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# Bay Breezes

Serving the San Francisco and Monterey Bay Areas

Winter 2009

January 2009

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## Busy Wildfire Season for Monterey Forecast Office

by Matt Mehle *Incident Meteorologist*

The 2008 fire season will go down in history as of the busiest and most active fire weather seasons for the Monterey Weather Forecast Office (WFO). During the months of May through October, 11 wildfires occurred in the Monterey WFO county warning area (CWA). Three of the eleven wildfires were considered large fires with over 15,000 acres burned with one of the three wildfires exceeding 160,000 acres.

Many regions around the state of California were well below normal for annual precipitation leading up to the 2008 fire weather season. In fact, the governor declared a state-wide drought in early June 2008 signifying the severity of the situation due to the lack of precipitation. Many fire agencies around the

Central Coast of California were reporting July like conditions as early as May due to the below normal precipitation and dry conditions. The finer fuels known to spread wildfires rapidly, such as grass and shrubs, were already starting to cure or dry out. The stage was now set to get the fire season going and all that was needed was a spark, literally.

The 'spark' came mid May when the first wildfire, named the Summit Fire, began in Santa Cruz County. The Summit Fire became one of the more prominent wildfires of the season for two reasons, it was the first significant wild-

fire of the 2008 season in California and it caused the most damage to structures in the Monterey WFO CWA. During the Summit Fire, 63 residences and 69 out buildings were destroyed. The fire was officially contained on May 27<sup>th</sup>, 2008, which were a few days before the official



Basin Complex 2008

drought began. Once the fire was fully contained, total burned acreage came to 4,270 acres with a price tag of 19.5 million

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## 2008 Wildfire Season

*continued from page 1*

dollars. Cause of this fire is still under investigation, but suspected to be human caused.

It didn't take long before the next fire to get started. On June 8<sup>th</sup>, the Indians Fire ignited at a campground in the Ventana Wilderness, which is just northwest of Fort Hunter Liggett. Coincidentally, this wildfire began two days after the completion of the Wildland Fire School held at Fort Hunter Liggett annually. The Indians Fire will be remembered for its size, duration and complexity. Burning for just about a month, the Indians Fire consumed over 76,000 acres at an estimated cost of 42.5 million dollars. The acreage alone ranks this fire as the 13<sup>th</sup> largest in California's recorded modern history. At its peak intensity, roughly 2,600 personnel were on hand to help fight this fire. Official containment did not come until the second week of July.

Meanwhile, as the Indians Fire continued to rage on about a half dozen other wildfires ignited in various parts of the Bay area from June 11<sup>th</sup> to the 22<sup>nd</sup>. These wildfires were generally small in size at a few 1,000 acres or less, except one very large

wildfire that garnered national attention. At 520 acres burned, the Martin Fire was the smallest and occurred in the Santa Cruz Mountains from June 11<sup>th</sup> to the 28<sup>th</sup>. Despite the small size, the Martin Fire was the costliest of the smaller wildfires racking up 5.4 million dollars with 11 structures lost. At this time the Martin Fire still remains under investigation. About a week

later, the Santa Cruz Mountains were hit with another wildfire near Watsonville named the Trabing Fire. The Trabing Fire gained a lot of local media attention due to its urban and wildland interface. Many structures were threatened with numerous evacuations in this fast moving wildfire. In less than two days the fire was contained, but in that short time span it destroyed 20 structures. The official cause to this fire is still under investigation, but it is suspected to be human caused.

