

MISSOULA FIRE WEATHER – 2011

Location

The National Weather Service Office in Missoula is located at the Missoula Fire, Science and Technology Center, 6633 Aviation Way, 1/4 mile west of the Missoula International Airport. The mailing address is:

National Weather Service
6633 Aviation Way
Missoula, MT 59808

Phone Numbers

- Fire Weather desk: (406) 329-4716
- Office: (406) 329-4715/4840
- FAX: (406) 329-4842

Contacts

Administrative

Bruce Bauck
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Fire Wx Mgr/WCM
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Crystal Lake
Fire Weather Assistant
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IMETs

Bob Nester
Incident Meteorologist
robert.nester@noaa.gov

Jennifer Pallister
Incident Meteorologist
jennifer.pallister@noaa.gov

Mark Loeffelbein
Incident Meteorologist
mark.loffelbein@noaa.gov

Internet Address

- <http://weather.gov/missoula>

Operational Hours

- Twenty-four hour service is provided for routine and special fire weather products.

TRAINING PROVIDED

Missoula Fire Weather Forecasters are available for training courses, workshops, seminars and other meetings requiring meteorological expertise. Training includes local and Regional courses such as S-290 and S-390, as well as pre-season refreshers for Hotshot crews, Smokejumpers, general firefighters, lookout personnel, etc. Please give as much advance notification as possible to ensure the availability of a forecaster.

All Training Requests should go through the Fire Weather Manager, Marty Whitmore.

e-mail Marty.Whitmore@noaa.gov
and cc: Crystal.Lake@noaa.gov

or

phone 406-329-4715

FIRE WEATHER BRIEFINGS

NWS Missoula offers fire weather briefings at the office for local land managers, as well as a conference call with internet graphics for those managers at a distance.

Briefings will be held Mondays and Thursdays at 8:30 am MDT from the beginning of spring burning through the end of fall burning season. More frequent briefings will be provided as needed during periods of increased wildfire activity.

Briefings will include an informational package containing data such as satellite, radar, weather observations, etc. This information will be accessible to participants via NWS Missoula's internet homepage prior to each conference call.

The briefings will be conducted in a Go-To meeting format and a recording of the briefing will be posted on the fire weather page for approximately 24 hours.

To participate in the conference call, the toll free number is 877-812-0276. Please call our office (406-329-4816) for the website and participant passcode.

AGENCIES SERVED

The National Weather Service Office in Missoula provides fire weather services to agencies in northwest Montana and west central Idaho. Agencies served include:

<u>USDA Forest Service Region 1</u>	<u>Lolo NF, Kootenai NF, Flathead NF, Beaverhead/Deerlodge NF, Clearwater / Nezperce NF, Bitterroot NF, Northern Rockies Coordination Center (NRCC)</u>
<u>Bureau of Land Management</u>	<u>BLM-Idaho, BLM-Montana</u>
<u>Bureau of Indian Affairs</u>	<u>Nez Perce Tribe of Idaho, Confederated Salish and Kootenai Tribe</u>
<u>Fish & Wildlife Service</u>	<u>FWS-Montana, FWS-Idaho</u>
<u>National Park Service</u>	<u>Glacier NP, Yellowstone NP</u>
<u>State of Montana</u>	<u>Department of Natural Resources and Conservation</u>
Counties (Montana)	<u>Beaverhead, Deer Lodge, Flathead, Granite, Lake, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders, Silverbow, Glacier, Madison, Jefferson</u>
<u>State of Idaho</u>	<u>Idaho Department of Lands</u>
Counties (Idaho)	<u>Clearwater, Idaho, Lewis, Nez Perce, Latah</u>

Fire Contacts

[Western Region](#)

<u>Meteorological Services Division (MSD)</u>	Name	801-524-4000
Chief	Craig Schmidt	ext. 262
Deputy	Carl Gorski	ext. 260
Fire Weather Program Manager	Roger Lamoni	ext. 267

