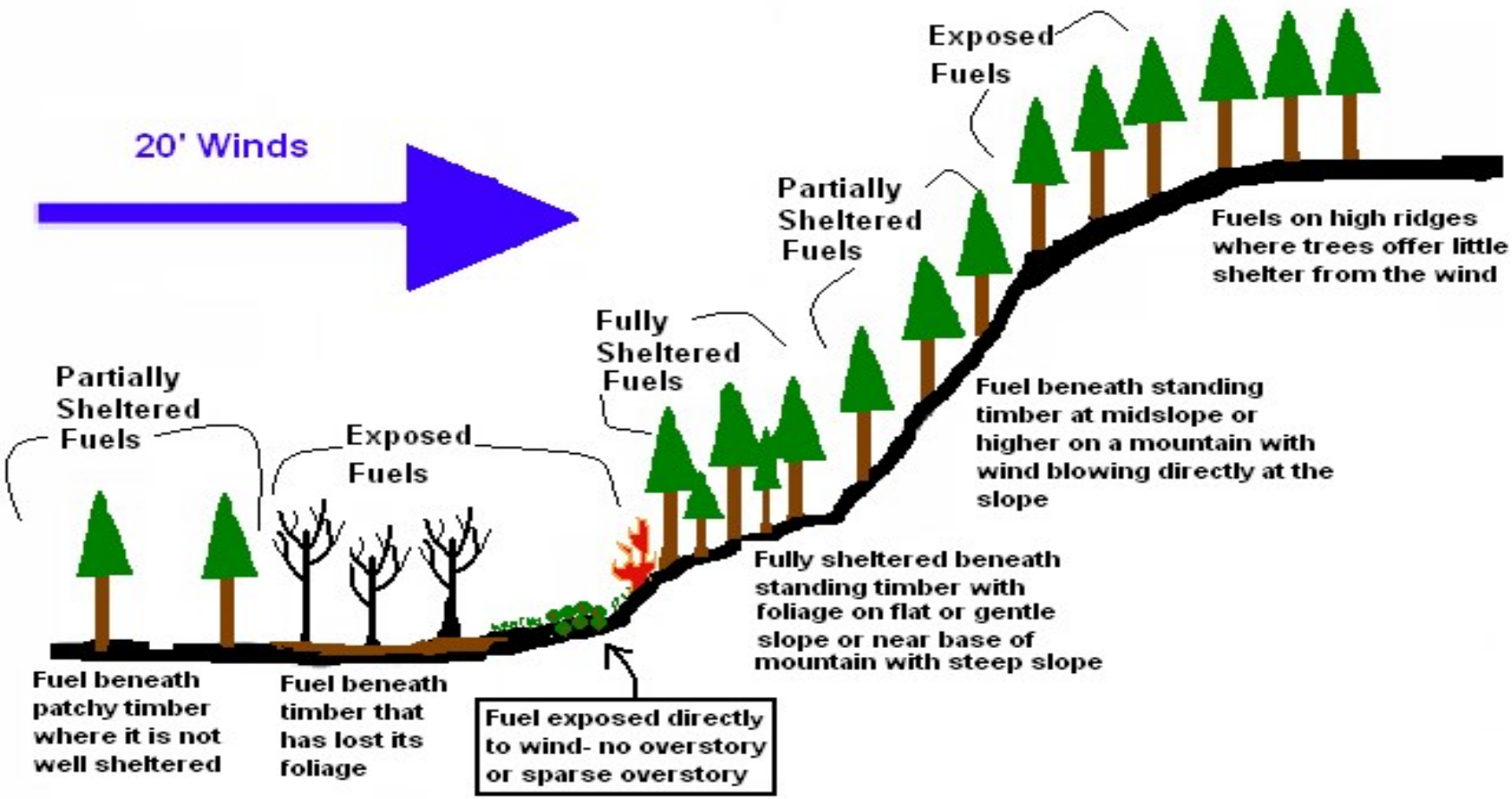
MAP SCALE CONVERSION		
MAP SCALE	**1 inch on the map=**	**1 Mile on the Earth= ___inches on map**
1:5,000	416.67 feet / 127.00 meters	12.67
1:10,000	833.33 feet / 254.00 meters	6.34
1:12,500	1,041.66 feet / 317.00 meters	5.07
1:20,000	1,666.70 feet / 508.00 meters	3.17
1:24,000 7.5" Quad	2,000 feet / 609.6 meters	2.64
1:25,000 7.5" Quad	2,083.30 feet / 635.00 meters	2.53
1:50,000	4,166.70 feet / 1,270.0 meters	1.27
1:62,500 15" Quad	.986 Miles 5206.1 feet 1586.8 meters	1.014
1:63,360 Alaska Maps	5,280.00 feet / 1,609.3 meters	1
1:100,000	8,333.30 feet / 2,540.0 meters	.634
1:250,000	20,833.00 feet / 6,350.0 meters	.253
1:500,000	41,667.00 feet / 12,700.0 meters	.127

Cloud Types


High Clouds
Cirrus (Ci)
Cirrocumulus (Cc)
Cirrostratus (Cs)
Middle Clouds
Altocumulus (Ac)
Altostratus (As)
Low Clouds
Stratocumulus (Sc)
Stratus (St)
Nimbostratus (Ns)
clouds of Vertical Development
Cumulus (Cu)
Cumulonimbus (Cb)


HIGH CLOUDS
above 20,000 ft.
MIDDLE CLOUDS
7,000 to 20,000 ft.
LOW CLOUDS
below 7,000 ft.
CIRRUS
(whispy)
CIRROCUMULUS
(whispy, puffed up)
CIRROSTRATUS
(whispy, layered)
ALTOCUMULUS
(high, puffed up)
ALTOSTRATUS
(high, layered)
CUMULONIMBUS
(puffed up, rain cloud)
CUMULUS
(puffed up)
STRATOCUMULUS
(layered, puffed up)
STRATUS
(layered)
NIMBOSTRATUS
(rain cloud, layered)

Wind Adjustment for Exposure of Fuels to Wind



*Fuel Models 2 and 7 are usually partially sheltered
Fuel Models 8, 9 and 10 are usually fully sheltered

*NOTE: the adjustment factor is used to reduce the 20-foot wind to eye level wind (e.g. A forecasted 10 mph 20-foot wind in a partially sheltered stand would likely produce a 3mph eye level wind

Fuel Exposure	Fuel Model	Adjustment Factor*
Exposed Fuels Fuel exposed directly to the wind. No or sparse overstory. Fuel beneath timber that has lost its foliage overstory; fuel beneath timber near clearings or clear-cuts; fuel on high ridges where trees offer little shelter from the wind.	4 13 All others*	0.6 0.5 0.4
Partially Sheltered Fuels Fuel beneath patchy timber where it is not well sheltered; fuel beneath standing timber at mid-slope or higher on a mountain with wind blowing directly at the slope	All Fuel Models	**0.3**
Fully Sheltered Fuels Fuel sheltered beneath standing timber on flat or gentle slope or near base of mountain with steep slopes	All Fuel Models	0.2 Open Stands 0.1 Dense Stands

FIRE BEHAVIOR TERMINOLOGY

Smoldering – no flame, barely spreading

Creeping – low flame, slow spread

Running – definite flames, rapid spread in surface fuels with well-defined head

Torching – fire runs up ladder fuels into crowns of individual trees with no crown to crown spread

Crowning – fire spreading from crown to crown, either dependent or independent of surface fire

Flame length – length from base to tip, not vertically

Rate of spread – chains per hour = feet per minute

Ground fire – fire burning in organic material below surface litter

Surface fire – fire that burns surface litter, other loose debris of the forest floor and small vegetation

Backing – fire spreading against the wind, or spreading on level or downward-sloping ground with no wind

Flanking – fire spreading perpendicular to the wind

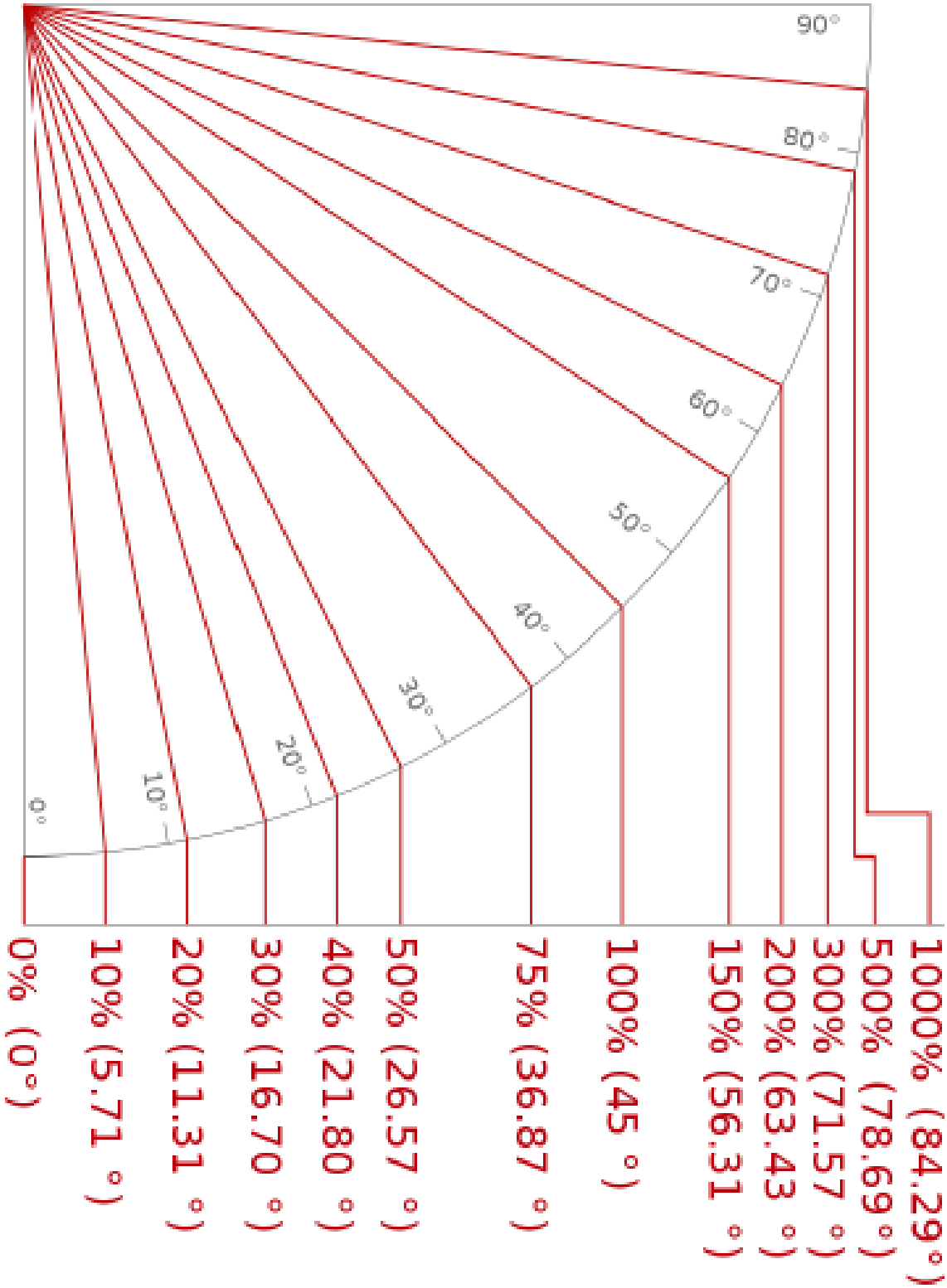
Backfire – fire used as an indirect attack method to stop, slow or turn a wildfire

Burnout – fire set to fuels inside the control line, to strengthen line, as a part of line construction

Flare-up – any sudden acceleration of fire spread or intensification of the fire. A flare-up is of relatively short duration and doesn't radically change existing control plans.

Spot Fire – fire outside the perimeter of the main fire started by flying, or rolling sparks or embers

Slope = RISE/RUN

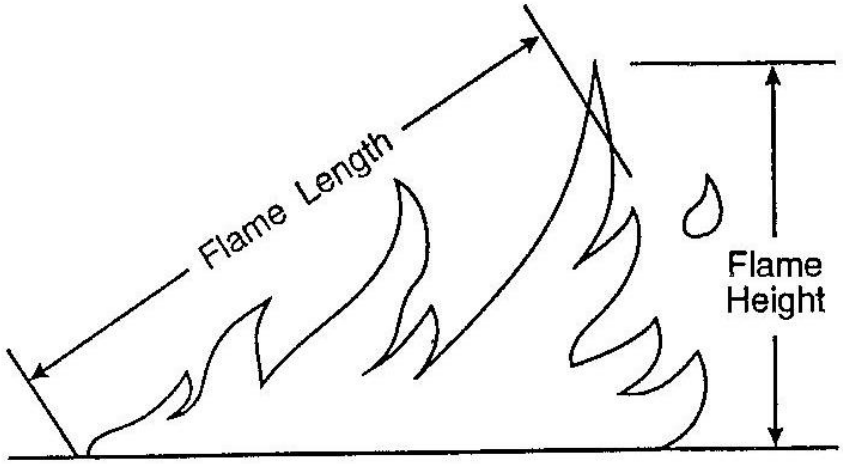


Use this chart as an aid to *estimate* rate of spread

Here's how:

1. Measure out 1, 3, 5 or 10 feet. Mark distance with two points.
2. Time fire as it spreads between your two points and record this time.
3. Using the appropriate spread distance column (1, 3, 5 or 10), place your time on the sheet between two times listed, your "bracketed" times.
4. Move to the right with the bracket times. This is your ROS range.

Example: Say you're monitoring a backing fire burning in light ponderosa needle cast. You measure out 3 feet, and place two stones at each of the points. You time the fire as it moves between the stones. In this case, say the fire takes 1 minute 6 seconds (1'6") to move 3 feet. Looking at the 3 column, you move down until you see two times which bracket our time: 1'22" and 55". You then scroll right and see that the rate of spread is between 2 and 3 chains per hour.



Time Key

1’ 49” = 1 minute and 49 seconds 36” = 36 seconds

Spread distance (ft)				
1	3	5	10	
Time in minutes (') and seconds (")				ROS (ch/hr)
3'38"	10'55"	18'10"	36'22"	0.25
1'49"	5'27"	9'05"	18'10"	0.5
55"	2'44"	4'33"	9'05"	1
36"	1'49"	3'02"	6'04"	1.5
27"	1'22"	2'16"	4'33"	2
18"	55"	1'31"	3'02"	3
14"	41"	1'08"	2'16"	4
11"	33"	55"	1'49"	5
9"	27"	45"	1'31"	6
8"	23"	39"	1'18"	7
7"	20"	34"	1'08"	8
6"	18"	30"	1'01"	9
5"	16"	27"	55"	10
4"	11"	18"	36"	15
3"	8"	14"	27"	20
2"	7"	11"	22"	25
2"	5"	9"	18"	30
2"	5"	8"	16"	35
1"	4"	7"	14"	40
1"	3"	5"	11"	50
1	3	5	10	
Spread distance (ft)				

SLING PSYCHROMETER USE

1. Stand in a shaded, open area away from objects that might be struck during whirling. If in open country, use your body shade to shade the psychrometer. If possible, take your weather observations over a fuel bed that is representative of the fuels that the fire is burning in.

2. If your sling has been in your pack, you may need to hang it in a tree, in the shade, to let it adjust to the outside air temperature.

3. Face the wind to avoid influence of body heat/moisture on the thermometers.

4. Saturate the wick of the wet bulb with clean, mineral free water (distilled). Never touch the wick.

5. Ventilate the thermometers by whirling at full arm's length. Your arm should be parallel to the ground. Whirl for 1 minute.

6. Note the wet bulb temperature. Whirl for another 40 or 50 times and read again. If the wet bulb is lower than the first reading, continue to whirl and read until it will go no lower. Read and record the lowest point. If the wet bulb is not read at the lowest point, the calculated relative humidity will be too high.

