



disaster preparedness report

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National Weather Service

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WHAT'S HAPPENING IN DISASTER PREPAREDNESS

o Dick Wood's Retirement Last November, Dick Wood retired from the DMIC position in Albuquerque, New Mexico. While at Weather Service Headquarters, Dick prepared the DP report and handled the brochures and audiovisuals. He also did an excellent job on the Natural Hazards Statistics at Headquarters and continued to maintain the statistics at Albuquerque. The Warning and Forecast Branch wishes Dick the best in his retirement.

o Warning Preparedness Meteorologist Conference in Oklahoma The National Warning Preparedness Meteorologist (WPM) Conference was held at Norman, Oklahoma, December 7-11. For all of us at Headquarters who attended, it was indeed a pleasure to meet personally with the WPM's. WPM's are literally NWS ambassadors who spend long hours outside their shift work duties to spread NOAA's warning coordination and hazard awareness messages to local officials, emergency managers, severe storm spotters, community organizations, and the general public. It was extremely encouraging to meet with such an enthusiastic and dedicated group! Hats off to all for a job well done! We also want to express our thanks to Ken Crawford, WSFO Oklahoma, and Brian Peters, Southern Region Headquarters (SRH), for all their logistical support for the WPM Conference.

We were pleased to have Dr. Elbert W. Friday, Jr., Deputy Assistant Administrator, Weather Service Headquarters, and Bob Landis, Director, SRH, as keynote speakers. In addition, thought-provoking presentations were provided by Lynne Filderman, Children's Television Workshop; Tim Marshall, Haag Engineering; Ken May, The Weather Channel; Al Wallace, Atmospheric Environment Service of Canada; Lee Sanderson, Centers for Disease Control; Duane Stigler, University of Chicago; and representatives of NSSL. Other presentations included such topics as the NWS modernization, Doppler radar, preview of the storm structure slide series, verification, the NWS Hurricane Program, and activities of the Warning and Forecast Branch. Out of 52 Weather Service Forecast Offices, 41 offices were represented. Central Region had 100 percent representation by all its WSFO's and regional WPM staff. It was pleasing to see that the vast majority of the WPM's used this opportunity to interact with the various presenters as well as each other.

Some of the items discussed at the conference by the Warning and Forecast Branch were the Natural Hazard Statistics, films, and brochures. Concerning the statistics, the Warning and Forecast Branch will maintain the statistics starting in January 1988. Brian Peters, SRH, will be detailed to WSH to train staff on the data base for maintaining these statistics. Brian will also pick up where Dick Wood left off to finish the 1987 statistics for the United States.

There are three major film projects in the works:

1. A New Flash Flood Film -- On location filming was completed during November in Pittsburgh, Pennsylvania, and San Antonio, Texas. Bob Denny from Thirty-five/Sixteen and Bob Amdur from NOAA are involved in putting this new film together. (Incidentally, this is the same film company that produced the tornado film "Terrible Tuesday.") It should be released by late spring.
2. Minneapolis Tornado of July 1986 -- Editing of this videotape is complete. Jim Campbell, MIC(AM), Minneapolis, met someone who knows the nature center where the tornado struck, and we are in the process of adding the audio recording of his story to the videotape. Films and videotapes should be available in the spring.
3. Tornado: On the Spot Training -- A suggestion was made from the field to add a sound track to this silent film. Apparently, it was not being used as it was intended for -- to help in our preparedness and awareness training. Accordingly, a new version has been produced with music, wind, and a sound track. It should be available as early as February.

o Let's Talk Brochures! Another item that was discussed at the WPM Conference was brochures. The budget for printing brochures has steadily declined over the last few years from \$200,000 in 1981 to \$69,000 for FY 88. And, unfortunately, the cost for reprinting these pamphlets has risen dramatically this year. For an example, last year to reprint 40,000 copies of the "Spotter's Guide," it cost approximately \$4,000. This year, to reprint 50,000 copies of this brochure, it will cost \$11,000. You can see by these figures that it's taking more of our budget to print less copies. We need your help. We cannot afford to waste any of these pamphlets. Please be frugal in the handling of these brochures. Attached is a cost comparison so you can see the increase in reprinting costs.

Also, because of reductions to our printing budget, the need to explore ways to help defray the printing costs is becoming more critical. One way to combat this problem is to contact the private sector. Through our WPM's, we should work with the private sector to create severe weather materials and to also seek funds to help print and distribute this information to the general public. Below are two examples of what our field offices are accomplishing by working with the private sector.

-- Winter Weather Wallet Card During the first week of January, WSFO St. Louis distributed 200,000 wallet cards called "Going Out in Extreme Cold?" It was distributed to grade school children throughout the St. Louis metropolitan area. Since funds were not available for this project, St. Louis contacted the Auto Club of Missouri for help. Costs associated with the printing and set up of the cards was provided by the Auto Club. See attachment for an example of the wallet card.

