# Fire Weather Annual Report Southeast Idaho 2004

Pocatello Fire Weather Office Pocatello, Idaho



DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration National Weather Service



### 1. Introduction:

The National Weather Service, Weather Forecast Office at Pocatello, Idaho has Fire Weather Forecast responsibility for portions of Idaho serviced by the Central, Eastern and Southern Interagency Dispatch Centers. The Pocatello Fire Weather Office produces this Annual Fire Weather Report. Previous reports are maintained up to five years.

### 2. Overview of the fire season:

The fire season of 2004 saw a continuation of drought spanning five years. The National Weather Service has maintained precipitation records for the Weather Office at Pocatello, Idaho since July 1, 1899. Based on the water year beginning in October of each year, four of the driest years on record occurred since 2000. The annual precipitation and observed trend based on thirty years climatic data (Figures 2.1 and 2.2) help keep perspective on the ongoing drought situation in Southeast Idaho. The Weather Forecast Office in Pocatello recorded an annual precipitation of 12.02 inches, or 95 percent of the normal 12.58 inches. Near normal precipitation and below normal temperatures (Figures 3.1c and d) helped remedy the short term drought situation as measured by evapotranspiration and near surface soil moisture content, (Keetch-Byram Drought Index (Figure 2.4). The cumulative precipitation deficit over the past five years is 21.89 inches and likely reflects more long term drought affects determined by reservoir storage and ground water depletion (Drought Monitor Figure 2.5).

Basin averaged snow pack and precipitation during the winter of 2003-2004 varied from 80 to near 100 percent and was uniform across central and southeastern Idaho (Figure 3.1a). Springtime temperatures were near or a little below normal which contributed to a normal seasonal melt of the snow pack (Figures 3.1b and c).

Westerly winds off the Pacific helped moderate temperatures well into the summer months. Temperatures remained near or a little below normal resulting in higher relative humidity and fewer Red Flag Events (Figure 3.1d).

The El Nino/Southern Oscillation Index indicated that water temperatures in the tropical

Pacific remained neutral for the first half of 2004 then transitioned to a weak warm (El Nino) phase the later half of the year. An area of persistent low pressure in the Gulf of Alaska contributed to prevailing westerly winds over Idaho during the fire season. This prevented strong high pressure from developing over the Great

The El Nino/Southern Oscillation (ENSO) cycle occurs over a two to seven year period and refers to conditions of sea surface temperatures in the tropical Pacific Ocean. Researchers have identified other cyclic patterns besides ENSO around the globe that may affect long-term weather patterns. Some of these cyclic patterns may span 10 or even 30 years. La Nina (colder than normal) and El Nino (warmer than normal) are terms associated with extremes in the ENSO cycle.

Basin and led to unseasonably cool temperatures (Figures 3.1c and d).

The weak ENSO itself had little effect on weather conditions in the western states. Another cyclic phenomena known as the Madden-Julian Oscillation (MJO) often comes into play when the ENSO pattern is weak. The MJO cycle attempts to track an area of convection moving from the Indian Ocean into the western Pacific as far to the east as the Hawaiian Islands. This occurs over a period of about 45 days. If tropical moisture is drawn into a southwesterly jet stream near Hawaii it will move quickly into the Pacific Northwest Coast, and is often called the "Pineapple Express". The MJO became particularly active in November and December of 2004 and by years end boosted moisture for heavy snow in southern Idaho.

Thunderstorm activity was minimal and resulted almost entirely in isolated lightning incidents and a lower number of Red Flag Events this season. Only one significant (greater than 15% of areal coverage) "dry" lightning event occurred this fire season and affected the Challis NF, Sawtooth NF, and South Central Highlands, Fire Weather Zones 406, 407, and 412 respectively on August 14, 2004. Preliminary estimates indicate the number of wild fires attributed to lightning starts decreased by nearly half over the 2003 wild fire season, reference Table 2.1.

# Precipitation Departures From Normal Pocatello, Idaho

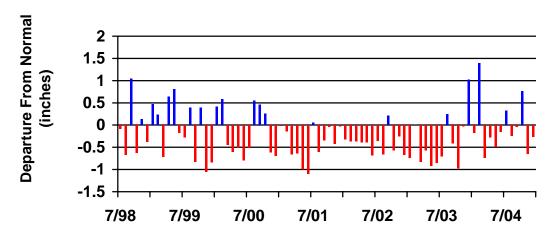


Figure 2.1 Precipitation departures from normal at Pocatello, Idaho. Based on thirty-year normals of temperature data from 1971 to 2000 archived at the National Climatic Data Center.

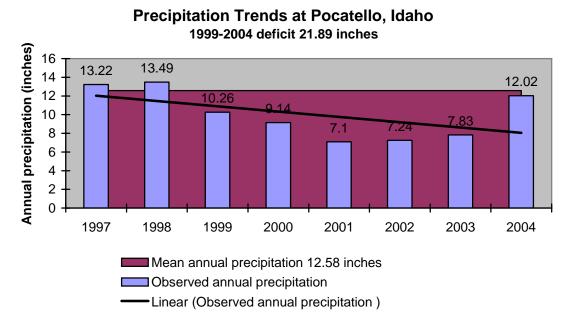


Figure 2.2 Mean and annual precipitation at Pocatello, Idaho.

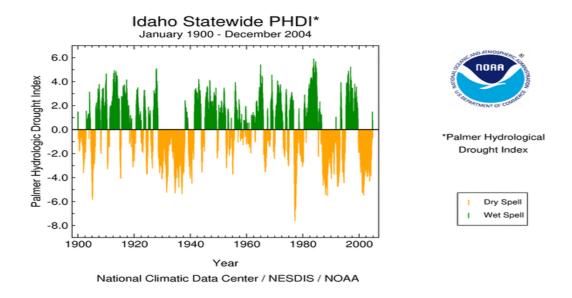


Figure 2.3 Historical Palmer Hydrologic Drought Index for the state of Idaho.

