

# National Fire Weather Report



**2013**

**By**

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## **NOAA/NWS Incident Meteorologist Program: 2013 Summary**

For a summary of 2013 fire season from the National Interagency Fire Center, please see:

[http://www.predictiveservices.nifc.gov/intelligence/2013\\_Statsumm/2013Stats&Summ.html](http://www.predictiveservices.nifc.gov/intelligence/2013_Statsumm/2013Stats&Summ.html)

Calendar year 2013 was the 8<sup>th</sup> busiest season on record (since 1987) for Incident Meteorologist (IMET) dispatches. It was the slowest start to a season since 2004 with only 9 missions from 1/1 through 6/10. Dry conditions across the west resulted in an extended fire season in the Great Basin with fires lasting into October in that area. Activity picked up quickly in June, July and August, with the total missions for the year at just about the 10 year average.

Large fires of note for 2013 were the Elk Complex in Idaho and the Rim Fire in California. In total the NWS had 127 missions supporting 102 different incidents.

## IMET Missions 2013

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Richmond Anchorage CWSU, AK	AFC	Kulluk Unified Command near Anchorage, AK	1/5/13	1/8/13	4
Wallmann Reno, NV	STO	Panther Fire near Butte Meadows, CA	5/2/13	5/8/13	7
Harty Hanford, CA	LOX	Springs Fire near Camarillo, CA	5/3/13	5/8/13	6
Thompson Oxnard, CA	LOX	Grand Fire near Frazier Park, CA	5/16/13	5/21/13	6
Smith, M. Sacramento, CA	SGX	General Fire near Julian, CA	5/28/13	5/31/13	4
Hoon Reno, NV	LOX	White Fire near Santa Barbara, CA	5/28/13	6/1/13	5
Wachter Albuquerque, NM	ABQ	Tres Lagunas Fire near Pecos, NM	5/31/13	6/14/13	15
McKinney (T) Houston, TX			6/4/13	6/14/13	11
Colton Grand Junction, CO	ABQ	Thompson Ridge Fire near Jemez, NM	6/2/13	6/19/13	18
Thompson Oxnard, CA	LOX	Powerhouse Fire near Santa Clarita, CA	6/3/13	6/10/13	8
Cerniglia Tucson, AZ	EPZ	Silver Fire near Kingston, NM	6/11/13	6/26/13	16
Bird El Paso, TX			6/25/13	7/5/13	11
Keene (T) Medford, OR			7/1/13	7/5/13	5
Thompson Oxnard, CA	SGX	Hathaway Fire near Banning, CA	6/11/13	6/19/13	9

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Stubblefield Flagstaff, AZ	ABQ	Jaroso Fire near Truchas, NM	6/12/13	6/18/13	7
Bird El Paso, TX			6/17/13	6/23/13	7
Moore Pueblo, CO	PUB	Black Forest Fire near Black Forest, CO	6/12/13	6/21/13	10
Kriederman Boulder, CO	PUB	Royal Gorge Fire near Canon City, CO	6/13/13	6/17/13	5
Lipson Riverton, WY	BOU	Big Meadow Fire near Grand Lake, CO	6/13/13	6/20/13	8
Struthwolf Salt Lake City, UT	GJT	Lackey Fan Fire near La Sal, UT	6/15/13	6/21/13	7
Loeffelbein WRH-Salt Lake City, UT	PUB	West Fork Complex near Pagosa Springs, CO	6/17/13	7/2/13	16
Hooper Paducah, KY			6/24/13	7/11/13	18
Carpenter WRH-Salt Lake City, UT			6/28/13	7/14/13	17
Simosko (T) Bismarck, ND			7/1/13	7/11/13	11
Bean Hanford, CA	HNX	Carstens Fire near Mariposa, CA	6/18/13	6/23/13	6
Meyers Phoenix, AZ	FGZ	Doce Fire near Prescott, AZ	6/19/13	6/26/13	8
Wachter Albuquerque, NM	ABQ	Lime Gulch Fire near Buffalo Creek, CO	6/20/13	6/24/13	5
Kriederman Boulder, CO	GJT	Wild Rose Fire near Rangely, CO	6/21/13	6/25/13	5
Kriederman Boulder, CO	PUB	Ox Cart Fire near Villa Grove, CO	6/27/13	6/30/13	4
Szatanek Elko, NV	GJT	East Fork Fire near Montrose, CO	6/27/13	7/5/13	9

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Bonk Portland, OR	PQR	Mt. Hood SAR near Government Camp, OR	6/27/13	6/30/13	4
Wallmann Reno, NV	FGZ	Yarnell Hill Fire near Yarnell, AZ	7/2/13	7/10/13	9
Byrd Jackson, MS	AFG	Stuart Creek #2 Fire near North Pole, AK	7/3/13	7/17/13	15
Cassell (T) Anchorage, AK			7/5/13	7/19/13	15
Haner Seattle, WA			7/16/13	7/28/13	13
Stubblefield Flagstaff, AZ	VEF	Dean Peak Fire near Kingman, AZ	7/3/13	7/7/13	5
Wachter Albuquerque, NM	FGZ	Yarnell Investigation near Prescott, AZ	7/4/13	7/17/13	15
Decker Boise, ID	BOI	Owyhee Fire near Adrian, OR	7/4/13	7/6/13	3
Struthwolf Salt Lake City, UT	VEF	Carpenter 1 Fire near Las Vegas, NV	7/5/13	7/10/13	6
Clapp Sacramento, CA			7/7/13	7/19/13	13
Tobin Spokane, WA	OTX	25 Mile Fire near Chelan, WA	7/6/13	7/9/13	4
Harty Hanford, CA	REV	Bison Fire near Gardnerville, NV	7/6/13	7/15/13	10
Smith Sacramento, CA	SGX	Chariot Fire near Rosemont, CA	7/8/13	7/12/13	5
Borsum Billings, MT	MSO	Rough Creek Fire near Riggins, ID	7/16/13	7/19/13	4
Hoenisch Great Falls, MT	MSO	West Mullan Fire near Superior, MT	7/16/13	7/28/13	13

