National Interagency Coordination Center Incident Management Situation Report Thursday, August 22, 2019 – 0530 MT National Preparedness Level 2

National Fire Activity

Initial attack activity:	Light (102 new fires)
New large incidents:	9
Large fires contained:	3
Uncontained large fires:***	24
Area Command teams committed:	0
NIMOs committed:	0
Type 1 IMTs committed:	2
Type 2 IMTs committed:	3

Nationally, there are 31 large fires being managed under a strategy other than full suppression.

*** Uncontained large fires include only fires being managed under a full suppression strategy.

<u>Link</u> to Geographic Area daily reports.

Link to Understanding the IMSR.

	Ac	tive Incide	nt Res	ource S	ummary	
GACC	Incidents	Cumulative Acres	Crews	Engines	Helicopters	Total Personnel
AICC	7	175,696	25	33	5	876
NWCC	7	68,104	19	39	5	687
ONCC	1	225	1	1	0	23
oscc	4	6,408	6	25	2	429
NRCC	11	11,753	10	8	9	383
GBCC	15	38,380	21	51	11	906
swcc	10	47,885	10	66	4	730
RMCC	2	1,454	1	3	2	71
EACC	0	0	0	0	0	0
SACC	25	40,107	0	111	6	527
Total	82	390,012	93	337	44	4,632

Alaska Area (PL 3)

New fires:	2
New large incidents:	2
Uncontained large fires:	3
Type 1 IMTs committed:	1
Type 2 IMTs committed:	2

Swan Lake, Kenai Kodiak Area, Alaska DOF. IMT 1 (GB Team 1). Started on FWS land five miles northeast of Sterling, AK. Timber and short grass. Active fire behavior with torching, short-range spotting and uphill runs. The communities of Sterling and Cooper Landing and numerous structures threatened. Area, road and trail closures in effect.

McKinley, Mat-Su Area, Alaska DOF. IMT 2 (AK Green Team). Started on private land 18 miles north of Willow, AK. Timber and brush. Moderate fire behavior with backing, creeping and single tree torching. Numerous structures threatened. Evacuations, area, road and trail closures in effect. Reduction in acreage due to more accurate mapping.

Deshka Landing, Mat-Su Area, Alaska DOF. IMT 2 (NW Team 10). Seven miles southwest of Willow, AK. Timber, brush and short grass. Minimal fire behavior with creeping and smoldering. Numerous structures threatened.

- * **Caribou Lake**, Kenai-Kodiak Area, Alaska DOF. Seven miles northwest of Fox River, AK. Heavy logging slash, timber and tall grass. Active fire behavior with uphill runs, group torching and backing. Structures threatened.
- * **Levelock**, Southwest Area, Alaska DOF. Started on Native Corporation land one mile northwest of Levelock, AK. Timber and short grass. Moderate fire behavior with creeping. Last narrative report unless significant activity occurs.

Incident Name	Linit	Si	ze	%	Ctn/	Est	Pers	onnel	R	esource	s	Strc	\$\$	Origin
Incident Name	Unit	Acres	Chge	70	Comp	ESI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
Swan Lake	AK-KKS	141,280	331	20	Comp	8/31	316	86	8	12	3	0	25.4M	FWS
McKinley	AK-MSS	3,752	-597	10	Ctn	8/26	273	72	6	20	1	80	400K	PRI
Deshka Landing	AK-MSS	2,218	418	10	Ctn	8/31	153	107	5	1	0	0	130K	ST
* Caribou Lake	AK-KKS	700		10	Ctn	9/4	28		1	0	0	0	216K	ST
* Levelock	AK-SWS	5,000		5	Comp	9/1	44		2	0	0	0	123K	TRI
Lar	ge Fires Beir	ng Manage	ed With a S	Strateg	y Other T	han Full	Suppress	ion Withou	ut a Typ	e 1 or 2	2 IMT	Assign	ed	
Tokaina 2	AK-CRS	2,930	0	0	Comp	9/30	4	-14	0	0	1	0	453K	ST
Lloyd Mountain	AK-TAD	34,433		0	Comp	UNK	8		0	0	0	0	1.1M	ST
Hess Creek	AK-UYD	189,369		75	Comp	9/1	24		0	0	0	3	3M	ST
Grouse Creek	AK-TAD	49,121		90	Comp	UNK	24		0	0	0	0	2.3M	BLM
Garnet Creek	AK-TAD	8,073		90	Comp	UNK	0		0	0	0	0	NR	TRI

CRS - Valdez-Copper River Area, DOF TAD - Tanana Zone, BLM UYD - Upper Yukon Zone, BLM

Southern Area (PL 2)

New fires:	9
New large incidents:	3
Uncontained large fires:	9
Type 1 IMTs committed:	1

Copper Breaks, Texas A&M Forest Service. IMT 1 (SA Red Team). Started on private land six miles south of Quanah, TX. Brush and tall grass. Minimal fire behavior with isolated torching and smoldering. Residences threatened. Reduction in acreage due to more accurate mapping.