7. **Read the dry bulb immediately after the lowest wet bulb reading is obtained**. If the wet bulb reading increases, you've allowed the wick to dry out. Wet the wick and begin again.

8. Determine the relative humidity from the tables.

Important Tips:

1. Never sling weather in the black
2. Insure a quality sling (clean wick, non-separated mercury/ liquid, clean water, etc)
3. Always use the correct elevation chart for RH & DP.

Rule of thumb: RH in % divided by 5 = estimate of FDFM

Determining A, L, B
For Fine Dead Fuel Moisture Calculations

A - Weather observations are taken between 1,000' and 2,000' **ABOVE** the fire behavior observations/ projections

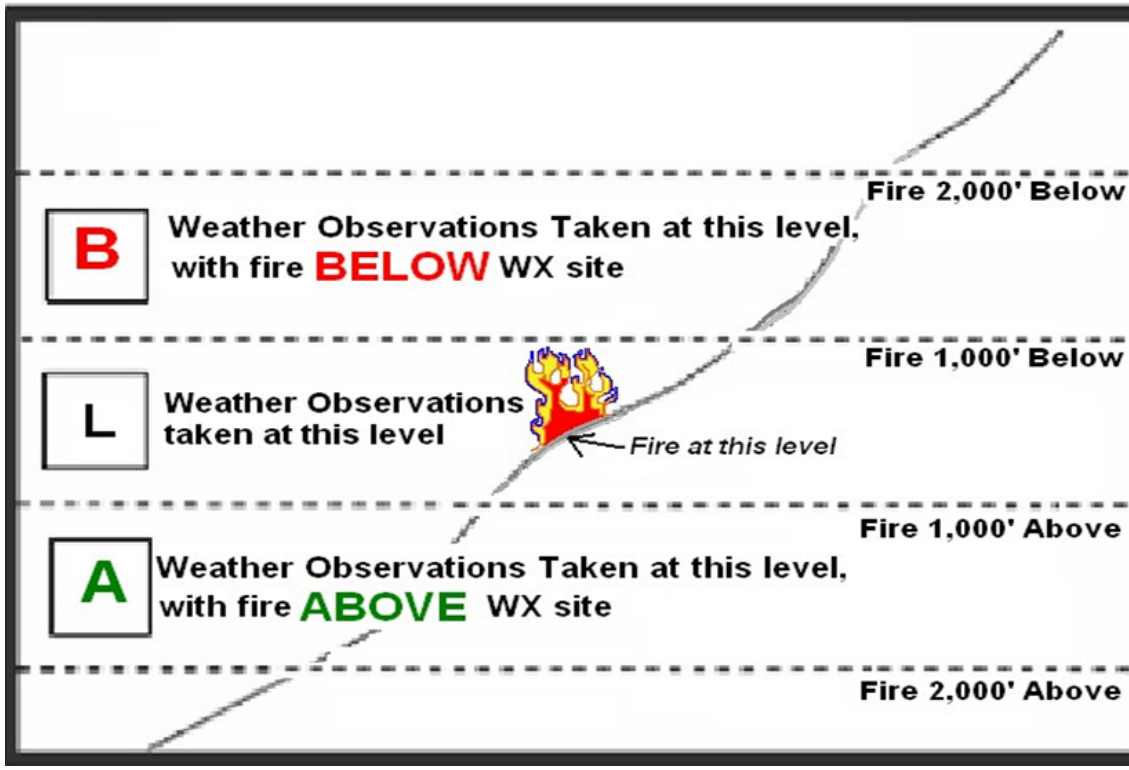
L - Weather observations are taken between 1,000' above and 1,000' below or **LEVEL** with the fire behavior observations/projections.

B - Weather observations are taken between 1,000' and 2,000' **BELOW** the fire behavior observations/ projections.

The question is simple: "Where is the Fire?"

Is the fire **ABOVE** your WX site? If so, use **A**

Is the fire **BELOW** your WX site? If so, use **B**



FUEL MOISTURE SAMPLING

General Guidelines

- Record site name, date, time, observer name, observed weather, general site description
- DO NOT collect samples if water drops or dew are present on samples
- Keep samples in a cool and dry location
- Seal containers with tape that will not leave residue. Electrical works best

Dead Fuels (1-hr, 10-hr, 100-hr, & 1000-hr fuels)

- Samples should not be attached to live trees or shrubs
- Avoid decayed samples that crumble or splinter when rubbed
- Collect samples from several different plants
- Ensure container is ¾ full to avoid overfilling/spilling between measurements
- Do not collect buried samples
- Pick samples of different size within the time lag class
- Recently fallen material should be avoided, especially for the larger size classes
- Remove all lichen, moss, and very loose bark from sample
- 1000-hr fuels should be collected at least 1 foot from the end of the downed log, and should ideally be cut with a handsaw, rather than a chainsaw. Storage of the "cookie" should be in an airtight container and "wet" weight should be read as soon as possible. An auger/drill can also be used to collect 1000-hr woodchips, which can be stored in a standard fuel tin.

Duff and Soil

- Remove all soil and live tree or plant roots from sample
- Avoid any soil particles in duff samples and vice versa

Litter

- Collect only un-compacted dry litter from both sunny and shady areas

Live Fuels (live woody shrub leaves and tree needles/leave)

- Only collect foliage and very small twigs and remove flowers, seeds, nuts, or berries
- Pack containers loosely to avoid spillage but ensure container is ¾ full
- Include stems of herbaceous plants
- Replace lid on container immediately after collecting sample and seal with electrical tape

Drying Samples:

-Preheat drying oven between 60°C (140°F) – 100°C (212°F). Be sure to note temp used.
-Place sample cans with closed lids on scale and record "wet" weights (be sure to remove tape first)
-Remove lid just prior to placing in oven. If material is lost, re-weigh sample
-Dry sample for 24 hours (very wet samples 48 hours)
-Replace Lids immediately after sample is removed from oven and weigh -Calculate fuel moisture using the following formula:

$$\frac{\text{Wet weight of sample—dry weight of sample}}{\text{Dry sample weight-container tare weight}} \text{ X (100) = \% moisture}$$

Live Fuel Moisture Estimates

Guidelines for estimating live fuel (foliage) moisture content. Live fuel moisture is required for fuel models 2,4,5,7, and 10. If data are unavailable for estimating live fuel moisture the following rough estimates can be used.

Stage of vegetative development	**Moisture content**
Fresh foliage, annuals developing, early in growing cycle	300%
Maturing foliage, still developing with full turgor	200%
Mature foliage, new growth complete and comparable to older perennial foliage	100%
Entering dormancy, coloration starting, some leaves may have dropped from stem	50%
Completely cured	Less than 30%, treat as a dead fuel

FUEL SIZE CLASSES – woody debris

Dead woody class			Piece diameter
			Inches (cm)
DWD	FWD	1-hr	0-0.25” (0-0.6)
		10-hr	0.25”-1.0” (0.6-2.5)
		100-hr	1.0”-3.0” (2.5-8.0)
	CWD	1000– hr and greater	3.0” and greater (8.0 and greater)

A	B	C	D	E	F
Gross Weight		Container tare weight	Water Weight	Dry weight	% Moisture
Wet	Dry				
Calculation Summary					
A – B = D B – C = E (D / E) x 100 = F					

SCOTT AND BURGAN FUEL MODELS (2005) - "THE NEW 40"

•Determine the general fire-carrying fuel type (**grass, grass/shrub, shrub, timber/understory, timber litter, slash).**

•Determine general climate for your area (**arid, semi-arid, sub-humid, humid**). TIMBER LITTER Fuel models do not have climate groupings.

•Match **fuel model** description (fuel depth, fuel load, fuel continuity) with fuels of interest.

1. Nearly pure grass and/or forb type (Grass):

➢ ***Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15%.***

GR1-Grass is short, patchy and possibly heavily grazed. Spread rate moderate; flame length low.

GR2-Moderately coarse continuous grass, average depth about 1ft. Spread rate high; flame length moderate.

GR4-Moderately coarse continuous grass, average depth about 2ft. Spread rate very high; flame length high.

GR7-Moderately coarse continuous grass, average depth about 3ft. Spread rate very high; flame length very high.

➢ ***Subhumid to humid climate (rainfall adequate in all seasons). Extinction moisture content is 30 - 40 %.***

GR1-Grass is short, patchy, and possibly heavily grazed. Spread rate moderate; flame length low.

GR3-Very coarse grass, average depth about 2 ft. Spread rate high; flame length moderate.

GR5-Dense, coarse grass, average depth about 1 - 2ft. Spread rate very high; flame length high.

GR6-Dryland grass about 1 - 2 ft tall. Spread rate very high; flame length very high.

GR8-Heavy, coarse, continuous grass 3 - 5 ft tall. Spread rate very high; flame length very high.

GR9-Very heavy, coarse, continuous grass 5 - 8 ft tall. Spread rate extreme; flame length extreme.

2. Mixture of grass and shrub, up to about 50 percent shrub coverage (Grass-Shrub)

- ***Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15 %.***

GS1-Shrubs are about 1 ft high, low grass load. Spread rate moderate; flame length low.
GS2-Shrubs are 1 - 3 ft high, moderate grass load. Spread rate high; flame length moderate.

- ***Subhumid to humid climate (rainfall adequate in all seasons). Extinction moisture content is 30 – 40%.***

GS3-Moderate grass/shrub load, average grass/shrub depth < 2 ft. Spread rate high; flame length moderate.
GS4-Heavy grass/shrub load, depth greater than 2 ft. Spread rate high;flame length very high.

3. Shrubs cover at least 50 percent of the site; grass sparse to nonexistent (Shrub)

- ***Arid to semiarid climate (rainfall deficient in summer). Extinction moisture content is 15 %.***

SH1-Low shrub fuel load, fuelbed depth about 1 ft; some grass may be present. Spread rate very low; flame length very low.
SH2-Moderate fuel load (higher than SH1), depth about 1 ft, no grass fuel present. Spread rate low to moderate; flame length low to moderate.
SH5-Heavy shrub load, depth 4 - 6 ft. Spread rate very high; flame length very high.
SH7-Very heavy shrub load, depth 4 - 6 ft. Spread rate lower than SH5, but flame length similar. Spread rate high; flame length very high.

➢ ***Subhumid to humid climate (rainfall adequate in all seasons). Extinction moisture content is 30 – 40%***

SH3-Moderate shrub load, possibly with pine overstory or herbaceous fuel, fuel bed depth 2 - 3 ft. Spread rate low; flame length low.

SH4-Low to moderate shrub and litter load, possibly with pine overstory, fuel bed depth about 3 ft. Spread rate high; flame length moderate.

SH6-Dense shrubs, little or no herb fuel, depth about 2 ft. Spread rate high; flame length high.

SH8-Dense shrubs, little or no herb fuel, depth about 3 ft. Spread rates high; flame length high.

SH9-Dense, finely branched shrubs with significant fine dead fuel, about 4 - 6 ft tall; some herbaceous fuel may be present. Spread rate high, flame length very high.

4. Grass or shrubs mixed with litter from forest canopy (Timber-Understory)

➢ ***Semiarid to Subhumid climate. Extinction moisture content is 20 %.***

TU1-Fuelbed is low load of grass and/or shrub with litter. Spread rate low; flame length low.

TU4-Fuelbed is short conifer trees with grass or moss understory. Spread rate moderate; flame length moderate. **TU5**-Fuelbed is high load conifer litter with shrub understory. Spread rate moderate; flame length moderate.

➢ ***Humid climate. Extinction moisture content is 30 %.***

TU2-Fuelbed is moderate litter load with shrub component. Spread rate moderate; flame length low.

TU3-Fuelbed is moderate litter load with grass and shrub components. Spread rate high; flame length moderate.

5. Dead and down woody fuel (litter) beneath a forest canopy (Timber Litter)

- ***Fuelbed is recently burned but able to carry wildland fire.***

TL1-Light to moderate load, fuels 1 - 2 in deep. Spread rate very low; flame length very low.

- ***Fuelbed composed of broadleaf (hardwood) litter.***

TL2-Low load, compact. Spread rate very low; flame length very low.
TL6-Moderate load, less compact. Spread rate moderate; flame length low.
TL9-Very high load, fluffy. Spread rate moderate; flame length moderate.

- ***Fuelbed composed of long-needle pine litter.***

TL8-Moderate load and compactness may include small amount of herbaceous load. Spread rate moderate; flame length low.

- ***Fuelbed not composed broadleaf or long-needle pine litter.***

TL4-Moderate load, includes small diameter downed logs. Spread rate low; flame length low.
TL7-Heavy load, includes larger diameter downed logs. Spread rate low; flame length low.
TL3-Moderate load conifer litter. Spread rate very low; flame length low.
TL5-High load conifer litter; light slash or mortality fuel. Spread rate low; flame length low.
TL9-Very high load broadleaf litter; heavy needle-drape in otherwise sparse shrub layer. Spread rate moderate; flame length moderate.

6. Activity fuel (Slash) or debris from wind damage.

- ***Fuelbed is activity fuel.***

SB1-Fine fuel load is 10 - 20 tons/acre, weighted toward fuels 1 - 3 in diameter class, depth is <1 ft. Spread rate moderate; flame length low.
SB2-Fine fuel load is 7 -12 tons/acre, evenly distributed across 0 - 0.25
SB3-Fine fuel load is 7 - 12 tons/acre, weighted toward 0 to 0.25 in diameter class, depth is >1 ft. Spread rate high; flame length high.

- ***Fuelbed is blowdown***

SB2-Blowdown is scattered, with many trees still standing. Spread rate moderate; flame length moderate.
SB3-Blowdown is moderate, trees compacted to near the ground. Spread rate high; flame length high.
SB4-Blowdown is total, fuel bed not compacted, foliage still attached. Spread rate very high; flame length very high.

7. Insufficient wildland fuel to carry wildland fire under any condition (Non-burnable)

NB1-Urban or suburban development; insufficient wildland fuel to carry wildland fire.
NB2-Snow/ice.
NB3-Agricultural field, maintained in non-burnable condition.
NB8-Open water.
NB9-Bare ground.

ANDERSON FUEL MODELS - "THE ORIGINAL 13"

Primary carrier of the fire is GRASS

FM1-Grass is fine structured, generally below knee level, and cured primarily. Grass is essentially continuous. Spread rate moderate; flame length low. ***Grasslands, savanna, grass tundra***

FM2-Grass is usually under an open timber or brush overstory. Litter from overstory is involved, but grass carries the fire. Expected ROS is < FM1 and intensity is < FM3. Spread rate moderate; flame length moderate. ***Open shrub land and pine stands, some pinon-juniper***

FM3-Grass is coarse structured, above knee level (average about 3ft. deep) and can be difficult to walk through. 1/3 of stand is dead or cured. Spread rate high; flame length high.

Primary Carrier of the fire is BRUSH or litter beneath the BRUSH.

