Stanley, Idaho

National Weather Service Information & Services Guide

Weather, Water & Climate

Pocatello Weather Forecast Office
Serving Eastern Idaho
Since 1895

Protecting Lives and Livelihoods, Property and the Environment from Weather & Water Hazards

2012 Edition

National Weather Service
Information & Services Guide

Weather, Water & Climate

The weather influences every aspect of our lives across Central and Eastern Idaho. Winters can vary from mild to harsh, sometimes within just days. Summers are often hot and dry, severe thunderstorms can take center stage, drop quarter-size hail and turn a slow-moving creek into a raging torrent. To live and work with such changing weather requires the best weather forecasting services available, which is what the National Weather Service in Pocatello provides.

The Pocatello Weather Forecast Office (WFO) has a staff of highly trained personnel who not only forecast the weather with expertise, but also live here. They understand what it is like to live with ever-changing weather conditions in a mountainous region. This personal experience makes them the experts so many of you have come to depend upon for your needs.

The purpose of the *National Weather Service Information & Services Guide* is to provide you with a brief description of the myriad of services available. Within the Information & Services Guide, you will find descriptions of National Weather Service (NWS) weather, water and climate products, NWS programs, weather safety information, contact information, a glossary and more.

With the Information & Services Guide at your fingertips, you will be ready for Idaho's weather, whatever the season.

TELEPHONE NUMBERS AND ADDRESSES

National Weather Service – Pocatello, Idaho

www.weather.gov/pocatello

1945 Beechcraft Avenue
Pocatello, ID 83204
Telephone:

Administrative Line (8am-4pm):	208-232-9306
Spotter Line (unlisted):	800-877-1937 ext.2
Pocatello Area Recorded Forecast and Public Information:	208-233-0137
Forecaster Line	208-233-0834
FAX:	208-233-2417

National Weather Service – Boise Idaho

www.weather.gov/boise

NIFC Building 3807
3833 S Development Ave
Boise, ID 83705
Telephone:

Administrative Line (8am-4pm):	208-334-9860
Boise Area Recorded Forecast:	208-342-6569
Forecaster Line	208-334-9508
FAX	208-334-1660

Northwest River Forecast Center

www.nwrfc.noaa.gov

5241 NE 122nd Avenue
Portland, OR 97230-1089
Telephone: 503-326-7401
FAX: 503-326-2598

Colorado Basin River Forecast Center

www.cbrfc.noaa.gov

2242 W North Temple
Salt Lake City, UT 84116
Telephone: 801-524-5130
FAX: 801-524-6341

National Climatic Data Center

www.ncdc.noaa.gov

Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Telephone: 828-271-4800
FAX: 828-271-4876

Western Regional Climatic Center

www.wrcc.dri.edu

2215 Raggio Parkway
Reno, NV 89512
Telephone: 775-674-7010
FAX: 775-674-7016

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No prior authorization is necessary

Please contact the NWS Pocatello for additional copies

Arbon Valley EF0 Tornado, April 28, 2003

NATIONAL WEATHER SERVICE: MISSION AND VISION

National Weather Service Mission

The National Weather Service (NWS) provides weather, hydrologic and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure, which can be used by other governmental agencies, the private sector, the public and the global community.

NWS Pocatello Weather Forecast Office Mission

Serving Central and Eastern Idaho with quality weather, water and climate forecasts using innovative techniques in a cost effective manner, to eliminate weather-related fatalities and property loss, protect the environment and improve the economic well being of our community.

NWS Core Values

Within the National Weather Service, a long tradition of service, science and technology come together to serve the American people. This tradition establishes the NWS core values of what is important, providing the context to guide growth.

The National Weather Service values:

- Service to our customers and partners
- Respect and trust of others
- Open exchange of information and ideas and the scientific approach to our mission
- High standards for integrity, teamwork and self-improvement
- A diverse, innovative and empowered workforce

WFO Pocatello, Idaho

NWS Vision

Working together to provide the best weather, water and climate information in the world by:

- Producing and delivering information you can trust when you need it
- Incorporating proven advances in science and technology
- Measuring, reporting, and evaluating our performance
- Reducing weather- and water-related fatalities
- Working with others to make the weather, water and climate enterprise more effective

Forecaster Collaboration

www.weather.gov/sp/

NATIONAL WEATHER SERVICE: A BRIEF HISTORY

Protecting Lives and Livelihoods, Property and the Environment from Weather and Water Hazards since 1870

National History

The weather has played an integral part in American lives from the country's beginnings with weather record keeping dating back to the settlers of the 1740s. Congress passed the Organic Act in 1870, developing the "Army Signal Service," the National Weather Service's first official title. The act authorized "*the Secretary of War to take observations at military stations and to warn of storms on the Great Lakes and the Atlantic and Gulf coasts.*" The Signal Service became the "Weather Bureau" when it moved to the Agriculture Department in 1891. Realizing the Weather Bureau played an important role for the aviation community, and thus commerce, President F. D. Roosevelt transferred the Weather Bureau to the Department of Commerce in 1940, where it remains today. The Weather Bureau name changed to the "National Weather Service" in 1970 and became an agency of the Commerce Department's newly created National Oceanic and Atmospheric Administration (NOAA).

Learn more about the NWS and NOAA online at

www.nws.noaa.gov/pa/history/index.php

Pocatello Weather Forecast Office History

The National Weather Service arrived in Eastern Idaho in 1895, with its first home in Idaho Falls and the main forecast office in Portland, Oregon. The office moved to Pocatello on July 1, 1899 for improved telegraph communications.

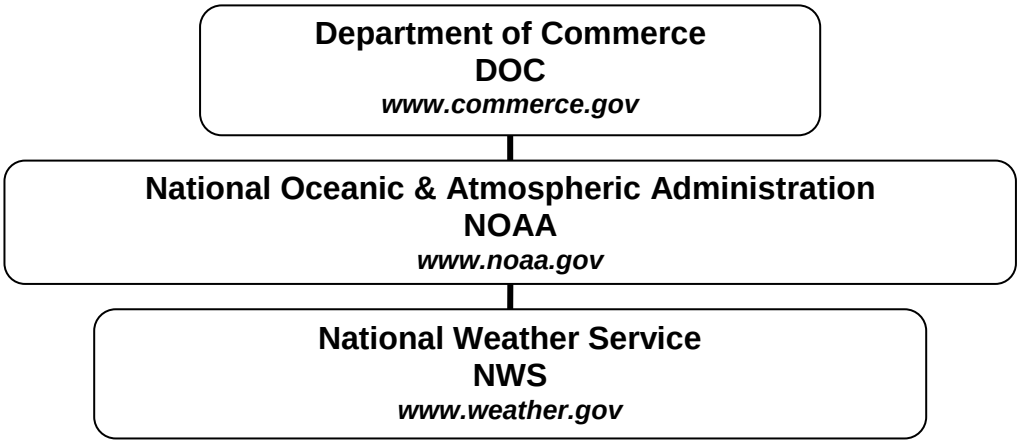
The initial Pocatello Weather Forecast Office (WFO) location was next to the railroad on Railroad Street in downtown Pocatello, then on the Cook block in 1901. The office then relocated to the Federal Post Office at Lewis and Arthur Streets in 1916. Military operations and a new airport encouraged the next move to McDougal Field in 1938. During 1949, another move took the office 2.5 miles west to the Pocatello Municipal Airport, where it has resided ever since. Most forecasts originated from the Boise office for the entire state for many years until the Pocatello WFO acquired full forecast and warning responsibility for Central and Eastern Idaho in 1999.

National Weather Service Today

The primary responsibility of the National Weather Service is to issue and disseminate hazardous weather and flood warnings to protect life and property and for the enhancement of the national economy. Professional meteorologists and hydrologists at 122 forecast offices and support centers initially support this important mission by analyzing satellite imagery, Doppler radar, observations and other weather and hydrological data. The results are numerous hydro-meteorological forecasts for the public and other interests, including the aviation and marine communities.

NATIONAL WEATHER SERVICE: AGENCY STRUCTURE

The National Weather Service (NWS) is a Federal agency under the National Oceanic and Atmospheric Administration (NOAA), which is an agency of the United States Department of Commerce (DOC).



The National Weather Service (NWS) is composed of six regions supporting 122 forecast offices across the United States, including Alaska, Guam, Hawaii and Puerto Rico. Weather Forecast Offices (WFOs) serving Idaho include Pocatello and Boise, Idaho, Missoula, Montana and Spokane, Washington. The Pocatello WFO maintains weather and hydrologic surveillance and forecasting responsibility for Central and Eastern Idaho.

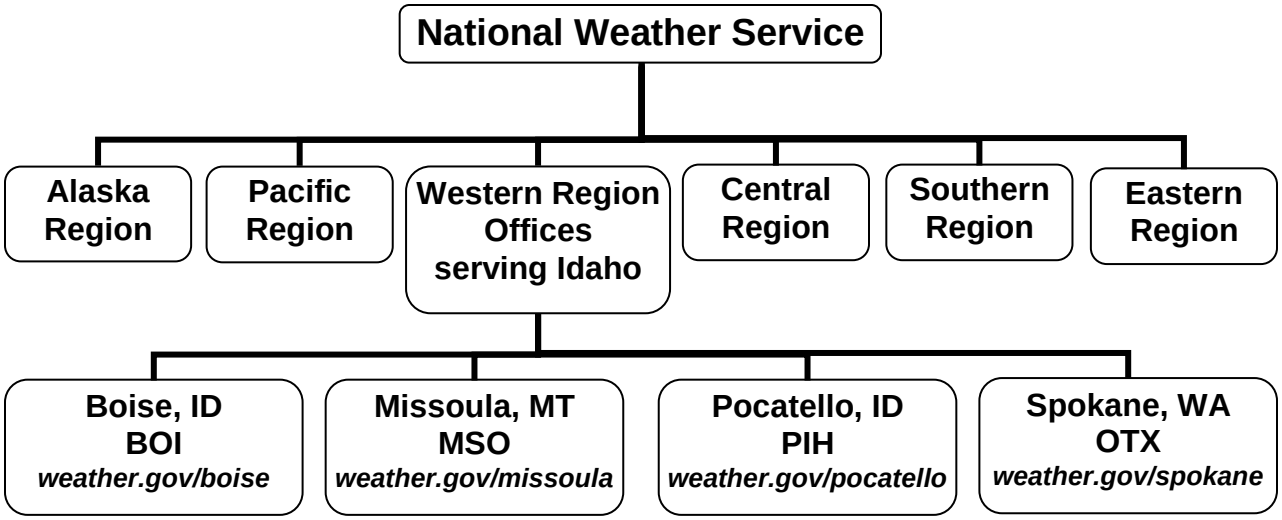


FIGURE 1. National Weather Service Weather Forecast Office Locations

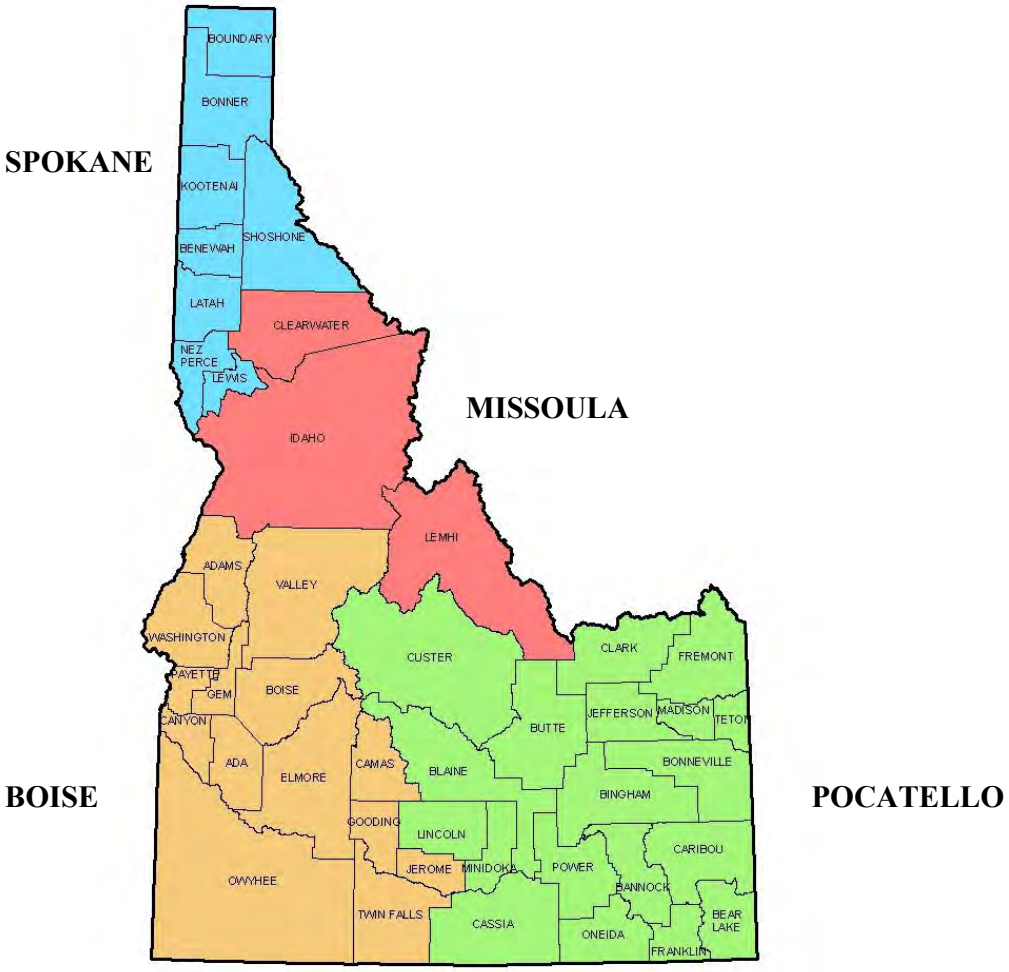


FIGURE 2. National Weather Service Weather Forecast Office Locations Serving Idaho

NWS WFO POCATELLO STAFF

The National Weather Service in Pocatello is here to serve and protect the people of Central and Eastern Idaho 24 hours a day, 365 days a year. The entire staff strives to serve the community and learn more about the weather that so greatly influences each of our lives everyday.

Management

Meteorologist-in-Charge	Rick Dittmann
Administrative Assistant	Karrie Schmidt

Program Leaders

Observation Program Leader	Gary Wicklund
Science and Operations Officer	Dean Hazen
Service Hydrologist	
Warning Coordination Meteorologist	Vernon Preston

Meteorological Forecasters

Dawn Harmon John Hinsberger Jeff Hedges

Mike Huston Greg Kaiser John Keyes

Jack Messick Bob Survick Dan Valle Travis Wyatt

Hydro-Meteorological Technicians

Paul Angel Dave Phelps

Electronics & Computers

Electronics Systems Analyst	Rick Stork
Information Technology Officer	Jeremy Schulz
Electronic Technician	Rich Denning
Electronic Technician	Bryan Tilly

PUBLIC SAFETY AND DECISION SUPPORT:

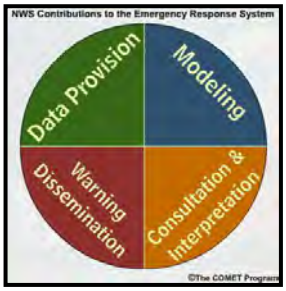
Better Decisions for America by Improving Forecaster-Provided Interpretive Services for Decision Makers

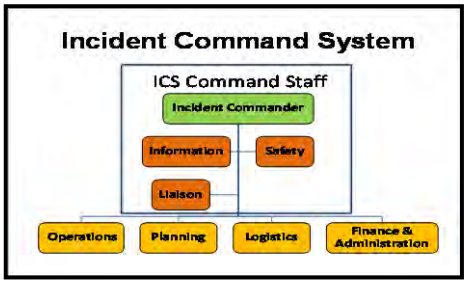
Since our inception, the National Weather Service has played an integral part in the daily decisions of American lives and livelihoods. Decision Support Services (DSS) has evolved over the years to now provide direct public safety support to Americans so they can make better daily decisions. DSS is a specific, mission-based, situational information support that includes our expert interpretation and explanation of weather and water hazards provided in formats and language our users understand.

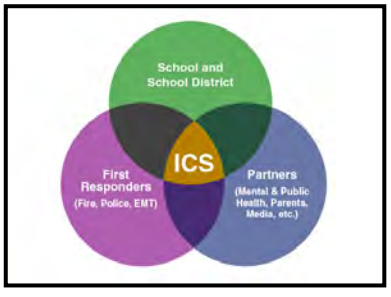
The over arching goal of DSS is enabling public and governmental decision-makers in making better choices by providing environmental data, forecasts and warnings, and expert collaboration through various communication technologies.

The future NWS will be focused on supporting high impact incidents where weather and water hazards are a factor.

FIGURE 3. The future NWS will focus on all aspects of decision support







WEATHER'S IMPACT ON SOCIETY

Weather, water and climate are woven into the fabric of society. They impact every day decisions down to the smallest level. The National Weather Service is focused on building relationships between the earth sciences and social sciences with the following objectives:

SAFER - (Societal Applications For Enhanced Readiness)

Vision: "Keeping America SAFER by understanding and integrating societal impacts into NWS products and services; to enhance public awareness and readiness associated with weather, water, and climate."

OBJECTIVES: To improve NWS decision support and mission delivery through the integration of social science principles, as applicable, into NWS products and services through:

- More fully understanding the impacts of weather, water, and climate on society
- Providing more effective products and services by incorporating information on societal effects
- Developing more effective products and services through an increased understanding of how society interprets and responds to information
- Providing more efficient delivery of products and services by understanding changes in society and more effectively communication through all media

Societal Impact Resources: (not all inclusive)

Weather and Society*Integrated Studies (WAS*IS)
www.sip.ucar.edu/wasis/

Social Science woven into Meteorology
www.evegruntfest.com/SSWIM/

Societal Impacts Program - National Center for Atmospheric Research
www.sip.ucar.edu/

Societal Impacts of Weather and Climate – NCAR / UCAR
www.ncar.ucar.edu/research/impacts/

Societal Aspects of Weather
www.sip.ucar.edu/socasp/

Societal Aspects of Weather – University of Colorado
http://sciencepolicy.colorado.edu/socasp/toc_img.html

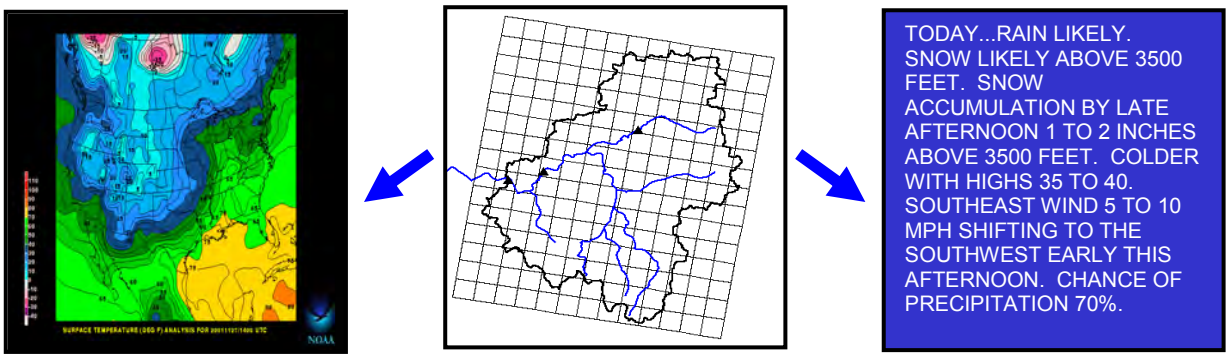
Natural Hazards Center
www.colorado.edu/hazards/

National Weather Association
www.nwas.org/committees/societalimpacts/

American Meteorological Society – Weather, Climate and Society Journal
www.ametsoc.org/

BUILDING YOUR FORECAST: ONE GRID AT A TIME

The NWS develops a baseline forecast grid set called the National Digital Forecast Database (NDFD). The NDFD contains a seamless mosaic of NWS digital forecasts from NWS field offices working in collaboration with the NWS National Centers for Environmental Prediction (NCEP). The database is available to all customers and partners to create a wide range of graphic and text products.



The digital database benefits are extensive and customers will find the NDFD a trustworthy source of information. The NDFD is current, with the exception of time-critical warnings disseminated within moments, such as tornado and flash flood warnings.

Any user with internet access may download current information from the NDFD to suit their needs. Examples of NDFD applications and products include:

- Decision support systems with forecasts designed for a specific situation
- Multi-lingual text products
- Weather information along a route, such as forecasts for a multi-state drive
- Forecasts for vehicles and hand-held devices with Global Positioning Systems (GPS)
- Controls for smart appliances (e.g., heating, cooling, irrigation)
- Mass media graphics
- Mobile weather alerts

http://www.weather.gov/ndfd/

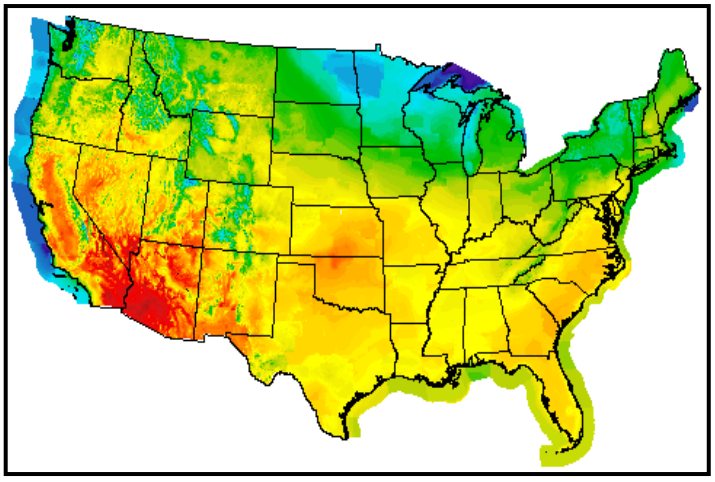


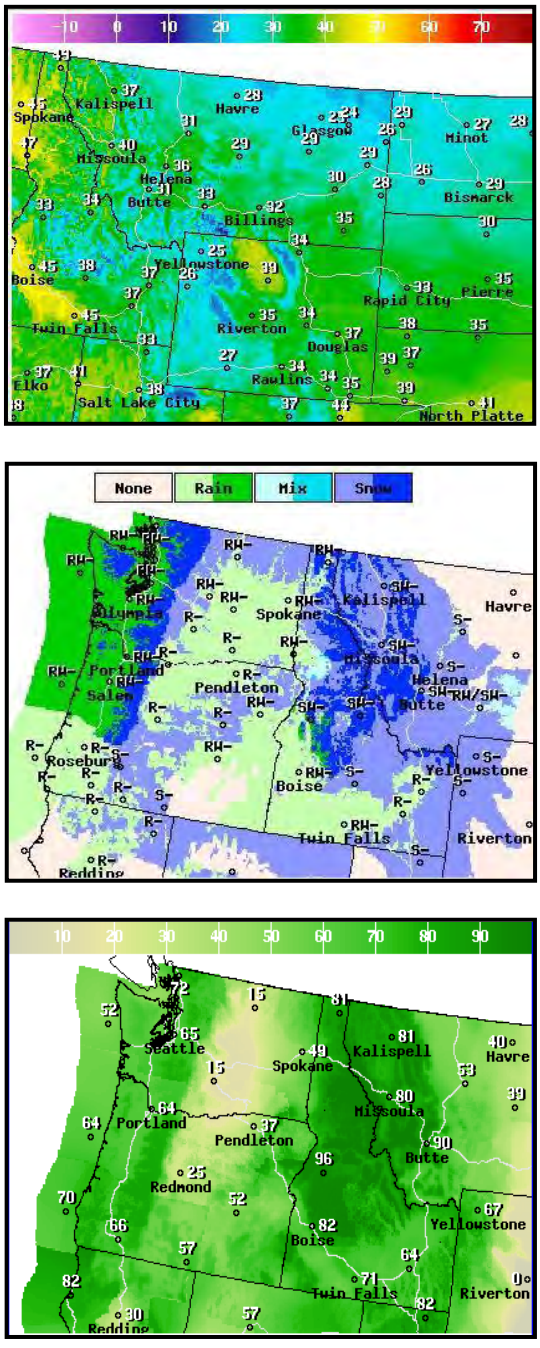
Figure 4. NDFD National Temperature Mosaic.

Graphical Forecasts

National Weather Service forecasts graphically represent a topographic distribution of the following weather variables available in daily, weekly and loop displays.

- Maximum and minimum temperatures
- Probability of precipitation
- Weather type
- Hourly temperature
- Wind speed and direction
- Dewpoint temperature
- Sky cover percent
- Forecast precipitation and snow depth totals
- Ocean wave height

For complete NDFD data, please visit:
www.weather.gov/forecasts/graphical



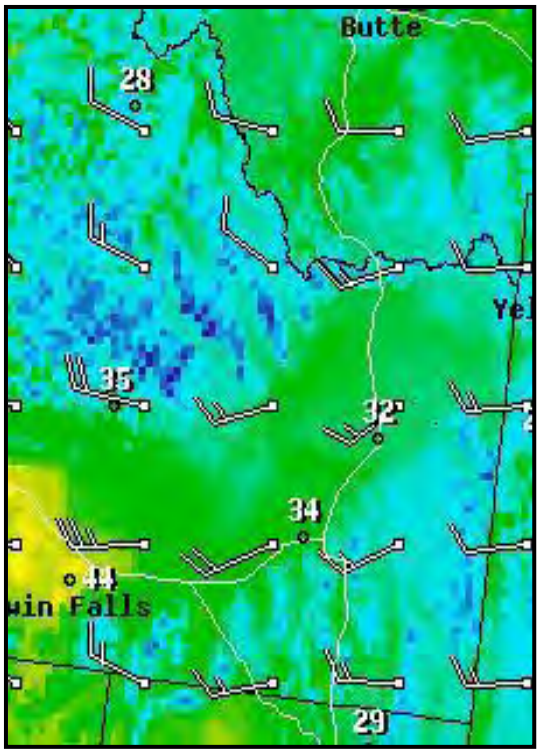


Figure 5. Graphical forecast products (clockwise from top left): Temperature, Wind Speed and Direction, Probability of Precipitation, Regional Weather Type.

Weather Forecasts To Live By

The NWS designs forecasts to help you plan your day or your week. As the highly trained staff of meteorologists and hydrometeorology technicians receives new information, they continually update and refine the forecast 24 hours a day. Meteorologists generate and issue detailed weather information out to seven days, known as the "Public Zone Forecast," at least four times daily, with main issuance times at 4:00 am, 10:30 am, 3:30 pm and 9:30 pm.

Point Forecast at a Glance – Your Primary Forecast

Clicking on the WFO map from our front web page will instantly present your request in both graphical and text formats, as shown below. This is our most geographically specific forecasts available which currently come in a 2.5 x 2.5 km grid box as shown in red on the map below.

www.weather.gov/pocatello

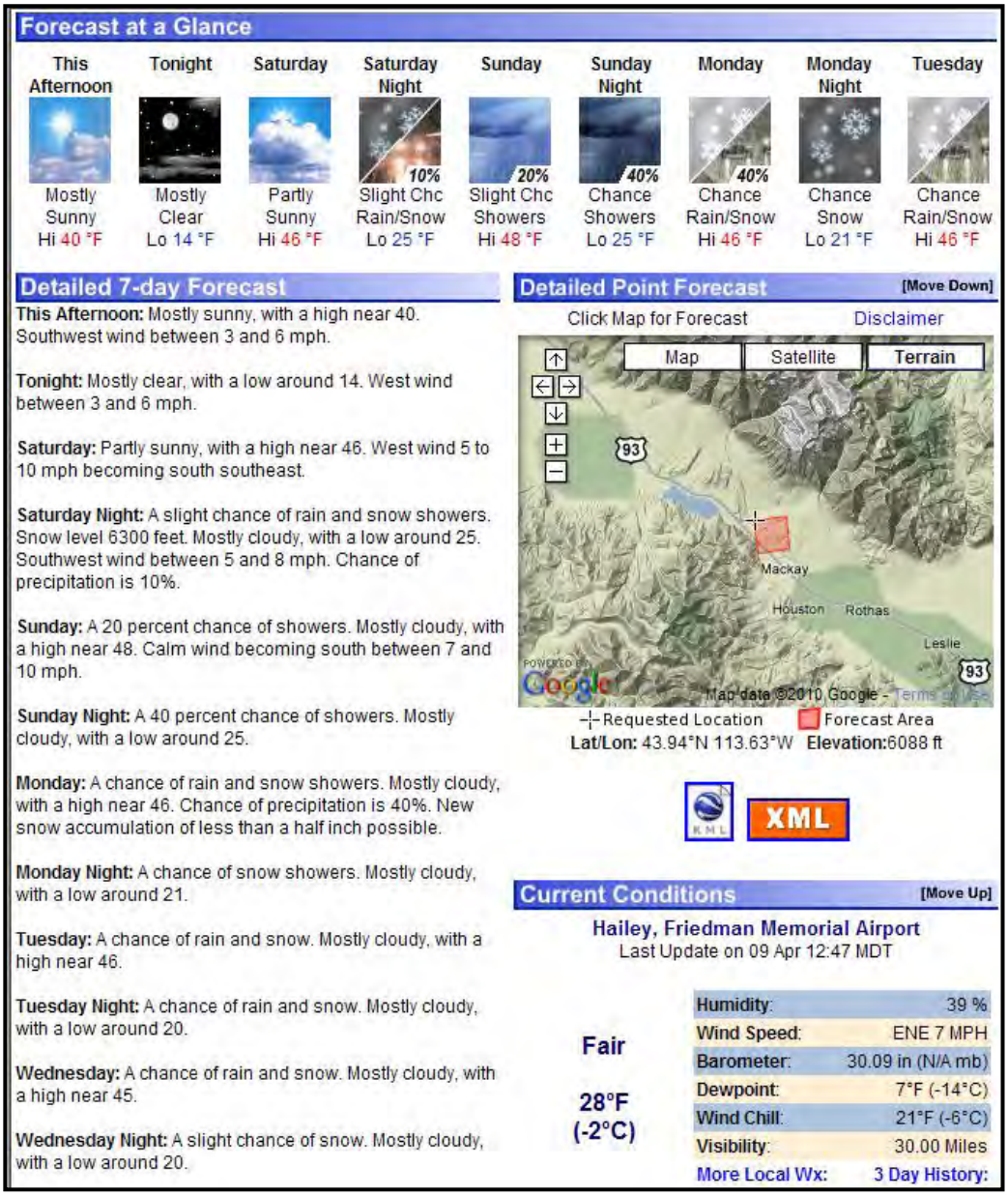


Figure 6. Point forecast at a glance.

