

Palmetto Review



Floyd (Dennis, Irene...)

A Publication of the South Carolina Emergency Preparedness Division

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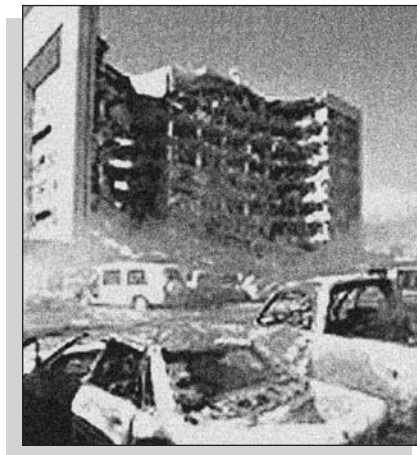
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Joe Farmer
Public Information Director
jrfarmer@strider.epd.state.sc.us

Christie Johnson
Public Information
Coordinator
clhamilt@strider.epd.state.sc.us

Mark Pointer
Graphic Designer
mpointer@strider.epd.state.sc.us

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The Palmetto Review
is published quarterly by the
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Emergency Preparedness Education News

Learn about colleges and universities who offer certificate and degree programs in emergency management.

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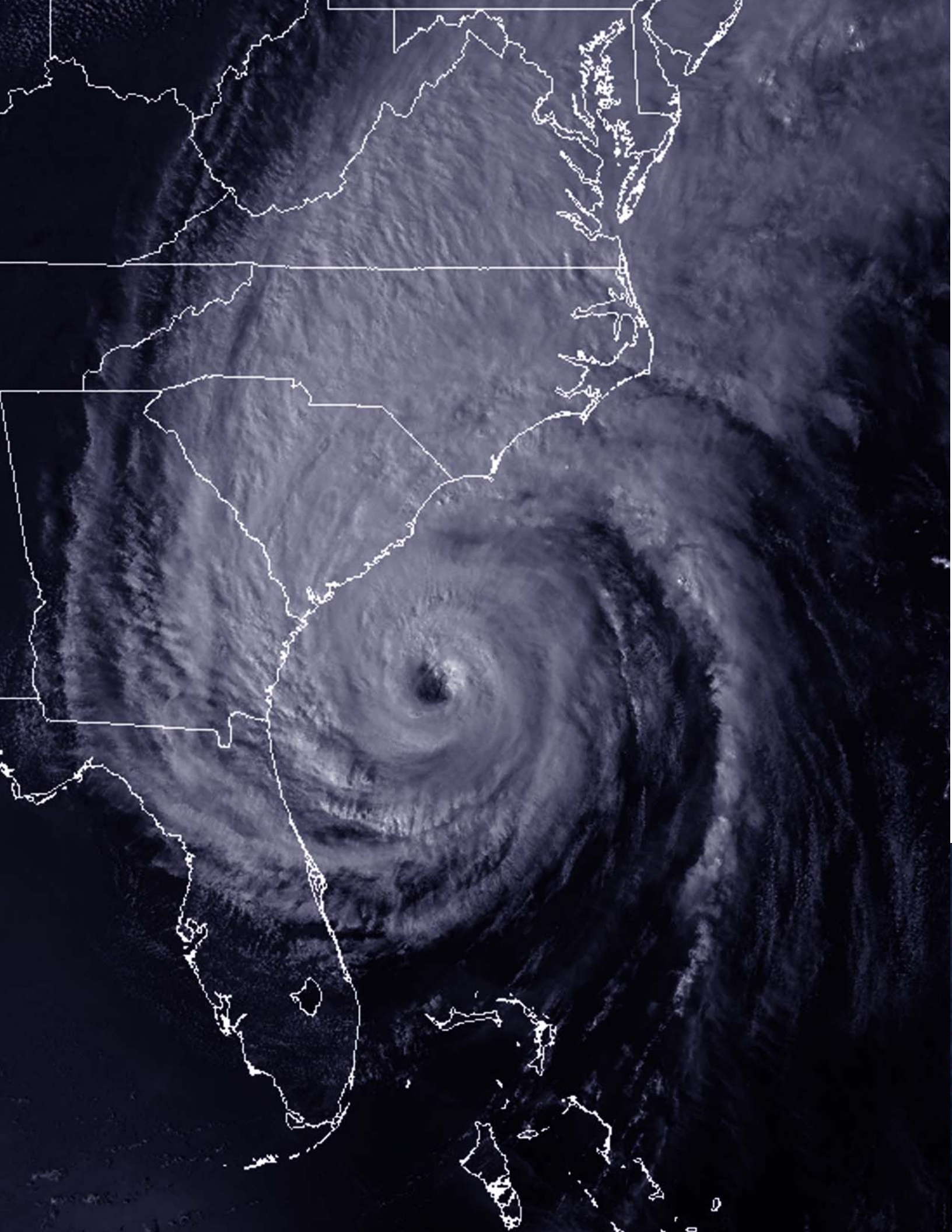
Submissions should be mailed to:

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S.C. Emergency Preparedness
Division
1429 Senate Street
Columbia, S.C. 29201

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Floyd's Fury

South Carolina missed the full force of three hurricanes that headed directly for the state only weeks apart, although the combined effects of those storms caused major flooding in areas of the state and resulted in challenges for the emergency management community in many parts of the state.

Hurricane Dennis

The S.C. Emergency Preparedness Division began tracking Dennis on August 23, when it formed as a tropical depression. Dennis gained strength, and on August 26 became an official hurricane.

The threat of Dennis to South Carolina ultimately resulted in a full activation of the State Emergency Operations Center, a call-up of approximately 1,000 National Guard troops, an advisory from S.C. Governor Jim Hodges for people in potentially vulnerable coastal areas from Charleston County northward to "consider moving inland," and the positioning of Guard members and 500 law enforcement officers near the coast. By August 30, Dennis had moved away from South Carolina, and the Governor directed Guard and law enforcement personnel to return home.

Dennis did not cause widespread damage in South Carolina, but resulted in minor flooding, scattered power outages, and the sheltering and care of more than 140 people in Berkeley, Georgetown, Horry, Colleton, Charleston, Dorchester, and Orangeburg counties.

