



RIVERTON
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SERVICE OFFICE

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Inside this issue:

EM Conference and Severe Weather Fair	2
Significant Weather Alert	2
Hydrology Corner	3
Hydrology Corner Continued	4
2008 RIW IMET Deployment	5
Visiting The NWS Riverton From Afar	5
Helping Future Forecasters	5
Introducing Recreation Forecasts Pages	6
CoCoRaHS Training	7
New Training Developed for Dispatchers	7
Google Services Now Being Utilized	8
Partnership Improves Lightning Safety Campaign	8
Service Improvement Group Chartered	9
Men in Science Conference	9
The WRF in Wyoming	10
Weather Guidance for Avalanches	10



Hot Springs and Teton Counties Earn StormReady Designation

Teton and Hot Springs Counties earned the designation of StormReady in November 2007 and January 2008, respectively. StormReady encourages communities to take a proactive approach to improving local hazardous weather operations. StormReady communities are better prepared to save lives from the onslaught of severe weather through better planning, education, communication, and awareness. No community is storm proof, but StormReady can help communities save lives. Some 90% of all presidentially declared disasters are weather related, leading to around 500 deaths per year and nearly \$14 billion in damage. StormReady, a program started in 1999 in Tulsa, OK, helps arm America's communities with the communication and safety skills needed to save lives and property—before and during the event. StormReady helps community leaders and emergency managers strengthen local safety programs. Congratulations to Hot Springs and Teton Counties for their effort in becoming StormReady. If your city or county is interested in becoming StormReady, please contact Chris Jones (Chris.Jones@noaa.gov) and Bill Murrell (Bill.Murrell@noaa.gov) or (307) 857-3898.



Teton County, WY, November 2007, from left: Jason Biermann, Teton County Emergency Manager (EM); Kevin Lynott, Meteorologist in Charge (MIC), NWS Riverton; Bill Murrell, StormReady Program Leader, NWS Riverton; Rich Ochs, Teton County Deputy EM.



Hot Springs County, WY, January 2008, from left: Rep Lorraine Quarberg, Wyoming House District 28; Kevin Lynott, MIC NWS Riverton; Bill Gordon, Hot Springs County EM; Brad Basse, County Commissioner; Pam Buline, Field Rep for U.S. Senator John Barrasso; Senator Gerald Gies, Wyoming Senate District 20; Dr. Frank Manning, County Commissioner; Joe Moore, Director, Wyoming Office of Homeland Security; Bill Murrell, StormReady Program Leader, NWS Riverton.

Emergency Management Conference & Severe Weather Fair

In early April, the Cheyenne and Riverton Weather Forecast Offices presented a FEMA and NWS Warning Coordination class during a statewide emergency management conference. The primary course objectives were to improve warning coordination and communications with local and state officials. It is only through effective warning coordination that the message of danger can be communicated to and understood by those at risk.

During the same weekend, the NWS, in cooperation with Natrona County Emergency Management, hosted a Severe Weather Fair to kick off the 2008 Severe Weather Awareness Week. This exciting event was free of charge and open to anyone with an interest in weather topics ranging from tornadoes to wildfires. Several presentations were conducted during the fair, including a spotter training class. Children learned about weather with a few hands-on experiments. In addition, people in attendance had the opportunity to meet their local TV meteorologists. Around 100 people attended this successful fair. A special thanks goes out to the Emergency Management Agency of Natrona County for all of their support.



Significant Weather Alerts

In the summer of 2007 the National Weather Service Office in Riverton began issuing “**Significant Weather Alert**” statements. These statements are for near-severe thunderstorms. Generally, the Significant Weather Alert will be issued if a thunderstorm is expected to produce one or more of the following:

1. Winds between 40 and 57 mph
2. Hail of ½” to less than 1” in diameter
3. Frequent to continuous lightning
4. Bonafide funnel clouds or cold air funnels

A severe thunderstorm warning will be issued if a thunderstorm is expected to produce 58 mph or greater winds and/or 1” diameter or larger hail.

To the right is an example of a significant weather alert.