-- Spotter's Guide WSFO Minneapolis is working with the Metropolitan Emergency Managers Association (MEMA) to spend up to \$1,000 to print 2,500 Spotter's Guide brochures which will be used for spotter training in the state of Minnesota.

o Films and Audiovisuals We will no longer be sending our films for cleaning and repair to Modern Talking Picture Service, Inc. The contract was awarded to B/W Color Prints, Inc., located in Rockville, Maryland, for the period October 1, 1987, through September 30, 1988. Please send all films to them with a description of problem and be sure to include a self-addressed franked mailing label inside each film container. The address is:

B/W Color Prints, Inc.
605 Marcia Lane
Rockville, Maryland 20851
Attn: Maynard Adams
Tel: (301) 424-8809

If you encounter any problems with the service, please contact Linda Kremkau, Warning and Forecast Branch.

o CTW's Big Bird and Dr. Hallgren In October, Dr. Richard E. Hallgren, Assistant Administrator for Weather Services, visited the Children's Television Workshop (CTW) studios and got a pat on the back from Big Bird for our contribution to the new "Big Bird Get Ready for Hurricanes" training package. Funding for the project was provided by the Federal Emergency Management Agency (FEMA) with additional support from the National Weather Service and the American Red Cross. We hope to send copies of this training package to offices with coastal responsibility within the next several months. Single copies of the "Big Bird Get Ready for Hurricanes" family kits are available at no charge from: FEMA, P.O. Box 70274, Washington, D.C., 20024. Attached is a picture of Dr. Hallgren and Big Bird and a news release from CTW.

o WSFO Minneapolis Participates in State Fair For the first time in many years, the National Weather Service had a booth at the Minnesota State Fair. The State Fair is the second largest in the country and drew over 1.6 million people. At the NWS booth, more than 4,500 people registered for three weather band radios and several rain gages which were given away. The office estimates between 15,000 and 20,000 people stopped by the booth. The main theme was advertising NOAA Weather Radio. Numerous favorable comments were received from the public both on the NWR and the Weather Service in general. Everyone agreed it was good public relations for the NWS plus good therapy for the employees to hear nice words about the NWS.

o Weather Service a Big Hit at Colorado State Fair Employees at WSO Pueblo are still reeling at the success of their booth at the Colorado State Fair which was held from August 28 through September 7. As OIC, Raphael Gallegos, reported, "This was the first time in 99 years that the NWS in Pueblo had directly participated in the Colorado State Fair activities." A record crowd of over 600,000 people attended with thousands of pamphlets given away and as many questions answered. Eight rain gages and a weather radio were raffled off. This encouraged visitors to sign up as potential spotters to work in and around the Colorado area -- and it worked! WSO Pueblo is sorting hundreds of names to see where they fit into the network. Of course, NWS is still being confused with "television personalities," but WSO Pueblo did more to educate the public in 11 days than they could have done in 11 years! The Fair Headquarters was very appreciative of having an NWS booth in their midst and whenever the skies got a little dark, they had "VIP" treatment with a direct line to the office. OIC Gallegos wanted to express his thanks to everyone who assisted and participated with the booth.

o Second International Agricultural Exposition at Agricenter International Jim Poirier, WSFO Memphis, reported that several thousand people attended the Second International Agricultural Exposition at Agricenter International in Memphis, Tennessee. A booth was staffed by NWS employees. Videotapes of severe weather were shown along with brochures handed out. Also, Dr. Gene Rench and Jim Thompson from Stoneville, Mississippi, AWSC, were on hand to show available NWS AG products. Numerous contacts were renewed and established. Farmers and agribusiness people very much appreciated NWS participation. (Since this occurred, Jim has left Memphis and is now with the New York City Weather Service Forecast Office.)

o NWS Participates in Cadet Training Mark Rose, Meteorologist Intern at WSO Mobile, recently provided training on aviation weather to the Coast Guard Academy Cadets during their summer program at the Aviation Training Center in Mobile, Alabama. The presentations were an important part of the Coast Guard program to give cadets an understanding of aviation and its environment. Commander Aube indicated that Mark was very professional, informative, and interesting as he was able to tailor his talks to suit the audience. Keep up the good work Mark!

o Nuclear Plant Emergency Drill Bob Storey, MIC WSO Augusta, and the WSO staff recently participated in a "nuclear emergency drill" at Nuclear Power Plant Vogtle. The test of various alarms for the plant included activation of the alarm via NOAA Weather Radio. The Georgia Emergency Management Agency, the Federal Emergency Management Agency, and a host of other affected groups and agencies participated in the drill. Bob noted that while several outdoor sirens failed to activate, the NWR broadcast went perfectly.

o Heat Featured "Heat Wave" was the topic of an article featured in the August-September issue of National Wildlife, published by the National Wildlife Federation. The article included a Heat Index table as well as pointers on heat safety. Larry Peabody, Lead Forecaster at WSFO San Antonio, collaborated with the author providing a wealth of information for the article.

o NWS/EMPAC Bureau Weather Conference The WSFO Albuquerque and the Emergency Planning and Co-ordination Bureau of the New Mexico Department of Public Safety held the first Weather Conference on October 15. The discussion concerned severe weather and communications and centered around the timeliness and accuracy of severe weather watches and warnings which would hopefully provide enough time for local governments and citizens to take those necessary precautions to protect lives and property. Cities and counties in all parts of the State are continuing to look at, develop, and enhance their emergency preparedness program.

