

# The Desert Sun

## SKYWARN Spotter Newsletter

Summer/Fall 2008

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This newsletter serves the following counties:

Nevada: Clark, Lincoln, Nye, Esmeralda

Arizona: Mohave

California: Inyo, San Bernardino

Contacts:

NWS Las Vegas Admin Line  
(702) 263-9744

Web Address:  
[www.wrh.noaa.gov/lasvegas](http://www.wrh.noaa.gov/lasvegas)

Forecast Line:  
(702) 736-3854

## Skywarn Storm Spotter Program

Andy Gorelow, Storm Spotter Coordinator

Are you interested in the weather? Do you enjoy watching thunderstorms develop then roll across the area? If you answered "Yes", then this program is for you. The National Weather Service in Las Vegas will be conducting an online spotter training class on Tuesday, October 7, 2008 between 6:00-8:00 pm PDT. Through the use of an online conferencing program and telephone conferencing this training will introduce you to various weather elements including, thunderstorms, flash flooding, hail, and tornadoes. The Skywarn Spotter Program is geared toward weather enthusiasts who want to learn more about weather and report what they are seeing. Skywarn Spotters are literally the eyes and ears of the National Weather Service on the ground. Spotter reports greatly help in real-time ground based verification of the satellite and radar data we received. This in turn adds credibility to the statements we issue, improves our warning accuracy, and enhances the public's response. With all the technology we possess, the trained eye of the spotter is our greatest asset. So, if you are interested please email me at [andy.gorelow@noaa.gov](mailto:andy.gorelow@noaa.gov) or contact the NWS at 702-263-9744 by Friday, September 26, 2008 so I can mail the required training material in time. All training material will be provided at no cost to you. Your connection to the internet must be faster than dialup. If you cannot attend this session, other online and in person training sessions will be held in 2009. Spotter training information is posted on our website, [www.weather.gov/lasvegas](http://www.weather.gov/lasvegas).

### Staff Updates

#### Faith Borden, Warning Coordination Meteorologist

It has been a while since I have given you any staff updates. At the last writing Charlie Schlott was getting to retire, and he did. We are fortunate enough to have hired a fabulous meteorologist intern named Edan Lindaman. Before joining our staff Edan was a SCEP (Student Career Employment Position) at WFO Oxnard, CA. She is a graduate of Loyola Marymount University (Westchester, CA) where she majored in Environmental Science; and then went on to UCLA to get a Master's Degree in Meteorology. Edan has been a great addition to our staff and is one of our friendly voices you will get when you call our office.

In addition to Edan, we have hired Chris Stachelski as a Journeyman Forecaster. Chris replaces Charles Bell who transferred to WFO Monterey, CA as a Lead Forecaster. As much as we miss Charles' contribution to our office this is a great opportunity for him. Chris transferred to our office from WFO Hanford, CA. Previously, Chris worked in the private weather sector. You most likely have seen his name on many newsletter articles as he has provided several for your reading pleasure. Chris is a graduate of Florida State University.

Our latest addition to the staff is David Coleman, an Electronics Technician. David comes with extensive experience in NEXRAD radar maintenance. He was the primary radar maintenance technician at Enid AFB in Oklahoma before coming to WFO Las Vegas this past July. He is very knowledgeable and motivated and we are glad to have him on the team. Just recently while on a survey trip to a NOAA weather radio transmitter David spotted a tree engulfed in flames from dry lightning, called 911 and assisted the fire fighters in extinguishing the burning tree, thereby averting a situation that could have been much worse. Way to go Dave!! A hearty WELCOME to Edan, Chris and David.

# Information Technology (IT) Corner

**Joseph Nemeth, ITO**

## IEMBOT Monitor for Skywarn Spotters

As the Information Technology Officer for the National Weather Service (NWS) in Las Vegas, I am often involved in many exciting projects which use the latest computer technologies. Earlier this year, the NWS in Las Vegas joined a growing number of weather offices across the country in an effort to increase collaboration between the NWS, broadcast media, and the public during active weather events. The project is called the Iowa Environmental Mesonet Chat Project or just IEM-Chat. The National Weather Service is not affiliated with the IEMChat project, but many NWS offices are voluntarily participating in this effort.

Without going into too much technical detail (which is hard for me), IEMChat uses Instant Messaging (IM) software to deliver instant, text-based communication over the internet. Direct access to IEMChat is restricted to the project participants, select broadcast media, and Emergency Managers. It is closed to the general public. However, an important part of IEM-Chat is open and available to anyone with a computer and an internet connection.

