NATIONAL WEATHER SERVICE
DES MOINES IA

Central Iowa The Weather Whisper

Volume I, Issue I Spring 2007

- Flood Safety Awareness Week
- Severe Weather Awareness Week

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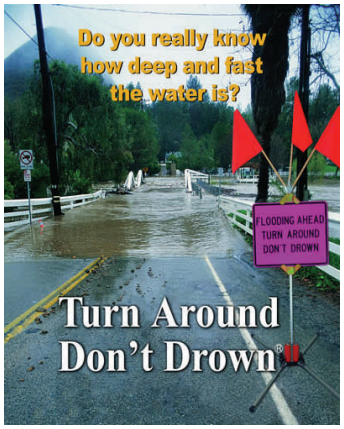
Flood Safety Awareness Week - March 19-23, 2007

Flooding is a coast to coast threat to the United States and its territories in all months of the year. National Flood Safety Awareness Week is intended to highlight some of the many ways floods can occur, the hazards associated with floods, and what you can do to save life and property.



Each day during the week of National Flood Safety Awareness Week, a different subject on flood safety will be highlighted.

Monday: Advanced Hydrologic Prediction System (AHPS)
Tuesday: Turn Around Don't Drown (TADD)
Wednesday: Flooding and Related Phenomena
Thursday: Flood Insurance
Friday: Flood Safety

More information on National Flood Safety Awareness Week can be found at: http://www.weather.gov/floodsafety/

Severe Weather Awareness Week - April 2-6, 2007

Severe Weather Awareness Week is an annual event to remind Iowan's that severe weather is part of being in Iowa and that understanding the risks and how to respond can save lives. During Severe Weather Awareness Week, the National Weather Service will promote weather-safety by issuing informative daily Public Information Statements. Topics will include:

- Monday - NOAA All Hazards Radio
- Tuesday - Severe Thunderstorms
- Wednesday - Tornadoes
- Thursday - Family Preparedness
- Friday - Flooding

The highlight of the week will be the statewide tornado drill on Wednesday, April 4, 2007. The drill will begin with a Tornado Watch at 10:00 A.M. followed by Tornado Warnings for all 99 Iowa counties between 10:10 A.M. and 10:20 A.M. The drill will end with a Severe Weather Statement at 10:30 A.M.

Severe Weather Awareness Week information plus links to national preparedness materials will be on the National Weather Service Des Moines web site at www.weather.gov/desmoines. Another excellent source of safety information is on the BeReadyIowa.org web site.

Media coverage is vital to the success of Severe Weather Awareness Week and it will be greatly appreciated. Please contact Jeff Johnson at the National Weather Service by telephone at 515-270-4501, Ext 726 or by e-mail at jeff.johnson@noaa.gov .

Cooperative Weather Observer Service Awards

Ames Water Pollution Control Plant 25 Year Institutional Award

(L-R) Brenda Brock, NWS Meteorologist in Charge, Darrell Hunter, Ames WPCP, and Brad Fillbach, NWS Hydrometeorological Technician.

Spring Flood Outlook by Marian Baker, Hydrologist

The heavy snow pack across northern and west central Iowa has the potential to raise river levels to bankfull this spring across the Des Moines, Raccoon, Skunk and Cedar basins of northern and central Iowa. Some low-land flooding is possible with the snow melt; however elevated river levels will subside as the snow melts. No significant flooding is expected at this time. For the latest river conditions please visit our river information page at: http://www.crh.noaa.gov/ahps2/index.php?wfo=dmx

Last F5 Tornado in Iowa: June 13, 1976 - The Jordan Tornado in Boone and Story Counties.

NWS employees and families with IA Cubs Cubby Bear.

Highest calendar day snowfall in Des Moines - 19.8 inches on January 1, 1942.

From the Desk of the Meteorologist in Charge
Brenda K. Brock

This newsletter is another way to make a connection with you and to let you know what is going on at *your* local National Weather Service (NWS) office. I would also like you to meet the employees that make it all happen! We take a lot of pride in our work and accomplishments. The NWS team of 24 dedicated employees keeps an eye on the sky, collect data and keep the weather radar, computers and remote weather observing equipment in shape. Yes, there is much more than just forecasting the weather. It is about serving and taking care of the many needs of Iowans and visitors by keeping people safe during Iowa's many forms of severe weather!