o HAM Radio Emergency Exercise The American Radio Relay League is conducting a nationwide exercise of its networks. The South Dakota exercise was held November 7 simulating activities during a major blizzard and included the NWS offices, especially WSFO Sioux Falls.

o Chicago Area SKYWARN Association Spotters' networks in the Chicago area, organized under various umbrellas of civil defense and HAM groups, have formed an association to concentrate on problems related to severe weather identification and communication. They organize joint training sessions and publish newsletters to help keep everyone updated. It might be worth considering for your area to improve service, organizational stability, uniformity between groups, and make WPM activities more productive.

o Severe Weather Safety for Retirement Community C. B. Masters, WSO Athens, presented a program on severe weather safety and NWS operations to Highland Hills Village Retirement Center recently. This is particularly important when you look at the death toll statistics for tornadoes which show a high death rate among those 60 and over.

o Hurricane and Tornado Safety Malcolm Lacy, OIC at WSO West Palm Beach, provided 38 hours of tornado and hurricane safety training to nearly 600 people with the Florida Department of Health and Rehabilitative Services District in West Palm Beach. Malcolm conducted sessions on both hurricanes and tornadoes using the film "Hurricane" and "Terrible Tuesday" in addition to other material.

o Tornado Preparedness Software for Schools Dennis Decker, WPM, WSFO Raleigh, North Carolina, has been working on a basic program for Apple computers that would teach students basic tornado safety rules. The idea of the program is to first allow the student to review basic tornado safety rules, and then choose one of four situations to simulate. The student may choose to be at home, in a car, in a mobile home or at school when the tornado strikes.

For each situation, the student is offered a number of choices. As an example, the student may be at home in an upstairs bedroom when the tornado threatens. At this point, the program will ask if the student wants to:
A. do nothing; B. get into a bedroom closet, or C. go downstairs.

Correct answers will take the student along a path that results in him or her reaching the safest location. Incorrect answers result in the student being seriously injured or killed. The program then explains where the incorrect choices were made.

To enhance realism, Dennis included in the text environmental clues, such as the sound of large hail striking the roof, heavy rain, downbursts, pressure felt in ears, and the roar of the tornado.

In November, Wayne Jones, SMT, WSFO Raleigh, and Dennis Decker met with officials from the North Carolina public school system to demonstrate the program. They were very enthusiastic about the concept. They offered help in duplication and distribution as well as targeting the program to specific grade levels.

When the program is finished, it will be evaluated in a classroom setting, improved where necessary, and hopefully be placed in a small number of schools before this spring's severe weather awareness campaign. Eventually, we hope to place it in all 144 North Carolina school districts.

KUDOS FOR SEVERAL OF OUR OFFICES!

o WSFO Minneapolis Staff Honored Thirteen staff members were honored October 6, 1987, for their work on the night of July 23, 1987, when the Twin Cities were besieged by record rains, a damaging tornado, and other severe weather. The severe weather team of Richard Naistat, Karl Swanberg, Don Perry, and Kathleen Erickson received special recognition for their work. Nine other staff members were recognized for their support to the severe weather team. They were Rainer Dombrowsky, Jim Richardson, Sam Stanfield, Ross Carlyon, Bill Harrison, Les Coleman, Jim Mathews, Don Essler, and Ron Willis. The Weather Service was credited with saving lives that evening because of the strongly worded and timely warnings. The office received letters from Governor Rudy Perpich and Rich Augulis, Central Region Director, congratulating them on their performance.

The ceremony received coverage from two major television stations in Minneapolis as well as both metropolitan newspapers. Jim Campbell, MIC, said it was "refreshing" to experience praise from the media, and he was especially gratified the media recognized the individuals involved in the event.

o Bexar County, Texas, Issues Proclamation! A proclamation (attached) was handed down by the Commissioner's Court of Bexar County to the San Antonio Weather Service Forecast Office, headed by Jim Ward, for excellent warnings on countless occasions and especially for the September 10, 1987, severe weather event. On that day, viewers of national television evening news shows were shown startling film of the toppling of two towers set up at the Papal Mass site in San Antonio, Texas. What the newscasts failed to mention was that the local Weather Service station had issued wind warnings which are credited with saving scores of persons in the area of the towers.

In part, the proclamation said: "The timely warning which the Weather Service gave to law enforcement, public works and fire officials, and to local radio and television stations, directly resulted in preventing injury or death to scores of persons who were warned to leave the altar area at the Papal Mass site only minutes before strong winds struck and blew down the twin towers."

Congratulations, again, to the staff at WSFO San Antonio for doing such an outstanding job.

o A Letter of Appreciation for WSFO San Juan The following letter of appreciation was recently received by the staff at WSFO San Juan.

"On behalf of the Centers for Disease Control and the U.S. Public Health Service, I would like to acknowledge the invaluable assistance provided by you and your staff during the recent aerial spray operation with the U.S. Air Force Reserve. This was a very important project for us and the people of Puerto Rico because of the potential for epidemic dengue and dengue hemorrhagic fever this year.

Few people realize the importance of accurate weather prediction in an operation of this kind. Your constant assessment of the current and impending situation contributed significantly to the success of the spray program, and your cooperation in collecting wind and temperature data on the actual spray days will greatly facilitate our efforts to correctly interpret the data."