SPECIAL WEATHER STATEMENT
NATIONAL WEATHER SERVICE RIVERTON WY
306 PM MDT SAT SEPT 29 2007

WYZ009-019-020-292200
BIGHORN MOUNTAINS SOUTHEAST-GREEN MOUNTAINS AND
RATTLESNAKE RANGE-NATRONA COUNTY LOWER ELEVATIONS-
306 PM MDT SAT SEPT 29 2007

...SIGNIFICANT WEATHER ALERT FOR NATRONA COUNTY...

AT 302 PM MDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A STRONG THUNDERSTORM NEAR ERVAY...OR ABOUT 10 MILES SOUTHWEST OF WALTMAN...MOVING NORTHEAST AT 40 MPH. WIND GUSTS TO 50 MPH...HALF INCH HAIL...BRIEF HEAVY RAIN...AND FREQUENT CLOUD-TO-GROUND LIGHTNING WILL OCCUR WITH THIS STORM.

THIS STORM IS EXPECTED TO AFFECT AREAS NEAR HILAND AND WALTMAN AROUND 315 PM...THEN ARMINTO BY 320 PM...AND RED WALL BY AROUND 350 PM. TRAVELERS ON HIGHWAY 20...26 NEAR WALTMAN AND HILAND WILL NEED TO WATCH FOR VERY STRONG WIND GUSTS.

REPORT SEVERE WEATHER TO THE NATIONAL WEATHER SERVICE OFFICE IN RIVERTON AT 1-800-211-1448.

LAT...LON 4348 10714 4350 10659 4281 10734 4291 10750
LON...MOT...LOC 2106Z 213DEG 36KT 4294 10737

1) Greater Yellowstone Gaging Project Upgrade: This has been a 3-year project with the National Park Service (NPS) in Yellowstone----planning, coordinating, replanning, compromising, purchasing equipment, and finally installing equipment.

Yellowstone has three areas that have a well documented history of flash flooding and/or mass wasting which directly affect the safety of operations. Those areas were of primary concern and reason for the upgrade.

a) North Entrance Area: The NWS led planning and coordinating efforts between two entities of the NPS as well as the USGS in Helena, Montana. A new Rain gage and DCP were installed at Gardiner River gaging station. At Mammoth, a “phone-line” automated station was upgraded with a complete weather station Data Collection Platform (DCP) with satellite telemetry. These two gages will help bolster the monitoring of the flash flooding/mass wasting problem near the North Entrance. All parties involved will be able to obtain real-time hydrological data in that area of the park for the first time. Incidentally, additional pieces of equipment have been installed to help the NPS with fire monitoring near Mammoth. Also, a big partner with this project was the Wyoming State Climatologist’s office. They have installed a soil moisture sensor for climate and antecedent moisture monitoring for mass wasting detection.

b) East Entrance/Sylvan Pass Area: The NWS worked with the NPS and installed a complete DCP weather station near Hoyt Peak. The NPS will use the gage to monitor weather conditions for avalanche forecasting in the winter. But with further compromise, a rain gage was also installed which will bolster the flash flood/mass wasting monitoring in the summer. Work is not done, however. Further partnerships are being established with the United States Forest Service (USFS) and the owner of the Pahaska Tepee Resort to install a gaging station near East Entrance. This site will aid in monitoring heavy rain events that will affect Sylvan Pass/East Entrance as well as to monitor any rain-on-snow runoff events affecting the North Fork Shoshone River.

c) Northeast Entrance Area: This area gets its share of heavy rain yet has been largely data void. A notable flash flood hazard area exists at Pebble Creek Campground and at Northeast Entrance. The NWS partnered with the NPS and the USGS to install rain gages at USGS/NPS owned DCPs in Lamar Valley and at Northeast Entrance. Partnership work is continuing with trying to obtain a RAWS site along the Soda Butte Creek Drainage.

d) Old Faithful and Tower Falls Upgrade: These two sites were funded through a joint partnership between the NWS, the NPS, and the Wyoming State Climatologist’s office. Incidentally, the state climatologist’s office funded all three wind systems for the upgrade, to include the site at Mammoth. Again, the data from these sites, because of the satellite telemetry, will be accessible to all parties involved, as well as the general public.



NOAA/NWS Service Hydrologist Jim Fahey hard at work up at 9,800’ near Hoyt Peak.

