

Aware

Aware is issued by the National Oceanic and Atmospheric Administration to keep communications lines open within the Agency and with the natural hazards community

Winter/Spring 2000

Service, Science, and Technology

The Next Level of Service: Just Do It!

Although we are in a service-related economy, good service is hard to find. Sales clerks rarely know their products. Persons identified as customer service representatives rarely have authority to solve problems. The National Weather Service (NWS) is different. Our field office network uniquely positions us close to our customers and partners. We have the authority to solve problems. When it comes to providing service, our attitude should be "Just do it!"

Providing excellent service requires us to be clear on who are our customers and partners. Our customers are the tax paying public who want accurate, timely and credible weather, water, and climate information. Our partners are organizations, both public and private, who work with us to provide our mutual customers with the information they need.

Speaking With Authority

Our mission statement enables us to speak with authority when dealing with our customers and partners. Everyone must be able to articulate our mission. It is the key to unlocking service-related issues. The mission is boldly stated on page 2 of our Strategic Plan. Paraphrased, it says that we provide weather, water and climate warnings and forecasts for the protection of life and property as well as the enhancement of the economy. When contemplating a service issue, if it relates to our mission, "Just do it!" If not, don't do it.

In this environment, the term "value added" has no meaning. We should use any technology and any format to communicate effectively. Concerning the enhancement of the economy, we should create services for whole communities of customers and partners. Individual solutions for specific entities is the role of the private sector.

Consider a stock car race in a local office's forecast area. Race forecasts and specific venue forecasts are clearly the role of the private sector. The local office should meet with officials before the event to apprise them of routine NWS services as well as NOAA Weather Radio (NWR) and other NWS dissemination sources for warnings. If a warning is required, the venue should be mentioned. If the local office has a point of contact at the venue, they should notify them. It's mission related, it's our job, "Just do it!"

We are an action-oriented agency. Our name is service. Knowing our mission provides us the authority to make local decisions. We are expected to make things happen. Let's take the NWS to a new level of service. It is within our power, let's do it!

*Gregory Mandt, Acting Director
Office of Meteorology*

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National Weather Service

Slide Sets and Videotapes

The NWS slide sets and videotapes can be purchased from the National Audiovisual Center (NAC) at the address below.

National Technical Information Service
 National Audiovisual Center (NAC)
 5285 Port Royal Road, Rm. 1008
 Springfield, VA 22161

Sales Desk - 1-800-553-NTIS (6847) or 703-605-6000
 Customer Inquiry: 703-605-6050
 Fax: 703-605-6900 or 1-888-584-8332
 Web site: <http://www.ntis.gov>
 Handling fee: \$4 per order.

The NWS slide sets and presenter's guides available from NAC are:

<u>NAME</u>	<u>STOCK NO.</u>	<u>COST</u>
Winter Storms...The Deceptive Killers	AVA19250.SS00	\$100
Tornadoes...Nature's Most Violent Storms	AVA19540.SS00	\$95
Thunderstorms and Lightning...The Underrated Killers	AVA19778.SS00	\$105
Hurricane Hugo	AVA18529.SS00	\$130
Hurricane Andrew	AVA19393.SS00	\$95
Advanced Met. Spotter Training Slides	AVA17568.SS00	\$155
Concepts of Severe Storm Spotting	AVA19930.SS00	\$110
Flash Floods and Floods...The Awesome Power	AVA19997.SS00	\$120

The NWS videotapes available from NAC are:

"Terrible Tuesday," 1/2" VHS/23 minutes/color/1984	AVA11945.VNB1	\$50
"Hurricane," 1/2" VHS/28 minutes/color/1985	AVA12440.VNB1	\$50
"The Awesome Power," 1/2" VHS/17 minutes/color/1988	AVA17096.VNB1	\$50

Most of these videotapes and slide sets can be borrowed for presentations or school talks from Weather Service Headquarters (address below). For availability of these audiovisual materials, please contact Linda Kremkau, Customer Service, WSH, at 301-713-0090 x118.

National Weather Service, NOAA
 1325 East-West Highway, Rm. 14370
 Silver Spring, Maryland 20910

Other videotapes available from Customer Service are:

- "The Hidden Danger—Low Water Crossings," 1/2" VHS/8 minutes/NWS Office of Hydrology/1996
- "StormWatch," 1/2" VHS/30 minutes/copyright by TESSA/1995
- "Surviving the Cold," 1/2" VHS/16 minutes/American Red Cross Video Network/1989
- "Minneapolis Tornado," 1/2" VHS/12 minutes/copyright by KARE-TV/1986

Those interested in using portions of the NWS videotapes should contact our NOAA Video Studio at 301-713-1479.

NWS Publications

<u>NOAA PA</u>	<u>NAME</u>	<u>NOAA PA</u>	<u>NAME</u>
70027	Survival in a Hurricane (Wallet Card)	94055*	Red Cross Poster—Are You Ready for a Hurricane? (English/Spanish)
77014	Flash Flood (Wallet Card)	94056	Red Cross—Are You Ready for a Heat Wave? (Spanish)
81011#	Spotter's Guide for Identifying and Reporting Severe Local Storms (Out of print)	94057*	Red Cross Poster—Are You Ready for a Heat Wave? (English/Spanish)
82002	Dust Storm Driving Safety (Wallet Card)	94058	Safe Boating Weather Tips (Revised July 1998)
82004	Watch Out Storms Ahead	94059	River and Flood Program (Hydrologic Services Program)
85001	Heat Wave (Out of print)	94061	NOAA Weather Radio Frequency Pamphlet
85002	Hawaiian Hurricane Safety Measures with Central Pacific Tracking Chart	96051	National Centers for Environmental Prediction
85005	Tornado Safety Tips (Como Protegerse En Caso De Tornado) (WC)	96052	Key to New International Aerodrome Forecast (TAF) and New Aviation Routine Weather Report (METAR)(Card)
85006	Survival in a Hurricane (Como Sobrevivir En Un Huracan) (Spanish 70027) (WC)	96053	NWR Decal
86001	Natural Hazard Watch & Warning Poster (English/Spanish)	96054	MSC-1, Eastport, ME, to Montauk Point, NY
91001	Hurricane! A Familiarization Booklet (Out of print)	96057	MSC-4, Cape Hatteras, NC, to Savannah, GA
91002	Winter Storms...The Deceptive Killers	96058	MSC-5, Savannah, GA, to Apalachicola, FL
91003*	Red Cross—Are You Ready for a Winter Storm?	96061	MSC-8, Mexican Border to Point Conception, CA
91004	Red Cross—Are You Ready for a Winter Storm? (Spanish Version)	96062	MSC-9, Point Conception, CA, to Point St. George, CA
91005*	Red Cross Poster—Are You Ready for a Winter Storm? (English/Spanish)	96063	MSC-10, Point St. George, CA, to Canadian Border
92050	Flash Floods and Floods...The Awesome Power!	96064	MSC-11/12, Great Lakes
92051	SKYWARN Decal	96065	MSC-13, Hawaiian Waters
92052 +	Tornadoes...Nature's Most Violent Storms	96066	MSC-14, Puerto Rico and Virgin Islands
92053 +	Thunderstorms and Lightning...The Underrated Killers!	96067	MSC-15, Alaska Waters
92054	FEMA's Emergency Preparedness Materials Catalog	96068	MSC-16, Guam and the Northern Mariana Islands
92055	Advanced Spotter's Field Guide	96070	NOAA Weather Radio Brochure (Out of print)
92056	Mariner's Guide to Marine Weather Services	96071	Atlantic Hurricane Tracking Map - 8-1/2" x 11"
92057*	Red Cross—Are You Ready for a Tornado?	96072	Atlantic Hurricane Tracking Map - 17" x 22" (Out of print)
92058	Red Cross—Are You Ready for a Tornado? (Spanish)	96073	Pacific Hurricane Tracking Map - 12" x 24"
92059*	Red Cross—Are You Ready for a Flood or Flash Flood?	96074E	The Hidden Danger—Low Water Crossing (English)
92060	Red Cross—Are You Ready for a Flood or a Flash Flood? (Spanish)	96074S	The Hidden Danger—Low Water Crossing (Spanish)
92061*	Red Cross Poster—Are You Ready for a Tornado? (English/Spanish)	96076	ASOS Guide for Pilots (Booklet)
93051*	Red Cross Poster—Are You Ready for a Thunderstorm?	97050	Basic Spotters' Field Guide
93052	Red Cross—Are You Ready for a Thunderstorm? (Spanish)	0002	NOAA Brochure
93053*	Red Cross Poster—Are You Ready for a Thunderstorm? (English/Spanish)		
93056	A Pilot's Guide to Aviation Weather Services (replaces PA 71005) (Booklet)		
93059	A Change in the National Weather Service		
93060	Spotter ID Card (Out of print)		
94050	Hurricanes...Unleashing Nature's Fury (March 1996)		
94051	Aviation Modernization		
94052*	Red Cross—Are You Ready for a Heat Wave?		
94053*	Red Cross—Are You Ready for a Hurricane?		
94054	Red Cross—Are You Ready for a Hurricane? (Spanish)		