SPOTTER TRAINING

o Dedicated Spotters On the evening of August 5, 1987, Lee Anderson, WPM at WSFO Sioux Falls, South Dakota, and Mary Golden, a met tech at the same office, were conducting a severe weather spotter training class in Chamberlain, South Dakota. Chamberlain is located in south-central South Dakota in Brule County. About 20 minutes after the class began, a sheriff interrupted saying that there were two tornadoes west of Chamberlain. The class was suspended, and Lee left with a police officer to observe the tornadoes.

The five tornadoes occurred in a small area about 12 to 15 miles west of Chamberlain. Fortunately, no injuries or fatalities were reported; however, some farm buildings were damaged. After the tornadoes dissipated, the spotter class was resumed and completed.

o Colorado Department of Highways Organizes Crews to Spot The Colorado Department of Highways (CDOH) is organizing its maintenance patrols to serve as NWS spotters. CDOH crews have radio contact with the state police dispatchers who, in turn, have direct contact with the NWS via NAWAS. This effort came about as a result of two CDOH officials touring the Denver WSFO.

o Severe Weather Spotters WSFO Philadelphia now has about 1,150 four-season severe weather spotters, of which 400 are hams. These spotters are used to provide real-time information during severe summer and winter storms and are also utilized to verify warnings or severe weather events, either by calls from them to the WSFO, or vice versa, after a storm.

"By having such a dense spotter network," comments Dean Gulezian, DMIC, WSFO Philadelphia, "we have a pretty good idea of what happened in any given storm, regardless of the time of year. Our increase in summer time severe weather events from 8 in 1985 to 66 in 1987 was due, in part, to the increased density of our spotter network. Last winter, we found detailed snowfall information in some zones that would have been unheard of in past years. Most snowfall ranges exceeded the 2 to 4 inches we are use to forecasting, and in some cases, reached 15 inches in a given zone due primarily to isolated convection during snow storms. This has certainly made us re-think the snowfall ranges we put in our zone forecasts.

There are, of course, disadvantages to having such a large spotter network. First in the winter, even if we knew the snowfall in a zone would vary by 15 inches, we'd lose credibility trying to forecast that large a range. Can you imagine if we forecast 8-23 inches of snow, which is exactly what happened in one zone last year. Second, during the summer, we are getting as much information from spotters after the fact as during severe storms, some of which is in unwarned counties. The reason for this is for the spotters to call "real-time," they are violating at least one severe storm safety rule, and that is not to talk on the phone during thunderstorms. The amateur radio operators have a similar problem.

We feel the advantages of a dense spotter network certainly out weigh the disadvantages, and although our verification statistics may not show it, our service to the public has improved considerably."

o "Spotter of the Year Award" -- North Dakota On October 27, Don Stoltz presented the second annual Amateur Radio (HAMS) "Spotter of the Year Award" to Rick Storhaug of the Bismarck club. The award is presented in the name of the late Mike Mankey, who had volunteered hours of his time in supporting the development of the North Dakota spotter network. Each year a recipient is nominated by his or her peers. This is an idea that should be considered by other spotter groups.

PREPAREDNESS WEEKS

Eastern Region

Although many of the types of Disaster Preparedness activities carried out by Eastern Region stations in FY 87 were similar to those in FY 86, one is impressed with the amount of these activities. Most offices have made an excellent effort to promote disaster preparedness in FY 87. All offices have expanded their spotter networks, carried out considerable liaison with users (i.e., media, government and state agencies), and worked at educating the public so they could better understand and use NWS products. Attached are some highlights.

o 1987 Winter Weather Week Lynn Maximuk and Mike Eckert, WSFO Cleveland, assisted in the distribution of the 1987 Winter Weather Week media packets. The preparedness week was held December 6-12. The media packets were mailed November 18 and a follow-up mailing of PSA messages will take place during the height of the winter season in January. The Ohio DSA and Ohio Institute will also mail a winter safety informational letter to Senior Centers throughout the state during late December or early January.

Also, preliminary plans and a time line were established for the 1988 tornado safety campaign. The 1988 Ohio Tornado Safety Week will be March 20-26. The statewide drill will take place on March 23. The program will be similar to past years with a poster contest and a media blitz. The NWS will provide a tornado occurrence map and an article outlining severe weather forecast terminology. The 1988 Tornado Safety Poster Contest will run from March 20 through April 30. The statewide poster judging will be held May 24 at the Ohio DSA Headquarters. The Ohio Insurance Institute will continue to provide the bulk of the funding for the campaign. They will again pay for printing and distribution of the Twister brochure through Ohio elementary schools. This year's printing of the brochure will be around one million copies.

Southern Region

The following are Severe Weather Awareness or Tornado Awareness Weeks planned in the Southern Region.