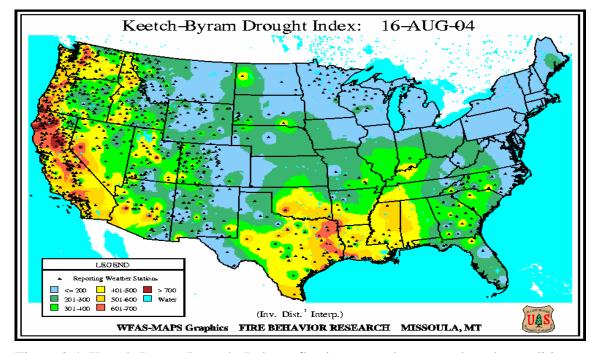


Figure 2.4. Keetch-Byram Drought Index reflecting more short term drought conditions, i.e. evapotranspiration and near surface soil moisture.

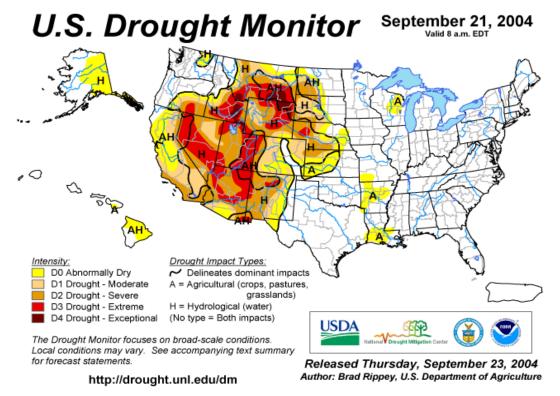


Figure 2.5 Drought summary map is based on a multi-index drought classification scheme and produced jointly by the National Drought Mitigation Center (University of Nebraska-Lincoln) and several federal partners including Joint Agricultural Weather Facility (U.S. Department of Agriculture and Department of Commerce/National Oceanic and Atmospheric Administration), Climate Prediction Center (U.S. Department of Commerce/NOAA/National Weather Service), and National Climatic Data Center (DOC/NOAA).

### Drought Severity Index by Division

Weekly Value for Period Ending 15 MAY 2004

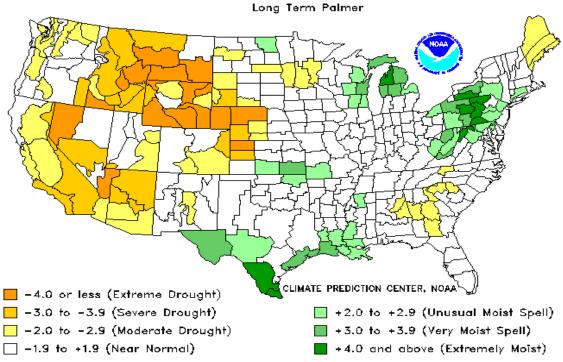
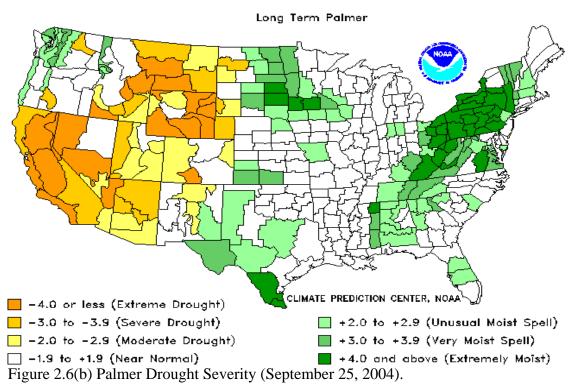


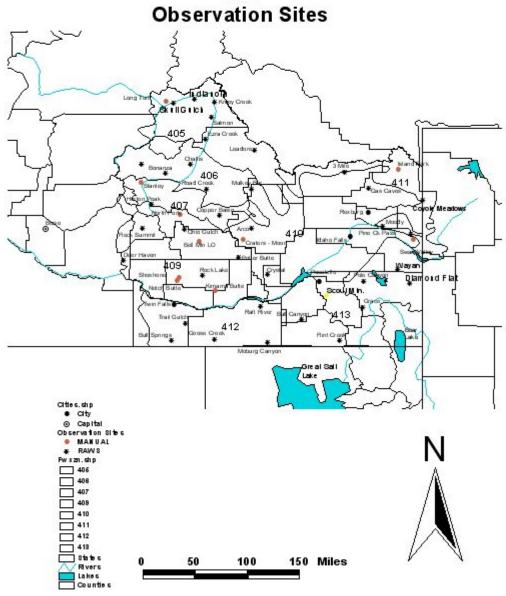
Figure 2.6(a) Palmer Drought Severity (May 15, 2004).

### Drought Severity Index by Division

Weekly Value for Period Ending 25 SEP 2004



## SE Idaho Fire Weather Zones and



		Wildfires		Prescribed Fires		Wildland Fire Use	
		Fires	Acres	Fires	Acres	Fires	Acres
USFS							
	Caribou-Targhee National Forest	42	14	16	2594	3	5
	Salmon-Challis National Forest	65	1945	8	4753	9	2968
	Sawtooth NF	36	246	8	3352	0	0
BLM	II C 1 D D'						
	Upper Snake R. Dist. Eastern Idaho	14	411	4	357	0	0
	South-Central	294	1305	3	9418	0	0
	Idaho						
	Salmon/Clearwater Dist.	4	0	3	357	0	0
<b>FWS</b>							
	Bear Lake	0	0	2	467	0	0
	Gray's Lake	0	0	0	0	0	0
	Camas	1	0	1	2	0	0
	Minidoka	0	0	0	0	0	0
NPS							
	Craters of The Moon						
BIA	City of Rocks Fort Hall Agency	12	55	1	149	0	0
INEEL	Port Hair Agency	3	1	0	0	0	0
Total		471	3977	46	21449	12	2973

Table 1 Preliminary (October 10, 2004) estimate of fires and acres burned in Southeast Idaho during the 2004 fire season, from Bureau of Land Management, Eastern Great Basin Coordination.