The response to Dennis at SCEPD resulted in the combined response efforts of more than 190 people, most of whom worked in shifts in the SEOC that continued around the clock until Dennis no longer posed a significant threat to the state.

On the heels of Dennis, another even larger storm began to make itself known.

Hurricane Floyd

SCEPD began tracking what would eventually become Hurricane Floyd in earnest on Sept. 7, when Tropical Depression No. 8 formed in the Central Tropical Atlantic. Within a day, the depression became Tropical Storm Floyd. By Sept. 10 it was upgraded to a hurricane.

On Sept. 12, the State Emergency Operations Center kicked into heavy-duty action, which would continue for more than two weeks. As Floyd moved on his path toward North America, preparations were made for the worst possible South Carolina scenario: landfall on the Palmetto State. During Floyd's approach, hundreds of people, working together around the clock, positioned assets along the South Carolina coast. It soon became apparent that Floyd was going to be a very strong, very dangerous, and potentially devastating storm.

Evacuations

Hurricane Floyd grew. It became a huge, strong Category Four storm, teetering on the brink of Category Five. With the enormous force of Floyd bearing down on a direct track to South Carolina, Governor Hodges on the morning of Sept. 14 called for a voluntary relocation along the entire coast. By noon the same day, he mandated evacuation in Jasper, Beaufort, Colleton, Charleston, Berkeley, Dorchester, Georgetown, Hampton and Horry counties.

But, South Carolina was not the only Southeastern state threatened. Coastal evacuations were taking place in Florida, Georgia and North Carolina. As hundreds of thousands of

Timelines: Dennis and Floyd **HURRICANE DENNIS**

Monday, August 23

11 p.m.: Tropical Depression No. 5 forms 185 miles east of the Caicos Islands.

Tuesday, August 24

2 p.m.: TD5 becomes Tropical Storm Dennis located about 140 miles north of Turks Islands. SEOC moves to OPGON 4.

Thursday, August 26

2 a.m.: TS Dennis becomes Hurricane Dennis.

Friday, August 27

10 a.m.: SEOC escalates to OPGON 3. Governor Hodges issues an Executive ; puts National Guard on standby, calling about 1,000 members of selected units to their Upstate armories on state active duty; and dispatches about 500 law enforcement officers to coastal staging areas.
2 p.m.: American Red Cross opens its Hurricane Watch in Columbia.

people along the Southeastern coast fled inland, the volume of traffic increased on Southeastern seaboard interstates.

Governor Hodges ordered the reversal of selected sections of I-26 out of Charleston in an effort to alleviate congestion in South Carolina. The S.C. Department of Transportation estimated that between 520,000 to more than 624,000 people moved inland from the South Carolina coast alone.

Shelters

According to the American Red Cross, as Floyd approached, the ARC, in conjunction with the Department of Social Services and the Department of Health and Environmental Control, opened 148 shelters in 43 counties. More than 50,638 people were sheltered and were served approximately 135,621 meals. More than 3,300 people representing the American Red Cross, DSS and DHEC staffed the shelters.

In addition to providing regular shelter locations, DSS and DHEC provided special medical needs shelters.



Representatives from the S.C. National Guard during Hurricane Floyd.

South Carolina National Guard

Also in response to Floyd, the S.C. National Guard reported that approximately 3,300 Guard members were called to state duty. Deployed in increments beginning Sept. 13, Guard members reported to armories along the coast, where they assisted law enforcement personnel with the evacuation and security.

Federal Emergency Management Agency

As Hurricane Floyd approached, still apparently headed directly for the South Carolina coast, the Federal Emergency Management Agency dispatched to South Carolina approximately 30 members of its National Emergency Response Team (ERT-N). The team members provided support and coordination to SCEPD for potential mission assignments of

other federal agencies.

Technology

Technology was an important element during the approach of Hurricane Floyd, and continues to be during the recovery from its effects. The Internet-Routed Information System (IRIS), a program created by the University of South Carolina for SCEPD, is being used to enhance the tracking of citizens' needs.

In addition to the use of IRIS, SCEPD frequently updates its worldwide web site with current disaster information, which includes situation reports, weather briefings, news releases and information from the Governor's Office. The site, www.state.sc.us/epd, also provides links to the National Hurricane Center, the American Red Cross and FEMA.

On an average day during non-disaster times, the site has approximately 300 visitors. Budget and Control Board Office of Information Resource records indicate that in the month of August, the site received 47,966 hits, 10,622 of which occurred on August

27 as Hurricane Dennis approached. In September, the EPD site received 439,285 visits, 129,076 of which occurred on September 15 as Hurricane Floyd approached.

The Public Information Phone System (PIPS) was created by SCEPD and used for the first time last year during Hurricane Bonnie. During the approach of Floyd, operators received and processed more than 12,500 calls.

The phone system, located at the S.C. Educational Television's Telecommunications Center in Columbia, provided visitors and citizens a toll-free number to call for information about evacuation routes and shelters. For 24 hours a day, the phone system was managed by SCEPD and staffed by a group of representatives from the S.C. Departments of Public Safety, Health and Environmental Control, Education, and public affairs assets from Social Services. A Spanish translator

Saturday, August 28

11 p.m.: Hurricane watch issued north of Savannah, Ga., to Surf City, N.C.

6:15 p.m.: Governor moves Guard to coast.

Sunday, August 29

5 a.m.: Tropical storm warning issued from north of Savannah, Ga., to Surf City, N.C. Hurricane watch remains in effect.

8 a.m.: Governor Hodges advises anyone on beach front property, barrier islands, or in low-lying property in coastal areas of Charleston County and coastal areas north to consider moving inland. The advice applies to mobile

home residents in the counties.

9:30 a.m.: SEOC escalates to OPCON 2.

2 p.m.: Outer rain bands affect shore.

11 p.m.: TS warning and hurricane watch discontinued from Edisto Beach southward.

Monday, August 30

5 a.m.: TS warning and hurricane watch discontinued south of Little River Inlet.

6 a.m.: Governor directs Guard and law enforcement personnel to return home.