Florida	February 21-27	Drill - Feb. 25
Louisiana	February 22-26	
Mississippi	February 22-26	
Georgia	February 22-26	
Alabama	February 22-26	Drill - Feb. 24
Oklahoma	February 28-March 5	
Texas	February 29-March 4	
Tennessee	February 29-March 4	
Arkansas	March 7-11	

Central Region

Nine Central Region WSFO's, WSO's, and state agencies have completed statewide winter weather awareness exercises/drills or awareness campaigns. They are:

Colorado	October 18-24
Wyoming	October 26-30
Nebraska	November 1-7
South Dakota	November 2-6
Iowa	November 13
North Dakota	November 19
Michigan	November 22-28
Minnesota	November 29-December 5
Illinois	November 29-December 5

Also, Central Region has been busy planning Severe Weather Awareness Weeks. They are:

Kentucky	March 7-11	Drill - March 9
Nebraska	March 20-26	Drill - March 24
Minnesota	March 20-26	Drill - March 24
Wisconsin	March 20-26	Drill - March 24
Iowa	March 20-26	Drill - March 24
South Dakota	April 10-16	Drill - April 13

o Winter Storm Preparedness/Awareness Week WSFO Sioux Falls and the South Dakota Emergency and Disaster Services coordinated the first known winter awareness campaign in the Region. It was November 2-6. Special press releases, weather radio broadcasts, and radio/TV interviews were scheduled to prepare the residents for possible threatening blizzards, winter storms, and dangerous wind chill.

o Colorado Sets EXERCISE SNOWBALL 87 The Governor of Colorado declared the week of October 18-24 as Winter Storm Awareness Week. Part of the week was SNOWBALL 87 which was an exercise for communities to test their ability to respond to effects of a major storm and for the State to aid communities and areas where local resources were exceeded.

o Minnesota's Winter Weather Awareness Week Minnesota's seventh annual Winter Weather Awareness Week was held November 29 through December 5. Prior to this week, the Division of Emergency Services forwarded to all county directors an information packet and encouraged all schools to get involved in an educational project. The Public Safety Division sent out a news release prior to this week, and WSFO Minneapolis also issued public information statements.

o Warning and Preparedness The 1986 through 1987 storm seasons produced some interesting results. The winter was one of the calmest in recent years until the last 30 days when two back-to-back storms pounded the Northern Plains states, especially South Dakota. Severe storms claimed one life late in the season when a tornado struck a resort lake in West Central Minnesota. This appears to be the lowest death toll in the Central Region since record keeping started.

In 1986, Central Region offices issued a little over 400 tornado warnings, while in 1987, almost 300. It took approximately 6-1/2 to 7 minutes from the time the event was observed until the warning was disseminated both years. There were approximately 2,175 severe thunderstorm warnings issued for each year. The average time from observing the storm and disseminating the warning was between 5-1/2 to 6 minutes.

Drills or severe weather/flood awareness campaigns were conducted in all states with four states conducting winter storm awareness efforts.

Counties contacted personally during past 12 months	1,043	(90 percent)	
Governmental personal contacts	3,095	45 per office	2.6 per county
Media personal contacts	2,086	30 per office	
Media in-studio interview	1,095	16 per office	
Public safety talks	1,364	20 per office	
Combined attendance	37,465		
Total number spotters	67,084	32 per county	
New networks organized	247		
Networks trained	638		
Official hours for preparedness	10,545		
Unofficial hours for preparedness	2,233		
In-house drills - covering 12 categories of emergencies	19,274	279 per office	30 per staff member

NOAA WEATHER RADIO

o Mapmaker Lists NOAA Weather Radio Sites With the NWS's help and encouragement, Rand McNally, Inc., will include a list of NOAA Weather Radio stations and their broadcast frequencies in its 1988 issue of the "Motor Carriers Road Atlas."

o NOAA Weather Radio Voice Synthesis This system, designed to replace the current NWR console and permit automation of some radio products, has been set up in a training mode at WSFO Salt Lake City. A tutorial has been written to assist in operator training. Soon the system should be hooked up for on-the-air testing.

o NWR and Radio Shack Mr. Bernie Appel, President of Radio Shack (a division of the Tandy Corporation headquartered in Fort Worth), was a guest at a dinner held in Fort Worth during the NWS Fall Directors Conference. Mr. Appel stated NOAA Weather Radio had been a profitable product. Some 1.3 million NWR receivers (portable/clock/multiband units) have been sold since Radio Shack entered the NWR market in 1968. The National Weather Service NWR program has benefited from the vast advertising for the program done by Radio Shack. Radio Shack is very proud of its "Weather Radio" copyrighted name. Mr. Appel stated NOAA Weather Radio provides an excellent public service.

o CATV and NWS Another guest at the Directors Conference Dinner was Mr. Bryan O'Hara, General Manager of Sammons Communications in Fort Worth. Mr. O'Hara reaffirmed that weather information is extremely important to the CATV industry. Sammons carried the Stephenville radar imagery, NWS forecast crawl, and NWR on a dedicated channel. When THE WEATHER CHANNEL (TWC) started, Sammons dropped their local weather channel. There was such an immediate howl from local subscribers, such as emergency officials (civil defense, fire, police, etc.), that the local weather channel was reinstated along with TWC!