Quick Forecast

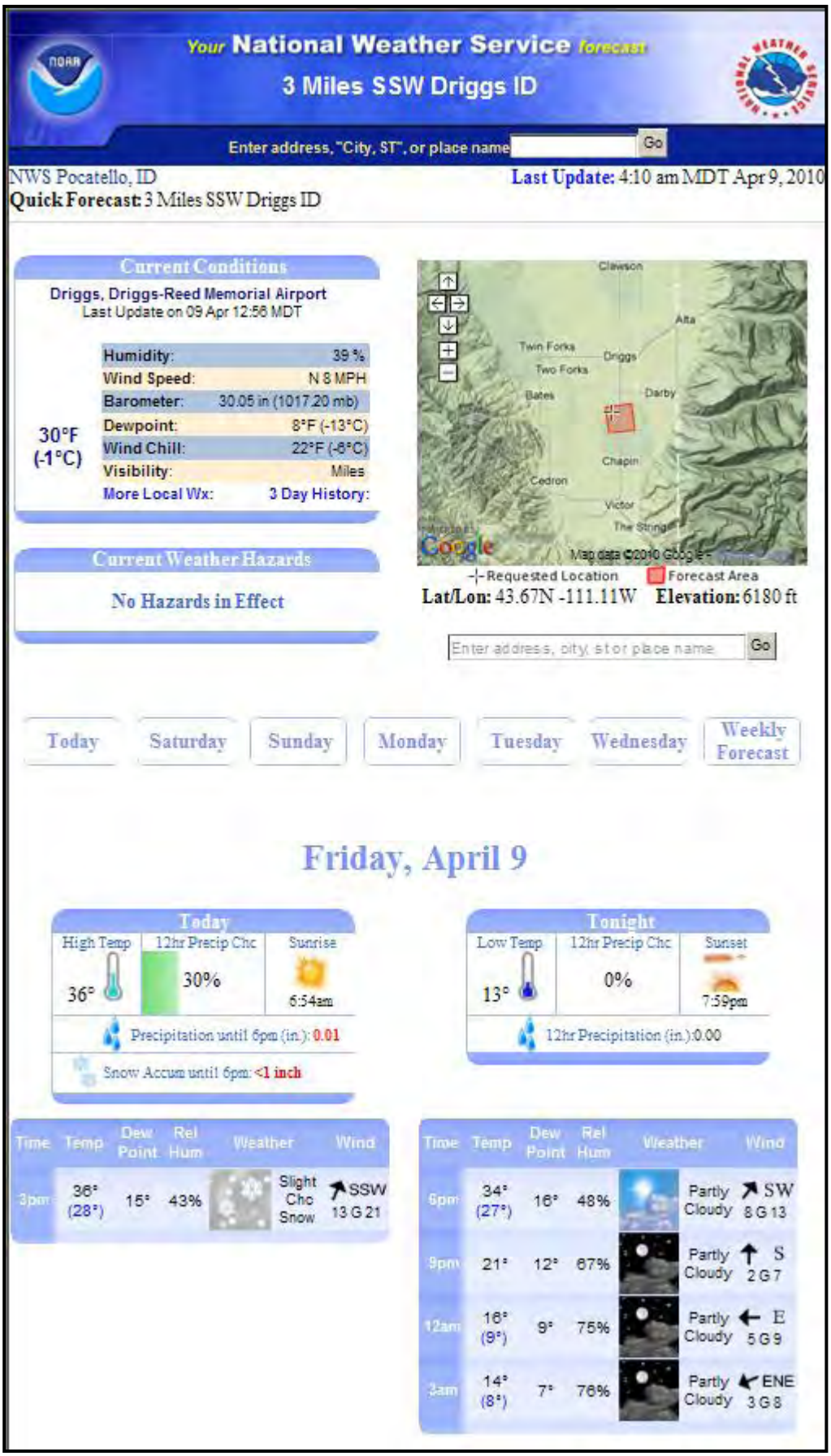


Figure 7. Quick Forecast at a Point.

Forecast Meteograms

The NDFD also allows you to display a forecast meteogram, which is a time series of weather data for a specific station. Learn more about Point Forecasts at

www.srh.weather.gov/srh/jetstream/webweather/pinpoint_max.htm

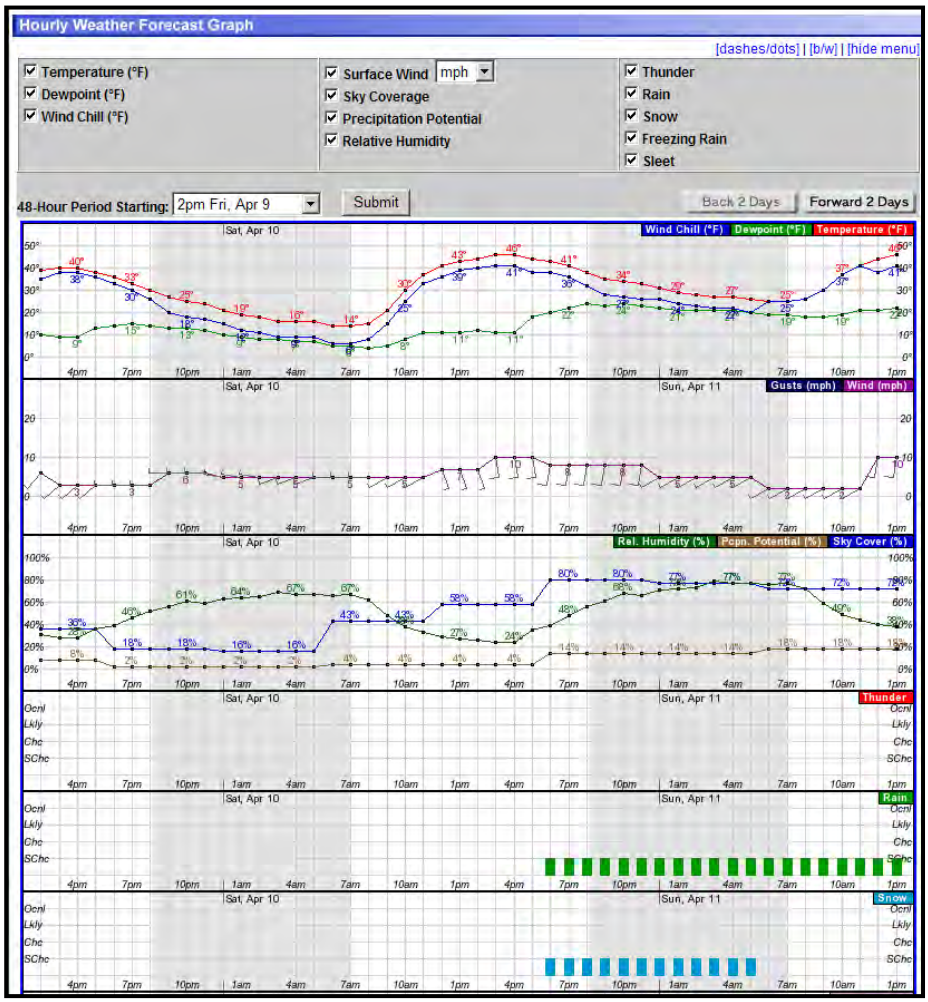


Figure 8. Hourly weather graphical forecast meteogram.

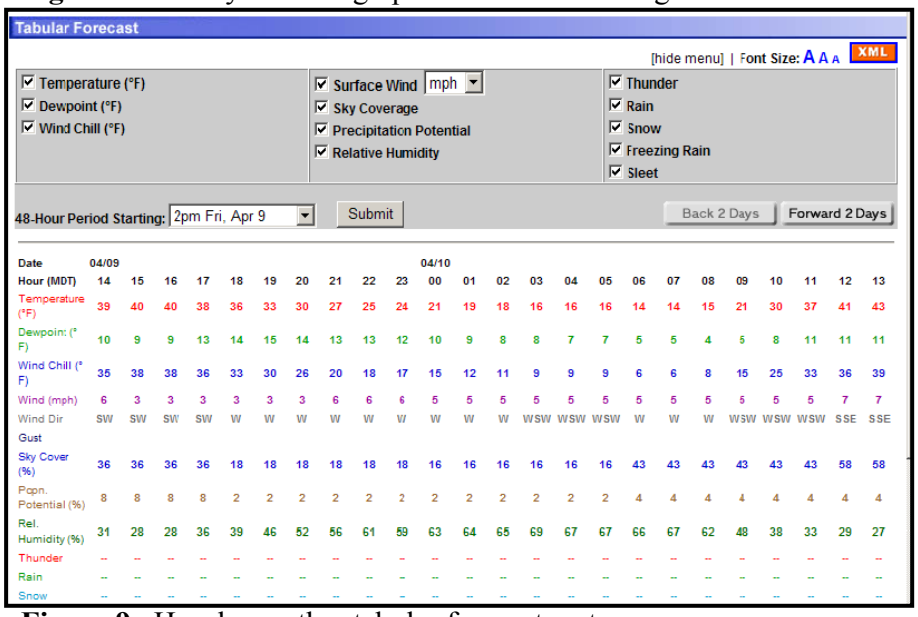


Figure 9. Hourly weather tabular forecast meteogram.

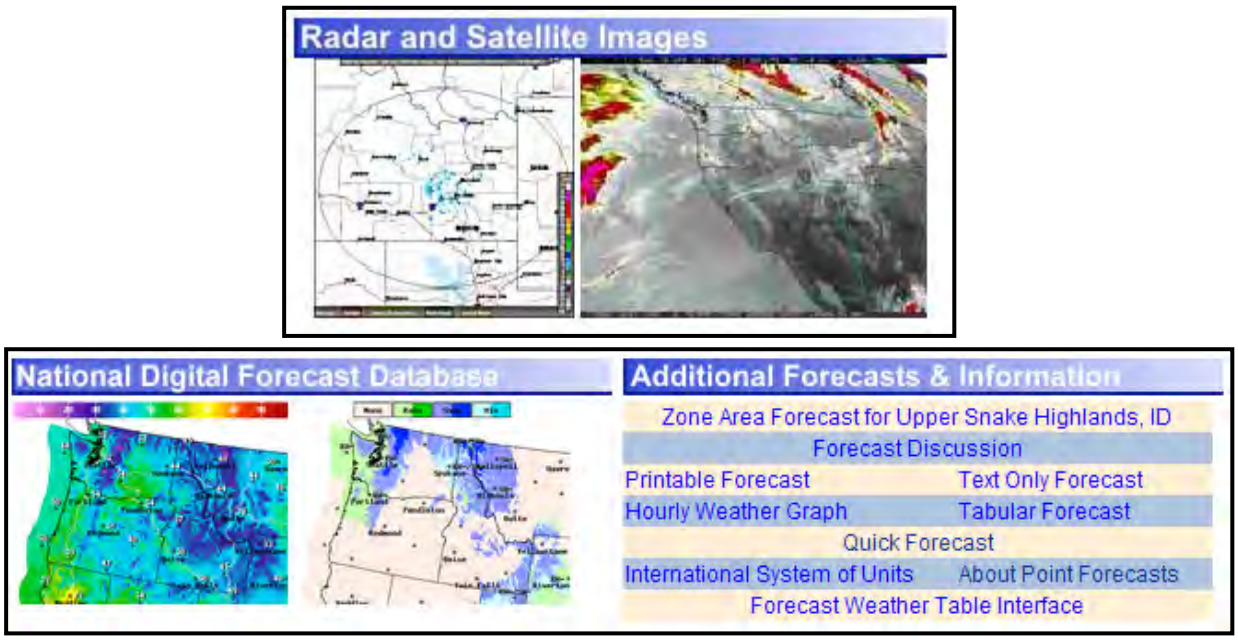
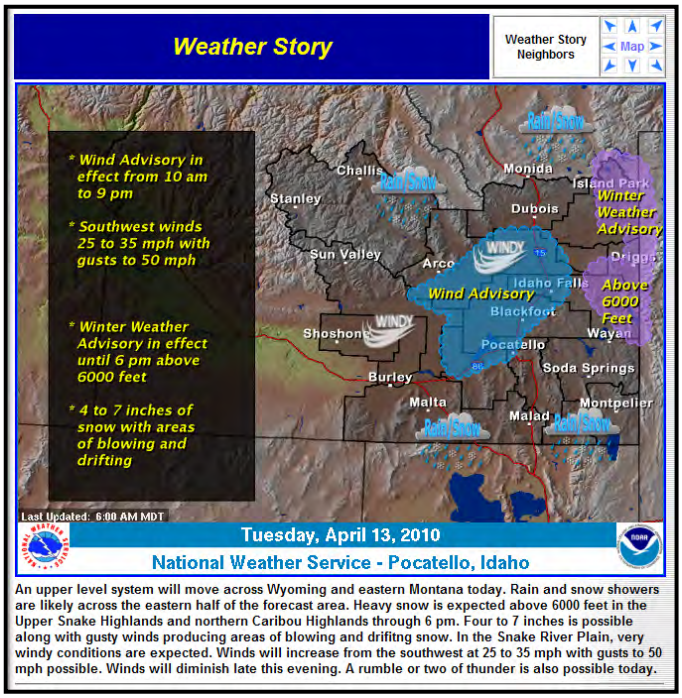
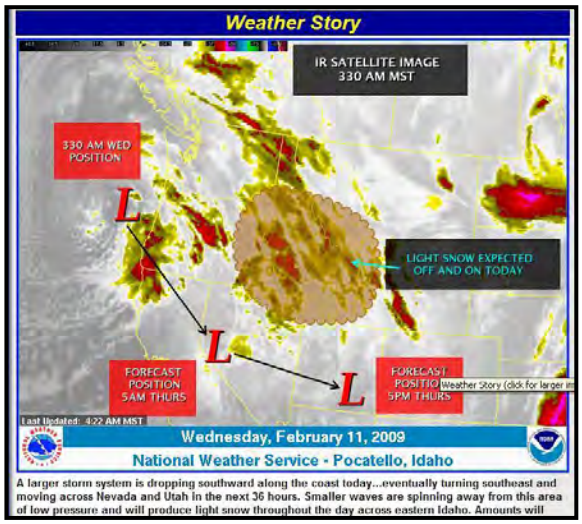


Figure 10. Additional Links to Radar, Satellite, NDFD Graphics, & Forecast Information

Weather Story

The weather story is designed to provide a snapshot of the developing weather across our region or emphasize special weather phenomena.





Weather Headlines

The NWS provide news and headlines on each of our web pages. They can be storm specific, informational or generalized in nature.

Weather Forecast Zones

The Pocatello office provides generalized forecasts for 11 zones in Central and Eastern Idaho, shown below. Please see the next page for a map of zone coverage across the entire state of Idaho. "Zones" are areas that represent similar geographic and/or climatological regions.

ZONE NAME	ZONE NUMBER
Eastern Magic Valley	17
Sawtooth Mountains	18
Upper Snake Highlands	19
Upper Snake River Plain	20
Lower Snake River Plain	21
South Central Highlands	22
Caribou Highlands	23
Cache Valley - Idaho Portion	24
Wasatch Mountains - Idaho Portion	25
Big and Little Wood River Region	31
Lost River / Pahsimeroi Region	32

Snow drift Teton County Idaho 2008

Microburst wind damage Redfish Lake, Custer County Idaho 2008

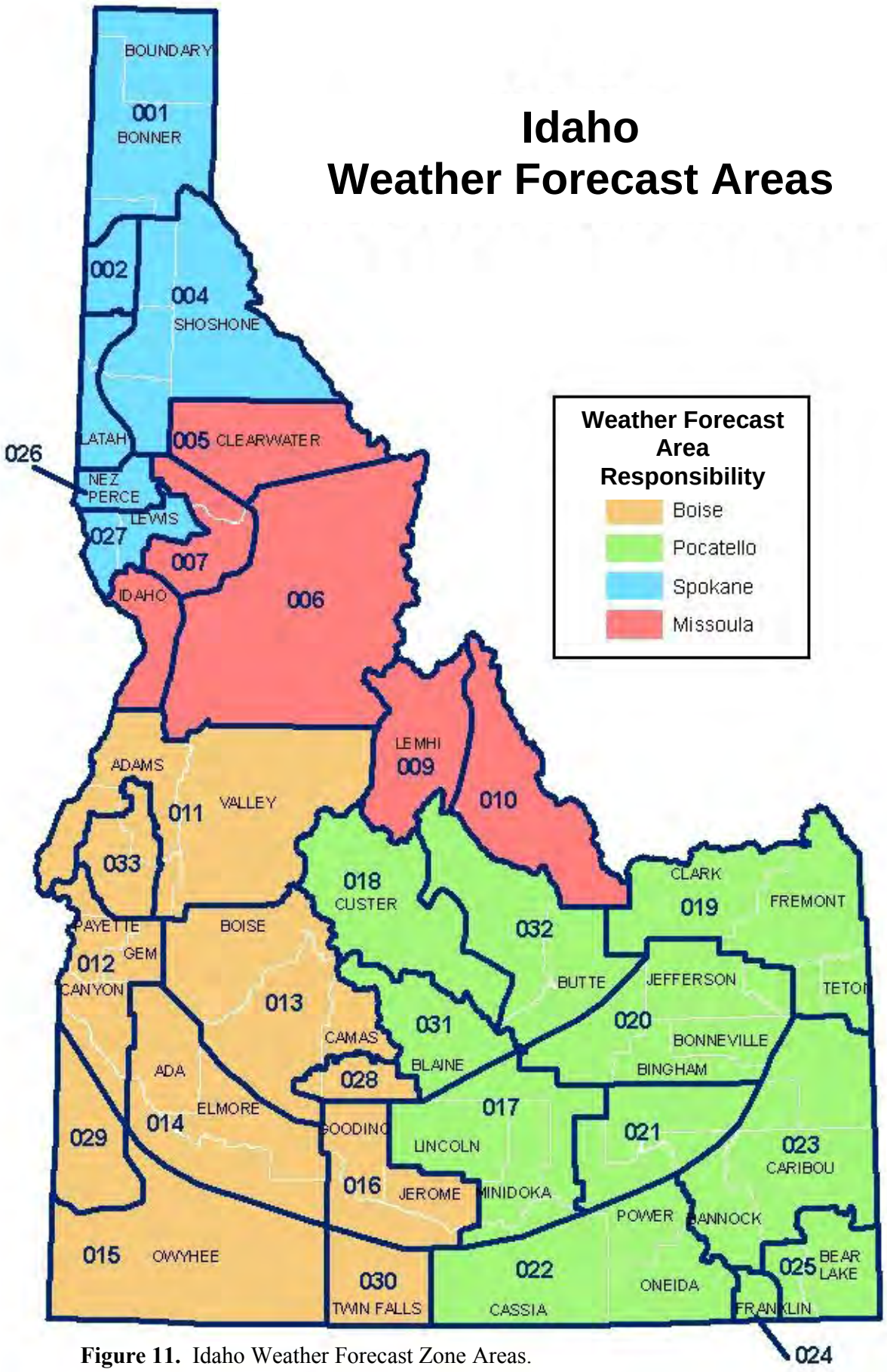


Figure 11. Idaho Weather Forecast Zone Areas.

UNDERSTANDING NWS FORECAST TERMS

Understanding the terminology behind weather forecasts is an integral part of decision-making. Below are common weather terms and their meanings.

Sky Condition

Sky condition describes the predominant/average sky condition based upon the amount of sky covered by opaque (not transparent) clouds.

Sky Condition	Percent of Cloud Cover
Clear or Sunny	5% or less
Mostly Clear or Mostly Sunny	6 to 25%
Partly Cloudy or Partly Sunny	26 to 60%
Mostly Cloudy or Considerable Cloudiness	61 to 87%
Cloudy	88 to 100%

Funnel Cloud near Leadore
Steve Wright 2009

Wind

Wind describes the prevailing direction from which the wind is blowing, with speed in miles per hour. The numbers may vary in other parts of the country due to variation in terrain and elevation.

Sustained Wind Speed	Descriptive Term
0 – 5 mph	Light, Light and Variable or Calm
5 – 20 mph	None used
15 – 25 mph	Breezy (mild weather), Brisk or Blustery (cold weather)
20 – 30 mph	Windy
30 – 40 mph	Very Windy
40 – 73 mph	Strong, Dangerous, Damaging or High Winds
74 mph or greater	Hurricane Force

Temperature

Forecast temperature describes the forecast maximum and minimum temperatures, or in some cases, the temperature expected at a specific time.

Description Examples	Range
Near 40	Approaching 40 or a range from 38 to 42
Around 85	Range of temperatures from 83 to 87
Lower 50s	Temperatures of 50 through 53
Middle 70s	Temperatures of 74 through 76
Upper 30s	Temperatures of 37 through 39
60s	Temperatures of 60 through 69

Flash Flooding south Pocatello 2009

Probability of Precipitation (PoP)

The Probability of Precipitation (PoP) is the likelihood of measurable precipitation (or water equivalent of frozen) precipitation falling during a specified period in the forecast area. Measurable precipitation is equal to or greater than 0.01 inch (0.2 mm) over a period of 12 hours, unless specified otherwise.

At times, NWS forecasters may use "occasional" or "periods of" to describe a precipitation event that has a high probability of occurrence, i.e., they expect any given location in a forecast area to most likely have precipitation, but it will be of an "on and off" nature.

PoP Percent	Expression of Uncertainty	Equivalent Areal Qualifier
10 – 20 %	Slight chance	Isolated
30 – 40 – 50 %	Chance	Scattered
60 – 70 %	Likely	Numerous
80 – 90 – 100 %	Rain/Snow etc.	Widespread

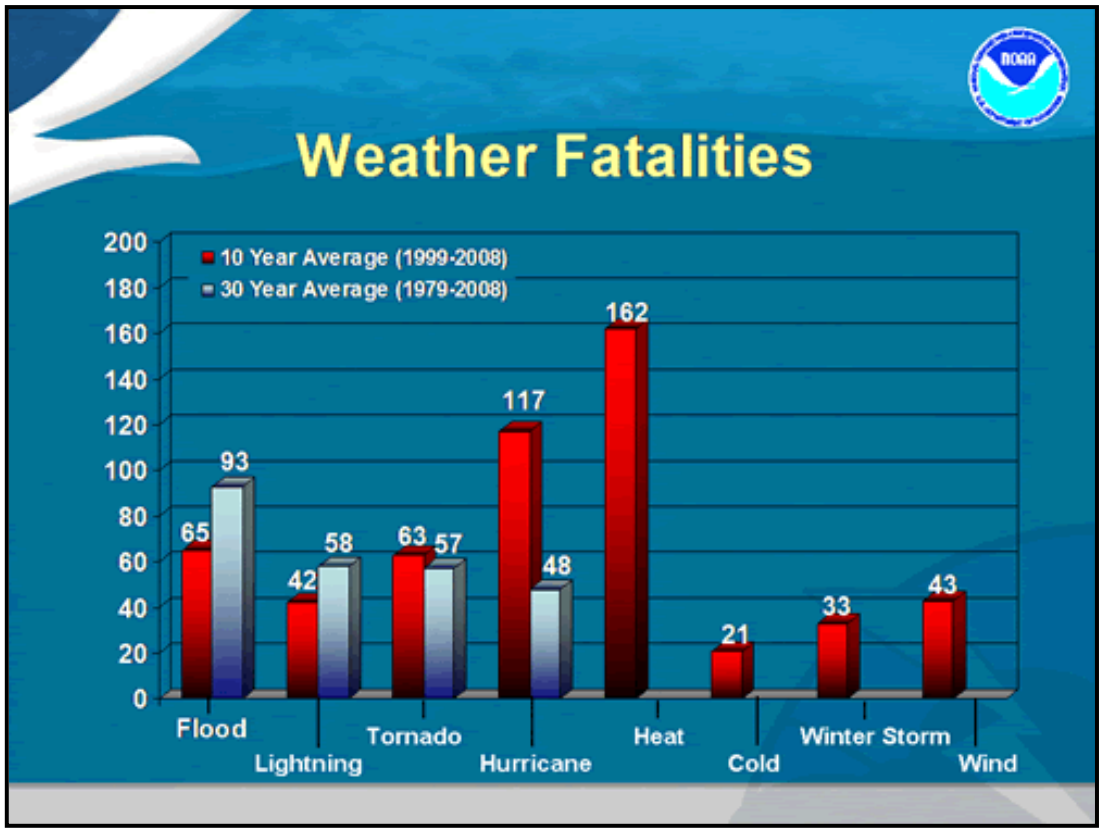


Figure 12. Weather-related fatalities and their causes. Data valid through 2008.

Wind Chill and Heat Index Tables

Wind chill describes the rate of heat loss from exposed skin due to the combined effect of wind and cold. As wind speed increases, heat is lost from the body at an accelerated rate, lowering the body temperature. A Wind Chill Table is a matrix that uses sustained wind speeds to determine wind chill. Dangerous wind chills (shaded area below) begin at -19°F (-29 C). Winds of more than 45 mph (39 kt; 20 m/s) add little to the chilling affect. Wind chill can also affect animals.

The heat index or the "Apparent Temperature" is a measure of how hot it feels due to the combined effects of air temperature and relative humidity (RH). A Heat Index Table is a matrix to determine the apparent temperature due to temperature and relative humidity. Heat-induced danger begins at 105°F (41 C) (shaded area below).

Wind Chill Table

Temperature (°F) vs. Wind (mph)

	35°	30°	20°	20°	15°	13°	5°	0°	-5°	-10°	-15°	-20°	-25°	-30°	-35°
Wind Chill Factor – Apparent Temperature															
5	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52
10	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59
15	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64
20	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68
25	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71
30	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73
35	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76
40	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78
45	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79

www.nws.noaa.gov/om/windchill/index.shtml

Heat Index Table

Relative Humidity (%) vs. Temperature (°F)

	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Heat Index Values – Apparent Temperature															
125°	123	131	141												
120°	116	123	130	139	148										
115°	111	115	120	127	135	143	151								
110°	105	108	112	117	123	130	137	143	150						
105°	100	102	105	109	113	118	123	129	135	142	149				
100°	95	97	99	101	104	107	110	115	120	126	132	138	144		
95°	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136
90°	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113
85°	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97
80°	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86
75°	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78

www.nws.noaa.gov/om/heat/index.shtml

SEVERE WEATHER AND FLOOD OPERATIONS

The National Weather Service mission is to provide timely and accurate weather and water watches, warnings, advisories and outlooks to protect lives and property. To accomplish this mission, the NWS relies not only on local expertise, but also on a variety of special severe weather centers specializing in convective storms, hurricanes, snowstorms, flooding and more. For more information on these centers, please visit the following web sites.

NOAA WATCH – All Hazards
www.noaawatch.gov

Nationwide Weather Watches, Warning and Advisories
www.weather.gov

National Severe Weather Centers
www.nws.noaa.gov/organization.html#hq

Severe Weather Safety & Preparedness
www.weather.gov/safety.php

Hailstorm Idaho Falls
Andy Jones 2009

Notification Technique

The NWS uses a notification system based on the increasing likelihood that a hazardous weather or water incident will occur. Starting with outlooks, then watches, and finishing with warnings and advisories, this approach provides the public with confidence that an incident is imminent or occurring in their location.