7 a.m.: SEOC downgrades to OPCON 4 with minimal staffing.

8 a.m.: State agencies working in ESF's released.

5 p.m.: Red Cross Hurricane Watch closes.

volunteer from the Hispanic Outreach Center in Columbia was also available. Evacuation route videos were broadcast for the first time during the threat of Hurricane Floyd. Created by SCEPD in cooperation with S.C. Educational Television and in coordination with the Highway Patrol, SLED, DOT, the Army Corps of Engineers and local emergency management, the videos were available to SCETV and to coastal and inland television stations. They feature Highway Patrolmen highlighting evacuation routes for the three coastal conglomerates.

Public Information

The public information section issued news releases, initiated Emergency Alert System messages, the broadcast of hurricane evacuation videos, and responded to hundreds of news media queries from local, state, national and international news media. The section provided news releases, evacuation maps and other information that was posted on the SCEPD web site. Public information was coordinated with counties, local governments, FEMA and most state agencies, including the Governor's Office, the National Guard, DHEC, DNR, Public Safety, DSS, DOT, Mental Health, Consumer Affairs, the Secretary of State's Office, Education, ETV, PRT, Agriculture, Employment Security Commission, Department of Insurance and Clemson University, and with volunteer agencies including the American Red Cross, the Salvation Army and Harvest Hope Food Bank.

Additionally, information was provided to members of the S.C. House and Senate, the Congressional delegation and Constitutional officers.

The section received supplemental assistance from state agencies including DNR, DHEC, DSS, Public Safety, Agriculture, and the Budget and Control Board.

Recovery

After Hurricane Floyd weakened and skirted the South Carolina coast on Sept. 15, the recovery stage began. As soon as it was

safe, power crews began working to restore service to tens of thousands of customers.

President Bill Clinton approved an emergency declaration on Sept. 15. It authorized FEMA to provide federal personnel, equipment, supplies and other materials to meet immediate human needs, protect property and ensure public health and safety in 27 counties in The Midlands and Lowcountry.

On Sept. 16, the governor rescinded the mandatory evacuation order for Jasper, Beaufort, Colleton, Charleston, Berkeley and Dorchester counties, and all four lanes of I-26 were made available to westbound traffic toward Charleston to expedite the return of citizens. Later the same day, the mandatory evacuation order for Georgetown and Horry counties was rescinded.

South Carolina did not suffer a direct hit from Floyd. Nevertheless, Floyd created heavy rainfall in parts of South Carolina and North Carolina, and the effects of the combined storms' flood waters continue to cause major problems.

Already suffering from flooding that resulted from Hurricane Dennis, North Carolina was inundated with large amounts of rainfall as Hurricane Floyd churned along the eastern coast. Rivers in North Carolina rose well above flood level, sending water towards South Carolina waterways.

Early on, hydrologists expected the Waccamaw River in South Carolina to crest at more than 17 feet, well above the 100- and 500-year flood plains. Work began early, with county, state and federal assets in Horry County, to protect areas in and near Conway from

flood waters. Their preparations for the crest included sandbagging critical public works facilities and roadways, and evacuation and sheltering of citizens.

As the Hurricane Floyd flood waters flowed from North Carolina into South Carolina, the Hydrology Advisory Team was created and met on a regular basis to interpret the National Weather Service's river flood forecast. The information and maps provided by the Team assisted the SEOC and local emergency management to prepare for the predicated flood impact on South



Photo: Mark Pontier/SCEPD

SCEPD PIO's conduct interviews with media.

Tuesday, August 31

5 p.m.: Governor issues an Executive Order releasing National Guard and Law Enforcement personnel.

Wednesday, September 1

3 p.m.: Dennis projected to go extra-tropical, but storm moving west-southwest. SEOC remains at OPCON 4.

Thursday, September 2

SEOC and EOC's in Horry and Beaufort counties remain at OPCON 4.

Sunday September 5

TS Dennis becomes extra-tropical, SEOC returns to OPCON 5.

HURRICANE FLOYD

Tuesday, Sept. 7

5 p.m. Tropical Depression Eight forms in the Central Tropical Atlantic.

Friday, Sept. 10

5 a.m. Tropical Storm Floyd is 215 miles ENE of Barbuda in the northern Leeward Islands moving WNW at 12 mph. Maximum sustained winds near 70 mph.

6 a.m. Tropical Storm Floyd is upgraded to Hurricane Floyd.

Carolina communities. State and federal agencies partnered for this effort, including Department of Natural Resources, Department of Transportation, DHEC, USGS, Army Corps of Engineers, Federal Highway Administration and National Weather Service.

Hurricane Irene

The potential for flooding was exacerbated because of the effects of yet another hurricane, Irene, which tore across the state of Florida from the Gulf of Mexico to the Atlantic Ocean and ultimately skirted the coast of South Carolina on October 16 and 17, causing less rainfall and lower winds than had been anticipated. During Irene's approach the Governor dispatched 183 supplemental law enforcement personnel to the coast and recommended that people along the entire coast consider voluntarily evacuating. Red Cross reported that some 38 shelters were opened and housed 161 people. On October 16 and 17 the storm created rain and gusting winds in parts of South Carolina, although the storm moved northeastward on Oct. 17, causing major effects on North Carolina.

Financial Assistance

After Hurricane Floyd passed and while the response effort was continuing, Governor Hodges requested that joint preliminary damage assessments be conducted in several coastal counties. The data collected during those visits on Sept. 18-19 were used to support the Governor's request for a major disaster declaration, which was approved by the President on Sept. 21.

Three counties, Horry, Georgetown and Charleston, initially received Individual Assistance (IA) for renters, homeowners, and business owners. The declaration was amended on Sept. 28 to include IA for residents in Berkeley, Colleton, Marion, and Williamsburg counties. Four more counties were added on Oct. 6, including Dillon, Dorchester, Florence, and Orangeburg.