2) Upper Colorado/Upper Green Network: This network has been around for over 20 years and is instrumental in monitoring hydrometeorological conditions across the greater Upper Colorado Basin. The problem that needed a solution was that the network was showing its age and needed an upgrade. The solution was to partner with the state of Wyoming and to have the NWS upgrade the sites with high data rate technology. So a great partnership was formed in 2008 and seven gages were funded and installed in Wyoming. This is the culmination of three years worth of bargaining and compromising. The Wyoming State Climatologist’s office even funded an extra gage outside the Upper Colorado Network near Cheyenne. This weather station will be used to monitor climate conditions near Cheyenne and to monitor heavy rainfall/high flow events along the Crow Creek watershed, which flows directly through Cheyenne.

3) Clear Creek Gaging Project: Initial work was completed during water years 2006-2007 to include partnering, coordinating, funding, and installing/maintaining two gages along Clear Creek near Buffalo. Partners included the City of Buffalo and the State Engineer’s office. During 2008, the NWS Service Hydrologist installed a more functional gage at the gage house near City Park in Buffalo which was instrumental to forecasting high flows along Clear Creek in the spring of 2008. The upgraded gage was made possible with a partnership with the USBR (Bureau of Reclamation). The USBR was decommissioning a number of DCPs and provided an excess DCP to the NWS . It worked out great---timing is everything!

Hydrology Corner Continued

4) Middle Fork Powder River near Kaycee Gaging Project: An unexpected partnership ensued during the summer of 2008 with the Powder River Conservation District (NRCS). A gaging station was installed at an old USGS gaging station 10 miles upstream of Kaycee. The NRCS funded the install and the NWS Service Hydrologist installed the gage. A formal cooperative agreement between the NRCS and NWS/NOAA clearly spells each agency's responsibilities. The NRCS and NWS both worked together to site survey the gaging location for bankfull and/or flood stages. This gaging station also has a rain gage and temperature sensor attached to the DCP and a shaft encoder for monitoring river levels. This gage will be instrumental in monitoring high flows along the Middle Fork of the Powder River that flows through Kaycee.



Kaycee Flood — 2008

5) North Platte and Laramie Basin Project: The State Engineer's (Water) office has initiated a major upgrade to satellite telemetry at gaging stations across Wyoming. The NWS had three aging gages along the Laramie and North Platte drainages in which the NWS shared the gage house with the state. This summer, the NWS Service Hydrologist dismantled all the NWS equipment at each site and installed two rain gages at two of the new state-owned gages. To better foster the partnership, the state officials were allowed use of ancillary equipment like antennas, batteries, environmental boxes, solar panels, etc. that made the upgrade for the state easier. In return, the state allowed the installation of two rain gages at the new state gage houses. The state's upgrade at these three sites benefits the NWS in two primary ways: 1) the state takes over the maintenance of the station and 2) the NWS receives better data from the overall upgrade. The rain gage data will aid in monitoring future rain-on-snow high runoff events.

6) Middle Fork Popo Agie Gaging Project: Early in 2008, the NWS Service Hydrologist presented a river gaging proposal during a Lander City Council meeting and a new partnership was formed. On October 30th 2008, City of Lander and NWS officials installed a river gage on the downstream side of the Mortimore Lane Bridge. The gage will be used to monitor high water in order to save lives and property in Lander during the next flood of the Popo Agie. NWS forecasters and Fremont County emergency managers will use the data from the gage to help better predict when and how to warn the public during high water events. The City of Lander paid for the majority of the gage hardware. The NWS Service Hydrologist and individuals from the City Works Department worked together closely to plan, prepare, and install the gage.



Mortimore Lane river gage along Popo Agie River

7) Miscellaneous Rain gage installations: The NWS Service Hydrologist worked with USBR technicians to install a rain gage on a USBR-owned DCP along North Platte River near Casper. This gage will bolster flash flood monitoring in Casper. The NWS Service Hydrologist also worked with the USBR technician to install a rain gage at a USBR-owned gage along South Fork Owl Creek below Anchor Dam. This gage will be used to monitor heavy rain events at a data sparse area in western Hot Springs County. Also the NWS Service Hydrologist worked with State Engineer's office to install a rain gage at a state-owned gage along the Middle Fork Popo Agie River upstream of Lander. This gage will help to track rain-on-snow high runoff events that will affect river flows into Lander.