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Balfour San Diego, CA	SGX	Mountain Fire near Palm Springs, CA	7/16/13	7/25/13	10
Van Speybroeck (T) Southern Region HQ			7/17/13	7/23/13	7
Redman Boise, ID	BOI	Pine Creek Fire near Boise, ID	7/16/13	7/23/13	8
Trimarco Pendleton, OR	BOI	Ridge Fire near Lowman, ID	7/18/13	8/2/13	16
Colton Grand Junction, CO	GJT	East Tschuddi Fire near Meeker, CO	7/23/13	7/26/13	4
Decker Boise, ID	BOI	Thunder City Fire near Stibnite, ID	7/23/13	7/31/13	9
Bunnag Medford, OR	PDT	Sunnyside Turnoff Fire near Madras, OR	7/23/13	7/29/13	7
Gilchrist Glasgow, MT	PIH	Lodgepole Fire near Challis, ID	7/24/13	8/7/13	15
Barron (T) Tampa, FL			7/27/13	8/11/13	16
Davis Tampa, FL			8/5/13	8/17/13	13
Lebo (T) Wilmington, NC			8/9/13	8/16/13	8
Survick Pocatello, ID	RIW	Fairfield Fire near Lander, WY	7/24/13	7/26/13	3
Baker (T) Riverton, WY			7/25/13	7/29/13	5
Mehle Monterey, CA	HNX	Aspen Fire near Big Creek, CA	7/25/13	8/8/13	15
Fox Spokane, WA	PDT	Mile Marker 28 Fire near Goldendale, WA	7/26/13	8/5/13	11
Survick Pocatello, ID	MSO	Moose Meadows Fire near Philipsburg, MT	7/27/13	8/3/13	8

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Clapp Sacramento, CA	MFR	Whiskey Complex near Tiller, OR	7/27/13	8/11/13	16
Taber Burlington, VT			8/9/13	8/26/13	18
Weishaar Portland, OR	MFR	Douglas Complex near Glendale, OR	7/28/13	8/12/13	16
Reedy Seattle, WA			8/10/13	8/24/13	15
Nester Missoula, MT	MSO	Gold Pan Complex near Conner, MT	7/28/13	8/7/13	11
Manuel Blacksburg, VA			8/5/13	8/20/13	16
Sedlock (T) Melbourne, FL			8/5/13	8/18/13	14
Lebo (T) Wilmington, NC			8/17/13	8/24/13	8
Nester Missoula, MT			8/19/13	8/31/13	13
Carter Spokane, WA	OTX	Colockum Tarps Fire near Wenatchee, WA	7/28/13	8/11/13	15
Finch (T) Cheyenne, WY			7/30/13	8/10/13	12
Borsum Billings, MT	BYZ	Emigrant Fire near Emigrant, MT	7/29/13	7/31/13	3
Szatanek Elko, NV	MSO	Firestone Flats Fire near Arlee, MT	7/29/13	8/2/13	5
Lutz Medford, OR	MFR	Brimstone Fire near Merlin, OR	7/30/13	8/5/13	7
Bonk Portland, OR	MFR	Labrador Fire near Cave Junction, OR	7/30/13	8/13/13	15
Ruthford Charleston, WV			8/11/13	8/26/13	16

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Hockenberry NWSHQ – Boise	MFR	Big Windy Complex near Grants Pass, OR	7/31/13	8/14/13	15
Dumont (T) Elko, NV			8/5/13	8/20/13	16
Pelton Jackson, KY			8/12/13	8/27/13	16
Brenchley Pacific Region HQ - Honolulu			8/25/13	9/4/13	11
Tonkin Eureka, CA	EKA	Butler Fire near Somes Bar, CA	8/2/13	8/16/13	15
Cassell (T) Anchorage, AK			8/7/13	8/22/13	16
Tobin Spokane, WA			8/15/13	8/29/13	15
Clemmons (T) Flagstaff, AZ			8/20/13	8/29/13	10
Pendergrast Melbourne, FL			8/27/13	9/6/13	11
Walbrun Monterey, CA	MFR	Salmon River Complex near Sawyers Bar, CA	8/5/13	8/26/13	22
Keene (T) Medford, OR			8/13/13	8/18/13	6
Harris Fort Worth, TX	PDT	Green Ridge Fire near Sisters, OR	8/6/13	8/11/13	6
Balfour San Diego, CA	SGX	Falls Fire near Lake Elsinore, CA	8/6/13	8/7/13	2
Balfour San Diego, CA	SGX	Silver Fire near Banning, CA	8/8/13	8/13/13	6
Solomon Pendleton, OR	PDT	GC Complex near John Day, OR	8/9/13	8/12/13	4
Messick Pocatello, ID	BOI	Pony Complex near Mountain Home, ID	8/10/13	8/17/13	8

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Borsum Billings, MT	BOI	Elk Complex near Pine, ID	8/10/13	8/22/13	13
Dudley (T) Hanford, CA			8/13/13	8/22/13	10
Redman Boise, ID	BOI	Beaver Creek Fire near Fairfield, ID	8/10/13	8/20/13	11
Wolf Spokane, WA			8/11/13	8/26/13	16
Jacobs (T) North Platte, NE			8/17/13	8/30/13	14
Messick Pocatello, ID			8/18/13	8/24/13	7
Goudsward Little Rock, AR			8/24/13	8/31/13	8
Richmond ANC-CWSU	AFG	Mississippi Fire near Delta Junction, AK	8/11/13	8/21/13	11
Harris Fort Worth, TX	OTX	Milepost 10 Fire near Malaga, WA	8/11/13	8/14/13	4
Struthwolf Salt Lake City, UT	SLC	State Fire near Portage, UT	8/11/13	8/19/13	9
Thompson Oxnard, CA	STO	American Fire near Foresthill, CA	8/13/13	8/28/13	16
Keene (T) Medford, OR			8/19/13	8/27/13	9
Sullivan San Diego, CA			8/26/13	9/2/13	8
Colton Grand Junction, CO	GJT	Red Canyon Fire near Glenwood Springs, CO	8/14/13	8/17/13	4

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Wallmann Reno, NV	EKA	Corral Complex near Hoopa, CA	8/14/13	8/28/13	15
Leach (T) Missoula, MT			8/17/13	9/1/13	16
Tonkin Eureka, CA			8/28/13	9/10/13	14
Simosko (T) Bismarck, ND			8/31/13	9/10/13	11
Harris Fort Worth, TX	OTX	Conrad Lake Fire near Naches, WA	8/15/13	8/20/13	6
Weagle Portland, OR			8/19/13	8/23/13	5
Quagliariello Charleston, SC	AFG	Birch Creek Fire near Circle Hot Springs, AK	8/15/13	8/23/13	9
Trimarco Pendleton, OR	PDT	Vinegar Fire near John Day, OR	8/16/13	8/27/13	12
Lipson Riverton, WY	MSO	Eureka Fire near Ennis, MT	8/16/13	8/29/13	4
Clapp Sacramento, CA	STO	Swedes Fire near Yuba City, CA	8/17/13	8/22/13	6
Carpenter WRHQ – SLC	BOI	House Creek Fire near Fields, OR	8/18/13	8/23/13	6
Mehle Monterey, CA	STO	Rim Fire near Buck Meadows, CA	8/19/13	8/31/13	13
Hoon Reno, NV			8/28/13	9/8/13	12
Pellerito Binghamton, NY			8/29/13	9/13/12	16
Curtis Juneau, AK			9/9/13	9/23/13	15
Gilchrist Glasgow, MT	MSO	Lolo Creek Complex near Lolo, MT	8/20/13	9/3/13	15