USFS Forest Dispatch Center Managers

Forest	Phone
<u>Beaverhead/Deerlodge</u>	406-683-3975
<u>Bitterroot</u>	406-363-7133

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Clearwater/ Nezperce	208-983-6800
Flathead	406-758-5260
Kootenai	406-283-7740
Lolo	406-829-7070

USFS Forest/District Fire Management Officers

Forest	City/State	Phone
Beaverhead/Deerlodge	Dillon, MT	406-683-3990
Dillon District	Dillon, MT	406-683-3983
Wiseriver/Wisdom District	Wisdom, MT	406-689-3243
Sheridan/Madison District	Ennis, MT	406-682-4253
Jefferson/Butte District	Whitehall, MT	406-287-3223
Phillipsburg/Deerlodge District	Phillipsburg, MT	406-859-3211
Bitterroot	Hamilton, MT	406-363-7135
Stevensville District	Stevensville, MT	406-777-2288/5461
Darby District	Darby, MT	406-821-4255
Sula District	Sula, MT	406-821-2325/3201
West Fork District	Darby, MT	406-821-1247/3269
Clearwater/Nezperce	Grangeville, ID	208-983-4066
Clearwater NF		
Palouse District	Potlatch, ID	208-875-1702
North Fork District	Orofino, ID	208-476-8251
Lochsa District	Kooskia, ID	208-926-6419
Powell District	Powell, ID	208-942-0345
Nezperce NF		
Salmon River District	Slate Creek, ID	208-839-2211
Clearwater District	Grangeville, ID	208-983-1963
Elk City/Red River District	Elk City, ID	208-842-2123
Moose Creek District	Fenn, ID	208-926-8948
Flathead	Kalispell, MT	406-758-5235

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Swan Lake District	Big Fork , MT	406-837-7527
Hungry Horse/Glacier View District	Hungry Horse, MT	406-387-3834
Spotted Bear District	Hungry Horse, MT	406-758-5376/6461
Tally Lake District	Whitefish, MT	406-863-5422
Kootenai	Libby, MT	406-283-7740
Rexford District	Eureka, MT	406-296-7173
Fortine District	Fortine, MT	406-882-8328
Three Rivers District	Troy, MT	406-295-7486
Libby District	Libby, MT	406-283-7551
Cabinet District	Trout Creek, MT	406-827-0712
Lolo	Missoula, MT	406-329-1089
Missoula District	Missoula, MT	406-329-3852
Ninemile District	Huson, MT	406-626-5422
Seeley Lake District	Seeley Lake, MT	406-677-3915
Superior District	Superior, MT	406-822-3952
Plains District	Plains, MT	406-826-4340

USFS R-1 Regional Office

Agency	Name	Phone
Northern Rockies Coordination Center (NRCC)		329-4880
Center Manager	Vacant	329-4709
Assistant Center Manager	Judy Heinz	329-4708
Intelligence	Julie Polutnik	329-4886

Agency	Name	Phone
<u>Predictive Services</u>		
Meteorologist	Michael Kreyenhagen	329-4703
Meteorologist	Bryan Henry	329-4875
Smoke Coordinator/Fuels	Erin Law	329-4952

ROUTINE PRODUCT ISSUANCE TIMES

[General Forecast](#)

April - June	Morning	Daily	0700 MDT
July - September	Morning/ Afternoon	Daily	0700/1500 MDT
October - November	Mornings	Daily	0700 MDT

Specific dates of the above timeframes will be dictated by user needs.

[Fire Weather Briefings](#)

Spring and Fall Burning	Mondays and Thursdays	0830 MDT
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More frequent briefings will be provided as needed during periods of increased wildfire activity.

Specific dates of the above timeframes will be dictated by user needs.