Through your computer's browser, you can monitor NWS watches and warnings in real-time using the IEMBOT Monitor web page. The IEMBOT is an automated program within IEMChat. This automated program (robot or "bot") routes incoming messages (like watches and warnings) to each individual NWS office chat room. Although you cannot be in the actual chat room, you can link to the IEMBOT service to view real-time warning information right on your computer at home.

Simply point your browser to <http://mesonet.agron.iastate.edu/iembot/>. Once you are on that web page, use the drop down arrow to display a list of NWS offices. The Las Vegas office will be at the end of the list so use the scroll bar to slide to the bottom. Simply select "[VEF]Las\_Vegas" then click on the "Add!" button. Instantly you will see a list of products we have issued today and going back over the last four days. But that is only the beginning. Each product issued has an internet link (highlighted in blue). When you select (click on) a link you will be directed elsewhere on the IEM website and shown more detailed information. For example, if the product is a warning, the link will display a special page with maps, radar, and much more.

Any watch or warning issued is usually displayed within seconds on this web page, making this a very valuable tool for Skywarn Spotters during active weather events. There simply is not enough space in our newsletter to go through all of the details of this new and exciting web tool. I hope you check it out and find the IEMBOT Monitor web page a useful addition to your Skywarn Spotter tool kit.

## Calling All Spotters!!!

### Faith Borden, Warning Coordination Meteorologist

WFO Las Vegas has been utilizing the IEMChat project during the 2008 monsoon season. This is a great project because it allows us to be in continuous real-time communication with the media, emergency managers, and the HAM net control operators. Participants log onto a web based chat room where information is exchanged. This invaluable tool provides us real-time observations and spotter information that we utilize in our warning decision making process.

We're now ready to expand the project to our spotter network. If you have an active spotter id number, an email address, access to the internet, and want to provide us information in real time then email me at [faith.borden@noaa.gov](mailto:faith.borden@noaa.gov). I would love to share the details. Remember, the radar can only give us a good idea of what is happening above the Earth's surface. It is all of you, the Skywarn spotter that provide the ground truth.

## Websites Of Interest

[www.nws.noaa.gov/stormready](http://www.nws.noaa.gov/stormready)— information for making your community StormReady

<http://noaa.kids.us>— Owlle Skywarn Homepage for kids

<http://kids.earth.nasa.gov>— great site for kids to learn about science

[www.ucar.edu/learn](http://www.ucar.edu/learn)— classroom teaching material, information on climate change

<http://aviationweather.gov>— National source for aviation weather information

## Summer Totals for 2008

Andy Gorelow, Forecaster

<b>Las Vegas</b>					
	<b>High (Dep.)</b>	<b>Low (Dep.)</b>	<b>Avg. (Dep.)</b>	<b>Rain (Dep.)</b>	
June	101.2 (+2.3)	76.2 (+3.9)	88.7 (+3.1)	T	(-0.08)
July	104.8 (+0.7)	82.5 (+4.3)	93.7 (+2.5)	0.08	(-0.36)
August	104.2 (+2.4)	81.7 (+5.0)	93.0 (+3.7)	0.07	(-0.38)
<b>Hottest Temperature of the Summer: 111 degrees occurred on 6/29 and 7/08</b>					
<b>Greatest 24 Hour Precipitation: 0.06 inches occurred on 8/07</b>					

<b>Daggett</b>					
	<b>High (Dep.)</b>	<b>Low (Dep.)</b>	<b>Avg. (Dep.)</b>	<b>Rain (Dep.)</b>	
June	101.2 (+2.5)	68.9 (+3.6)	85.1 (+3.1)	0.00	(-0.11)
July	105.7 (+1.2)	74.9 (+3.6)	90.3 (+2.4)	0.15	(-0.30)
August	105.3 (+3.0)	74.9 (+4.5)	90.1 (+3.7)	T	(-0.39)
<b>Hottest Temperature of the Summer: 113 degrees on 07/08</b>					
<b>Greatest 24 Hour Precipitation: 0.07 inches occurred on 07/20</b>					

<b>Needles</b>					
	<b>High (Dep.)</b>	<b>Low (Dep.)</b>	<b>Avg. (Dep.)</b>	<b>Rain (Dep.)</b>	
June	107.9 (+3.1)	77.7 (+1.9)	92.8 (+2.5)	0.00	(-0.04)
July	109.6 (+0.5)	86.3 (+3.3)	98.0 (+2.9)	0.49	(+0.17)
August	107.6 (+0.5)	83.7 (+2.1)	95.7 (+1.3)	1.70	(+1.00)
<b>Hottest Temperature of the Summer: 117 degrees occurred on 06/21 and 07/08</b>					
<b>Greatest 24 Hour Precipitation: 1.48 inches occurred on 08/08</b>					