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Smith Sacramento, CA	STO	Hough Complex near Chico, CA	8/20/13	8/27/13	8
Harty Hanford, CA	LKN	Chestnut Fire near Gabbs, NV	8/20/13	8/24/13	5
Haner Seattle, WA	BOI	Little Queens Fire near Atlanta, ID	8/21/13	8/30/13	10
Loeffelbein WRHQ – Salt Lake City	MSO	Incendiary Creek Fire near Weippe, ID	8/21/13	8/26/13	6
Weishaar Portland, OR	PDT	Government Flats Complex near The Dalles, OR	8/21/13	8/29/13	9
Lutz Medford, OR	OTX	Eagle Fire near Leavenworth, WA	8/22/13	8/28/13	7
Hoenisch Great Falls, MT	BYZ	Miner Paradise Complex near Livingston, MT	8/23/13	9/1/13	10
Decker Boise, ID	BYZ	Rock Creek Fire near Red Lodge, MT	8/23/13	8/31/13	9
Weagle Portland, OR	OTX	Manastash Ridge Fire near Ellensburg, WA	8/24/13	9/2/13	10
Clapp Sacramento, CA	STO	Deer Fire near Los Molinos, CA	8/25/13	8/30/13	6
Cerniglia Tucson, AZ	HNX	Fish Fire near Springville, CA	8/25/13	9/2/13	9
Borsum Billings, MT	RIW	Druid Complex near Gardiner, MT	8/27/13	9/5/13	10
Graning (T) Duluth, MN			8/29/13	9/6/13	9
Haner Seattle, WA	BOI	Kelley Fire near Featherville, ID	8/31/13	9/4/13	5
Fox Spokane, WA			9/2/13	9/9/13	8
Goudsward Little Rock, AR	BOI	Weiser Complex near Midvale, ID	9/1/13	9/8/13	8

<i>IMET Home Office</i>	<i>County Warning Area</i>	<i>Incident Location, State</i>	<i>Dispatch</i>	<i>Return</i>	<i>Days</i>
Walbrun Monterey, CA	MTR	Morgan Fire near Clayton, CA	9/9/13	9/12/13	4
Bunnag Medford, OR	STO	Clover Fire near Red Bluff, CA	9/10/13	9/14/13	5
Weagle Portland, OR	MFR	Forks Complex near Sawyers Bar, CA	9/10/13	9/22/13	13
Kriederman Boulder, CO	BOU	BLX Flood near Boulder, CO	9/14/13	9/20/13	7
Colton Grand Junction, CO	BOU	Larimer Flood 2013 near Fort Collins, CO	9/15/13	9/23/13	9
Lewis Charleston, WV	RLX	Bridge Day Support near Fayetteville, WV	10/19/13	10/19/13	1
Jelsema Tampa, FL	GSP	Table Rock Fire near Morganton, NC	11/18/13	11/25/13	8
Tonkin Eureka, CA	MTR	McCabe Fire near Geyserville, CA	11/24/13	11/25/13	2
Walbrun Monterey, CA	MTR	Pfeifer Fire near Big Sur, CA	12/18/13	12/22/13	5

## IMET Incident Response Summary

<i>YEAR</i>	<i>FIRES</i>	<i>ACRES</i>	<i>IMET DISPATCHES</i>	<i>IMET DAYS</i>	<i>IMET HOURS</i>
<i>1987</i>	143,877	4,152,575	83	587	8,218
<i>1988</i>	154,573	7,398,889	117	912	12,768
<i>1989</i>	121,714	3,261,732	57	344	4,816
<i>1990</i>	122,763	5,452,874	38	264	3,696
<i>1991</i>	116,953	2,237,714	27	171	2,394
<i>1992</i>	103,830	2,457,665	45	261	3,654
<i>1993</i>	97,031	2,310,420	15	89	1,246
<i>1994</i>	114,049	4,724,014	115	954	13,356
<i>1995</i>	130,019	2,315,730	27	201	2,814
<i>1996</i>	115,025	6,701,390	104	781	10,934
<i>1997</i>	89,517	3,672,616	15	94	1,316
<i>1998</i>	81,043	2,329,709	88	951	13,314
<i>1999</i>	93,702	5,661,976	74	553	7,742
<i>2000</i>	122,827	8,422,237	206	1,565	21,910
<i>2001</i>	84,079	3,555,138	113	924	12,936
<i>2002</i>	88,458	6,937,584	172	1,490	20,860
<i>2003</i>	85,943	4,918,088	152	1,406	19,684
<i>2004</i>	77,534	6,790,692	96	662	9,268
<i>2005</i>	66,552	8,686,753	97	794	11,116
<i>2006</i>	96,385	9,873,745	208	1,920	26,880
<i>2007</i>	85,822	9,321,326	185	1,947	27,258
<i>2008</i>	80,094	5,254,109	171	1,781	24,934
<i>2009</i>	78,792	5,921,786	71	680	9,520
<i>2010</i>	71,971	3,422,724	80	759	10,626
<i>2011</i>	74,126	8,711,367	147	1,678	23,492
<i>2012</i>	67,774	9,326,238	170	1,677	23,478
<i>2013</i>	47,579	4,319,546	127	1,215	14,010
<b>'88 - '13 Average</b>	<b>96,742</b>	<b>5,486,616</b>	<b>104</b>	<b>912</b>	<b>12,652</b>
<b>'04 - '13 Average</b>	<b>74,663</b>	<b>7,162,829</b>	<b>135</b>	<b>1,311</b>	<b>18,058</b>

Table 1. Years highlighted in gold are the top 3 years in terms of acres burned. Years highlighted in gray are the bottom 3 years in terms of acres burned.

## 2013 Statistics

The number of acres burned and associated IMET missions have been on the rise since the mid 1990's. The chart below shows the upward trend in the last 20 years.