Bryan also stated that most, if not all, CATV's have a channel dedicated to public service. Many of CATV's would be happy to "dub" NWS films (Tornado, Hurricane, etc.) and air them periodically as a public service. He also said any NWS PSA's delivered personally have a better chance of being played than those received in the mail.

o Stone Mountain NWR Installation Thousands of people visit Stone Mountain near Atlanta, Georgia, each year. Thanks to the Electronic Technicians at the WSFO, visitors can now hear the Atlanta NWR while in the waiting room to catch the cable cars up and down the Mountain. Previously only NWS wind speed and direction data was available. Now an NWR speaker has been built into the NWS exhibit. Activated by push-button, the "timed" program will play for about 2.5 minutes. Our thanks are extended to all involved for making this expanded service possible.

WINTER SURVIVAL TRAVEL KIT

The article below appeared in the Kansas City Area Safety Council monthly newsletter along with an order form. Maybe there is a service club in your area that might be interested in doing something like this as a ways and means or service project.

"Blizzard Bucket -- A Winter Travel Survival Kit

When stranded in a winter storm, stay with your car -- you need the shelter. You also need: a way to signal for help, emergency food, water, and safety awareness.

The "Blizzard Bucket," developed by a nurse, gives you many survival items along with winter travel instructions and a list of additional travel supplies that should be carried inside your vehicle. All of these contents are important to your survival.

Plastic bag	Enamel cup
Safety Pins	Candle
"Call Police" Sign	Aspirin
Water Proof Matches	Pencil
Travel Instructions	Red Flag
"Space Blanket"	Tissue
Two Energy Bars	Band-aids

Planning and preparation are the keys to survival whether you are in a severe storm or stranded in a vehicle. Reviewing safety instructions and stocking your car or fleet of vehicles with a Blizzard Bucket along with other necessary items will help ensure a safer trip. Prices start at \$17 for one; for 10, \$16 each; for 24, \$15.50 each; for 25 and up, \$15 each. Mail order to: Safety and Health Council of Western Missouri and Kansas, 714 E. 12th St., Kansas City, Missouri, 64106, Tel: 816-842-5223."

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THERE WILL NOT BE A FALL ISSUE OF THE DP REPORT,
BUT IT WILL CONTINUE TO BE ISSUED ON A QUARTERLY BASIS

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 Al Dreumont/Scott Kiser
 Chuck Conway
 Mike Franjevic
 Don Northrop
 Bob Thompson
 Bill Alder
 Jan Null
 Charles Ruscha
 Bob Sims

Regional (WPM) 588-4000
 Regional Hydrologist 588-5137
 Boise (Focal) 554-9860
 Los Angeles (Focal) 793-7215
 Phoenix (Focal) 261-3500
 Portland (Focal) 423-4340
 Reno (Focal) 470-5794
 Salt Lake City (Focal) 588-5133
 San Francisco (Focal) 466-7767
 Seattle (Focal) 392-6087
 Great Falls (Focal) 585-1311