### 3. Weather in review:

### October2003:

The first month of the new "water year" was noted for its extremely dry conditions. Strong high pressure remained either over the desert southwest or along the California-Oregon coast. This kept the storm track entering the west coast in Canada. The Pocatello Regional Airport (Pocatello) had only a trace of precipitation the entire month – it usually has close to an inch of liquid precipitation for the 31 days. Even the north end of the Pocatello fire weather district was very dry, with the Challis airport receiving only 16% of normal precipitation. The lack of moisture and clouds meant much warmer than normal temperatures; the average temperature at Pocatello was 3.1 degrees Fahrenheit (deg. F) warmer than normal, and Challis was 2.1 deg. F warmer than normal. The weather pattern started to change during the last two days of the month, when a cold storm on the 30<sup>th</sup> and 31<sup>st</sup> brought some snow flurries to the Pocatello area.

### November 2003:

This month was very nearly the complete opposite of October. The storm track rarely strayed from crossing through Idaho, making the month much wetter, although still below the 30-year precipitation normal for 1971-2000. More than half of the days had at least some precipitation in Pocatello and Idaho Falls. The extensive cloudiness and stormy cold front activity also made temperatures cold, with Pocatello's and Idaho Falls' average temperature around 3 deg. F colder than normal. Farther north, temperatures at Challis were over 6 deg. F colder than normal. The consistent light precipitation in this pattern never really had a single "season ending event" for the 2003 fire season.

### December 2003:

For most of the days this month, low pressure in the upper atmosphere was centered off the coasts of Oregon and northern California. This put the storm track primarily over the southern end of Idaho. Again, consistent precipitation would mark this month in the southern half of the state, with 20 days observing rain or snow in Pocatello, and more than an inch of liquid water equivalent above the normal of 2.13 inches (3.14 inches of liquid water for the month). Idaho Falls also experienced a better than normal month at 0.28 inches more than normal. However, the Salmon-Challis area lagged behind somewhat as evidenced by below normal precipitation in Challis. December 2003 will be best remembered, however, for a violent storm that moved through the state on the 25<sup>th</sup> and 26<sup>th</sup>. The Pocatello airport registered its heaviest 24-hour snowfall for a December day ever, when 13 inches of snow fell on the 26<sup>th</sup>, and its 3<sup>rd</sup> highest 24-hour snowfall regardless of month. The heavy precipitation pushed snow pack south and east of the Snake River to 130% of average, while the mountains of central Idaho increased to near or slightly below normal for snow pack. Predominant southwest flow allowed very moist and mild air to move into Idaho, and temperatures returned to above normal: 5.6 deg. F warmer in Pocatello, 7.5 deg. F warmer in Idaho Falls, and 0.8 deg. F in Challis.

### January to mid-March 2004:

January had long intervals of high pressure over the Great Basin, which generally kept the storm track away from Idaho, for little precipitation; however February brought

abundant snows to the Gem State. The predominant pattern of an intense low over central Canada brought in cold air from the Canadian interior and moist air from the Pacific, where they met and interacted over the Great Basin. The year started with a bang in Pocatello, with a large storm on the 1<sup>st</sup> generating strong winds and record snowfall for New Year's Day. Again, the south half of the Pocatello Fire Weather District saw the best snow accumulations. It was the snowiest February ever in Pocatello, with just over 30 inches of snowfall. Snow pack in the Salmon-Challis NF and northern Sawtooth NF grew from slightly below normal in December to slightly above normal for the time of year by the end of February. Basins south and east of the Snake River were around 120% of normal on average, but varied widely. For instance snow pack in the Bear River drainage basin was 88% of normal, while the Portneuf basin was observed at 122% of normal; in fact snow pack at lower elevation sites in this area were 230% of normal. Part of this was due to the rather cold temperatures that preserved low elevation snow pack. Pocatello averaged more than 4 deg. F below normal for both months and Idaho Falls more than 3 deg. F. Challis was 6.5 deg. F below normal for January and 3.6 deg. F colder than its normal February.

### *Mid-March to May 2004:*

The Natural Resources Conservation Service best described Idaho's weather during the spring of 2004 in its April report: "Mother Nature traded her snowshoes for sandals." By the middle of March, average temperatures were 10 to 15 deg. F above normal in Snake River Plain locations. Strong high pressure reasserted itself over the western states, pushing the storm track as far north as southeast Alaska at times. The few storms that entered Idaho at the end of March arrived from the mid-Pacific with warm moist air. Pocatello observed more than half an inch of rainfall on March 26<sup>th</sup> setting a record for that date. Even more important, however, was that higher elevations of Idaho also received large amounts of rainfall, eroding the snow pack. The above average snow pack at the beginning of March decreased to around 80% of normal by the end of the month. In Pocatello, the 1.5 inches of snow accumulation was the 10<sup>th</sup> smallest snowfall for March in more than 100 years of record keeping. Snow pack normally peaks in April, but this would not be the case in 2004. April and May continued the warmer than normal temperatures and drier than normal precipitation pattern, although not as strongly as March. The main source for storms moving onshore in the western states was from the mild mid-Pacific, rather than the Gulf of Alaska or interior Canada. There were a couple of exceptions to this, and a storm on April 27<sup>th</sup> and 28<sup>th</sup> dropped the last significant snowfall (0.7 inch) on Pocatello. The potential gains to be made on more than 5 years of drought had melted away with the persistent warm dry pattern.

### June to August 2004:

Summer 2004 saw a more active, stormier, weather pattern over the state than in recent summers. Low pressure remained off the Pacific Northwest coast, sending moist cold fronts through Oregon and Nevada into Idaho. This occurred mainly in the middle of June, and helped contribute to normal rainfall and near to below normal temperatures in June for most of eastern Idaho. The ridge of high pressure common to the western states during the summer made a brief comeback at the end of June and again in mid-July, but was never strong enough to bring 100 degree temperatures to the Snake River Plain. In

fact, it was the first summer since 1999 without triple digit temperatures at the Pocatello Regional Airport. Precipitation was near to below normal for southeast Idaho. Cooler temperatures kept relative humidity values higher despite cooler temperatures. More precipitation occurred in 2004 than in the previous four summers. Fuel moisture was also generally higher. For the summer months Pocatello had a three-month precipitation total of 2.20 inches (0.07 below normal), Idaho Falls 3.39 inches (0.92 above normal!), and Challis 2.27 inches (0.15 below normal).