The 'firestorm' of

mid to late June continued as a series of storms moved through the Golden state on June 21<sup>st</sup> and 22<sup>nd</sup>. These storms generated over 6,000



**Large Smoke Plume on Indians Fire 2008**

lightning strikes which ignited over 2,000 wildfires statewide. Many of the wildfires were confined to northern California, but a few were sparked near the Bay Region including: Hummingbird, Whitehurst, Wild and the Basin Complex. The Wild wildfire ignited on June 21<sup>st</sup> in Napa County and only lasted for five days. In that five day period, just under 4,100 acres were consumed by the fire with a total suppression cost of 2.1 millions dollars. Less than 24 hours after the Wild wildfire began, three more

*(Continued on page 3)*

## 2008 Wildfire Season

wildfires erupted in Santa Clara and Monterey counties. The Hummingbird and Whitehurst wildfires were eventually considered one wildfire due to their proximity to each other. These two small fires were contained in about four days for roughly one half of a million dollars. Farther to the south in Monterey County the grand daddy of wildfires for the central coast began to brew in steep, complex terrain in the Ventana Wilderness and The Los Padres National Forest. As mentioned

it, the Indians Fire would eventually burn right up to the Basin Complex. While one wildfire was gaining strength another active wildfire was right next door making Monterey County one of the most active counties in California for wildfire personnel in late June. As it would later turn out, the Basin Complex would end up being over twice the size of the Indians Fire. National media attention, including a trip from the governor, was drawn to the Basin Complex because this

*continued from page 2*

landscape being changed for ever, numerous towns were being threatened including the famous Big Sur Village. The Basin Complex would rage on for over a month and would officially be contained on July 27<sup>th</sup>. Fire crews from across the nation, including the National Guard, came to help fight this fire. At its peak, 3,218 fire personnel converged on the central coast making the fire one of the top ten most populated locations in Monterey County. When the fire was all said and done, a whopping 162,818 acres were burned in a little over a month's time making the Basin Complex the 8<sup>th</sup> largest wildfire in California's modern fire history. However, the Marble-Cone Fire of 1977 still remains the largest fire in Monterey County with a total acreage burned at 178,000 acres. Interesting to note, the combined acreage of the Indians Fire and Basin Complex would yield a total acreage of 239,372 acres making it the 3<sup>rd</sup> largest wildfire in California in modern times. Other notable wildfires for Monterey County include: Kirk Fire of 1999 at 86,700 acres and the Gorda-Rat of 1985 at 56,000 acres all of which occurred in the same general

*(Continued on page 12)*

### Monterey CWA Fires 2008

	<u>Acres</u>	<u>Ignited</u>	<u>Contained</u>	<u>County</u>
Summit	4,270	5/22/2008	5/27/2008	Santa Cruz
Trabing	620	6/20/2008	6/22/2008	Santa Cruz
Hummingbird and Whitehurst	1,056	6/22/2008	6/26/2008	Santa Clara
Wild Fire	4,089	6/21/2008	6/26/2008	Napa
Martin	520	6/11/2008	6/28/2008	Santa Cruz
Indians	76,554	6/8/2008	7/10/2008	Monterey
Basin Complex	162,818	6/22/2008	7/27/2008	Monterey
Deer	300	10/10/2008	10/13/2008	Napa
Angel Island	380	10/12/2008	10/14/2008	Marin
Chalk	16,269	9/28/2008	10/30/2008	Monterey
<b>Total Acreage</b>	266,876			

earlier, the Indians Fire was ongoing and was less than 50 miles to the southeast of the new fire. As fate would have

stretch of coastline is touted as one of the most beautiful stretches of California coastline. Not only was the natural

## Recent and Future NEXRAD Upgrades

by Brian Tentinger *Radar Focal Point*

The National Weather Service NEXRAD Weather Surveillance Radar (WSR-88D) for the San Francisco and Monterey Bay Area is located in the Santa Cruz Mountains on top of Mount Ummunum. It has undergone some recent changes this past spring (2008) and will again go through additional changes in the future (Summer 2010?). The radar has the identifier KMUX, and the radome sits up at 3500 feet above sea level in Santa Clara County. The RDA/RPG (Radar Data Acquisition/Radar Product Generator) Build 10.0 is the most recent upgrade for the NEXRAD system. A number of technical changes were made with the Build 10.0 upgrade, but the most notable change is the development of