Eight counties also initially received infrastructure assistance for state and affected local governments to pay 75 percent of the eligible cost for restoring damaged public facilities. These counties included Beaufort, Berkeley, Charleston, Colleton, Georgetown, Horry, Jasper, and Marion. Williamsburg was added Sept. 28 and Dillon on Oct. 6., bringing the total to 10. The declaration also made cost-shared funding available to the

entire state for approved projects that reduce future disaster risks.

The remaining 17 counties received funding for state and local governments for debris removal and emergency services. These counties included Allendale, Bamberg, Barnwell, Calhoun, Chesterfield, Clarendon, Darlington, Dorchester, Florence, Hampton, Kershaw, Lee, Lexington, Marlboro, Orangeburg, Richland, and Sumter.

Governor Hodges requested that the state cover the 25 percent cost-share matching funds for all FEMA disaster programs, and the state Budget Board approved his request in special session, thereby minimizing financial burdens to local governments.

(At press time, more than 12,000 residents have applied for disaster assistance utilizing FEMA's toll-free registration phone system. In just a month since the declaration was approved, almost \$11 million in grants and low-interest loans have been approved for disaster victims.)

A joint Disaster Field Office, staffed by almost 200 SCEPD, FEMA, and other agency personnel, was established in Columbia. The disaster assistance recovery effort has included the operation of 12 joint Disaster Recovery Centers; a proactive media relations information and field program; community relations team visits to local officials and door-to-door visits in hard-hit communities, and public meetings in designated counties; a series of infrastructure applicant briefings for county and local officials; an interagency mitigation meeting to develop a strategy to reduce future disaster risks; National Flood Insurance Program meetings with more than 20 communities; and Mitigation/Project Impact booths at both the State and Coastal Carolina fairs.

Hurricane season ends on Nov. 30, but with more than a month left there is still a lot of activity in the tropics.



By Joe Farmer
SCEPD Public Information Director
Christie Johnson
SCEPD Public Information

During the response phase of Hurricane Floyd from Sept. 12 to Oct. 4, the database program with web browser interface, known to most of us as the Internet-Routed

Saturday, Sept. 11

5 a.m. eye is 365 miles NE of San Juan Puerto Rico. Category 2 with maximum sustained winds 105 mph, moving NW at 10 mph.

Sunday, Sept. 12

5 a.m. eye is 400 miles E of San Salvador in the Central Bahamas. Category 3 with maximum sustained winds of 125 mph, moving W at 14 mph.
6 a.m. SEOC moves to OPCON-4. Under OPCON-4, the State Emergency Operations Center (SEOC) is partially

activated. Key personnel of state operations and county emergency management directors are notified of the hurricane threat.

11 p.m. eye is 330 miles E of San Salvador in the Central Bahamas. Category 4 with maximum winds of 145 mph, moving west at 14 mph.

Monday, Sept. 13

10 a.m. SEOC moves to OPCON-3. At OPCON-3, the SEOC is under a limited activation. Operational 24-hours. SEOC is staffed by SCEPD personnel. County Emergency Management Directors notified. Key outside agencies to report.

Internet-Routed Information System Plays a Key Role During Floyd

Information System (IRIS), was used with great success to track messages and requests.

The Internet connection and the systems computer at the S.C. Emergency Preparedness Division worked without interruption and greatly aided the process of passing information and documenting requests for assistance.

Two-hundred-and-seventy-six requests for assistance were documented in IRIS and processed by the State Emergency Operations Center (SEOC) Operations Tasking Group (OTG). Although some of the requests were precautionary pre-land-fall and therefore were placed on hold, many others were tasked out to state agencies and emergency support functions (ESFs) within the SEOC. Each request was closely monitored and follow-up documentation was made to IRIS, which helped preclude something falling through the cracks during the disaster response.

Several requests were entered into IRIS by authorized users at the Horry County EOC, as was the intent of the IRIS design. This data entry was especially helpful for Horry County during the early stages of its flood fight. By entering requests with complete and detailed information at the local level, time was saved and accuracy was maximized. The county user did not have to wait for a phone call to the county desk at the SEOC, and the user did not have to waste time explaining and spelling information to the county desk person.

Also during response to Hurricane Floyd and its effects, IRIS messages detailing situation development were used extensively. Eight-hundred-and-sixteen messages were entered into IRIS from dozens of different users and sites to help relay information on many subjects, from the status of the evacuation to the location of road blocks caused by storm debris.

Among those 816 messages were:

- Communications from eight county emergency operations

centers (Horry, Beaufort, Charleston, Dorchester, Berkeley, Lexington, Florence and York),

- Six state-level sites outside of the SEOC (two Highway Patrol district dispatch centers, the SCEPD Public Information Phone System center, one veterinarian services coordination center, one SLED forward command post and one National Guard EOC),
- More than 60 users at 25 different sites within the SEOC entered information and updates on activity in their areas of responsibility.

All of this information was available to any authorized IRIS user. Many users accessed IRIS to read messages without even needing to enter information.

Overall, the system was praised by the SEOC staff and county personnel

for its utility and reliability. Many commented on the IRIS advantage that eliminated the need for time-consuming phone calls to the SEOC for information exchange and requests.

Additional enhancements to the IRIS program are under way. A recently upgraded version of IRIS is soon to be posted on the SCEPD server. Its upgrades and the original system were developed by the University of South Carolina's Advanced Solutions Group and donated to the State of South Carolina.



By Tim Murphy
SCEPD Response Manager

12 a.m. By executive order, the Governor activates the South Carolina Emergency Operations Plan and directs the National Guard be placed on state active duty. Law Enforcement (SLED, Highway Patrol, DNR) begin deployment to coastal staging areas.

5 p.m. eye is 50 miles east of San Salvador in the Central Bahamas, 423 miles ESE of Miami, and approximately 710 miles SE of Charleston, SC Category 4 with maximum sustained winds of 155 mph, moving west at 16 mph.