So, "Hello" and "Thank You" for helping us with weather observations and reports. I am inviting you to tour our office in the Des Moines area (Johnston).

I look forward to visiting with you!

New Ice Free Wind Sensors Installed
by David Reese, Electronics System Analyst

Automated Surface Observation Systems (ASOS) will be receiving new Ice Free Wind Sensors (IFW). So far we have two new IFW sensors at the Marshalltown and Ames airport ASOS systems and they seem to be working very well. In the near future we will be receiving additional sensors at Des Moines, Waterloo, Lamoni, Mason City, Estherville, and Ottumwa airports as well. The new sensors have no moving parts and are comprised of three separate probes that transmit ultrasonic pulses between them to determine wind speed and direction. Some major advantages over the present and older rotating systems, is that they require no maintenance, and will not freeze or seize up. The calibrations are tested on a regular basis however, which ensures the sensor's accuracy. We anticipate receiving the additional new sensors this year.

The Des Moines NWS office will be a beta test site for a new Doppler radar computer processing system. The new system includes new Linux based processor platforms that will allow more and faster processing of radar data, which will be vital to future improvements and modifications. Real-time radar data information is available and free on our website for anyone to use.

Meet the National Weather Service Employees

Meteorologist Rod Donavon grew up in the small northeast Iowa community of Clarksville. While growing up, Rod always had an interest in weather. His interest was sparked even further while watching a tornado out of his grandmother's window on Mother's Day of May, 1988.

Upon completion of high school, Rod attended the University of Northern Iowa where he earned his Bachelor of Arts degree in History. During the summers, Rod worked bridge construction across north central Iowa. After graduation, Rod married his wife Wendy and the couple moved to Coralville, IA. While Wendy completed her final year at the University of Iowa, Rod worked construction inside the University of Iowa Hospitals and Clinics. Wendy's career path led the couple to Ames where Rod found the opportunity to return to school and earn his Bachelor of Science degree in Meteorology from Iowa State University.

Rod joined the National Weather Service (NWS) in December, 2000 as a Meteorologist Intern at the NWS Grand Forks, ND and was promoted to General Forecaster in March, 2002. In August, 2003; Rod moved to the NWS Des Moines where he was later promoted to Senior Forecaster in March, 2007. Rod's primary interest is severe weather and he has focused much of his research in this area. Rod has presented his research at numerous conferences and seminars across much of the Central and Northern Plains. His development of a severe hail warning technique earned Rod the NWS Central Region Isaac Cline Award in September, 2006 and he is currently being considered for the award on the national level. Rod enjoys getting out and meeting the public whether it is at spotter talks or while programming weather radios at various locations. Rod is the current president of the Central Iowa National Weather Association. Rod and his wife have two children, Caleb and Allyson.

Rod (L) accepting the Cline Award from Karl Jungbluth, NWS Science & Operations Officer.

Mason City had twelve consecutive days with lows below zero from January 30 to February 10, 2007

Spotter Training 2007

Spotter training courses were ongoing throughout the Warning and Forecast Office (WFO) Des Moines County Warning Area (CWA) by early March. Spotter training courses are normally hosted by the county emergency management coordinators in cooperation with National Weather Service (NWS).

Spotter training 2007 kicked off on February 20, 2007 in Centerville, Appanoose County. The 44 spotter training classes scheduled will conclude in late April. A complete spotter training schedule is on the NWS web site at (link to location) http://www.crh.noaa.gov/dmx/?n=spotterinfo. There may be two training sessions in two different locations on the same day. Also, some counties may not schedule a training session this year. If that is the case, please attend a training session in a neighboring county.

Spotters in the NWS Severe Verification Network will receive a post card containing training dates and locations in their area.

Spotter training is offered free of charge and is open to the general public. Most training classes start at 7 p.m. and last up to two hours.

Online spotter training is also available on the NWS Des Moines spotter information page (as linked to above).

- Highest daily rainfall in Ottumwa was 4.43 inches on May 2, 1993
- Earliest 100° temperature in Iowa - 100° on April 22, 1980 in Waterloo and Ft. Dodge
- Largest ice storm in Central Iowa since March, 1990 was on February 24-25, 2007.