2008 RIW IMET Deployment Information

Three members of the Riverton, Wyoming National Weather Service Office are certified Incident Meteorologists (known as IMETs) and are dispatched to remote locations in support of wildfires and other hazardous situations. During fire season, or when other incidents require localized weather information, IMETs receive calls in a moment's notice, pack their bags, and quickly deploy to an incident command site anywhere in the country. Once onsite, IMETs become key members of the fire incident command teams and provide continuous meteorological support for the duration of the incident. The IMETs' primary objective is to promote crew safety and provide on-site strategic and tactical support to the management team.

The three certified IMETs in the Riverton NWS office were deployed a total of six times during the 2008 fire weather season (May-Sept). All three IMETs were deployed during some point in August to support the Gunbarrel Fire in the Absaroka Mountains west of Cody. The meteorologists were out in the field in support of fire suppression or wildland fire use efforts for more than 45 days between June and late August.



IMET Dave Lipson filling a balloon at the Gunbarrel wildfire to get an idea about local winds.

Visiting The NWS Riverton From Afar

The NWS in Riverton has released a Virtual Tour of the forecast office in Riverton, Wyoming. If you've wanted to see what the inside of our office looks like, but cannot make the trip to Riverton, please visit our website to take a tour. You will be shown around our office, the radar dome, and the Upper Air building!

<http://www.weather.gov/riw/virtualTour/seearea.php?location=Beginning>

A screenshot of the NOAA's National Weather Service website for Riverton, Wyoming. The page features a navigation menu on the left with categories like Local forecast by City, State, or Zip Code, Current Hazards, Observations, and Forecasts. The main content area has a header for Riverton, WY and a prominent red banner that reads "We have now reached the NWS Riverton Radar Dome." Below this is a photograph of the radar dome's interior. A text box below the photo explains that the WSR-88D radar scans the atmosphere of Central and Western Wyoming to locate ongoing shower activity. At the bottom, there is a section titled "Duties/Features Associated with this Area" with a link to click the image for more details, accompanied by three small thumbnail images.

Helping Future Forecasters

During the summer months, the NWS in Riverton hosted a college student who was part of a volunteer cooperative experience. Rachelle has been working in this role with our office for the past two summers doing various tasks around the office. Rachelle, who is currently working on her Master of Science degree in Meteorology at the University of Wyoming, spent between 20 and 40 hours a week at the weather office from June through August of 2008. Rachelle was an important part of our operations during the summer. Aside from completing some outreach efforts, Rachelle continued her work on our Media Guide, produced posters relating to significant weather events, assisted in answering phones during severe weather outbreaks, helped with our Upper Air balloon launches, and shadowed forecasters to learn more about their careers. The extra set of hands and eyes were invaluable to the forecasters and managers during the busy summer months.

The program involving student volunteers is an open program for all college students. If you know a college student interested in being a volunteer cooperative student during the summer months, please have the student contact our office at (307) 857-3898 and ask to speak with our Meteorologist-in-Charge Kevin Lynott (x 642), or our Warning Coordination Meteorologist Chris Jones (x 726) about the possibility of joining the program.