Not available from NLSC. Available on OM's Home Page (<http://www.nws.noaa.gov/om/nwspub.htm>) in text version only.
 + Available in Braille. Contact your local NWS Office, Region, or Weather Service Headquarters.
 * Available from your local Red Cross chapter only.

States Most Prone to April Tornadoes

As part of an ongoing company-funded research study of tornadic risk, Engineering Analysis Inc. is using Site Assessment of Tornado Threat software to determine the top 20 tornado-prone states for April. The rankings, based on NWS data from 1950 through 1997, are located online at <http://eai.home.mindspring.com>.

Engineering Analysis, Inc., Huntsville, AL

Weather Channel "Classroom"

The Weather Channel airs a series of programs offering insights into how weather happens. These commercial-free shows are 8 minutes long; they air from 4 a.m. to 4:30 a.m. The shows offer breaks for classroom discussion. Show topics are listed below. For online weather education, see <http://www.weather.com/education>.

May 24, 27	Look Up! Sky Awareness
May 31, June 3	Climate: A World of Weather
June 7, 10	Hurricanes
June 14, 17	Extremes in Water Cycle
June 21, 24	Sun, Seasons and the Sky
June 28, July 1	Forecasting: Then & Now
July 5, 8	Tornadoes
July 12, 15	Water: Oceans to Air
July 19, 22	Air in Motion
July 26, 29	Thunderstorms: The Weather Machine
August 2, 5	Look Up! Sky Awareness
August 9, 12	Climate: A World of Weather
August 16, 19	Hurricanes
August 23, 26	Extremes in Water Cycle

Laura Buss, Education Department, The Weather Channel

Updated National Audiovisual Center (NAC) and the NWS Publications Lists

The following two pages are updated lists of NWS audiovisuals and publications. The NAC offers many of the NWS slide sets and videotapes to the public for a cost. Please note NAC's phone numbers and costs have changed. In addition, details on how to obtain materials from OM Customer Service are noted.

Also included is a revised listing of the NWS Publications. Most of the Red Cross publications are out of stock at NLSC but the local Red Cross chapters have some available for a small fee.

You can obtain the NWS publications from the NLSC in Kansas City, MO. The maximum number of copies to order at one time is 300 for the tri-logo publications; field guides are limited to 100 copies for each order. Several of these publications can be found on OM's Home Page at <http://www.nws.noaa.gov/om/nwspub.htm>.

For information on NWS publications, contact me at 301-713-0090 x118 or linda.kremkau@noaa.gov.

Linda Kremkau, Managing Editor

Extra! Extra! AwareNow Offers Latest News from Hazards Community

OM now offers constant updates to *Aware* in an online format called *AwareNow*. OM adds new articles to *AwareNow* within a few days of receiving them, usually the same day. The new publication allows quick access to news from OM, WCMs and others in the hazards community.

To ensure quick loading and easy access, *AwareNow* is online in html format. All Web links are live, enabling immediate access to more information.

To get an article online, send it to melody.magnus@noaa.gov. To access *AwareNow*, go to <http://www.nws.noaa.gov/om/awarenow.htm>.

Melody Magnus, AwareNow Editor

WSOM Chapter Updates and Roster

Attachment A is the WSOM Chapter updates. Attachment B is the *Aware* Roster: a list of WCMs and SOOs in each NWS Region. Telephone numbers are *listed* numbers for an office, *NOT* the direct number. If a name or telephone number has changed, please notify me at 301/713-0217. If you know someone who would like to receive the *Aware*, please have him or her contact Linda Kremkau at 301/713-0090 x118, e:mail linda.kremkau@noaa.gov.