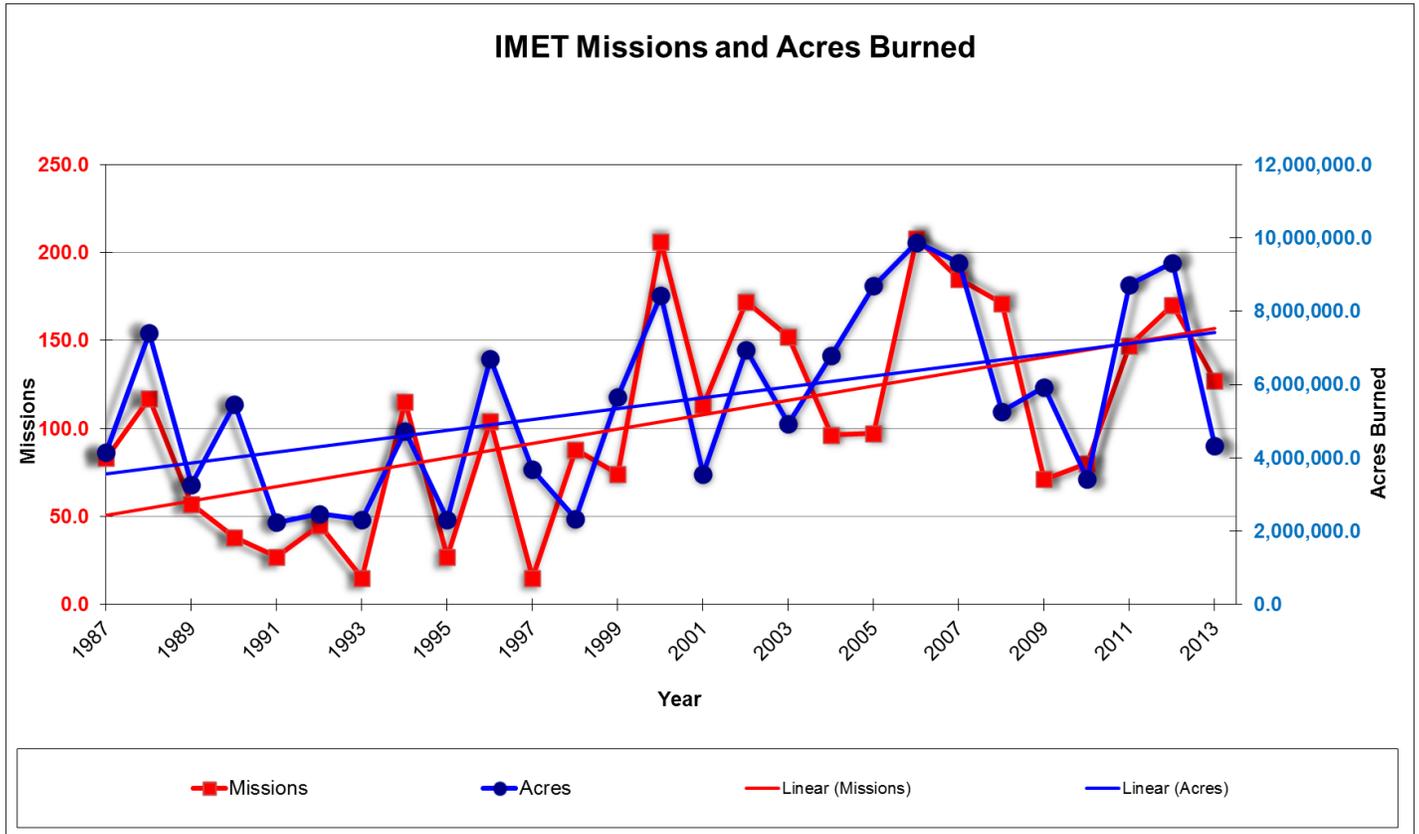


Chart 1. IMET missions and acres burned from 1987 through 2013.

In 2013, IMET dispatches were below average until mid-August. Unusually dry conditions in the Great Basin and Northern Rockies resulted in a late fire season extending into October.

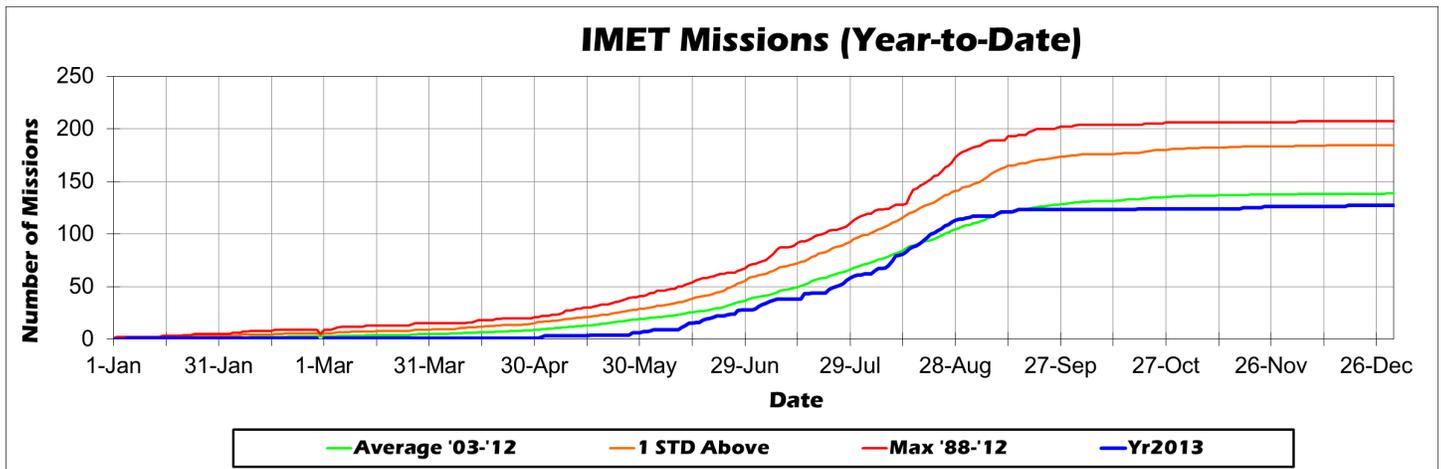


Chart 2. Cumulative IMET missions for 2013.

Mid-August saw activity pick up for IMET missions with well above normal numbers of IMETs on assignment each day. Even with the big increase in August, 2013 saw no new records set for IMETs on assignment per day. This is the first time this has been noted since 2010.