FM4-Brush is head height (>6ft.), with heavy loadings of dead woody fuel. Fire may involve foliage, live and dead woody material and canopy. Spread rate very high; flame length very high. ***Mixed chapparal, high pocosins, pine barrens of New Jersey, closed jack pine stands of north central states***

FM5-Brush is about 2ft. high, with light loading of brush litter underneath. Litter may carry fire, especially at low wind speeds. Spread rate low to moderate; flame length low to moderate ***Young green stands with little or no deadwood. Laurel, vine maple, alder, manzanita***

FM6-Live fuels are absent or sparse. Brush averages 2 to 4ft. high. Brush requires moderate winds to carry fire. Spread rate high (with wind); flame length high. FM6 may not predict rate of spread accurately in mature PJ or taller oak brush. ***Chapparal, chamise, oak brush, low pocosin, Alaskan black spruce, taiga, shrub tundra, PJ at high winds (20mph at 20' level)***

FM7-Fires burn through the surface and shrub strata with equal ease and can occur at higher dead fuel moisture contents due to the flammability of live foliage and other live material. Stands of shrubs are generally between 2 and 6ft. high. Spread rate high; flame length high. ***Palmetto-gallberry understory with pine overstory, Alaskan black spruce with shrub***

Primary Carrier of the fire is LITTER beneath a TIMBER stand.
FM8-Dead foliage is tightly compacted, short needle (2 in. or less) conifer or hardwood litter. Spread rate low; flame length low with occasional jackpot of heavy fuels increasing intensity. ***White and lodgepole pine, spruce, true firs, larches***

FM9-Dead foliage litter is loosely compacted long needle pine or hardwoods. Spread rate moderate; flame length moderate. Concentrations of dead-down woody material will contribute to possible torching out of trees, spotting, and crowning. ***Closed stands of long needle pine- Jeffrey ponderosa, and southern pine plantations***

FM10-There is a significant amount of larger fuels with attached branches and twigs, or has rotted enough that it is splintered and broken. The larger fuels are fairly well distributed over the area. Some green fuel may be present. Overall depth of the fuel is primarily below knees, but some fuel may be higher. Any forest type may be considered if heavy down material is present. Crowning out, spotting, and torching of individual trees are more frequent in this fuel situation, leading to potential fire control difficulties. Spread rate moderate to high; flame length high. ***Insect- or disease-ridden stands, windthrown stands, overmature situations with deadfall, and aged light thinning or partial-cut slash***

Primary Carrier of the fire is LOGGING SLASH.

FM11-Slash is not continuous. Needle litter or small amounts of grass or shrubs must be present to carry the fire, but primary carrier is still slash. Live fuels are absent or do not play a significant role in fire behavior. Spread Rate low; flame length moderate. ***Light partial cuts or thinning ops in mixed conifer or hardwood stands and southern pine harvests***

FM12-Slash generally covers the ground (heavier loadings than FM11), though there may be some bare spots or areas of light coverage. Average slash depth is about 2ft. Slash is not excessively compacted. Approximately ½ of the needles may still be on the branches but are not red. Live fuels are absent, or are not expected to affect fire behavior. Spread rate low; flame length moderate to high. ***Heavily thinned conifer stands, clear cuts and med to heavy partial cuts***

FM13-Slash is continuous or nearly so (heavier loadings than FM12). Slash is not extremely compacted and has an average depth of 3ft. Approximately ½ of the needles are still present and are red, or all of the needles are still on the branches but are green. Live fuels are not expected to influence fire behavior. Spread rate low; flame length high. ***Clear cuts and heavy partial cuts in mature or over mature stands where slash is dominated by >3" material or load like FM12 but with "red" needles still attached***

Spot Weather Observation and Forecast Request

Spot Weather Forecasts should be requested for fires that will exceed initial attack, have potential for extreme fire behavior, or are located in areas where Red Flag Warnings or Fire Weather Watches have been issued. This form is primarily for field use documentation of weather observations and/or forecasts. Whenever possible, a copy of the actual fire Weather Forecast should be used for operational briefings and/or included in the fire documentation.

Instructions

1. Name of Fire/Incident: Use incident or project name.
2. Control Agency: Agency with primary responsibility for managing the incident.
3. Request Made: Put date and time (use 24-hour clock).
4. Location: Use an on-site legal description specific to the nearest ¼ section.
5. Drainage Name: Use the closest drainage name or landmark from a topographical
map.
6. Exposure: Use one of the 8 major cardinal points (N, SE, NW, etc.) to designate
general aspect.
7. Size of Project: In acres.
8. Elevation: Designate elevation in feet; Top and Bottom refer to elevation of fire. (For
a group of lightning fires specify “Concentration” then give number of fires and size of
largest; request forecast for each drainage.)
9. Fuel Type: Use a fuel model number or a name description.
10. Project On: Projects may be on the ground or crowning.

11. Weather Conditions at Project or from Nearby RAWS: In the Place column, put On-site (which refers to the legal description used in Number 4); if the observations are taken off-site, specify the Township, Range, and Section to the nearest ¼ or the location of the RAWS used. In the Elevation column, put the actual elevation for the observations (may or may not be the same as in Number 8).
12. Send Forecast To: Specify how the forecast will be broadcast or sent, especially if it differs from normal radio relay or faxing procedures (i.e., having copies faxed to mobile units, office, or stations), and also the name of the contact who will be receiving the request (may differ from the person making the forecast request).
13. Forecast and Outlook: Document name of forecaster and office forecast originated from.
14. Forecast Received: Document name of person receiving forecast, date, time and location and received (to verify or update information in Number 12).

Notes

Under the Remarks column in Number 11, put the estimated ignition time for Rx projects. For Rx projects, fire weather forecasters can work with you ahead of time and either do some "practice" forecasts or provide you with weather information for planning. For better service, do not send a request in just prior to Rx ignition (turn-around time is
typically 1 to 2 hours). Most fire weather forecasters work early shifts, and usually leave around 1600 to 1700.

If the fire weather forecaster does not hear from you, they assume the forecast was accurate. If the forecast does not match what is actually occurring, let the fire weather forecaster know. Feedback is crucial for improving forecast accuracy. Forecasts can be updated. If at anytime you do not understand what the forecast is telling you, or you have questions about its content for whatever reason, do not hesitate to call the fire weather forecaster and discuss the matter.

PAY PERIOD CALENDAR 2021

Month	Pay Period	S	M	T	W	T	F	S
JAN	26						[1]	2
	01	3	4	5	6	7	8	9
		10	11	12	13	14	15	16
	02	17	[18]	19	20	21	22	23
		24	25	26	27	28	29	30
	03	31						
FEB			1	2	3	4	5	6
		7	8	9	10	11	12	13
	04	14	[15]	16	17	18	19	20
		21	22	23	24	25	26	27
	05	28						
MAR			1	2	3	4	5	6
		7	8	9	10	11	12	13
	06	14	15	16	17	18	19	20
		21	22	23	24	25	26	27
	07	28	29	30	31			
APR						1	2	3
		4	5	6	7	8	9	10
	08	11	12	13	14	15	16	17
		18	19	20	21	22	23	24
	09	25	26	27	28	29	30	
MAY								1
		2	3	4	5	6	7	8
	10	9	10	11	12	13	14	15
		16	17	18	19	20	21	22
	11	23	24	25	26	27	28	29
		30	[31]					
JUN	12			1	2	3	4	5
		6	7	8	9	10	11	12
		13	14	15	16	17	18	19
	13	20	21	22	23	24	25	26
		27	28	29	30			

Month	Pay Period	S	M	T	W	T	F	S
JUL	13					1	2	3
	14	4	[5]	6	7	8	9	10
		11	12	13	14	15	16	17
	15	18	19	20	21	22	23	24
		25	26	27	28	29	30	31
AUG	16	1	2	3	4	5	6	7
		8	9	10	11	12	13	14
	17	15	16	17	18	19	20	21
		22	23	24	25	26	27	28
	18	29	30	31				
SEP					1	2	3	4
		5	[6]	7	8	9	10	11
	19	12	13	14	15	16	17	18
		19	20	21	22	23	24	25
	20	26	27	28	29	30		
OCT							1	2
		3	4	5	6	7	8	9
	21	10	[11]	12	13	14	15	16
		17	18	19	20	21	22	23
	22	24	25	26	27	28	29	30
		31						
NOV			1	2	3	4	5	6
	23	7	8	9	10	[11]	12	13
		14	15	16	17	18	19	20
	24	21	22	23	24	[25]	26	27
		28	29	30				
DEC					1	2	3	4
	25	5	6	7	8	9	10	11
		12	13	14	15	16	17	18
	26	19	20	21	22	23	[24]	25
		26	27	28	29	30	[31]	

FIRE LINE LEADER RESPONSIBILITIES

(Establish clear Leader's Intent and Supervise at the scene of action not in your truck/ office)

Initial Attack Incident Commander (ICT4/5): also see pages 60-61

- Provide for Safety and welfare of assigned personnel
- Initiate and maintain Incident Briefing(ICS Form 201)
- Size up fire situation and concisely communicate resource needs
- Analyze Incident complexity
- Plan appropriate method of attack
- Brief personnel and keep them informed
- Direct and coordinate assigned resources
- Monitor weather, fire behavior, and environmental factors to anticipate changes
- Adjust tactics to meet changing conditions
- Maintain current Unit Log(ICS Form 214)
- Solicit Feedback and participate in AARs

Task Force/Strike Team Leader:

- Obtain briefing from DIVS/IC
- Review assignment with assigned resources
- Travel to and from line with assigned resources
- Monitor and inspect progress; make changes as necessary
- Coordinate action with adjacent resources
- Keep supervisor informed of status and progress
- Obtain logistics/equipment needs from assigned resources
- Retain control of assigned resources while off-line
- Maintain a current unit log (ICS form 214)

Single Resource Boss (CRWB, ENGB, FIRB, FELB):

- Responsible for supervising and directing a firefighting module such as: hand crew, engine, dozer, firing team, and fallers.
- Obtain briefing from Task Force/Strike Team Leader/IC
- Review assignment with module and assign work tasks
- Obtain Necessary equipment and supplies
- Review current and predicted Wx conditions and expected Fire Bx
- Brief module on safety including escape routes and safety zones
- Monitor work progress; make changes as necessary
- Keep supervisor informed of progress and changes
- Inform supervisor promptly of problems
- Brief/Debrief with relief personnel on the fireline
- Complete and turn in time records

REMOTE OPERATIONS UPDATE
CALL-IN CHEAT SHEET

When providing an update on a remote portion of a fire, managers may have specific questions about the current status of a fire, and they'll usually let you know what those are. If not, these items listed below will assist you in painting a decent picture of an ongoing fire's status.

- Estimated (or known) current fire size
- Growth Overnight/ since last checked
- % Active Perimeter
- Active portion / quadrant (N, S, E, W)
- Fuel Model carrying fire (pay special attention to FM transitions)
- Fire Behavior Observed: ROS, Flame Length, torching, spotting, smoke obs.
- Time of Activity (burning window)
- Weather highlights: High Temps, Low RH, wind speed and direction
- Communicate your plan for the shift
- Ask if any other information is needed (when they'd like the next update, etc)
- Specific safety or operational concerns/mitigations

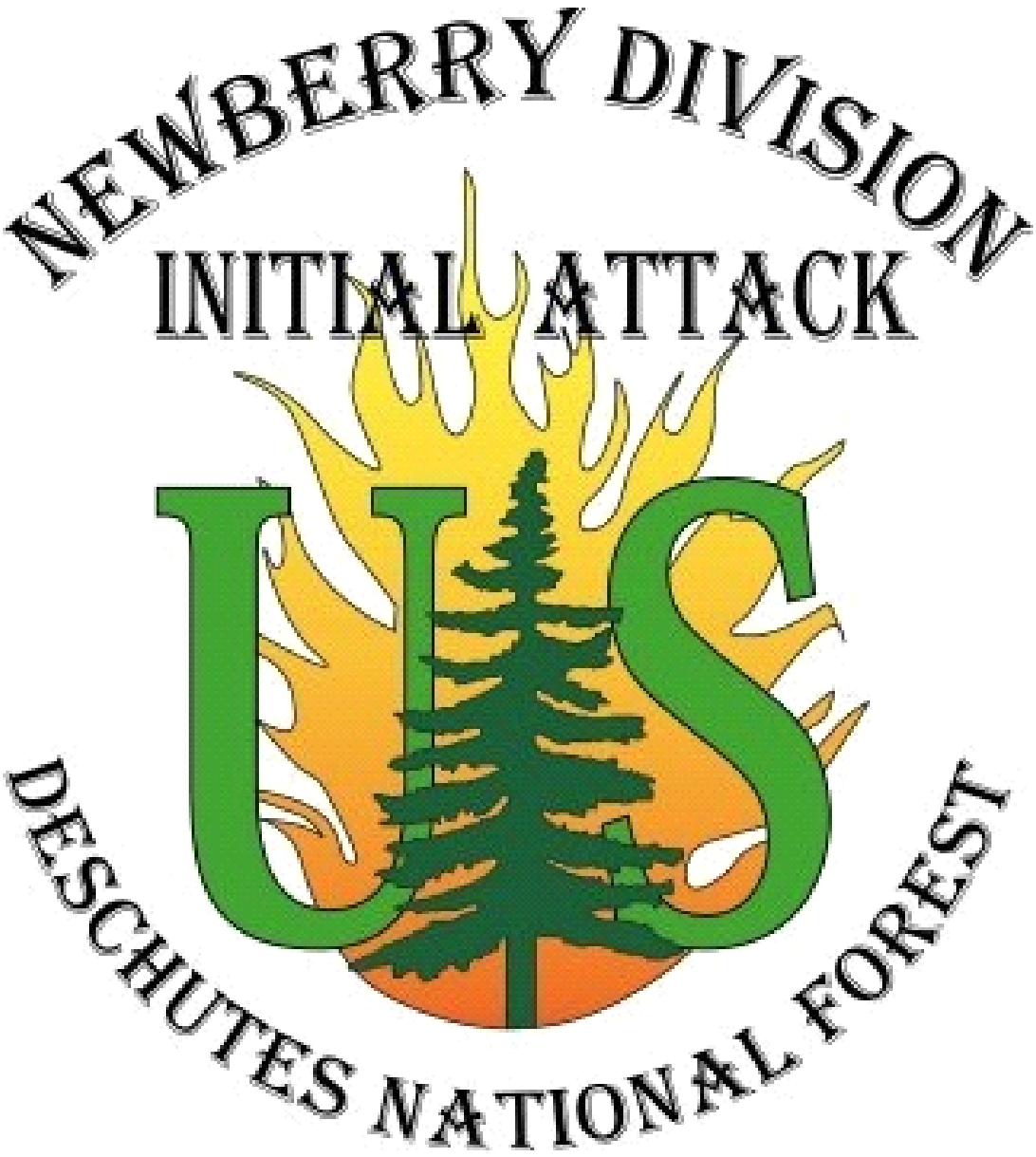
When communicating with a dispatch center/ ICP, consider the additional communication SOPs:

- Notify Dispatch when you begin your travel to and from the fire, when you begin driving and when you begin hiking. This may get redundant, but they'll at least know where you are.
- Let Dispatch know when you've arrived on the fire, and give them an estimate of when you'll provide a fire update.
- Communicate your info only when it's appropriate to do so: if other radio traffic exists, wait patiently for a break in radio traffic, and be only as a detailed as necessary with your update.
- Always be cordial and polite when communicating with dispatch.