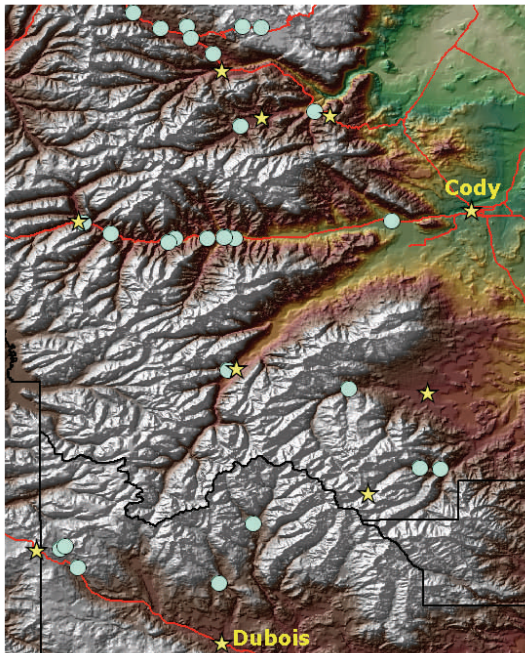
Introducing Recreation Forecasts Pages

People visiting Yellowstone National Park, Grand Teton National Park, and recreational areas over the Wind River mountain range and Shoshone National Forest now have easier access to detailed forecasts. The NWS in Riverton has released pages with specific popular locations across these areas which are accessible to the general public. Places of interest are denoted with dots or stars on the maps. Simply click the location which you will be visiting, and you will be taken to a detailed forecast for that area. It's that simple!

Shoshone National Forest North Zone

*Click on a dot or star to retrieve the latest forecast information

★ Point of Interest ● Recreational Area



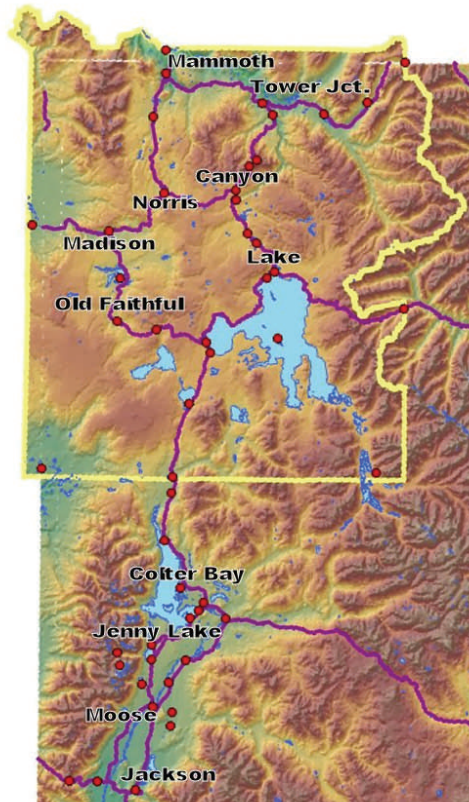
Shoshone National Forest

http://www.weather.gov/riw/?n=shoshone_nf_north



Home > Yellowstone and Grand Teton National Parks Detailed Forecasts

Yellowstone and Grand Teton National Parks



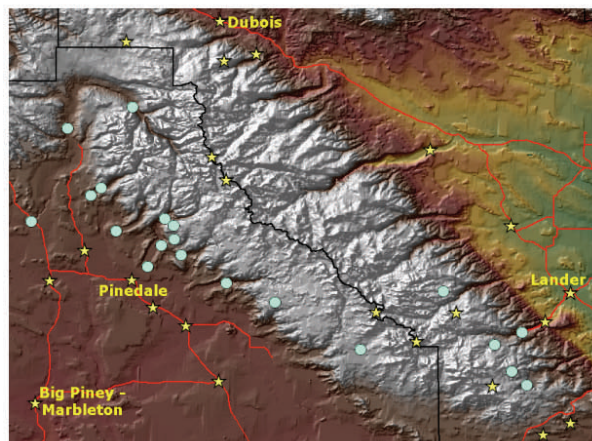
Yellowstone and Grand Teton NPs

http://www.weather.gov/riw/?n=ynp_gtnp

The Wind River Range

*Click on a dot or star to retrieve the latest forecast information

★ Point of Interest ● Recreational Area



Wind River Mountain Range

http://www.weather.gov/riw/?n=wind_river_range

CoCoRaHS Training

NWS Riverton meteorologists conducted precipitation measurement training this fall in support of the Community Collaborative Rain, Hail & Snow Network (CoCoRaHS). Training was conducted at ten sites around western and central Wyoming.

The training session teaches volunteers how to properly measure rain and snow while introducing them to the best equipment for the job. Also included is a tour of the CoCoRaHS website and information about how to join CoCoRaHS and how to obtain precipitation measuring equipment.

CoCoRaHS is a grassroots program where volunteers report daily precipitation online. These observations go into a massive database. Today's precipitation reports are mapped on the CoCoRaHS homepage, and all data are available free of charge at that website.