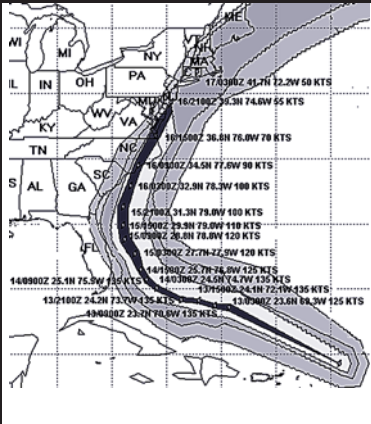
11 p.m. Hurricane Watch is issued for the entire South Carolina coast. eye is 55 miles E of

Eleuthera Island in the NW Bahamas, 320 miles ESE of Miami, and approx. 655 miles SE of Charleston, SC. Cat 4 with max sustained winds of 155 mph, moving WNW at 14 mph.

Tuesday, Sept. 14

- 5 a.m. Eye is 185 miles SE of Freeport in the NW Bahamas, 275 miles ESE of Miami, and approx 580 miles SE of Charleston, SC. Cat 4 with max sustained winds of 155 mph, moving WNW
- 7 a.m. Governor calls for a voluntary evacuation. The Emergency Alert System (EAS) is activated. The Public Information Phone System (PIPS) is activated.

Images of Floyd



Floyd's effects cut a wide swath along the East Coast.



Members of the press swarm Governor Hodges during his visit to the State Emergency Operations Center.



An aerial view of flood damage in Horry County.



The State Emergency Operations Center kicked into high gear as Floyd approached.



Governor Hodges meets with Chief of Staff Billy Boan and SCEPD Director Stan McKinney to discuss the hurricane's track.

- 8 a.m. SEOC moves to OPCON 2 - full activation.
- 12 p.m. The Governor declares a State of Emergency and orders a mandatory evacuation of persons in Jasper, Beaufort, Colleton, Charleston, Berkeley, Dorchester, Georgetown and Horry. The Emergency Alert System is activated. SEOC moves to OPCON 1- Mandatory evacuation begins.
- 5 p.m. Hurricane Warning issued for the entire SC coast. Eye is over Abaco Islands, 235 miles SE of Cape Canaveral, FL and approximately 455 miles SSE of Charleston, SC. Category 4 with max sustained winds of 145 mph, moving NW at 12 mph.

Wednesday, Sept. 15

- 6 a.m. Approximately 532,000 people have been evacuated statewide, 3000 National Guard troops have been activated, 101 shelters are open with 11,000 evacuees, and 26 special medical needs shelters are open.
- 11 a.m. Eye is 260 miles S of Myrtle Beach, SC and approximately 198 miles SSE of Charleston, SC. Category 3 with max sustained winds of 125 mph, moving NNW at 14 mph.
- 11 p.m. Hurricane Warning remains in effect from north of Edisto Beach, South Carolina to the South Carolina/North Carolina



Photo: Linda Sacala/FEMA

State and federal damage assessment teams talk with Horry County residents.



Photo: Gene Romano/FEMA

Gov. Hodges and FEMA Director view the flooding around Trinity Methodist Church in Conway.



Photo: Christie Johnson/SCEPD

Department of Natural Resources boats help officials navigate through the flood waters.

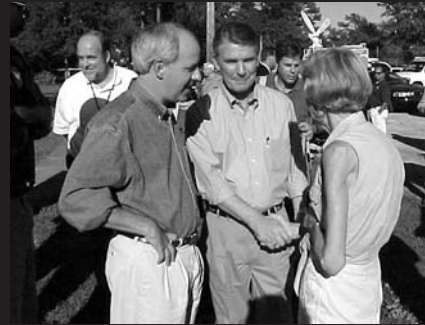


Photo: Christie Johnson/SCEPD

Governor Hodges and FEMA Director Witt talk with residents and tour flooded areas.



Photo: Christie Johnson/SCEPD

FEMA Director Witt arrives in Conway.



Photo: Christie Johnson/SCEPD

FEMA and State officials arrive in Conway for damage assessments.

border. Hurricane Warning is discontinued from Edisto Beach southward. Eye is 100 miles SSE of Wilmington, NC and 66 miles SE of Myrtle Beach, SC. Cat3 with max sustained winds of 115 mph, moving NNE at 18 mph.

Thursday, Sept. 16

- 7 a.m. The Governor rescinds mandatory evacuation order in Jasper, Beaufort, Colleton, Charleston, Berkeley, and Dorchester. Lanes of I-26 are reversed for evacuees to return home.
- 10 a.m. The Governor rescinds mandatory evacuation order in Georgetown and Horry counties.
- 11 a.m. Hurricane Warning is discontinued for South

Carolina. Hurricane Floyd's eye is east of Chincoteague, VA. Category 1 with maximum sustained winds of 75 mph, moving north-northeast at 29 mph.



Consequence Management

Consequence Management is the application of emergency services and functions required for managing problems resulting from both major and minor disasters. These services and functions may include transportation, communications, public works and engineering, fire fighting, information and planning, mass care, resource support, health, medical or special medical services, rural or urban search and rescue, hazardous materials, food, energy, law enforcement, volunteer services and animal emergency response.

Consequence Management Concepts for the Emergency Managers

A Communication Strategy is the planned utilization of human and technical networks supporting internal and external emergency and non-emergency messages through the entire event cycle. Included in the strategy are some consistent and some unique elements to consider.

rEstablishing External Organization Interface & Contacts with the critical service providers is an all-hazards must. All too often, names and positions change in industry and government without much notice. Verifying that you have the correct names and numbers is critical. Pre-coordination with these contacts to establish procedures and develop a common understanding or expectation of outcome is also important.

rCommunity Interaction has a unique place in the Year 2000 problem. Being a hazard of an unprecedented nature, it is difficult speaking to the community competently about risks or consequences. Engaging the public with a prudent caution and a sane personal preparedness message is the threshold of due diligence.

rPerception Management is another somewhat unique element to a Year 2000 communication strategy. Progressing through the phases of the date change event, the media, the church and local government will probably have the most influence in shaping the way the public will perceive the problem and the way in which you respond. It will be a tightrope walk for everyone to express concern with the

problem, but not alarm.

Much in the same way we watch the big storms approach Information Sharing & Lessons-learned will help us all prepare for impact. In this case weather radar and the storm center will be replaced by other information sources that will help us understand the impact that Y2K will have had on other countries as it approaches our time zone. Also, as fixes for local problems are discovered, sharing that information with other areas will reduce the overall costs and impact of the event.