ONE DAY ORDER AMOUNTS	
ITEM	**QUANTITY**
Water, 5 gal cubie	½ per person
MRE's	4 per person
Batteries, AA	15 per radio
Toilet Paper	1 roll per 8 people
Fuel (unleaded)	5 gal = 20 hours chainsaw use
Bar Oil	10 qts = 20 hours chainsaw use
2 cycle mix	12.8 oz = 20 hours chainsaw use
Fuel (24:1)	Mark III 5 gal = 3 hours, Shindawa 5 gal = 10hrs

Notes:

Notes:


NEWBERRY DIVISION
INITIAL ATTACK
US
DESCHUTES NATIONAL FOREST

LOCAL CONTACT PHONE NUMBERS

COIDC Dispatch Main	541-316-7700	
COIDC Desks	541-316-(+ 4 digits ext.)	
Prairie (Ochoco)	x7704	
Rivers (BLM)	x7701	
Cascade/Crescent	x7702	
Newberry (Deschutes NF)	x7703	Sarah Schultz
Center Manager- Maria Maragni	x7710	
IA Coordinator- Sam McKenzie	x7714	
ODF Coordinator—Tara Bandor	x7713	
Logistics	x7715	
Intel/Predictive-	x7772	
Shared resources / Aircraft	x7777	Amanda Hamman
Flight Following	x7779	
COFMS Duty Officer	x7742	
Ochoco NF Main Office	541-416-6500	
BLM-Prineville Main Office	541-416-6700	
Deschutes NF Main Office	541-383-5300	
Bend-Ft Rock Ranger District	541-383-4000	
RAC	541-504-7200	
COFMS	**Office**	**Work Cell**
Vacant (Fire Staff)		
Kevin Stock (Deputy Fire Staff)	383-5583	541-410-2415
Sonny Caldwell (Asst. Fire Staff)	383-5497	541-233-6481
Larkin, Kevin (BFR Dist. Ranger)	383-4760	541-410-0190
Michelle King (Deputy DR)		541-280-9225
Kitchens, Jeff (BLM Field Mngr)		541-350-5955

These numbers are not to be shared with the public

Agency	Contact	Phone Number
Mid State Electric **Option 1**		541-536-2165
Trans Canada Gas Pipeline		1-800-447-8066
Pacific Power		1-800-245-7575
Central Electric 24 hr **Press 0**		541-548-2144
Deschutes Recreation (Campground Contractor)	Chris Howerton	(928)750-1946
Pringle Experimental Forest	Paul Anderson	541-758-7786
Fall River Fish Hatchery	ODFW	541-593-1510
City of Bend Water Dept. **Duty officer Phone #**		541-480-7419
Crane Prairie Dam Tender	Sky Smith	775-315-2377
LAW ENFORCEMENT	**Office Number**	**Work Cell**
1F2 Larson, Erik (Patrol Cpt.)	383-5798	541-678-3112
1F1 Scott McIntyre (Special Agent)	383-5510	530-721-0739
1F31 Cartaya	383-4796	541-480-8076
1F11 Soules	549-7700	541-620-4426
1F21 Reed	433-3255	541-480-8074
7F31 Ditzel	383-4781	541-480-8072
7F41 Sakraida	416-6422	541-410-9937
Deschutes Co. Sheriff	Shane Nelson	541-388-6655
911 Non-Emergency	693-6911	
BEND FIRE BC 312	419-7312	
AUTO SHOP		
Smith, Jeremy	503-701-1222	
ODF		
9101 Gordon Foster, Chief		419-4291
SISTERS ODF		
9502 Ben Duda, BC	549-2731	480-6139
9503 Chris Dayton, OPS		480-8026
Resources (Engines and Crew)		
9541 9564 9551 9561 9562 9563 Crew 955		
PRINEVILLE ODF		
9102, Frank Jones, BC		541-362-6790
9103, Cody Kingsbury OPS		541-663-6978
Resources (Engine and Dozer)		
9140 9160 9161 9162 Dozer 91		

Bend Fire Contact Numbers		
310	Chief Todd Riley	541-350-4206
311	Bill Boos	541-419-6741
312	BC Cell	541-419-7312
	Jeff Blake	541-280-6356
	Andy Hood	541-420-7310
	Scott Wyman	541-420-4159
315	Vacant at time of print	
301	West Station	541-322-6301
321/341	Captain Cell	541-419-7321
302	Tumalo Station	541-322-6302
322/342	Captain Cell	541-419-7322
303	South Station	541-322-6303
323/343	Captain Cell	541-419-7323
304	East Station	541-322-6304
324/344	Captain Cell	541-419-7324
305	North Station	541-322-6305
325/345	Captain Cell	541-419-7325
386	SRV	541-322-6386
	Dan Derlacki	541-408-2954
	Jeremy South (Training Cpt)	C: 541-410-9443
		O: 541-322-6372
316	Darren Root (Training Chief)	C: 541-390-0266
		O: 541-322-6316
Sunriver Fire Contact Numbers		
210	Fire Chief—Tim Moor	541-948-2363
211	Deputiy Fire Chief - Rod Bjorvik	541-948-2971
212	On Duty Captain	541-410-8743
	Nick Sphat - A Shift	
	Benjamin O'Keefe - B Shift	
	Jared Jeffcott - C Shift	
201	Station	541-593-8622
	**after 1700	541-593-3111

Numbering Guide	
First Number = Fire Station	
1	La Pine
2	Sunriver
3	Bend
4	Redmond
5	Crooked River Ranch
6	Cloverdale
7	Sisters
8	Black Butte
9	Alfalfa
Second Number = Unit	
1	Command Officer
2	Engine
3	Tender
4	Interface Brush Engine
5	Truck
6	Rescue (heavy or light)
7	Medic Unit
8	Fire Marshal/Inspector
9	Service Truck
Third Number = Assigned Station Number	

Example:

341 = brush engine from Bend West Station

374 = Medic from Bend East Station

121 = Engine from La Pine North Station

Newberry WEST Phone List				2021
Name	Call Sign	Office	Work Cell	Personal Cell
Newey, Robert	DV 3	383-4747	541-280-5447	435-640-8420
Durrant, Mel	BC 32	383-5670	541-419-1914	541-280-5839 Truck
McCain, Cason	OPS 32	383-5664		509-680-2492
ENGINE 330				
Fielder, Ross	ENG 330	383-5665	541-419-2960	541-788-1979
Ritschard, Justin				971-221-6474
Loveless, Dalton				801-471-3298
Weinberg, Zack				847-910-7478
Grimes, Zack				541-848-1466
Weston, Sam				541-914-6236
Viar, Adam				845-279-1852
ENGINE 636				
Pendleton, Creed	ENG 636	383-5665	509-999-3531	509-999-3531
Zacek, Erica				315-749-4161
Maass, Erik				307-760-9327
Smerin, Maddie				802-498-5662
Erwin, Ryan				908-200-0061
Surplus, Travis				541-848-0208
England, Acacia				509-768-7106
ENGINE 637				
Cahill, Kevin	ENG 637	383-5665	541-280-5448	541-241-0041
Fields, James				541-220-8739
Evans, Thomas				609-610-0371
Bonnett, Riley				760-877-1941
Kellet, Alexander				541-380-0354
Florence, Perez				801-809-2659
CREW 302				
Adams, Ted	C 302	383-5663	541-280-5878	307-620-0996
Foey, Nick				503-914-7899
McCabe, Jordan				520-904-5670
Welge, Sara				858-472-7146
Marsden V, John "Quinn"				541-350-9551
Churchill, Kelsey				703-851-1222
Thornburg, Curtis				303-210-0087
Shelter, Jackson				978-270-8062
Mayo, Da'Marea "D"				209-584-4677
Clarke, Lily				406-544-8910
Fischer, Tristan				541-797-4276
Fisher, Heather	PT 32	383-4765	541-480-0913	541-788-0016
Lerman, Dan	D-231	383-5665	541-419-0188	541-588-2108
COFMS				
Larkin, Kevin	Ranger 1	383-4760	541-410-0190	
VACANT	Deputy West	383-5583		
Caldwel, Sonny	Asst. Staff West	383-5497		
LOOKOUTS				
Round Mtn	541-480-0911		Relief L.O.	
Hodgson, Shannon	541-788-9535		Poling, Mark	541-604-0222
Lava Butte	541-280-3381			
Hodgson, Joe	541-788-9535		Scott St. Fax	541-312-5204

Newberry EAST Phone List				2021
Name	Call Sign	Office	Work Cell	Personal Cell
Newey, Robert	DV 3	383-4747	541-280-5447	435-640-8420
Robertson, Dave	BC 31	383-5667	541-408-1363	280-5876 (truck)
Vacant	BC 33	383-4735		
Cowie, Shaniko	BC 34	383-4007		406-579-1004
Crawford, Jeff	BC 35			775-224-5816
Sprenger, Heidi	Ops 31	383-5668	541-480-1359	541-306-9023
ENGINE 331				
Gardner, Ian (Detailed Ops31)	ENG 331	383-5665	480-1208	541-913-7312
Witherspoon, Chris		383-5665		503-544-8751
Rodgers, Ian		383-5665		541-844-8809
Heatherman, Patrick		383-5665		541-419-9125
Crandall, Sarah		383-5665		541-359-7425
Malone, Ryan		383-5665		727-648-9704
ENGINE 332				
Duke, Chris	ENG 332	383-5665	480-8252	541-915-4460
Bohn, Mitch		383-5665		541-490-0925
Dommershausen, Gabe		383-5665		910-723-8238
Saphier, Andrew		383-5665		978-467-6929
Brown, Jesse		383-5665		603-686-4592
Evans, Travis		383-5665		415-407-9255
ENGINE 634				
Salsky, Isaiah	ENG 634	383-5665	541-480-8254	541-788-3706
Vanderburg, K Jay		383-5665		503-998-1178
Smith-Blockley, Stuart		383-5665		541-480-0152
Beckman, Steven		383-5665		541-398-2048
Torres, Brodie		383-5665		503-407-8828
Ferguson, Grace				209-817-1644
ENGINE 635				
Loewen, Nick	ENG 635	383-5665		541-620-4318
Bandor, Jared		383-5665		260-609-1399
Schnabel, Samuel		383-5665		314-933-4999
King, Sean		383-5665		805-610-2991
Trujillo, Tim		383-5665		541-280-9970
Linde, Hayden		383-5665		541-749-0849
CREW 301				
Babb, Macker	C 301	383-5663	280-5879	907-347-5455
Smith Howard, Jyota		383-5663		971-285-6482
Hicks, Amy		383-5663		509-637-5277
Stout, Samuel		383-5663		541-231-4483
Weitman, Ross		383-5663		503-707-0987
Kelly, Cole		383-5663		435-724-6604
Fuller, Cole		383-5663		541-633-6508
Miller, Carolyn		383-5663		503-847-4743
Ayers, Jesse		383-5663		603-819-9222
Stevens, Jack		383-5663		801-448-4151
FUELS / PREVENTION				
Swagger, Nick	Fuels 32	383-4734	541-480-0915	971-244-2940
Creech, Jessie	Fuels 31			406-529-0831
Moyer, Travis	PT 31	383-4736	541-508-9577	
Hauswald, Dan	D-230	383-5663		541-480-2384
Watts, Zeb	WT-231	383-5693		541-270-4131
LOOKOUTS				
East Butte	541-480-2378			
Simpson, Brad	541-668-0754		Relief L.O.	
Spring Butte	541-480-2379		Jeff Rondina	978-333-9558
Fueller, Tom	541-536-4929			
Shevlin Well Combo.	2351			

2021 Cascade Division Phone List and Days Off				
Name	Call Sign	Office	Work Cell	Personal Cell
OVERHEAD				
Osborne, James	DV 4	541-549-7646	541-480-3285	480-606-2129
Varone, Dave	BC 41	541-549-7640		559-202-7345
Myhra, Andrew	BC 42	541-549-7644	541-719-8090	503-307-3743
Grace, Vince	Ops 41	541-549-7643	541-480-2135	
Kevin Robinson	PT 41	541-549-7642		406-925-3690
Garcia, Luke	Fuels 41	541-549-7636		815-295-2832
Erica Zacek	Fuels 42	541-549-7662		315-749-4161
Jeremy Gottfried	UT 41	541-549-76xx		406-214-1885
CREW 401				
Gregg, Ryan	Captain		360-852-2296	458-253-9480
Dake, Mike	Assistant			541-280-4061
Brian Cole	Lead FFTR			704-962-9933
Allen, Kegan	Senior FFTR			503-877-8040
ENGINE 341				
Eccles, Tanner	Captain			503-400-4641
Delgado, Pepe	Assistant		541-280-7590	541-510-0961
Spears, Zach	Lead FFTR			503-383-6232
Sager, Issak	Senior FFTR			432-249-1101
ENGINE 640				
Pyke, Lee	Captain			541-306-8014
Bitzberger, John	Assistant			760-648-3386
Fair, Neal	Lead FFTR			509-310-3774
Bartkowiak, Richard	Senior FFTR			262-744-3375
Holzman, Nikki	Apprentice			434-249-0907
LOOKOUTS				
Black Butte (FS)	Scott Brownwood		541-419-2058	
Black Butte (FS)	Strawberry Brownwood		541-217-8459	
Green Ridge (FS)	Volunteer Personnel		541-419-2057	
Henkle Butte (ODF)	ODF Employees		541-410-2549	

Crescent Phone list				2021
Name	Call Sign	Office	Work Cell	Personal Cell
Sullivan, Ryan	DV 5	433-3203	541-954-7538	
Hingley, Craig	BC 51	433-3271	541-280-1580	
Enna, Kathy	BC 52	433-3257		503-913-3565
Vacant	Ops 51	433-3210		
ENGINE 351				
McGuire, Howard	Capt 351	433-3214		541-521-5949
Nash, Eric	Asst 351	433-3249		541-499-8907
Vacant	Oper 351			
Fijas, Eric	SRFF 351			808-754-6559
ENGINE 652				
Green, Kris	Capt 652	433-3212		541-225-8167
Bussey, Nolan	Asst 652	433-3270		530-927-7254
Brown, Brandon	Oper 652			541-610-9761
Tess Janson	Apprentice			443-878-8529
CREW 501				
Gatliff, Taylor	Capt 501	433-3264		541-280-2810
Carroll, Sean	Asst 501	433-3215		541-213-3463
Heitzman, Jonny	Sqdb 501			541-977-8677
Kyle Cashman	Sen 501			541-280-3664
Shane Krauseneck	Apprentice			989-284-6088
FUELS / PREVENTION				
Harryman, Eric	Fuels 53	433-3227		541-817-5363
Joslin, Wendy	Fuels 54	433-3250		541-306-9395
Leidenfrost, Max	PT 51	433-3251	541-285-7224	505-803-0596
LOOKOUTS				
Odell Butte	541-480-8037			
Shotwell, Jim				
WALKER RANGE				
Buell, RD	1301			541-420-4551
Carlson, Mike	1302			541-420-1565
Buell, Wes	1305			541-815-0596

Prairie Division Phone List			
Name	Call Sign	Primary #	Secondary #
Jason Gibb	DIV 1	458.218.1034	541.416.6688
Rich Harnden	BC 11	541.213.4902	541.416.6421
Joel Delgado	BC 12	541.971.9429	928.595.1484
John Fisher	BC 13	541.480.3851	541.987.2307
Jona Ensley	BC 14	541.903.0169	360.931.5457
Sam Pearcy	BC 15	541.410.0203	541.416.6428
Cameron Danison	OPS 12	541.408.7247	541.416.6565
Jeff Priest	OPS 13	541.419.4632	541.416.6404
Engine 612			
Todd Pease	SFEO	541.408.2309	541.416.6682
Noel Goodpaster	FEO	541.771.1400	
Kira Santulli	AFEO	434.305.0774	
Charles Mathias	Senior	818.802.8031	
Engine 616			
Jim O'Leary	SFEO	541.740.7095	541.416.6562
Jacob Rocco	FEO	541.420.7084	
Engine 317			
Vacant	SFEO		
Patrick Odell	FEO	541.913.6437	
Joshua Shanto	AFEO	585.678.1469	
Engine 618			
Dax Herrera	SFEO	541.675.5211	541.416.6682
Britney Gulick	FEO	541.805.8535	
Benjamin Estes	Senior	575.770.0444	
Sean Hoener	Apprentice	541.797.3121	
Engine 619			
James Hayes	SFEO	541.263.0936	541.416.8306
	FEO		
Ben Bell	AFEO	541.788.4905	
Crew 101			
Jason Oney	Captain	509.540.4862	541.416.6562
Rylee Wood	Assistant	541.280.5907	
Ed Fischer	Lead	541.975.4186	
Andrew Price	Senior	908.461.2190	
Derek Frydenlund	Senior	541.604.5328	
Fuels			
Jared Nelson	FT 11	541.420.7659	
Matt Walch	FT 14	541.410.0444	541.416.6429
Scott Brewer	FT 15	509.432.4808	
Jonathan Strittholt			
Prevention			
Jenny Alexander	PT 11		
Dave Fields		541.480.7737	
Don Evans	Stevenson LO	541.410.6497	541.731.0232
Zeyn O'Leary	Pisgah LO	541.410.3745	541.233.3543
Rodney Schaefer	Aldrich LO	541.480.3283	
Aaron McCray	Wolf LO	541.280.5426	