CoCoRaHS began in 1998 at the Colorado Climate Center at Colorado State University and currently has over 12,000 volunteer observers in 40 states and the District of Columbia. Six more states are slated to join by summer 2009.

We look forward to conducting more training sessions in the fall of 2009. Check our website at <http://www.weather.gov/riverton> for times and locations as fall approaches. More information about CoCoRaHS and how you can become an observer can be found at <http://www.cocorahs.org>.



New Training Developed for Dispatchers



An integral part of communications during hazardous weather operations and other emergencies is the county dispatch center. Typically, during hazardous weather the first notification call made from the Riverton NWS office is to the county dispatch center. Calls are routinely made throughout the event to update the dispatcher on the situation and to seek out information that the dispatcher may be receiving from officers or the public. When other emergencies arise, such as hazardous materials spills or mandatory evacuations, the dispatcher may be contacting the Riverton NWS office to request assistance communicating the emergency via All Hazards NOAA Weather Radio or obtaining updated weather forecasts. In either case, the dispatcher plays an essential role with the flow of vital communications.

To that end, the Riverton NWS staff now teaches a locally developed 90-minute training class geared toward explaining the assistance the NWS can provide to the dispatcher and first responders. The class is certified by the Wyoming Peace Officer Standards and Training (POST). Topics in the training include NWS forecast services, various means of communication between dispatch and the NWS, All Hazards NOAA Weather Radio, and the basics of using radar and satellite data. In the initial year, six classes were taught and positive feedback was received regarding the level of explanation of NWS services given to the dispatchers.

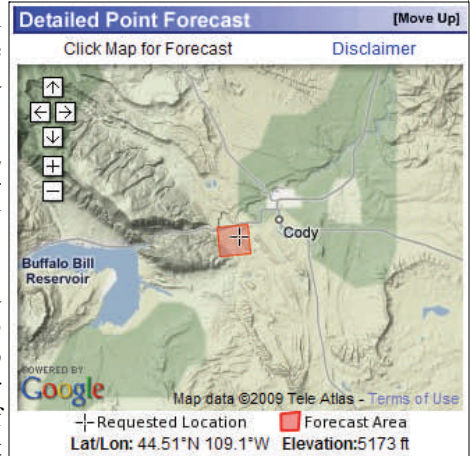
Those interested in having a class taught to local, county, or state level dispatchers can contact Chris Jones at the Riverton NWS at (307) 857-3898x726 or (800) 211-1448.

Google Services Now Being Utilized

If you are tech-savvy, well, the Riverton NWS has good news for you. Some NWS weather forecast and data services are now being generated in formats compatible with Graphical Information Systems (GIS) and GoogleEarth. Additionally, Google maps are now being used on our seven-day forecast pages, allowing users to zoom-in using a familiar platform.

To download weather forecasts and data in the GIS and GoogleEarth formats visit <http://www.srh.noaa.gov/gis/kml/>. Information such as current forecasts, observations, storm reports, and radar data are all available.

When accessing the seven-day forecast pages just scroll down and you will find a clickable Google map that can be used to zoom in and out. This feature allows users to click a more precise location to obtain a representative weather forecast. In the image to the right, the red polygon denotes the roughly 1.5 square mile forecast grid that the user has chosen with the black crosshair. The red polygon forecast grid is one of approximately 60,000 created each day by the Riverton NWS forecast staff. So, the next time you want a weather forecast for your neighborhood, you literally can select one.

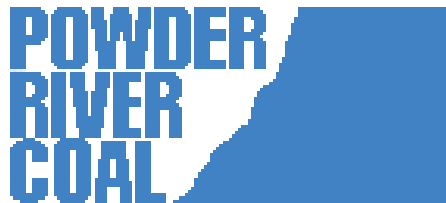


Partnership Improves Lightning Safety Campaign



Staff from both the Riverton and Cheyenne NWS offices worked together this past spring to develop new Wyoming-centric lightning safety outreach literature. These resources were enhanced and made possible by the gracious help of two important partners.