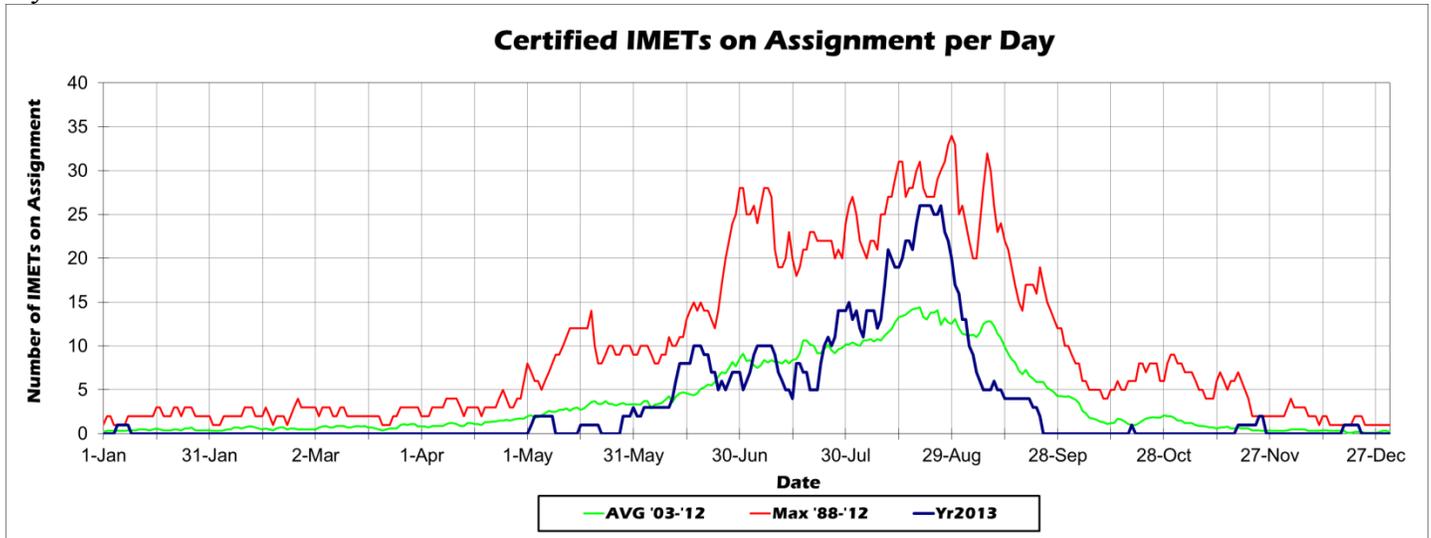


Chart 3. Number of IMETs on assignment each day of 2013.

IMET response time is very important to NWS IMET program users. They prefer that the NWS provide IMETs from close-by and within 24 hours of the request for services. This matches expectations of their own incident overhead personnel. The NWS is meeting or exceeding wildland fire agencies' requirement in both distance and time.

<b>Average Distance From IMET Office to Fire</b>	<i>466 miles</i>
<b>Median Distance From IMET Office to Fire</b>	<i>206 miles</i>

Table 2. Average and median distance from an IMET's office to an incident in 2013.

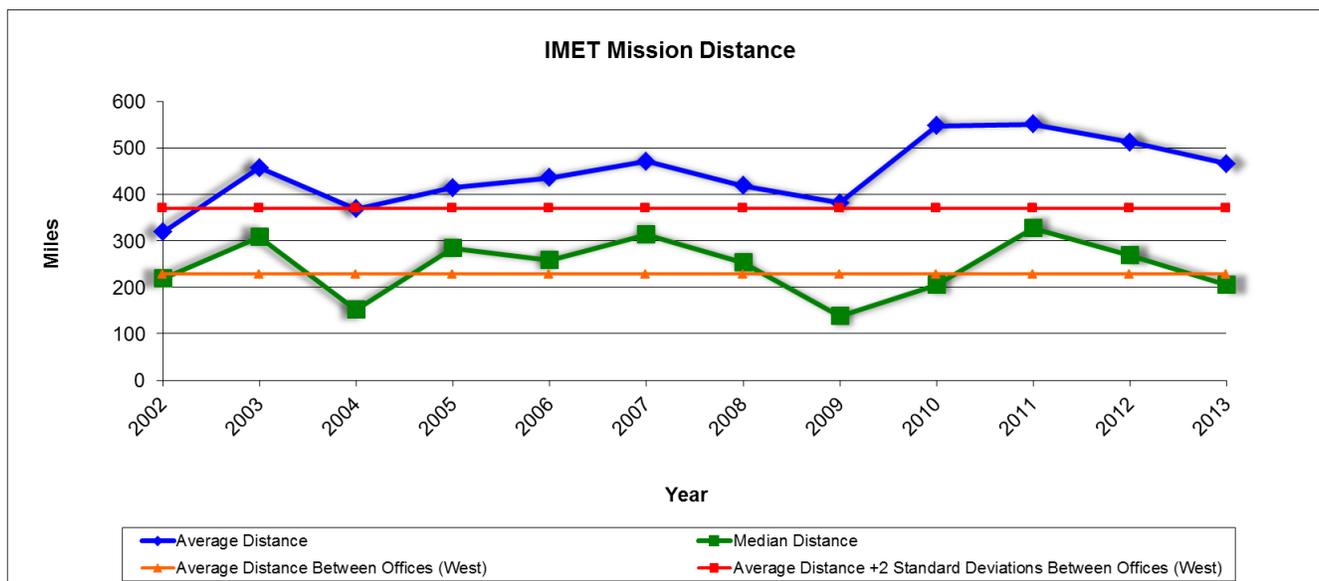


Chart 4. Average and Median Distance from IMET's office to incident since 2002.

<b>Average Time For IMET Dispatch</b>	<i>16.4 hours</i>
<b>Median Time for IMET Dispatch</b>	<i>11.5 hours</i>
Note: The dispatch times for swap outs are defaulted to “0” hours because there is no wait time on the part of the incident team since an IMET is already on site.	

Table 3. 2013 Average and Median time between IMET request and IMET arrival on site.