Prineville BLM/ Rivers Division					2021
Position	Name	Call Sign	Office	Work	Personal
Fire Man. Officer (Rivers)	Larae Guillory	DV-2	416-6423	458-218-1598	541-232-2444
Fuels Specialist	Rob Fore	BC-25	416-6715	541-233-3099	541-678-9196
Fuels Specialist	VACANT	BC-23			
Fuels Tech/Fuels Crew Lead	Tavis Fenske	BC-24	416-6796	541-777-7187	541-903-2864
Fire Prevention/ Mitigation	Sheldon Rhoden	PRV 5	416-6780		541-419-8331
Foresty Tech/ Cache Manager	Matt Noble	OPS 21	416-6750	541-410-8015	541-280-9382
Fuels Tech.	Cory George	FT-21	416-4622	458-231-3015	541-420-5490
Fuels Tech.	Natalie Kuntz	FT-22	416-6770	458-218-2273	541-815-0048
PRINEVILLE STATION				FAX 416-6795	
Detailed AFMO- Prineville	Heidi Sprenger	BC-21	416-6869		541-306-9023
Fuels Crew Captain	Tavis Fenske	C-201	416-6796	541-777-7187	541-903-2864
Fire Engine Capt.	Jim Holmly	E-5625	416-6869	541-777-1171	541-610-5189
Fire Engine Capt.	Jon Lent	E-5628	416-6869	541-233-8667	541-915-5080
HVY Engine Capt.	Rory Hiett	E-5427	416-6869	541-233-8258	541-410-0272
Asst. Engine Captain	Zach Spencer	E-5427	416-6869		530-263-4048
Fire Engine Capt.	Matt Noss	E-5626	416-6869	541-460-8348	509-948-1816
HVY Engine Capt.	Jeff Luebbers	E-5423	416-6869	458-231-3504	307-250-1503
Asst. Engine Captain	John Bria	E-5423	416-6869		541-728-6460
MADRAS STATION		TELEPHONE 475-7274		FAX 416-6694	
AFMO- GV and Madras	Donald Tschida	BC-22	416-6871		
HVY Engine Module Leader	Adam Barnes	E-5420	475-7274	458-231-4503	541-480-9528
Asst. HVY Eng.	Peter Trask	E-5420	475-7274		541-450-1667
Fire Engine Capt.	Adam Ernst	E-5624	475-7274	541-233-7037	541-420-9906
GRASS VALLEY GUARD STATION		TELEPHONE 333-2299		FAX 333-2245	
AFMO- GV and Madras	Donald Tschida	BC-22	416-6871		
Fire Engine Capt.	VACANT	E-5621	333-2299		
HVY Engine Module Leader	Darren Kasper	E-5422	333-2299	541-233-3525	541-233-9571
Asst. HVY Eng.	Elliot Wharton	E-5422	333-2299		541-948-9295
Dayville Guard Station					
ENGINE 415	Martin, Jenny	ENG 415	987-2307	541-604-4487	541-620-2078
ENGINE 613	Ewings, Josh	ENG 613	987-2307		541-805-1342

Group 1 Prairie Division (Prairie)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	OCH NF Grizzly Mtn Rptr	OCF GRIZ	169.9750	168.7500	131.8	131.8
2	A	OCH NF Steph Mtn Rptr	OCF STVN	169.9750	168.7500	131.8	151.4
3	A	OCH NF Viewpoint Rptr	OCF VWPT	169.9750	168.7500	131.8	114.8
4	A	OCH NF Drake Peak Rptr	OCF DKPK	169.9750	168.7500	131.8	107.2
5	A	OCH NF Round Mtn Rptr	OCF RND	170.5500	169.1750	131.8	107.2
6	A	OCH NF Mt Pisgah Rptr	OCF PISG	170.5500	169.1750	131.8	114.8
7	A	OCH NF Wolf Mtn Rptr	OCF WOLF	170.5000	168.1250	131.8	141.3
8	A	OCH NF Aldrich Mtn Rptr	OCF ALD	170.5000	168.1250	131.8	151.4
9	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
10	A	Ochoco Fire Tactical 1	OCF TAC1	166.7625	166.7625		None
11	A	Ochoco Fire Tactical 2	OCF TAC2	167.1125	167.1125		None
12	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
13	A	Ochoco Project	OCF PRJ	169.1250	169.1250		NONE
14	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 2 Prairie SW (Prairie SW)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	OCH NF Grizzly Mtn Rptr	OCF GRIZ	169.9750	168.7500	131.8	131.8
2	A	OCH NF Steph Mtn Rptr	OCF STVN	169.9750	168.7500	131.8	151.4
3	A	OCH Wolf Rptr	OCF WOLF	170.5000	168.1250	131.8	141.3
4	A	OCH NF Drake Peak Rptr	OCF DKPK	169.9750	168.7500	131.8	107.2
5	A	OCH NF Mt Pisgah Rptr	OCF PISG	170.5500	169.1750	131.8	114.8
6	A	OCH NF Round Mtn Rptr	OCF RND	170.5500	169.1750	131.8	107.2
7	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
8	A	Crook County Grizzly	CC GRIZ	154.9650	155.5950	131.8	203.5
9	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
10	A	Ochoco Fire Tactical 1	OCF TAC1	166.7625	166.7625		None
11	A	Ochoco Fire Tactical 2	OCF TAC2	167.1125	167.1125		None
12	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
13	A	MAF Sn. Mtn South (Burns)	MAF SNOW	172.3250	165.0125	131.8	203.5
14	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 3 Prairie NE (Prairie NE)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	OCH Aldrich Rptr	OCF ALD	170.5000	168.1250	131.8	151.4
2	A	OCH Wolf Rptr	OCF WOLF	170.5000	168.1250	131.8	141.3
3	A	OCH Pisgah Rptr	OCF PISG	170.5500	169.1750	131.8	114.8
4	A	BLM Rancheria Rptr	PRD RNCH	172.6500	163.1500	107.2	107.2
5	A	ODF Aldrich Rptr (John Day)	ODF ALD	151.2050	159.3750	162.2	162.2
6	A	MAF Aldrich Rptr (John Day)	MAF ALD	172.4000	166.2000	131.8	131.8
7	A	ODF Snowboard	ODFSNWBD	151.1450	159.2850		151.4
8	A	Wheeler Co. Disp. Rptr. "587"	WHLR 587	154.8450	158.7600	162.2	146.2
9	A	BLM TAC	BLM TAC	173.6750	173.6750		NONE
10	A	Ochoco Fire Tactical 1	OCF TAC1	166.7625	166.7625		None
11	A	Ochoco Fire Tactical 2	OCF TAC2	167.1125	167.1125		None
12	A	ODF RED NET	ODF RED	151.3400	151.3400	156.7	156.7
13	A	ODF White Net	ODF WHT	151.3100	151.3100	156.7	156.7
14	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 4 Rivers Div. South (RIVERS S)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
3	A	Ochoco Fire Tactical 2	OCF TAC 2	167.1125	167.1125		NONE
4	A	OCH Grizzly Rptr	OCF GRIZ	169.9750	168.7500	131.8	131.8
5	A	OCH Drake Peak Rptr	OCF DKPK	169.9750	168.7500	131.8	107.2
6	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
7	A	BLM Hampton Butte Rptr	BLM HAMP	172.6500	163.1500	114.8	114.8
8	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
9	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
10	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
11	A	Crook County Grizzly	CC GRIZ	154.9650	155.5950	131.8	203.5
12	A	Redmond FD	REDM FD	154.0700	158.8650	162.2	162.2
13	A	Jefferson Co RFD Gray Butte	JEFGRY	154.2500	150.7750	100.0	107.2
14	A	Jefferson Co RFD	JEFFCO	154.2500	154.2500	NONE	100.0
15	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
16	A	Airguard	AIRGUARD	168.6250	168.6250	NONE	110.9

Group 5 Rivers Div. North (RIVERS N)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
3	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
4	A	BLM Tygh Ridge Rptr	PRD TYGH	172.6500	163.1500	100.0	100.0
5	A	BLM Rancheria Rpt	PRD RNCH	172.6500	163.1500	107.2	107.2
6	A	BLM Grizzly Rptr	PRD GRIZ	173.8375	166.2250	173.8	173.8
7	A	Fire South Flag Point	FIRE S R	159.0600	153.9650	D703	D703
8	A	Juniper Flat RFD	JF FIRE	154.3100	154.3100	107.2	107.2
9	A	Maupin Fire RFD	MAUPIN F	154.3850	154.3850	D315	D315
10	A	South Sherman Co 592	SHE592	155.1450	158.8650	D205	D205
11	A	North Sherman Co 593	SHE593	155.5500	153.9350	D263	D263
12	A	N. Gilliam Co Dsptch 921	NGIL 921	154.0475	158.9550	D565	D565
13	A	S. Gilliam Co Dsptch 920	SGIL 920	155.1825	159.1875	D565	D565
14	A	Wheeler Co Dsptch 587	WHELR587	154.8450	158.7600	162.2	146.2
15	A	OSFM Mutual Aid	OSFM	154.2800	154.2800		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 6 Rivers Div. Interagency (RIVERS I)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground 50	AG 50	168.2875	168.2875		NONE
2	A	Warm Springs A/G	WS A/G	167.4750	167.4750		NONE
3	A	BIA Warm Springs Tac 1	WS TAC1	163.1000	163.1000		NONE
4	A	BIA Warm Sprs Tac2	WS TAC2	168.3500	168.3500		NONE
5	A	BIA WS Fire Direct	WS FI DI	169.8250	169.8250	110.9	110.9
6	A	BIA WS Fire Repeater	WS FI RP	169.8250	164.5750	110.9	110.9
7	A	BIA WS Forest Repeater	WS FO RP	172.4250	171.7750		NONE
8	A	Hood NF Stacker Butte	MH STACK	169.9500	164.8750	127.3	127.3
9	A	Hood NF Flag Point Rptr	MH FLAG	169.9250	162.6125	123.0	114.8
10	A	Ochoco Fire Tactical 2	OCF TAC 2	167.1125	167.1125		NONE
11	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
12	A	ODF Dalles Rpt (Stacker)	TD REP	151.4375	159.3975	162.2	151.4
13	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
14	A	BLM Grizzly Rptr	BLM GRIZZ	173.8375	166.2250	173.8	173.8
15	A	BLM Tygh Ridge Rptr	BLM TYGH	172.6500	163.1500	100.0	100.0
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 7 Deschutes Administrative (DES ADMI)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Deschutes Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
2	A	Deschutes Green Ridge	DEF GR	171.4750	164.7875	103.5	156.7
3	A	Deschutes Awb North	DEF AW N	171.4750	164.7875	103.5	192.8
4	A	Deschutes Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
5	A	Deschutes East Butte	DEF EB	170.4750	163.1625	103.5	123.0
6	A	Deschutes Mt Bachelor	DEF BACH	170.4750	163.1625	103.5	156.7
7	A	Deschutes LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
8	A	Deschutes Walker	DEF WLKR	171.2625	164.1875	103.5	131.8
9	A	Deschutes LO South	DEF LO S	171.2625	164.1875	103.5	167.9
10	A	Deschutes Odell	DEF OD	171.2625	164.1875	103.5	146.2
11	A	USFS Project 1	FS PRJ1	163.7125	163.7125		NONE
12	A	USFS Project 2	FS PRJ2	167.1375	167.1375		NONE
13	A	USFS Project 3	FS PRJ3	168.6125	168.6125		NONE
14	A	USFS Project 4	FS PRJ4	173.6250	173.6250		NONE
15	A	Deschutes Project	DEF PRJ	168.1500	168.1500		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 8 Crescent Div. (CD SW)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Deschutes East Butte	DEF EB	170.4750	163.1625	103.5	123.0
2	A	Deschutes Walker	DEF WLKR	171.2625	164.1875	103.5	131.8
3	A	Deschutes Odell	DEF OD	171.2625	164.1875	103.5	146.2
4	A	DEF Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
5	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
6	A	Walker Range Walker Rptr	WR WLKR	151.1525	159.3150	131.8	131.8
7	A	ODF Blue Tac	BLUE TAC	159.2625	159.2625	156.7	156.7
8	A	Deschutes LO South	DEF LO S	171.2625	164.1875	103.5	167.9
9	A	Deschutes LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
10	A	ODF White/ A2G 11	ODF WHT	151.3100	151.3100	156.7	156.7
11	A	La/Sun FD Rptr	LASUN FD	154.1750	158.9850	156.7	156.7
12	A	BB, NW, LaPine Tac (TAC 8)	TAC 8	153.8300	153.8300		NONE
13	A	Klamath 911	KLAM 911	154.0700	154.4000	192.8	107.2
14	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
15	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 9 Crescent Div. (CD SC)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Walker Range Walker Rptr	WR WLKR	151.1525	159.3150	131.8	131.8
2	A	Deschutes Odell	DEF OD	171.2625	164.1875	103.5	146.2
3	A	Willamette Wolf	WIF WOLF	170.4625	164.8250	103.5	136.5
4	A	Winema Walker	WNF WLKR	170.5250	162.7500	103.5	141.3
5	A	Fremont Bald Mt Rptr	FRF BALD	171.7000	165.2250	103.5	151.4
6	A	WR Wastina Butte Rptr	WR WASTI	151.1525	159.3150	131.8	146.2
7	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
8	A	ODF Green Net	ODF GREEN	172.2250	172.2250	156.7	156.7
9	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
10	A	Deschutes Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
11	A	Deschutes Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
12	A	ODF White Net (Option A2G 11)	ODF WHT	151.3100	151.3100	156.7	156.7
13	A	Winema IA Tac	IATAC1	166.6375	166.6375		NONE
14	A	Air to Ground, 41	AG 41	167.4750	167.4750		NONE
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 10 Deschutes Rec (DES REC)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Deschutes Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
2	A	Deschutes LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
3	A	Deschutes East Butte	DEF EB	170.4750	163.1625	103.5	123.0
4	A	Deschutes Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
5	A	Deschutes Odell	DEF OD	171.2625	164.1875	103.5	146.2
6	A	USFS Project 1	FS PRJ1	163.7125	163.7125		NONE
7	A	Deschutes Project	DEF PRJ	168.1500	168.1500		NONE
8	A	Deschutes Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
9	A	Santiam River Project	PRJ SRZ	166.5625	166.5625	103.5	103.5
10	A	McKenzie River Project	PRJ MCK	168.7250	168.7250	103.5	103.5
11	A	Willamette Coffin	WIF COF	171.5250	164.1000	103.5	131.8
12	A	Willamette Indian	WIF IND	172.2500	164.9125	103.5	192.8
13	A	Willamette Wolf	WIF WOLF	170.463	164.8250	103.5	192.8
14	A	Willamette Halls	WIF HALL	171.5250	164.1000	103.5	123.0
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 11 Newberry Div. (NEWB)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	DEF Awb North	DEF AW N	171.4750	164.7875	103.5	192.8
2	A	DEF Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
3	A	DEF Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
4	A	DEF LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
5	A	DEF Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
6	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
7	A	ODF Grizzly Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
8	A	DEF East Butte	DEF EB	170.4750	163.1625	103.5	123.0
9	A	ODF SUGAR PINE RPT	ODF SPIN	151.1900	159.4425	162.2	167.9
10	A	LAPINE FD RPTR	LAPIN FD	154.1750	158.9850	156.7	156.7
11	A	DEF LO South	DEF LO S	171.2625	164.1875	103.5	167.9
12	A	DEF Odell	DEF OD	171.2625	164.1875	103.5	146.2
13	A	DEF Mt Bachelor	DEF BACH	170.4750	163.1625	103.5	156.7
14	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
15	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 12 Newberry Div. (NEWB)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	DEF Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
2	A	DEF East Butte	DEF EB	170.4750	163.1625	103.5	123.0
3	A	DEF Mt Bachelor	DEF BACH	170.4750	163.1625	103.5	156.7
4	A	DEF LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
5	A	DEF Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
6	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
7	A	ODF Grizzly Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
8	A	ODF RED NET	ODF RED	151.3400	151.3400	156.7	156.7
9	A	DEF Odell	DEF OD	171.2625	164.1875	103.5	146.2
10	A	LAPINE FD RPTR	LAPIN FD	154.1750	158.9850	156.7	156.7
11	A	ODF TAC (Tac 9)	ODF TAC 9	159.2400	159.2400	156.7	156.7
12	A	ODF SUGAR PINE RPT	ODF SPIN	151.1900	159.4425	162.2	167.9
13	A	LaPine Tac (TAC 8)	TAC 8	153.8300	153.8300		NONE
14	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
15	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 13 Cascade Div. (CASCADE)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	DEF Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
2	A	DEF Green Ridge	DEF GR	171.4750	164.7875	103.5	156.7
3	A	DEF Awb North	DEF AW N	171.4750	164.7875	103.5	192.8
4	A	DEF Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
5	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
6	A	ODF RED NET	ODF RED	151.3400	151.3400	156.7	156.7
7	A	ODF TAC (TAC 9)	ODF TAC 9	159.2400	159.2400	156.7	156.7
8	A	LaPine Tac (TAC 8)	TAC 8	153.8300	153.8300		NONE
9	A	DEF Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
10	A	Redmond FD	REDM FD	154.0700	158.8650	162.2	162.2
11	A	ODF Grizzly Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
12	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
13	A	USFS Project 1	FS PRJ1	163.7125	163.7125		NONE
14	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	AIR GUARD	AIRGUARD	168.6250	168.6250		110.9