<b>Death Valley</b>								
	<b>High (Dep.)</b>		<b>Low (Dep.)</b>		<b>Avg. (Dep.)</b>		<b>Rain (Dep.)</b>	
June	113.0	(+3.8)	82.9	(+2.8)	98.0	(+2.8)	0.00	(-0.05)
July	118.4	(+3.2)	92.1	(+5.8)	105.3	(+4.0)	0.04	(-0.07)
August	118.1	(+4.6)	90.5	(+6.0)	104.3	(+4.8)	0.00	(-0.14)
<b>Hottest Temperature of the Summer: 127 degrees occurred on 07/09</b>								
<b>Greatest 24 Hour Precipitation: 0.04 inches occurred on 07//13</b>								

<b>Bishop</b>								
	<b>High (Dep.)</b>		<b>Low (Dep.)</b>		<b>Avg. (Dep.)</b>		<b>Rain (Dep.)</b>	
June	92.7	(+1.2)	49.0	(-1.7)	70.9	(-0.2)	0.00	(-0.21)
July	99.5	(+1.6)	56.6	(+0.9)	78.1	(+1.3)	0.28	(+0.11)
August	98.9	(+3.1)	54.4	(+0.7)	76.7	(+1.9)	0.03	(-0.10)
<b>Hottest Temperature of the Summer: 106 degrees occurred on 07/08</b>								
<b>Greatest 24 Hour Precipitation: 0.14 inches occurred on 07/14</b>								

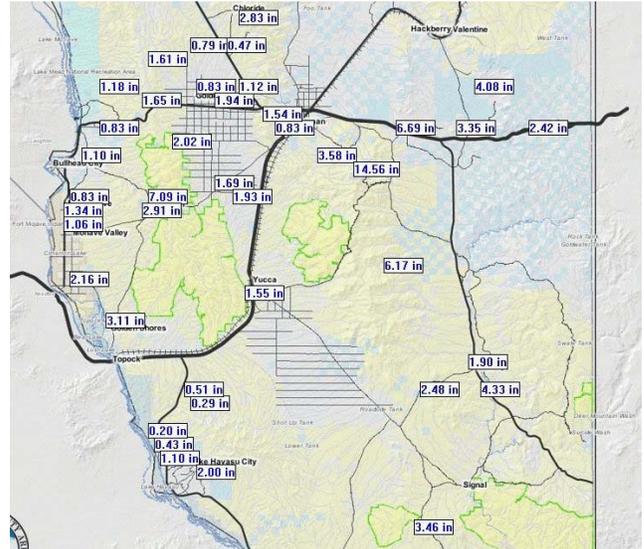
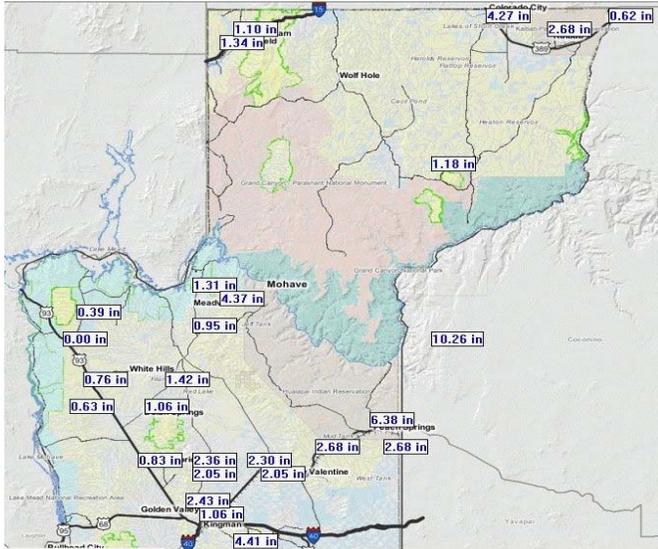
<b>Caliente</b>								
	<b>High (Dep.)</b>		<b>Low (Dep.)</b>		<b>Avg. (Dep.)</b>		<b>Rain</b>	
June	91.2		50.1		72.8		0.00	
July	95.5		60.8		78.8		1.77	
August	94.7		58.4		77.6		0.26	
<b>Hottest Temperature of the Summer: 102 degrees occurred on 7/09 and 07/10</b>								
<b>Greatest 24 Hour Precipitation: 1.19 inches occurred on 07/12</b>								