Super Resolution base data products. Base data consists of reflectivity, velocity and spectrum width. The Super Resolution products are only available on the split cut elevations (lowest two elevation slices) with the base data. The new 8-bit Super Res base data is an improvement on the 8-bit legacy data, with the range resolution remaining the same at 0.25 km (0.13 miles) and the azimuthal resolution increasing from  $1^\circ$  to  $0.5^\circ$ . The radial display range of the velocity and spectrum width data has been extended from 230 km (124 miles) to 300 km (162 miles), and the reflectivity range has remained the same at 460 km (248 miles). These improvements will allow weather forecasters to see more detail when analyzing radar information in the two lowest elevation slices. This advantage will give the most comprehensive real-time data near the surface available and

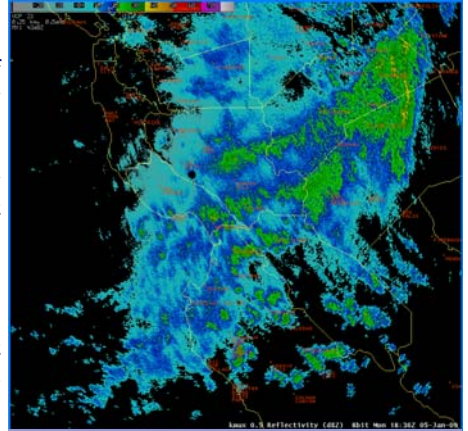


Fig 2: Super Resolution reflectivity —KMUX radar image at 0.5 degrees

oftentimes the most critical region when it comes to severe weather. Figures 1 and 2 show the radar display in legacy mode and the new Super-Resolution mode respectively for the same time frame. Currently, the Super-Res data is not available to the public. The next upgrade to the NEXRAD will be the implementation of dual polarization. Dual polarimetric radars works basically the same as the current radar except instead of transmitting one horizontal pulse of energy, the dual pol radar transmits two pulses of energy, one horizontal and one vertical. The additional energy received

(Continued on page 5)



Fig 1: Legacy 8 bit reflectivity —KMUX radar image at 0.5 degrees

## Recent and Future NEXRAD Upgrades

*continue from page 4*

back at the radar allows for more information about the type of precipitation to be obtained, and can even determine if the targets are birds and insects or anomalous propagation. The dual pol radar will be able to recognize different types of hydrometeors including:

- Big Rain Drops (BD)
  - Hail (HA)
  - Heavy and Moderate Rain (HR and RA)
  - Wet Snow (WS)
  - Dry Snow (DS)
  - Grapel (GR)
  - Ice (IC)
  - Bird/Insects/Biological Scatterers (BI)
  - Anomalous Propagation/ Ground Clutter (GC)
  - Unknown (UK)
- An example of what the radar

image might look like showing the different hydrometeors is shown in Figure 3. There will be significant operational applications with the implementation of dual polarimetric radar including improved rainfall estimation, improved bright band detection, better clutter filtering quality, improved ability to discriminate between rain and snow, along with the ability to better detect severe hail, tornadoes and the location of strong updrafts within thunderstorms.

The dual pol radar is expected to be implemented during the summer or fall of 2010.



Fig 3. Sample radar image from KMLB (Melbourne, FL) displaying Hydrometeor Classification from a dual polarimetric radar.

## CoCoRaHS Expands Across California

By Charles Bell *CoCoRaHS Focal Point*

The National Weather Service in Monterey is continuing to enhance its weather spotter network through a volunteer program: The Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS). Please consider volunteering for this great program to assist us in accomplishing our mission to protect lives and

property by issuing accurate and timely weather forecasts and warnings.