### September and October 2004:

The active weather pattern continued into late summer and early fall. Low pressure over the west coast continued to bring the storm track through the western states, rather than the more normal track into Alaska and Canada. Snow fell in Pocatello on October 10<sup>th</sup>, and well above normal precipitation for October helped bring and end to fire season in late October.

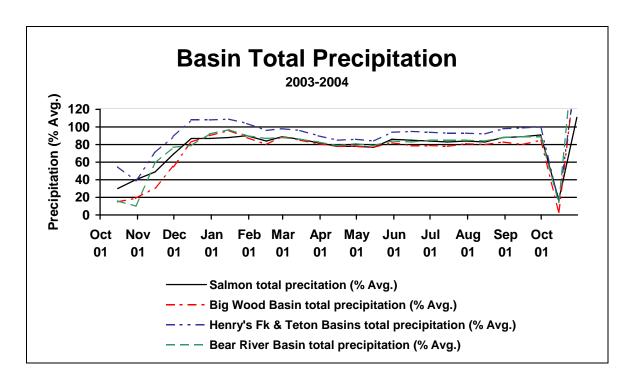


Figure 3.1(a). Total precipitation for select Southeast Idaho Basins expressed as a percent of average. From USDA Natural Resources Conservation Service, National Water and Climate Center, Portland Oregon.

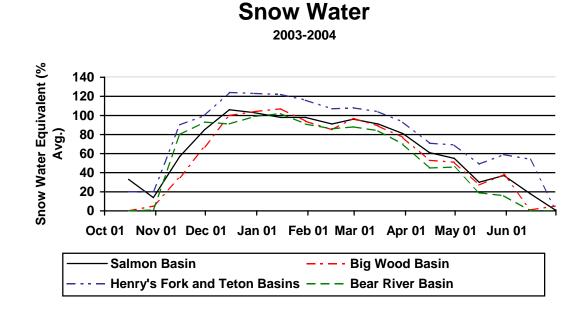


Figure 3.1(b). Snow water equivalent for select Southeast Idaho basins. From USDA Natural Resources Conservation Service, National Water and Climate Center, Portland Oregon.

# Departure of Average Temperature from Normal (°F) DEC 2003- FEB 2004

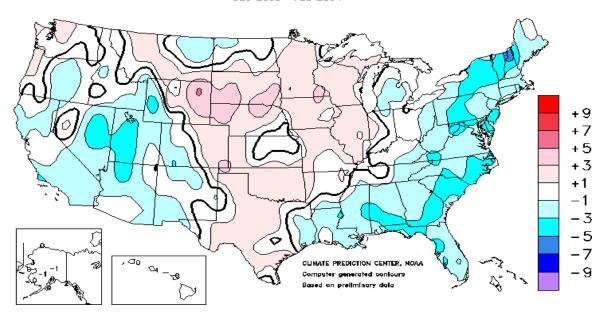


Figure 3.1(c) Departure from normal for 90 day averaged temperatures centered on January 2004, from Climate Prediction Center, National Oceanic and Atmospheric Administration.



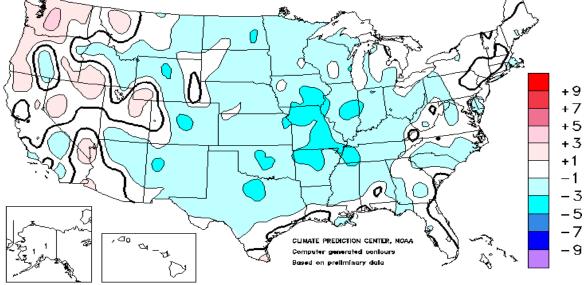


Figure 3.1(d) Departure from normal for 90 day averaged temperatures centered on August 2004, from Climate Prediction Center, National Oceanic and Atmospheric Administration.

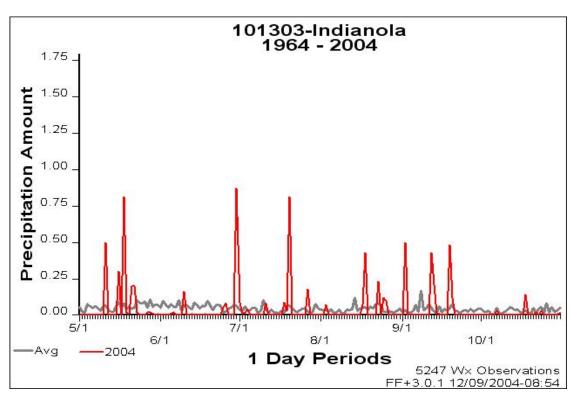


Figure 3.2(a) Observed and average precipitation at Indianola RAWS site, Fire Weather zone 405.

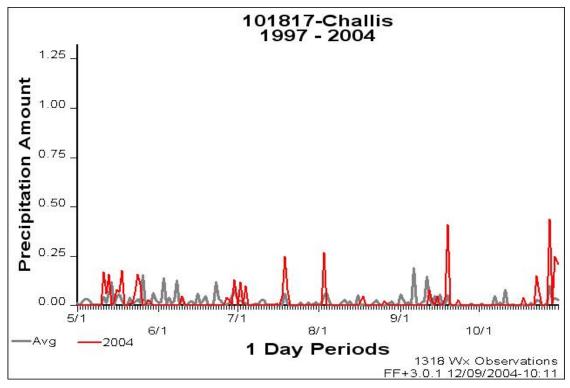


Figure 3.2(b) Observed and average precipitation at Challis RAWS site, Fire weather zone 406.

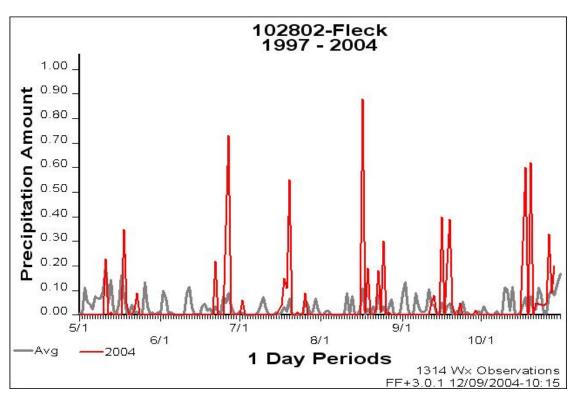


Figure 3.2(c) Observed and average precipitation at Fleck Summit RAWS site, Fire Weather zone 407.