Melody Magnus, Editor

Attachment A—Update on OM's WSOM Chapters

- A-40 **Service Change Process**
Draft revision completed.
- B-16 **Marine Reporting Station**
To be updated in 1999.
- B-19 **Fire Weather Stations**
Will be updated and consolidated with D-06 in 1999.
- B-30 **Voluntary Observing Ship Program**
Due in 1999.
- B-90 **Special Warning Program Observations**
To be updated in 1999.
- C-11 **Zone and Local Forecasts (main section)**
To be updated in 1999.
- C-11 **Zone and Local Forecasts, Appendix A (Zone Forecast Maps)**
Update expected summer 1999.
- C-40 **Severe Local Storm Watches, Warnings and Statements**
OML issued April 1998.
- C-41 **Tropical Cyclone Program**
A draft will be sent to regions by mid-April. A final chapter will be available by the end of May.
- C-42 **Combined Winter Storm and Non Precip Hazards**
- C-44 **OML under development. Due in 1999.**
- C-43 **Coastal Flood Program**
Due in 2000.
- C-45 **Meteorological Discussions and Forecast Coordination**
An OML to C-45 defining the state liaison office policy is being drafted for field review in 1999.
- C-47 **County Warning Areas, Appendix A**
Page changes to be issued in 1999.
- C-49 **Warning Coordination and Hazard Awareness**
Review and update began in early June 1997. Still in OM for review. First draft will not reach field until 1999.
- C-60 **Radio/TV Dissemination;**
- C-61 **Telephone Dissemination;**
- C-62 **Newspaper Dissemination;**
Will begin updating and probably consolidating in 1999.
- C-63 **NOAA Weather Wire Service (NWWS)**
Update due 2000.
- C-64 **NOAA Weather Radio Program**
Chapter effective December 21, 1998.
- C-66 **Dissemination of Public Warnings**
Will consolidate into chapter C-49 in 1999.
- C-67 **News Wire Dissemination**
Will begin updating and probably consolidating in 1999.
- C-75 **National Verification Program**
Draft completed and sent to region in mid-April. Chapter will be finalized before AWIPS implementation in June.
- D-06 **Fire Weather Services**
Will be updated in 1999 and consolidated with B-19, D-06, OML: Duties of IR Mets Requiring Exposure to Hazardous Situations.
- D-07 **Marine Weather Services**
To be updated in 1999.
- D-20 **Aviation Area Forecasts**
OML effective November 5, 1998. Will begin updating chapter possibly combining with D-35 in 1999. Backup and new VOR chart in progress. WMO headers/AFOS PILs for new areas.
- D-22 **Domestic SIGMET**
OML effective November 5, 1998. Currently working on updating chapter combining D-22 and D-38. Backup and new VOR chart in progress.
- D-23 **Special Aviation Forecasts and Events**
- D-24 **Wind and Temperature Aloft Forecasts**
Currently working on updating chapter.
- D-25 **Air Traffic Operations Support**
Pen and ink changes due after coordination with FMH-12.
- D-30 **Transcribed Weather Broadcast Text Products**
OML effective Nov. 5, 1998.
- D-31 **Aviation Terminal Forecasts**
Page changes effective Nov. 5, 1998.
- D-35 **International Area Forecasts**
Should be combined with D-24; timing to be determined.
- D-36 **International/Aviation Service Arrangements**
Should be combined with D-24; timing to be determined.
- D-38 **International SIGMET**
Currently working on updating chapter combining D-22 and D-38.
- D-51 **Marine Services for Coastal, Offshore and High Seas, Appendix B**
Changes effective Dec. 1, 1998.
- D-52 **Marine Services for the Great Lakes**
OML effective Dec. 1, 1998.
- D-80 **Familiarization Flights**
Chapter in review.
- D-82 **Training Program for Pilot Weather Briefers**
Initial draft sent to Regions and Aviation Program at WSH for comment on Oct. 22, 1998. Due spring 1999.
- D-90 **Support for Accident Investigation and Litigation**
Transmittal Memo issued July 15, 1997, #97-8.
- D-91 **Aviation Liaison and User Support Program**
Preliminary work to update, adjust and reassign the contents of these chapters has been completed. Awaiting resources to complete the job.
- F-42 **Storm Data and Related Reports**
An OML has been released to accommodate changes associated with Paradox II the new Storm Data software. Other minor changes also have been included.
- F-60 **Tsunami Warning Service**
OML issued effective April 1998.
- F-61 **Earthquake Reporting Program**
Chapter issued March 6, 1996.
- J-02 **Significant Hydrometeorological Events, Post-Storm Data Acquisition, and Service Assessments**
Chapter issued Sept. 28, 1998.
- J-08 **Nuclear Emergency Response**
Chapter update 1999.

Attachment B–WCM/SOO Roster

WCM	SOO	Location	Telephone
NWS Headquarters			
John Ogren, National WCM Program Manager			301-713-0090
Eli Jacks, National SOO Program Manager			301-713-1970 x188

Eastern Region

Rick Watling, Regional (Focal) WCM Program Manager			516-244-0123
Kenneth Johnson, Regional SOO Program Manager			516-244-0136
Solomon Summer, HSD Chief			516-244-0111
Dick Westergard	Warren Snyder	Albany, NY	518-435-9568
Barbara Watson	Steve Zubrick	Baltimore, MD/Washington, DC	703-260-0107
<i>Vacant</i>	Jeff Waldstreicher	Binghamton, NY	607-770-9531
Glenn Field	James Lee	Boston, MA	508-823-1900
Stan Levine	Ed Mahoney	Buffalo, NY	716-565-0204
<i>Vacant</i>	Paul Sisson	Burlington, VT	802-862-2475
Hendricus Lulofs	Dan Cobb	Caribou, ME	207-498-2869
Tom Dunham	Rich Grumm	Central Pennsylvania, PA	814-234-9412
Jerry Harrison	Steven Brueske	Charleston, SC	803-744-3207
Dan Bartholf	Dan Luna	Charleston, WV	304-746-0173
Mary Jo Parker	John DiStefano	Cincinnati, OH	937-383-0031
Gary Garnet	Robert LaPlante	Cleveland, OH	216-265-2370
Steve Naglic	Michael Cammarata	Columbia, SC	803-765-5501
Vince DiCarlo	Larry Lee	Greenville-Spartanburg, SC	864-848-1332
Laura Furgione	Carin Goodall	Morehead City, NC	919-223-5122
Gary Conte	Jeff Tongue	New York City, NY	516-924-0037
Joe Miketta	Alan Cope	Philadelphia, PA	609-261-6600
Rich Kane	Josh Korotky	Pittsburgh, PA	412-262-1591
John Jensenius	Joseph Fred Ronco	Portland, ME	207-688-3216
George Lemons	Kermit Keeter	Raleigh/Durham, NC	919-515-8209
Mike Emlaw	Steve Keighton	Roanoke, VA	540-552-0084
Bill Sammler	Hugh Cobb	Wakefield, VA	757-899-4200
Tom Matheson	Reid Hawkins	Wilmington, NC	910-762-4289

Southern Region

Gary Woodall, Regional WCM Program Manager			817-978-2812 x106
Bernard Meisner, Regional SOO Program Manager			817-978-2671
Jerry Nunn, HSD Chief			817-978-2674
Keith Hayes	Deirdre Kann	Albuquerque, NM	505-243-0702
Douglas Crowley	Richard Wynne	Amarillo, TX	806-335-1121
Barry Gooden	Gary Beeley	Atlanta, GA	770-486-1333
Larry Eblen	Jim Ward	Austin/San Antonio, TX	830-629-0130
Brian Peters	Kevin Pence	Birmingham, AL	205-664-3010
Don Ocker	Shawn Bennett	Brownsville, TX	210-504-3354
Terry Huber	Andy Patrick	Corpus Christi, TX	512-289-0959
Jim Stefkovich	Mike Foster	Dallas/Fort Worth, TX	817-429-2631
John Fausett	Val MacBlain	El Paso, TX	505-589-4088
Gene Hafele	Steve Allen	Houston/Galveston, TX	281-337-5074
James Butch	Alan Gerard	Jackson, MS	601-936-2189
Fred Johnson	Pat Welsh	Jacksonville, FL	904-741-4370
Howard Waldron	Steve Parker	Knoxville/Tri-Cities, TN	423-586-9040
Wayne Presnell	Jack Settelmaier	Key West, FL	305-295-1316
Roger Erickson	Felix Navejar	Lake Charles, LA	318-477-5285
John Robinson	George Wilken	Little Rock, AR	501-834-9102
Larry Vannozi	Loren Phillips	Lubbock, TX	806-745-4260
Dennis Decker	Dave Sharp	Melbourne, FL	407-255-0212