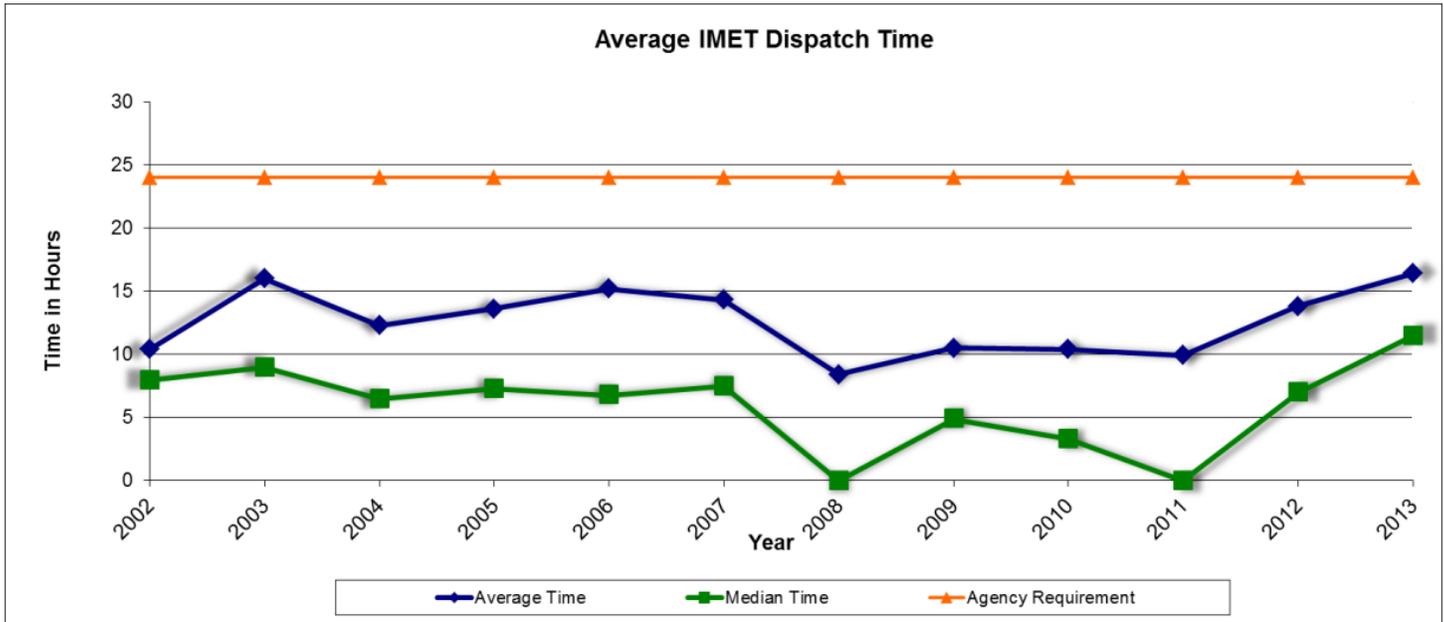


Chart 5. Average and median IMET dispatch times since 2002.

2013 Statistics		Notes
<b>Average Number of Dispatches per IMET</b>	<i>1</i>	
<b>Average Number of Days per Dispatch</b>	<i>13</i>	
<b>Percentage of Dispatch Requests Filled</b>	<i>100%</i>	<i>Every request that was received by the National Fire Weather Operations Coordinator (NFWOC) in Boise was filled.</i>
<b>Number of Trainees Completing Training</b>	<i>8</i>	<i>Southern Region: 3 Central Region: 2 (1 was a re-certification of a former IMET) Eastern Region: 1 Western Region: 2</i>

Table 4. Dispatch numbers and days per IMET. Also percentage of requests filled and number of trainees certified in 2013.

The majority of IMETs dispatched in 2013 were from the Western Region.

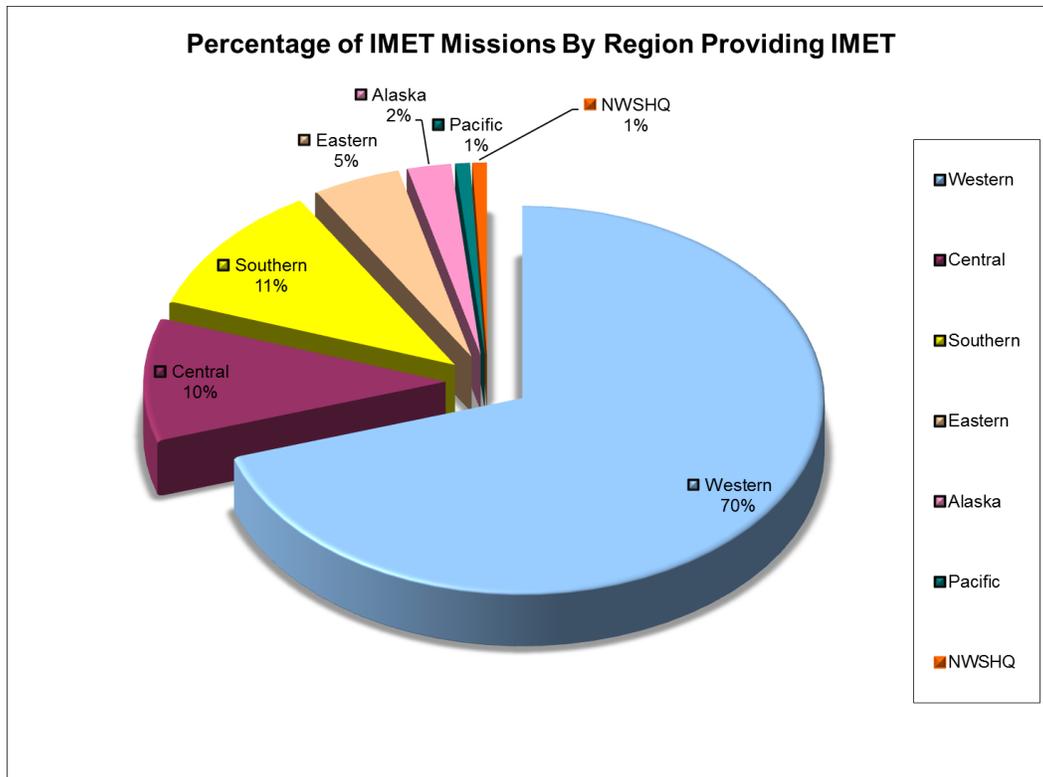


Chart 6. Percentage of IMETs dispatched per NWS Region for 2013.

The majority of incidents over the previous 10 years have been in Western Region.

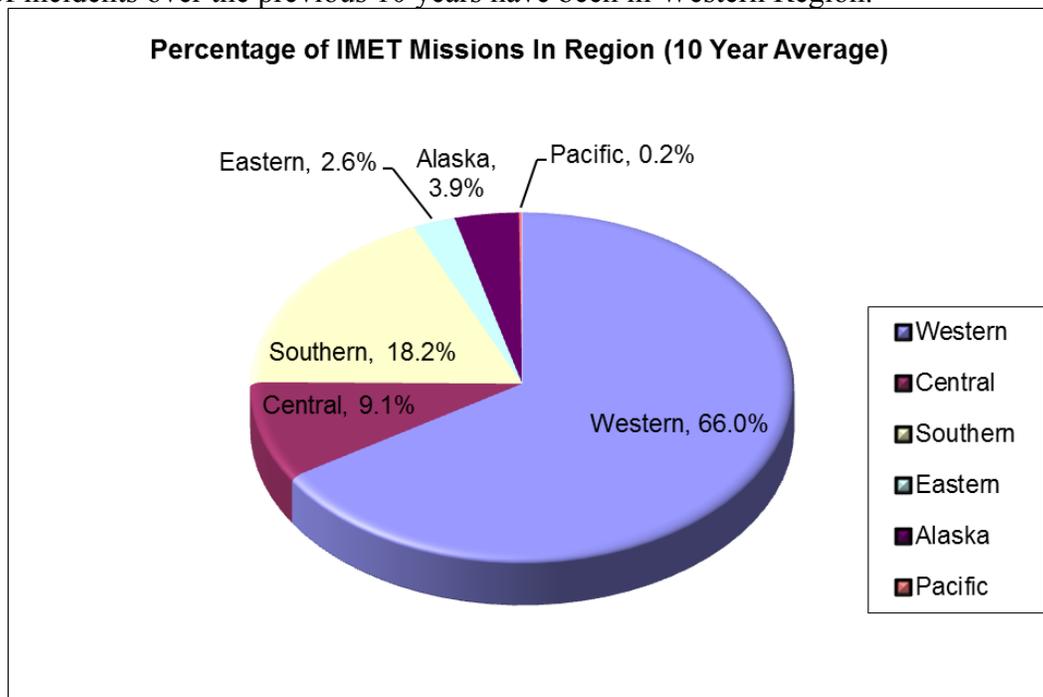


Chart 7. Ten year average percentage of IMET dispatches per NWS Region.