Group 14 MEDEVAC (MEDEVAC)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	DEF Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
2	A	DEF LO South	DEF LO S	171.2625	164.1875	103.5	167.9
3	A	Willamette Coffin	WIF COF	171.5250	164.1000	103.5	131.8
4	A	LA/SUN FD RPT	LASUN FD	154.1750	158.9850	156.7	156.7
5	A	Klamath 911	KLAM 911	154.0700	154.4000	192.8	107.2
6	A	ODF TAC (Tac 9)	ODF TAC 9	159.2400	159.2400	156.7	156.7
7	A	OSFM Mutual Aid	OSFM	154.2800	154.2800		NONE
8	A	Deschutes Co. SAR	DSCO SAR	155.8500	155.8500		
9	A	Oregon State SAR	ORST SAR	155.8050	155.8050		156.7
10	A	NAT SAR	NAT SAR	155.1600	155.1600		156.7
11	A	Crook Co. SAR (Brown)	CC SAR	155.7975	155.7975		156.7
12	A	OCH Round Mtn Rptr	OCF RND	170.5500	169.1750	131.8	107.2
13	A	ODF Grizzly Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
14	A	HEAR	HEAR	155.3400	155.3400		
15	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
16	A	AIR GUARD	AIRGUARD	168.6250	168.6250		110.9

Group 15 Interface (INTRFACE)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
2	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
3	A	DEF Black Butte	DEF BB	171.4750	164.7875	103.5	167.9
4	A	ODF Sugar Pine Rptr	ODF SPIN	151.1900	159.443	162.2	167.9
5	A	Walker Range Rptr	WR WLKR	151.153	159.315	131.8	131.8
6	A	DEF Awb Central	DEF AW C	170.4750	163.1625	103.5	192.8
7	A	DEF LO South	DEF LO S	171.2625	164.1875	103.5	167.9
8	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
9	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
10	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
11	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
12	A	LaPine Tac (TAC 8)	TAC 8	153.8300	153.8300		NONE
13	A	ODF TAC (Tac 9)	ODF TAC 9	159.2400	159.2400	156.7	156.7
14	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
15	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 16 Travel/Miscellaneous (TRAV MISC)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	NICS TAC #1	TAC 1	168.0500	168.0500		NONE
2	A	NICS TAC #2	TAC 2	168.2000	168.2000		NONE
3	A	NICS TAC #3	TAC 3	168.6000	168.6000		NONE
4	A	NICS TAC #4	TAC 4	166.7250	166.7250		NONE
5	A	NICS TAC #5	TAC 5	166.7750	166.7750		NONE
6	A	NICS TAC #6	TAC 6	168.2500	168.2500		NONE
7	A	FS TRAVEL	FS TRAVL	168.3500	168.3500		NONE
8	A	CAMP NET	CAMP NET	163.1000	163.1000		NONE
9	A	Project DEF/OCH	FS PROJ	170.5000	170.5000		NONE
10	A	Airguard	AIRGUARD	168.6250	168.6250		110.9
11							
12							
13							
14							
15							
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 17 Willamette (WIF)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Willamette Frissel	FRISSEL	172.2500	164.9125	103.5	162.2
2	A	Willamette Indian	INDIAN	172.2500	164.9125	103.5	192.8
3	A	Willamette Coffin	COFFIN	171.5250	164.1000	103.5	131.8
4	A	Project McKenzie	PROJ MCK	168.7250	168.7250	103.5	103.5
5	A	Air to Ground, 50	AG 50 PRI	168.2875	168.2875		
6	A	Air to Ground, 9	AG 9 SEC	166.9125	166.9125		
7	A	Willamette Huckleberry	HUCKLBRY	170.4625	164.8250	103.5	103.5
8	A	Willamette Warner	WARNER	170.4625	164.8250	103.5	107.2
9	A	Willamette Wolf	WOLF	170.463	164.8250	103.5	192.8
10	A	Santiam River Project	PRJ SRZ	166.5625	166.5625	103.5	103.5
11	A	USFS Project Middle Fork	PROJ MDL	168.7750	168.7750	103.5	103.5
12	A	DEF Odell	DEFOD	171.2625	164.1875	103.5	146.2
13	A	DEF LO Central	DEF LO C	170.4750	163.1625	103.5	167.9
14	A	DEF Fire Tactical 1	DEF TAC1	166.8875	166.8875		NONE
15	A	DEF Fire Tactical 2	DEF TAC2	167.6500	167.6500		NONE
16	A	Airguard	AIRGUARD	168.625	168.625		110.9

Group 18 Fremont-Winema (FREWIN)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Fremont Bald Mt Repeater	BALD	171.700	103.5	165.225	151.4
2	A	FWF Picture Rock Repeater	PICROK	171.700	103.5	165.225	162.2
3	A	LAD BLM Green Mt Rpt	GRN MT	173.8875		166.325	114.8
4	A	FWF Walker Mt RPT	WALKER	170.525	103.5	162.750	141.3
5	A	Walker Range Wastina Rpt	WRWAST	151.1525	131.8	159.315	146.2
6	A	Walker Range Walker Rpt	WRWALK	151.1525	131.8	159.315	131.8
7	A	FWF Applegate Bt Rpt	APPLE	170.600	103.5	163.6875	151.4
8	A	ODF Red Net SOA	ODF RED	151.340	156.7	151.340	156.7
9	A	BLM OR/WA SOA	IATAC1	166.6375		166.6375	
10	A	FWF Tactical	IATAC2	167.450		167.450	
11	A	BLM Scene of Action	IATAC3	166.275		166.275	
12	A	BLM Scene of Action	IATAC4	173.675		173.675	
13	A	OR04 Air to Ground 41	A/G 41	167.475		167.475	
14	A	OR04 ODF A/G 01	A/G 01	151.310	156.7	151.310	156.7
15	A	OR03 Air to Ground 37	A/G 37	167.300		167.300	
16	A	Airguard	AIRGUARD	168.625		168.625	110.9

Group 19 User Programmable (PROGRAM)

CH	Band	Channel Description	Display	RX	TX	RX Tone	TX Tone

Group 20 Rivers North/Wasco County (WASCO)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	ODF White Net (Option A2G)	ODF WHT	151.3100	151.3100	156.7	156.7
3	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
4	A	BLM Tygh Ridge Rptr	BLM TYGH	172.6500	163.1500	100	100.0
5	A	Mt. Hood NF Stacker Butte	MH STACK	169.9500	164.8750	127.3	127.3
6	A	Mt. Hood NF Flag Point Rptr	MH FLAG	169.9250	162.6125	123.0	114.8
7	A	USFS Project	FS PROJ	168.6750	168.6750	123.0	123.0
8	A	ODF Dalles Rpt (Stacker)	TD REP	151.4375	159.3975	162.2	151.4
9	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
10	A	Fire South Flag Point	FIRE S R	159.0600	153.9650	D703	D703
11	A	Juniper Flat RFD Rptr	JF RPTR	154.3100	159.1050	107.2	118.8
12	A	Juniper Flat RFD Direct	JF FIRE	154.3100	154.3100	107.2	107.2
13	A	Juniper Flat Fire Tac	JF TAC	158.7450	158.7450	107.2	107.2
14	A	Fire South Rptr BakeOven	BAKEOVEN	159.0600	153.9650	D703	D423
15	A	Maupin RFD	MAUPIN	154.3850	154.3850	D315	D315
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 21 Rivers N./Sherman County (SHERMAN)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
3	A	BLM Tygh Ridge Rptr	BLM TYGH	172.6500	163.1500	100	100.0
4	A	592 South	SHE592	155.1450	158.8650	D205	D205
5	A	593 North	SHE593	155.5500	153.9350	D263	D263
6	A	Sherman Gordon Rptr N. Tac	GORDON	154.4300	154.0100	179.9	179.9
7	A	Sherman Gordon North Tac	SH N TAC	154.4300	154.4300	179.9	179.9
8	A	Sherman Erskine Rptr S. Tac	ERSKINE	154.1075	158.9250	D351	D351
9	A	Sherman Co Erskine S. Tac	SH S TAC	154.1075	154.1075	D351	D351
10	A	Fire North I-84 Rptr "Central"	FIRE N R	155.2500	158.9700	D703	D703
11	A	Fire North MCFR Tac 2	MC TAC 2	154.1750	154.1750	NONE	NONE
12	A	VCALL	VCALL	155.7525	155.7525	NONE	156.7
13	A	VTAC11	VTAC 11	151.1375	151.1375	NONE	156.7
14	A	VTAC12	VATC 12	154.4525	154.4525	NONE	156.7
15	A	VTAC13	VTAC 13	158.7375	158.7375	NONE	156.7
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 22 Rivers N./Gilliam-Wheeler County (Gil-Wheel)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
3	A	BLM Tactical	BLM TAC	173.6750	173.6750		NONE
4	A	BLM Tygh Ridge Rptr	BLM TYGH	172.6500	163.1500	100.0	100.0
5	A	BLM Rancheria Rock Rptr	BLM RNCH	172.6500	163.1500	107.2	107.2
6	A	North Gilliam Disp. Rptr "921"	NGIL 921	154.0475	158.9550	D565	D565
7	A	North Gilliam Disp. Rptr "922"	NGIL 922	154.0475	158.9550	D565	D245
8	A	South Gilliam Disp. Rptr "920"	SGIL 920	155.1825	159.1875	D565	D565
9	A	North Gillnet Tac	NGILLNET	154.3250	153.8900	146.2	103.5
10	A	South Gillnet Tac	SGILLNET	154.3250	154.3250	None	None
11	A	Wheeler Co. Disp. Rptr. "587"	WHLR 587	154.8450	158.7600	162.2	146.2
12	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
13	A	ODF Snowboard	ODF SNWBD	151.1450	159.2850		151.4
14	A	OCH Pisgah Rptr	OCF PISG	170.5500	169.1750	131.8	114.8
15	A	OCH Aldrich Rptr	OCF ALD	170.5000	168.1250	131.8	151.4
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 23 Rivers Div. Interface (RIV-INTRFACE)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Crook County Tac 1	Tac 1	154.2350	154.2350		
2	A	Bend Fire Tac 5	Tac 5	154.3475	154.3475		
3	A	Alfalfa Fire Tac 6	Tac 6	153.9500	153.9500		127.3
4	A	Redmond/Jeffco Fire Tac 7	Tac 7	155.55	155.55		
5	A	Tac 8	Tac 8	153.83	153.83		
6	A	ODF TAC (Tac 9)	ODF TAC	159.2400	159.2400	156.7	156.7
7	A	BLM Tactical	BLM Tac	173.6750	173.6750		
8	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
9	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
10	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
11	A	Prineville Fire Dept.	PRIN FD	154.9650	155.5950	131.8	203.5
12	A	Redmond FD	REDM FD	154.0700	158.8650	162.2	162.2
13	A	CRR Rptr.	CRRANCH	154.3925	158.8425	103.5	103.5
14	A	Air to Ground, 61	AG 61	169.2875	168.2875		NONE
15	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 24 Post-Paulina RFPA (Post-Paulina)

CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
3	A	FS R6 Tactical 2	FS TAC 2	168.2000	168.2000		
4	A	OCH Grizzly Rptr	OCF GRIZ	169.9750	168.7500	131.8	131.8
5	A	OCH Drake Peak Rptr	OCF DKPK	169.9750	168.7500	131.8	107.2
6	A	BLM Tactical	BLM Tac	173.6750	173.6750		
7	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
8	A	BLM Hampton Butte Rptr	BLM HAMP	172.6500	163.1500	114.8	114.8
9	A	BLM Grizzly Rptr	PRD GRIZ	173.8375	166.2250	173.8	173.8
10	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
11	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
12	A	OCH NF Wolf Mtn Rptr	OCF WOLF	170.5000	168.1250	131.8	141.3
13	A	OCH NF Round Mtn Rptr	OCF RND	170.5500	169.1750	131.8	107.2
14	A	ODF Blue Net	ODF BLUE	159.2625	159.2625	156.7	156.7
15	A	USFS Project DES&OCH NF	FS PROJ	170.5000	175.5000		
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

Group 25	Brothers Hampton RFPA		(Broth-Hamp)				
CH	Mode	Channel Description	Display	RX	TX	RX Tone	TX Tone
1	A	Air to Ground, 37	AG 37	167.3000	167.3000		NONE
2	A	Air to Ground, 61	AG 61	169.2875	169.2875		NONE
3	A	Ochoco Fire Tactical 2	OCF TAC 2	167.1125	167.1125		NONE
4	A	OCH Grizzly Rptr	OCF GRIZ	169.9750	168.7500	131.8	131.8
5	A	OCH Drake Peak Rptr	OCF DKPK	169.9750	168.7500	131.8	107.2
6	A	BLM Tactical / Prineville	BLM TAC	173.6750	173.6750		NONE
7	A	Deschutes East Butte	DEF EB	170.4750	163.1625	103.5	123
8	A	BLM Hampton Butte Rptr	BLM HAMP	172.6500	163.1500	114.8	114.8
9	A	BLM Grizzly Rptr	BLM GRIZ	173.8375	166.2250	173.8	173.8
10	A	ODF Red Net	ODF RED	151.3400	151.3400	156.7	156.7
11	A	ODF Grizzly Mtn Rptr	ODF GRIZ	151.1750	159.2925	162.2	162.2
12	A	Lakeview Green Mt Rptr	GRN MT	173.8875	166.3250		114.8
13	A	BLM Tactical / Lakeview	IATAC3	166.2750	166.2750		NONE
14	A	Air to Ground 41	AG 41	167.4750	167.4750		NONE
15	A	Ranch	Ranch	151.6250	151.6250		NONE
16	A	Airguard	AIRGUARD	168.6250	168.6250		110.9

DISPATCH CENTERS	CALL SIGNS
Central Oregon Interagency Dispatch	COIDC
Eugene Interagency Communication Center	EICC
Lakeview Interagency Fire Center	LIFC
John Day Interagency Communication Center	JDICC
Burns Interagency Communication Center	BICC
Mid Columbia Fire and Rescue	CENTRAL
Wasco County (Fire South)	CENTRAL
ODF The Dalles	COLUMBIA
USFS Mnt. Hood & CRGNSA	COLUMBIA
NorthSherman County	593
South Sherman County	592
North Gilliam County	921
South Gilliam County	920
Wheeler County "Fossil"	587

A	ODOT Direct South Dist. 10	DOTDIR10	156.0600	156.0600	100.0	100.0
A	ODOT Tac Flagging F4-34	FLAG4-34	151.0400	151.0400	131.8	131.8

THIS IS FOR SOUTH OF COW CANYON THROUGH LYLE GAP TO MADRAS

ALL ODOT FLAGGING CHANNELS ARE STATE WIDE

Central Oregon Multi-Agency Interface Fire Pre-Planned Frequency Assignments:
Group 15

Sisters, Black Butte Ranch, Camp Sherman, Cloverdale Area:
Command (Primary): DEF Black Butte
Command (Secondary): ODF Grizzly
Tactical: Tac 8 (Northwest/LaPine Tac)

Redmond, Crooked River Ranch:
Command (Primary): BLM Grizzly
Command (Secondary): DEF Black Butte
Tactical: BLM Tac

Bend Area:
Command (Primary): ODF Grizzly
Command (Secondary): DEF Awbrey Central
Tactical: (Tac 9) ODF Tac

LaPine, Sunriver Area:
Command (Primary): ODF Sugarpine
Command (Secondary): DEF Odell
Tactical: Tac 8 (Northwest/LaPine Tac)

Crescent, Walker Range Area:
Command (Primary): Walker Rptr **(Walker Range)****
Command (Secondary): DEF Odell (Rx: 171.2625/103.5, 171.2625/146.2)
Tactical: ODF Red

Jefferson County:
Command (Primary): BLM Grizzly
Command (Secondary): ODF Grizzly
Tactical: BLM Tac

Crook County:
Command (Primary): ODF Grizzly
Command (Secondary): BLM Grizzly
Tactical: ODF Red

Central Oregon Air-to-Ground Frequencies:
A2G 37 167.3000
A2G 61 169.2875

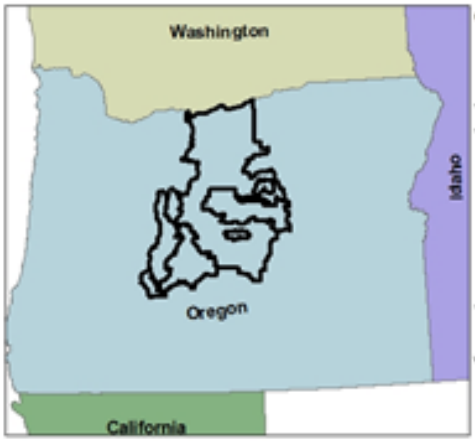
Frequency assignments are for initial attack operations and are subject to change dependent on fire activity, responsible agency, and requests from IC or Dispatch.