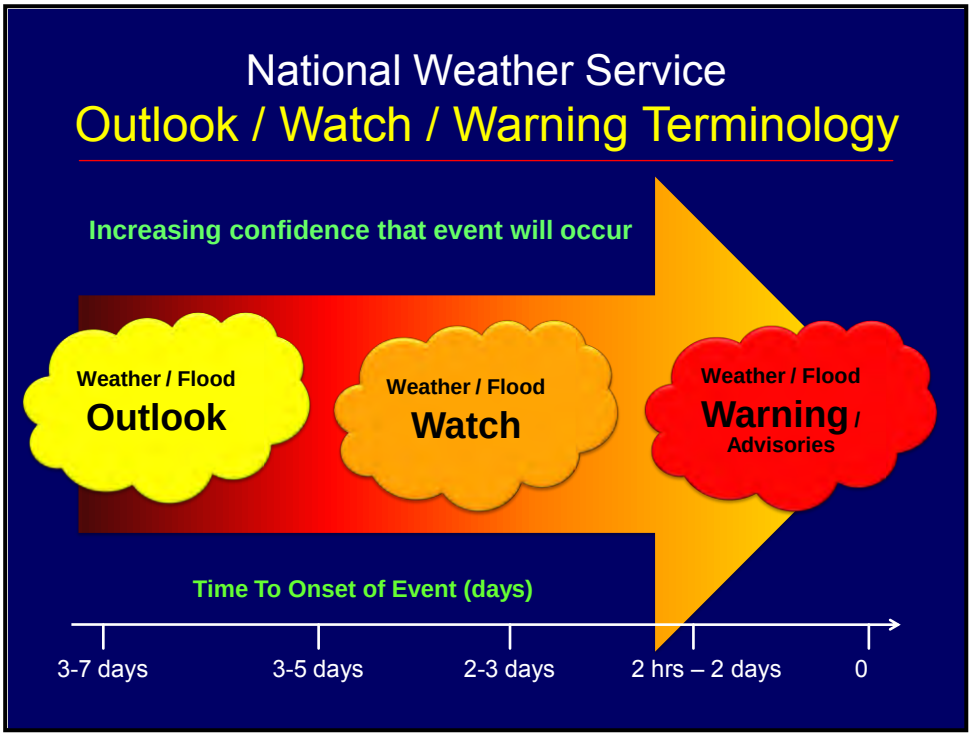


Figure 13. Outlook, Watch and Warning Notification Technique.

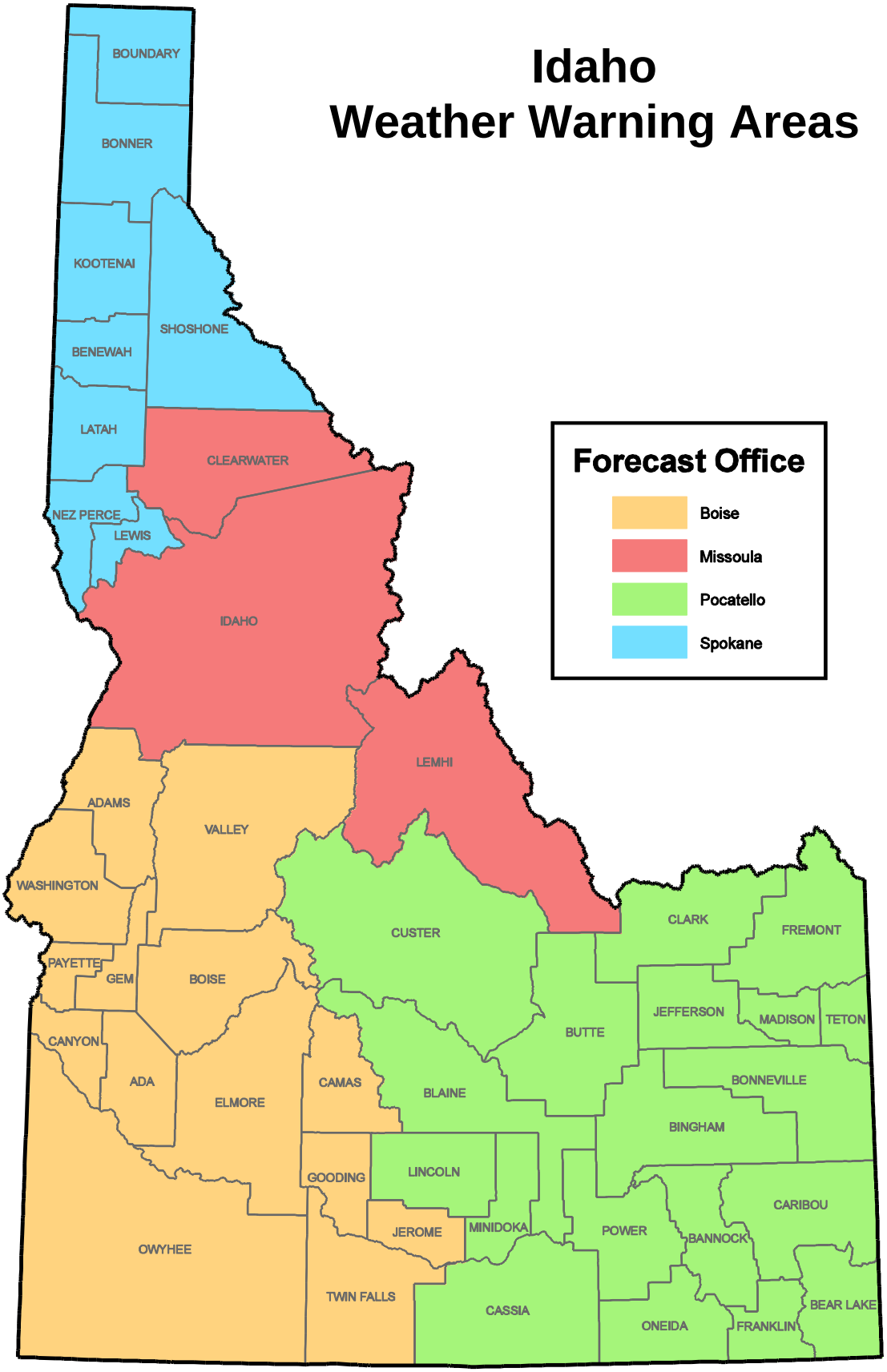


Figure 14. Idaho Weather Warning Area Responsibility

Severe Weather and Water Outlooks - "Get Ready"

The NWS issues outlooks for weather or water incidents that are expected to occur within the next seven-day period for conditions or an incident that could result in a hazard, yet too far in the future for a watch, advisory or warning. The intention of outlooks is to increase public awareness of a potential hazard or explain a special weather phenomenon that may affect lives and property.

OUTLOOKS	EXAMPLES
FLOOD POTENTIAL	Heavy precipitation and/or snowmelt that may produce flooding
HAZARDOUS WEATHER	High wind, blowing dust, dense fog, heat, cold, winter storm, freezing rain, volcanic ash, smoke

Hazardous Weather Outlook

The Hazardous Weather Outlook is a narrative statement produced by local NWS offices that provides information regarding the potential of expected significant weather during the next 1 to 7 days.

```
THIS HAZARDOUS WEATHER OUTLOOK IS FOR EASTERN IDAHO.

.DAY ONE...TODAY AND TONIGHT

THUNDERSTORMS THIS AFTERNOON AND EVENING MAY PRODUCE BRIEF GUSTY WINDS.  A RED
FLAG WARNING IS IN EFFECT FOR FIRE ZONES 409...410...412...AND 477 FOR LATE THIS
AFTERNOON AND TONIGHT DUE TO LIGHTNING.

.DAYS TWO THROUGH SEVEN...TUESDAY THROUGH SUNDAY

SCATTERED THUNDERSTORMS ARE EXPECTED ON TUESDAY AFTERNOON AND EVENING.  SOME OF
THESE THUNDERSTORMS MAY PRODUCE STRONG WINDS.  A RED FLAG WARNING
CONTINUES THROUGH TUESDAY EVENING DUE TO LIGHTNING.
```

National Hazards Assessment

The National Hazards Assessment provides advance notice of potential climate, weather and water hazards. The assessment integrates existing official NWS medium (3 to 5-day), extended (6 to 10-day) and long-range (monthly and seasonal) forecasts, outlooks, hydrological analyses and forecasts.

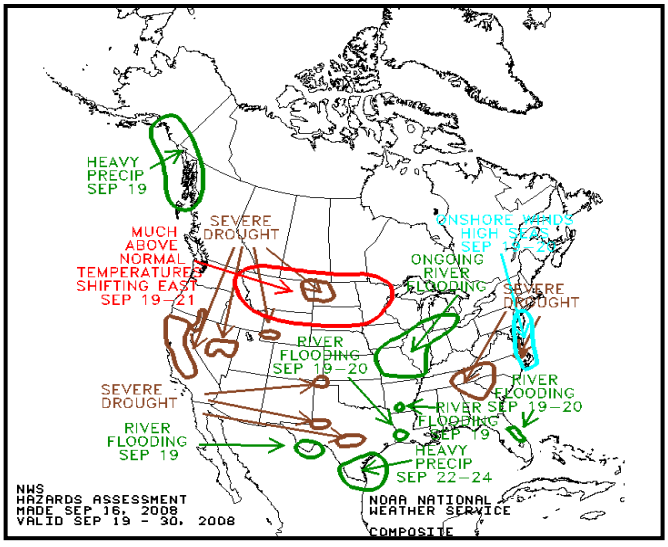
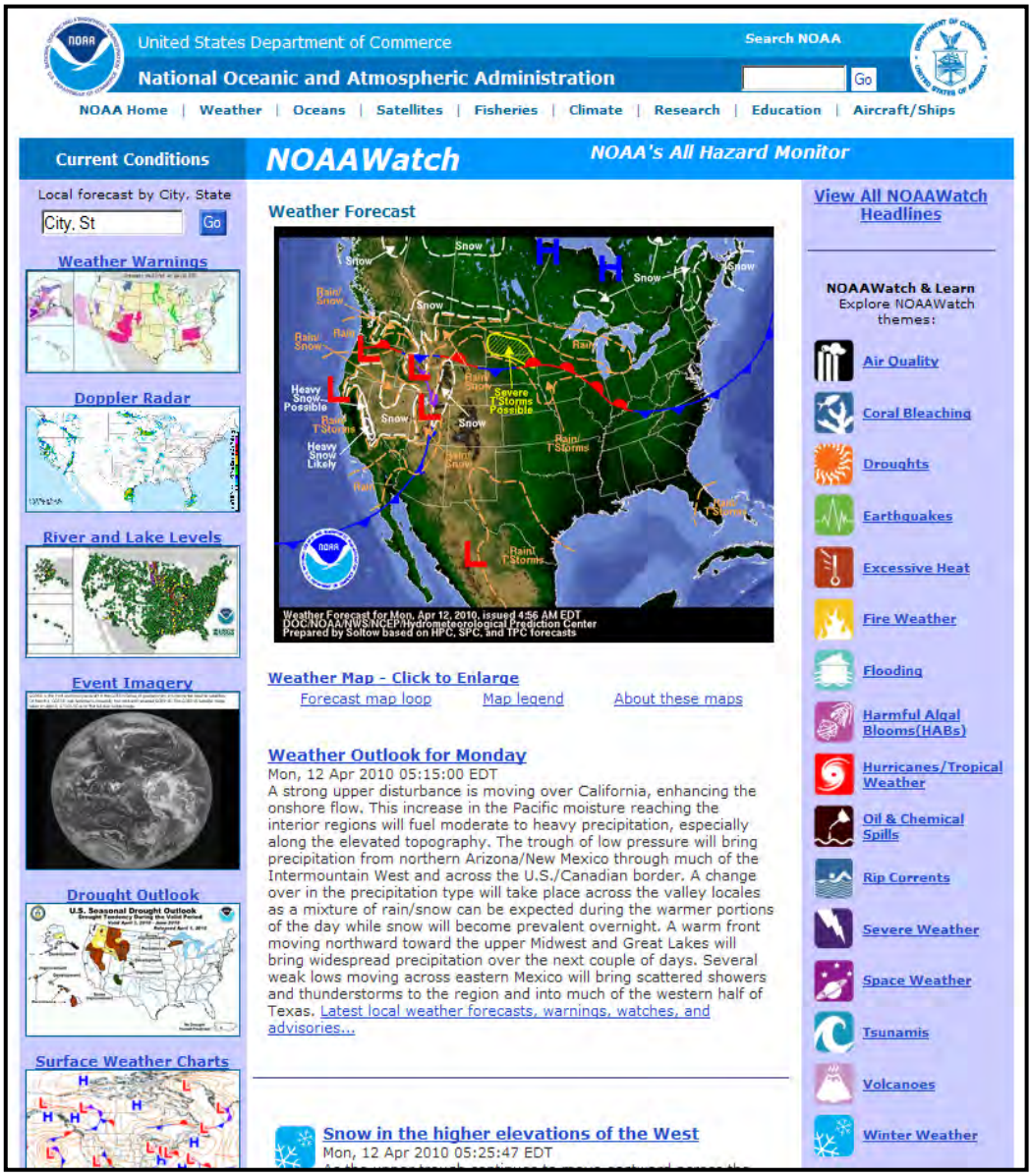


Figure 15. Weekly National Severe Weather Threats Map

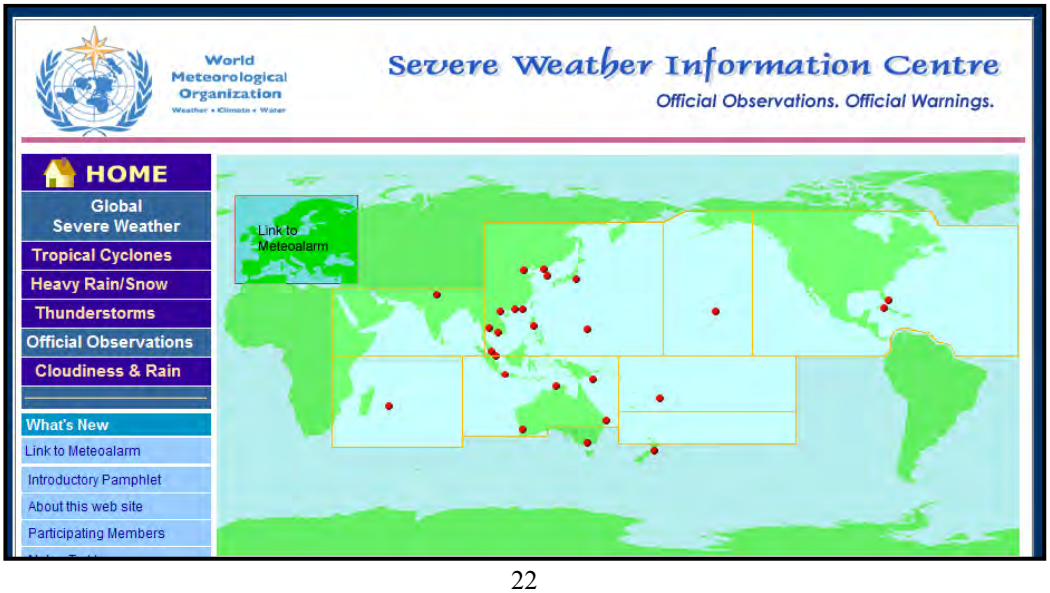
The Hazards Assessment is available on the internet at
www.cpc.ncep.noaa.gov/products/predictions/threats

WWW.NOAAWATCH.GOV



WORLD METEOROLOGICAL CENTER

severe.worldweather.wmo.int



Severe Weather and Water Watches - "Get Set"

The NWS issues watches 2 to 24 hours in advance of potentially hazardous weather or water incidents, allowing time to plan for the dangerous phenomena. Watches in winter may be issued up to five days before the onset of dangerous weather conditions. A watch indicates the risk of a hazardous weather or water incident has increased significantly, but its occurrence, location and/or timing is still uncertain. Normal activities may continue, however people should be aware of rapidly changing weather or water conditions. Many of our products are elevation based depending on the weather type.

WATCHES	CRITERIA
FLASH FLOOD	Potential for short duration, intense flooding resulting from torrential rain, dam or levee breaks or ice jams
FLOOD	Conditions are favorable for flooding, but the occurrence is not certain
FREEZE	Potential for widespread temperatures below 32°F (0°C) for a prolonged period during the growing season
HIGH WIND	Conditions are favorable for development of high winds, but timing and location are not certain
SEVERE THUNDERSTORM	Conditions are favorable for the development of thunderstorm winds of at least 58 mph (50 kts; 26 m/s) and/or hail 1 inch (2.54 cm) or larger
TORNADO	Conditions are favorable for tornadic development
WIND CHILL	Potential for dangerous wind chills below -20°F (-29°C)
WINTER STORM	Potential for a blizzard, heavy snowfall, ice storm and/or high winds

Convective & Hazardous Weather Services
The Storm Prediction Center (SPC) mission is to provide timely and accurate forecasts and watches for severe thunderstorms and tornadoes over the contiguous United States. The SPC also monitors and issues specific products for heavy rain or snow and fire weather incidents across the country. The SPC relays forecasts of organized severe weather as much as three days in advance while continually refining them until the incident has concluded. The SPC's specialized mission requires meteorologists with a high level of expertise in convective storm forecasting, as well as excessive precipitation, winter weather and conditions leading to high fire dangers. Historical records, educational materials and research on storms are available from the SPC website.

Storm Prediction Center
www.spc.noaa.gov

Daily Convective Outlooks
www.spc.noaa.gov/products/outlook

Mesoscale Discussions
www.spc.noaa.gov/products/md

Current Convective Watches
www.spc.noaa.gov/products/watch

Watch, Warning, Advisory Display
www.spc.noaa.gov/products/wwa

NOAA Watch
www.noaawatch.gov

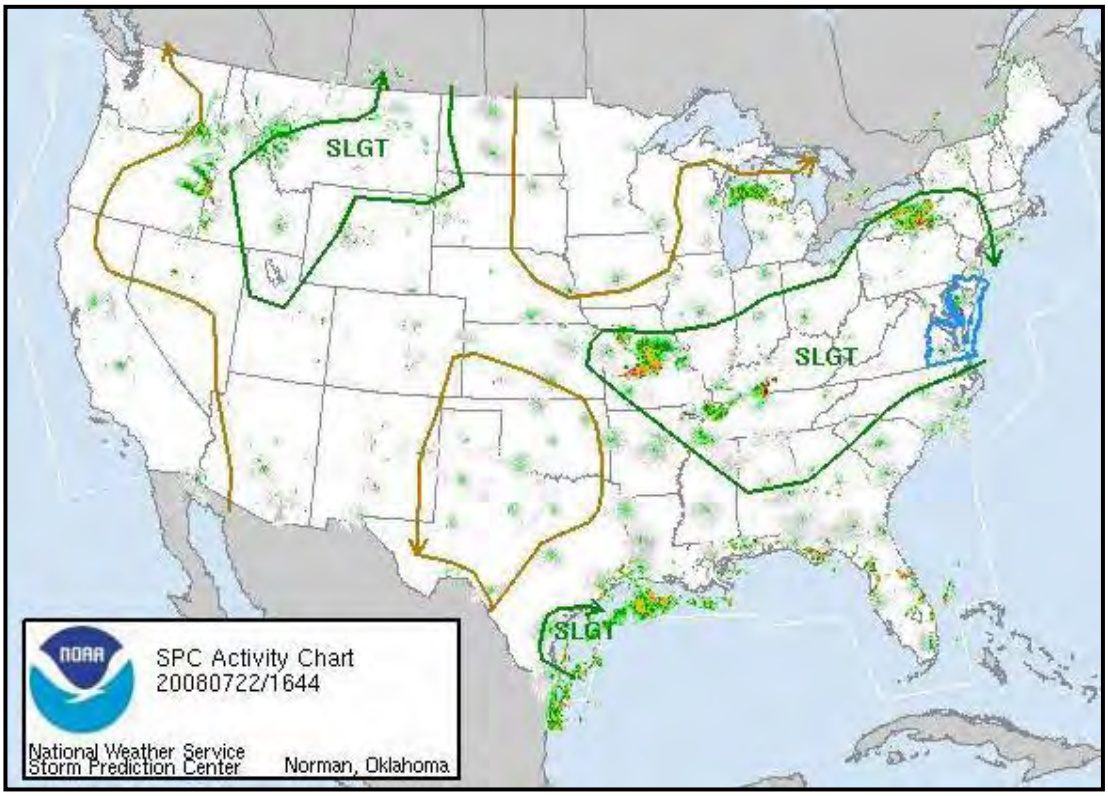


Figure 16. SPC Convective Risk Area Map combined with current Severe Weather Watches and radar imagery.

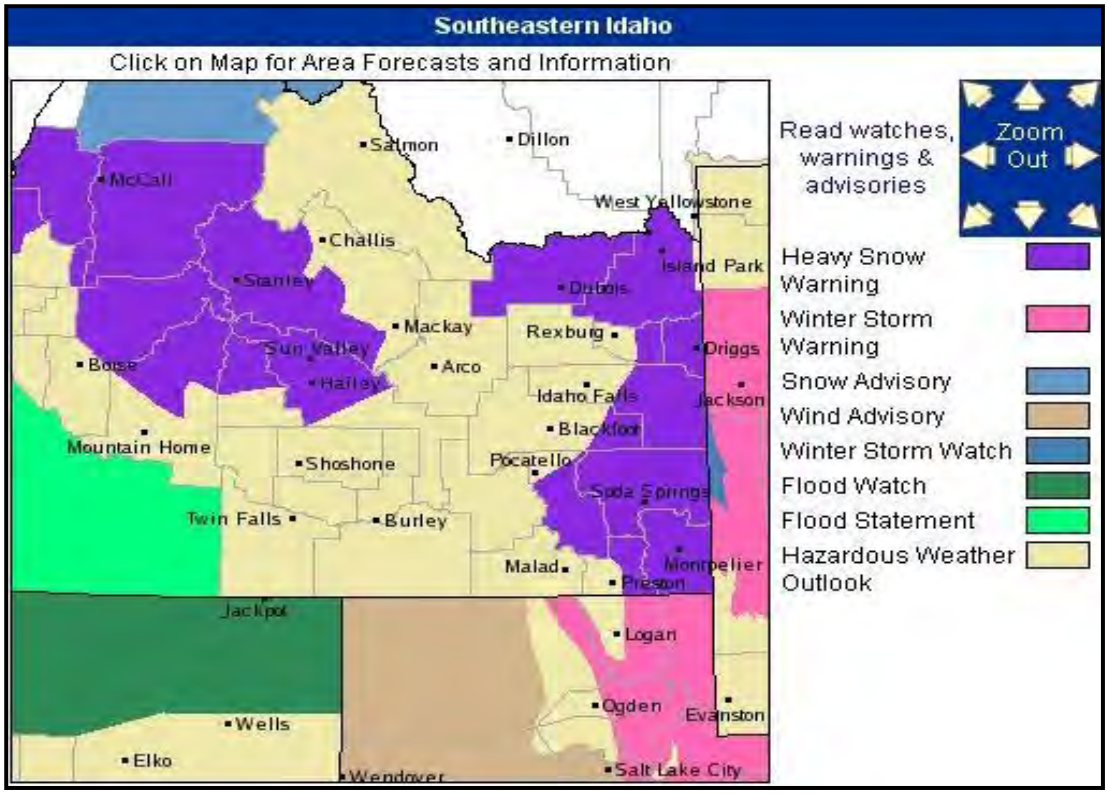


Figure 17. NWS Pocatello internet "real-time" hazardous weather map.

Severe Weather and Water Warnings - "Go"

When severe weather or water incidents threaten, forecasters issue short-term warnings regarding potentially life and/or property threatening incidents that are occurring or imminent. The NWS will also issue warnings when extreme economic hardships due to weather or water hazards are occurring or imminent. Warnings should trigger implementation of protection plans immediately.

WARNINGS	CRITERIA
BLIZZARD	Winds 35 mph (30 kts; 16 m/s) AND falling and/or blowing snow reducing visibility to less than 1/4 mile (0.4 km) for at least two hours
DUST	Sustained winds of 30 mph (26 kts; 13 m/s) or greater with frequent visibilities 1/4 mile (0.4 km) or less for at least one hour. May be widespread or localized
FLASH FLOOD	Short duration (less than six hours), intense flooding resulting from torrential rain, dam or levee breaks, or ice jams
FLOOD	Longer, more gradual flooding often after many hours of excessive rainfall and/or during spring snowmelt runoff
FREEZE	Issued May 1 to Oct 15 when temperatures expected to be 28ºF to 32ºF (-2°C to 0°C) in Snake River Valley. Hard Freeze is below 28ºF (-2°C)
FREEZING RAIN OR ICE STORM	Freezing rain incident resulting in significant, widespread and possibly damaging accumulations of ice greater than ¼ inch (6 mm)
HIGH WIND	Sustained wind speeds of 40 mph (35 kts; 18 m/s) or greater and/or minimum gust speeds of 58 mph (50 kts; 26 m/s) or greater for at least one hour Impacts can include but not limited to damage, road & business closures and/or widespread power outages
SEVERE THUNDERSTORM	Thunderstorm winds 58 mph (50 kts; 26 m/s) and/or hail 1 inch (2.54 cm) or greater
TORNADO	Tornado – rotating column of air from a thunderstorm touching the ground
WIND CHILL	-20ºF (-29°C) or lower with wind speeds 10 mph (9 kts; 4.5 m/s) or greater lasting for at least one hour below 7,000 feet
WINTER STORM	Snowfall, reduced visibilities, drifting snow and windy conditions and can include snow amounts in the Snake River Valley of 6 inches (15 cm) or greater and in the mountain 10 inches (25 cm) or greater in 24 hours or per incident. Impacts can include but are not limited to road closures, business & school closures, numerous accidents, and widespread power outages. Sleet Criteria: accumulation of 3/4 inch (2 cm) or greater

Weather and Water Advisories - "Go"

Advisories highlight special weather conditions that are less serious than a warning. They are for incidents that may cause significant inconvenience, and if not exercising caution, could lead to a threatening situation.

ADVISORIES	CRITERIA
AIR QUALITY	Prolonged strong inversions that affect air quality issued by the Idaho Department of Environmental Quality (DEQ)
BLOWING DUST	Sustained Winds 25 to 34 mph (22 to 29 kts; 11 to 15 m/s) with occasional visibilities 1/4 mile (0.4 km) or less for at least one hour; Can be widespread or localized
BLOWING SNOW	No Snow is Falling; Sustained Winds 25 to 34 mph (22 to 29 kts; 11 to 15 m/s) with occasional visibilities 1/4 mile (0.4 km) or less for at least one hour; Can be widespread or localized
DENSE FOG	Widespread or localized visibilities reduced to less than ¼ mile (0.4 km) because of fog expected to cause a travel hazard for at least 1 hour
FREEZING FOG	Fog which freezes upon contact with exposed objects and forms a coating of ice creating hazardous travel conditions for at least 1 hour and can be widespread or localized. No visibility criteria. Temperatures below 32 ^{o} F
DENSE SMOKE	Visibilities 1/4 mile (0.4 km) or less and/or smoke expected to cause travel hazards for at least one hour and can be widespread or localized
FREEZING RAIN/DRIZZLE	Freezing rain incident resulting in light accumulations making sidewalks and roadways slippery, less than ¼ inch (6 mm) accumulation
FROST	Frost occurs as a result of radiational cooling when temperatures are around 32ºF to 36ºF (0°C to 2°C) during growing season of May 1 to Oct 15 below 7,000 feet
LAKE WIND ADVISORY American Falls Reservoir only	Non-thunderstorm sustained winds from SSW-W 20-29 mph (17 to 25 kts; 9 to 13 m/s); or from NNE-ENE 12-29 mph (10-25kts; 4 to 13 m/s) likely or occurring and expected to continue for at least 2 hours over the reservoir.
WIND	Non-convective sustained winds 30 to 39 mph (26-34 kts; 13 to 17 m/s) and/or gusts 45 to 57 mph (39 to 49 kts; 20 to 25.5 m/s) likely or occurring and expected to continue for at least 3 hours over a widespread area below 7,000 feet
WINTER WEATHER	Winter weather situations less severe than warning criteria, but will cause inconvenience including: Snowfall, reduced visibilities, drifting snow and windy conditions and can include snow amounts in the Snake River Valley up to 6 inches(15 cm) and in the mountain up to 10 inches (25cm) in 24 hours or per incident.

WINTER WEATHER (Continued)	**Impacts** can include but are not limited to isolated secondary road closures or business closures, moderate to difficult travel conditions. Sleet Criteria**:** accumulation less than 3/4 inch (2 cm) Snow and Blowing Snow Criteria**:** Snow is Falling; winds up to 25 mph (22 kts; 11 m/s)
URBAN AND/OR SMALL STREAM FLOOD	Localized flooding resulting from heavy rain in city or rural areas, non-life threatening
VOLCANIC ASH	Whenever volcanic ash is present

Weather and Water Statements

The NWS issues follow up statements during hazardous weather and water incidents. These statements provide additional details about particular watches, warnings and advisories in effect as well as information from storm spotter reports.

STATEMENTS	CRITERIA
FLOOD & FLASH FLOOD	Additional information regarding flooding and flash flood warnings
HYDROLOGIC	Hydrologic information not directly related to flooding.
LOCAL STORM REPORT	Severe weather and damage reports
PUBLIC INFORMATION	Narrative messages dealing with current or expected incidents of general interest to the public such as atmospheric phenomena, changes to NWS services or weather safety awareness incidents.
SEVERE WEATHER	Provide additional information regarding a severe thunderstorm or tornado warning.
SIGNIFICANT WEATHER ADVISORY	A Significant Weather Advisory is a short term forecast for sub-severe weather of any type that is for a small localized are and is expected to last up to 4 hours. It highlights impacts and includes duration, movement and locations affected by the weather.
SPECIAL WEATHER	Narrative messages regarding expected weather incidents and associated safety messages or other items of special interest to the public, such as non-severe weather incident roundups or unique weather phenomena.
WATCH COUNTY NOTIFICATION	Provide outline of severe thunderstorm or tornado watch initiation, changes and cancellation.

Blackfoot Flash Flood 2009


Chubbuck Flash Flood 2009


Inkom Flash Flood 2009

IDAHO WEATHER SPOTTER PROGRAM: SKYWARN

The SKYWARN spotter program is a nationwide network of volunteers trained by the National Weather Service to provide timely and accurate severe weather reports. These volunteers report thunderstorms, floods, tornadoes, snow and ice storms whenever and wherever they are observed. The reports arrive via phone, Citizen Band (CB) radio, or licensed Amateur Radio Operators (HAM). NWS Weather forecasters use the information in concert with radar and satellite data to confirm the issuance of statements, warnings and short-term forecasts.