[Clearing Index Graphical Product](#)

March - November	Morning	Daily	0700 MDT
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[National Fire Danger Rating System \(NFDRS\) Forecast Product](#)

June - September	Daily	1530 MDT
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FIRE WEATHER PLANNING FORECAST EXAMPLE

ZCZC GTFFWFMSO
FNUS55 KMSO 101059
FIRE WEATHER PLANNING FORECAST FOR WRN MONTANA AND N CNTRL IDAHO
NATIONAL WEATHER SERVICE MISSOULA MT
459 AM MDT FRI AUG 10 2011

...HEADLINE AS NECESSARY

DISCUSSION...THIS WOULD BE A SHORT...NON-TECHNICAL DESCRIPTION OF THE WEATHER PATTERN AND FEATURES OVER THE NEXT COUPLE DAYS. IT WILL FOCUS ON THE MAIN WEATHER CONCERNS IN THE SHORT TERM.

EXTENDED...OCCASIONALLY THE DISCUSSION MAY INCLUDE INFORMATION ON THE MEDIUM RANGE (DAYS 3-7). IN THESE CASES...A SEPARATE LABELED PARAGRAPH LIKE THIS WILL BE ADDED.

MTZ104-105-111345-
KOOTENAI-FLATHEAD/GLACIER PARK-
741 AM MDT FRI AUG 10 2011

...RED FLAG WARNING IN EFFECT FROM NOON TODAY TO 9 PM MDT THIS EVENING...

.TODAY...
SKY/WEATHER.....PARTLY SUNNY. AREAS OF SMOKE. ISOLATED SHOWERS AND THUNDERSTORMS THIS MORNING.
MAX TEMPERATURE.....77-83 VALLEYS AND 63-71 RIDGES.
MIN HUMIDITY.....24-34 PERCENT.
20-FOOT WINDS.....
 LOWER ELEVATION.....VARIABLE LESS THAN 7 MPH BECOMING SOUTHWEST 15-25 MPH WITH HIGHER GUSTS IN THE LATE MORNING AND AFTERNOON.
 RIDGE TOP.....WEST 15-25 MPH WITH HIGHER GUSTS.
HAINES INDEX.....3 VERY LOW.
LAL.....2.
CWR (> 0.10 INCH)...10 PERCENT.

.TONIGHT...
SKY/WEATHER.....PARTLY CLOUDY. AREAS OF SMOKE.
MIN TEMPERATURE.....42-50.
MAX HUMIDITY.....80-90 PERCENT VALLEYS AND 61-71 PERCENT RIDGES.
20-FOOT WINDS.....
 LOWER ELEVATION.....SOUTHWEST 15-25 MPH BECOMING WEST 5-10 MPH IN THE LATE EVENING AND EARLY MORNING...THEN BECOMING DOWNSLOPE/DOWNVALLEY 5-10 MPH EARLY IN THE MORNING.
 RIDGE TOP.....WEST 15-25 MPH DECREASING TO 10-15 MPH AFTER MIDNIGHT.
HAINES INDEX.....2 VERY LOW.
LAL.....1.
CWR (> 0.10 INCH)...0 PERCENT.

.SATURDAY...
SKY/WEATHER.....MOSTLY SUNNY. AREAS OF SMOKE IN THE MORNING.

Winds are sustained 10-minute average (RAWS).

Winds/RH Category

		RELATIVE HUMIDITY						
		35%	30%	25%	20%	15%	10%	5%
SUSTAINED 20' WIND MPH For Persistent Gusts add 10 MPH	5	NO	NO	NO	NO	NO	NO	Poss
	10	NO	NO	NO	NO	Poss	Poss	YES
	15	NO	NO	NO	Poss	Poss	YES	YES
	20	NO	NO	Poss	Poss	YES	YES	YES
	25	NO	Poss	Poss	YES	YES	YES	YES
	30	NO	Poss	YES	YES	YES	YES	YES

Expected over a significant portion of the zone for 2 or more consecutive hours.

Poss = Possible

FORECAST ZONE DESCRIPTIONS

ZONE 102: PALOUSE/NEZ PERCE RESERVATION/HELL'S CANYON REGION

The northern boundary follows the southern portion of the Coeur d'Alene Indian Reservation and the Latah/Clearwater County lines. The eastern boundary originates at the intersection of the Little North Fork of the Clearwater (near the Clearwater County line) and the Clearwater/Nezperce National Forest boundary and runs south along the Forest boundary past Grangeville to the main Salmon River at Island Bar and continues south and west along the Idaho County border. The western boundary runs along the Snake River from the Coeur d'Alene Reservation to the Adams County line.