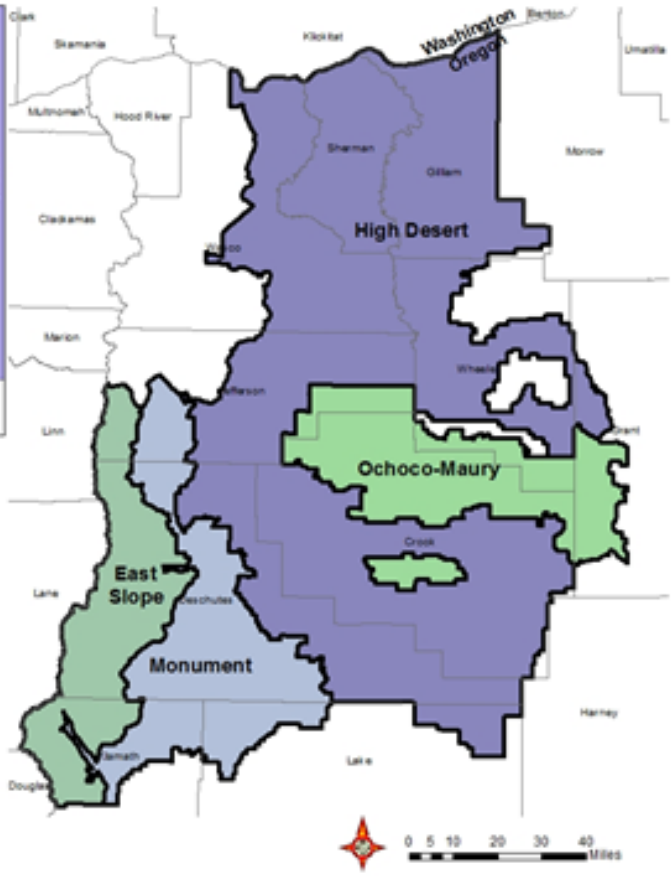
****Walker Range, NOT Deschutes Walker Mtn.**

Aviation Frequencies

Aviation	Transmit	Receive	Tone
Central OR Air to Ground AG 61	169.2875	169.2875	NONE
Central OR Air to Ground 2 AG 37	167.3000	167.3000	NONE
Airguard (emergency air traffic only)	168.625	168.625	110.9
National FLT Follow (FM)	168.650	168.650	123.0
Deschutes SAR	155.850	155.850	NONE
Oregon State SAR	155.805	155.805	TX: 156.7
HEAR – AIRLINK	155.340	155.340	NONE

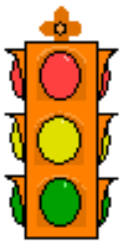
Central Oregon Interagency Pocket Cards





Interpretation of Charts:

- Title—Describes the Fire Danger Rating Area (FDRA) the chart applies to.
- Subtitle—Identifies weather stations (RAWS) utilized*, NFDRS fuel model, and years analyzed.
- MAXIMUM—Highest ERC recorded for that day during the analysis period.
- AVERAGE—Average ERC recorded for that day during the analysis period.
- Critical ERC—Threshold that captures the largest percentage of large fires in the lowest percentage of days as analyzed in FireFamily Plus.
- Year – Each FDRA chart graphs one recent year to remember.
- Fire name/year—ERC for the discovery date of a memorable fire.
- NFDRS 2016 Fuel Model Y—Timber



Extreme – Use extreme caution

Caution – Watch for change, especially WIND

Moderate – Lower potential, but always be aware

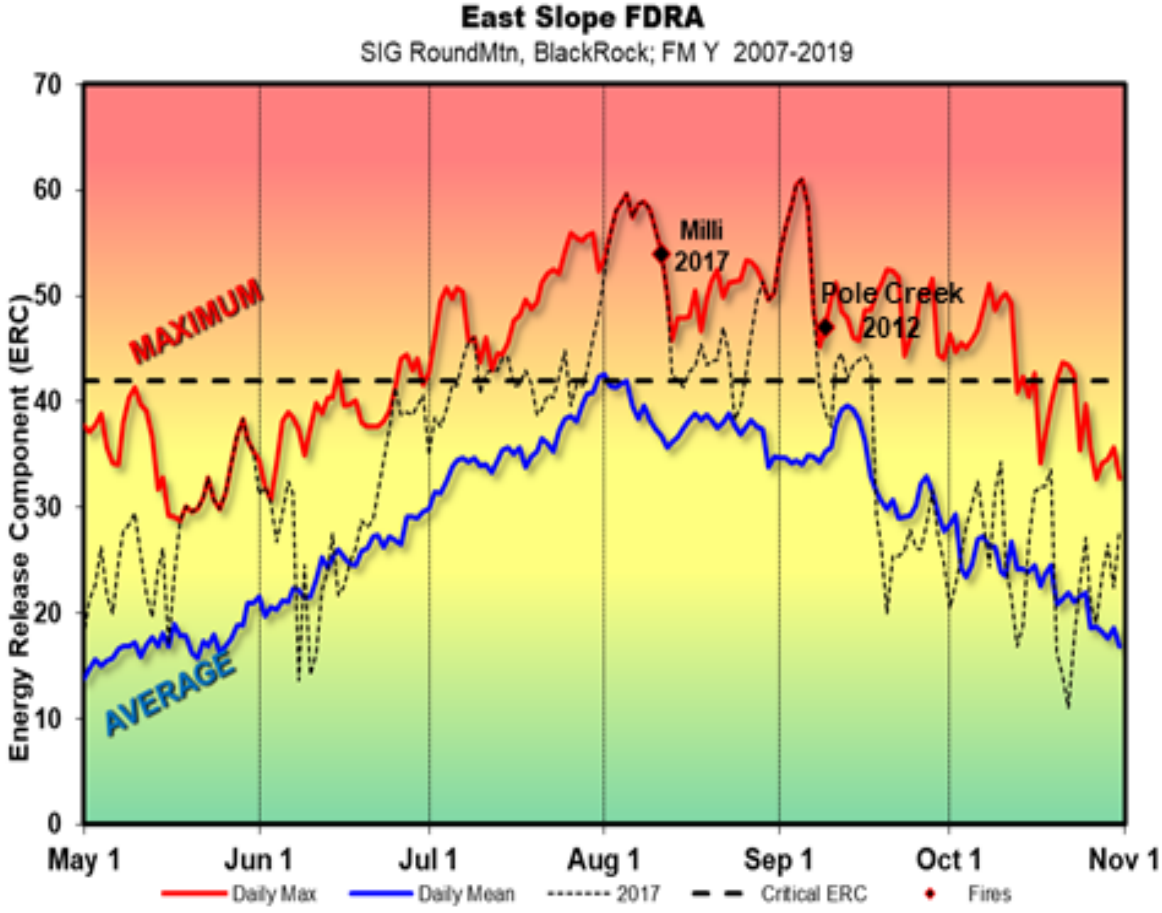
*All stations comply with NWCG weather station standards

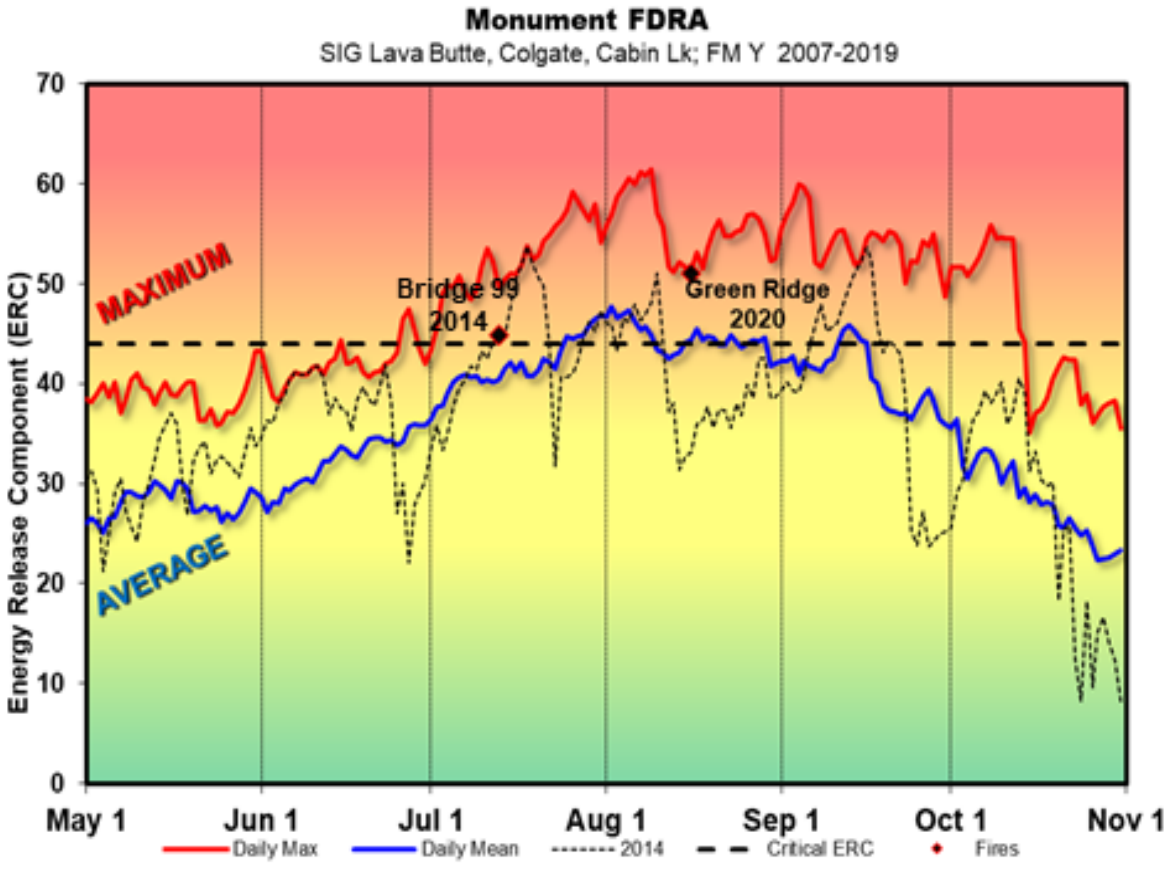
- National Forests: Ochoco NF, Deschutes NF
- Bureau of Land Management: Prineville District
- Oregon Department of Forestry: Prineville/Sisters Unit
- 4 Fire Danger Rating Areas
  - *East Slope* – Crest of the Cascades east to WUI boundaries
  - *Monument* – Newberry Volcanic Monument, Green Ridge, and WUI
  - *High Desert* – Lower Deschutes and John Day River canyons, shrub and grasslands
  - *Ochoco-Maury* – Western extent of the Blue Mountains

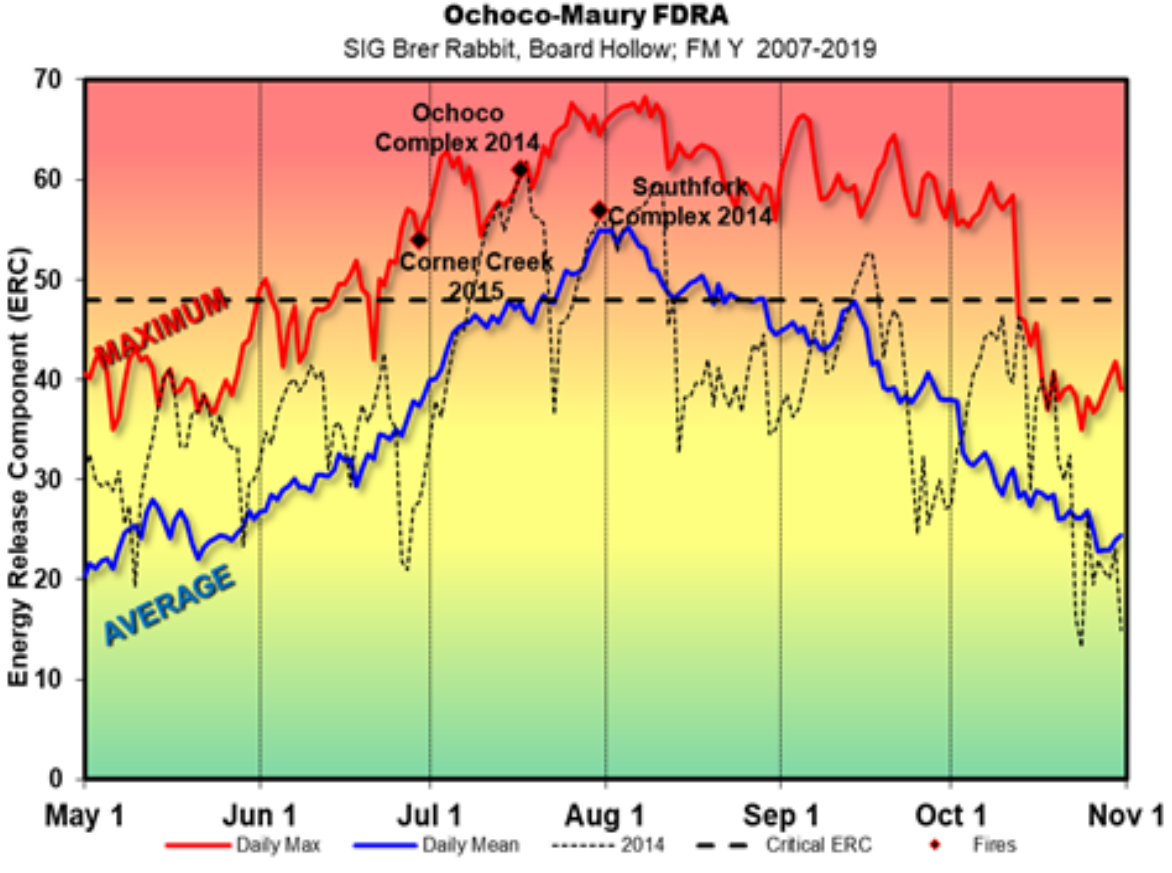
Local Thresholds for All FDRAs – *Watchout*