The Pocatello National Weather Service office maintains a severe weather spotter network of over 850 volunteers and they are our most important source of real-time field reports. Nevertheless, there is always a need for additional spotters. All the benefits from spotter involvement return to the community in the form of more accurate and timely warnings and daily forecasts. You can help protect your community by joining the NWS spotter team.

The only requirements to become an official NWS SKYWARN Spotter is the ability to observe weather without the use of instruments, access to either a telephone or possess an amateur radio operator license and be at least 16 years of age.

For official recognition as a spotter, a two-hour SKYWARN class is available. The class covers the basics of SKYWARN operations, severe weather recognition and the incident reporting process. NWS teaches the free SKYWARN classes at various locations throughout the region.

Learn more about the SKYWARN Weather Spotter Program online at:

www.wrh.noaa.gov/pih/Spotter/spottersched.php
www.skywarn.org
www.nws.noaa.gov/skywarn
weather.gov/om/severeweather/index.shtml
www.srh.noaa.gov/oun/?n=spotter-training

SKYWARN IDAHO

To join the official NWS SKYWARN Spotter Team, please contact the Pocatello WFO and request a Storm Spotter packet via:

Internet: *www.weather.gov/pocatello*

Mail: National Weather Service
1945 Beechcraft Ave.
Pocatello, ID 83204

Telephone: 208-233-0834
800-877-1937 x2
877-633-6772

eSpotter – Online Reporting System
http://espotter.weather.gov/

Twitter – Mobile or Online Reports – Text to:
#wxreport WW *location* WW *give your report*

SKYWARN Amateur Radio Recognition Day
Pocatello Weather Forecast Office

Reporting Severe Weather

Report severe weather to the Pocatello Weather Forecast Office:
800-877-1937 ext. 2 or 208-233-0834 or nationwide at 1-877-633-6772
eSpotter – Online Reporting System
http://espotter.weather.gov/
Twitter – Mobile or Online Reports – Text to:
#wxreport WW *location* WW *give your weather tweet*

Report the following when observed

- Tornadoes, waterspouts and/or funnel clouds
- Damaging winds (see below)
- Low visibility (blowing dust, snow or fog)
- Weather-related damage
- Extreme road hazards due to weather
- Frequent cloud-to-ground lightning
- Heavy snow (1inch {2.5 cm} or more per hour per storm)
- Freezing rain
- Rainfall rates (greater than 1 inch {25 mm} in an hour)
- Flooding
- Hail (see below)
- Heavy surf or unusually high tides causing beach erosion
- Volcanic activity or earthquakes

Estimating Wind Speed

VISUAL CUE	SPEED (MPH)	SPEED (KTS)	SPEED (M/S)
Large branches moving	25 - 30	22 - 26	11.2 - 13.4
Whole trees moving	30 - 40	26 - 35	13.4 - 17.9
Twigs break & impedes walking	40 - 45	35 - 39	17.9 - 20.1
Slight structural damage	45 - 55	39 - 48	20.1 - 24.6
Moderate structural damage	55 - 65	48 - 56	24.6 - 29.0
Heavy structural & tree damage	> 65	> 56	> 29.0

Estimating Hail Size

VISUAL COMPARISON	SIZE (inches)	SIZE (cm)
Pea	¼	0.6
Dime	½	1.3
Penny	¾	1.9
Quarter	1	2.5
Golf Ball	1 ¾	4.4
Tennis Ball	2 ¾	7.0

Suggested Reporting Information

Identify yourself: Joe Q Citizen and/or Spotter #
What you observed: Heavy snow falling
Where you saw it: 5 miles west of American Falls
When you saw it: Falling at 1 inch an hour for the past two hours
What it was doing: A total depth of 5 inches

STORMREADY!

WHEN SECONDS COUNT - STORMREADY COMMUNITES ARE PREPARED

Americans live in the most severe weather-prone country on Earth where hazardous weather has the potential to impact everyone. Each year, Americans cope with an average of 10,000 thunderstorms, 2,500 floods, 1,000 tornadoes and 6 deadly hurricanes. Communities can now rely on the National Weather Service's StormReady program to help them guard against the ravages of nature.

StormReady helps arm communities with the communication and safety skills needed to save lives and property before and during an incident. StormReady assists community leaders and emergency managers in strengthening local safety programs. StormReady communities are better prepared to save lives from the onslaught of severe weather through better planning, education and awareness. No community is storm proof, but StormReady can help communities save lives.

There are over 1,875 StormReady locations in 50 states across the nation and Idaho is currently home to 175 StormReady designations, the most of any state in the country.

To learn more about StormReady and your community, visit the StormReady website at

www.stormready.noaa.gov

StormReady in Idaho

www.stormready.noaa.gov/com-maps/id-com.htm

Figure 18. Idaho StormReady Counties (gold) and Communities (colored dots).

DAMAGE ASSESSMENTS AND STORM STATISTICS

The NWS assembles severe weather and flood data related to incidents that cause property damage, injuries, deaths or hazardous conditions. The information is in the monthly publication of "*Storm Data and Unusual Weather Phenomena*," which is available from the National Climatic Data Center or in PDF format at

www.ncdc.noaa.gov/oa/climate/sd/

The NWS conducts formal Storm Damage Surveys on specific weather and flood incidents and determines what phenomena may have caused the damage and/or injuries and/or deaths. Investigation of certain elements includes wind, hail, tornadoes and floods to assess the strength of the incident (e.g. wind speeds to rank tornadoes on the Enhanced Fujita Scale).

The Pocatello WFO relies on various sources for the storm data publication. Sources include, but are not limited to county emergency managers, media, county sheriffs, Idaho Bureau of Homeland Security, Idaho Department of Transportation, spotter reports, amateur radio groups and the public.

Other valuable web sites regarding storm data include:

Convective Storm Reports, Daily, Monthly, Yearly
www.spc.noaa.gov/climo

Emergency Managers Weather Information Network (EMWIN)
iwin.nws.noaa.gov/emwin/index.htm

Methods for Obtaining Weather Information
weather.gov/om/disemsys.shtml

Natural Hazards Statistics
www.nws.noaa.gov/om/hazstats.shtml

Severe Storm Data Analysis
www.nws.noaa.gov/om/data.shtml

Severe Weather Publications
www.nws.noaa.gov/om/publications.shtml

Severe Weather Service Assessments
www.nws.noaa.gov/om/assessments/index.shtml

Tornado Data
www.spc.noaa.gov/faq/tornado

Weather Projects & Research
www.nws.noaa.gov/om/projects.shtml

Idaho blizzard, January 1, 2004

AIR QUALITY WEATHER SERVICES

National Weather Service weather forecasters produce weather guidance for the Environmental Protection Agency (EPA). The Pocatello WFO collaborates with Idaho's Department of Environmental Quality – Air Quality Division (DEQ) when they issue an Air Quality Advisory. The NWS concentrates on meteorological conditions such as temperature inversions and high-pressure systems that produce stagnant air. The DEQ combines these forecasts with closely monitored air quality data to issue their air quality statements and information.

Air Quality Information

Idaho DEQ Air Quality Information
www.deq.state.id.us/air/aqindex.cfm

NWS Pocatello Air Stagnation Information
www.weather.gov/pocatello

National Air Quality Forecasts
www.weather.gov/ost/air_quality

EPA's AirNow Air Quality Forecasts
airnow.gov

Ultra-Violet (UV) Index
www.cpc.ncep.noaa.gov/products/stratosphere/uv_index/uv_current.shtml

AVALANCHE WEATHER SERVICES

National Weather Service meteorologists produce weather guidance for the Sawtooth National Forest (SNF) Avalanche Center. The guidance involves weather elements affecting the Sawtooth National Recreation Area, concentrating on temperature, precipitation type and amount and winds. The SNF Avalanche Center staff combines weather guidance with snow observations to produce Snow Avalanche Products. When critical snowpack conditions increase avalanche potential, the Avalanche Center prepares an Avalanche Warning and the NWS relays the product to the public.

The Caribou/Targhee National Forest does not have a formal avalanche program, however when conditions warrant, they provide dangerous snow condition information to the Pocatello WFO, who will pass along this information in a Special Weather Statement.

Avalanche Information

National Avalanche Information
www.avalanche.org

Sawtooth National Forest Avalanche Center
www.avalanche.org/~svavctr

Pocatello Weather Avalanche Information
www.wrh.noaa.gov/pih/avalanche/index.php

Baker Peak Avalanche, April 1, 2005
Courtesy Sawtooth National Forest Avalanche Center

AVIATION WEATHER SERVICES

National Weather Service meteorologists produce quality forecast information for a variety of aviation purposes. Terminal Aviation Forecasts (TAF) provides concise 24-hour forecasts for significant weather conditions affecting aviation operations within 5 statute miles (8.05 km) of an airport. The Pocatello WFO prepares the following TAFs.

POCATELLO WFO TAFs	
Burley	Pocatello
Idaho Falls	Sun Valley

Aviators also use Meteorological Aviation Reports (METAR) to determine specific weather information at an airport. An Automated Surface Observation System (ASOS) or trained weather observer produce observations once an hour or more frequently during rapidly changing weather incidents. Pilots may obtain data directly from the observing system at the end of the runway using radio signals. ASOS units report the following METAR weather elements:

METAR OBSERVATION ELEMENTS	
Wind Velocity (speed and direction)	Temperature
Visibility	Dew Point Temperature
Weather Conditions and Obscurations	Altimeter (atmospheric pressure)
Sky Cloud Cover	Precipitation

Additional information regarding NWS Aviation weather services available online:

Pocatello Aviation Information
www.weather.gov/pocatello/aviation/index.ph

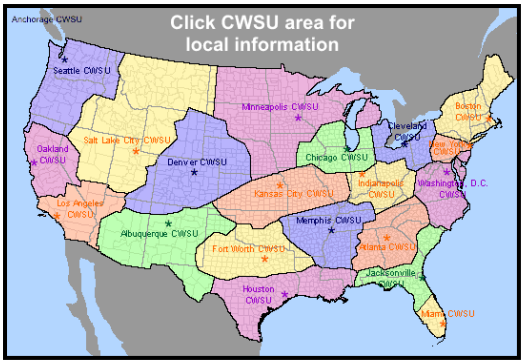
Center Weather Service Unit – Salt Lake City
www.wrh.noaa.gov/zlc/

National Aviation Forecasts and Information from the Aviation Weather Center (AWC)
aviationweather.noaa.gov

Aviation Weather Links
aviationweather.gov/static/links/

Federal Aviation Administration
www.faa.gov/air_traffic/publications/

Aviation Newsletter – The Front
aviationweather.noaa.gov/general/pubs/front



CWSU Nationwide locations


Sun Valley, Idaho, Airport

SkySpotter – AOPA Pireps Made Easy
www.aopa.org/asf/osc/loginform.cfm?course=skyspotter&project_code=&

FIRE WEATHER SERVICES

The Pocatello WFO produces Fire Weather Forecasts, Watches and Red Flag Warnings for Central and Eastern Idaho. WFO Pocatello also provides spot forecasts for wildfires on federal land, prescribed burns declared as a wildfire on non-federal land and specific sites for prescribed burns ignited on federal land.

During fire season, special forecasts are prepared twice daily that provide meteorological information critical to fire behavior and where potential starts may occur. Some specific forecast elements include relative humidity changes, temperature changes, drainage and general winds, Haines indices and lightning activity.

Forecasters issue Fire Weather Watches and Red Flag Warnings when significant weather conditions occur when fire danger is high to extreme. Watch and warning issuances occur when a critically dry and unstable air mass is present in the area causing dry lightning and fire zone-specific combinations of strong winds and low humilities along with dry fuels. Watch and warning criteria and Pocatello WFO fire weather zones are below and a map of Idaho fire weather zones is available on the following page.

PRODUCT	TIME PERIOD & CONDTIONS
FIRE WEATHER WATCH	When the following conditions exist within 12 and 96 hours of an expected incident combined with critically dry fuels: Widely scattered or greater (> 15% aerial coverage) thunderstorm activity Dangerous fire weather conditions such as the occurrence of lightning after an extremely long dry period; strong microburst winds, Haines Index of 6, passage of a cold front or a strong wind shift Wind gusts for any three-hour period or longer greater than 25 mph (22 kts; 11 m/s) in the mountains and greater than 30 mph (26 kts; 13 m/s) in the Snake River plain when relative humidity is less than 15%
RED FLAG WARNING	Any of the above conditions expected within 24 hours.

ZONE NAME	ZONE NUMBER
Middle Snake River Valley / Twin Falls BLM	409
Upper Snake River Valley / Idaho Falls BLM	410
Centennial Mountains and Snake River Range / Targhee National Forest	411
Goose Creek and Raft River Valley / Southern Sawtooth National Forest	412
Caribou Range / Caribou National Forest	413
East Salmon River Mountains / Salmon National Forest	475
Lemhi and Lost River Range / Challis National Forest	476
Sawtooth Range / Northern Sawtooth National Forest	477

Figure 19. Fire Weather Web Page Information Center

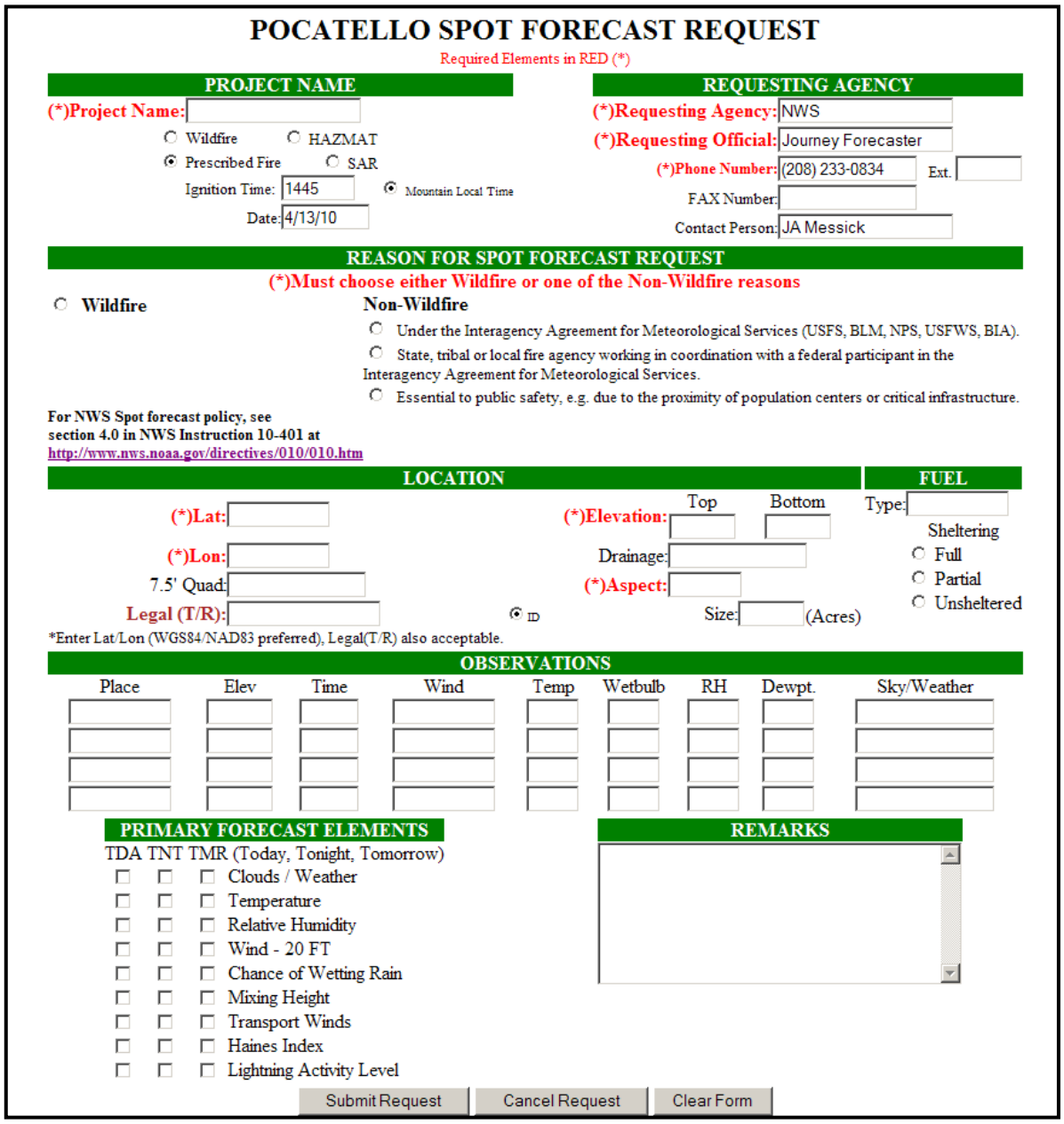


Figure 20. Spot Forecast Form designed for First Responders to collaborate with local meteorologists and incident briefers

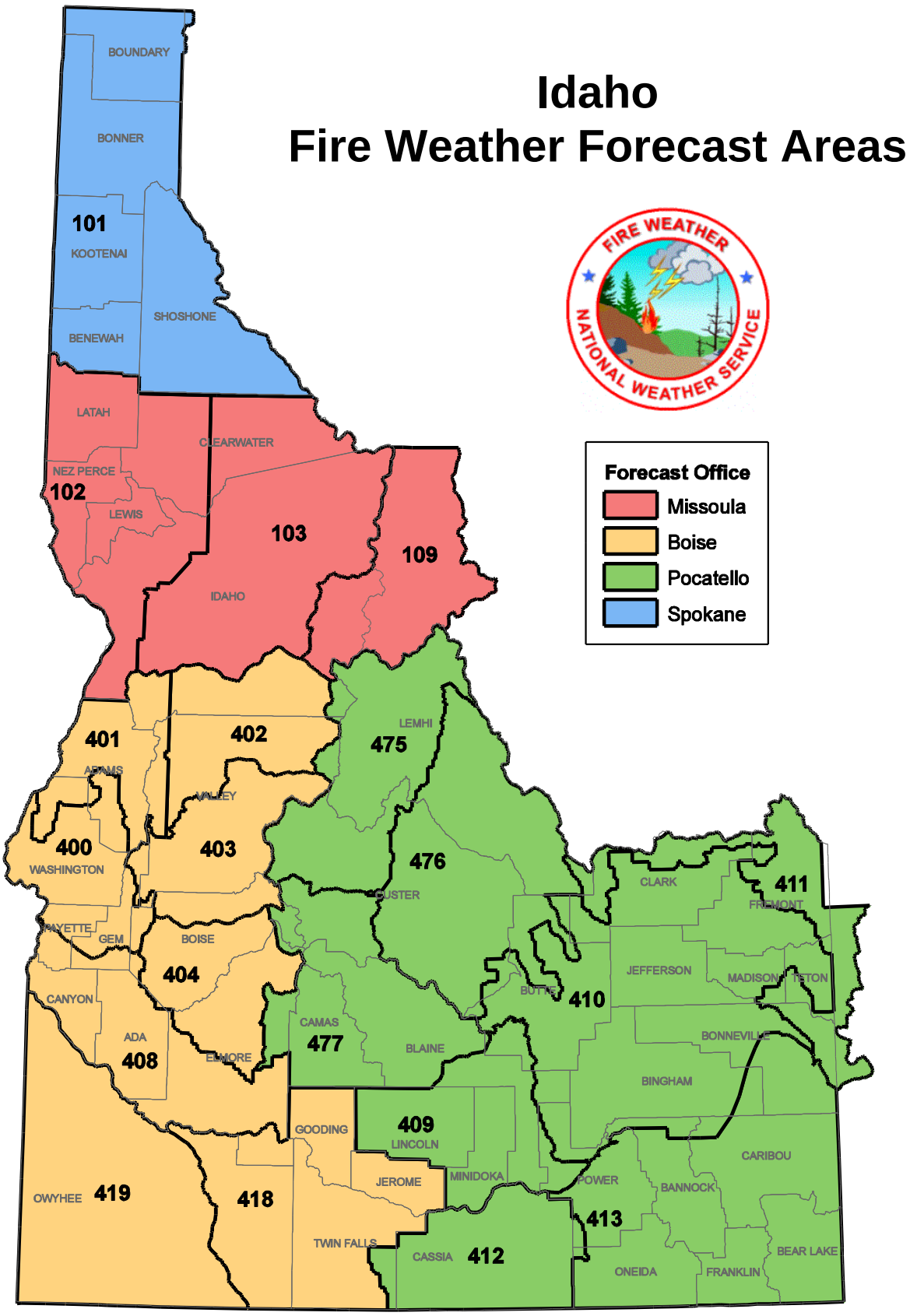


Figure 21. Idaho Fire Weather Forecast Zone Areas.

Incident Meteorologists

Incident Meteorologists (IMET) are forecasters specially trained to work with Incident Management Teams during severe wildfire outbreaks or other natural or man-made disasters requiring onsite weather support. IMETs may be deployed anywhere a disaster strikes, working long hours for weeks at a time in remote locations in undesirable conditions.

IMETs immediately report to an incident site and assemble a mobile weather center capable of providing continuous meteorological support for the duration of the incident. Specialized portable meteorological equipment assists the forecast process, including weather balloons, Remote Automated Weather Stations (RAWS) and a two-way portable satellite dish for gathering and displaying weather data, such as satellite imagery and forecast model output.

Additional information on the NWS Fire Weather Service available online:

NWS Pocatello Fire Weather
www.wrh.noaa.gov/firewx/?wfo=pih

National Fire Weather Page
radar.srh.noaa.gov/fire/

National Fire Weather Outlooks & Threats (SPC)
www.spc.noaa.gov/products/fire_wx/overview.html
www.spc.ncep.noaa.gov/exper/ltgfuel/

Fire Weather Links
www.spc.noaa.gov/misc/links.html#Fire

National Interagency Fire Center
www.nifc.gov

Eastern Great Basin Coordinating Center
gacc.nifc.gov/egbc/

Incident Meteorologist
with remote weather sensors

Eastern, South Central & Challis Salmon Interagency Fire Centers
www.idahofireinfo.blm.gov/east
www.idahofireinfo.blm.gov/south/
www.fs.fed.us/r4/sc/fire/

Wildland Fire Assessment System
www.wfas.net

RAWS & Other Weather Observation Sites (ROMAN)
raws.wrh.noaa.gov/roman

Castle Rock Fire near Ketchum, Idaho, August, 2007. Photo's courtesy Chuck Turner.

WATER RESOURCE SERVICES

The NWS issues official warnings, watches and other pertinent water resource (hydrologic) information regarding flood potential and water supply for the country.

Because water concerns are complex across different geographic areas, select WFOs have special positions called Service Hydrologists. The Service Hydrologist manages the WFO Hydrologic Service Program for the Hydrologic Service Area (HSA), the area of responsibility covered by the program. A map of Idaho HSAs is on the following page.

The Northwest River Forecast Center (NWRFC) in Portland, Oregon, and the Colorado Basin RFC (CBRFC) in Salt Lake City, Utah, issue Central and Eastern Idaho river forecasts. The two RFCs specialize in flood and water resource forecasting and river modeling. The Pocatello WFO operational staff interprets river forecasts and issues appropriate watches and warnings for river forecast points when necessary. Our most active season occurs during the late spring snowmelt. Severe thunderstorms or dam or levee failures can cause flash flooding, requiring the issuance of flash flood watches and warnings.

Pocatello WFO River Forecast Points

RIVER FORECAST POINT	STATION ID	FLOOD STAGE (FEET)
Big Wood River at Hailey	HALI1	6.00
Henry's Fork at St. Anthony	ANTI1	7.00
Henry's Fork at Rexburg	REXI1	9.50
Little Wood River near Carey	WODI1	6.00
Portneuf River at Pocatello	PIHI1	8.50
Snake River at Blackfoot	SNAI1	10.00
Snake River at Heise	HEII1	8.00
Snake River at Shelley	SHYI1	12.00
Teton River at St. Anthony	TEAI1	6.00
Teton River near Driggs	DGGI1	5.00

NWS National Water Resources Information Web Page
www.weather.gov/ahps/

Water Supply Forecasts
www.id.nrcs.usda.gov/snow/watersupply/
www.nwrfc.noaa.gov/westernwater/

Drought Information
www.drought.unl.edu/dm/monitor.html

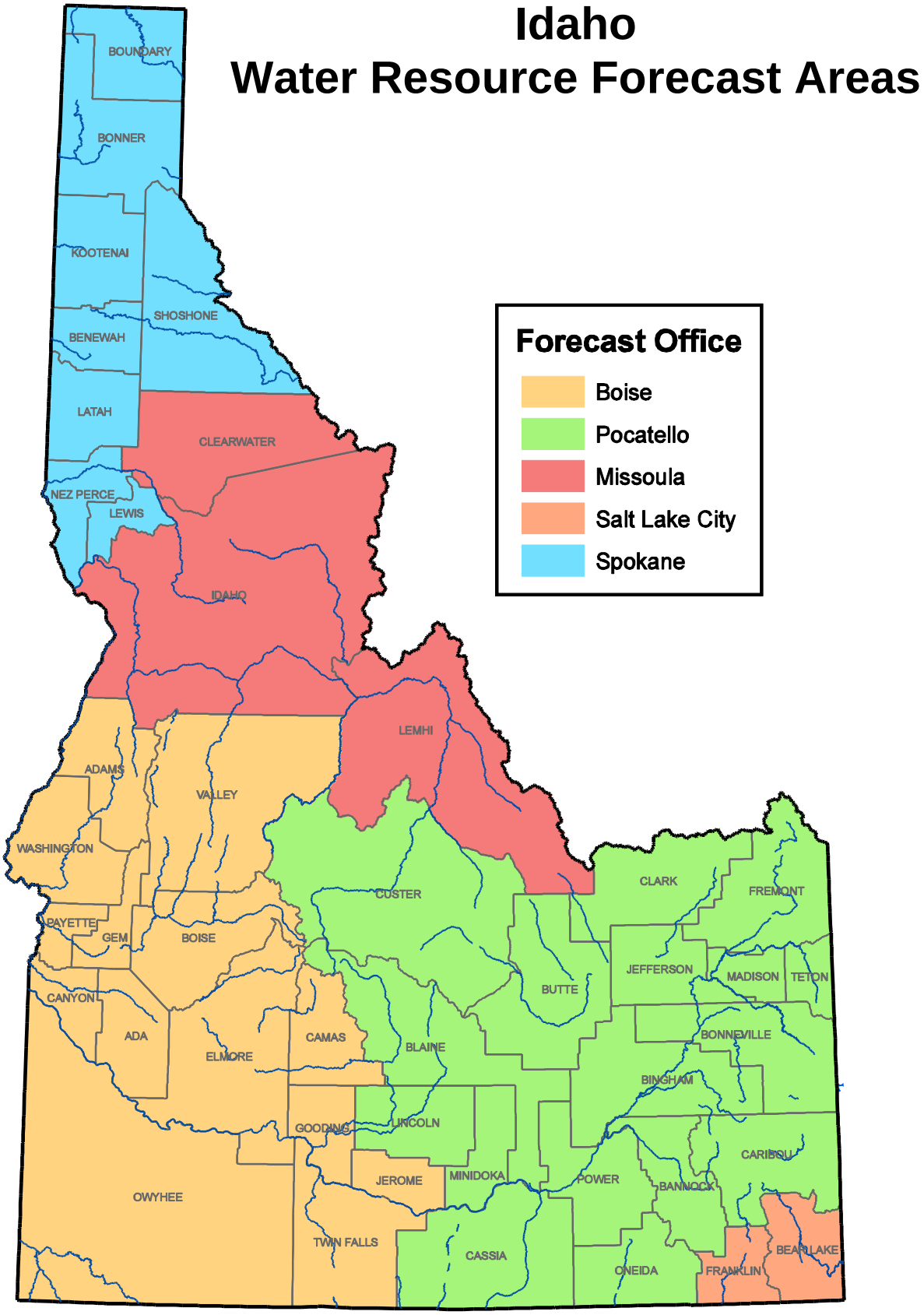


Figure 22. Idaho Water Resource Forecast Areas.

Advanced Hydrologic Prediction Service

The Advanced Hydrologic Prediction Service (AHPS) is a web-based suite of hydrologic observation and forecast products, displaying the magnitude and uncertainty of occurrence of floods, from hours to days to months.

The main advantage of AHPS is the ability to quickly view and determine current river levels and the extent of any flooding, whether minor, moderate or major. Also available are graphics indicating the chance of a river exceeding a certain level, volume and flow at specific points during 90-day periods.

AHPS products enable governmental agencies, private institutions and individuals in making informed decisions and taking the necessary action to mitigate the dangers posed by floods. AHPS is also widely used by water recreationalists for planning activities such as fishing and boating trips.