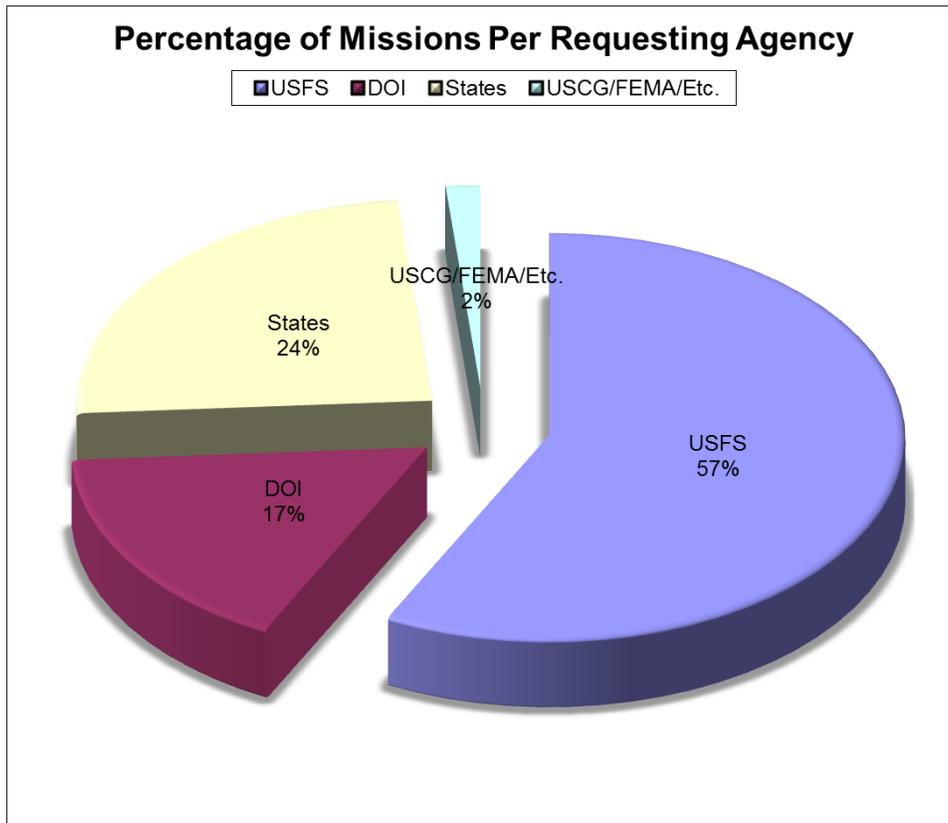


Chart 8. Percentage of total 2013 dispatch requests per agency.

While support for incidents mainly comes from within the same NWS region, there is cooperation between the regions with mutual support. Table 5 shows the within region support and the support external to each region for 2013.

Region	Percentage of Incidents Within Region Covered By Own IMETs	Actual Number	Percentage of Incidents Where IMETs Sent To Another Region to Cover	Actual Number
Western	83%	80 of 97	29%	9
Central	59%	10 of 17	10%	3
Southern	50%	3 of 6	36%	11
Eastern	50%	1 of 2	16%	5
Alaska	40%	2 of 5	3%	1
Pacific	--	0 of 0	3%	1
NWS HQ	--	--	3%	1

Table 5. IMET support within regions and external to regions for 2013.

Each region of the United States is unique in its fire seasons. These differences are dependent on the fuels available and the climate. The peak fire season times are listed in Table 6 for each NWS region.

<b>Western Region</b>	<i>15 Jun – 15 Sep</i>
<b>Central Region</b>	<i>1 Jun – 15 Sep</i>
<b>Southern Region</b>	<i>1 May – 15 Jul</i>
<b>Eastern Region</b>	<i>1 Jun – 31 Jul, 15 Oct – 15 Nov</i>
<b>Alaska Region</b>	<i>25 May – 15 Aug</i>
<b>Pacific Region</b>	<i>None</i>
<b>Nationally</b>	<i>1 May – 30 Sep</i>

Table 6. Peak fire seasons for each NWS Region.

## 2013 National Red Flag Warning Verification

NWS offices nationwide issue Red Flag Warnings (RFW) for expected severe fire weather conditions. Table 7 summarizes the verification statistics for 2013 for red flag warnings.

Region	POD	FAR	CSI	Lead Time (hrs)	Number RFWs Issued	Spot Forecasts
Western Region	0.87	0.27	0.65	20.80	1,277	8,333
Central Region	0.88	0.28	0.66	13.18	1,489	3,482
Eastern Region	0.99	0.09	0.91	8.55	475	1,503
Southern Region	0.86	0.24	0.68	13.71	3,368	4,633
Alaska Region	1.00	0.24	0.76	14.23	89	543
Pacific Region	0.75	0.01	0.74	3.36	78	15
<b>National</b>	<b>0.88</b>	<b>0.24</b>	<b>0.69</b>	<b>14.34</b>	<b>6,776</b>	<b>18,509</b>

Table 7. POD = Probability of Detection; FAR = False Alarm Rate; CSI = Critical Success Index.

The national performance standard for 2013 was:

<b>POD</b>	0.88
<b>Lead Time</b>	10.50 hours

Table 8. 2013 national performance standards.

Table 9 summarizes the 10 year average national POD, FAR, CSI, Lead Time (in hours), annual RFWs issued and annual Spot Forecasts issued. Chart 8 below indicates a growing trend in the number of red flag warnings issued as well as the number of sport forecasts issued. The big drop off in RFWs issued in 2013 is due to the very slow start of the fire weather season.

POD	FAR	CSI	Lead Time	RFWs Issued	Spot Forecasts
0.91	0.23	0.72	13.51	15,010	18,829

Table 9. Ten year average POD, FAR, CSI, lead time (in hours), number of red flag warnings issued annually and number of spot forecasts issued annually.