The CoCoRaHS program is a unique, non-profit, community-based, high-density network of volunteers who take daily measurements of rain, hail, and snow in their backyards and record the information on the CoCoRaHS web-

site. Observations are immediately available to view in map and table form for the National Weather Service, media and public. CoCoRaHS observers also have the chance to entire significant weather events such as flooding or hail in real-time. The meteorologists here at the office are then alerted to the report

*(Continued on page 9)*



## The Water Cycle

by Jeff Kopps *Hydrologist*

It could be argued that water is our most important natural resource. Without it, there simply would be no life on earth. And the supply of water available for our use is naturally limited by nature. The science of hydrology has evolved over time in response to the need for a better understanding of the relationship between the phases of the water cycle and the environment. In fact, a critical role of the hydrologist is to use science and mathematics to understand and solve wa-

ter-related problems in our society. Simply stated, we need to have water in the right place, at the right time and in the right quality to survive. So what is this continuous movement of water above, on, and below the surface of the earth, known as the water cycle?

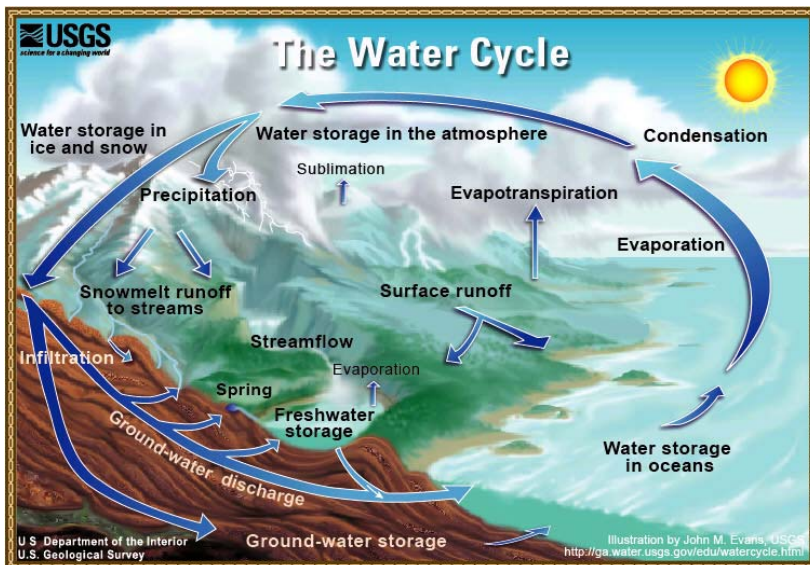
The water cycle, also known as the hydrologic cycle, represents the continuous movement of the earth's water in liquid, vapor or ice state. As the diagram shows, there are many pathways water can

take in this cycle. It can flow to rivers and then to the oceans. It can soak into the soil and then be evaporated. It can percolate through the soil to ground water reservoirs (aquifers) to be stored or it may flow to wells or springs or back to streams by seepage. And even though the water cycle sounds like it is describing only how water moves above, on, and through the Earth, in fact, much more water is "in storage" for long periods of time than is actually moving through the cycle.

Because

water is so central to the history of man, causing variations in the water cycle can bring both benefits and penalties. Man's influence on the water cycle has grown significantly in the last one hundred years due to increased population and

(Continued on page 8)



## CQ...CQ...WX6MTR Calling CQ

by Matt Mehle *Ham Radio Focal*

This year marked the 10<sup>th</sup> edition of SKYWARN Recognition Day (SRD), which began at 0000 UTC on December 6, 2008 and lasted for 24 hours. SRD was established in 1999 by the National Weather Service and the American Radio Relay League. It was designed to foster relationships between area amateur radio operators and the National Weather Service. Many amateur radio operators are also Storm Spotters and they can be a vital communication link between mobile weather spotters, the general public and the National Weather Service during severe weather emergencies. Around the nation, many National Weather Services activate SKYWARN nets during severe weather situations to monitor and receive

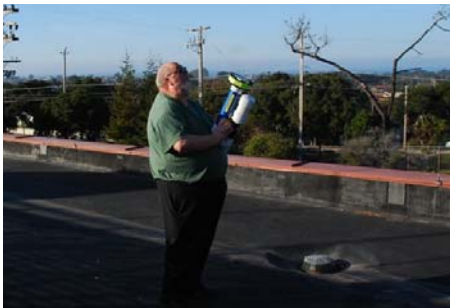
storm reports. In most instances, storm reports received through amateur radios can provide instantaneous verification of local storm conditions, which would further aid in future warnings.