NWS Pocatello Advanced Hydrological Service
http://water.weather.gov/ahps2/index.php?wfo=pih

NWS National Advanced Hydrological Service
www.weather.gov/oh/ahps/

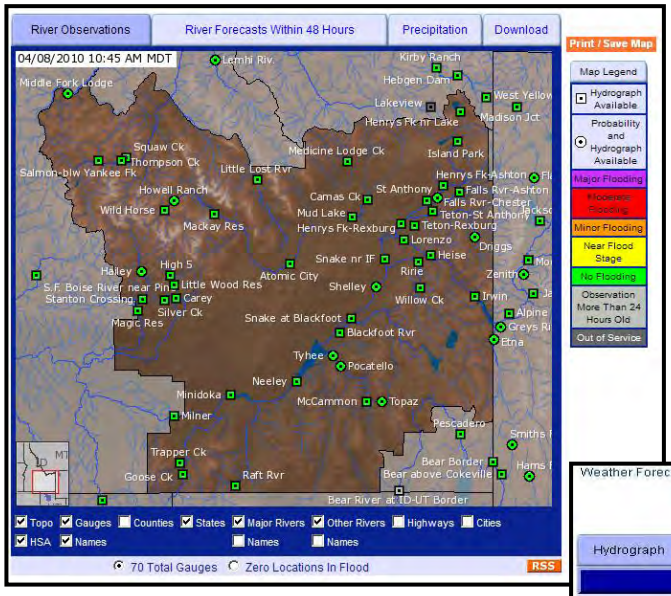


Figure 23. Eastern Idaho AHPS area map

Figure 24. National River Forecast Office Locations

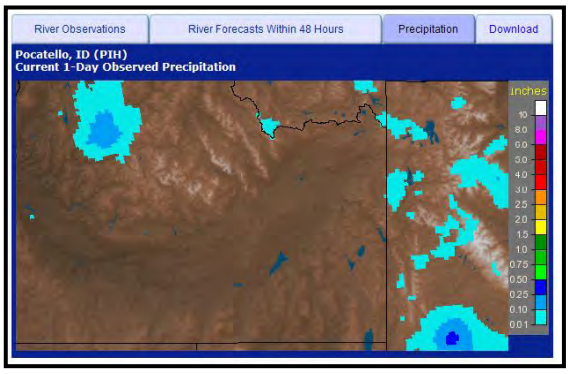


Figure 25. AHPS Current Observed Precipitation Display

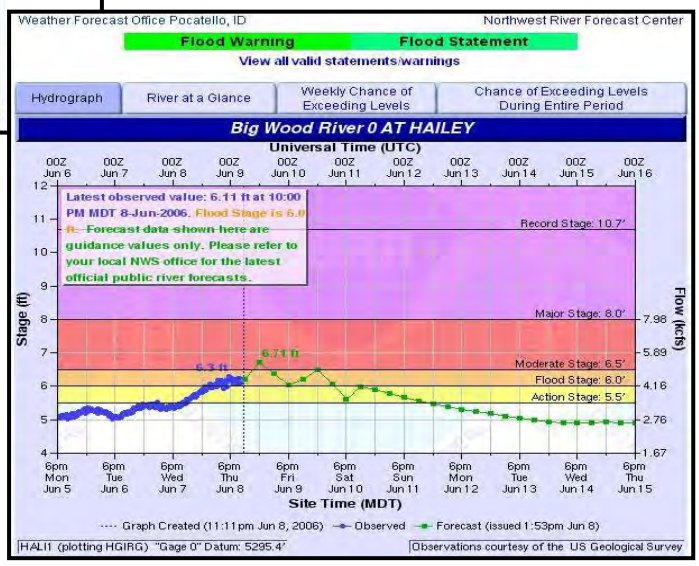


Figure 26. AHPS Hydrograph showing river observations in blue and the forecast in green peaking near moderate flood stage.

Water Resources information available online:

NWS Pocatello Hydrology Program
www.wrh.noaa.gov/pih/hydro/index.php

NWS Water Resource Services
http://water.weather.gov/ahps/

Idaho Department of Water Resources
www.idwr.idaho.gov/

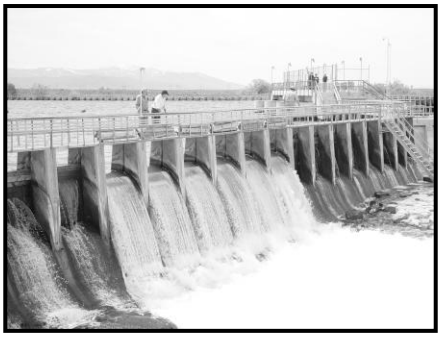
River Forecast Centers (RFC)
Northwest River Forecast Center
www.nwrfc.noaa.gov
Colorado Basin River Forecast Center
www.cbrfc.noaa.gov

Reservoir Information
US Bureau of Reclamation Pacific Northwest Region
www.usbr.gov/pn/index.html
USBR Burley District Upper Snake Reservoir Levels
www.usbr.gov/pn/hydromet/burtea.cfm
Natural Resources Conservation Service (NRCS)
www.wcc.nrcs.usda.gov/cgibin/resv-graph.pl?state=ID

River Gage Information
NWS River Gage Display
www.weather.gov/ahps
NWS Pocatello River Gage Display
ahps2.wrh.noaa.gov/ahps2/index.php?wfo=pih
US Geological Survey
water.usgs.gov
Idaho Geological Survey
www.idahogeology.org/

Hydro-Meteorological Prediction Center (HPC)
www.hpc.ncep.noaa.gov

Working with County Emergency Managers



USBR Minidoka Dam

Henry's Fork Snake River

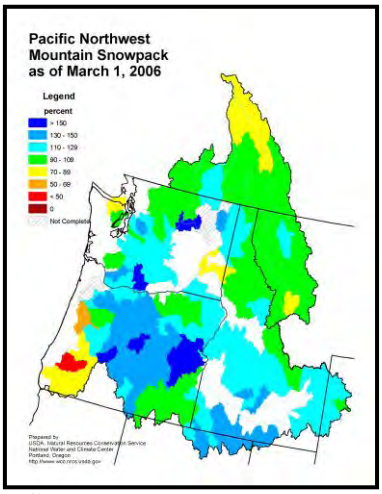
Researching Flood Stages

Snow and Winter Weather Information

Natural Resources Conservation Service

Idaho Snow Survey Program
www.id.nrcs.usda.gov/snow/

Idaho SNOTEL Location Map
www.wcc.nrcs.usda.gov/snotel/Idaho/idaho.html
Idaho SNOTEL Current Snow Water Equivalent Map
ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/id_swepctnormal_update.pdf
Idaho SNOTEL Current Snow Water Equivalent Graph
www.wcc.nrcs.usda.gov/cgibin/snowup-graph.pl?state=ID
Idaho Current Snow Depth Report
ftp://ftp.wcc.nrcs.usda.gov/data/snow/snotel/reports/snow_depth/idaho/id.txt

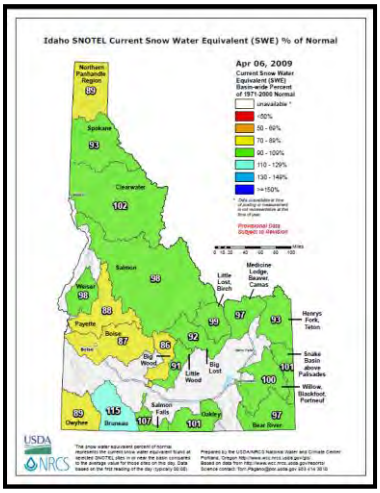


Snowpack

Idaho SNOTEL Current Snow Depth Map
ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/id_snowdepth.pdf
Idaho Current SNOTEL Snowpack Update Report
www.wcc.nrcs.usda.gov/reports/UpdateReport.html;jsessionid=898F66267A4928D7C892655188FACE5F.jvm1?report=Idaho&format=SNOTEL+Snowpack+Update+Report
Idaho Snow Graphs for Individual River Basins
www.id.nrcs.usda.gov/snow/data/indexes/snowgraphs.html

Western Snow Survey Program
www.wcc.nrcs.usda.gov/snow/
Western US SNOTEL Current Snow Depth Map
ftp://ftp.wcc.nrcs.usda.gov/data/water/wcs/gis/maps/west_snowdepth.pdf
Western Mountain Snowpack Maps
www.wcc.nrcs.usda.gov/snowcourse/snow_map.html

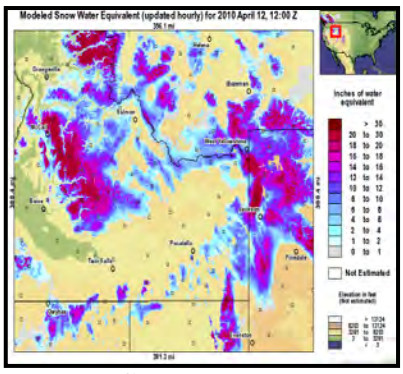
Historic Snow Data
www.id.nrcs.usda.gov/snow/data/historic.html



Snow Water Equivalent

NOAA's National Operational Hydrologic Remote Sensing Center

Nationwide Snow Information
www.nohrsc.nws.gov/
Interactive Snow Information Map
www.nohrsc.nws.gov/interactive/html/map.html



Idaho Snow Map

National Rain, Hail & Snow Network (CoCoRaHS)

www.cocorahs.org

COMMUNITY COLLABORATIVE RAIN, HAIL & SNOW NETWORK
"Because every drop counts"

Snowfall Accumulation Graphics from NWS Pocatello

www.wrh.noaa.gov/forecasts/graphical/sectors/pih.php#tabs

Hydrometeorological Prediction Center – Snow Forecasts

Winter Weather Forecasts
www.hpc.ncep.noaa.gov/wwd/winter_wx.shtml
Winter Probability Graphics
www.hpc.ncep.noaa.gov/wwd/winter_wx.shtml#ice
Model Analysis and Forecasts
www.nco.ncep.noaa.gov/pmb/nwprod/analysis/

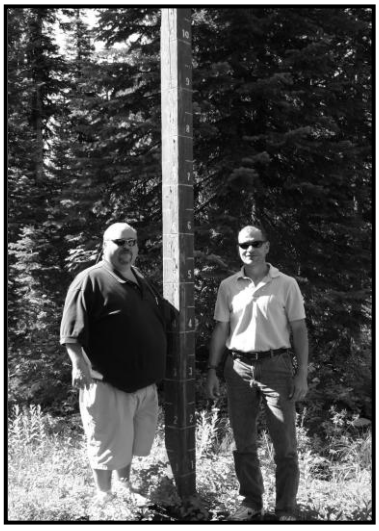
Lost Wood Divide SNOTEL

Winter Safety Information

www.weather.gov/os/winter/index.shtml
www.wrh.noaa.gov/pqr/winterawareweek.php
Wind Chill Chart, FAQs & Calculator
www.weather.gov/os/windchill/index.shtml

Winter Water Safety Links

Flood & Water Concerns
www.nws.noaa.gov/floodsafety/
Ice Jams
www.crrel.usace.army.mil/icejams/index.htm



Snow Stake Grassy Lakes

Road Conditions (511 Travel Info)

Idaho	888-432-7623	*http://511.idaho.gov/*
Colorado	303-639-1111	
Montana	800-226-7623	
Nevada	877-687-6237	
Oregon	800-977-6368	
Utah	866-511-8824	
Washington	800-695-7623	
Wyoming	888-996-7623	

Dial 511 within each state's boundary for latest road reports

Winter Climatology

National Climate Data Center (NCDC
US Snow Climatology
www.ncdc.noaa.gov/ussc/index.jsp
Idaho Snow Climatology
www.ncdc.noaa.gov/ussc/USSCApp Controller?action=options&state=10

Western Regional Climate Center (WRCC)
Idaho Observation Records
www.wrcc.dri.edu/summary/climsmid.html
SNOTEL Data
www.wrcc.dri.edu/snotel.html

NRCS Snow Course Survey

OTHER WEATHER SERVICES

Marine and Coastal Weather Services

Marine and Coastal Weather Services provide forecast and warning information for the U.S. coast, coastal and offshore waters, the Great Lakes and the open oceans. NWS marine weather forecasters issue wind, sea state, and significant weather forecasts, warnings and statements essential to conducting safe and efficient maritime operations and the protection of the marine public.

Marine weather observations are vital to accurate weather forecasting, especially over waters where weather stations can be hundreds of miles apart. Thousands of vessels worldwide help alleviate the problem as Volunteer Observing Ships (VOS) by submitting observations used by computer modelers and marine forecasters. Another essential marine weather data source is the NWS National Data Buoy Center (NDBC), which maintains over 90 weather buoys and 60 Coastal Marine Automated Observations systems (C-MAN) in the oceans and Great Lakes.

Marine forecasters also provide services as needed in aiding search and rescue operations, containment and cleanup of oil spills or support to other disasters, such as plane crash recovery operations.

Marine Weather Service
www.weather.gov/om/marine/home.htm

Ocean Prediction Service
www.opc.ncep.noaa.gov

National Centers for Environmental Prediction

The National Centers for Environmental Prediction (NCEP), located in Camp Springs, Maryland, is comprised of nine distinct centers that provide a wide variety of national and international weather guidance products to NWS offices, government agencies, emergency managers, private-sector meteorologists and meteorological organizations and societies throughout the world.

NCEP is the starting point for nearly all weather forecasts in the United States. Virtually all meteorological data collected over the globe arrives at NCEP, where environmental scientists analyze the information and generate a wide variety of environmental guidance information. The nine centers comprising NCEP follow.

- Aviation
- Central Operations
- Climate Prediction
- Environmental Modeling
- Hydrometeorological Prediction
- Ocean Prediction
- Space Weather Prediction
- Storm Prediction
- Tropical Prediction

National Centers for Environmental Prediction
www.ncep.noaa.gov

Tropical Weather Services – National Hurricane Center

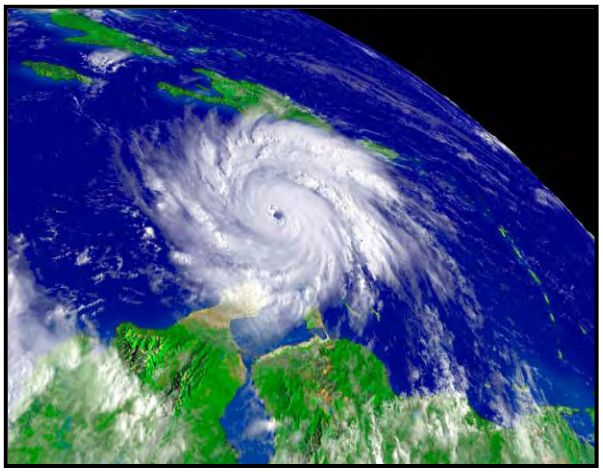
NCEP's Tropical Prediction Center (TPC) maintains an international agreement with the World Meteorological Organization (WMO) to generate and coordinate tropical cyclone analysis and forecast products for twenty-four countries in the Americas, Caribbean, North Atlantic Ocean, Gulf of Mexico and the Eastern North Pacific Ocean.

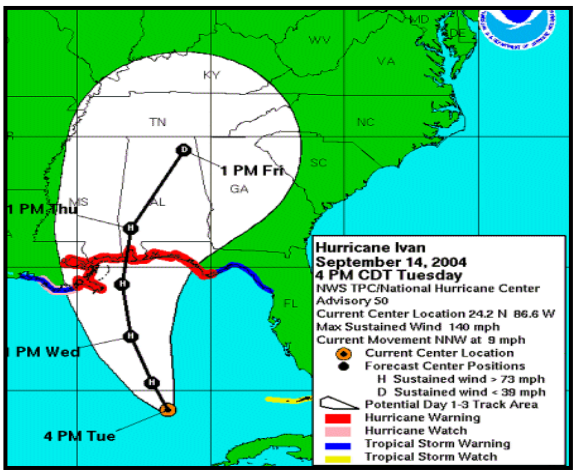
The National Hurricane Center (NHC) issues forecasts, watches and warnings for tropical cyclones from May 15, in the Eastern Pacific, and June 1, in the Atlantic, through November 30. Many countries issue their own warnings often based upon NHC guidance. During the "off-season," the NHC conducts an extensive outreach and education program including training U.S. emergency managers and representatives from many other countries affected by tropical cyclones.

Tropical Prediction Center information available online:

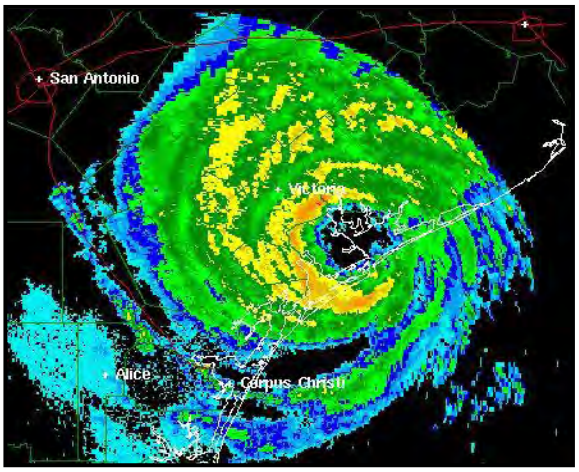
National Hurricane Center (Atlantic Ocean & Eastern Pacific Ocean)
www.nhc.noaa.gov

Central Pacific Hurricane Center
www.prh.noaa.gov/hnl/cphc





Hurricane Ivan, September 9, 2004, satellite image and NHC forecast track.



Hurricane Rita, September 2005, damage track and Doppler Weather Radar.

Tsunami Warning Services

Tsunamis are a series of very long waves generated by any rapid, large-scale disturbance of the sea, most often due to large undersea earthquakes. Tsunamis can cause great destruction and loss of life on shores near their source or across an entire ocean. Most tsunamis occur in the Pacific region but can happen in every ocean and sea. The National Weather Service has primary responsibilities of providing tsunami warnings for the nation and coordinating with international governments. The US Geological Service (USGS) provides seismic data to NOAA's Tsunami Warning Centers.

Tsunami Warning Center
tsunami.gov

NOAA Tsunami Information Center
www.tsunami.noaa.gov

Tsunami Ready Communities
www.tsunamiready.noaa.gov

Forensic Weather Services

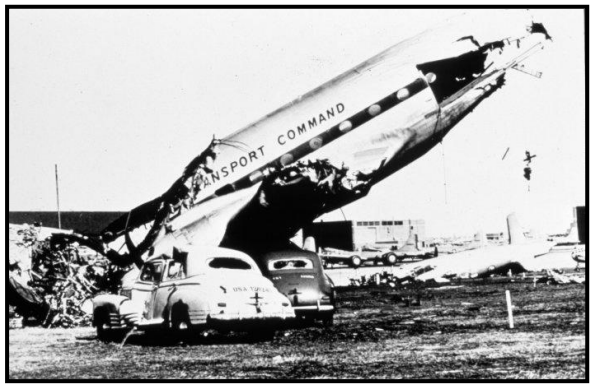
The Forensic Services Program provides weather support for transportation accident investigations and potential subsequent litigation. The majority of support is for aviation, marine and other surface accidents. This service also provides data and information for various litigations involving weather.

Certified weather and climatological records, including radar images, satellite photos, surface analysis, and buoy reports, are available from the National Climatological Data Center (NCDC).

National Climatological Data Center
151 Patton Avenue
Asheville, NC 28801-5001
(828) 271-4800
www.ncdc.noaa.gov/oa/ncdc.html

Request for a NWS Forensic Meteorologist should be directed to

National Weather Service Headquarters
Silver Spring Metro Center #2
ATTN: W/OS23, Forensic Services Meteorologist, 13th Floor
1325 East-West Highway
Silver Spring, Maryland 20910



Forensic Services
forecast.weather.gov/directives/sym/pd01020curr.pdf

Weather Data Analysis
www.nws.noaa.gov/om/data.shtml

WEATHER DATA & OBSERVATIONS

The NWS collects weather observations from a variety of federal, state and private organizations. Temperature and precipitation observations from Central and Eastern Idaho are available twice daily on the Regional Temperature and Precipitation Summary (RTP) product. Nationwide observations are available through the Real-Time Observation and Monitoring Network (ROMAN).

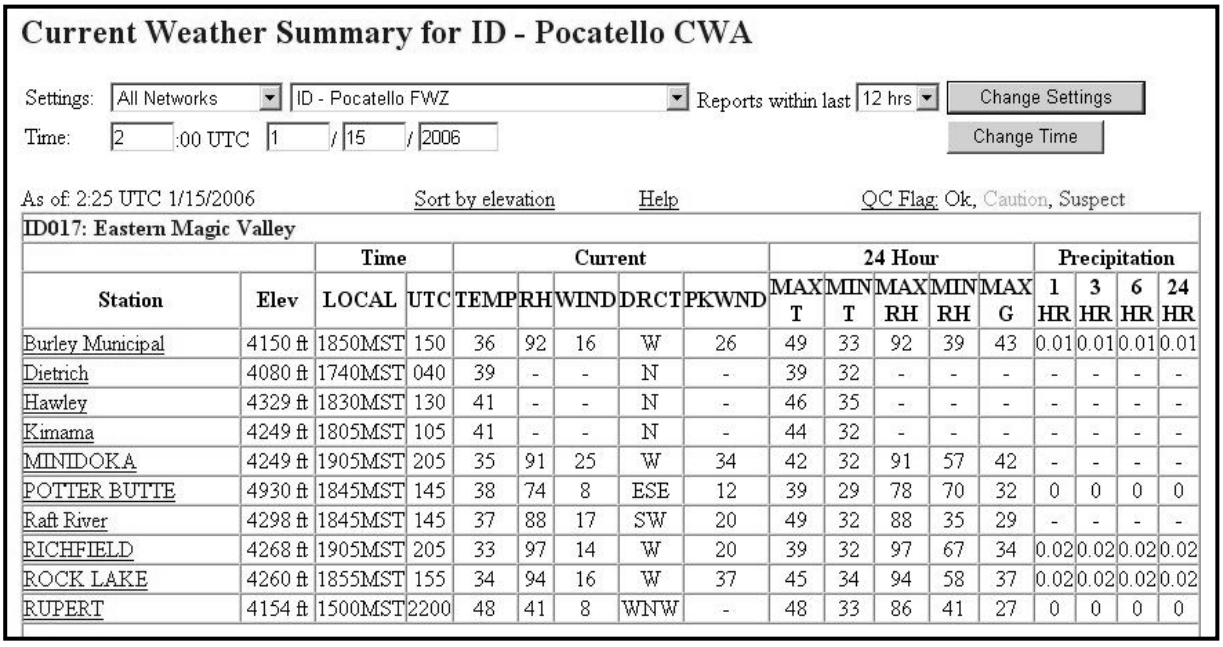
NWS Observations National Data Information
www.weather.gov/om/osd/portal.shtml

Real-Time Observation and Monitoring Network (ROMAN)
raws.wrh.noaa.gov/roman

Acronym	Observation or Network	Agency
AgriMet	Agriculture Weather Network	Bureau of Reclamation
ASOS	Automated Observation System	Federal Aviation Administration
AWOS	Automated Weather Observation System	Federal Aviation Administration & various agencies
COOP	Cooperative Observer	National Weather Service
CoCoRaHS	Community Collaborative Rain, Hail & Snow Network	Emergency Managers, State Climatologists & National Weather Service
DOT Systems	Various Providers	State and US Department of Transportation
HANDARS	Automated Weather Equipment	National Weather Service
MesoNets	Regional Network for Weather Observations	Federal, State and Private Industry
RAWS	Remote Automated Weather Station	Forest Service and Bureau of Land Management
SNOTEL	Snow Telemetry	Natural Resource Conservation Service

```
:...EASTERN IDAHO HIGH AND LOW TEMPERATURE AND PRECIPITATION TABLE

:     HIGH TEMPERATURE YESTERDAY AND LOW TEMPERATURE THUS FAR TODAY
:     24-HOUR PRECIPITATION ENDING 12:00 PM TODAY
:       A "-" IN THE SNOW DEPTH AND SNOW FALL COLUMNS INDICATES SNOW
:       DATA IS NOT REPORTED FOR THAT SITE.


:...FULL-TIME AND PART-TIME STATIONS...
.B PIH 0114 DH12/TX/TN/PPD/SD/SF
:ID     STATION              ELEV    MAX     MIN     24 HOUR    SNOW     SNOW
:                                    TEMP    TEMP      PCPN     DEPTH    FALL
BYI    :BURLEY               4150  : 45  /  32  /    0.00  /    - /     - /
LLJ    :CHALLIS              5072  : 35  /  21  /       T  /    - /     - /
DRII1  :DRIGGS               6286  : 37  /  28  /    0.00  /    - /     - /
IDA    :IDAHO FALLS          4744  : 36  /  22  /    0.00  /    - /     - /
ISWI1  :ISLAND PARK          6290  : 36  /  14  /    0.00  /    - /     - /
MLD    :MALAD                4505  :  M  /   M  /       M  /    - /     - /
77M    :MALTA                4511  : 48  /  34  /    0.00  /    - /     - /
PIH    :POCATELLO AIRPORT    4478  : 44  /  26  /    0.00  /    0 /   0.0 /
RXE    :REXBURG              4858  : 36  /  22  /    0.00  /    - /     - /
U78    :SODA SPRINGS         5842  : 32  /  19  /    0.00  /   10 /   0.0 /
SNT    :STANLEY RANGER STN   6495  : 38  /  30  /    0.00  /    - /     - /
SUN    :HAILEY               5315  : 36  /  30  /       -  /    - /     - /
.END


:...COOPERATIVE STATIONS...


.B PIH 0114 DH12/TX/TN/PPD/SD/SF
:ID     STATION              ELEV    MAX     MIN     24 HOUR    SNOW    SNOW
:                                    TEMP    TEMP      PCPN     DEPTH   FALL
LFTI1  :BEAR LAKE(LIFTON)    5926  : 34  /   8  /       M  /    4 /    M /
BERI1  :BERN                 5964  : 29  /   9  /    0.00  /   19 /   0.0 /
KETI1  :KETCHUM RANGER STN   5890  : 33  /  18  /    0.04  /   37 /   0.5 /
LKSI1  :LAVA HOT SPRINGS     5060  : 40  /  20  /    0.00  /    M /    M /
SANI1  :ST ANTHONY           4950  : 35  /  19  /    0.00  /    M /   0.0 /
TEXI1  :TETONIA EXPT STN     6170  : 40  /  32  /    0.00  /    M /    M /
```

Figure 27. NWS Pocatello Regional Temperature and Precipitation Summary



Current Weather Summary for ID - Pocatello CWA

Settings: All Networks | ID - Pocatello FWZ | Reports within last 12 hrs | Change Settings

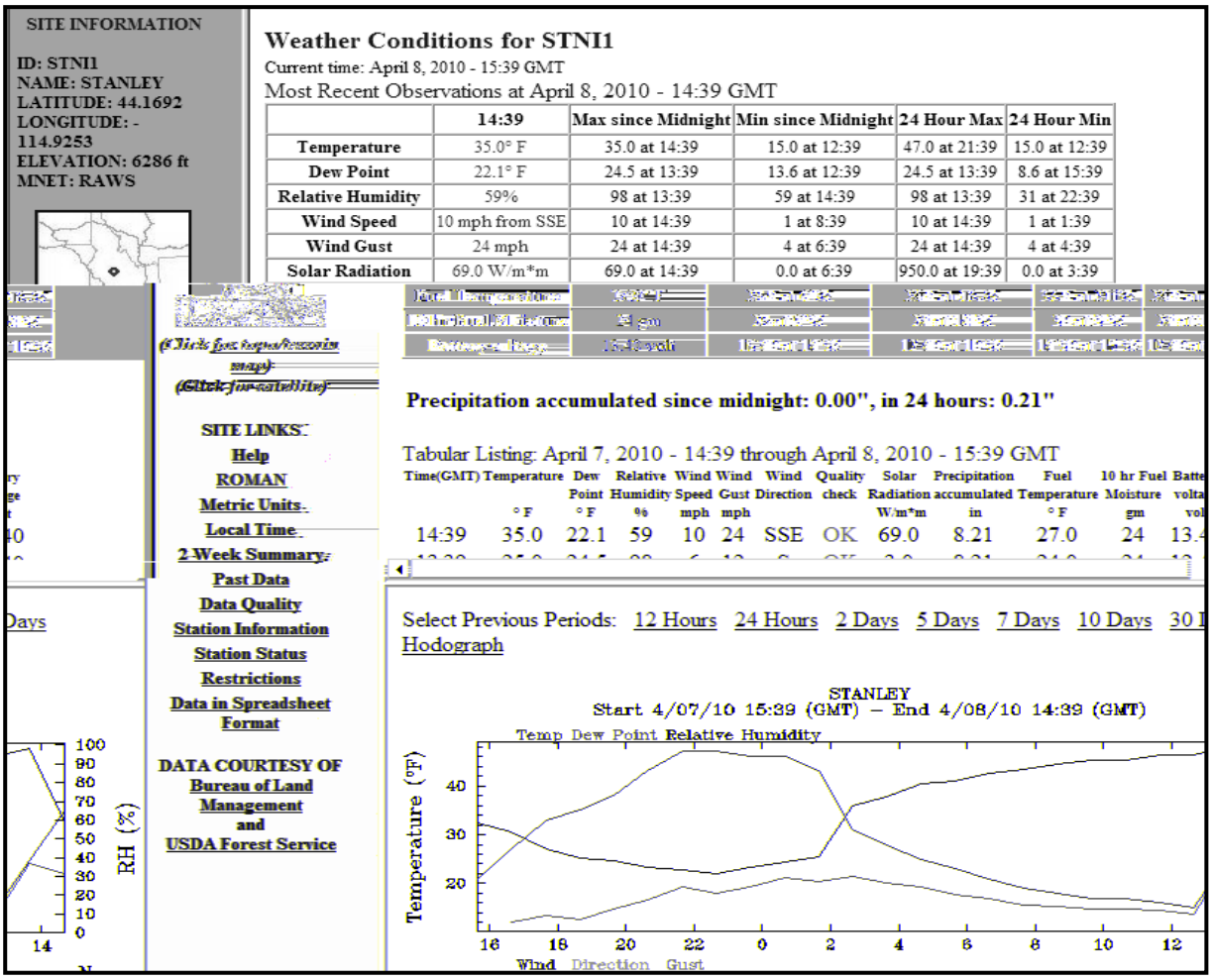
Time: 2 :00 UTC 1 / 15 / 2006 | Change Time