ZONE 103: CLEARWATER/NEZ PERCE NATIONAL FOREST

This zone encompasses the entire combined Clearwater and Nezperce National Forests as well as the Gospel Hump and portions of the Selway Bitterroot Wilderness. Also included is the Floodwood State Forest in the vicinity of the Little North Fork of the Clearwater at the northern border of Clearwater County.

ZONE 104: KOOTENAI NATIONAL FOREST/TALLEY LAKE DISTRICT (FNF)

The western and northern boundaries follow political lines along the Idaho-Montana and Canadian borders. The eastern boundary follows the Kootenai National Forest boundary south to route 93 to the Flathead National Forest boundary, north of Whitefish, east of Columbia Falls and heading south along the Forest boundary to the Lake County line. The southern boundary follows the Lake County line and Flathead National Forest boundary to the intersection of route 2 which continues south along Forest boundaries to the State border. The State protected lands on the Fisher River District are also included within this zone.

ZONE 105: FLATHEAD NATIONAL FOREST/GLACIER PARK/BOB MARSHALL AND MISSION MOUNTAIN WILDERNESS

This zone starts at the intersection of the Kootenai/Flathead National Forests at the Canadian border running east and including Glacier National Park. The eastern boundary follows the Park border and intersects with the Continental Divide and runs south to the Flathead National Forest boundary. The southern boundary borders the Bob Marshall and Mission Mountain Wilderness lines. The western boundary follows the Mission Mountains and Swan range along the Forest boundary to north of Whitefish and west to route 93 to the Kootenai/Flathead National Forest boundary. This zone includes the Stillwater State Forest.

ZONE 106: WESTERN LOLO NATIONAL FOREST

This zone includes the Nine Mile, Superior, Plains/Thompson Falls and western portions of the Missoula District on the Lolo National Forest. It is bounded by the Idaho-Montana border (Bitterroot Mountains) and extends northeast along the Kootenai/Lolo National Forest boundary. Moving south, this zone follows the Salish & Kootenai Indian Reservation and Lolo National Forest interface to west of Evaro tracing the Forest boundary to Huson. Crossing I-90, this zone continues south along the Forest boundary until the intersection of route 12 and continues southwestward to the State border.

ZONE 107: SALISH & KOOTENAI INDIAN RESERVATION

This zone is bounded by the Lolo National Forest on the west and south and the Flathead National Forest on the east and north.

ZONE 108: EASTERN LOLO NATIONAL FOREST /WELCOME CREEK AND SCAPEGOAT WILDERNESSES

This zone includes all of the Lolo National Forest east of Missoula and south of route 12, up to the Bitterroot National Forest boundary. It also contains the Scapegoat and most of the Welcome Creek Wildernesses. The eastern boundary starts at the tri-section of the Bob Marshall Wilderness, Continental Divide and Scapegoat Wilderness and continues southeast to the Wilderness/Lincoln District boundary. This line continues south along the Helena National Forest boundary to the intersection with the Deerlodge/Beaverhead National Forest. The southern boundary runs west from this boundary to Deer Lodge then north along Interstate 90 to the intersection with the Philipsburg District line. State protection areas include Missoula, Clearwater, Garrison, and Anaconda.

ZONE 109: BITTERROOT NATIONAL FOREST

This zone includes the entire Bitterroot National Forest (in both Idaho and Montana) as well as the Frank Church River of No Return Wilderness and portions of the Selway-Bitterroot Wilderness. The Stevensville District represents the northern boundary for this zone which is approximately along the Ravalli County line.