Sun Dog captured over the NWS Doppler radar tower on January 30, 2007.
by Brenda Brock

Outlook for the upcoming Spring and Summer Seasons by Miles Schumacher, Senior Forecaster

The winter just past was indeed rather surprising. After having one of the warmest Decembers on record, the tables began to turn in mid January. Although it was much colder than it had been during the previous several weeks, temperatures seemed quite cold in comparison. Actually, temperatures across the state had pretty much just returned to normal. A sharp change to colder than normal weather took place in February. Many may ask if we've ever had a winter with such a sharp reversal such as this in the past. The answer is yes. There have been about a dozen years somewhat similar to this year in the past 125 years, the most recent being the winter of 2002-2003.

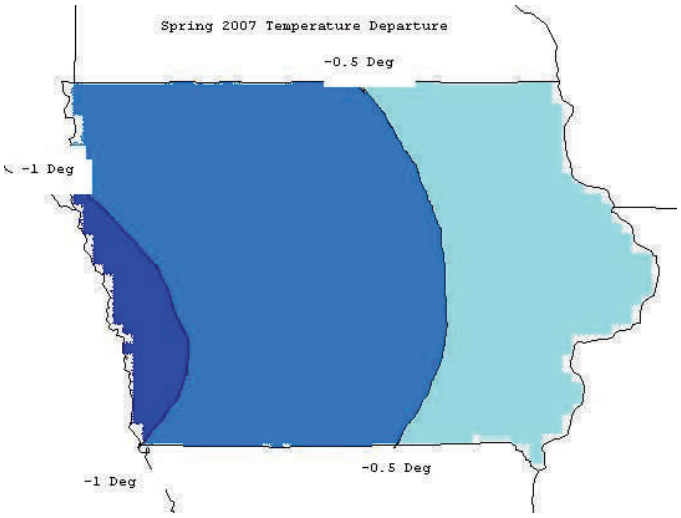


Figure 1: Mean Temperature departure for the months of March, April, and May.

Meteorology does not have a perfect "memory" so to speak, but looking at weather of the recent past can give some indications of near term weather trends in the future. Based on the best fit from several of the years that were similar to the winter just past, it would indicate that the upcoming Spring season will average fairly close to normal, and a little drier than normal. March looks to be a particularly volatile month. Granted, March is typically the most volatile month of the year in Iowa; indications are that March of 2007 will be more variable than normal. Statistically, about 75% of the year with winters similar to this past winter exhibit a March that is cooler than normal. There is about a 1 in 8 chance March will end up very mild, and a 1 in 4 chance it will end up very cold. Looking into the rest of the Spring, it would appear the weather will settle down. Temperatures for April and May are likely to end up fairly close to normal. For the Spring as a whole, we will likely see temperatures a little under normal. See Fig 1.

Precipitation is a more difficult parameter to forecast. This is due to the nature of it being more randomly distributed spatially. For the years as a whole, the Spring tended to run drier than normal, though there was considerable variability exhibited in the years chosen. Overall, the chances for March to be wet was about 1 in 4, while it was at least a 50-50 shot that the month would end up drier than normal. It is interesting to note that both April and May tended to be either significantly wetter, or significantly drier than normal in many of the years. Actually, for April, 1 in 4 of the years turned out normal or above in precipitation, while May was about evenly split between above and below normal. For the Spring as a while, we are likely to see precipitation average a little below normal. See Fig 2.

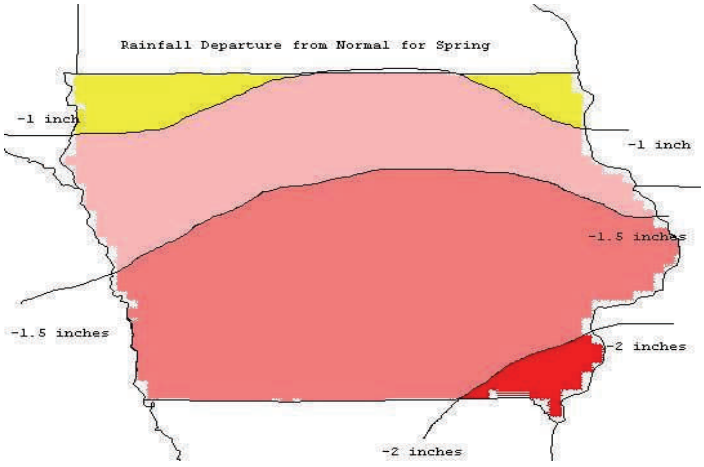


Figure 2: Departure from normal rainfall for the months of March, April, and May.