ALASKA REGION

A. Jay Hull

Regional (WPM) 8-907-271-3886

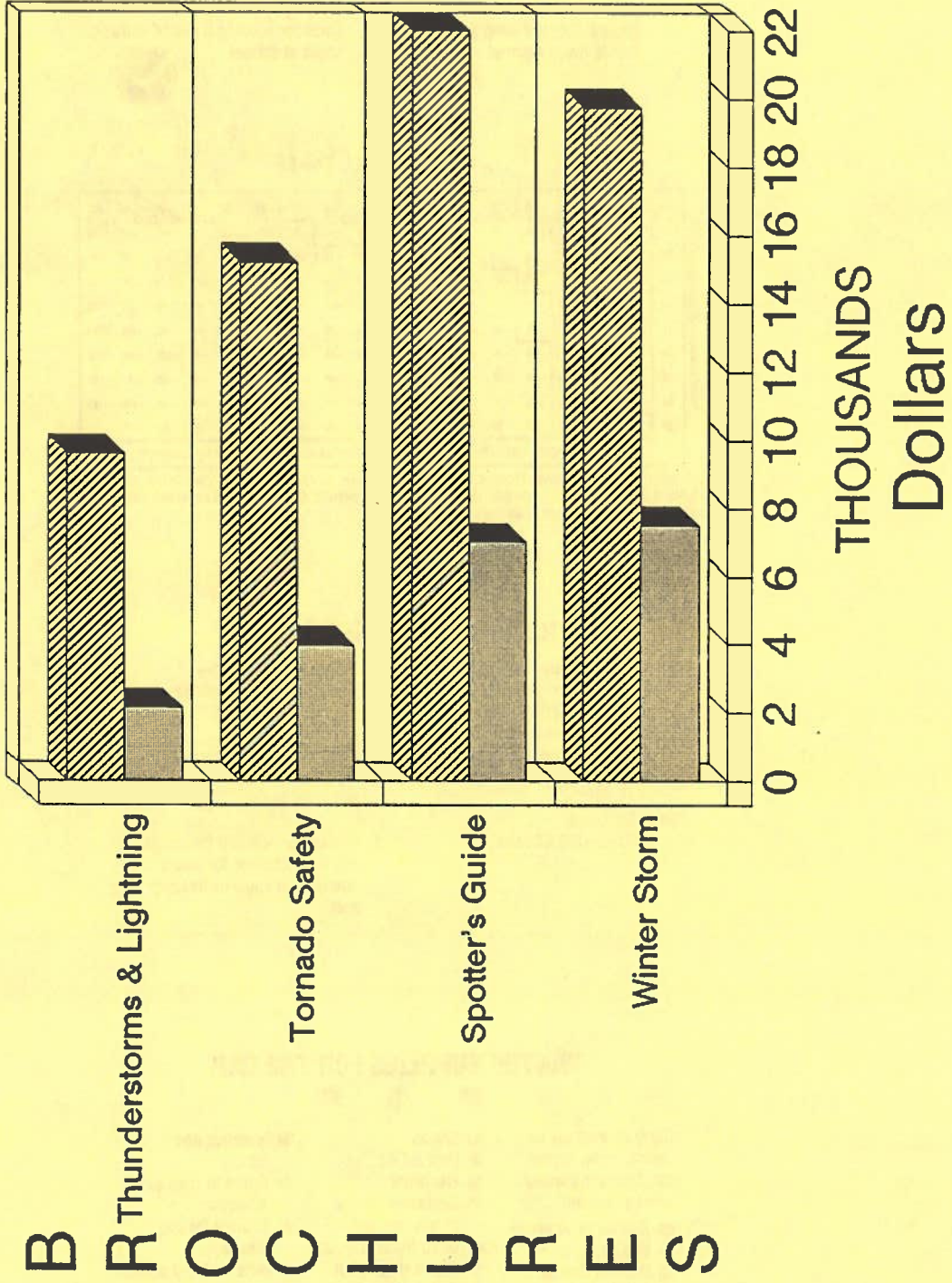
PACIFIC REGION

Vacant

Regional (WPM) 8-551-1698

Brochure Cost Comparison

1987 versus 1986



B R O C H U R E S

GOING OUT IN EXTREME COLD?



REMEMBER!

- ❄ Dress warmly in loose fitting, layered, light weight clothing. Outer garments should be tightly woven and water repellent. Wear a hat. Protect your face and cover your mouth to protect your lungs from the very cold air. Wear mittens instead of gloves, they will keep your hands much warmer.
- ❄ Watch for frostbite. Frostbite causes a loss of feeling and a white or pale appearance in extremities such as fingers, toes, tip of nose, ear lobes.
- ❄ Keep dry. Change wet socks and clothing as soon as possible. Consider keeping a pair of extra socks at school.



WIND CHILL TABLE

Air Temperature (°F)

Wind Speed (miles per hour)	Air Temperature (°F)																
	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Calm	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	32	27	22	16	11	6	0	-5	-10	-15	-21	-26	-31	-36	-42	-47	-52
10	22	16	10	3	-3	-9	-15	-22	-27	-34	-40	-46	-52	-58	-64	-71	-77
15	16	9	2	-5	-11	-18	-25	-31	-38	-45	-51	-58	-65	-72	-78	-85	-92
20	12	4	-3	-10	-17	-24	-31	-39	-46	-53	-60	-67	-74	-81	-88	-95	-103
25	8	1	-7	-15	-22	-29	-36	-44	-51	-59	-66	-74	-81	-88	-96	-103	-110
30	6	-2	-10	-18	-25	-33	-41	-49	-56	-64	-71	-79	-86	-93	-101	-109	-116
35	4	-4	-12	-20	-27	-35	-43	-52	-58	-67	-74	-82	-89	-97	-105	-113	-120
40	3	-5	-13	-21	-29	-37	-45	-53	-60	-69	-76	-84	-92	-100	-107	-115	-123
45	2	-6	-14	-22	-30	-38	-46	-54	-62	-70	-78	-85	-93	-102	-109	-117	-125

WIND SPEEDS GREATER THAN 40 MPH HAVE LITTLE ADDITIONAL CHILLING EFFECT

Read right and down from calm. For example, with an air temperature of 10°F and a 20 mph wind speed, the Wind Chill would be -24°F. Exposed skin can freeze at Wind Chill readings of -25°F.

NATIONAL WEATHER SERVICE

- ❄ Weather Radio—Tune in for weather information that you can use to plan the day's activities... 24 hours a day. Inexpensive models are available at your local electronics store.
- ❄ In St. Louis
KDO89—162.55 mhz
- ❄ Winter Storm Watch—Hazardous winter weather possible within 24 to 36 hours.
- ❄ Winter Storm Warning—Hazardous winter weather likely within 24 hours.
- ❄ Advisories—Issued for dangerous wind chill, or for lesser amounts of snow or freezing rain.

WINTER SUPPLIES FOR THE CAR



- Carry at least the following items in your car during the winter driving season:
- ❄ Blanket or sleeping bag
- ❄ Booster Cables
- ❄ Hand tools
- ❄ Shovel
- ❄ First aid kit
- ❄ Flashlight
- ❄ Container of sand or traction mat
- ❄ Dried fruits or nuts
- ❄ "Send Help" sign
- ❄ Rain gear and extra clothing
- ❄ Matches and candles
- ❄ Flares or road side reflectors
- ❄ Change for pay phone
- ❄ Note pad and pencil