<b>Mt. Charleston</b>								
	<b>High (Dep.)</b>		<b>Low (Dep.)</b>		<b>Avg. (Dep.)</b>		<b>Rain</b>	
June	75.9		44.7		60.3		T	
July	78.5		52.1		65.3		3.30	
August	79.4		52.1		65.8		2.52	
<b>Hottest Temperature of the Summer: 86 degrees occurred on 07/09</b>								
<b>Greatest 24 Hour Precipitation: 1.20 inches occurred on 07/17 and 08/07</b>								

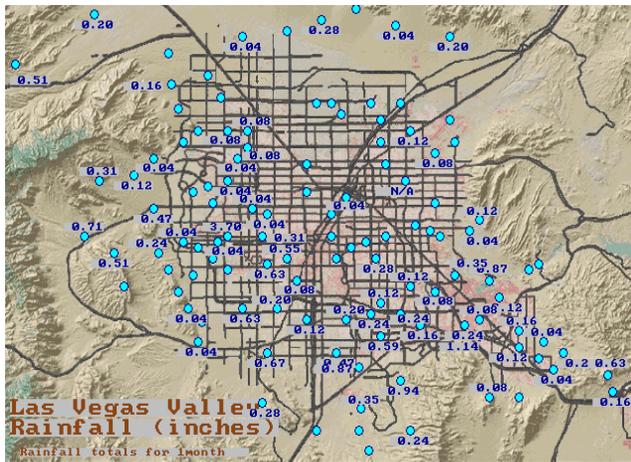
# SW Monsoon...Boom or Bust?

Stan Czyzyk and Chris Stachelski

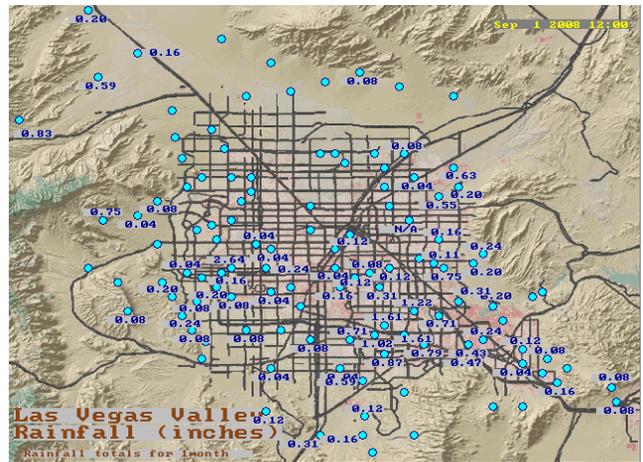
The 2008 Monsoon began right on schedule, which local studies have placed as the first week of July in Las Vegas. The first push of monsoonal moisture made its way into northwest Arizona in early July. Surface dew point temperatures began to increase on the 3<sup>rd</sup> with isolated thunderstorm activity beginning on the 4<sup>th</sup>.



This year's monsoon was particularly active across Arizona producing above normal rainfall amounts in many locations as shown in the images above from the Mohave County Alert Gage System. Thunderstorm activity across the Mojave Desert and southern Great Basin was much less frequent. The below normal rainfall amounts provided no aid to the continuing drought conditions. Rainfall at McCarran International Airport for the months of July and August combined was 0.15 inches, well below the combined normal of 0.89 inches. Thunderstorm activity and rainfall amounts varied around the Las Vegas Valley as indicated by the Clark County Alert Gage data (below). Portions of Henderson received between 1.0 and 1.5 inches of rain while other locations remained completely dry for the same period.



Rainfall Totals – July 2008



Rainfall Totals – August 2008

Another surge of monsoon moisture made its way into the Mojave Desert from the south July 9<sup>th</sup> – 10<sup>th</sup>. It spread northwest into the southern Great Basin on the 11<sup>th</sup>, and on the following day thunderstorms developed across the southern Sierra Nevada mountains resulting in heavy rains along the eastern slopes in Inyo County. Areas that were burned last year during the Inyo Complex Fire near Independence were quite vulnerable to flash flooding. Intense thunderstorms on the 12<sup>th</sup> produced heavy rains on the steep-sloped, fire-scarred areas triggering a flash flood and massive debris flow. One person suffered minor injuries as they were swept downstream. Also damage to 50 structures was reported, half of which suffered significant damage. The mud and debris flow continued moving east crossing U.S. Highway 395 north of Independence which prompted its closure for several hours. Additionally, the Mount Whitney fish hatchery lost 3,000 fish that were buried by the debris.

Early on August 4<sup>th</sup>, thunderstorms developed along the mountains surrounding the Morongo Basin and by the afternoon moved off the mountains into the lower elevations. A number of roads were significantly flooded by water at least waste-deep in Twentynine Palms and one swift water rescue was conducted. Floodwaters also damaged a number of homes and apartments while gusty winds downed trees and three power poles. A possible tornado in the Johnson Valley caused structural damage to a home and bent 2 flag poles at the base.