On average, over 100 National Weather Service Offices, including three national centers and one foreign country participate in the special event. Each weather service office used a wide variety modes and frequencies depending on the stations capabilities. This year, the Monterey Office was able to utilize 80, 40, 20, 10 and 2 meters, 440, Packet (APRS), Echolink and IRLP modes. When the event ended on Saturday December 6th, the Monterey NWSFO had its best year yet with approximately 165 contacts including a half dozen countries

and 41 National Weather Services Offices. Hopefully, conditions on the HF bands will be better next year and we'll get even more contacts.



Randolph (KG6CGO) is watching Matt (KC0TER) call CQ on IRLP.



Larry (KE6PPE) is getting ready to string an antenna using his Pneumatic Antenna Launcher.



### On the Web:

SKYWARN Recognition Day  
[hamradio.noaa.gov](http://hamradio.noaa.gov)

American Radio Relay League  
[www.arrl.org](http://www.arrl.org)

## The Water Cycle continued

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growth of industry. This has changed the way we tap into the water cycle for our own use. Water is diverted temporarily from one part of the cycle by pumping it from the ground or drawing it from a river or lake. It is used for a variety of activities including households, irrigation and power production, among others. After

use, water is then returned to another part of the cycle. Used water normally is lower in quality, even after treatment, which often poses a problem for downstream users.

Credit: information for this article was taken in part from the excellent U.S. Geological Survey website. For an extensive review all of the

components of the water cycle, visit the California Water Science Center on the USGS website by going to the following link:



## San Francisco becomes TsunamiReady & Monterey becomes StormReady

By Tom Evans, WCM

San Francisco becomes the largest community in the country to become TsunamiReady! San Francisco County, Cali-

ornia, with a population of over 800,000 people, is now better prepared to face a tsunami. Officials of San Francisco County have provided education to their residents, placed hazard signs warning of tsunami inundation zones for shoreline and near shoreline visitors, posted evacuation routes, enhanced their communication efforts and developed a more robust standard operating procedure for an effective

tsunami response. On December 9, 2008, Mark Tew, Western Region's Deputy Regional Director and David Reynolds, San Francisco Bay Area Weather Forecast Office's Meteorologist in Charge presented the County of San Francisco with the distinction of being the largest community in the country to be designated as TsunamiReady. The ceremony was conducted at Ocean Beach and attended by representatives of the Office of Emergency Management, Fire Department, Police Department, Public Works and National Weather Service. The

*(Continued on page 11)*



Deputy Director Mark Tew (right) and MIC David Reynolds (center) present Chief Joanne Hayes-White with a certificate designating San Francisco as TsunamiReady.





## Extra...Extra...Read All About !!!

### Sonoma County NOAA Weather Radio All Hazards Transmitter

On November 2008 NOAA Weather Radio All Hazards Station WZ-2504 began transmitting on the frequency of 162.475MHz. This new weather radio all hazards transmitter will improve coverage for the San Francisco North Bay including Marin, Sonoma, Napa Counties and the along the North Bay coastal waters .



## CoCoRaHS Expands Across California

*continued from page 5*

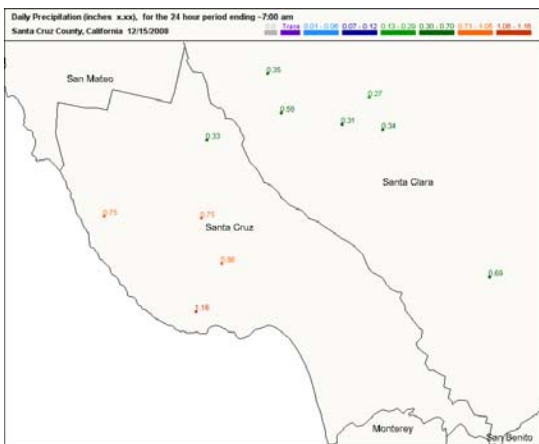
and can use the information to issue the appropriate warning products or weather statements.