University of Wyoming athletics created a spectacular image of lightning illuminating the statue, “Fanning a Twister,” which stands outside War Memorial Stadium on the Laramie campus. The image makes for an eye-catching poster. The poster and accompanying safety brochure were printed using a generous donation from Powder River Coal. Each NWS office has been working to distribute the lightning safety materials through emergency management and recreation district outlets. Also, the Wyoming High School Athletic Association distributed 75 posters and 500 brochures to coaches attending their summer clinic and placed a lightning safety link on their website.



Lightning remains the most dangerous weather phenomena in Wyoming, killing and injuring more people than tornadoes or floods. In fact, per capita, Wyoming ranks first in the nation in the number of lightning-caused casualties. The lightning safety awareness campaign is designed to highlight safety rules and facts about lightning to have you better prepared to take appropriate action.

To download your own copies of the lightning safety brochure and pamphlet go to:

http://www.crh.noaa.gov/images/riw/lightning_sports_pamphlet.pdf

http://www.crh.noaa.gov/images/riw/lightning_poster.pdf

Service Improvement Group Chartered PAGE 9

This year marked the beginning of a new partnership designed to bring representatives from core constituency groups to the table to discuss services provided by the Riverton NWS. The group, "Partners Achieving Excellence," or PACE, was assembled in June to help the Riverton NWS identify areas for improvement and those which meet expectations.

The group is modeled after a prototype designed and implemented at the NWS office in Davenport, Iowa. The mission of the PACE partnership is to be a process for continual improvement of weather, water, and climate services. Participants come from various sectors including, education, emergency management, department of transportation, land management, broadcasting, aviation, web services, hydrology, and the public. The group meets to generate constructive feedback to identify problems with NWS services and products, or when they perceive the NWS has provided good service. Participants are also invited to propose new ideas for products and services.

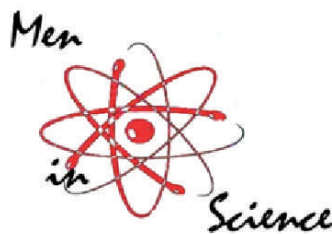
Some ideas generated at the initial meeting in June and at a subsequent September meeting have already been acted upon. Others were incorporated into the 2009 Riverton NWS annual operating plan. A complete report of PACE activities and the outcome of the 2009 service goals will be provided in this forum next year.

Men in Science Conference — October 3, 2008

On the morning of October 3, 2008 around 175 young men in grades 7 through 12 gathered at Central Wyoming College. These young men were the participants in the inaugural Men in Science Conference, an all-day event where students are able to interactively learn about various careers in the fields of math, science, and technology. In previous years, the NWS has been heavily involved in the development of the Women in Science conferences. Due to overwhelming research demonstrating young men are beginning to lag in the fields of math, science, and technology, the committee (which includes members from the NWS, Central Wyoming College, and Lifepoint Hospitals) opted to create the Men in Science Conference. Students were able to participate in two, one-hour breakout sessions during which they were able to meet with a professional scientist to have an interactive introduction to their career. Some represented careers included were Astronomy, Wind Energy, Veterinarian, various fields of Medicine, Graphic Design, and others. These sessions were prefaced by a Keynote Speaker, Scott Acton, who spoke of his experiences in the field of astronomy, and described his path to become a success. Feedback from students, teachers, and speakers was quite positive from this event.



With the success of this event, the Women/Men in Science Committee decided to alternate events each year pending funding. Plans are in development for another Women in Science Conference which would be held in October of 2009, with another Men in Science Conference in 2010. If you have questions, or would like to become involved in these conferences, please contact Katy Branham or Peggy Peterson at 307-857-3898 (x381 for Peggy) or through our email addresses: Katy.Branham@noaa.gov and Peggy.Peterson@noaa.gov.