Operational Posture refers to the ready state of resources including all critical services and emergency response capabilities under the direct control of the jurisdiction.

rCertain risk avoidance and transitional posturing should be pre-identified and implemented as necessary under operational conditions. Specific plans to preposition supplies and people need to be documented and exercised. This act alone should greatly reduce response time and improve the quality of services provided in the event of an actual emergency. Additional transition or rollover activities are also appropriate. This should include specific plans to shut down suspect equipment in advance, where possible, to avoid a Year 2000-related problem. Such actions allow you to "turn up" questionable equipment or systems at a time when adequate resources for safety and repair are available to be at the site.

rEmergency Operations and Incident Command Centers must be properly prepared with designated staffing and activation procedures with defined roles and responsibilities. This includes the appropriate personnel to: keep track of job performance status; execute "wellness checks" on critical systems; gather "intelligence" from other time zones and sources; monitor safety and security; track consequence management results; and re-plan, re-deploy as necessary. Identify an adequate facility that may be used as a relocation site in the event that your present EOC becomes uninhabitable or inoperable.

rYour Operations Tasking component should be an

Emergency Operations Center function that draws on experienced persons with various knowledge bases and skills. Specifically, this team must match up problems with resources to resolve or contain an incident. The nature of this work requires that the selected persons understand the differences between systemic and local problems, can identify common themes and emerging problems, and can facilitate redirection of plans and teams.

Identify the correct people and resources for each situational **Response Team** that you will need. This includes staffing, deployment, direction, funding and conduct of necessary remedial actions. Exercising the teams beforehand helps to ensure the availability of resources, including people, equipment, tools, keys, access codes, passwords and documentation. Functional drills with these teams ensure that process and procedure are understood and followed, and that the appropriate reports are made to the Incident Commander or Emergency Operations Center.

We can expect the Year 2000 problem to be an opportunity to exercise our communication skills as well as our response capabilities. Public and internal communication, rumor control, and coordination of public and private responses to common incidents will be an ever-present challenge. In some areas this may be addressed with a special and perhaps a publicly staffed **"Combined Coordination and Information Center"**. This function will allow information to flow across public - private boundaries, over jurisdictional lines and to the media. This function is an important part of Emergency Operations Center for coordination and information dissemination activities that must link to external parties at appropriate levels. Set this function up early and test it often.


Resources required for responding to Y2K-related incidents may not be entirely different from the resources used in normal operations. However, there may be some special considerations.

Funding and procurement

Personnel Policies should be reviewed with any personnel that may be required to assist with response to an event. We may well face the brunt of the Y2K problem during the first few days and weeks of the New Year. This is a time when many people are vacationing and enjoying holiday festivities. If employees are placed "on call", be sure that they understand exactly what "on call" means. Be sure everyone understands the requirements and responsibilities of their position. Additionally, this is a good time to stress family preparedness. Make your people consider their holiday options for day care should they be called to service. Stress the importance of having a family plan to deal with the extended working hours and other adversity that

this threat may pose.

In developing your consequence management strategy, you should consider the following possibilities and develop local response scenarios.

- Loss of Power
 - Loss of Environmental Controls
 - Disruption or inaccurate operation of Industrial Control or SCADA (Supervisory Control and Data Acquisition) Systems
 - Inaccurate Breach of Security Reports
 - Interruption of Internal Communications
 - Interruption of External Communications
 - Critical System Hang-up or Shutdown
 - Degradation of Information or Supply System Performance
 - Irrational Data Presented to Users
 - Files Corrupted or "Lost" 
 - Unreliable/Unpredictable Results
- By **Kenton Towner**
SCEPD Communications Manager

Links To More Y2K Information

American Red Cross Y2K Site

www.red-cross.org/disaster/safety/y2k.html

Federal Aviation Administration Y2K Site

www.faa2k.com

FEMA Y2K Site

www.fema.gov/y2k

Office of Management and Budget Y2K Progress Report

www.cio.gov/598rpt.html

Securities Exchange Commission Y2K Page

www.sec.gov/news/home2000.htm

South Carolina Government Y2K Site

www.state.sc.us/y2000

South Carolina Public Service Commission Y2K Site

www.psc.state.sc.us/y2k/default.htm

United States Government Web Site

www.y2k.gov



TERRORISM

SCEPD HOLDS FIRST WMD CONFERENCE

Incidents such as the Murrah Federal Building bombing in Oklahoma City, the World Trade Tower bombing in New York, and the Olympic Park bombing in Atlanta have created an increasing awareness about the potential threat from weapons of mass destruction. In response, the S.C. Emergency Preparedness Division is working to insure the State is better prepared to deal with the consequences of a WMD event.

S.C. WEAPONS OF MASS DESTRUCTION CONFERENCE

In August, SCEPD sponsored the first S.C. Weapons of Mass Destruction Conference Aug. 25-27 at Charleston Place in Charleston, S.C. More than 340 participants from emergency management, law enforcement, first response, and health and medical professions attended. They heard presentations about how to plan for, respond to and recover from acts of terrorism involving weapons of mass destruction. The featured speakers are among the foremost in their fields.

On Aug. 25, the conference kicked off with an opening luncheon address, "Defense of the Homeland and Emerging Threats of Terrorism," by Lisa Gordon-Hagerty, of the National Security Council, and followed with general session addresses by Assistant Attorney General Laurie Robinson, as well as representatives from the Federal Emergency Management Agency, the National Domestic Preparedness Office, the U.S. Public Health Service, and the Federal Bureau of Investigation.

On the second day of the conference, participants split into four tracks including Preparedness, First Responder, Health and Medical and Specialized Law Enforcement. The Preparedness Track featured presentations by the FBI, FEMA, SCEPD, the U.S. Public Health Service, the State Law Enforcement Division and the Atlanta Fire Department that focused on work before an incident, the integrated federal, state and local response to a WMD incident, and overall management and challenges of response and recovery.