ZONE 110: DEERLODGE/ WESTERN BEAVERHEAD NATIONAL FOREST

The western boundary runs between Lemhi Pass northward along the Idaho-Montana border to the intersection of the Ravalli and Beaverhead County lines. This boundary continues along the Forest boundary via the Anaconda-Pintlar range and Sapphire Divide past Skalkaho Pass and across Rock Creek into the Welcome Creek Wilderness. This boundary cuts north across the John Long Mountains and intersects with Interstate 90. This zone includes the eastern-most section of this wilderness area (Lolo National Forest) which is managed by the Philipsburg District. The northern border follows Interstate 90 to Deerlodge, cuts east and runs along the Forest boundary, across the divide, and intersects with Interstate 15. The eastern boundary runs southerly and follows Interstate 15 through Butte and Dillon then along Route 41 to Clark Canyon Reservoir. The southern boundary extends west along Horse Prairie Creek to Lemhi Pass.

ZONE 111: EASTERN BEAVERHEAD NATIONAL FOREST

The southern boundary follows the Idaho-Montana border from Lemhi Pass along the Continental Divide (Centennial Mountains included) to Reynolds Pass. The eastern zone line continues along the Beaverhead/Gallatin National Forest boundary to north of Ennis where the Gallatin boundary intersects the Madison County line. The zone then follows the Madison County line to east of Whitehall and along the Deerlodge/Helena Forest boundary until Interstate 15 is intersected. The west boundary is identical to the east boundary of the Deerlodge/western Beaverhead National Forest zone.

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WEATHER STATIONS

Zone	Station	WIMS #	County	Lat	Long	Elev	Site	Aspect	NFDRS
102	Palouse	100603	Latah	46:98	116:98	2500	Valley	Flat	X
102	Dent	100714	Clearwater	46:62	116:22	1700	Valley	S	X
102	Pierce	100711	Clearwater	46:50	115:83	3085	Valley	E	X
102	Slate Creek	101037	Idaho	45:63	116:28	1568	Valley	W	X
102	Pittsburg Lndg	101100	Idaho	45:63	116:46	1150	Valley	E	X
102	Shock	100606	Latah	46:98	116:63	3360	Ridge	S	X
102	Rudo	109796	Clearwater	46:50	115:99	2386			
103	Kelly Creek	100708	Clearwater	46:66	115:16	2737	Valley	S	X
103	Eagle		Clearwater	46:80	115:54	5700			
103	Powell	101031	Idaho	46:51	114:69	3409	Valley	S	X
103	Fenn	101013	Idaho	46:06	115:53	1520	Valley	SW	X
103	Moose Creek	101028	Idaho	46:07	114:55	2460	Valley	Flat	X
103	Red River	101045	Idaho	45:71	115:33	4600	Slope	S	X
103	Tess Portable	100791	Idaho	45:60	116:13	4700	Valley	Flat	
104	Libby	240107	Lincoln	48:38	115:57	2070	Valley	Flat	X
104	Eureka	240110	Lincoln	48:90	115:02	2532	Valley	Flat	X
104	Troy	240112	Lincoln	48:47	115:92	1950	Valley	Flat	X
104	BC Baldy	240119	Lincoln	48:63	115:58	4300	Slope	SW	X
104	Trout Creek	241210	Sanders	47:87	115:62	2350	Valley	Flat	X
104	Boorman	240226	Flathead	48:13	114:72	3963	Valley	Flat	X
104	Fisher*	240118	Lincoln	48:35	115:32	2160	Valley	S	X
104	Yaak	240120	Lincoln	48:92	115:66	3000	Valley	Flat	X
105	Spotted Br RS	240214	Flathead	47:92	113:52	3725	Valley	S	X
105	Hungry Horse	240217	Flathead	48:38	114:06	3225	Valley	S	X
105	Cyclone	240223	Flathead	48:72	114:34	5300	Ridge	N	X
105	Condon WC	241502	Missoula	47:54	113:72	3684	Slope	S	X
105	Fielding	240225	Flathead	48:28	113:44	4599	Valley	Flat	
105	Spotted Bear LO	240213	Flathead	47:90	113:43	7200	Ridge	W	X
112	Deep Creek	240308	Glacier	48:36	113:12	5431	Ridge	S	
105	St. Mary	240303	Glacier	48:73	113:43	4600	Valley	Flat	X
105	West Glacier	240207	Flathead	48:51	113:99	3200	Valley	Flat	X