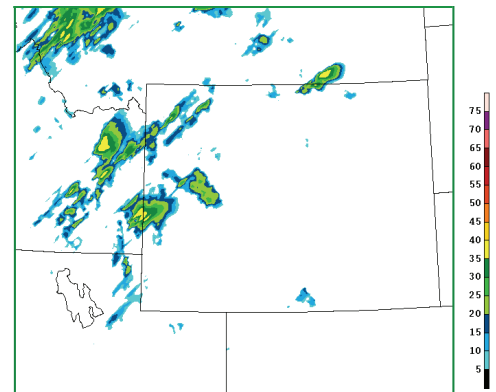


The WRF Model for Wyoming

Since early 2002, the NWS office in Riverton has locally utilized a high-resolution numerical weather prediction (NWP) model to assist forecasters in understanding and forecasting the weather in Wyoming. The concept behind the effort is that the better the model can represent the atmosphere and the complex terrain around the mountains, the better the weather can be analyzed and predicted. Forecasters have used the output guidance from the model to enhance forecasts of snow, thunderstorms, wind, and temperature, including services specific for the fire weather and aviation communities. It has been especially valuable in cases of downslope windstorms. The modeling effort includes a cluster of dual-processor machines, a far cry from the supercomputers used at NWS headquarters in Washington D.C.

In January 2006, an upgrade was made to use the WRF, the Weather Research and Forecasting Model (www.wrf-model.org). This system is “a next-generation mesoscale numerical weather prediction system designed to serve both operational forecasting and atmospheric research needs.” It was developed in a collaborative partnership with several agencies, including academia, government, and the military. At NWS Riverton, the model has been configured to run on a grid of points at a 4 km (2.5 mile) resolution over a large area which encompasses the entire state of Wyoming, as well as portions of Colorado, Utah, Idaho, and Montana. See the image for both the domain, and an example of output from the WRF that simulates RADAR reflectivity. This configuration allows two model runs each day, one at night and one during the day, each forecasting out to 48 hours. The model requires input data to start; the nighttime run uses the 12 km North American Mesoscale (NAM) Model, and the daytime run uses 40 km output from the Global Forecast System. One of the advantages of the WRF is the ability to “plug and play” various components in an attempt to provide the most realistic and accurate weather forecast.

At present, some of the output is provided to neighboring NWS offices in Cheyenne and Billings to supplement their forecast guidance as well. Additionally, the NWS Environmental Modeling Center is experimentally running high-resolution WRF models on a supercomputer over a much larger domain. It may be possible in the future then to run the Riverton WRF at a much finer resolution, such as 2 km (1.25 mile).



WRF: 090303/1800F06 Composite Reflectivity (dbz)

Weather Guidance for Avalanches

Unfortunately, there have been five avalanche-related deaths in Wyoming since late December 2008. Beginning in early 2006, the NWS weather forecast office in Riverton and the Bridger-Teton National Forest Avalanche Center in Jackson established an effort where Avalanche Watches and Warnings could be issued (by the Avalanche Center) and distributed (by the NWS) for the mountains of western Wyoming. This program has been well established in other areas of the west, including Colorado and Utah. The Avalanche Center decides when to issue the watch or warning to alert users to the potential of avalanches, and the NWS distributes the information both on the Internet and over All Hazards NOAA Weather Radio. Although the Avalanche Center highlights the avalanche potential in their forecasts, which are also on the Internet, broader distribution was needed to get the word out to as many as possible, especially back-country skiers and snowmobilers. The coordination effort continues this winter season even with an abnormally low amount of snow in February.

Additionally, the NWS office in Riverton continues to provide weather guidance to the Avalanche Center in Jackson. The guidance is specifically provided in a matrix format for several locations around western Wyoming which are key to the Avalanche Center operations; the numerical values of weather parameters are taken straight from a 2.5 km gridded database of weather elements that is constantly maintained by forecasters. In addition, a brief discussion is included to give a general overview of the current weather situation and convey forecaster confidence in the forecast. Generally, the forecast is updated twice daily during the Avalanche Center's days of operation (November through April). The text product can be found on the Internet at <http://www.crh.noaa.gov/product.php?site=riw&product=SAG&issuedby=riw>.

The Avalanche Center, in coordination, provides both manual and automated weather observations from various sites around western Wyoming, including Teton Village, Snow King, Grand Targhee, Togwotee Pass, and the Salt River and Wyoming Ranges. Automated stations provide continuous temperature, relative humidity, and wind data. Manual stations at Teton Village and Brooks Lake Lodge provide snowfall estimates (via sensors) and measurements (by hand). The automated data is available on the Internet through MesoWest, and the manual data is provided to the NWS via email (see <http://jhavalanche.org/scripts/avalanche.php?action=bigsheet> for this information as well).