As of: 2:25 UTC 1/15/2006 | Sort by elevation | Help | QC Flag: Ok, Caution, Suspect

ID017: Eastern Magic Valley

		Time		Current					24 Hour					Precipitation			
Station	Elev	LOCAL	UTC	TEMP	RH	WIND	DRCT	PKWND	MAX T	MIN T	MAX RH	MIN RH	MAX G	1 HR	3 HR	6 HR	24 HR
Burley Municipal	4150 ft	1850MST	150	36	92	16	W	26	49	33	92	39	43	0.01	0.01	0.01	0.01
Dietrich	4080 ft	1740MST	040	39	-	-	N	-	39	32	-	-	-	-	-	-	-
Hawley	4329 ft	1830MST	130	41	-	-	N	-	46	35	-	-	-	-	-	-	-
Kimama	4249 ft	1805MST	105	41	-	-	N	-	44	32	-	-	-	-	-	-	-
MINIDOKA	4249 ft	1905MST	205	35	91	25	W	34	42	32	91	57	42	-	-	-	-
POTTER BUTTE	4930 ft	1845MST	145	38	74	8	ESE	12	39	29	78	70	32	0	0	0	0
Raft River	4298 ft	1845MST	145	37	88	17	SW	20	49	32	88	35	29	-	-	-	-
RICHFIELD	4268 ft	1905MST	205	33	97	14	W	20	39	32	97	67	34	0.02	0.02	0.02	0.02
ROCK LAKE	4260 ft	1855MST	155	34	94	16	W	37	45	34	94	58	37	0.02	0.02	0.02	0.02
RUPERT	4154 ft	1500MST	2200	48	41	8	WNW	-	48	33	86	41	27	0	0	0	0

Figure 28. ROMAN Real-Time Weather Summary Table



SITE INFORMATION

ID: STNI1
NAME: STANLEY
LATITUDE: 44.1692
LONGITUDE: -114.9253
ELEVATION: 6286 ft
MNET: RAWS

Weather Conditions for STNI1

Current time: April 8, 2010 - 15:39 GMT

Most Recent Observations at April 8, 2010 - 14:39 GMT

	14:39	Max since Midnight	Min since Midnight	24 Hour Max	24 Hour Min
Temperature	35.0° F	35.0 at 14:39	15.0 at 12:39	47.0 at 21:39	15.0 at 12:39
Dew Point	22.1° F	24.5 at 13:39	13.6 at 12:39	24.5 at 13:39	8.6 at 15:39
Relative Humidity	59%	98 at 13:39	59 at 14:39	98 at 13:39	31 at 22:39
Wind Speed	10 mph from SSE	10 at 14:39	1 at 8:39	10 at 14:39	1 at 1:39
Wind Gust	24 mph	24 at 14:39	4 at 6:39	24 at 14:39	4 at 4:39
Solar Radiation	69.0 W/m*m	69.0 at 14:39	0.0 at 6:39	950.0 at 19:39	0.0 at 3:39

Precipitation accumulated since midnight: 0.00", in 24 hours: 0.21"

Tabular Listing: April 7, 2010 - 14:39 through April 8, 2010 - 15:39 GMT

Time(GMT)	Temperature °F	Dew Point °F	Relative Humidity %	Wind Speed mph	Wind Gust mph	Wind Direction	Quality check	Solar Radiation W/m*m	Precipitation accumulated in	Fuel Temperature °F	10 hr Fuel Moisture gm	Batte volta
14:39	35.0	22.1	59	10	24	SSE	OK	69.0	8.21	27.0	24	13.4

SITE LINKS:
Help
ROMAN
Metric Units
Local Time
2 Week Summary
Past Data
Data Quality
Station Information
Station Status
Restrictions
Data in Spreadsheet Format

DATA COURTESY OF
Bureau of Land Management
and
USDA Forest Service

Select Previous Periods: 12 Hours | 24 Hours | 2 Days | 5 Days | 7 Days | 10 Days | 30 I

Hodograph

STANLEY
Start 4/07/10 15:39 (GMT) – End 4/08/10 14:39 (GMT)

Temp Dew Point Relative Humidity

Temperature (°F)

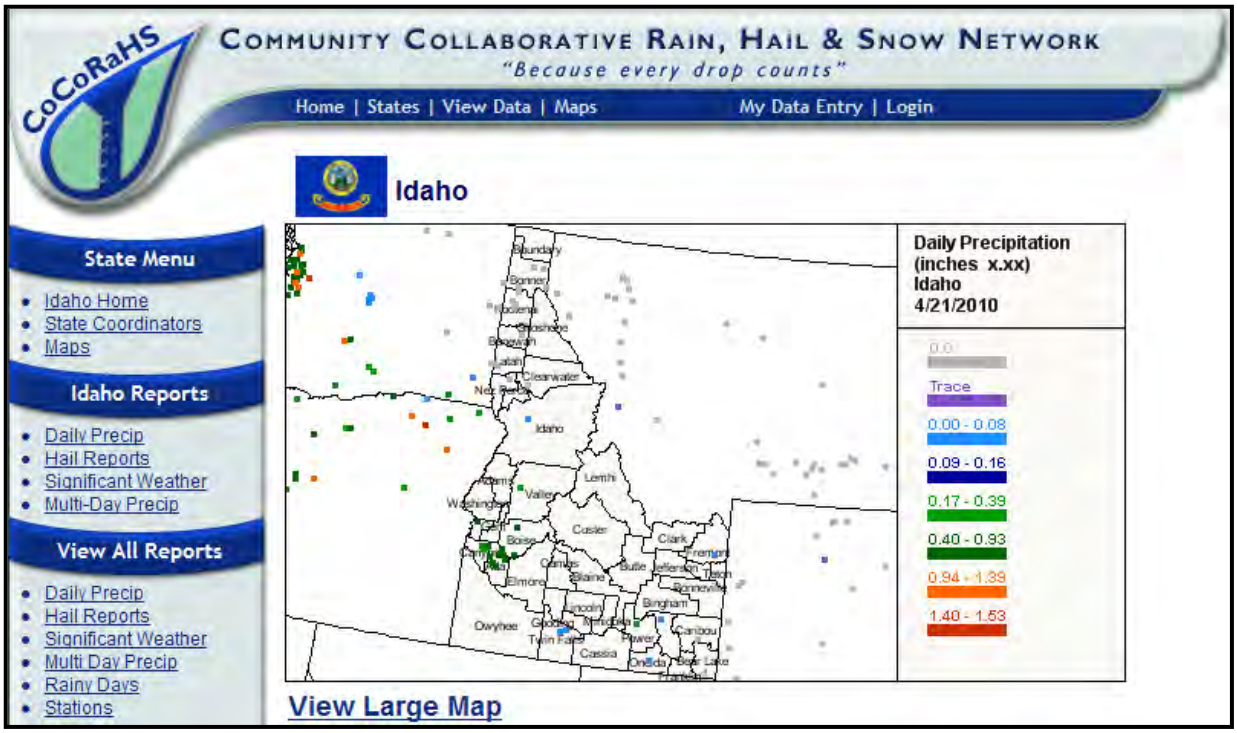
Wind Direction Gust

Figure 29. ROMAN Real-Time and Historical Weather Observation Site Information Page

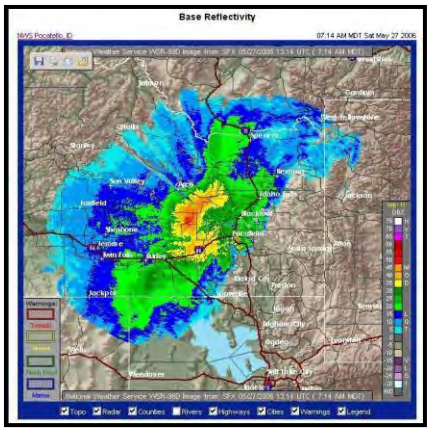
COMMUNITY COLLABORTAIVE RAIN, HAIL & SNOW NETWORK (COCORAHS)

CoCoRaHS is a grassroots volunteer network of backyard weather observers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow) in their local communities. By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, our aim is to provide the highest quality data for natural resource, education and research applications. The only requirements to join are an enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can effect and impact our lives. Our Web page provides the ability for our observers to see their observations mapped out in "real time", as well as providing a wealth of information for our data users.

Learn more at: *www.cocorahs.org/*



WEATHER OBSERVATION SYSTEMS



Weather Radar

National Display

www.weather.gov/radar_tab.php

Regional Display

radar.weather.gov/Conus/pacnorthwest.php

Southeast Idaho

radar.weather.gov/radar.php?rid=sfx&product=N0R&overlay=11101111&loop=no

Weather Satellite

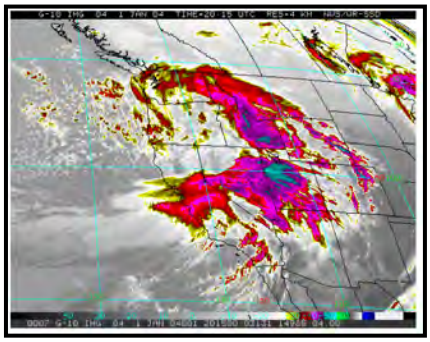
NOAA NESDIS Display

www.goes.noaa.gov

NWS Display

http://www.weather.gov/sat_tab.php?image=ir

Radar & Satellite



Surface Weather Observations

Surface Weather in XML / RSS formats

www.weather.gov/xml/current_obs

ROMAN – Real-Time National Observation and Analysis Network

raws.wrh.noaa.gov/roman/

Regional Display

www.wrh.noaa.gov/pih/observations/newrgl.php

Southeast Idaho

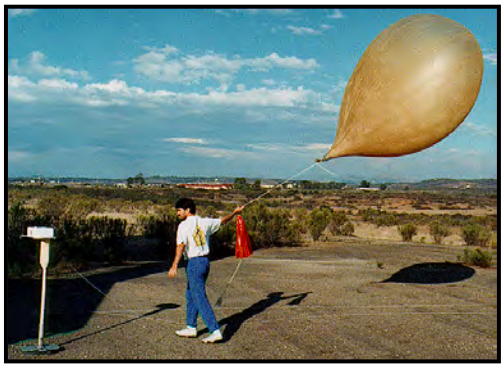
http://www.wrh.noaa.gov/mesowest/mwmap.php?list=1&wfo=pih&map=pih&sort=name#table

Climate Monitoring

www.cpc.ncep.noaa.gov/products/MD_index.shtml

Cooperative Observation Network (COOP)

www.nws.noaa.gov/om/coop/index.htm



Upper Air Balloon & COOP

National Buoy Center

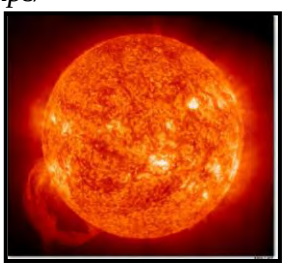
www.ndbc.noaa.gov/rmd.shtml

River Levels

http://water.weather.gov/ahps/

Space Weather Monitoring

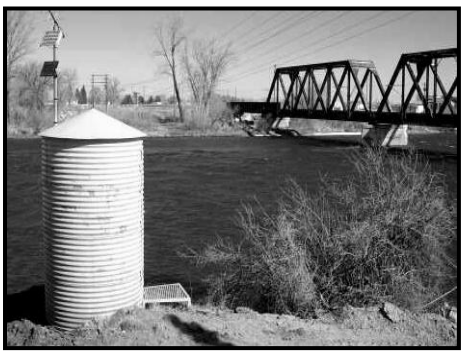
www.swpc.noaa.gov



NATIONAL WEATHER SERVICE: EQUIPMENT

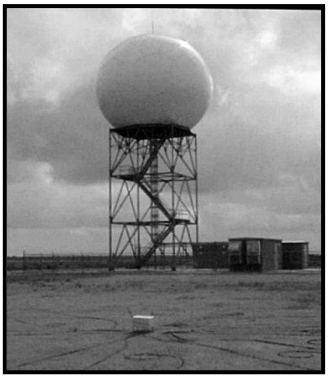
The NWS operates many instruments to measure weather and hydrologic elements such as moisture, wind, river stage and precipitation. A partial list of these instruments follows.

EQUPMENT	USES
Airline Communications, Addressing and Reporting System (ACARS)	Commercial airplanes measure temperature, moisture, wind
Advanced Weather Interactive Processing System (AWIPS)	Display system for hydro-meteorological operations
Automated Surface Observation System (ASOS)	Wind, temperature, moisture, cloud bases, weather and obscurations, pressure
Co-Operative Observation Networks (COOP)	Temperature, precipitation, snow
Doppler Weather Radar	Precipitation intensity and amounts, wind, severe weather patterns
Hydrologic Observing Systems	Temperature, precipitation, river stage/flow
Marine Buoys	Wave heights, wind, pressure
Mesonets	Temperature, wind, precipitation
Mobile Weather Units	On-site weather observations and forecasts
National Lightning Data Network	Lightning strikes, intensities and trends
NOAA Weather Radio	Official warning and forecast voice of the NWS
Personal Computers	Localized forecast models and text generation
River Gages	River stage/flow
Satellite	Cloud tops, temperatures, moisture content, large scale winds, sea surface temperatures
Ship Observing Networks	Temperature, moisture, wind, pressure
Special Communications	National Warning Alert System, amateur radio
Spotter Networks	Weather reports and observations
Upper Air Balloon Soundings	Wind, temperature, moisture
Wind Profilers	Wind patterns



USGS RIVER GAGE

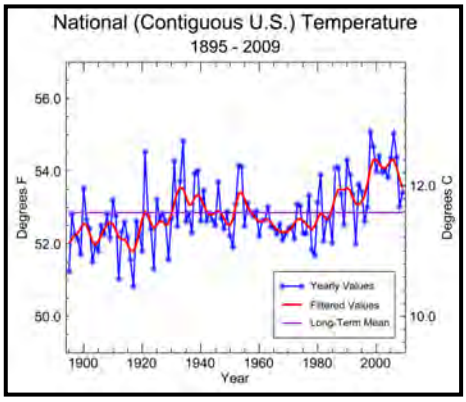
ASOS



NWS RADAR RADOME

NOAA CLIMATE SERVICES

The NOAA Climate Service encompasses a core set of longstanding NOAA capabilities with proven success. The climate research, observations, modeling, predictions and assessments generated by NOAA's top scientists – including Nobel Peace Prize award-winners – provides the scientific foundation for extensive on-the-ground climate services that respond to several requests each day for data and other critical information.



NOAA Climate Services
www.noaa.gov/climate.html

NOAA Climate Portal
www.climate.gov/#climateWatch

Climate Data and Information

The National Climatic Data Center (NCDC) collects many forms of weather data including radar and satellite images, forecasts and observations from airports and upper air balloons. NCDC is the world's largest active archive of weather data. NCDC produces numerous climate publications and responds to data requests from all over the world. NCDC supports a three tier national climate services support program - the partners include: NCDC, Regional Climate Centers, and State Climatologists. Volunteer Cooperative Observer (COOP) data, which consists of daily temperatures and/or rainfall amounts, is also archived by NCDC.

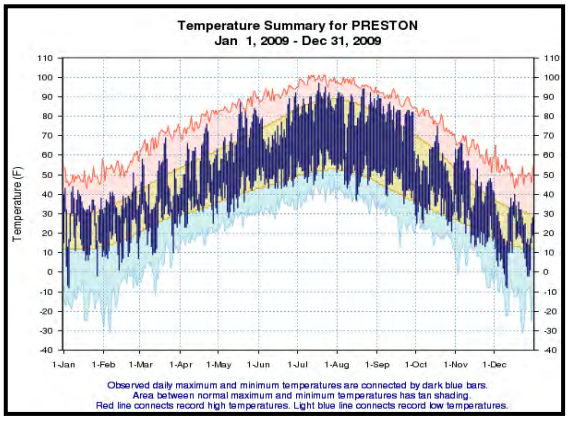
National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville NC 28801-5001
Telephone: (828) 271-4800
www.ncdc.noaa.gov/oa/ncdc.html

Western Regional Climate Center

Western Regional Climate Center
2215 Raggio Parkway
Reno, NV 89512
Telephone: (775) 674-7010
www.wrcc.dri.edu

Applied Climate Information System (ACIS)

Designed for decision makers to find and display local climate data online.
www.rcc-acis.org/



Central & Eastern Idaho Searchable Data
http://xmacis.nrcc.cornell.edu/PIH/
Central & Southwest Idaho Searchable Data
http://xmacis.nrcc.cornell.edu/BOI/
North Central Idaho Searchable Data
http://xmacis.nrcc.cornell.edu/MSO/
North Idaho Searchable Data
http://xmacis.nrcc.cornell.edu/OTX/

Climate Data and Forecasts on the Internet

The NWS provides climate data for thousands of locations nationwide as well as seasonal climate forecasts, El Niño and La Niña data and drought information. Climate information is available via the internet from a number of web sites, which are below.

NOAA National Climate Services
www.noaa.gov/climate.html

Climate Prediction Center (CPC)
www.cpc.ncep.noaa.gov/index.php

Figure 30. NOAA NWS Climate Prediction Center (CPC) Web page

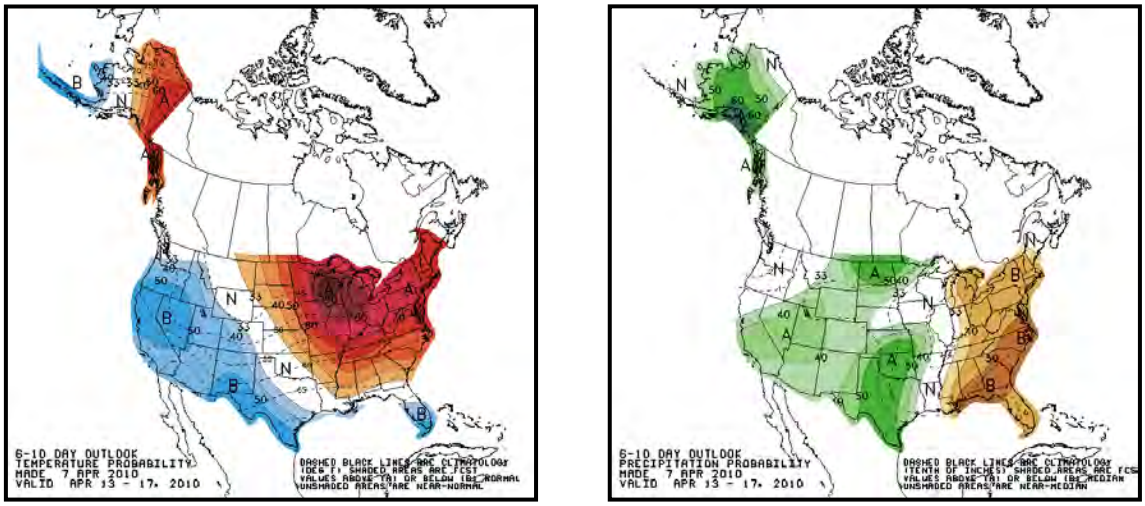
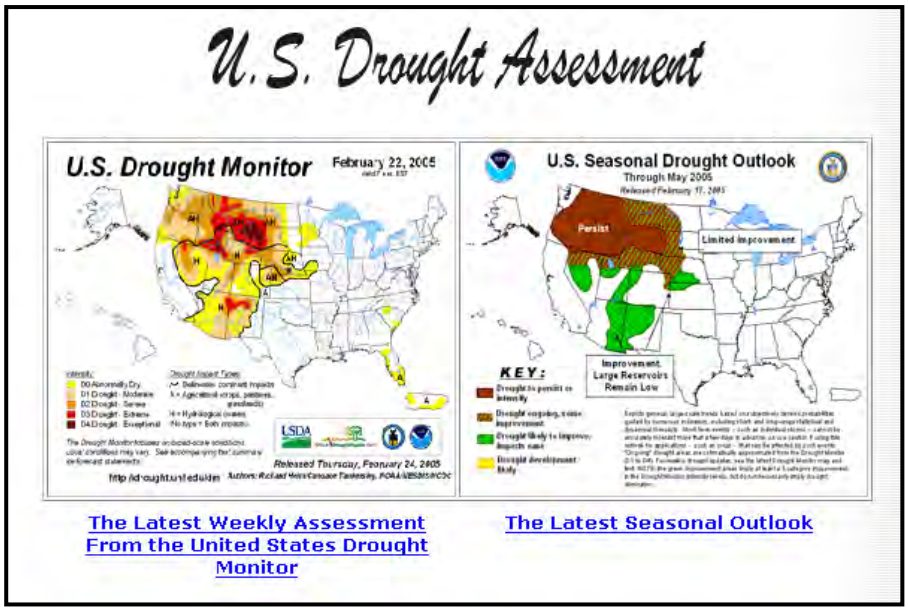


Figure 31. CPC long-range temperature and precipitation forecasts.



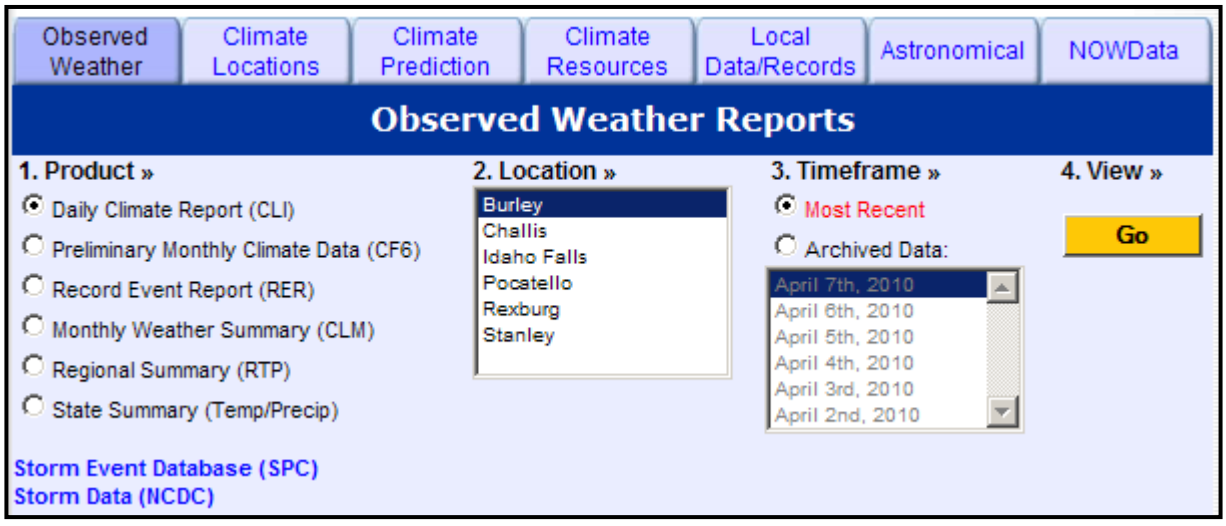
National Drought Monitor Center

www.drought.unl.edu/dm/monitor.html

www.ncdc.noaa.gov/oa/climate/monitoring/drought/nadm/index.html

Pocatello WFO Internet

www.weather.gov/climate/index.php?wfo=pih



SOURCES FOR NWS PRODUCTS

Dissemination Techniques

The National Weather Service (NWS) strives to use the latest technologies available to disseminate climate, water, and weather information in gridded, graphical, and text form.
The NWS vision for communicating information to users is to:

- Make a wide range of information readily available to a diverse user community
- Disseminate all NWS information nationwide
- Deliver critical information to the public, the hazards community, and other users

www.weather.gov/om/disemsys.shtml

Hailstorm Soda Springs Idaho
Alisha Davis, June 2009

Gateway Telecommunications Hub

www.weather.gov/tg/
www.weather.gov/tg/cominfo.html

GIS Data Portal

www.weather.gov/gis/

KML/KMZ Formats

www.srh.noaa.gov/gis/kml/

Shapefile Formats

www.weather.gov/gis/shapepage.htm

NOAA Geospatial Data Resources

www.weather.gov/gis/geospatial_data_resources_2007.pdf

National Digital Forecast Database (NDFD) & Simple Object Access Protocol (SOAP) - Web Service

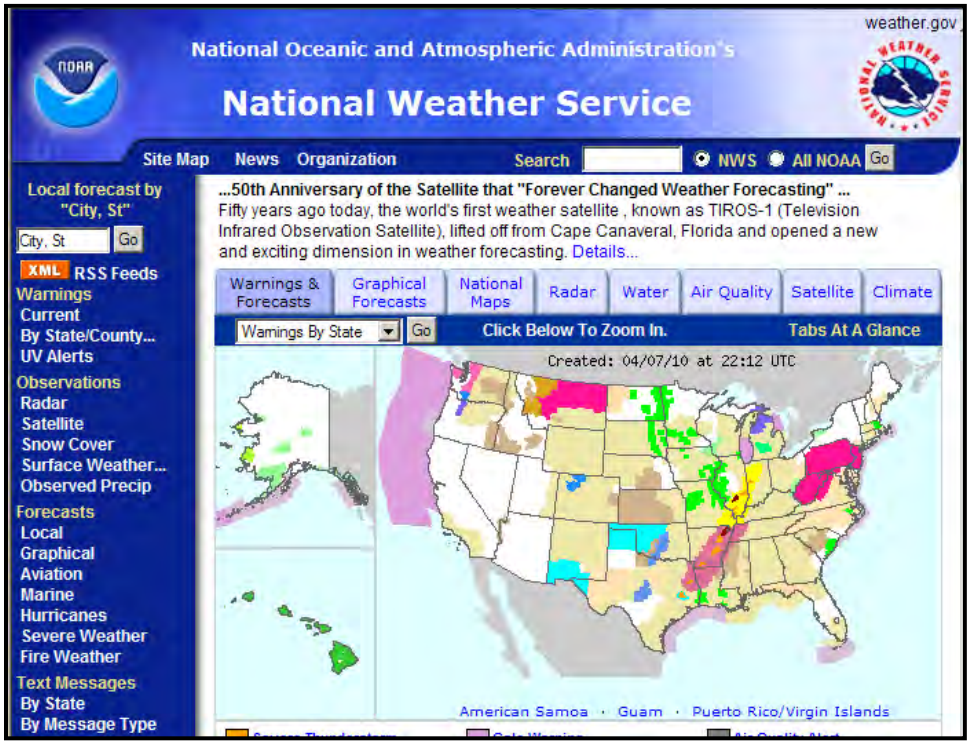
www.weather.gov/xml/

National Oceanic and Atmospheric Association (NOAA)

WWW.NOAA.GOV

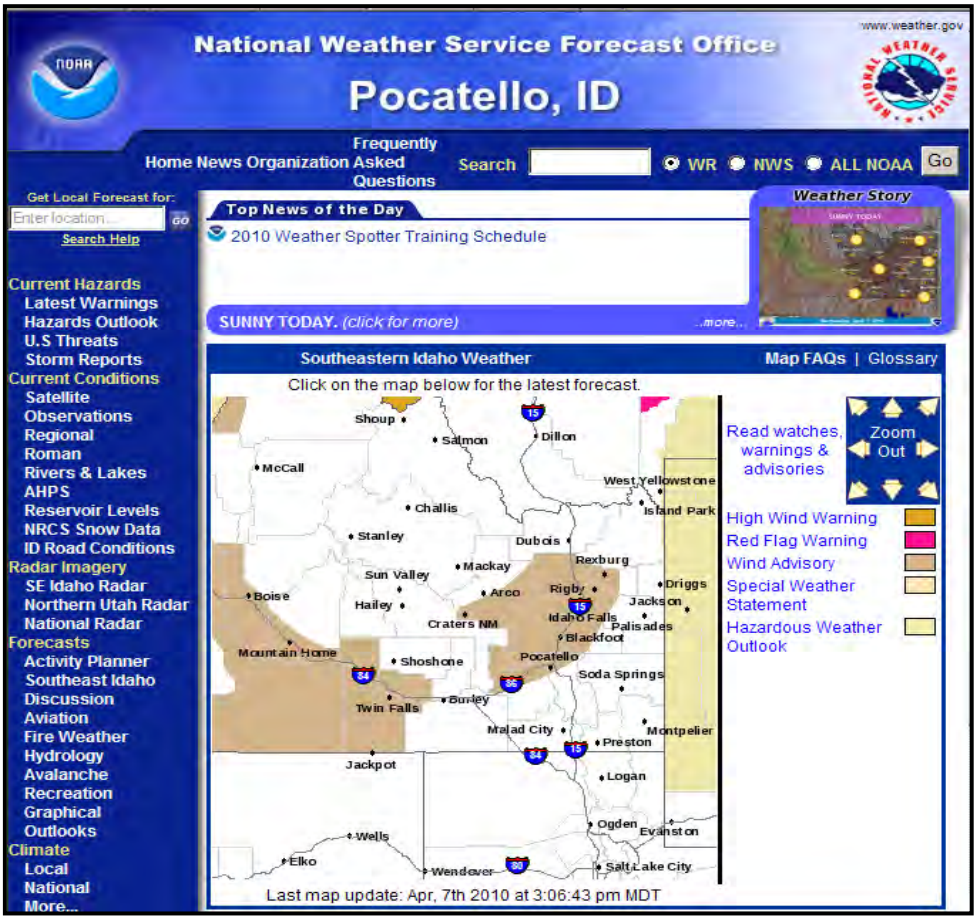
National Weather Service on the Internet

WWW.WEATHER.GOV



Pocatello Weather Forecast Office

www.weather.gov/pocatello



Social Media

Social media broadly describes online tools used to share and spread information through social interaction. This mode of dissemination, based on real-time simple publishing techniques online, relies as much on the audience as the publisher. Social media provides a platform from which content transforms into community.

www.noaa.gov/socialmedia/

Facebook

Facebook fan pages lets users create their own sets of "fans" among whom they share brief updates, photos, links, or other information. NOAA and NWS Facebook fan pages offer users a place to follow updates and share information.

www.facebook.com/US.NationalWeatherService.Pocatello.gov
www.facebook.com/US.National.Weather.Service.gov
www.facebook.com/usnoaagov

Podcasts

A podcast is an audio recording, usually on one particular topic, ranging anywhere from several minutes to a half-hour or more.

www.weather.gov/rss/
www.podcast.noaa.gov/

RSS Feeds

Really Simple Syndication (RSS) is a family of web formats used to publish frequently updated digital content. It's a way to have news and information delivered to subscribers via "feeds." RSS content can be accessed through various "supported web browsers.

www.weather.gov/rss/
www.weather.gov/alerts-beta/
www.rss.noaa.gov/
www.noaawatch.gov/rss/

Twitter

Twitter is a "microblogging" service that allows users subscribe to receive brief updates or "tweets" (a maximum 140 characters) from others whom they choose to "follow." NOAA tweets include various announcements and links to its Web site. You can Tweet your weather report to the NWS at: ***#wxreport WW location WW give your report***

http://twitter.com/usnoaagov

YouTube

YouTube lets users post videos to share with others. NOAA's YouTube Channel offers quick access to many videos and links.

www.youtube.com/usnoaagov

NOAA WEATHER RADIO ALL-HAZARDS

Broadcasting accurate and timely weather information is a crucial aspect of the NWS mission and NOAA Weather Radio All-Hazards (NWR) is a primary communication link to NWS customers.