The First Responder Track participants were given an overview of the Chemical Biological Incident Response Force, the fire department's role in WMD/terrorism opera-

tions, protective actions for first responders, as well as an overview of the Army National Guard WMD Response. It featured speakers from the U.S. Marine Corps, the New York City Fire Department, the U.S. Army and the Georgia Army National Guard.

The Health and Medical Track looked at the integrated medical response needed during WMD incidents, hospital decontamination and the treatment of chemical terrorism, new technology for health care WMD response, as well as an overview of the Hospital Emergency Incident Command System. It featured speakers from the U.S. Air Force, George Washington University, the Reciprocal Group and the U.S. Army Medical Research and Materiel Command.

The Specialized Law Enforcement Track featured speakers from the FBI who discussed what we have learned from the bombings of the World Trade Center, the Murrah Federal Building and Centennial Park. They also spoke about the threat and initial response strategies used during a WMD incident, how to deal with WMD crime scenes, and terrorism and the emotional crisis reaction of law enforcement.

The conference concluded on Aug. 27 with specialized workshops including a virtual reality WMD exercise, a unified incident command workshop, and a hazardous devices and materials workshop.

OTHER ACTIVITIES

In addition to hosting the S.C. Weapons of Mass Destruction Conference, SCEPD has developed a comprehensive, coordinated state program to respond to the consequences of a terrorist incident. A terrorism incident appendix has been added to the state's Emergency Operations Plan, and SCEPD has been working with Research Planning, Inc., a Falls Church, Va.-based firm specializing in emergency management, special operations and programs, and risk assessment and preparedness, on a four-part project aimed at better defining the threat for South Carolina and evaluating the state's ability to respond after an incident.★

By Christie Johnson
SCEPD Public Information
Coordinator

New Features For IRIS Users

The developers of the Internet-Routed Information System (IRIS), at the University of South Carolina's Advanced Solutions Group, have prepared an upgrade to the software program. The upgraded version of IRIS will be posted on the SCEPD server by the end of October. Users of the system will note new features, such as:

rMapping with zoom capability and geo coding by address. Mapping of incidents by location, type or date is also available by using links For All Database-Search Incidents and then choosing map incident (with small icon).

rImprovements to the notify feature, which highlights urgent requests and messages and will state how long ago they were created or updated.

rImproved views of individual incidents, messages and requests, which has the menu links on the left side instead of on top of the screen, thereby decreasing the need to scroll up and down on the browser's window view.

rA new message - photo allows the user to upload a photo (or other file) from their PC or their network to the IRIS database. All users can then view that photo or file by clicking on the link to that file found under the photo

list for that incident.

rA conference room, also known as a chat room, for small-group, on-line discussions (not messages) available from the IRIS main menu.

These enhancements are designed to increase the utility of IRIS while retaining the program's basic features. The upgraded version is so akin to the current version that most current users will enjoy the new features without additional training.

IRIS developers are including the latest Internet technology offered through current versions of web browsers. Therefore, it is important that users take the time to upgrade their web browsers. IRIS will work best with Microsoft Internet Explorer version 4.x or 5.x. It also works with Netscape version 4.x. To help users upgrade their browsers free-of-charge, the following links are provided: www.microsoft.com/windows/ie/download or www.netscape.com/computing/download.

When users begin using the upgrades, they should experiment with the new features and use the training or exercise links. Users with questions may call Tim Murphy at 803-734-8020. ★

By Tim Murphy
SCEPD Response Manager

Emergency Preparedness Education News

Looking for a college certificate or degree program that reflects your interest in emergency management? Perhaps one of two programs in South Carolina will meet your needs.

Central Carolina Technical College in Sumter is offering two classes in its new Emergency Administration and Management certificate program, which began in August. Both "Fundamentals of Emergency Management" and "Introduction to Hazards" are being offered on two week-day evenings on the college's Sumter campus.

The EAM certificate includes a total of nine emergency-management-related courses with topics focusing on leadership, technology, policy, mitigation, planning and recovery operations. In the future this program may include course offerings through distance education, which would provide learning opportunities for students unable to attend classes in Sumter. For more information contact Carter Jones at (803) 778-6643 or (800) 221-8711, ext. 243.

Clemson University is also providing emergency management courses. Dr. David Swindell, director of the Masters in Public Administration Program, is developing an Emergency Management concentration that has a track leading to the university's MPA degree.

Earlier this summer, Clemson offered "Emergency Response to Terrorism" and "Emergency Services Administration" at the University Center in Greenville. These are not regularly scheduled courses, but currently are conducted when sufficient demand exists. The ERT course has also been modified as a short, non-credit "seminar" for local HAZMAT teams. As the program develops, expect to see graduate-level emergency management courses in the Clemson catalogue. The university is also examining future delivery of courses using distance education. For more information contact Dr. David Swindell at (864) 656-3149. ★

By Kenton Towner
SCEPD Communications Manager



EPD News

Director's Office

- SCEPD has created a new section within the division, the critical incident management group. The training and planning sections have been joined to create the preparedness section.
- SCEPD held the **S.C. Weapons of Mass Destruction Conference** in Charleston Aug. 25 - 27 at Charleston Place. The first of its kind in South Carolina, SCEPD hosted more than 350 health care professionals, specialized fire and law enforcement personnel, and emergency management decision makers.

Mitigation

- Charleston County** held its Project Impact signing ceremony aboard the USS Yorktown on Sept. 20 in conjunction with the tenth anniversary of Hurricane Hugo.
- Earthquake Awareness Week** was observed Sept. 19 - 25. The week, which included a statewide earthquake drill in schools, served as an opportunity to increase earthquake awareness and preparedness for citizens of the state.

Training

- Exercise "Time Effect"**, which included functional and tabletop exercises, was held Sept. 9 to test the Y2K Operations Supplement to the State Emergency Operations Plan. Designed to demonstrate and evaluate state coordination and response and recovery mechanisms, it gave state and local officials an opportunity to exercise plans, policies, procedures, systems and facilities for responding to simulated Y2K rollover events and severe winter weather affecting the State of South Carolina.
- FEMA's Emergency Education Network** broadcasts a variety of shows relating to emergency management. For a schedule of broadcasts or for more information, contact EENET, 16825 South Seton Avenue, Emmitsburg, MD 21727, toll-free at 1-800-500-5164, by e-mail at eenet@fema.gov. Or by visiting FEMA's website at www.fema.gov/emi/eenet.htm.