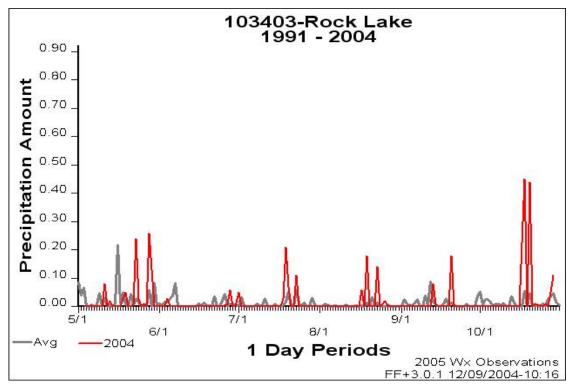


Figure 3.2(d) Observed and average precipitation at Rock Lack RAWS site, Fire weather zone 409.

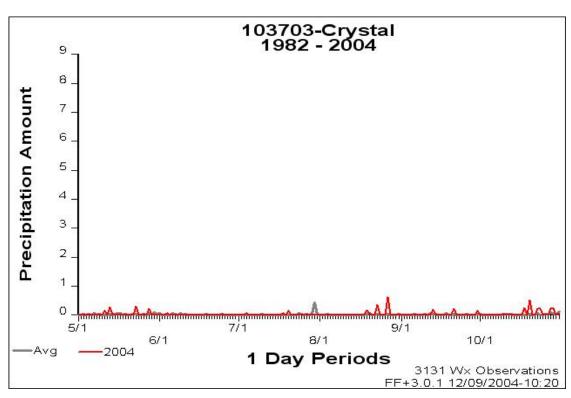


Figure 3.2(e) Observed and average precipitation at Crystal RAWS site, Fire Weather zone 410.

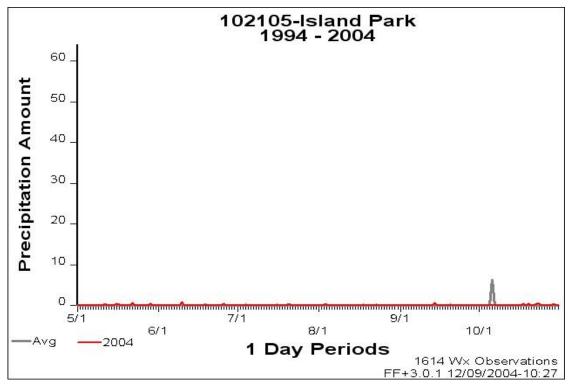


Figure 3.2(f) Observed and average precipitation at Island Park RAWS site, Fire Weather zone 411.

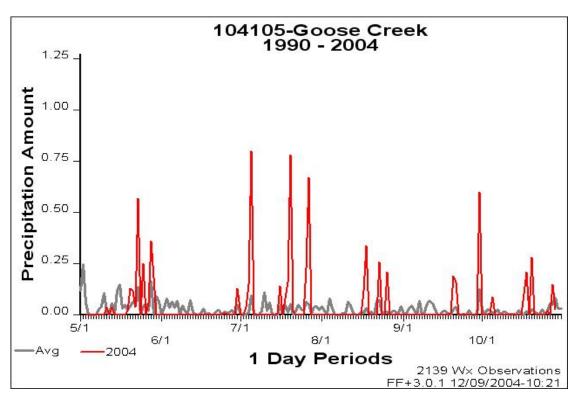


Figure 3.2(g) Observed and average precipitation at Goose Creek RAWS site, Fire Weather zone 412.

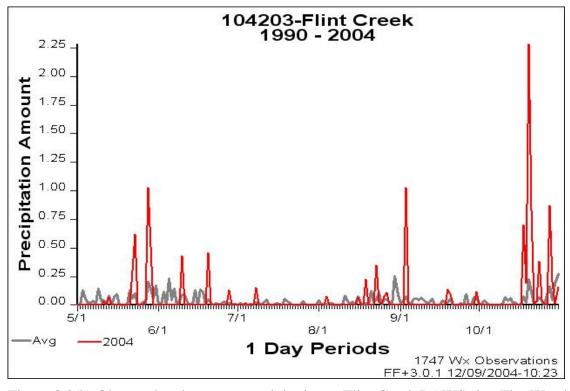


Figure 3.2(h) Observed and average precipitation at Flint Creek RAWS site, Fire Weather zone 413.

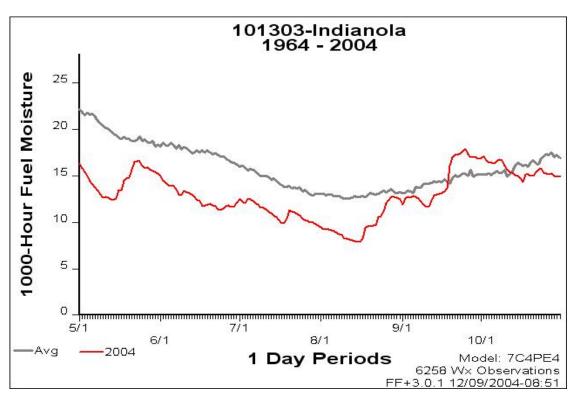


Figure 3.3(a) Observed and average 1000 Hour Fuel Moisture at Indianola RAWS site, Fire Weather zone 405.

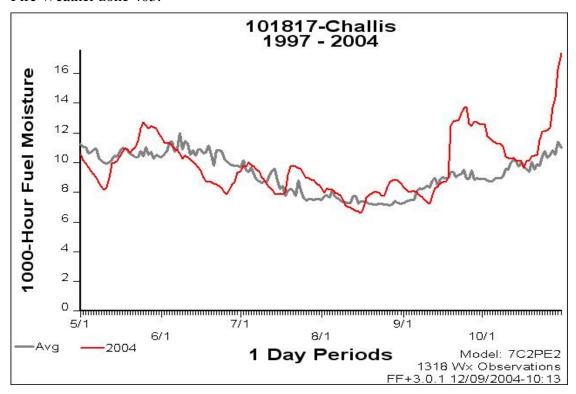


Figure 3.3(b) Observed and average 1000 Hour Fuel Moisture at Challis RAWS site, Fire Weather zone 406.