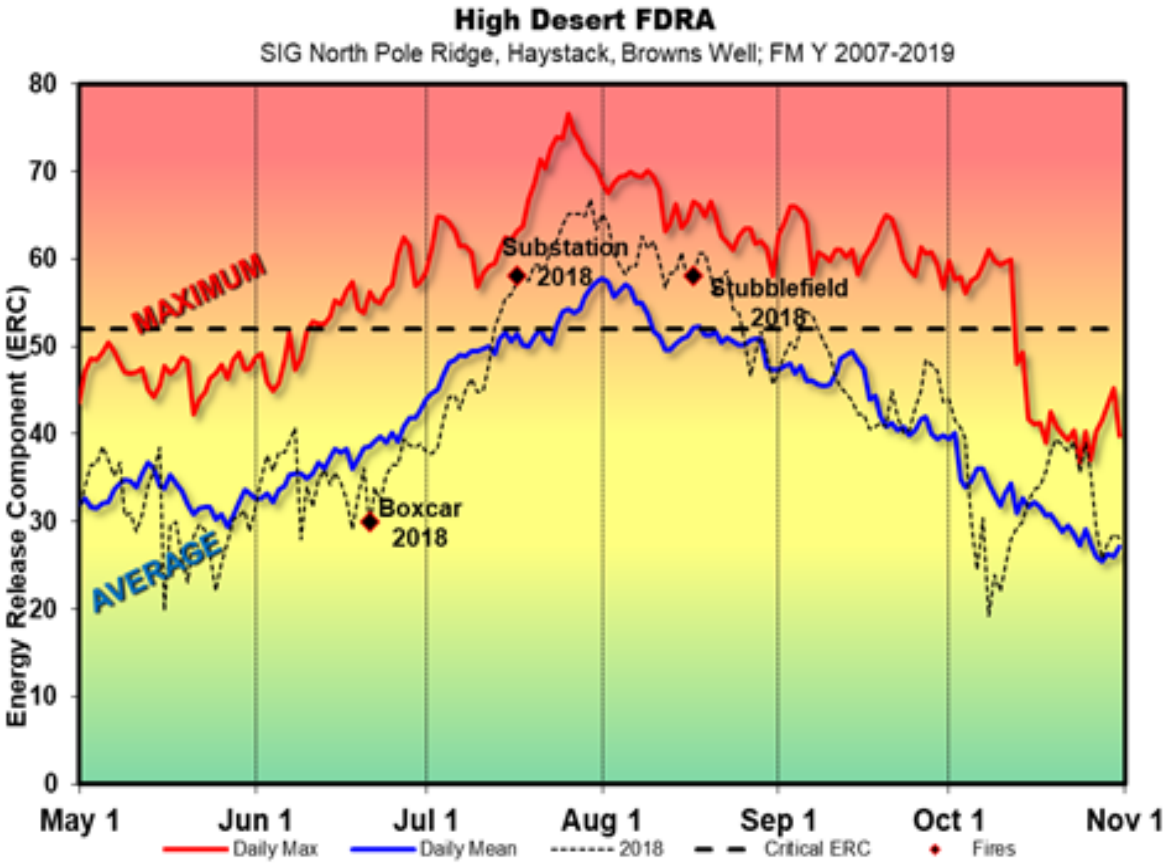
Combinations of any of these factors may greatly increase fire behavior!

- ✓ Sustained **20-foot Wind Speed** over 10 mi/hr
- ✓ **Relative humidity** less than 20% (or overnight recovery less than 45%)
- ✓ **Temperature** over 80 degrees
- ✓ **1000 hr fuel moisture** less than 11%




Monument FDRA
SIG Lava Butte, Colgate, Cabin Lk; FM Y 2007-2019
Energy Release Component (ERC)
70
60
50
40
30
20
10
0
MAXIMUM
AVERAGE
Bridge 99
2014
Green Ridge
2020
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Nov 1
Daily Max
Daily Mean
2014
Critical ERC
Fires


Ochoco-Maury FDRA
SIG Brer Rabbit, Board Hollow; FM Y 2007-2019
Energy Release Component (ERC)
70
60
50
40
30
20
10
0
MAXIMUM
AVERAGE
Ochoco
Complex 2014
Southfork
Complex 2014
Corner Creek
2015
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Nov 1
Daily Max
Daily Mean
2014
Critical ERC
Fires



Remember what Fire Danger tells you:

- ERC displays seasonal fire danger trends calculated from temperature, RH, solar radiation, and precipitation
- Wind speed is NOT part of the ERC calculation
- Watch local conditions and variations across the landscape (e.g., Fuels, Weather, and Topography)
- Obtain local weather forecasts, note the WIND forecast

Past Experience

- Large Fires are often the result of fire danger combined with abundant lightning caused fires overwhelming the capabilities of initial attack
- Late afternoon/evening downslope west winds off the Cascades often push large fires to the east.
- Rugged terrain, fine fuel loading from previous year grass, and wind channeled through river canyons all contribute to large fire growth.

Developed 2/25/21 using FF+5.0 Build 12/11/19

UNIT LOG	1. Incident Name	2. Date Prepared	3. Time Prepared
4. Unit Name/ Designators	5. Unit Leader (Name and Position)		6. Operational Period

7. Personnel Roster Assigned

Name	ICS Position	Home Base

8. Activity Log

Time	Major Events

9. Prepared by (Name and Position)

INITIAL ATTACK FIRE SIZE-UP			
1. FIRE NAME:	**FIRE NUMBER**	**DOI**	
		USDA	
2. IC NAME:		**STATE**	
		PRIVATE	
Descriptive location:			
Reported by:			
3. ARRIVAL DATE:		**TIME**	
4. LEGAL:	**Township:**	**Range:**	**Section (s):**
Coordinates:	**Latitude:**	**Longitude:**	
5. ESTIMATED SIZE (acres):		**6. OWNERSHIP:**	
7. FUELS BURNING:	☐ Grass ☐Re-prod ☐ Snag ☐ Duff ☐ Hardwood ☐ Timber (light, heavy) ☐ Brush ☐ Slash ☐Logs		
ADJACENT FUELS:	☐Grass ☐Re-prod ☐Snag ☐Duff ☐ Hardwood ☐ Timber (light, heavy) ☐ Brush ☐Slash ☐ logs		
8. CHARACTER OF FIRE:	☐ Smoldering ☐ Running ☐ Crowning ☐ Creeping ☐ Torching ☐ Spotting		
9. FLAME LENGTH:	☐ under 2' ☐ 2-4' ☐ 4-8 ☐ 8-11 ☐ 11 plus		
10. POSITION ON SLOPE:	☐ Bottom 1/3 ☐ Middle 1/3 ☐ Top 1/3		
11. PERCENT SLOPE:	☐ 0-30 ☐ 30-45 ☐ 45-60 ☐ 60 plus		
12. ASPECT:	☐ North ☐ East ☐South ☐ West ☐ Flat/Ridge top		
13. WIND SPEED:			
WIND DIRECTION:	☐ Upslope ☐Up Canyon ☐Down Slope ☐ N ☐ E ☐ S ☐ W ☐ Down Canyon		
14. WIND INDICATORS:	☐ Cumulus ☐ Lenticular ☐ Cold Fronts ☐ Other:		

15. GROWTH POTENTIAL (estimate acres for next operational period):	□ Acres:
□ None □ Low □ Moderate □ High □ Very High	
16. VALUES AT RISK (Check all that apply):	
□ Houses □ T&E Species □ Water Quality □Public Safety □Improvements □ Cultural/Historical □Other:	
17. IS FIRE NEAR ANY SENSITIVE AREAS?	□ No □ Yes - *Check Below*
□ Rivers or Streams □ Surface Waters □ Aspen Trees □ 5 Needle Pines □ Meadow □ Forest Edge □ Other (Specify)	
18. HAZARDS OR CONCERNS (Check all that apply):	
□ Snags □ Hazmat □ Urban Interface □ Power Lines □ Mine Shafts □ Evacuation Concerns □ Cliffs □ Other	
19. CAUSE:	□ Lightning □ Human Cause □ Other
20. PROPOSED ACTION:	□ Resource Benefit □ Confine □ Suppress
21. ADDITIONAL RESOURCES:	□ No □ Yes - *Specify Below*

Personnel:	Equipment:	Supplies:	Aircraft:

Patient Assessment

General impression of patient
- Major bleeding control
- Airway
- Breathing
- Circulation
- Wrist or neck pulse

Patient Information
- Chief complaint
- Age & weight

Level of Consciousness
- Alert & oriented
- Verbal (responds to voice)
- Pain (responds to painful stimuli)
- Unresponsive

Breathing
- Normal
- Difficult/labored breathing
- Not breathing?
  Start rescue breathing

Pulse
- Present
- Absent – Start CPR (pg. 108)

Skin Color
- Normal
- Pale
- Bluish
- Flushed/red

Skin Moisture
- Normal
- Dry
- Moist/clammy
- Profuse sweating

Skin Temperature
- Normal/warm
- Hot
- Cool
- Cold

Pupils
- Equal or Unequal?
- Reactive to light
- Fixed or Slow response
- Dilated or Constricted

MAKE A TRANSPORT DECISION

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 it ems to communicate situation to communications/dispatch.

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

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

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

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

Patient Assessment: See IRPG page 106

Treatment:

4. TRANSPORT 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

6. COMMUNICATIONS: Identify State Air/Ground EMS Frequencies and Hospital Contacts as applicable

Function	Channel Name/Number	Receive (RX)	Tone/NAC *	Transmit (TX)	Tone/ NAC *
COMMAND					
AIR-TO-GRND					
TACTICAL					

7. CONTINGENCY: ***Considerations:*** ***If primary options fail, what actions can be implemented in conjunction with primary evacuation method? Be thinking ahead...***

8. ADDITIONAL INFORMATION: *Updates/Changes, etc.*

REMEMBER: Confirm ETA's of resources ordered. Act according to your level of training. Be Alert. Keep Calm. Think Clearly. Act Decisively.

Western U.S. Standard Air to Ground Frequencies for Air Ambulance/Air MedEvac on Wildland Fire Incidents

VMed Frequency “28”		
Rx 154.3400	Tx 154.3400	Tx CTCSS 156.7

Arizona	Standard A/G "VMed28"		
California	Standard A/G CALCORD	Rx	156.0750
		Tx	156.0750
		Tx CTCSS	156.7000
Colorado	Standard A/G "VFIRE21"	Rx	154.2800
		Tx	154.2800
		Tx CTCSS	156.7000
Idaho	Standard A/G "StateCom/ EMS2"	Rx	155.2800
		Tx	155.2800
		Tx CTCSS	156.7000
Montana	Standard A/G "VMed28" Locally Called "TAN"		
Nebraska	Standard A/G "VMed28"		
Nevada	Standard A/G "Vmed28" Locally Called "NEVCORD1"		
	Secondary A/G "VMed29" Locally Called NEVCORD2"	Rx	155.3475
		Tx	155.3475
		Tx CTCSS	156.7000
New Mexico	Standard A/G "VMed28"		
North Dakota	Standard A/G "VLAW31"	Rx	155.4750
		Tx	155.4750
		Tx CTCSS	156.7000
Oregon	No Standard Established. Coordinate with local interagency fire dispatch centers.		
South Dakota	Standard A/G "VMed28"		
Utah	Standard A/G "Vmed28"		
	Secondary A/G "VMed29"	Rx	155.3475
		Tx	155.3475
		Tx CTCSS	156.7000
Washington	No Standard Established. Coordinate with local interagency fire dispatch centers.		
Wyoming	Standard A/G "Vmed28" Excluding Yellowstone N.P.		

WESTERN AIR AMBULANCE PHONE LIST (NOT GARAUNTEED TO BE CURRENT)			
STATE	**SERVICE NAME**	**HOSPITAL / LOCATION**	**PHONE #'S**
ALASKA	MAST	AK STATE TROOPERS	**907-451-5333**
ARIZONA	GUARDIAN AIR	FLAGSTAFF MEDICAL CTR	**800-523-9391**
	CLASSIC LIFE GUARD	PAGE	**800-444-9223**
CALIFORNIA	MERCY AIR AMB.	MERCY MED CTR, REDDING	**530-225-7252**
	MTN LIFEFLIGHT	SUSANVILLE	**800-926-0801**
	AIR MED TEAM	REDDING MED CTR	**800-432-9944**
COLORADO	ST. MARY'S AIR LIFE	ST. MARY'S, GRAND JUNCTION	**800-332-4923**
	YAMPA VALLEY AIR AMB.	STEAMBOAT SPRINGS	**800-900-6800**
	FLIGHT FOR LIFE	COLORADO SPRINGS	**800-422-2254**
	AIR RESPONSE	ENGLEWOOD	**303-768-8089**
	FLIGHT FOR LIFE	ST ANTHONY'S, DENVER	**800-525-3712**
	TRANSPORT CARE	MEMORIAL, COLO SPRINGS	**800-763-4373**
IDAHO	LIFE FLIGHT	ST. ALPHONSUS, BOISE	**800-367-3230**
	LIFE FLIGHT	BANNOK MED CTR, POCATELLO	**800-232-0911**
	ACCESS AIR	BOISE	**208-333-9911**
MONTANA	LIFE FLIGHT	ST. PATRICK'S, MISSOULA	**800-991-SEND**
	MEDFLIGHT	GREAT FALLS	**800-972-4000**
	MEDFLIGHT	BILLINGS	**800-325-1774**

NEVADA	MERCY AIR	LAS VEGAS	**800-842-4431**
	MEDIC AIR	RENO	**800-234-3822**
	ACCESS AIR	ELKO	**775-738-3493**
	CARE FLIGHT	RENO, GARDNER-VILLE, TRUKEE	**775-858-5700**
NEW MEXICO	SOUTHWEST AIR AMB.	FAIRACRES/LAS CRUCES	**505-525-2660**
	MED FLIGHT AIR AMB.	ALBUQUERQUE	**800-842-4431**
	LIFEGUARD AIR EMERGENCY	ALBUQUERQUE	**800-633-5438**
	GALLUP MED FLIGHT	GALLUP	**505-863-6606**
OREGON	AIR LIFE OF ORE-GON	BEND	**800-522-2828**
	LIFE FLIGHT	PORTLAND	**800-452-7434**
	LIFEGUARD AIR AMB.	HILLSBORO	**503-640-2927**
UTAH	AIR MED	U OF UT HEALTH CTR, SALT LAKE	**800-453-0120**
	LIFE FLIGHT	INTERMT HEALTH CARE, SALT LAKE	**801-321-1234**
WASHINGTON	NORTHWEST MEDSTAR	SPOKANE	**800-422-2440**
	AIRLIFT NORTH-WEST	SEATTLE	**800-426-2430**
WYOMING	WYOMING LIFE FLIGHT	WY MED CTR, CASPER	**800-442-2222**

Notes:

“A buck a week to help a buddy”

$52 dollars a year, a dollar a week.

To donate, go to wffoundation.org/52-club. Scroll down to the bottom and click “Annual 52 club membership.”

To do a one time donation to the Wildland Firefighters Foundation click the “Donate” button at the top of the website and donate some OT and H to those in need.

Interacting with the public

- Always be kind and courteous. While there are times folks might be frustrated with something "the government" is doing, remember while you're on duty, you represent the Agency, the Department and the Administration. Don't offer personal opinions to the public but also don't get trapped into being someone's scape goat. Tell them what you do for the US Forest Service and take their name, preferred contact number or email and give it to your Public Affairs staff and we will route their concerns or questions appropriately for a response.

- If the media contacts you, ask them to contact the Public Affairs Officer (Jean Nelson-Dean 541-383-5561) or ask them for their general questions and tell them you will call them back. Once you get off the phone contact Jean before responding.

- With the approval of your supervisor, feel free to take pictures of the work that you're doing and send it to Jean for posting on our approved Deschutes NF social media accounts. We LOVE to tell people about your work!