Vivian, Texas A&M Forest Service. Started on private land three miles west of Crowell, TX. Brush and tall grass. Extreme fire behavior with crowning, running and group torching. Residences threatened.

Noelke, Texas A&M Forest Service. Previously reported as the Nolke incident. Started on private land eight miles northwest of Mertzon, TX. Brush and short grass. Active fire behavior with creeping. Residences threatened.

Rocking Chair Ranch, Texas A&M Forest Service. Twenty-four miles southeast of San Angelo, TX. Brush and short grass. Active fire behavior with wind-driven runs.

Bird Ranch, Texas A&M Forest Service. Started on private land six miles west of Paducah, TX. Brush and tall grass. Moderate fire behavior with single tree torching and running.

- * **Clauson**, Oklahoma DOF. Eight miles northwest of Hardesty, OK. Brush and short grass. Moderate fire behavior with isolated torching.
- * **Hitch**, Oklahoma DOF. Seven miles southwest of Hardesty, OK. Brush and short grass. Minimal fire behavior with smoldering. Residences threatened.
- * **Cush Branch**, Oklahoma DOF. Three miles southeast of Miller, OK. Timber. Extreme fire behavior with running.

Caney Mountain Trail, Oklahoma DOF. Five miles southeast of Snow, OK. Timber. Minimal fire behavior with smoldering.

Incident Name	Unit	Si	ze	%	Ctn/	Est	Perso	onnel	R	esource	s	Strc	\$\$	Origin
incident Name	Ullit	Acres	Chge	70	Comp	ESI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
Copper Breaks	TX-TXS	7,206	-1,174	71	Ctn	8/23	149	87	0	26	2	0	546K	PRI
Vivian	TX-TXS	5,500	3,000	5	Ctn	8/30	39	18	0	1	2	0	NR	PRI
Noelke	TX-TXS	3,554	554	60	Ctn	8/26	25	-14	0	2	1	0	NR	PRI
Rocking Chair Ranch	TX-TXS	3,466	3,066	75	Ctn	8/23	21	13	0	2	1	0	NR	ST
Bird Ranch	TX-TXS	9,931	0	80	Ctn	8/22	16	7	0	0	0	0	NR	PRI
* Clauson	OK-OKS	1,080		75	Ctn	8/22	72		0	23	0	0	22K	ST
* Hitch	OK-OKS	865		70	Ctn	8/22	53		0	16	0	0	20K	ST
* Cush Branch	OK-OKS	120		80	Ctn	8/22	24		0	10	0	0	8K	ST
Caney Mountain Trail	OK-OKS	765	190	80	Ctn	8/22	33	0	0	15	0	0	28K	ST
Caverns Road	TX-TXS	2,409	0	100	Ctn		1	-17	0	0	0	0	NR	PRI
Side Oats	TX-TXS	77	-273	100	Ctn		1	0	0	0	0	0	NR	PRI

Great Basin Area (PL 2)

New fires:12New large incidents:1Uncontained large fires:4

Nethker, Payette NF, USFS. Thirty miles northeast of McCall, ID. Timber and closed timber litter. Moderate fire behavior with creeping, isolated torching and spotting. Area, road and trail closures in effect.

Cove Creek, Salmon-Challis NF, USFS. Twenty-seven miles northwest of Salmon, ID. Timber and tall grass. Moderate fire behavior with creeping, smoldering and single tree torching. Structures threatened. Trail closures in effect.

Avintaquin Ridge, Uintah and Ouray Agency, BIA. Fifteen miles southeast of Fruitland, UT. Timber and short grass. Moderate fire behavior with single tree torching, creeping and group torching.

* **Canyon**, Carson City District, BLM. Thirty miles southeast of Carson City, NV. Chaparral, brush and short grass. Active fire behavior with running, isolated torching and uphill runs. Residences and sage-grouse habitat threatened. Evacuations and area closures in effect.