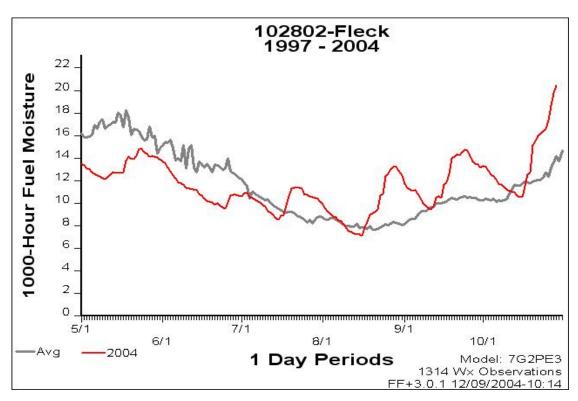


Figure 3.3(c) Observed and average 1000 Hour Fuel Moisture at Fleck Summit RAWS site, Fire Weather zone 407.

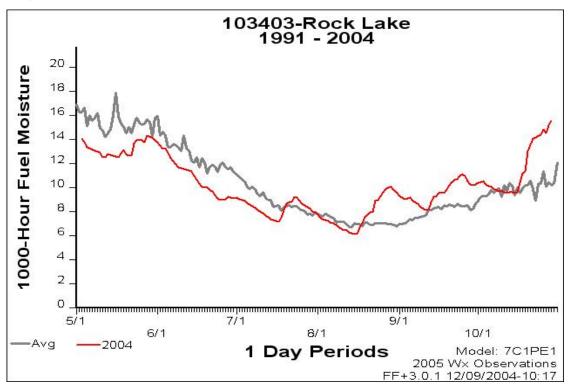


Figure 3.3(d) Observed and average 1000 Hour Fuel Moisture at Rock Lake RAWS site, Fire Weather zone 409.

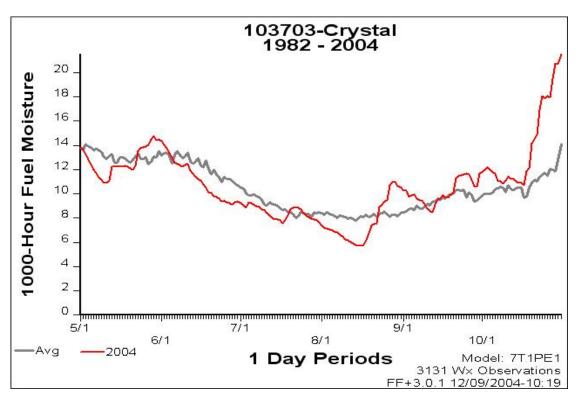


Figure 3.3(e) Observed and average 1000 Hour Fuel Moisture at Crystal RAWS site, Fire Weather zone 410.

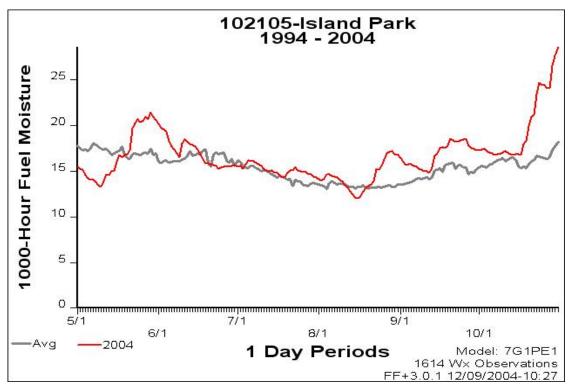


Figure 3.3(f) Observed and average 1000 Hour Fuel Moisture at Island Park RAWS site, Fire Weather zone 411.

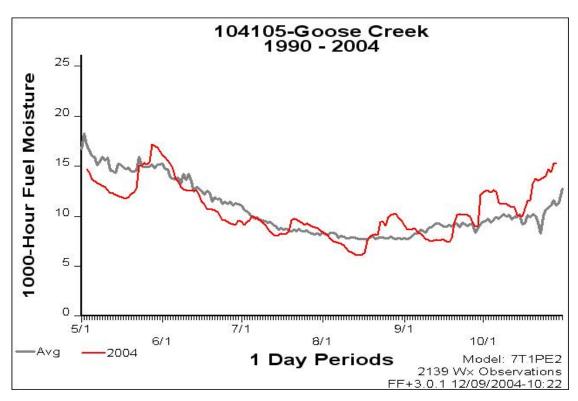


Figure 3.3(g) Observed and average 1000 Hour Fuel Moisture at Goose Creek RAWS site, Fire Weather zone 412.

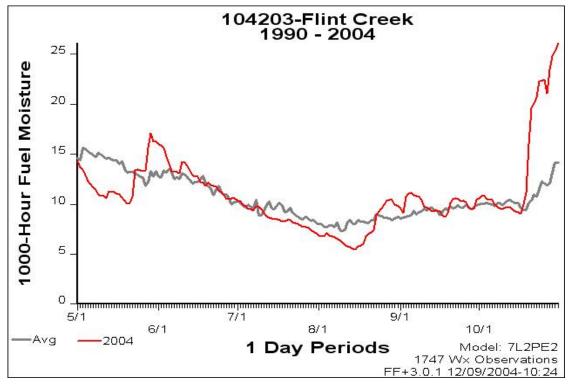


Figure 3.3(h) Observed and average 1000 Fuel Moisture at Flint Creek RAWS site, Fire Weather zone 413.

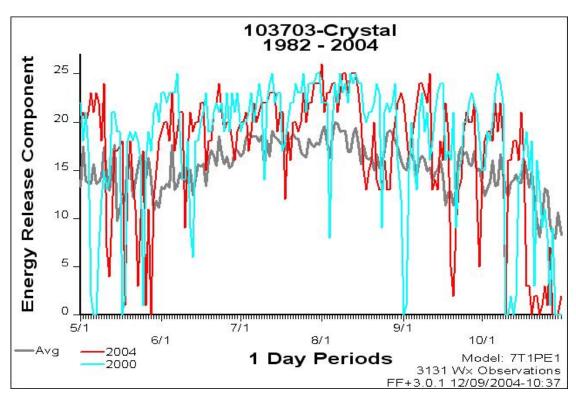


Figure 3.4 Calculated Energy Release Component at Crystal RAWS site, Fire Weather zone 410.