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Zone	Station	WIMS #	County	Lat	Long	Elev	Site	Aspect	NFDRS
105	Polebridge	240210	Flathead	48:78	114:28	3551	Valley	Flat	X
105	Stillwater	240221	Flathead	48:54	114:56	3119	Valley	S	X
106	Lolo Portable 1	241599	Mineral	47:93	114:04	6080			
106	Thompson F	241209	Sanders	47:58	115:28	2565	Valley	S	X
106	St. Regis	241302	Mineral	47:31	115:11	2680	Valley	S	X
106	Nine Mile	241507	Missoula	47:07	114:40	3300	Valley	SW	X
106	Pardee	241308	Mineral	47:27	114:92	4367	Slope	SW	X
106	Plains	241206	Sanders	47:71	115:26	2510	Valley	S	X
107	Hot Springs	241211	Sanders	47:61	114:66	2880	Valley	SW	X
107	Jette	241404	Lake	47:76	114:23	3600	Slope	Flat	X
107	Ronan	241403	Lake	47:88	11:417	3061	Valley	Flat	
108	Seeley Lake	241508	Missoula	47:18	113:45	4235	Valley	W	X
108	Missoula	241513	Missoula	46:85	114:05	3200	Valley	Flat	X
108	Stinkwater	241518	Missoula	46:85	113:39	5420	Ridge	NE	X
108	Point Six	241519	Missoula	47:04	113:98	7400	Ridge	S	X
108	Garrison*	243108	Powell	46.54	112.74	4520	Slope	E	X
108	Saddle Mtn*	243104	Powell	46.68	113.01	6814	Ridge	Flat	X
108	Clearwater*	241517	Missoula	47.01	113.33	3900	Valley	S	X
109	Hells Half	101019	Ravalli	45:65	114:63	8116	Ridge	SW	X
109	Deer Mtn	242902	Ravalli	46:03	114:06	7283	Ridge	S	X
109	Gird	242911	Ravalli	46:19	113:92	6950	Slope	S	X
109	West Fork	242907	Ravalli	45:82	114:26	4390	Ridge	SW	X
109	Tepee Point	242910	Ravalli	45:93	113:74	6629	Ridge	SW	X
109	Stevensville	242904	Ravalli	46:51	114:09	3365	Valley	SW	X
109	Little Rock Cr	242914	Ravalli	46:04	114:26	5507	Slope	E	X
109	Smith Creek	242912	Ravalli	46:44	114:23	5650	Slope	SE	X
109	Darby*	242901	Ravalli	46.03	114.17	3887	Valley	SW	X
110	Anaconda*	244402	Deer Lodge	46.10	113.10	6000	Valley	Flat	X
110	Phillipsburg	243002	Granite	46:32	113:30	5280	Slope	W	X
110	Wise River	245405	Beaverhead	45:78	112:93	5704	Slope	N	X
111	Brenner	245409	Beaverhead	44:96	113:21	6350	Slope	Flat	X
111	Red Rock	245410	Beaverhead	44:68	111:83	6690	Valley	SW	X

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Zone	Station	WIMS #	County	Lat	Long	Elev	Site	Aspect	NFDRS
111	Antelope	245412	Beaverhead	44:68	112:54	6070	Ridge	NE	X
111	Ennis	245501	Madison	45:12	111:26	4939	Valley	Flat	X
111	Jefferson/Whitehall	243204	Jefferson	45:53	112:09	4360	Valley	Flat	X
111	Galena	243206	Jefferson	46:22	112:22	6600	Ridge	Flat	X
	FireLab Ptbl			46.64	114.85	7318			

* Denotes once-a-day manual observations. These sites are not on the Observation Page but are available through WIMS.

FIRE WEATHER DISTRICT

The Missoula Fire Weather District includes zones 102 through 111 in north-central Idaho and western Montana. See map below.