In the name and
by the authority of

The
Commissioners
Court of
Bexar County

RESOLUTION

- WHEREAS, THE NATIONAL WEATHER SERVICE FORECAST OFFICE IS AN IMPORTANT PART OF THE SAN ANTONIO AND BEXAR COUNTY COMMUNITY, WITH STAFF ON DUTY 24 HOURS A DAY, 7 DAYS A WEEK, 365 DAYS A YEAR; AND
- WHEREAS, A PRIME EXAMPLE OF THIS OFFICE'S IMPORTANCE TO OUR COMMUNITY WAS GIVEN ON SEPTEMBER 10, 1987, WHEN THE NATIONAL WEATHER SERVICE FORECAST OFFICE RECOGNIZED THAT A SEVERE WEATHER SITUATION WAS DEVELOPING IN NORTHWEST BEXAR COUNTY; AND
- WHEREAS, THE TIMELY WARNING WHICH THE WEATHER SERVICE GAVE TO LAW ENFORCEMENT, PUBLIC WORKS AND FIRE OFFICIALS, AND TO LOCAL RADIO AND TELEVISION STATIONS, DIRECTLY RESULTED IN PREVENTING INJURY OR DEATH TO SCORES OF PERSONS WHO WERE WARNED TO LEAVE THE ALTAR AREA AT THE PAPAL MASS SITE ONLY MINUTES BEFORE STRONG WINDS STRUCK AND BLEW DOWN THE TWIN TOWERS; AND
- WHEREAS, THE WEATHER SERVICE ON COUNTLESS OTHER OCCASIONS HAS ISSUED WARNINGS OF IMPENDING SEVERE WEATHER WHICH HAS RESULTED IN THE SAVING OF MANY LIVES IN BEXAR COUNTY AND SURROUNDING AREAS OF SOUTH AND CENTRAL TEXAS.

NOW THEREFORE, WE, THE MEMBERS OF THE COMMISSIONERS COURT OF THE COUNTY OF BEXAR, HEREBY GIVE LONG OVERDUE RECOGNITION TO THE MEN AND WOMEN WHO STAFF THE NATIONAL WEATHER SERVICE FORECAST OFFICE HERE IN SAN ANTONIO; WE THANK THEM FOR A JOB WELL-DONE, AND URGE THEM TO KEEP UP THE GOOD WORK.

WITNESS OUR SIGNATURES AND SEAL OF OFFICE THIS 16TH DAY OF SEPTEMBER, 1987.

Tom Vickers

TOM VICKERS
COUNTY JUDGE

John A. Longoria

JOHN A. LONGORIA
COMMISSIONER, PRECINCT 1

Paul Elizondo

PAUL ELIZONDO
COMMISSIONER, PRECINCT 2

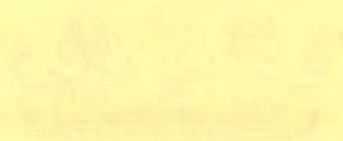
Walter A. Bielstein

WALTER A. BIELSTEIN
COMMISSIONER, PRECINCT 3

Bob Lee

BOB LEE
COMMISSIONER, PRECINCT 4





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Contact: Elizabeth Martin
212-595-3456

BIG BIRD TEACHES FAMILIES
TO PREPARE FOR HURRICANES

The Children's Television Workshop (CTW), the creators of Sesame Street, 3-2-1 Contact and Square One TV, has applied its communications expertise to help teach families how to protect themselves from such natural hazards as hurricanes, tornadoes, earthquakes, floods and severe thunderstorms. CTW has developed the "Big Bird Get Ready" family kits, the first of which, "Big Bird Get Ready for Hurricanes", is now available to the public.

Over forty million people live in areas that are threatened by disastrous hurricanes every year. The "Hurricanes" kit will help parents and children prepare for a hurricane long before one hits. It has been thoroughly tested for effectiveness with families.

The kit provides basic facts about hurricanes, tips about what to do in a hurricane "watch" or "warning," and suggestions for putting together a family safety plan. The materials can be used in conjunction with hurricane materials and local area hurricane information already available in many communities. It includes:

- a colorful 16-page family booklet (essential information also in Spanish);
- the "Hurricane Force" board game, to positively reinforce the messages learned in the booklet;
- a recording of the song "Hurricane Blues."

-more-

Future "Big Bird Get Ready" kits will cover other natural hazards. The next kit, dealing with earthquakes, is expected to be ready for distribution in the spring of 1988. CTW is also producing a videotape to help local emergency managers, fire-fighters, American Red Cross chapters, the National Weather Service and broadcast meteorologists to encourage communities to plan and prepare for a natural hazard. Funding for the project has been provided by the Federal Emergency Management Agency (FEMA), with additional support from the National Weather Service and the American Red Cross.

According to Evelyn P. Davis, CTW vice-president of community education services, "Young children are especially innocent and vulnerable to natural hazards. Educating them to the dangers without frightening them can help save lives. Our success with the Sesame Street Fire Safety Project inspires us to use our knowledge of how children learn to address a wider range of potential problems. Thanks to the support and encouragement of FEMA, we're able to make a broader contribution to child safety."

CTW's community education services department, which developed and researched the Natural Hazards Project, spreads the messages of CTW's television programs throughout the country via community and youth services organizations, child care facilities, and local, state and national agencies.

Single copies of the "Big Bird Get Ready for Hurricanes" family kits are available at no charge from: FEMA, PO Box 70274, Washington DC 20024. Bulk order pricing information is also available at the above address.