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Perso	onnel	R	esource	:S	Strc	\$\$	Origin
incident Name	Offic	Acres	Chge	70	Comp	⊑ 51	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
Nethker	ID-PAF	2,355	0	98	Ctn	10/1	110	12	3	4	1	0	12M	FS
Cove Creek	ID-SCF	5,013	113	65	Ctn	8/30	85	5	2	3	2	0	4.2M	FS
Avintaquin Ridge	UT-UOA	111	0	80	Ctn	8/23	16	0	0	1	1	0	305K	BIA
* Canyon	NV-CCD	800		0	Ctn	8/24	175		5	7	3	0	150K	BLM
Geothermal	ID-CAX	717	-383	100	Ctn		28	-29	0	6	0	0	250K	CNTY
Lar	rge Fires Bei	ng Manag	ed With a	Strateg	y Other 1	Γhan Ful	I Suppress	sion Witho	ut a Ty	pe 1 or	2 IMT	Assigne	ed	
Little Bear	UT-DIF	1,300	-60	0	Comp	9/14	38	6	1	3	0	0	85K	FS
Trumbull	AZ-ASD	2,540	62	0	Comp	9/5	71	20	2	2	1	0	250K	BLM
Mammoth	UT-MLF	600	40	50	Comp	10/1	69	3	2	4	0	0	170K	FS
Chippean	UT-MLF	227		85	Comp	10/1	78		2	0	1	0	988K	FS
Park Ridge	UT-FIF	186		35	Comp	9/15	15		0	2	0	0	120K	FS
Shady	ID-SCF	4,109		0	Comp	10/31	6		0	1	0	0	170K	FS

CAX - Cassia County DIF - Dixie NF, USFS ASD - Arizona Strip District, BLM MLF - Manti-La Sal NF, USFS

FIF - Fishlake NF, USFS

Northwest Area (PL 2)

New fires:13New large incidents:0Uncontained large fires:3Type 2 IMTs committed:1

204 Cow, Malheur NF, USFS. IMT 2 (NW Team 9). Seventeen miles southwest of Unity, OR. Timber. Moderate fire behavior with backing, torching and spotting. Structures threatened. Area and road closures in effect.

Williams Flats, Colville Agency, BIA. Five miles southeast of Keller, WA. Timber, closed timber litter and short grass. Minimal fire behavior with creeping, smoldering and single tree torching. Structures threatened. Area and road closures in effect. Reduction in acreage due to more accurate mapping.

163 HK Complex (2 fires), Umatilla NF, USFS. Fifteen miles north of Monument, OR. Timber, brush and light logging slash. Minimal fire behavior with backing, creeping and isolated torching. Area and road closures in effect.

Granite Gulch, Wallowa-Whitman NF. Previously reported incident. Fifteen miles southwest of Joseph, OR. Timber. Active fire behavior with backing, flanking and uphill runs. Structures threatened. Last narrative report unless significant activity occurs.

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Perso	onnel	R	esource	s	Strc	\$\$	Origin
incluent Name	Offic	Acres	Chge	70	Comp	LSI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
204 Cow	OR-MAF	900	300	0	Comp	10/15	131	130	5	4	3	0	50K	FS
Williams Flats	WA-COA	44,279	-236	92	Ctn	8/25	377	-18	9	21	1	3	18M	BIA
163 HK Complex	OR-UMF	2,705	318	95	Ctn	8/31	64	-2	2	1	0	0	6.5M	FS
Granite Gulch	OR-WWF	3,800	1,100	0	Comp	10/31	15	2	0	0	1	0	180K	FS
Lai	rge Fires Bei	ng Manag	ed With a	Strateg	y Other 7	Γhan Ful	I Suppress	sion Witho	ut a Ty	pe 1 or	2 IMT	Assigne	ed	
South Fork Creek	WA-OWF	160		10	Comp	10/1	0		0	0	0	0	15K	FS
Devore Creek	WA-OWF	450		0	Comp	11/30	3		0	0	0	0	1.1M	FS

OWF - Okanogan-Wenatchee NF, USFS

Southwest Area (PL 2)

New fires:11New large incidents:1Uncontained large fires:1

* **New River**, Central District, Arizona DOF. Twenty-two miles north of Phoenix, AZ. Chaparral, brush and tall grass. Active fire behavior with wind-driven runs, flanking and torching. Structures and energy infrastructure threatened. Road closures in effect.