WCM	SOO	Location	Telephone
John White	Jerry Rigdon	Memphis, TN	901-544-0399
Jim Lushine	Jack Gross	Miami, FL	305-229-4522
George Mathews	Brian Francis	Midland/Odessa, TX	915-563-5006
Gary Beeler	Jeff Medlin	Mobile, AL	334-633-6443
Jerry Orchanian	Henry Steigerwalt	Nashville, TN	615-754-8506
Frank Revitte	Mike Koziara	New Orleans/Baton Rouge, LA	504-522-7330
Jim Purpura	Dave Andra	Oklahoma City, OK	405-366-6583
Buddy McIntyre	Greg Jackson	San Angelo, TX	915-944-9445
Rafael Mojica	Rachel Gross	San Juan, PR	787-253-4586
Bruce Burkman	Ken Falk	Shreveport, LA	318-631-3669
Bob Goree	Irv Watson	Tallahassee, FL	904-942-8999
Walt Zaleski	Charles Paxton	Tampa Bay Area, FL	813-645-2323
Steve Piltz	Steve Amburn	Tulsa, OK	918-832-4115

Central Region

Joe Sullivan, Regional WCM Program Manager			816-426-3239 x703
Preston Leftwich, Regional SOO Program Manager			816-426-5672
Ken King, HSD Chief			816-426-3220
George Marshall	Ken Harding	Aberdeen, SD	605-225-5547
Daniel Noah	Viggo Jensen	Bismarck, ND	701-250-4224
John Griffith	David Copley	Cheyenne, WY	307-772-2468
Jim Allsopp	Ken Labas	Chicago, IL	815-834-0600
James Meyer	Ray Wolf	Davenport, IA	319-391-6729
Robert Glancy	Eric Thaler	Denver/Boulder, CO	303-361-0661
Jeffrey Johnson	Karl Jungbluth	Des Moines, IA	515-270-4501
Darin Figurskey	Dick Wagenmaker	Detroit, MI	248-625-3309
Jeff Hutton	Steve Hunter	Dodge City, KS	316-227-7140
Carol Christenson	Gary Austin	Duluth, MN	218-729-0651
Jim Belles	Phillip Schumacher	Eastern North Dakota, ND	701-772-0720
Kevin Lynott	Llyle Barker	Goodland, KS	785-899-7119
James Pringle	Michael Meyers	Grand Junction, CO	970-243-7007
Mike Heathfield	<i>Vacant</i>	Grand Rapids, MI	616-956-5922
Jeff Last	Eugene Brusky	Green Bay, WI	920-494-5845
Steve Kisner	Rick Ewald	Hastings, NE	402-462-2127
David Tucek	John Kwiatkowski	Indianapolis, IN	317-856-0361
Jim Keeney	Michael Lewis	Jackson, KY	606-666-4856
Bill Bunting	Peter Browning	Kansas City/Pleasant Hill, MO	816-540-5147
Todd Shea	Dan Baumgardt	LaCrosse, WI	608-784-8275
Rod Palmer	Jeff Hedges	Lincoln, IL	217-732-4029
Norman Reitmeyer	Ted Funk	Louisville, KY	502-969-8842
Jack Pellett	Ed Fenelon	Marquette, MI	906-475-5782
Rusty Kapela	John Eise	Milwaukee/Sullivan, WI	414-297-3243
Todd Krause	Richard Naistat	Minneapolis, MN	612-361-6670
Gene Bowman	<i>Vacant</i>	North Platte, NE	308-532-4936
Brian Hirsch	Bruce Smith	NC Lower Michigan	517-731-3384
Jane Hollingsworth	Julie Adolphson	Northern Indiana	219-834-5178
Brian Smith	Steve Byrd	Omaha, NE	402-359-2394
Ricky Shanklin	Pat Spoden	Paducah, KY	502-744-6440
Tom Magnuson	Paul Wolyn	Pueblo, CO	719-948-9429
Susan Sanders	Brian Klimowski	Rapid City, SD	605-341-9271
Donald Noll	Derek Frey	Riverton, WY	307-857-3898
Todd Heitkamp	Ron Holmes	Sioux Falls, SD	605-330-4247
Steve Runnels	David Gaede	Springfield, MO	417-863-1456
Jim Kramper	Ron Przybylinski	St. Louis, MO	314-447-1876
Mike Akulow	George Phillips	Topeka, KS	785-232-1493
<i>Vacant</i>	Michael Stewart	Wichita, KS	316-942-8483

WCM**SOO****Location****Telephone**

Western Region

Tom Ainsworth, Regional WCM Program Manager 801-524-4000
Andy Edman, Regional SOO Program Manager 801-524-5131
Bob Tibi, HSD Chief 801-524-5137
Stephen Kuhl **Keith Meier** Billings, MT 406-652-0851
Carl Weinbrecht **David Billingsley** Boise, ID 208-334-9860
Tim Dudley **Steve Apfel** Elko, NV 702-738-3018
John Lovegrove **Mel Nordquist** Eureka, CA 707-443-6484
Tyree Wilde **Michael Staudenmaier** Flagstaff, AZ 520-556-9161
Kimberly Bailey **Greg Gust** Glasgow, MT 406-228-2850
Rick Dittman **David Bernhardt** Great Falls, MT 406-453-2081
Ron McQueen **Kim Runk** Las Vegas, NV 702-263-9744
Tim McClung **Dave Danielson** Los Angeles, CA 805-988-6610
John Casad **Dennis Gettman** Medford, OR 541-773-1067
Peter Felsch **Tim Barker** Missoula, MT 406-329-4841
Dennis Hull **Jon Mittelstadt** Pendleton, OR 541-276-7832
David Runyun **Doug Green** Phoenix, AZ 602-379-4611
Vern Preston **Dean Hazen** Pocatello/Idaho Falls, ID 208-233-0834
Dan Keeton **Bill Schneider** Portland, OR 503-261-9247
Roger Lamoni **Mary Cairns** Reno, NV 702-673-8107
Kathy Hoxie **Scott Cunningham** Sacramento, CA 916-979-3041
Dave Toronto **Larry Dunn** Salt Lake City, UT 801-524-5113
Ed Clark **Ivory Small** San Diego, CA 619-297-2107
Charles Morrill **Dr. Warren Blier** San Francisco Bay Area, CA 408-656-1725
Dan Gudgel **Larry Greiss** San Joaquin Valley 209-584-0583
Ted Buehner **Brad Colman** Seattle/Tacoma, WA 206-526-6095
Ken Holmes **Ron Miller** Spokane, WA 509-244-0110
Paul Flatt **David Bright** Tucson, AZ 520-670-5156