NWR is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day on over 1,000 NWR transmitters to 90% of the country's population. The Pocatello WFO maintains six transmitters providing NWR coverage Central and Eastern Idaho residents. For Idaho NWR coverage, please refer to the map on the following page.

Working with the Federal Communication Commission's (FCC) Emergency Alert System (EAS), NWR is an "All-Hazards" radio network, making it the only source for comprehensive weather and emergency information. In conjunction with Federal, State, and Local Emergency Managers and other public officials, NWR also broadcasts warning and post-incident information for all types of hazards, including natural (e.g. earthquakes or avalanches), environmental (e.g. chemical releases or oil spills), and public safety (e.g. AMBER alerts or 911 Telephone outages).

Specially designed radios, some of which have special features that alarm when the NWS issues a warning, are available from a number of commercial vendors. NWR is also available through scanners and some vehicles and televisions.

Learn more about NOAA Weather Radio All-Hazards and purchasing the special receivers by visiting the NWR website

www.weather.gov/nwr

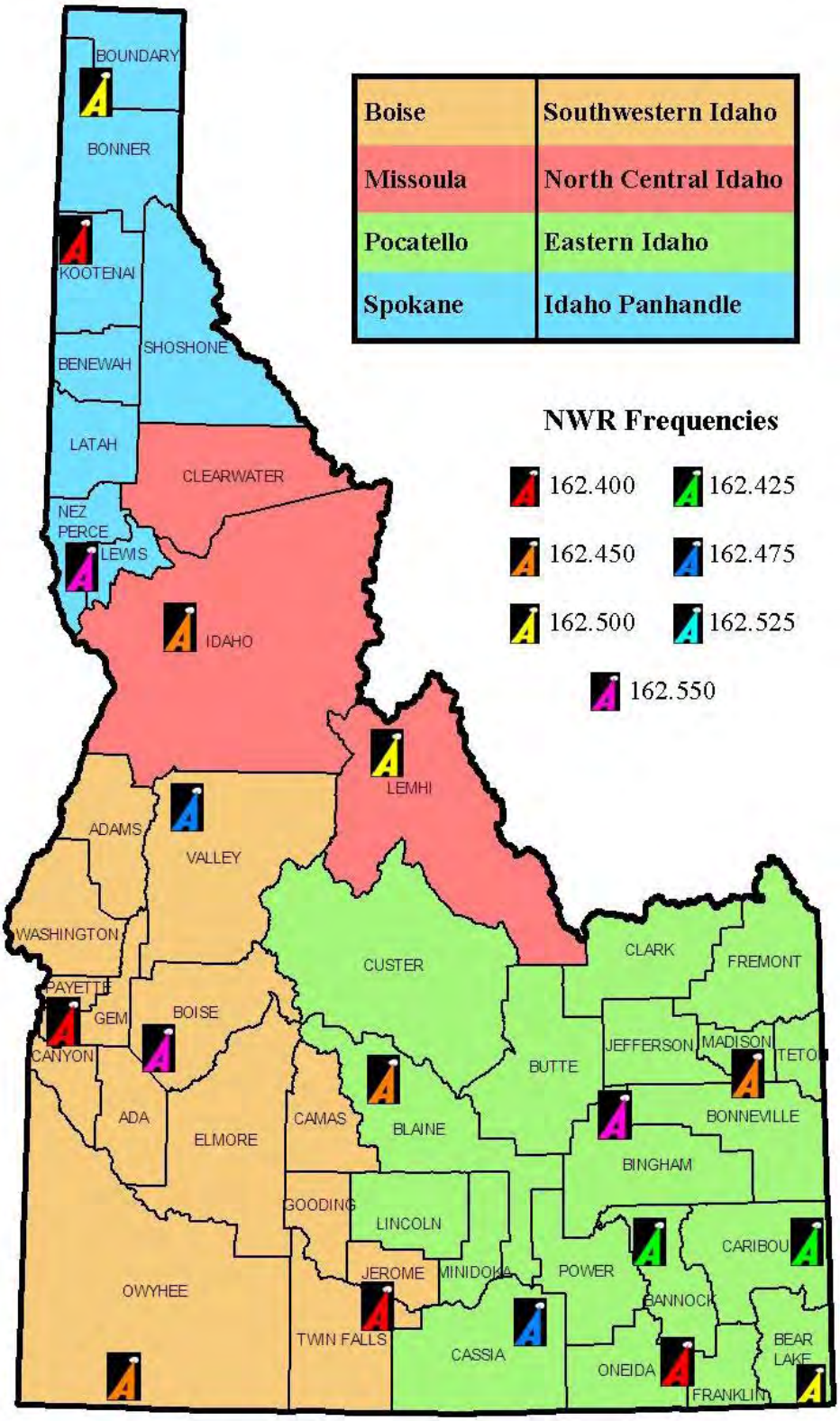
Learn how to program your radio - (SAME)

www.nws.noaa.gov/nwr/nwrsame.htm

NOAA Weather Radio All-Hazards transmitters serving southern and central Idaho include:

LOCATION	FREQUENCY (MHz)
Boise	162.550
Payette	162.500
Burley	162.475
Twin Falls	162.400
McCall	162.475
Salmon	162.500
Sun Valley	162.450
Driggs	162.450
Pocatello / Idaho Falls	162.550
Sedgwick Peak	162.425
Bear Lake	162.500
Logan UT	162.400

NOAA WEATHER RADIO ALL-HAZARDS
IDAHO STATEWIDE COVERAGE



www.weather.gov/nwr/nwrsame.htm

Figure 32. Idaho NOAA Weather Radio All-Hazards coverage.

Mobile Services:
Cell Phones – "Interactive NWS"

Text Message Alerts,
Cell Phone Applications

Mobile Weather Web Page
Mobile Aviation Page

nwsmobile.wrh.noaa.gov

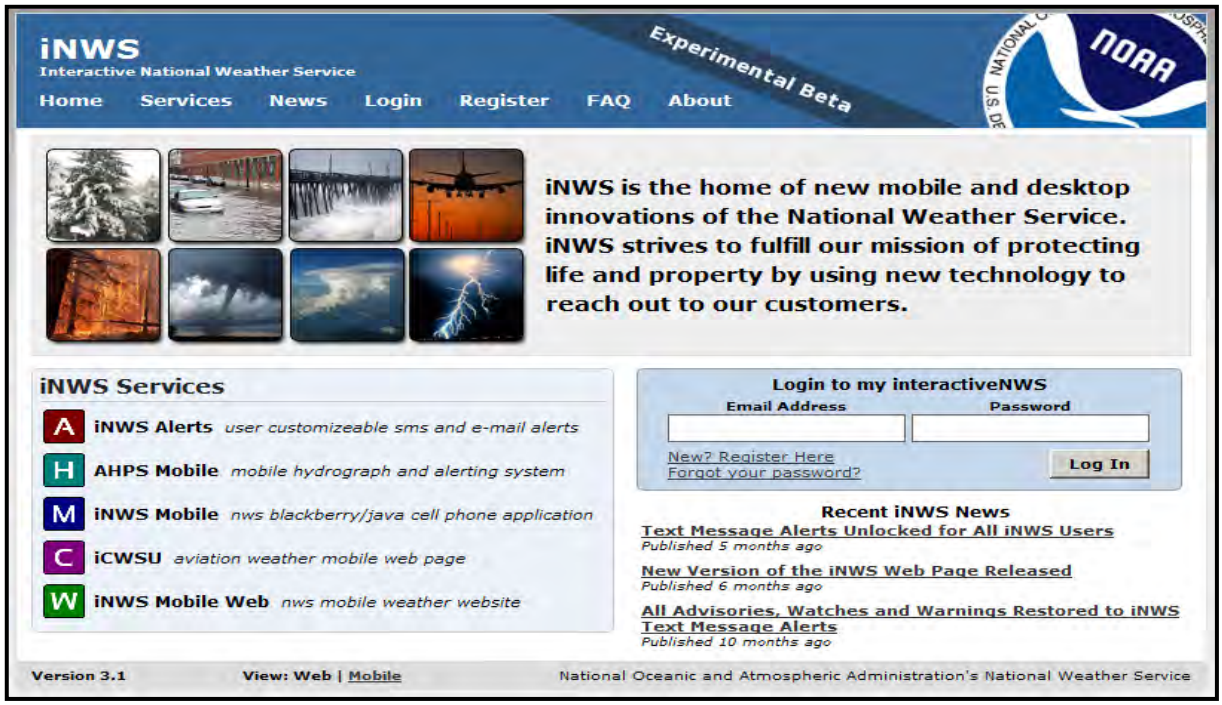


Figure 33. NWS Interactive Web Page Home and AHPS Water Resources information Mobile

Additional Text Messaging Sources on the Internet

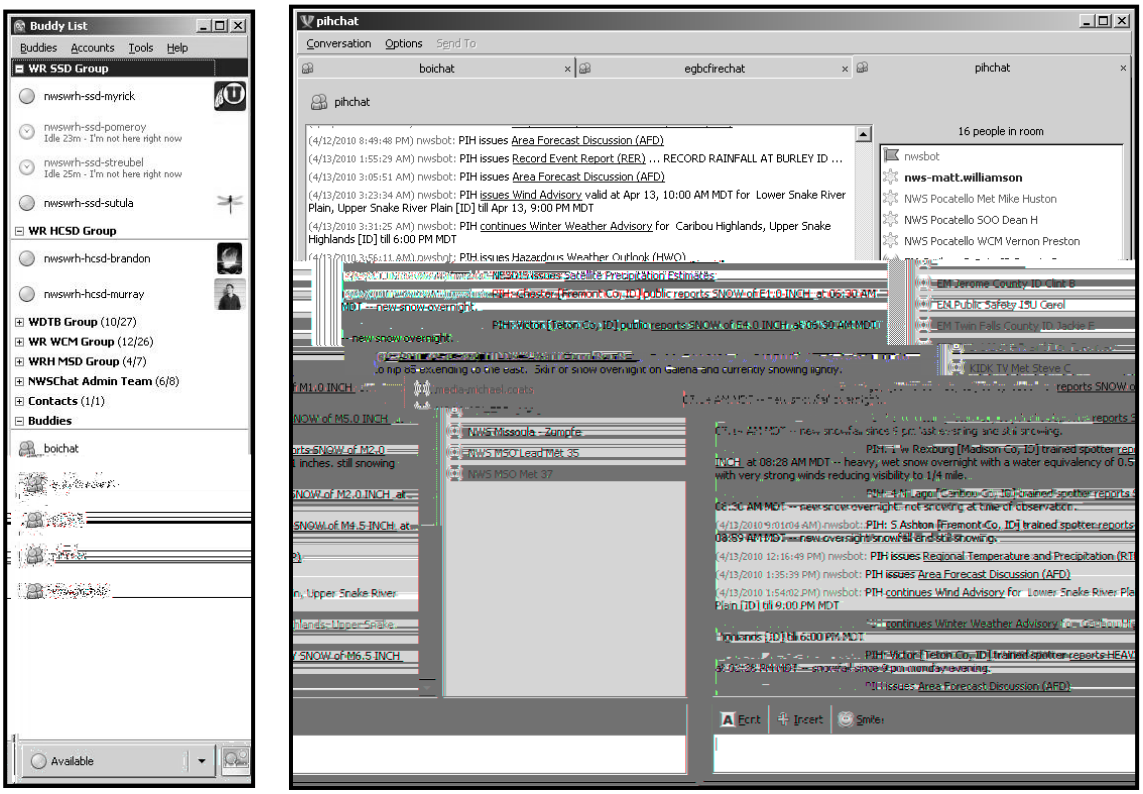
www.weather.gov/view/validProds.php
www.weather.gov/view/states.php

http://ahpsmobile.wrh.noaa.gov/web/home

DECISION SUPPORT SYSTEMS

Decision Support Systems are designed for emergency managers, law enforcement, first responders and incident commanders to communicate in real-time with the NWS and other partners and receive our latest warning products. Two services provide by the Pocatello office include NWSChat and EWARN. Contact our office if you would like to sign up and participate.

NWSChat – using Pidgin display software



EWARN – Email messaging system which sends warnings for your area

```
URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE POCATELLO ID
156 PM MDT TUE APR 13 2010

IDZ019-023-140000-
/O.CON.KPIH.WW.Y.0013.000000T0000Z-100414T0000Z/
UPPER SNAKE HIGHLANDS-CARIBOU HIGHLANDS-
INCLUDING THE CITIES OF...DRIGGS...ISLAND PARK...ASHTON HILL...
TARGHEE PASS...PINE CREEK PASS
156 PM MDT TUE APR 13 2010

..WINTER WEATHER ADVISORY REMAINS IN EFFECT UNTIL 6 PM MDT THIS
EVENING ABOVE 6000 FEET...

A WINTER WEATHER ADVISORY ABOVE 6000 FEET REMAINS IN EFFECT UNTIL
6 PM MDT THIS EVENING.

* TOTAL SNOW ACCUMULATIONS: 4 TO 7 INCHES

* ELEVATION: ABOVE 6000 FEET.

* TIMING: SNOW WILL TAPER OFF AFTER 6 PM.

* LOCATIONS INCLUDE: DRIGGS...ISLAND PARK...ASHTON HILL...
  TARGHEE PASS...PINE CREEK PASS

* WINDS: SUSTAINED WINDS OF 10 TO 20 MPH WITH HIGHER GUSTS AT
  TIMES.

* IMPACTS: HEAVY SNOW AND AREAS OF BLOWING AND DRIFING SNOW
  WILL CREATE DIFFICULT DRIVING CONDITIONS AND REDUCED
  VISIBILITY.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WINTER WEATHER ADVISORY FOR SNOW AND BLOWING SNOW MEANS THAT
PERIODS OF SNOW AND WINDS WILL CAUSE PRIMARILY TRAVEL
DIFFICULTIES. BE PREPARED FOR SNOW COVERED ROADS AND LIMITED
VISIBILITIES...AND USE CAUTION WHILE DRIVING.
```

```
URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE POCATELLO ID
355 AM MDT THU APR 8 2010

IDZ017-022-090300-
/O.EXA.KPIH.WI.Y.0005.100408T2000Z-100409T0300Z/
EASTERN MAGIC VALLEY-SOUTH CENTRAL HIGHLANDS-
INCLUDING THE CITIES OF...BURLEY...RUPERT...SHOSHONE...CAREY...
MALAD...OAKLEY...CITY OF ROCKS...CONNOR SUMMIT...
SWEETZER SUMMIT...MALAD SUMMIT
355 AM MDT THU APR 8 2010

..WIND ADVISORY IN EFFECT FROM 2 PM THIS AFTERNOON TO 9 PM MDT
THIS EVENING...

THE NATIONAL WEATHER SERVICE IN POCATELLO HAS ISSUED A WIND
ADVISORY...WHICH IS IN EFFECT FROM 2 PM THIS AFTERNOON TO 9 PM
MDT THIS EVENING.

* WINDS: SOUTHWEST WINDS 25 TO 35 MPH WITH GUSTS TO 45 MPH.

* TIMING: WINDS WILL BE INCREASING BETWEEN NOON AND 3 PM WITH
  THE STRONGEST WINDS AROUND 6 PM AS THE COLD FRONT MOVES
  THROUGH THE AREA.

* LOCATIONS INCLUDE: BURLEY...RUPERT...SHOSHONE...CAREY...
  MALAD...OAKLEY...CITY OF ROCKS...CONNOR SUMMIT... SWEETZER
  SUMMIT...MALAD SUMMIT

* IMPACTS: GUSTY WINDS WILL MAKE TRAVEL DIFFICULT FOR HIGH
  PROFILE VEHICLES TRAVELING THROUGH THE REGION.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A WIND ADVISORY MEANS THAT WINDS OF 35 MPH ARE EXPECTED. WINDS
THIS STRONG CAN MAKE DRIVING DIFFICULT...ESPECIALLY FOR HIGH
PROFILE VEHICLES. USE EXTRA CAUTION.
```

EMERGENCY ALERT SYSTEM (EAS)

The Emergency Alert System (EAS) alerts local communities about emergency information and warnings through local broadcast and cable media. Local, state and federal agencies generate and transmit messages to radio, television and cable networks. Hazard alerts include power outages, tornadoes, flash floods, severe thunderstorms, blizzards, dam failures, nuclear accidents, toxic leaks or any hazardous incident.

Activation of the EAS system typically occurs when life threatening weather or potential damage to property may occur. Weather and hydrologic incidents that activate the system via NOAA All-Hazards Weather Radio system include tornadoes, flash floods, severe thunderstorms and rapidly developing blizzards. Select officials may also request system activation for items such as dam failures or messages from county emergency management directors who must alert their community to a hazard, such as a toxic spill. The NWS also assists in Amber Alerts and national emergency messages from the President of the United States.

Upon system activation, certain tones interrupt the audio portion of radio and television programming. Television stations may choose whether to use a text crawler and/or an audio portion to discuss the purpose of the alert. After relaying the emergency message, stations return to normal programming.

Additional information on the Emergency Alert System is available online:

National EAS Information
www.fcc.gov/pshs/services/eas

National Weather Service EAS
www.nws.noaa.gov/om/dissemination/eas_codes.shtml

Idaho Bureau of Homeland Security EAS Information
www.bhs.idaho.gov

America's Weather Industry - Private Weather Vendors

Private weather vendors who carry the NOAA Weather Wire also disseminate NWS text products as well as Doppler Weather Radar and satellite imagery. Many commercial weather services provide a wide variety of weather products and graphics; however, some may require a usage fee.

www.nws.noaa.gov/im
www.weather.gov/im/more.htm

EDUCATION AND CAREER RESOURCES

Educational Resources

The National Weather Service works with educators to provide training materials for all levels of learning. Information is available online via the following web sites.

NWS & NOAA Education Resources

Atmosphere, Earth & Ocean Sciences – NOAA for Teachers & Students
www.education.noaa.gov/index.html

Especially for children
www.education.noaa.gov/sweather.html

JETSTREAM – Online School for Weather
www.srh.weather.gov/srh/jetstream/index.htm

NOAA Central Library – Photos, Articles, etc.
www.lib.noaa.gov

Various Education Links
www.weather.gov/education.html

Weather Links
www.education.noaa.gov/cweather.html

American Meteorological Society
www.ametsoc.org/amsedu

American Red Cross – Masters of Disaster
www.redcross.org/

Cooperative for Operational Meteorology, Education and Training (COMET)
www.comet.ucar.edu

National Weather Association
www.nwas.org

Career Information

National Weather Service careers vary from meteorologists and hydrologists to computer programmers and electronics technicians. Preferred majors for entry-level positions include the atmospheric, computer and earth sciences, electronics, geography, hydrology, mathematics, meteorology and physics. Special summer internship programs are occasionally available. Job applicants may obtain employment information from a local NWS office or through the US Government Office of Personnel Management (OPM).

Careers in Climate, Hydrology and Weather
www.weather.gov/careers.php

NOAA Careers
www.noaa.gov/jobs.html

Department of Commerce Online Resume Preparation
www.commerce.gov/JobsCareerOpportunities/index.htm

All Federal Employment
www.usajobs.gov

NATIONAL WEATHER SERVICE PARTNERS

The NWS collaborates with numerous government agencies and public service groups to serve the community in time of disasters. Some Eastern Idaho NWS partners and their web sites are below.

US Federal Government Web Portal
www.usa.gov

Federal Emergency Management Agency
www.fema.gov

US Department of Agriculture – Forest Service
www.fs.fed.us

US Department of Interior – Bureau of Land Management
www.id.blm.gov

National Interagency Fire Center
www.nifc.gov

Eastern Great Basin Coordination Center
gacc.nifc.gov/egbc/

Eastern, South Central & Challis Salmon Interagency Fire Centers
www.idahofireinfo.blm.gov/east
www.idahofireinfo.blm.gov/south/
www.fs.fed.us/r4/sc/fire/

National Park Service
www.nps.gov

US Bureau of Reclamation – Pacific Northwest Region
www.usbr.gov/pn

USDA Natural Resources Conservation Service
www.id.nrcs.usda.gov/snow

State of Idaho
www.state.id.us

Idaho Bureau of Homeland Security
www.bhs.idaho.gov

Idaho Department of Transportation
511.idaho.gov

Idaho Public Safety Communications
http://www.bhs.idaho.gov/Pages/InteroperableCommunications.aspx

Idaho State Police
www.isp.idaho.gov/

Idaho Emergency Management Association

OTHER NWS COLLABORATION AND SERVICES

Visit these web sites for additional weather and weather-related information.

Avalanche Information

Sawtooth National Forest Avalanche Center
www.avalanche.org/~svavctr
National Avalanche Information
www.avalanche.org
Pocatello Weather Avalanche Information
www.wrh.noaa.gov/pih/avalanche/index.php

Climate Prediction
www.cpc.ncep.noaa.gov

Daily Weather Maps
www.hpc.ncep.noaa.gov/dailywxmap/index.html

Hurricane Forecasts, Warnings and Maps
www.nhc.noaa.gov/index.shtml

Marine and Coastal Weather Information
www.weather.gov/om/marine/home.htm

Ocean Forecasts, Warnings and Maps
www.opc.ncep.noaa.gov

NOAA Public Affairs
www.nws.noaa.gov/pa/index.php

National Weather Service Publications
weather.gov/om/publications.shtml

Space Weather and Aurora Forecasts and Warnings
www.swpc.noaa.gov

Sun or Moon Rise and Set Tables
aa.usno.navy.mil/data/docs/RS_OneYear.html

Severe Weather Safety Brochures
www.nws.noaa.gov/om/brochures.shtm

Severe Weather Safety Services
www.nws.noaa.gov/om/severeweather/index.shtml

Weather Computer Modeling Data
wwwt.emc.ncep.noaa.gov

Weather Model Maps and Analysis
www.nco.ncep.noaa.gov/pmb/nwprod/analysis

Rockland Valley Tornado, July 2001

Firewhirl near Aberdeen, July 2000

Tornado Pocatello Airport, July 1999

WEATHER-RELATED WEBSITES

National Weather Service Offices - Nearby

Boise, ID	*www.weather.gov/boise*
Great Falls, MT	*www.weather.gov/greatfalls*
Missoula, MT	*www.weather.gov/missoula*
Pendleton, OR	*www.weather.gov/pendleton*
Pocatello, ID	*www.weather.gov/pocatello*
Riverton, WY	*www.weather.gov/riverton*
Salt Lake City, UT	*www.weather.gov/saltlake*
Spokane, WA	*www.weather.gov/spokane*
Northwest River Forecast Center	*www.nwrfc.noaa.gov*
Colorado Basin River Forecast Center	*www.cbrfc.noaa.gov*
NWS Western Region Headquarters	*www.wrh.noaa.gov*
National Weather Service Headquarters	*www.nws.noaa.gov/hdqrtr.php*
National Weather Service Forecasts	*www.weather.gov*
NWS Digital Forecast Database	*www.nws.noaa.gov/ndfd*
National Center for Environmental Prediction	*www.ncep.noaa.gov*
Climate Prediction Center	*www.cpc.noaa.gov/index.php*
National Climatic Data Center	*www.ncdc.noaa.gov*
Storm Prediction Center	*www.spc.noaa.gov*
National Severe Storms Laboratory	*www.nssl.noaa.gov*
American Red Cross	*www.redcross.org*
American Meteorological Society	www.ametsoc.org/amsedu
National Weather Association	www.nwas.org
University Center for Atmospheric Research	*www.ucar.edu/ucar*

APPENDIX A: WEATHER SAFETY RULES

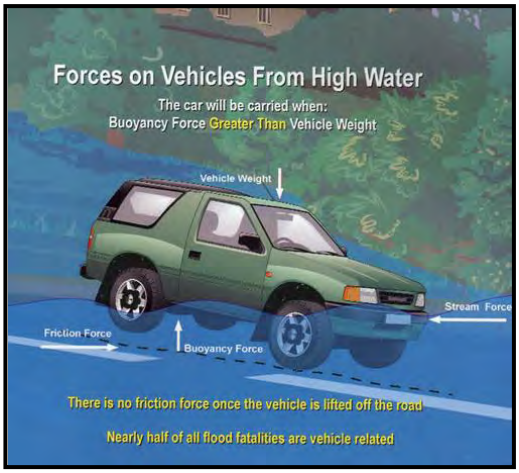
Following are safety rules for different weather conditions. During times of threatening or actual severe weather, WFO Pocatello asks that the media occasionally broadcast these safety rules to listeners.

Additional safety and preparedness information and links can be found online at

www.nws.noaa.gov/om/severeweather/index.shtml

Flood / Flash Flood Rules

1. Leave areas subject to flooding, including dips, low areas in canyons, washes, etc.
2. Avoid already flooded and high velocity flow areas. Do not attempt to cross a flowing stream on foot where the water is above your knees.
3. **DO NOT** drive through moving water. Seek higher ground as rapid rising water may engulf the vehicle and its occupants and sweep them away. Find another route.
4. Be especially cautious at night when it is difficult to recognize flood danger.
5. Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.



Fog Driving Safety Tips

1. Drive with lights on low beam, as high beams will reflect off the fog and further impair visibility.
2. Slow down…Slow down…Slow down.
3. Listen for traffic you cannot see.
4. Use wipers and defrosters as necessary for maximum visibility.
5. Be patient. Do not pass lines of traffic.
6. Do not stop on a freeway or heavily traveled road. If your vehicle stalls or becomes disabled, get out and move away from the vehicle to avoid personal injury.
7. Consider postponing your trip until the fog clears. Visibility usually improves by late morning or the afternoon.

Winter Storm Safety Rules

1. Check battery powered equipment before the storm arrives. Don't forget a portable radio or television, as this may be your only outside contact.
2. Check food stock and extra supplies. Supplies should include only non-perishable items, as a power failure will eliminate cooking or refrigeration possibilities.
3. Stay indoors during storms unless you are in peak physical condition. If you must go out, avoid over-exertion.
4. Do not over exert yourself shoveling snow. If you are in less than prime physical condition, ask someone to shovel for you.

If A Blizzard Traps You in Your Automobile

1. Avoid overexertion and exposure. Attempting to push your car, shovel heavy drifts or perform other difficult chores during a blizzard may induce a heart attack even for someone in apparently good physical condition.
2. Stay in your vehicle. Do not attempt to walk out of a blizzard. Disorientation comes quickly in blowing and drifting snow. You are more likely to be found when sheltered in your car.
3. Keep fresh air in your car by clearing enough snow from tops of car windows to cycle in fresh air.
4. Avoid carbon monoxide poisoning by running the motor and heater sparingly, and only with the upwind window open for ventilation.
5. Do not stay in one position for long. Exercise by clapping hands and moving arms and legs vigorously from time to time.
6. Turn on the dome light at night to help make your vehicle visible to rescue workers.