Three days later on the 7<sup>th</sup>, thunderstorms drenched the east and southeast sides of the Las Vegas Valley. Four swift water rescues were conducted while many roads and intersections were flooded. In Henderson, 2 people were injured by lightning and a boy was rescued from a wash. The following day a severe thunderstorm struck Needles, CA with wind gusts up to 61 mph and rainfall totaling nearly one and a half inches, the 4<sup>th</sup> greatest calendar day total on record for Needles in August.

Yet another surge of moisture moved up the Gulf of California, initiated by Tropical Storm Julio, setting the stage for thunderstorms to develop on the afternoon of August 25<sup>th</sup>. Hardest hit was Mohave Valley, AZ, where a severe thunderstorm generated 80 to 100 mph winds that produced considerable damage to structures, signs, and power poles. Straight line winds destroyed 40 of 50 hangars at the Eagle Field Airpark and snapped several telephone poles along U.S. Highway 95. In addition, the storm dropped golf ball sized hail and flooded portions of the Quail Run neighborhood. Later in the day and further south a woman died near Big River, CA after she drove her car into a flooded area. The floodwaters caused her vehicle to overturn and trapped her inside. Also on this day, thunderstorms dropped penny size hail near downtown Las Vegas and produced a 69 mph wind gust at Nellis Air Force Base.



A home swamped by a mudslide in Inyo County on July 12<sup>th</sup> (left) and some of the damage left behind (right). Photos courtesy Inyo County Emergency Management and a Spotter. Wind damage at Eagle Valley airport on August 25<sup>th</sup>. (below)



# Spotter Briefs

Donald Maker, Storm Spotter Coordinator

**New Radio Transmitter...** NOAA Weather Radio WZ2519 recently began broadcasting on 162.400 MHz. The transmitter is located on Brock Mountain about one mile south of Tonopah. The coverage map indicates the best reception is along the Nye and Esmeralda county line from Goldfield northward, as far west as Silver Peak and east along State Highway 6 to near Warm Springs. WFO Elko will be responsible for the broadcast content and WFO Las Vegas will provide the maintenance. Forecast and warning products issued by WFO Las Vegas for Esmeralda and Central Nye counties will be broadcasted on WZ2519. To view the Nevada NOAA Weather Radio coverage map go to [www.nws.noaa.gov/nwr/nv](http://www.nws.noaa.gov/nwr/nv).

**Sharing Weather Photos...** A big "Thanks" to those of you who have shared your weather photos with us via email and snail mail. It is greatly appreciated. Some of the pictures we received this year will be used in future storm spotter training sessions, class talks and possibly included in the revised Storm Spotter's Guide that is due out early 2009. However, due to privacy regulations and policies it is necessary that you include a brief statement that we have your permission to use your photos. Also when you send your photos please include a brief caption with each picture or a brief statement of what occurred.

**WFO Las Vegas Forecaster Andy Gorelow...** has been named the Lead Storm Spotter Coordinator. Andy joined the National Weather Service in 1994, and has been on the WFO Las Vegas staff since August 1999. He began heading the Storm Spotter program in the Spring 2007 and conducted 8 training sessions this year both in person and on-line. On October 2<sup>nd</sup> Andy will conduct 3 training sessions in Kingman, AZ. The first 2 will be for emergency service employees and first responders and the last one will be open to the public. Please see Andy's article in this issue for more information. I am still on the storm spotter team and still available as necessary, but other programs I'm in charge of are requiring a lot more of my time. Andy has proven that he is up to the task. Thank you for allowing me to share some of my knowledge and experience with you.

**Storm Spotter Reports and Procedures...** This year's monsoon season wasn't the worst we've had but we were surely kept busy just the same. This season's skywarn activations were initiated several times and we tried receiving spotter reports through other means than the conventional (and very reliable) phone call, and it was a huge success. Please read the articles regarding the IEMChat and let us know if you want to participate in the program. Our appreciation of the cooperation, dedication and professionalism Skywarn spotters exhibit in our network can't be expressed enough. There were a few instances where established procedures during a couple of activations were not followed and this led to a bit of confusion with some of our users. The situations did not cause any harm but a review in procedure may be in order.

## SEPTEMBER IS NATIONAL PREPAREDNESS MONTH...ARE YOU PREPARED?



### Recommended Items to Include in a Basic Emergency Supply Kit:

- Water, one gallon of water per person per day for at least three days, for drinking and sanitation
- Food, at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Local maps



### Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from [www.ready.gov](http://www.ready.gov)
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, puzzles or other activities for children