The program was born in 1998 with a few

dozen volunteers in Colorado. As more volunteers were recruited, enough data became available for rainfall maps to be produced for every passing

local residents. CoCoRaHS continues to grow and now has thousands of volunteers. We encourage you to read more information about this program at [www.cocorahs.org](http://www.cocorahs.org) before making the decision to volunteer.

If you are interested in volunteering for this program or have questions, you can email [charles.bell@noaa.gov](mailto:charles.bell@noaa.gov) or call 831-656-1725 and ask for Charles.

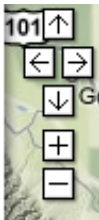


This article was written with help from Trent Smith at the NWS WFO in Missoula.

## Enhanced 'Point and Click' Forecast

by Matt Mehle

As of October, the National Weather Service has integrated Google Maps to its 'point and click' forecast page. This allows users to zoom to a specific location for a weather forecast. To access this new feature please visit [weather.gov/sanfrancisco](http://weather.gov/sanfrancisco) and retrieve a forecast one of three ways: enter your location in the top left search box, locate the nearest city by using 'Forecast by City' drop menu or click the basic county map on the homepage.



From there, users may now use Google Maps to navigate to a specific location. Use the map controls (pictured left) to navigate with the arrows moving the map north, south, east, west and + zoom in and - zooming out. Once a user has acquired the desired location, click on the map to view a forecast. The red box (pictured right), which is a 5x5 km square, will indicate the desired Forecast Area. The actual forecast from the 'Forecast Area' will be displayed to the left of the map as text or above the map as

weather icons. Every location within the red box will have an identical forecast. To view a new or different forecast click on the map outside of the red 'Forecast Area' box. For the real tech savvy and users of Google Earth, these location specific forecasts are also viewable via Google Earth. To view forecasts in

Google Earth click on the KML (Keyhole Markup Language) icon below the Google Map. Upon clicking the icon, the KML file may be saved for later use or opened for immediate viewing in Google Earth.

### New Forecast Page layout with Google Map 'Point and Click'

This Afternoon	Tonight	Friday	Friday Night	Saturday	Saturday Night	Sunday	Sunday Night	Monday
Sunny Hi 66°F	Mostly Clear Lo 53°F	Mostly Sunny Hi 77°F	Mostly Clear Lo 60°F	Sunny Hi 74°F	Mostly Clear Lo 57°F	Sunny Hi 68°F	Mostly Clear Lo 53°F	Sunny Hi 66°F

#### Detailed 7-day Forecast

Hazardous weather condition(s):

#### Hazardous Weather Outlook

**This Afternoon:** Sunny, with a high near 66. North northwest wind around 10 mph.

**Tonight:** Mostly clear, with a low around 53. North northwest wind between 9 and 15 mph, with gusts as high as 18 mph.

**Friday:** Mostly sunny, with a high near 77. Northeast wind between 5 and 7 mph.

**Friday Night:** Mostly clear, with a low around 60. Northeast wind between 7 and 9 mph.

**Saturday:** Sunny, with a high near 74. East wind around 11 mph.

**Saturday Night:** Mostly clear, with a low around 57.

**Sunday:** Sunny, with a high near 68.

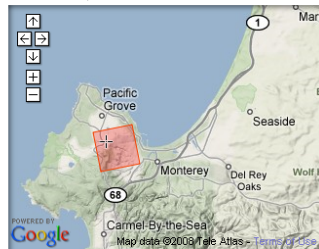
**Sunday Night:** Mostly clear, with a low around 53.