Winter Travel Safety Rules

1. If the storm tests or exceeds your limitations, seek available refuge immediately.
2. Plan your travel and select primary and alternate routes.
3. Stay abreast of the latest weather information on NOAA All-Hazards Weather Radio (NWR) or your car radio.
4. Try not to travel alone.
5. Always fill your gasoline tank before entering open country, even for short distances.
6. Suggested winter storm car kit includes:

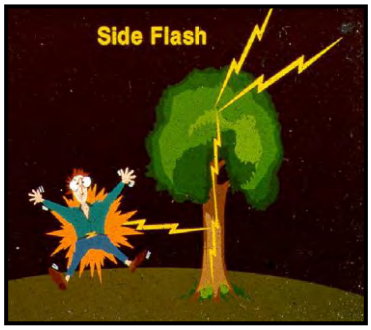
- Blankets or sleeping bags
- Matches and candles
- Facial tissue
- Paper towels
- Clothing
- High-calorie nonperishable food
- Compass
- Shovel
- Flashlight or signal light
- Windshield scraper
- Booster cables
- Tire chains
- Tow chains
- Fire extinguisher
- Catalytic heater
- Axe
- Empty 3-pound coffee can with plastic lid to melt snow for drinking water

Tornado Safety Rules

1. Stay away from windows, doors and outside walls.
2. Protect your head.
3. Homes and small buildings: Go to an interior part of the building on the lowest level, such as closets, bathrooms or interior halls. Get under something sturdy.
4. Schools, nursing homes, hospitals, hotels, factories and shopping centers: Go to pre-designated shelter areas. Interior hallways on the lowest floor are usually the best.
5. High-rise buildings: Go to interior small rooms or hallways.
6. Leave mobile homes or vehicles and go to a substantial shelter. If there is no shelter nearby, lie flat in the nearest ditch, ravine or culvert with your hands shielding your head. Be alert to any rapidly rising waters due to flooding.

Lightning Safety Rules

1. Get inside a home, large building or an all-metal (non-convertible) automobile.
2. Do not use the telephone, except only in an emergency.
3. Do not stand underneath a natural lightning rod, such as a tall isolated tree or telephone pole.
4. Avoid projecting above the surrounding landscape, such as standing on a hilltop.
5. In a forest, seek shelter in a low area under a thick growth of small trees.
6. In open areas, go to a low place such as a ravine or valley. Be alert to any rapidly rising waters due to flooding.
7. Get away from open water, tractors and other metal farm equipment or small metal vehicles such as motorcycles, bicycles or golf carts.
8. Stay away from wire fences, clotheslines, metal pipes and rails. Put down golf clubs.
9. If you are caught in a level field or in the open away from shelter and you feel your hair stand on end, *lightning may be about to strike you*.
10. Do not lie flat on the ground. Instead drop to your knees and bend forward, putting your hands on your knees.



Dust Storm Driving Safety Rules

1. If dense dust is blowing across or approaching a roadway, pull your vehicle off the pavement as far as possible, turn off lights, set the emergency brake and take your foot off the brake pedal to insure that taillights are not illuminated.
2. Do not enter the dust storm area if possible.
3. If you cannot pull off the roadway, proceed at a speed suitable for visibility, turn on lights and sound the horn occasionally. Use the painted centerline to guide you. Look for a safe place to pull off the roadway as soon as possible.
4. Never stop on the traveled portion of the roadway.

Heat Wave Safety Rules

1. Slow down you activities by avoiding, eliminating or re-scheduling strenuous activities to the coolest time of the day.
2. Individuals at risk should stay in the coolest available place, which may not be indoors.
3. Dress for summer. Lightweight, light-colored clothing reflects heat and sunlight, helping your body maintain a normal temperature.
4. Eat wisely. Foods, such as proteins, can increase metabolic heat production and thus increase water loss.
5. Drink plenty of water or other *non-alcoholic* fluids to hydrate your body, even if you do not feel thirsty (unless your physician has directed otherwise).
6. Do not drink alcoholic beverages. This is the same advice given for extremely cold weather. Alcoholic beverages constrict the blood vessels preventing adequate blood circulation necessary to remove excess heat from your body.
7. Do not take salt tablets unless specified by a physician.
8. Spend more time in air-conditioned places. If you do not have an air conditioner, spend some time each day during hot weather in an air-conditioned environment to afford some protection.
9. Do not get too much sun, as sunburn decreases the body's ability to dissipate heat.

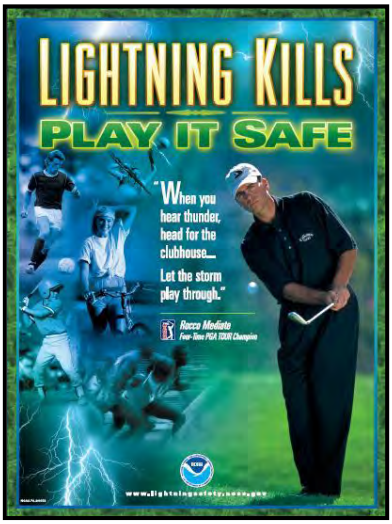


Figure 34. National Weather Service Safety Awareness Posters.

APPENDIX B: WEATHER TERMINOLOGY

Much more available online at:
www.srh.noaa.gov/srh/jetstream/append/glossary_a.htm

ADVECTION
The horizontal movement of an air mass that causes changes in the physical properties of the air such as temperature and moisture.

AIRMASS
A large body of air that has nearly uniform conditions of temperature and humidity.

ALBERTA CLIPPER
A low pressure system that moves out of southwest Canada and mainly affects the Plains, Midwest and Great Lakes region. Usually accompanied by light snow, strong winds and colder temperatures. Another variation of the same system is known as a Saskatchewan Screamer.

BLOWING SNOW
Wind-driven snow that significantly reduces surface visibility to less than seven miles.

CIRRUS CLOUD
A wispy cloud that is composed of ice crystals and is formed at altitudes of 20,000 to 40,000 feet (6,096 to 12,192 m) above the ground.

COASTAL WATERS
The waters of the ocean extending from the coast out to 60 nautical miles (111.1 km).

CUMULONIMBUS CLOUD
A cumulus cloud that is vertically developed and often has an anvil-shaped top. Generally associated with lightning, thunder, heavy showers and occasional hail and strong winds.

CUMULUS CLOUD
A cloud that has a flat base with an upper portion that is billowy or heaping.

CYCLONE
An area of low atmospheric pressure that has a closed circulation. Cyclones, or more commonly known as "low pressure systems," usually bring about marked changes in the weather.

DEGREE-DAY (Heating / Cooling)
Gauges the amount of heating or cooling needed for a building using 65ºF as a baseline. To compute heating/cooling degree-day units, the average temperature is taken and referenced to a base line of 65ºF. For example, an average temperature of 50ºF yields 15 heating degree-day units, while an average of 75ºF would yield 10 cooling degree-day units. Electrical, natural gas, power, heating and air conditioning industries utilize heating and cooling degree information to calculate their needs.

DEW
Water droplets that form upon surfaces on or near the ground when air is cooled toward its dew point.

DEW POINT
The temperature to which air must be cooled, at constant pressure and moisture content, in order for saturation to occur. The higher the dew point, the greater the amounts of water vapor in that vicinity. Dew points beginning in the 70's ºF (20's ºC) generally make people feel uncomfortable.

DOPPLER WEATHER RADAR
A Weather Surveillance Radar (WSR-88D) system developed in 1988. More than 120 systems have been installed at Weather Forecast Offices, with an additional 24 systems at Department of Defense (Air Force Bases) sites. This powerful and sensitive Doppler system generates many useful products for meteorologists. Among them are standard reflectivity "echoes," wind "velocity" or atmospheric air motion pictures and areal one-hour, three-hour or storm-total precipitation images.

DOWNBURST
A strong downdraft, initiated by a thunderstorm, which includes an outburst of damaging winds on or near the ground. Downbursts may last anywhere from a few minutes in small-scale microbursts up to 20 minutes in larger, longer-lived microbursts. One example of a downburst, called straight-line winds, can reach wind speeds of 110-150 mph (96-130 kts; 49.2-67.1 m/s), or squarely in the range of a strong tornado. Downbursts are further detailed as either: Microburst: a convective downdraft with an affected outflow area of less than 2.5 miles (4.0 km)wide and peak winds lasting less than 5 minutes. They can create dangerous vertical/horizontal wind shears, which can adversely affect aircraft performance and cause property damage. Macroburst: a convective downdraft with an affected outflow area of at least 2.5 miles wide and peak winds lasting between 5 and 20 minutes. Intense macrobursts may cause tornado-force damage.

DOWNSLOPE FLOW
Air that descends down a mountain chain or over sloping terrain (pressurized air moving from high pressure to low pressure), resulting in subsequent drying, and in some cases, dramatic warming of air that can quickly melt snow cover. Local names for downslope winds, or "foehn" winds, in the Western United States are Chinook Winds, East Winds, North Winds and Mono Winds. Such winds are usually associated with little or no clouds.

DRIZZLE
Water drops that are very small and fine. For the most part, drizzle falls from stratus clouds and is usually accompanied by low visibility and fog.

EL NINO
Significant warming of the waters in the Eastern Pacific Ocean, usually off the coast of South America, which results in shifts of world-wide weather patterns. Can cause prolonged periods of drought or flooding.

ENHANCED FUJITA SCALE
Updated Fujita scale for rating the strength of tornadoes in the United States estimated via the damage they cause. See Fujita Scale for wind speeds.

FETCH
An area from which waves are generated by a wind that is nearly constant in direction and speed.

FLASH FLOOD
A dangerous and sudden flood that threatens lives and property and usually occurs after heavy rain. May also occur after an ice jam breaks up or a dam or levee failure.

FOG BOW
A nebulous arc or circle of white or yellowish light sometimes seen in fog.

FLURRIES
Light snowfall that generally does not produce measurable accumulation.

FREEZING DRIZZLE or RAIN
Describes the effect of drizzle or rain freezing upon contact with objects that have a temperature of 32ºF (0ºC) or below.

FREEZING LEVEL
The point in the atmosphere where temperatures are at 32ºF (0ºC).

FRONT
The boundary between two different air masses, i.e. cold front, warm front, stationary front.

FROST
A covering of small ice crystals that forms on or near the ground when temperatures approach or drop below 32ºF (0ºC).

FUNNEL CLOUD
A rotating, visible extension of cloud, pendant to a cumulus or cumulonimbus with circulation not reaching the ground.

FUJITA SCALE
A scale developed by Theodore Fujita used to classify tornadoes based on wind damage. The scale and the associated descriptions are below. Learn more about the Fujita Scale enhancements and wind speed changes at http://www.spc.noaa.gov/faq/tornado/ef-scale.html

F Number	Speed (mph)	3-Second Gust (mph)	Enhanced Fujita (EF) number	3-Second Gust (mph)
0	40-72	45-78	0	65-85
1	73-112	79-117	1	86-110
2	113-157	118-161	2	111-135
3	158-207	162-209	3	136-165
4	208-260	210-261	4	166-200
5	261-318	262-317	5	Over 200

GROUND FOG
Fog of little vertical extent, usually 20 feet (6.1 m) or less.

GUST FRONT
The leading edge of a downdraft associated with a thunderstorm, which is marked by a sudden wind shift, sharply falling temperatures and possibly heavy downpours and/or hail.

GUSTNADO
A small tornado, usually weak and short-lived, that occurs along the gust front of a thunderstorm. Often it is visible only as a debris cloud or dust whirl near the ground. It is not associated with the storm-scale rotation found in severe thunderstorms.

HAIL
Precipitation in the form of balls or lumps usually consisting of concentric layers of ice. A thunderstorm is classified as severe when it produces hail 3/4 of an inch (1.9 cm) or larger in diameter.

HAZE
Fine particles of dust, smoke or water droplets suspended in the air that reduce visibility.

HEAT INDEX
The apparent temperature that describes the combined effect of moderate to high temperatures and high levels of humidity.

HEAVY SNOW
In the mountains, defined as snowfall accumulations of 9 inches (22.9 cm) or more in 24 hours. In the valleys, defined as snowfall accumulations of 6 inches (15.2 cm) or more in 24 hours.

HUMIDITY
Amount of water vapor in the atmosphere.

HURRICANE
A dangerous tropical cyclone with winds speeds of 74 mph (64 kts; 33.1 m/s), or higher. The events are known as a Typhoon in Western Pacific.

ICE STORM
A freezing rain event that produces damaging ice accumulations of 1/4 inch (0.64 cm) or greater.

INVERSION
A situation where the temperature increases with height instead of decreasing, which is usually the case in the troposphere.

INSTABILITY (UNSTABLE AIR)
A state of atmosphere in which the vertical distribution of temperature allows warm rising air to continue to rise and accelerate. This kind of motion is conducive for thunderstorm development.

ISOBARS
Lines of equal barometric pressure as shown on a weather map.

JET STREAK
A concentrated region within the jet stream where the wind speeds are the strongest. The jet streak sets up unique wind currents in its vicinity, which either enhance or diminish the likelihood of clouds and precipitation. The jet streak will propagate downstream along the jet stream axis.

JET STREAM
A narrow band of strong winds in the atmosphere that controls the movement of high and low pressure systems and associated fronts. Jet streams meander from time to time. Wind speeds can reach 200 mph (174 kts; 89.4 m/s) or higher in certain cases. It is usually found at 30,000 to 40,000 feet (9,144 to 12,192 m) above the earth's surface. The jet stream owes its existence to the large temperature contrast between the polar and equatorial regions.

KNOT
Unit of speed used in aviation and marine activities that is equal to about 1.15 statute miles per hour.

LAKE-EFFECT SNOW SQUALL (LAKE SNOW)
A local intense, narrow band of moderate to heavy snow typically caused by very cold dry air moving over the warmer body of water. It can extend long distances inland, persist for many hours, and may be accompanied by strong gusty surface winds and possibly lightning.

LEEWARD
The side of an object facing away from the direction in which the wind is blowing. Usually used to describe sides of mountain ranges.

LIGHTNING
A sudden visible flash of energy and light caused by electrical discharges from thunderstorms.

MILLIBAR
Unit of atmospheric pressure.

NAUTICAL MILE
A unit of distance used in marine navigation and forecasts, equal to 1.15 statute miles.

NEXRAD
An acronym that stands for NEXT generation of weather RADAR.

NOR'EASTER
A strong low pressure system that affects the Mid-Atlantic and New England States. It can form over land or over coastal waters. It usually produces heavy snows, flooding rains, strong northeast winds, coastal flooding and beach erosion.

OCEAN / LAND BREEZE
An ocean breeze occurs when prevailing winds blow off the water, while a land breeze indicates winds blowing from land over the water. Both are caused by the difference in surface temperature (heating) of the land and water. As a result, an ocean breeze occurs during the day while a land breeze happens at night.

OFFSHORE / ONSHORE FLOW
Offshore flow occurs when air moves from land to sea, while onshore flow is when air over the water advances across land. Offshore flow is usually associated with dry weather, while onshore flow indicates an increase in moisture and resultant higher precipitation probabilities.

OFFSHORE WATERS
The waters of the ocean extending from 60 nautical miles out to 250 nautical miles (96.6 to 402.3 km) from the coastline. Further than 250 nautical miles is considered High Seas.

OROGRAPHIC UPLIFT (UPSLOPE FLOW)
Occurs when air is forced to rise and cool due to terrain features such as hills or mountains. If the cooling is sufficient, water vapor condenses into clouds. Additional cooling results in rain or snow. It can cause extensive cloudiness and increased amounts of precipitation in higher terrain.

OZONE
A nearly colorless (but faintly blue) gaseous form of oxygen, with a characteristic odor like that of weak chlorine. The chemical formula is O3. It is usually found in trace amounts in the atmosphere, but is primarily found at 30,000 to 150,000 feet (9,144 to 45,720 m) above the ground. Ozone production results from a photochemical process involving ultraviolet radiation. Because it absorbs harmful ultraviolet radiation at those heights, it is a beneficial gas. However, photochemical processes involving industrial/vehicle emissions can produce ozone near the ground, which can be harmful to people with respiratory or heart problems.

RADIATIONAL COOLING
The cooling of the earth's surface. At night, the earth suffers a net heat loss to space due to terrestrial cooling.

RAIN
Indicates a nearly steady and uniform fall of liquid precipitation (rain) over an area for several hours, as opposed to the term "showers," which implies intermittent and scattered precipitation of a more unstable, convective nature.

RAINBOW
An arc that exhibits, in concentric bands, the colors of the spectrum. A rainbow is formed opposite the sun by refraction and reflection of the sun's rays in raindrops.

RELATIVE HUMIDITY
The ratio of the amount of moisture in the air to the amount that the air could hold at the same temperature and pressure if it were saturated; usually expressed as a percentage.

RIDGE
An elongated area of high pressure in the atmosphere; the opposite of trough.

ROLL CLOUD
A turbulent cloud formation that resembles a roller. This cloud can be found in the lee of some mountains. The air in the cloud rotates around an axis parallel to range of mountains. It is also sometimes found along the leading edge of a thunderstorm cloud; formed by rolling action in the wind shear region between cool downdrafts and warm updrafts.

SEICHE (pronounced “seech”)
A standing wave oscillation in any enclosed lake that continues after the forcing mechanism has ceased. In the Great Lakes, this forcing mechanism may be either strong winds blowing along the axis of a lake, a pressure jump, or down draft winds associated with fast moving squall lines over a lake. In either case, water is piled up at one end. The water then sloshes from one end of the lake to the other causing fluctuations of perhaps several feet before damping out.

SEVERE THUNDERSTORM
A thunderstorm that produces either of the following: damaging winds of 58 miles an hour (26 kts; 50.4 m/s) or greater, hail 3/4 of an inch (1.9 cm) in diameter or larger, or a tornado. Severe thunderstorms can result in the loss of life and property.

SIGNIFICANT WAVE HEIGHT
The average height (trough to crest) of the one-third highest waves.

SLEET
Describes precipitation in the form of solid grains of ice. It is formed by the freezing of raindrops or the refreezing of largely melted snowflakes.

SNOW
Precipitation in the form of small white ice crystals formed directly from the water vapor of the air at a temperature of less than 32°F (0°C).

SNOWFALL
A steady fall of snowflakes for several hours over the same area.

SNOWPACK
The combined layers of snow and ice on the ground at any one time. Also called "snow cover."

SNOW SHOWERS
Snow that starts and stops suddenly and is characterized by rapid changes in both intensity and visibility. There is normally measurable accumulation.

SOUTHERN OSCILLATION
A periodic, large scale atmospheric oscillation of the large scale distribution of sea level pressure, and air and water temperature that originates over the southern hemisphere. Consequently, there is an associated change in the surface winds, and some storms become stronger than normal. This oscillation is on the scale of a year or a few years, and has global implications such as widespread drought or flooding. Oceanic fishing is also disrupted.

SQUALL LINE
A broken or solid line of thunderstorms that may extend across several hundred miles, ahead or along an advancing cold front.

STRATUS
Low clouds, which are flat and gray, usually covering most of the sky.

SUSTAINED WIND
Wind speed determined by averaging observed values over a one-minute period.

SWELL
Wind-generated ocean waves that have traveled out of their generating area. Swell characteristically exhibits smoother, more regular and uniform crests and a longer period than wind waves.

THERMAL
A relatively small-scale, rising air current produced when the Earth's surface is heated. Thermals are a common source of low-level turbulence for aircraft.

TORNADO
A violently rotating column of air, usually pendant to a cumulonimbus cloud, with circulation reaching the ground. The visible condensation (cloud) may not reach the ground, but if the lower circulation, marked by dust, dirt and/or debris, reaches the ground, it is classified as a tornado. A tornado usually begins as a funnel cloud, and may be have a loud roaring noise. Tornadoes are classified into 3 main groups: Weak - wind speeds up to 110 mph (96 kts; 49 m/s); Strong - wind speeds 110 to 205 mph (96-178 kts; 49.2-91.6 m/s); Violent - wind speeds 205 to greater than 319 mph (178-278 kts; 91.6-143.1 m/s). See FUJITA SCALE.

TROPICAL or SUBTROPICAL DEPRESSION
Cyclones that have maximum sustained winds of 38 mph (33 kts; 14.8 m/s) or less. These are referred to as low pressure systems in public advisories and statements.

TROPICAL STORM
Tropical cyclone that has maximum sustained winds from 39 to 73 mph (34-63 kts; 15.2-28.2 m/s).

TROUGH
An elongated area of low pressure in the atmosphere; the opposite of a ridge.

UPPER-LEVEL DISTURBANCE
A disturbance of the flow pattern in the upper atmosphere, which is usually associated with clouds and precipitation. This disturbance is characterized by distinct cyclonic flow, a pocket of cold air, and sometimes, a jet streak. These features make the air aloft more unstable and conducive to clouds and precipitation.

UPSLOPE FLOW
Air lifted by rising terrain normally associated with extensive clouds and/or precipitation.

VIRGA
Wisps or streaks of rain or snow falling out of a cloud that evaporates before reaching the ground.

WALL CLOUD
A local, abrupt lowering of a rain-free cumulonimbus base forming a low hanging accessory cloud that is usually 1 to 4 miles (1.6 to 6.4 km) in diameter. The wall cloud is usually situated in the right-rear quadrant of the cumulonimbus with respect to storm motion, below an intense updraft associated with a strong or severe thunderstorm. Rotating wall clouds often precede tornado development.

WARNING
Product issued by the National Weather Service to alert the public indicating that a hazardous weather element is imminent, has a very high probability of occurrence or has already begun.

WATCH
Product issued by the National Weather Service to alert the public to the possibility of severe weather, or some other hazardous weather element. It is intended to provide enough lead-time so those who need to set their plans in motion can do so.

WATERSPOUT
A violently rotating column of air, usually pendant to a cumulus or cumulonimbus cloud, over a body of water, with circulation reaching the water.

WET BULB TEMPERATURE
The temperature an air parcel would have if cooled to saturation at a constant pressure by evaporation of water into it.

WIND WAVES
Waves generated from the action of local wind on a water surface, as opposed to swell.

WINDWARD
The side of an object facing into the wind. Usually used to describe sides of mountain ranges.

WIND CHILL
An apparent temperature that describes the combined effect of wind and low air temperatures on exposed skin.

Pocatello National Weather Service
Severe Weather Products and Services

Product Name	Product ID	Description
Convective Weather Products		
Severe Thunderstorm Warning	SVR	A thunderstorm is imminent or occurring producing wind gusts >= 58mph and/or hail >= 1inch
Severe Thunderstorm Watch	WCN	Conditions are favorable for severe thunderstorm development within the next 2 to 6 hours
Severe Weather Statement	SVS	Provides follow-up information regarding severe thunderstorm or tornadoes that are occurring or have occurred
Tornado Warning	TOR	A tornado (rotating column of air from a thunderstorm in contact with the ground) is occurring or imminent
Tornado Watch	WCN	Conditions are favorable for tornadoes within the next 2 to 6 hours
Flooding Products		
Flash Flood Warning	FFW	Flash flooding is occurring or imminent
Flash Flood Watch	FFA	Flash flooding is possible within the next 48 hours
Flood Statement	FLS	Provides follow-up information regarding flood and flash flood warnings and advisories that are occurring or have occurred
Flood Warning	FLW	River flooding is occurring or imminent
Flood Watch	FFA	Potential for long duration main stem river flooding within the next 72 hours
Hydrologic Outlook	ESF	Discusses possibility of flooding beyond 72 hours, water supply, or drought conditions
Hydrologic Statement	RVS	Communicates notable hydrologic conditions that do not involve flooding, such as within river bank rises, minor ice jams, etc.
Urban/Small Stream Flood Advisory	FLS	Short duration (<= 6hours) localized flooding in city areas is occurring or imminent (usually not life threatening)

Winter Weather Products		
Avalanche Warning	AVW	Issued by Sawtooth National Forrest Avalanche Center when snow pack conditions indicate the potential for significant avalanches
Blizzard Warning	WSW	Winds >= 35mph and falling/drifting snow frequently reducing visibility to < ¼ mile for 2 or more hours
Freezing Rain/Drizzle Advisory	WSW	Freezing rain/drizzle is occurring or imminent that may lead to life threatening circumstances
Ice Storm Warning	WSW	Ice accumulations >= ¼ inch expected over the next 24 hours
Snow Advisory	WSW	Snake Plain Only: 3 to 5 inches of snow accumulation expected in the next 24 hours
Winter Storm Warning	WSW	Heavy snow in combination with either wind, freezing rain, wind chill, etc. is occurring or expected. Snowfall typically >=6 inches in the valleys and >= 10 inches in the mountains over the next 24 hours. Sleet accumulations >= ¾ inch expected over the next 24 hours
Winter Storm Watch	WSW	Potential exists for a blizzard, heavy snowfall, ice storm and/or strong winds within the next 96 hours
Winter Weather Advisory	WSW	A combination of snow, wind, freezing rain, etc. that will create inconvenience but not reach warning criteria Blowing/drifting snow is occurring or imminent that will cause significant travel problems

Non-Precipitation Products		
Air Quality	AFD	Prolonged strong inversions that affect air quality issued by the Idaho Department of Environmental Quality (DEQ)
Blowing Dust Advisory	NPW	Widespread visibilities <= ¼ mile due to blowing dust are imminent or occurring
Dense Fog Advisory	NPW	Widespread visibilities <= ¼ mile due to dense fog are imminent or occurring
Dust Storm Warning	NPW	Widespread visibilities <= ¼ mile and winds >= 30mph is occurring or imminent
Freezing Fog Advisory	NPW	Fog which freezes upon contact with exposed objects and forms a coating of ice creating hazardous travel conditions for at least 1 hour and can be widespread or localized. No visibility criteria. Temperatures below 32 ^{o} F
Freeze Warning	NPW	Snake Plain Only: Temperature <= 32 for a significant time over a widespread area during the growing season
Frost Advisory	NPW	Snake Plain Only: Frost is expected over a large portion of the area during the growing season
High Wind Warning	NPW	Sustained winds >= 40mph and/or gusts >= 58mph for at least 1 hour are imminent or occurring not associated with thunderstorms
High Wind Watch	NPW	Potential for sustained winds >= 40mph and/or gusts >= 58mph not associated with thunderstorms
Lake Wind Advisory	NPW	Issued only for American Falls Reservoir. Non-thunderstorm sustained winds from SSW-W 20-29 mph (17 to 25 kts; 9 to 13 m/s); or from NNE-ENE 12-29 mph (10-25kts; 4 to 13 m/s) likely or occurring and expected to continue for at least 2 hours over the reservoir.
Volcanic Ash Advisory	NPW	Issued whenever volcanic ash fallout is occurring or imminent
Wind Advisory	NPW	Snake Plain only: Winds 30-39mph and/or gusts 45-57mph not associated with thunderstorms, below 7,000 feet
Wind Chill Warning	NPW	Wind chill <= -20 degrees and wind speeds >= 10 mph lasting for at least an hour below 7,000 feet

Fire Weather Products

Fire Weather Watch	RFW	Conditions are favorable for red flag conditions (see below) within the next 12 to 72 hours
Red Flag Warning	RFW	Widely scattered dry thunderstorms (<0.10 inches of precip.) or wind gusts <= 25 mph and RH <= 15% outside the Snake Plain or Wind gusts <= 30 mph and RH <=15% in the Snake Plain

Other Products

Area Forecast Discussion	AFD	Discussion of current weather events and upcoming forecast challenges facing forecasters
Daily Climatological Report	LCD	Daily report of climate information including normals and records for a specific location
Hazardous Weather Outlook	HWO	Discussion of any weather threats over the next 7 days
Local Storm Report	LSR	Reports of severe and/or significant weather-related events
Long Term Climatological Report	CLM	Provides miscellaneous climatological data on a weekly, monthly, seasonal or annual basis
Monthly Temp/Precip Summary	RRM	Monthly precipitation and temperatures for specific sites
Public Information Statement	PNS	Informational statement regarding interesting weather, climate, safety, etc.
Record Event Report	RER	Report of broken or tied climatological records
Recreation Statement	REC	Forecast weather for common recreation areas in Southeast Idaho
Short Term Forecast	NOW	Information regarding specific and immediate weather changes anticipated during an event
Significant Weather Advisory	SPS	Short term forecast for sub-severe weather of any type that is for a small localized are and is expected to last up to 4 hours. It highlights impacts and includes duration, movement and locations affected by the weather.
Special Weather Statement	SPS	Informational product highlighting the potential for active weather well into the future
Zone Forecast Product	ZFP	General forecast for all of central and southeast Idaho through 7 days, broken down by geographic areas

on-Weather Emergency Messages

The following messages are initiated by federal, state and/or local elected or appointed officials		
911 Telephone Outage Emergency	TOE	Defines a local or state 911 telephone network outage
Administrative Message	ADR	Informational message regarding an emergency
Amber Alert	CAE	Missing child reports and information
Avalanche Warning	AVW	Avalanche activity is imminent or occurring
Avalanche Watch	AVA	Avalanche activity is anticipated
Civil Danger Warning	CDW	Message describing imminent danger to life and property
Civil Emergency Message	CEM	Message that may include call to action statements when danger arises
Earthquake Report	EQR	Preliminary report of general information after an earthquake
Earthquake Warning	EQW	Call-to-action statements relating to an earthquake emergency
Evacuation Immediate	EVI	Evacuation orders due to civil emergency
Fire Warning	FRW	Information regarding a fire emergency
Hazardous Material Warning	HMW	Information regarding an ongoing HAZMAT incident
Law Enforcement Warning	LEW	Warning of a bomb explosion, riot, or other criminal event
Local Area Emergency	LAE	Information regarding emergency that does not pose a threat to life or property
Nuclear Power Plant Warning	NUW	Call-to-action statements and information about a pending nuclear incident
Radiological Hazard Warning	RHW	Warning of the loss, discovery or release of a radiological hazard
Shelter In Place Warning	SPW	Warning of an event where the public is recommended to shelter in place and turn on the radio or TV for more information
Volcano Warning	VOW	Warning of current or imminent volcanic activity