Alaska Region

Greg Matzen, Regional WCM Program Manager 907-271-3507
Gary Hufford, Regional SOO Program Manager 907-271-3886
David Goldstein **Carven Scott** Anchorage 907-266-5117
John Lingaas **Kraig Gilkey** Fairbanks 907-458-3712
Robert Kanan **Carl Dierking** Juneau 907-790-6803
Bruce Turner *(no SOO position)* Palmer (ATWC) 907-745-4212

Pacific Region

Mark Jackson, Regional WCM Program Manager 808-532-6413
Thomas Heffner **Paul Jendrowski** Honolulu, HI 808-973-5275
Tom Tarlton Guam 671-472-7408
Akapo Akapo Pago Pago (Focal) 684-699-9130

NCDC

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CUSTOMER SERVICE

NWS-FEMA Offer Four EM Classes

Over the past several years, staff at NWS and the Federal Emergency Management Administration (FEMA) have collaborated to produce four courses for emergency managers. These courses are typically presented by a WCM and emergency manager. The following is a list of the courses and a brief description of each.

- **Partnerships for Creating and Maintaining Spotter Groups:** The course offers WCMs and emergency managers tips on jointly creating new or improved spotter groups. The workshop gives participants the necessary awareness and tools to strengthen the spotter network.
- **Hazardous Weather and Flood Preparedness:** This course is intended to improve coordination between emergency management and NWS. The goal is to promote more proactive responses to weather and flood hazards. The course was developed by the NWS and FEMA staff with input and assistance from many state and local emergency managers.
- **Warning Coordination:** This course identifies warning coordination and communication needs based on event type and the threat the event poses to the community. Working with members of the media, you will develop a strategy to ensure effective dissemination of warning messages. It is strongly recommended that all participants first attend the "Hazardous Weather and Flood Preparedness."
- **Community Hurricane Preparedness:** The purpose of this is to provide EMs and other decision makers who cannot attend the course with basic information about how hurricanes form, the hazards they pose, how the NWS forecasts future hurricane behavior, and what tools can help EMs prepare their communities. This course is also available on CD or the Web at meted.ucar.edu/hurricane/chp/index.htm.

For more information or course materials, contact John Ogren at 301-713-0090 ext. 140 or John.Ogren@noaa.gov.

John Ogren, WCM Program Manager

Drought Forum Showcases Public Info Packet, Cross State Issues

The National Disaster Education Coalition (NDEC), a federation of public and private organizations dedicated to providing outstanding education materials and information on natural hazards, sponsored a 1-day Drought Forum. The goal of the forum was to produce a consistent information package on drought for the general public. NDEC will use information gathered during the forum to write information about drought for the public. In addition to explaining drought and its effects, the information will outline steps individuals, families and communities should take before and during a drought. The information is intended to be generic and supplemented by region or event-specific materials prepared by other organizations.

The 1-day workshop was held on February 17 at NWS Headquarters. Approximately 75 people attended the forum. Participants were asked to identify key points about the impacts of a drought on daily life, economics, agriculture, the environment, and ultimately, on the health of people, plants and animals, and water supply systems. Participants were encouraged to provide their expertise on drought-related publications and to identify handouts available from organizations and agencies.

Bruce Romer, Chief Executive Officer of Montgomery County, MD, was the first keynote speaker. Drought was severe in Maryland and the DC suburbs in the summers of 1998 and 1999. Romer discussed how to deal with drought

Aware

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AwareNow: frequently updated html version:

www.nws.noaa.gov/om/awarenow.htm

in a multi-jurisdiction and multi-state situation where public information and recommended actions are inconsistent and conflicting. His presentation provided the stimulus for five morning break-out sessions, addressing drought impacts on water resources, agriculture, wildlife, environment and public health.

Dr. Fran Winslow, Director of Emergency Services, San Jose, CA, was the second featured speaker. Dr. Winslow focused on daily life styles of people living in California who practice water conservation routinely. Getting the public to respond to water conservation required identifying "Public Hot Buttons to Drought." Topics to induce public awareness and mitigation towards drought included: clean water/diseases, multi-lingual messages, personal hygiene, and impacts to the elderly. A one-page hand-out, "Surviving the Drought" contained many useful, practical tips for saving water around the house.

The afternoon sessions focused on preparedness and mitigation aspects of drought and defining what to communicate to the public.

*Ron Gird, NWS Outreach Manager
Rocky Lopes, American Red Cross*

Partners Workshop To Focus on Improved Service Delivery

The next "NWS Partners Workshop" is scheduled for April 26 at NWS Headquarters. An invitation letter was sent to potential attendees requesting their ideas for topics. When these ideas are received, the agenda will be finalized and a fact sheet prepared for attendees. The fact sheet will ensure there are fewer presentations and more discussions that will improve service delivery. To get updated information on the workshop, go to www.nws.noaa.gov/om.

Ron Gird, NWS Outreach Manager

OM Creates Severe/Winter Weather Awareness Web Pages

In October 1999, OM created the Winter Weather Awareness Web page. This page provides "one-stop shopping" for winter weather awareness and preparedness information. The page contains links to awareness and preparedness guides, forecasts, warnings, climate informa-

tion, outlooks, billion-dollar winter storms, transcripts of an online winter weather chat with NWS meteorologists, and a calendar of winter weather awareness events in various states: www.nws.noaa.gov/om/winter/index.html.

In January 2000, OM remodeled the Severe Weather Awareness Web page. This page focuses on thunderstorms, tornadoes and floods. It contains links to awareness and preparedness guides, forecasts, warnings, climate information, outlooks, billion dollar severe storms, post storm assessments, and a calendar of severe weather awareness events in various states. Check out the page at www.nws.noaa.gov/om/svrawar/svrwx.htm.

Mike Gerber, Meteorologist

When Seconds Count, StormReady Communities Are Prepared

On March 2, NWS Director Jack Kelly officially launched StormReady as a national program at a press conference in Norman, OK. The press conference was covered by CNN, CBS, USA Today, AP, and numerous local media outlets.

The top goal of StormReady is to prepare communities with an action plan that responds to the threat of all types of severe weather—from tornadoes to tsunamis. StormReady was a voluntary program created in 1998 by the NWSFO Tulsa, OK. The program provides clear-cut advice to city leaders and emergency managers and media aimed at improving response to local hazardous weather operations.

An advisory board, comprised of NWS warning coordination meteorologists, and state and local emergency managers, will review applications from municipalities and visit the locations to verify the steps made in the process to become StormReady. After the advisory board approves certification, the community will receive a formal letter, along with StormReady signs that can be displayed along its major roadways. StormReady communities must remain vigilant because the designation is only valid for 2 years. The advisory board seeks to officially designate 20 communities as StormReady each of the next 5 years.