- The V.C. Summer Nuclear Station Biennial Radiological Emergency Preparedness Exercise** was evaluated by FEMA on July 21, 1999. Congratulations to Mike Kirkland, Director, Fairfield County Emergency Management Department; Neil Ellis, Coordinator, Lexington County Emergency Preparedness Division; Tom Barber, Director, Newberry County Disaster Preparedness Agency; Greg Sox, Manager, Richland County Plans and Mitigation Division; and the participating members of the State Emergency Response Team for a job well done.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during this exercise.

- The next radiological emergency preparedness exercise is scheduled for December 7, 1999 with the **H. B. Robinson Steam Electric Plant**. Chesterfield County, Darlington County, Florence County and Lee County will participate in the exercise with the State Emergency Preparedness Division.

- There are a large number of applicants for the **Weapons of Mass Destruction** courses being taught at Fort McClellan, Alabama and the Nevada Test Site.

- The 1999 **Federal Emergency Management Agency Project Impact: Building Disaster Resistant Communities Summit** will be held December 12 - 16 at the Marriott Wardman Park Hotel in Washington, D.C. The second annual conference will host more than 2000 representatives from Project Impact communities from across the nation, as well as educators, administrators, managers, non-profit/voluntary organizations, business leaders and elected and appointed officials from virtually every level of government. For more information, visit FEMA's website at www.fema.gov.

Transitions

• **Mark Cannady** joined the SCEPD staff as a Radiological Emergency Preparedness Planner in September. A graduate of the United States Military Academy at Westpoint and of Ball State, he served in the U.S. Army.



• **Buddy Clark** was named the facilities coordinator. He was previously in the response and recovery section.

• **Jimmy Gillian** was named the Logistics Specialist for the newly created Critical Incident Management Group. He also serves as an area coordinator.

• **Charles Goble** was named the Warning Point Supervisor after working as an operator for three years.

• **Todd Lewis** was named the State Hazard Mitigation Officer. He was previously the Mitigation Coordinator.

• **Doug Watson** was named the Response Coordinator for the Response and Recovery Section. He is also the Plant Coordinator for the Oconee Nuclear Site. He was previously a training officer.

• **Jeff Willis** was named as telecommunications specialist after working part-time in the warning point.

County News

• There have been changes in the SCEPD area coordinator program. Area Coordinators are as follows:

Area 1 - Doug Watson & Jon Boettcher

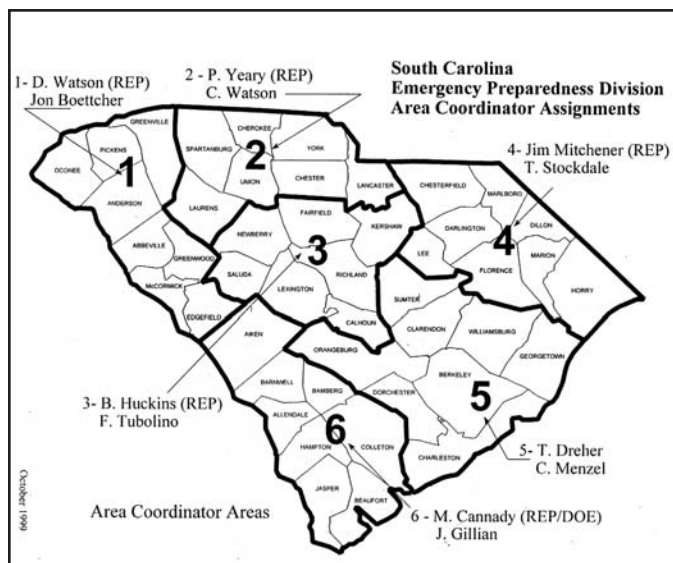
Area 2 - Pat Yeary & Chris Watson

Area 3 - Bill Huckins & Francis Tubolino

Area 4 - Jim Mitchener & Tom Stockdale

Area 5 - Tammie Dreher & Charmel Menzel

Area 6 - Mark Cannady & Jimmy Gillian



Incident Report

May 6, Horry County: Storm damage was reported in Aynor.

May 12, Horry County: The Waccamaw River flooded in the Lee's Landing area.

May 13, Beaufort County: In Port Royal, anhydrous ammonia exploded.

May 14, Allendale County: In Fairfax, two students reported seeing bombs.

May 14, Florence County: There was a bomb threat at Wilson High School in Florence.

May 17, Richland County: In Columbia, there was a fire at the Cardinal Chemical Plant.

May 19, Fairfield County: There was a bomb threat made against 11 schools in the county.

May 21, York County: There was an accident involving a truck and bus at Carowinds.

May 21, Pickens County: A tractor trailer carrying a drum leaked a corrosive cleaning compound.

May 24, Union County: In Jonesville, a bomb threat was made at Jonesville Elementary School.

May 25, Horry County: County and city officials made contingency plans for Biker Week activities.

May 26, Oconee County: In Seneca, a truck developed a hole and leaked 150 gallons of diesel.

May 27, Spartanburg County: In Moore, residents experienced possible earthquake tremors.

May 28, Lancaster County: A tanker truck exploded after hitting an overpass.

May 29, Oconee County: A girl drowned on the Chattooga River and her body was pinned making recovery difficult.

June 5, Sumter County: In Lynchburg, a Cessna plane crashed.

June 7, Charleston County: Yellow noxious fumes from a garbage truck were found to be muriatic acid.

June 7, Williamsburg County: In Kingstree, severe thunderstorms caused damage.

June 7, Charleston County: A water main ruptured in the James Island/West Ashley area.

June 9, Chester County: A CSX train derailed damaging four cars.

June 10, Edgefield County: A water main broke in Johnston.

June 11, Charleston County: In Mount Pleasant, a bomb threat was made to the Rew's Run Inn.

June 15, Horry County: In Myrtle Beach, a tornado touchdown was reported.