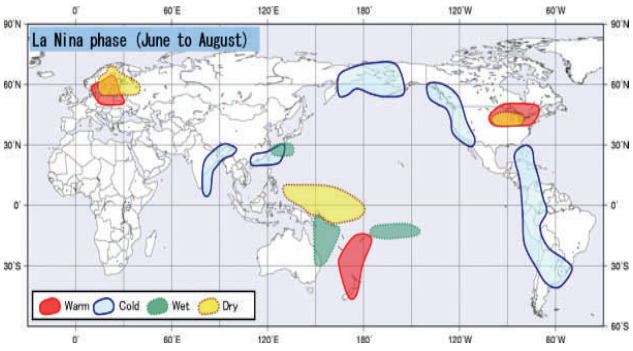


Figure 3: Typical affects of La Nina on Global Weather Patterns.

Looking briefly at the upcoming summer, there are a few things to consider. Perhaps one of the more significant events taking place is the demise of the El Nino that has been in place during the past several months. There are strong indications that El Nino is breaking down and that Pacific Ocean temperatures will be close to normal or even perhaps moving into a La Nina. For the latest official forecast, please see the latest advisory. It would appear the atmospheric response will tend more toward La Nina this summer. Using this assumption as a base, the tendency would be for the summer in Iowa to be warmer and drier than normal. Below is a map showing the effects of La Nina on weather patterns around the globe. See Fig 3.

Outlook for the upcoming Spring and Summer Seasons cont.

Based on these recent trends, the maps below show expected temperature (Fig 4), and precipitation (Fig 5) for the upcoming summer.

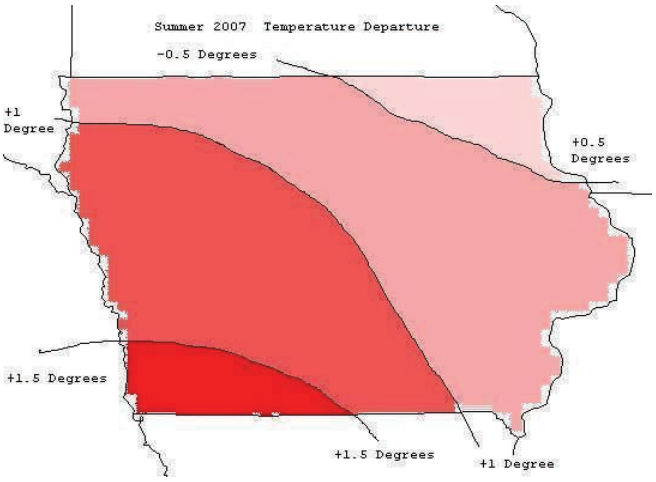


Figure 4: Departure from Normal Temperatures for the Months of June, July, and August.

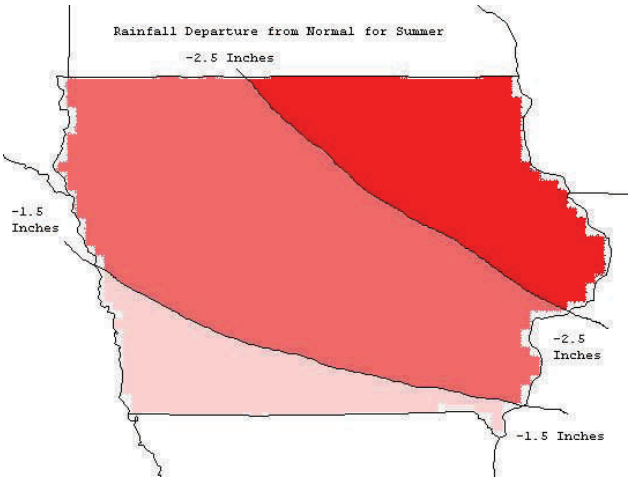
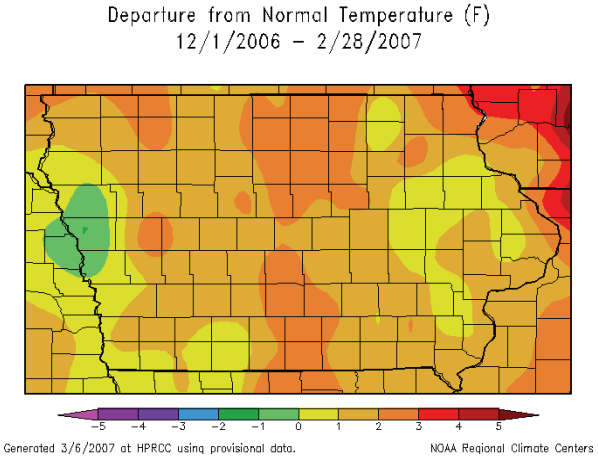