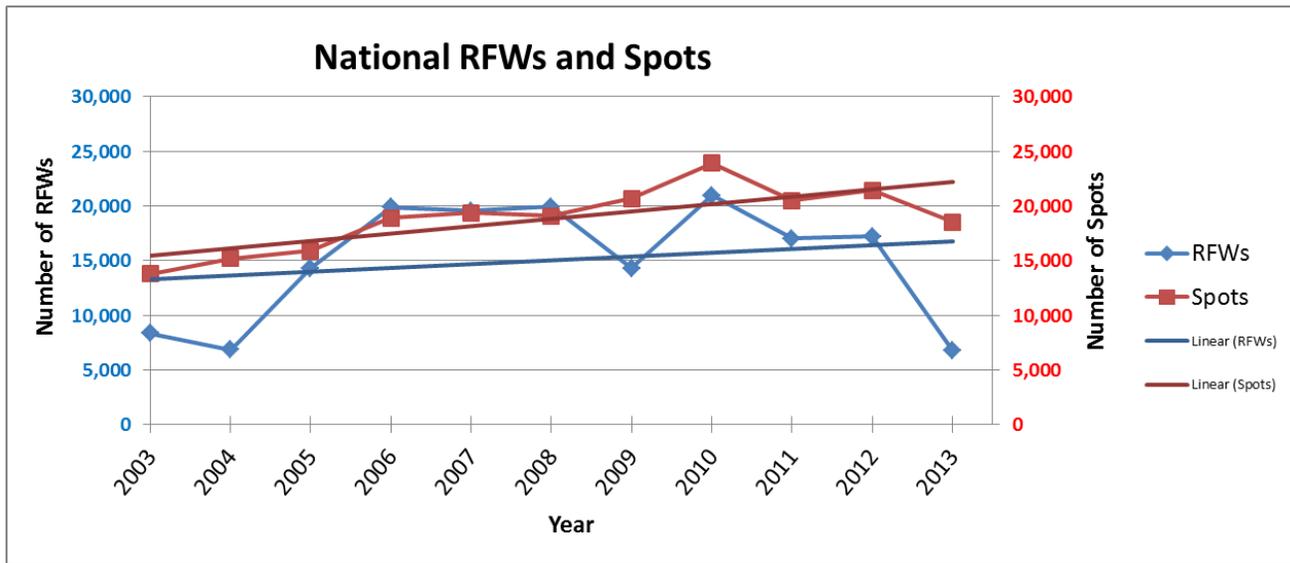


Chart 8. Number of Red Flag Warnings and Spot forecasts issued annually by the NWS since 2003.

The following are the red flag warning national performance standards for the next 5 years:

Year	POD	Lead Time (hours)
2014	0.88	10.50
2015	0.89	10.55
2016	0.89	10.55
2017	0.90	10.60
2018	0.90	10.60

Table 10. NWS fire weather program national performance standards for the next 5 years for red flag warnings.

NWS IMETs utilize specialized equipment to provide their support at incidents called “All Hazard Meteorological Response System” (AMRS). This equipment allows the IMET to set up a virtual Weather Forecast Office (WFO) remotely, including capability to gather and interpret model data, satellite and radar data and observations. It also allows for an in-depth analysis of these data to support provision of forecasts, watches and warnings on site at an incident. The NWS has 70 AMRS located at WFOs across the nation, mainly in areas where wildland fire is a threat. Some stations have more than one unit reflecting those areas that are most prone to a wildfire threat and have multiple IMETs on site to deploy to these incidents. The AMRS locations (and the IMETs that use them) are shown below in figure 1.

## Incident Meteorologist (IMET) 2013

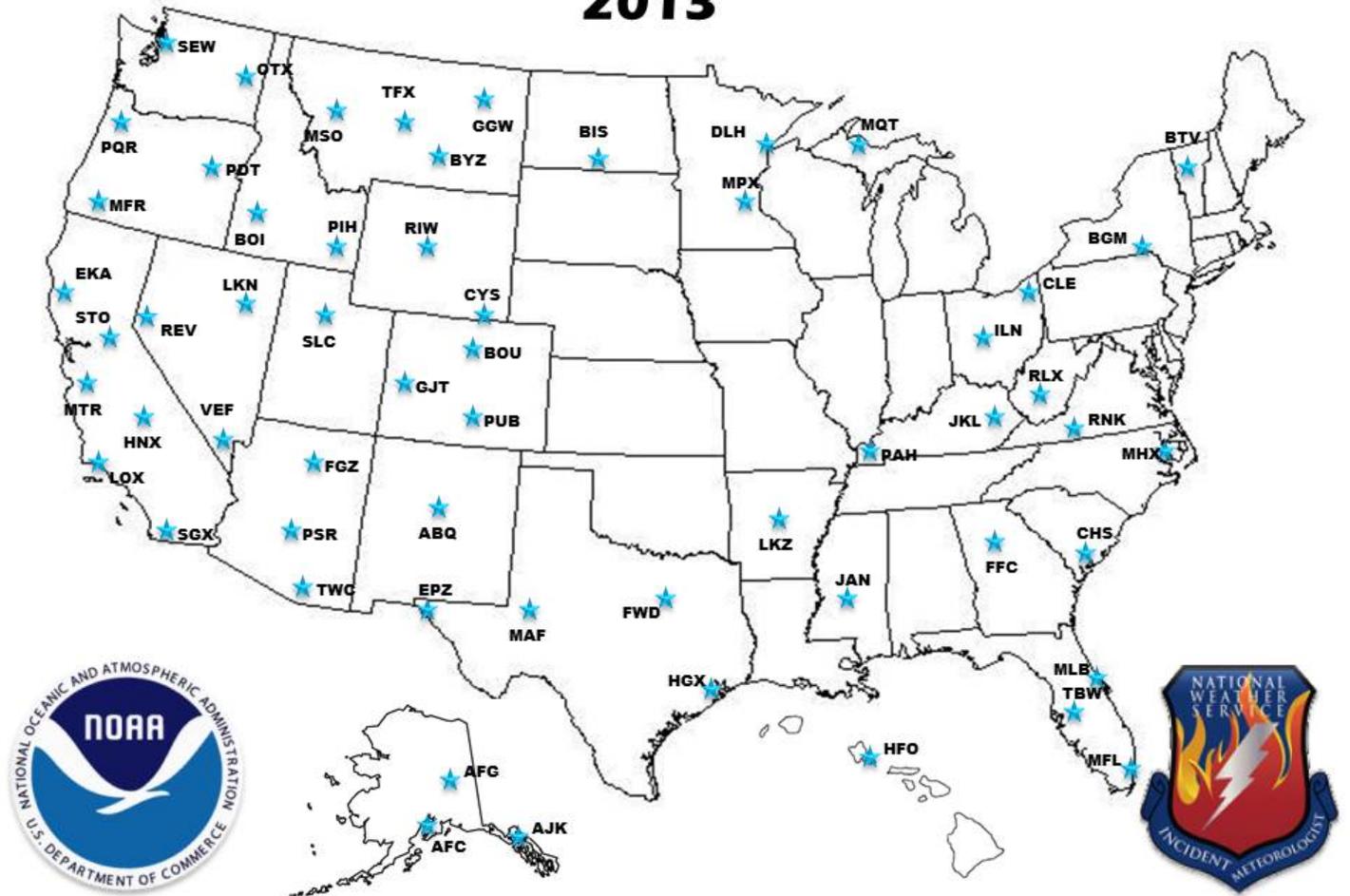


Figure 1. Home location of NWS All Hazard Meteorological Response Systems (AMRS) and their associated IMETs.