For more information about the StormReady program, go to www.nws.noaa.gov/stormready.

John Ogren, WCM Program Manager

INTEGRATED HYDROMETEOROLOGICAL SERVICES

Great Lakes Marine Products Enhanced in Three Areas

On September 15, NWS offices responsible for the Great Lakes Open Lake Forecast added three new features to their forecasts: a synopsis, 4th period forecast and 3-5 Day Outlook.

The offices also now headline gale and/or storm force winds expected in *any* period of the forecast, excluding the outlook. The five WFOs responsible for the Open Lake marine product are:

- WFO Marquette, Lake Superior
- WFO Chicago, Lake Michigan
- WFO Detroit, Lake Huron and Lake St. Clair
- WFO Cleveland, Lake Erie
- WFO Buffalo, Lake Ontario, St. Lawrence River.

The Lake Carriers Association reported favorable comments by carrier captains on the changed Open Lake forecast.

All 10 Great Lakes NWS offices will continue to be responsible for Near Shore Forecasts, Special Marine Warnings, Lake Shore Warnings, and Marine Weather Statements for their areas.

*Richard May, Acting Program Manager,
Marine Weather Services*

NWS Completes Coastal Marine Service Transfers

NWS completed the last of the coastal marine forecast (CWF) service transfers on December 1, 1999. On that date NEXRAD Weather Service Office (NWSO) Caribou, ME, assumed full warnings and forecast responsibility for a portion of Maine waters from NWSFO Portland, ME. This transfer ended a year-long process of marine service transfers to the future marine Weather Forecast Offices (WFOs). The major transfers included:

- **Eastern Region:** On December 1, 1998, NWS offices in Washington, DC/Baltimore, MD; Raleigh/Durham, NC; Columbia, SC; and Miami, FL; transferred marine responsibility to offices in Wakefield, VA; Newport, NC; Wilmington, NC; and Charleston, SC.
- **Central Region:** On April 6, 1999, Open Lake responsibility for Lake Superior moved from NWSFO Chicago, IL, to NWSO Marquette, MI.
- **Western Region:** On May 4, 1999, NWS offices in Los Angeles, CA; San Francisco, CA; and Portland, OR; transferred marine responsibilities to offices in San Diego, CA; Eureka, CA; and Medford, OR.
- **Southern Region:** Transfers were performed in three phases:
 - On March 15, 1999, most Texas and some Florida coastal marine zones moved from Miami FL; San Antonio, TX; and Fort Worth, TX; to Melbourne, FL; Houston, TX; Corpus Christi TX; and Brownsville, TX.
 - On July 15, 1999, east Texas and southwest Louisiana zones moved from San Antonio and New Orleans to Lake Charles LA.
 - On November 15, 1999, Alabama, Mississippi and most Florida coastal marine zones shifted from offices in New Orleans, LA, and Miami, FL, to Mobile, AL; Tallahassee, FL; Tampa Bay, FL; Key West, FL; and Jacksonville, FL.

Maps of the reconfigured coastal marine zones and responsible WFOs are posted on the Web page at www.nws.noaa.gov/om/marine.htm. Descriptors and other details are listed in the Weather Service Operations Manual (WSOM) Issuance 00-04 (new Appendix B to WSOM D-51) or online at www.nws.noaa.gov/om/appendix-b.pdf.

*Richard May, Acting Program Manager,
Marine Weather Services*

Coastal and Offshore Marine Forecasts Now Issued on NAVTEX

On November 30, 1999, the Marine Prediction Center (MPC) and Tropical Prediction Center (TPC) began issuing a new specialized product for the nine U.S. Coast Guard (USCG) NAVTEX transmitters on the Continental United States and Puerto Rico:

Boston, MA
Chesapeake, VA
Savannah, GA
Miami, FL
San Juan, PR

New Orleans, LA
Cambria, CA
Pt. Reyes, CA
Astoria, OR

The new NAVTEX product is a combination of the Coastal and Offshore marine forecast products. It contains a synopsis, warnings and forecasts for gales, storms, hurricanes and tropical storms. The NAVTEX product meets the United States obligations under the International Safety of Life at Sea conventions.

NAVTEX is a 100 baud radio-teletype broadcast (518 kHz) of urgent marine safety information, including warnings and forecasts, to ships worldwide. In the United States and its territories, the U.S. Coast Guard broadcasts NAVTEX from 12 of its facilities over large portions of the Atlantic, Pacific, Gulf of Mexico and Caribbean waters. The NAVTEX products were not required for the transmitters in Alaska, Hawaii and Guam.

To solve the NAVTEX issue, in early 1999, NWS Headquarters formed a team from Southern, Western, Eastern and Alaska regions, and the MPC and TPC. The team recommended a new NAVTEX product designed specifically for each of nine USCG NAVTEX transmitters around the Continental United States and Puerto Rico.

We appreciate the hard work on the NAVTEX issue done by the forecasters at MPC and TPC and are grateful for the valuable input provided to us by the regions.

*Richard May, Acting Program Manager
Marine Weather Services*

Flood Prediction Program Gets Budget Backing

The NOAA's FY 2000 budget includes \$1 million for implementation of the Advanced Hydrologic Prediction Service (AHPS), an advanced river forecast initiative.

"AHPS is an essential component of the NWS's suite of weather, water and climate services," said NWS Director John J. Kelly Jr. "National implementation of AHPS will save lives and an estimated \$200 million per year in flood losses and an additional \$400 million per year in economic benefits to water resource users."

The system will provide more information and visual displays to help local managers make better water management decisions. New products will depict the magnitude and uncertainty of river flow events forecasted days and even weeks in the future. The system includes a combination of software and hardware tools used for analyzing data and creating graphical displays of probability forecasts.

AHPS builds on NOAA's other technologies, such as Doppler weather radars, satellites, supercomputers, weather observation stations, and the new interactive weather computer and communications system, the Advanced Weather Interactive Processing System (AWIPS).

Following the Great Flood of 1993 in the Midwest, the Des Moines River Basin was selected as the initial AHPS demonstration site. This proved to be a significant benefit to local water resource and emergency managers. During FY 2000, the agency will begin implementing AHPS in the upper Midwest, including Wisconsin, Minnesota, Michigan, Illinois and portions of Iowa, Missouri and North Dakota, as well as tributaries in the Ohio River basin flowing into Kentucky, West Virginia, Ohio and western Pennsylvania.

"River forecasting is critical to public safety," declared Kelly. "In an average year, more than 130 people are killed by flooding and flash flooding, and flood-related damages exceed \$3.5 billion. AHPS provides more information than current forecasts. As a result, people will have more time to plan to protect themselves and their property." Agency officials said the system can also be of tremendous value to water managers in planning for possible droughts. Users will obtain graphical products for forecast periods several months in the future and will be better able to make informed decisions.