### 4. Office Operations:

### 4.1 Red Flag Verification

1. Formal verification of Red Flag Warnings in Southeast Idaho began with the 2000 fire season and is now a permanent part of the fire weather program. Verification is based on current Red Flag Warning and Fire Weather Watch criteria that has been coordinated with local land management agencies and published in the Great Basin Fire Weather Operating Plan. Current criteria for the Pocatello Fire Weather District are shown in paragraph 4.1.2 below.

Events considered "short fused" or having time lengths typically less than six hours (Dry Lightning) were split out from other events occurring over a longer time period, reference tables 4.1 (a-d) below.

### 2. Conditions that indicate a Red Flag Event:

Fire Weather Watches and Red Flag Warnings, are issued for conditions of <u>very high or extreme fire danger</u> (as determined by land management agencies) and <u>dry fuels</u>, in combination with one of the following:

- a. Widely scattered or greater (≥ 15% of aerial coverage) "dry" thunderstorm activity. A thunderstorm is considered "dry" if it produces little or no precipitation (< 0.10 inch).
- c. Winds gusts for any three or more hours  $\geq$  25 mph for Southeast Idaho Mountains,  $\geq$  30 mph for the Snake River Plain and relative humidity is  $\leq$  15 percent.
- d. In the judgment of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, passage of a cold front or a strong wind shift.

Red Flag criteria are developed from a local knowledge of fuel types, terrain, weather conditions common or unusual to the area, historical fire behavior, and judgment of the local land management agencies. Because the criteria for issuing Red Flag products can vary from one district to another, these verification results are3 not necessarily comparable with all other forecast offices.

### 3. Methodology:

Verification of Red Flag Warnings was conducted on a zone by zone basis. Example: If a warning for strong wind was issued for fire weather zones 409 and 410, but strong winds were observed only in zone 410, then this counts as two warnings, one that verified and one false alarm. Also, if strong winds were observed in zone 412, but no warning was issued, then this would be counted as one missed event.

Sources of verification included Remote Automated Weather Stations (RAWS), Meteorological Reporting Stations (METAR), lightning data, WSR-88D Doppler Weather Radar observed winds and estimated precipitation, volunteer weather spotter information such as heavy rain events, and reports of observed fire behavior from personnel in the field.

Local MESONET reporting networks maintained by Idaho Department of Transportation and the Idaho National Environmental Engineering Laboratory were not used as a source of verification for wind events during the 2004 fire season since there are differences in observing standards at these sites.

Statistical parameters were calculated as follows:

Probability of Detection POD = a/(a+c)Critical Success Index CSI = a/(a+b+c)False Alarm Rate FAR = 1-[a/(a+b)]

where

a = the number of correct warnings (verified)

b = the number of incorrect warnings (not verified)

c =the number of events not warned

### 4. Sources of error:

Red Flag criteria for wind events in the Great Basin were modified substantially based on interagency agreement set forth in the Great Basin Fire Weather Operating Plan for 2004. It was agreed to base the Red Flag criteria on a combination of relative humidity and peak wind gusts rather than sustained wind speed. This was done in an attempt to make Red Flag conditions more sensitive in mountainous regions where high sustained wind speeds are often not observed. Therefore, any inference of trends from verification results in past years is not possible.

Forecaster skill level and confidence may be substantially lower for peak wind gusts over sustained wind speed. Downward transport of momentum in the atmosphere, complex terrain, inversions of temperature lapse rate, variations in surface insolation owing to vegetative ground cover, reflectivity, absorption, and transmissivity of the atmosphere and the energy phase change of water in the atmosphere all impact the observed peak surface wind gust. Not all of these processes are sufficiently represented by available computer modeling and operational forecaster techniques.

Personal judgment was required to determine when "dry lightning" was more than an isolated event, and when thunderstorms with wetting rain were significant in areal coverage.

Field observation of fire behavior was an important indicator of Red Flag conditions. On days or in locations where there were no on-going fires this information was not available.

Both RAWS and METAR stations report instantaneous wind gusts, but the observing standards for height of the wind sensor can vary.

Skill and lead-time vary with the type of event.

### 5. Decision Criteria

Wind – If the wind at a single site met the Red Flag warning criteria then it was considered an event for the purpose of verification. There was no attempt to eliminate isolated canyon winds by requiring two or more observing sites within a zone to meet criteria.

Lightning – Archived lightning data was used to determine verification. A good deal of judgment was needed to determine if the observed lightning was more than an isolated event.

Wet versus dry thunderstorms – National Weather Service WSR-88D Doppler Weather Radar precipitation estimates and surface observations were used in the verification process. Once again a fair amount of judgment was required to determine which events qualified as "dry lightning" events. The number of reported fire starts is not a reliable indicator since lightning strikes can occur outside the thunderstorm precipitation shield striking drier fuels and a single thunderstorm can be long lived producing numerous strikes over some distance.

Other – Reports of observed fire behavior from personnel in the field continue to be useful when dealing with long-term drought conditions and days of reported low relative humidity. If sustained fire runs are observed but available observations do not necessarily support warning criteria the judgment would likely fall on the side of safety of life and property.

### 6. Results:

Red Flag Warning criteria were met on a total of 16 different days during this fire season in the Pocatello Fire Weather District. Fourteen of these days were the result of low relative humidity and gusty winds. There were 11 days when Red Flag Warning criteria were met somewhere in the Pocatello Fire Weather District without a warning in effect however, warnings may have been in effect in adjoining areas.

	May-June	July	August	September- October	Total
Total # of watches	0	0	4	0	4
Total # of warnings	0	0	11	7	18
Verified warnings that were preceded by a watch	0	0	3	0	3
Warnings verified (a)	0	0	8	6	14
Warnings not verified (b)	0	0	3	1	4
Events not warned (c)	0	0	11	8	19

Table 4.1(a). Combined synoptic (long term) and short fused Red Flag event products issued in the WFO Pocatello Fire Weather District during the 2004 season.