#### Detailed Point Forecast

[Move Down]

Click Map for Forecast

Disclaimer



National Weather Service KML file warehouse.

<http://www.srh.noaa.gov/gjs/kml/>

## TsunamiReady and StormReady® continued

*continued from page 8*

presentation opened with a test of San Francisco's tsunami warning system which provides a warning siren followed by voice instructions of what actions to take in order to keep yourself and loved ones safe. Mark Tew opened the presentation by acknowledging the dedication San Francisco has to keeping their residents and visitors safe during hazardous situations and congratulated them on achieving the designation from the National Weather Service as being TsunamiReady. Fire Chief Joanne Hayes-White accepted the recognition for San Francisco and praised the efforts of a multitude of county agencies involved with their tsunami readiness and the National Weather Service's diligence in promoting safety preparedness.

Officials from NOAA's National Weather Service praised Monterey County, California for completing a set of rigorous warning criteria necessary to earn the distinction of being StormReady®.

StormReady® encourages communities to take a new, proactive approach to improving local hazardous weather operations and public awareness. StormReady® arms communities with improved communication and

safety skills needed to save lives and property – before and during the event. The nationwide community preparedness program uses a grassroots approach to help communities develop plans to handle local severe weather and flooding threats. The program is voluntary and provides communities with clear-cut advice from a partnership between local National Weather Service forecast offices and state and local emergency managers.

At the Monterey County Board of Supervisor's meeting on October 14, David Reynolds, meteorologist-in-charge of the Monterey WFO, presented a recognition letter and special Storm-

Ready signs to county officials. The StormReady recognition will be in effect for three years when the county will go through a renewal process.

### On the Web:



[weather.gov/stormready](http://weather.gov/stormready)



[www.tsunamiready.noaa.gov](http://www.tsunamiready.noaa.gov)



Phil Yenovkian of Monterey OES (left) watches Monterey WFO—MIC David Reynolds (right) acknowledge Monterey County as StormReady.

## 2008 Wildfire Season

area.

There was a brief



**Cal Fire Helicopter**

respite in the fire season not because of wetting rains or a season ending storm, but most of the wildfires had been contained by this point. It was not until the end of September did another wildfire develop. Eerily enough, this wildfire ignited along the Big Sur coast and just south of the old Basin Complex. The Chalk Fire was much smaller compared to the other wildfires from two months prior in Monterey County. The Chalk Fire took roughly one month for full contained with final burned acreage at 16,269 acres with a cost of 24 million dollars.

The wildfire season

*continued from page 3*

would come to an end with back to back small wildfires in Marin and Napa Counties. On October 10<sup>th</sup>, the Deer Fire ignited just north of St Helena and quickly burned 300 acres. The proximity of the wildfire to an urban center threatened many homes and even a few wineries, but fortunately only three structures were lost. The wildfire was finally contained after three days with a final cost of 1.25 million dollars. Last but not least, the Angel Fire, aptly named because it was located on Angel Island, ignited on October 12<sup>th</sup> and burned for two days. The

*(Continued on page 13)*

## Jason Chenoweth

My career in Information Technology began in 2002 when I was hired as a student intern with the U.S. Fish and Wildlife Service in Arcata, CA. After graduation from Humboldt State University, I transitioned into a permanent position in Reno, NV, where I worked for three years as an I.T. Specialist. My primary job-duties were database administration and Web development, serving as the California-Nevada representative to the National Web Council. In April 2008 I en-

tered into my position with the National Weather Service in Monterey as I.T. Officer. Eight years previous, I was a fisheries biologist with the California Department of Fish and Game and the Pacific States Marine Fisheries Commission. My work took me to some of most untouched and pristine corners of northern California, where I lead a crew, conducting back-country surveys for Steelhead trout and Coho salmon. It was a strange twist of fate that my first

I.T. position was in an office full of biologists, developing databases in support of fisheries research.