Susan Weaver, NWS Public Affairs

TECHNOLOGY AND FORECAST SYSTEMS

AWIPS Adds Rapid Prototype Project to Suite of Tools

The Interactive Forecast Preparation System (IFPS), developed by the Techniques Development Laboratory (TDL) and the Forecast Systems Laboratory (FSL), helps NWS staff prepare forecast products from a digital database. NWS will implement IFPS nationwide beginning with AWIPS Build 5.

NWS is testing a new IFPS activity, the Rapid Prototype Project (RPP), at seven sites: Charleston, WV; Tulsa, OK; Boulder, CO; Boise, ID; Alaska Region Headquarters; Honolulu, HI; and the Hydrometeorological Prediction Center. There are three primary areas of focus for this non-operational evaluation of the IFPS software components at RPP sites:

- Making recommendations for software modifications to the model interpretation and grid-editing tools
- Locally prototyping modernized products
- Initiating the forecast process change that accompanies the use of IFPS.

NWS has installed PCs running Linux on the AWIPS LAN at RPP sites. Forecast staff is evaluating the first component of IFPS software, the GFESuite. The GFESuite provides gridded initialization routines and a graphical forecast editor. The GFESuite also provides tools for graphical product generation.

Next, RPP staff will evaluate model interpretation tools. These tools do not edit sensible weather directly, but rather interactively adjust threshold values used in the interpretation of model guidance into sensible weather forecasts. Model interpretation provides flexibility by tying threshold adjustments to model blends, model timing, terrain features, related forecast elements, and forecast model parameters. Forecasts produced by both of these IFPS software components can be used for the local prototyping of modernized products.

NWS has set up a list server and database for storage of the RPP software bug reports and modification requests. The list server will be used primarily to exchange information from the developers and comments and questions from the RPP staff. The database will be used to store software bugs and requests for software changes. The RPP Coordination team will prioritize software requests entered into this database. TDL and FSL staff will estimate level of effort needed for these software requests to prioritize them. Additional information on IFPS and RPP is available online.

Jamie Kousky, Meteorologist

SCIENCE AND TRAINING

Baseline Proficiency Standards Completed, Ready for Field Review

In December 1999, NWS completed the initial set of Baseline Proficiency Standards (BPS) for its field staff. Seven teams of NWS field representatives (with NWS Employee Organization representatives) drafted the BPS. The standards will now be reviewed at selected NWS forecast offices, River Forecast Centers and Center Weather Service Units (CWSUs). The BPS is intended to:

- Provide all NWS staff members with easily-accessible, clearly articulated information on the skills they are expected to possess in their position
- Offer a link to available training for each job or task
- Provide evaluation criteria against which managers can measure current job skills against the new baseline standards.

Once completed, OM and the NWS Employees Organization will assemble and summarize recommendations from the field test, including proposed objective evaluation criteria for assessing BPS completion, and post it on an NWSTC Web page. This review will determine future timelines to be published when available.

Mike Dion, BPS Program Leader

NWS to Finish Defining Training Requirements in FY 2000

NWS continues its efforts to develop training requirements for all field staff. Meetings were held during November 1999 at the NWSTC in Kansas City to define training needs for the NWS Cooperative Program and for CWSUs. The Regional Cooperative Program Managers who attended the meeting also agreed to generate training requirements for other functions handled by Hydrometeorological Technicians.

Publications and Audiovisuals

Digital Versions of Eight Slide Sets Now Available on CD-ROM

Nowadays it's digital this and digital that, so not to be completely outdone, NWS has digitized its most popular hazardous weather slide sets. The project began several years ago when the Regions and NWS Headquarters (NWSH) explored the use of computer equipment in outreach efforts. After NWSH conducted a nationwide risk reduction project and settled on PCs, field offices received laptop computers and LCD displays. With the decision made, the next step was to provide offices with digital images—a logical step, but not an easy one.

NWS has numerous slide sets, some of which are national standards and others are less known. To determine what and how to digitize, I was detailed to Southern Region Headquarters as part of a STAR Program (visiting staff) to work with Southern Region WCM Gary Woodall. The project got a boost when Central Regional WCMs David Runyan, Joe Sullivan and WCM Brian Smith, NWSFO Omaha, NE, joined the team.

Using slide scanning equipment, we began the tedious, often downright boring job of scanning each slide, adjusting colors, removing dust specks and whatever else might be required. Once the individual slide sets were scanned, files were placed on a master CD-ROM used to create duplicates for all field offices, Regional Offices and NWSH. The CD-ROM also includes WordPerfect and Adobe Acrobat versions of the slide scripts. OM Customer Service provided resources for purchasing the blank CD-ROMs. Slide sets scanned include:

- Thunderstorms and Lightning
- Winter Storms
- Hurricane Andrew
- Hurricane Hugo
- Tornado Safety
- Basic Spotter Slide Set
- Advance Spotter Slide Set
- Flash Flood Slide Set.

NWS created and distributed 210 CD-ROMs through regional contact points to all field offices. Linda Kremkau, Customer Service, has a small supply of additional CD-ROMs. She can be reached at linda.kremkau@noaa.gov or 301-713-0090 x118.

Brian Peters, WCM, NWSFO Birmingham, AL

Guide for Standard Disaster Safety Messages Just Released!

Major national organizations that study and communicate about disaster safety have joined to produce a new resource guide, *Talking About Disaster: Guide for Standard Messages*.

This Guide provides standardized safety messages for 13 natural hazards and general disaster preparedness topics. The messages have been reviewed and approved by the National Disaster Education Coalition, which delivers disaster preparedness information to the public. Following each message are explanations, statistics, or reasons to reinforce the credibility of the message and correct myths and information. This project was undertaken because research shows when the public receives consistent information, it will prepare and respond when disaster threatens.

The Coalition includes the American Red Cross, FEMA, Institute for Business and Home Safety; IAEM; National Fire Protection Association; NWS; U.S. Department of Agriculture/Cooperative State Research, Education and Education Service; and the USGS.

Users of this resource may include emergency managers, meteorologists, teachers, disaster and fire educators, public affairs/public relations personnel, mitigation specialists, managers and officers, media personnel and/or any other person in the severe weather, earthquake, disaster, or communications communities. The safety information is intended for dissemination to the general public. All content is in the public domain. The Lowes Home Safety Council provided support for development of the Guide.

Any local American Red Cross chapter can order additional copies of this Guide from the Red Cross central warehouse: stock number A4461M. The cost is \$3 per copy. You can access it at <http://www.redcross.org/disaster/safety/guide.html>.