	May-June	July	August	September- October	Total
Total # of watches	0	0	0	0	0
Total # of warnings	0	0	4	7	11
Verified warnings that were preceded by a watch	0	0	0	0	0
Warnings verified (a)	0	0	4	6	10
Warnings not verified (b)	0	0	0	1	1
Events not warned (c)	0	0	11	8	19

Table 4.1(b). Synoptic scale Red Flag event products issued in the WFO Pocatello Fire Weather District during the 2004 season. Example cold fronts, low relative humidity, strong pressure gradient related winds.

	May-June	July	August	September- October	Total
Total # of watches	0	0	4	0	4
Total # of warnings	0	0	7	0	7
Verified warnings that were preceded by a watch	0	0	3	0	3
Warnings verified (a)	0	0	4	0	4
Warnings not verified (b)	0	0	3	0	3
Events not warned (c)	0	0	0	0	0

Table 4.1(c). Short fused Red Flag event products issued in the WFO Pocatello Fire Weather District during the 2004 season. Example: lightning events associated with "dry thunderstorms" and strong micro burst winds.

Red Flag verification resulted in the following:

	Synoptic Events	Short Fused Events (Dry Ligtning)	All Events
Probability of detection POD =	.34	1.00	.42
Critical success index CSI =	.33	.57	.38
False alarm rate FAR =	.09	.43	.22
Average lead time for Warnings =	0 hrs. 41 min.	6 hrs. 0 min.	1 hrs. 20 min.
Average lead time for verified watches =	0 hrs. 0 min.	18 hrs. 36 min.	4 hrs. 39 min.

Table 4.1(d). Combined synoptic (long term) and short fused Red Flag event products issued in the WFO Pocatello Fire Weather District during the 2004 season.

### 7. Implications:

A total of 18 (57 in 2003, 32 in 2002, 42 in 2001, and 111 in 2000) Red Flag Warnings were issued this season. Red Flag Warnings were in effect on a total of 16 days (13 in 2003, 8 in 2002, 14 in 2001, and 32 in 2000). Of the 16 days warnings were in effect this year 14 were the result of gusty winds and low relative humidity. This was a minimal fire

year evidenced by the low number of Spot forecasts for wild fires and the fact there were no Red Flag events during the months of May, June, July and October. The new Red Flag Warning criteria presented a forecast challenge for fire weather forecasters; however, the limited nature of the 2004 fire season did not allow an evaluation of the impact of the current wind gust and relative humidity criteria.

### **4.2 Spot Forecasts prepared by WFO Pocatello:**

Wildfires	49
Prescribed Fires	220
<u>Other</u>	0
Total	269

(Verbal telephone briefings = 23)

### Spot Forecasts for 2004 Total 269

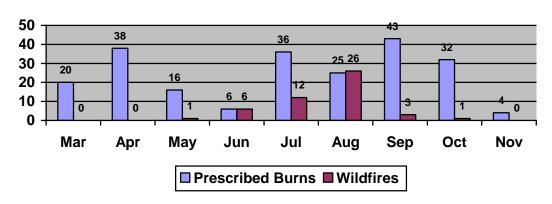


Figure 4.1. Spot Forecasts prepared by the Pocatello Fire District during the 2004 fire season.

### **Spot Requests by Dispatch Center**

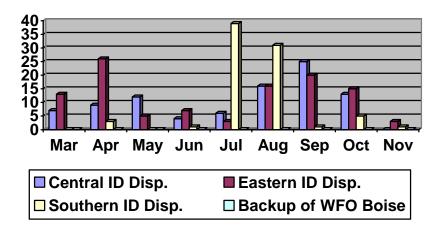


Figure 4.2. Spot Forecasts requested by dispatch area during the 2004 fire season in Southeast Idaho.

### **Historical Spot Forecasts**

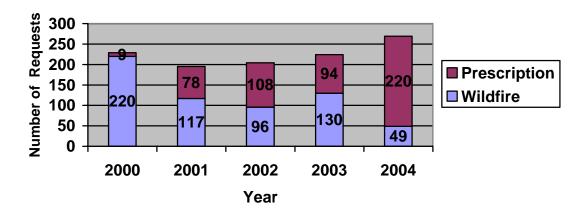


Figure 4.3. Historical trends in Spot Forecast requests for the Pocatello Fire Weather District.

4.3 Fire Dispatches Supported by WFO Pocatello: There were a total of two IMET dispatches resulting in 11 man days served out of the office.

Date	Dispatch Location	Incident Meteorologist
July 31 to August 5, 2004	Hawkins Fire, Dixie NF, near	Bob Survick
	Enterprise, Utah	
September 2 to September 6, 2004	Mail Draw Fire, Vernal District BLM, near Vernal, Utah	Jack Messick

Table 4.1. Incident Meteorologist Dispatches by WFO Pocatello

**4.4 Training:** WFO Pocatello staff participated in the following training courses during the 2004 season.

<u>Forecaster</u> <u>Training situation</u>

Jack Messick Instructor S-290 Intermediate Wildland Fire Behavior, June 2

through 4, 2004 held at the Eastern Idaho Technical College, Idaho

Falls, Idaho.

Bob Survick Instructor S-190 Introduction to Wildland Fire Behavior, June 7,

2004, hosted by the Sawtooth NF, and held at the College of

Southern Idaho, Twin Falls, Idaho.

Bob Survick Completed the I-200 Incident Command System Course July 21,

2004.

**4.5 Field Visits:** The staff at WFO Pocatello participated in two interagency meetings this year.

<u>Location</u> <u>Dates</u>

Great Basin Fire Weather

Operating Plan meeting held at

Salt Lake City, Utah

Pre-AOP Fire Weather

meeting held at Salt Lake City UT

February 10-12, 2004

October 26, 2004

Fire Weather Zone Realignment Meeting for the Jarbidge Resource Addition to the South Central Idaho

BLM area, held in Shoshone, Idaho

November 10, 2004