Outside of work, I have many hobbies that keep me busy. I love exploring the coast with my family - showing my daughter all the wonderful creatures found in the tide-pools and underneath rocks. I also enjoy genealogical research. For the past twelve years I've been tracing my family's heritage - a hobby I find extremely rewarding.



**Jason Chenoweth**

**Information  
Technology  
Officer**

## 2008 Wildfire Season

*continued from page 12*

Angel Fire ended up being another high profile wildfire because it was viewable from a large population center and it threatened much of the historic Angel Island State Park. Burning more than half the island's acreage, Angel Fire finished with 380 acres by October 14<sup>th</sup>.

Eleven wildfires and

roughly 266,876 acres were burned in the Monterey WFO CWA during the 2008 fire season. Two incident meteorologists, meteorological experts on wildfires, from the Monterey WFO were dispatched for 80 plus days to aid in wildfire support. 2008 fire season will be remembered for quiet some time as

one of the busiest fire seasons for Monterey WFO and California as a whole.

It should be noted that the numbers and dollar amounts quoted in this article are not official. Information for this article was obtained from Cal Fire and other public sources.

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## Tom Evans

Tom's interest in weather started later in life than most weather enthusiasts. His original career path took him into aviation. Tom attended a small community college in Arizona and studied to become a commercial pilot. Through his studies, it became perfectly clear that weather will always be a major factor anytime he is in the air. Therefore, after completing his Associate of Science degree in the Professional Pilot Program, he decided to continue his education at the University of Arizona and study Atmospheric Sciences. During his time at the U of A, he worked as a flight instructor and charter

pilot. After graduation it was off to the airlines for Tom, or so he thought. The airlines weren't hiring and he was looking for a new challenge, so Tom applied to the National Weather Service (NWS). In 1994 he accepted a job in Santa Maria, CA. After a year in Santa Maria, Tom transferred to San Diego, CA and then became a Forecaster in the San Francisco/Monterey Bay Area office. Throughout his NWS career Tom has been interested in the outreach, education and relationship building aspects of weather planning and preparation, the job of the Warning Coordination Meteor-

ologist (WCM). In 2002, Tom was excited to be selected to serve as the WCM for the Tucson, Arizona office. What's more, in October, 2008 Tom returned to the San Francisco/Monterey Bay Area office to serve as their WCM.

Tom's interest outside of weather are spending time with Andrea, his wife and Tugs, their pound puppy (a black lab mix), serving in their Lion's Club, cruising with his wife on their motorcycles and playing in an occasional poker tournament. Weather has become a way of life for Tom and he always enjoys not only talking about weather, but discussing what can be done about it, too.



**For the Latest  
Space Weather:  
[www.swpc.noaa.gov](http://www.swpc.noaa.gov)**



**Tom Evans**

**Warning  
Coordination  
Meteorologist**





Editor:  
Matt Mehle

*San Francisco/  
Monterey Bay  
Storm Spotters:*

*Anytime you  
observe any of the  
adjacent weather  
conditions, please  
call us with your  
report.*

*Please include  
your name and  
spotter number  
when calling.*

**National Weather Service  
San Francisco Bay Area  
Weather Forecast Office  
21 Grace Hopper Ave, Stop 5  
Monterey, CA 93943-5505**

**Mailing Address  
Goes Here**

Check us out online at: <http://www.weather.gov/sanfrancisco>

**New mailing address? New e-mail address? New Phone number?**



**Dear Spotters,**  
If you have recently moved, changed e-mail addresses or received a new phone number please inform Matthew Mehle, Spotter Program Manager. Updating your information will ensure that the Monterey National Weather Service will be able to keep you up to date on the latest spotter training sessions, newest edition of Bay Breezes and much more.

Corrections can be sent to Matthew Mehle at [matthew.mehle@noaa.gov](mailto:matthew.mehle@noaa.gov)