Ikes, Grand Canyon NP, NPS. Previously reported incident. Sixty miles southwest of Paige, AZ. Timber. Active fire behavior with backing, flanking and single tree torching. Last narrative report unless significant activity occurs.

Sheridan, Prescott NF, USFS. Previously reported incident. Twenty-five miles northwest of Prescott, AZ. Timber, brush and short grass. Extreme fire behavior with running, wind-driven runs and short-range spotting. Area closures in effect. Last narrative report unless significant activity occurs.

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Perso	onnel	R	esource	:S	Strc	\$\$	Origin
modent Name	Offic	Acres	Chge	/0	Comp	ESI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
* New River	AZ-A4S	844		40	Ctn	8/23	208		2	31	1	0	50K	ST
Ikes	AZ-GCP	5,762	650	74	Comp	9/15	93	0	1	8	1	0	1.6M	NPS
Sheridan	AZ-PNF	5,500	2,019	0	Comp	9/1	153	15	2	7	2	0	553K	FS
Lar	ge Fires Bei	ng Manag	ed With a	Strate	y Other	han Ful	I Suppress	sion Witho	ut a Ty	pe 1 or	2 IMT	Assigne	ed	
Boulin	AZ-KNF	3,903	103	60	Comp	9/15	37	0	1	3	0	0	105K	FS
Saber	AZ-COF	2,093		45	Comp	9/15	75		1	3	0	0	250K	FS
Rawhide	NM-LNF	8,549		60	Comp	8/31	12		0	2	0	0	385K	FS
Cueva	NM-SNF	1,011		60	Comp	8/31	37		1	2	0	0	68K	FS
Castle	AZ-KNF	19,368		96	Comp	9/15	32		0	4	0	0	4.6M	FS

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Pers	onnel	R	esource	s	Strc	\$\$	Origin
incident Name	Offic	Acres	Chge	70	Comp	LSI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
Pemberton	AZ-PNF	1,173		0	Comp	UNK	72		0	6	1	0	318K	FS

KNF - Kaibab NF, USFS COF - Coconino, NF, USFS LNF - Lincoln NF, USFS SNF - Santa Fe NF, USFS

Southern California Area (PL 2)

New fires: 18
New large incidents: 1
Uncontained large fires: 1

* **Broder**, Sequoia NF, USFS. Twelve miles west of Haiwee, CA. Timber. Minimal fire behavior with single tree torching.

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Pers	onnel	R	esource	s	Strc	\$\$	Origin
incident Name	Offic	Acres	Chge	70	Comp	LSi	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
* Broder	CA-SQF	100		0	Ctn	9/9	73		2	1	1	0	75K	FS
Lai	rge Fires Bei	ng Manag	ed With a	Strateg	y Other 1	Than Ful	I Suppress	sion Witho	ut a Ty	pe 1 or	2 IMT	Assigne	ed	
Springs	CA-INF	3,078	50	41	Comp	9/1	251	3	4	9	1	0	3.8M	FS

INF - Inyo NF, USFS

Northern Rockies (PL 2)

New fires: 6
New large incidents: 1
Uncontained large fires: 2

Victor, Rosebud County. Started on private land 20 miles south of Ashland, MT. Timber and brush. Minimal fire behavior with smoldering and creeping. Structures threatened.

Incident Name	Unit	Siz	ze	%	Ctn/	Est	Perso	onnel	R	esource	S	Strc	\$\$	Origin
incident ivanie	5	Acres	Chge	70	Comp	LSI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
* McClusky	MT-BDF	123	-	0	Ctn	11/1	93		3	2	2	0	115K	FS
Victor	MT-LG29	1,100	0	70	Ctn	8/22	19	0	0	3	1	0	25K	PRI
Lar	ge Fires Bei	ng Manag	ed With a	Strateg	y Other 7	Γhan Ful	l Suppress	sion Witho	ut a Ty	pe 1 or	2 IMT	Assigne	ed	
Beeskove	MT-LNF	430	0	72	Comp	8/31	48	-5	1	1	2	0	7M	FS
Horsefly	MT-HLF	1,352	0	57	Comp	9/30	86	-8	2	0	1	0	6.1M	FS
Crab	ID-NCF	198	0	20	Comp	10/31	68	0	1	1	0	0	2.5M	FS
Snow Creek	MT-FNF	1,815		0	Comp	10/31	25		0	0	0	0	55K	FS
Barren Hill	ID-NCF	581		0	Comp	10/31	8		0	0	0	0	15K	FS

LNF - Lolo NF, USFS HLF - Helena-Lewis and Clark NF, USFS NCF - Nez-Perce-Clearwater NF, USFS

FNF - Flathead NF, USFS

^{*} McClusky, Beaverhead-Deerlodge NF, USFS. Ten miles east of Butte, MT. Timber. Active fire behavior with group torching, spotting and backing. Structures threatened.