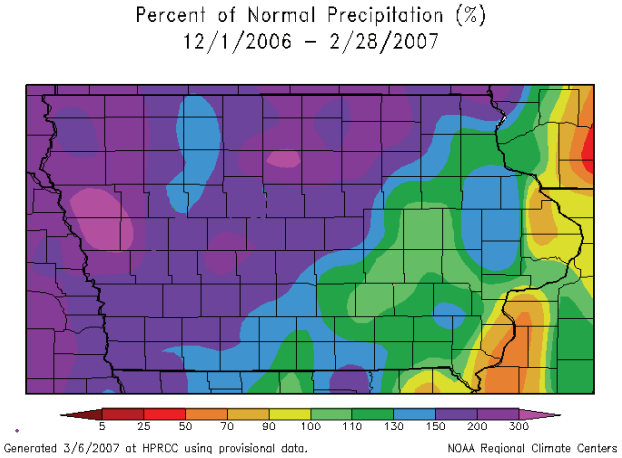
Figure 5: Rainfall Departure from Normal for June, July and August.

These outlooks are based more heavily on statistics than many of the methods used by the Climate Prediction Center. The complete set of official forecasts from the Climate Prediction Center can be found on our website.

Winter in Review - Not as Cold as You Think! by Craig Cogil, Forecaster

Meteorological winter covers the months of December through February. While the recent cold of January and February made the winter seem rather harsh, the average temperature for the 3 month period was actually above normal. The main reason was the very mild start to the winter with mid December into early January averaging well above normal. In fact, the month long period from December 9th to January 10th was the warmest such stretch for that period in over 125 years of records in Des Moines. Temperatures during the stretch averaged 14.4 degrees above normal. The period of cold weather lasted from January 12th to February 17th with readings averaging 7.7 degrees below normal. Across the state of Iowa, the average temperature for the winter was 22.7 degrees, which was 1.2 degrees above normal and ranks as the 64th warmest winter season out of the last 135 years.





Precipitation was well above normal across much of Central Iowa for the winter season. December and February both saw heavy amounts of precipitation which helped push amounts above 150% of normal in many locations, especially the northwest half of the state. Statewide average precipitation was 4.85 inches which was 1.68 inches above normal. This would rank as the 9th wettest winter on record over the last 135 years.

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Central Iowa
The Weather Whisper

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Severe Weather will be upon us soon. Is your county, city, university, school or business StormReady? The National Weather Service designed the StormReady program to help communities better prepare for and mitigate effects of extreme weather-related events. StormReady also helps establish a commitment to creating an infrastructure and systems that will help save lives and protect property. Receiving StormReady recognition does not mean that a community is storm proof, but StormReady communities will be better prepared when severe weather strikes. Although no grant money is provided to meet the requirements, there is no fee required for StormReady recognition either. Polk County, the cities of Denison and Newton, and Iowa State University has all been designated as StormReady with Marshall and Carroll Counties in the application process.

Cities and counties can be recognized as StormReady, and schools or businesses with 50 or more students or employees can be noted as StormReady Supporters. If you would like more information on the StormReady program, please visit www.stormready.noaa.gov, contact Warning Coordination Meteorologist Jeff Johnson (jeff.johnson@noaa.gov), or Senior Meteorologist and StormReady Program Leader Brad Small (bradley.small@noaa.gov). They can also be contacted by phone at (515) 270-4501.