Rocky Lopes, American Red Cross

Office of Hydrology Offers New Service Assessment and Two Videos

Three new products are now available from the NWS Office of Hydrology:

- **South Texas Service Assessment Online**—Torrential rains over south and southeast Texas during the weekend of October 17-18, 1998, led to widespread and deadly flooding. A total of 31 people died during the event, and property damage estimates approached three quarters of a billion dollars. OH has prepared a Service Assessment of this event, including Findings and Recommendations. It can be accessed at http://www.nws.noaa.gov/om/service_assessments/txflood.htm
- **Hidden Danger-Low Water Crossing—Spanish**—NWS has distributed nearly 3,000 copies of the English version of the video, "The Hidden Danger-Low Water Crossing" video to emergency managers, rescue teams, drivers training instructors, state highway departments, etc., since its release in 1996. Riding on the heels of its success, OH commissioned a Spanish version. To obtain copies, contact Larry Wenzel at 301-713-0006, x147.
- **New Safety Video—Moving Water: Adventure or Danger?**—In mid May, OH will release its newest safety video, "Moving Water: Adventure or Danger?" Copies are being shipped to the Regional Hydrologists for distribution to the field Service Hydrologists and River Forecast Centers.

Larry Wenzel, OH

1997 Summary of U.S. Natural Hazard Statistics

OM has completed the "Summary of U.S. Natural Hazard Statistics for 1997," a report of fatalities, injuries and damage costs caused by severe weather in 1997. The report is compiled using *Storm Data*, information submitted electronically by NWS forecast offices in the 50 states, Puerto Rico, Guam and the Virgin Islands. The 1997 summary can be accessed at: <http://www.nws.noaa.gov/om/hazstats.htm>.

Here are some key facts:

- Weather and flood-related hazards claimed 600 lives. The average number of deaths for 1988-1997 is 524.
- Floods accounted for the greatest number of fatalities: 118, followed by winter storms/blizzards: 84.
- The total number of weather-related injuries in 1997 climbed to 3,799, compared to 2,711 in 1996.
- Tornadoes caused the most injuries with 1,033.
- Damage caused by severe weather cost the Nation nearly \$10.8 billion in 1997.
- Flooding caused the greatest amount of property damage: \$6.9 billion.
- Extreme cold was responsible for the greatest amount of crop damage: \$304.3 million.
- Of the 600 weather-related fatalities, almost two-thirds were males. Sixty-nine (69%) percent of the male fatalities were between the ages of 20 to 70. Male deaths out paced female deaths in all age categories except the 80 to 90 age group.
- The deadliest weather month in 1997 was January with 108 deaths, followed by July with 91 and March with 85.
- The 30-year average (1968-1997) for flash floods/flood fatalities rose slightly from 138 in 1996 to 140. The 30-year average fatality rate for lightning is 81; tornadoes, 69; and hurricanes, 24. The 10-year average (1988-1997) for cold-related deaths is 38; for heat, 131.

If you would like a copy of the summary, please contact me at 301-713-0090 x118.

Linda Kremkau, Editor, Customer Service

Map Lesson Plan in National Geographic Society Newsletter

NWS, in conjunction with the National Geographic Society (NGS) and NOAA's Coastal Services Center will distribute 12,000-14,000 free copies of the NGS hazards map. The map was published July 1998 as the *National Geographic* magazine supplement. NOAA purchased the maps to give to schools nationwide. The maps offer a lesson plan keyed to Grades 5-8 and adaptable to lower or higher levels.

The maps were developed by a contractor with input from Ros Helz, USGS, and logistical support from NOAA Public Affairs. NWS sponsored the lesson plan, included in the spring 1999 issue of the NGS quarterly newsletter *Update*. For more information, contact me at 301-713-0460 or JoeG@oar31.oar.noaa.gov.

*Joseph Golden, Senior Meteorologist,
Oceanic and Atmospheric Research*

land. Mosier is also Deputy Emergency Manager for Sedalia-Pettis County and an NWS storm spotter.

Mosier's book is written for the lay person who wants to know more about severe weather and preparedness. The book also details the numerous tornadoes that have struck the Sedalia, MO, area during Mosier's lifetime. I spoke on the NWS watch and warning process and how information reaches the media and NWR listeners. Also discussed were ways people can prepare before a storm arrives and what to do once a warning is issued. NWR 2000 was demonstrated along with a discussion on its role in the warning process and, of course, the new NWR automated voice.

The local TV meteorologists discussed how their stations receive warnings and forecasts from the NWS, and how they pass along NWS information to their listeners. They also discussed their close working relationship with the local NWS office and how it takes a team of professionals from the NWS, emergency management community, and the media to ensure public safety during severe and hazardous weather. Many other questions were answered concerning global warming, climatic changes, and how to become a storm spotter or chaser.

William Davis, MJC, NWSO Springfield, MO

South Dakota Expand NWR Outreach With Discount Sales Deal

In late April, during South Dakota's Severe Weather Awareness week, KELO-TV and Nyberg's Ace Hardware began offering coupons for \$15 off an NWR receiver. The receiver is a Midland band, so it is not programmable, but it is still a good deal at a good price. People can get the coupon by going to KELO-TV's Web page at <http://www.kelotv.com>. We are working closely with both parties by doing PSAs, providing maps and offering technical expertise.

Since KELO-TV covers the entire state and Nyberg's only has stores in Sioux Falls, Nyberg's will furnish a toll free number for those who want to order the radio. They are expecting to sell 10,000 radios. Nyberg's Ace has been an important weather safety partner with this office in the past, so I know this project will be nothing but first class. If you have any questions, feel free to contact me at Todd.Heitkamp@noaa.gov.

Todd Heitkamp, WCM, NWSFO Sioux Falls, SD

Ground Hog's Day Casts No Shadow

Time flies, people come and go, and technology changes so quickly it is necessary to "call a huddle" once a year. On February 2, NWSO Wilmington, NC, conducted the First Annual Ground Hog Day Gathering.

The meeting brought together County Warning Area team members to talk to each other; learn about NWS activities from MIC Rich Anthony, SOO Reid Hawkins, and WCM Tom Matheson; and to attend a FEMA course, "Warning Coordination," conducted by Matheson.

NWS modernization issues included the transition to WFO status and new technology, especially AWIPS, NWR 2000, EMWIN and the Internet.

The 45 attendees included state, county and city Emergency Managers, TV broadcasters from four TV stations, SKYWARN HAM radio coordinators, Red Cross representatives and staff from a Spanish language coordination group. The meeting included a tour of the NWSO. Attendees loved the gathering. We'll do it again next Ground Hog's Day.

Thomas Matheson, WCM, NWSO Wilmington, NC

Wisconsin Dispatchers Gain Insight into Warning Process

Recently, about 200 sheriff dispatchers in Wisconsin completed a class led by NWSO Green Bay, WI, entitled "Warning and Communication in the National Weather Service." The course was required as part of in-service training for the state's emergency dispatchers.

The hour-long seminar explained the warning process and emphasized the importance of dispatchers in providing quick, accurate communication during severe weather. After a brief explanation of NWS duties, beyond warnings, I explained common terms used by the NWS and spotters. Next the course covered the warning process and the tools used to issue timely and accurate warnings. The class ended with a discussion on a recent F3 tornado, and how the process successfully worked.

For most of the dispatchers, the course was the first time they had met an NWS representative. Many expressed appreciation for this insight into the warning process.

Jeff Last, WCM, NWSO Green Bay, WI