Rocky Mountain (PL 1)

New fires:11New large incidents:0Uncontained large fires:1

Tannerite, Pinedale Field Office, BLM. Six miles east of Pinedale, WY. Brush. Minimal fire behavior with smoldering. Residences threatened. Road and trail closures in effect.

Incident Name	Unit	Size		- %	Ctn/	Est	Personnel		Resources		Strc	\$\$	Origin	
		Acres	Chge	/0	Comp	LSI	Total	Chge	Crw	Eng	Heli	Lost	CTD	Own
Tannerite	WY-PDD	1,359	19	80	Ctn	8/30	70	-21	1	3	2	1	1.6M	BLM

Fires and Acres Yesterday (by Protection):

Area		BIA	BLM	FWS	NPS	ST/OT	USFS	TOTAL
Alaska Aras	FIRES	0	0	0	0	2	0	2
Alaska Area	ACRES	0	0	0	0	0	0	0
Northwest Area	FIRES	2	0	1	0	4	6	13
Northwest Area	ACRES	2	0	0	0	1	301	305
Northern California Area	FIRES	0	2	0	0	14	0	16
Northern California Area	ACRES	0	0	0	0	9	0	9
Southern California Area	FIRES	0	0	0	0	15	3	18
Southern Camornia Area	ACRES	0	0	0	0	435	94	529
Northern Rockies Area	FIRES	0	0	0	0	2	4	6
Northern Rockies Area	ACRES	0	0	0	0	0	3	3
Great Basin Area	FIRES	0	3	0	0	7	2	12
Great Dasiii Area	ACRES	0	1,297	0	0	299	441	2,037
Southwest Area	FIRES	2	3	0	1	4	1	11
Southwest Area	ACRES	21	2	0	0	48	0	71
Deals Mountain Area	FIRES	2	1	0	0	6	2	11
Rocky Mountain Area	ACRES	0	163	0	0	1	0	164
Eastern Area	FIRES	0	0	0	0	0	4	4
Lasieiii Aied	ACRES	0	0	0	0	0	0	0
Couthorn Aron	FIRES	2	0	0	1	5	1	9
Southern Area	ACRES	7	0	0	0	15	0	22
TOTAL FIRES:		8	9	1	2	59	23	102
TOTAL ACRES:	_	30	1,462	0	0	809	839	3,140

Fires and Acres Year-to-Date (by Protection):

Area		BIA	BLM	FWS	NPS	ST/OT	USFS	TOTAL
Alaska Aras	FIRES	0	233	0	0	378	39	650
Alaska Area	ACRES	0	1,712,735	0	0	810,404	14	2,523,153
Northwest Area	FIRES	199	155	12	11	1,372	653	2,402
Nottilwest Alea	ACRES	14,707	27,936	87	1	20,177	10,870	73,777
North ore Collifornia Association	FIRES	17	29	4	5	1,783	305	2,143
Northern California Area	ACRES	12	1,840	25	1	22,065	15,409	39,352
On the Collins to A	FIRES	10	67	9	14	2,510	240	2,850
Southern California Area	ACRES	97	414	2,727	6	15,772	6,992	26,008
Northarn Dacking Area	FIRES	669	31	19	8	601	357	1,685
Northern Rockies Area	ACRES	10,557	814	10,022	35	12,487	4,705	38,621
Creat Basis Area	FIRES	26	544	8	23	635	306	1,542
Great Basin Area	ACRES	133	204,728	18	8	138,705	25,021	368,613
Couthwest Area	FIRES	567	171	9	39	513	673	1,972
Southwest Area	ACRES	48,869	5,816	41	5,734	23,050	283,482	366,991
Decky Mountain Area	FIRES	221	232	1	9	371	203	1,037
Rocky Mountain Area	ACRES	2,030	1,922	5,048	29	17,318	8,013	34,361
Eastern Area	FIRES	301	0	8	30	3,463	284	4,086
Eastern Area	ACRES	569	0	52	520	25,933	5,127	32,201
Couthorn Aron	FIRES	231	0	33	44	12,785	217	13,310
Southern Area	ACRES	22,438	0	2,483	2,303	301,257	13,119	341,600
TOTAL FIRES:		2,241	1,462	103	183	24,411	3,277	31,677
TOTAL ACRES:	99,411	1,956,206	20,503	8,637	1,387,169	372,750	3,844,677	

Ten Year Average Fires (2009 – 2018 as of today)	43,463			
Ten Year Average Acres (2009 – 2018 as of today)	5,092,651			

^{***}Changes in some agency YTD acres reflect more accurate mapping or reporting adjustments.
***Additional wildfire information is available through the Geographic Areas at https://gacc.nifc.gov/

Canadian Fires and Hectares

PROVINCES	FIRES YESTERDAY	HECTARES YESTERDAY	FIRES YEAR-TO- DATE	HECTARES YEAR-TO-DATE	
BRITISH COLUMBIA	4	1	843	21,319	
YUKON TERRITORY	1	0	111	252,902	
ALBERTA	1	0	947	882,596	
NORTHWEST TERRITORY	0	0	145	101,416	
SASKATCHEWAN	1	0	228	47,248	
MANITOBA	0	0	275	101,469	
ONTARIO	7	6	466	266,811	
QUEBEC	5	11	294	10,420	
NEWFOUNDLAND	0	0	85	774	
NEW BRUNSWICK	0	0	158	191	
NOVA SCOTIA	0	0	119	131	
PRINCE EDWARD ISLAND	2	9	2	9	
NATIONAL PARKS	0	0	46	106,003	
TOTALS	21	27	3,719	1,791,288	

^{*1} Hectare = 2.47 Acres

Predictive Services Discussion: The strong cold front will move east across the Northern Rockies into the Great Plains by afternoon. Scattered wet storms will accompany the front's passage. Breezy westerly post-frontal winds will continue across the Great Basin and the Northern Rockies, as pressure gradients remain strong. A strong northerly flow across Northern California will keep humidity levels low. Pockets of critical fire weather conditions may be possible. Temperatures in the West will be average to below average. The southwestern monsoon will strengthen across New Mexico and Arizona. In the East, a strong cold front will allow for widespread showers and storms to continue along the Atlantic Coast. In Alaska, warm and dry conditions will continue across the south central part of the state. A few showers and storms will be possible on the Alaska Peninsula and over the Chugach mountains in the afternoon.

http://www.predictiveservices.nifc.gov/outlooks/outlooks.htm

Minutes FOR SAFETY

Thunderstorm Safety

Weather – Fire Behavior Category

Thunderstorms cause significant hazards for wildland firefighters, including downbursts that can cause extreme fire behavior and lightning. When thunderstorm development is likely, lookouts should be posted and aware of signs of a developing storm. A sudden reversal in wind direction, a noticeable rise in wind speed, and a sharp drop in temperature may note the mature stage of a storm. Heavy rain, hail, and lightning occur only in the mature stage of a thunderstorm. During a storm, use the following guidelines:

- Do not lie down.
 - The best position is sitting on the pack or crouching with feet close together.
 - Avoid sitting directly on the ground, if possible; but, if necessary, keep feet and butt close together.
 - o Avoid grouping together. Keep a minimum of 15 feet between people when possible.
 - Removing caulk boots will not provide safety if stocking covered or bare feet are then in contact with the ground – don't bother!
- "Stay out of dry creek beds" is correct for flash floods, but has nothing to do with lightning.
- Handheld radios (with short rubber antennas) or cell phones are safe to use. Communication is vital to crew safety. Do not use land line radios or radios with elevated antennas.
- Wide, open spaces are better than trees or clumps of trees in the vicinity. Ridge tops, etc., should be avoided.
- If you feel the hair on your arms or head "stand up," there is a high probability of a strike in the vicinity. Crouch or sit on a pack.
- Put down all tools.
- Take shelter in vehicles if possible.

References:

Wildland Fire Incident Management Field Guide, PMS 210

Additional Resources:

Incident Management Situation Report (IMSR)
Incident Response Pocket Guide (IRPG), PMS 461
NWCG Standards for Helicopter Operations, PMS 510
RT-130, Wildland Fire Safety Training Annual Refresher (WFSTAR)
Interagency Standards for Fire and Fire Aviation Operations (Red Book)
Wildland Fire Lessons Learned Center