



SCEMD

SCEMD and the S.C. Hurricane Program

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South Carolina Emergency Management Division

15 June 2012



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The Threat

Hurricanes

S. C's primary threat.....



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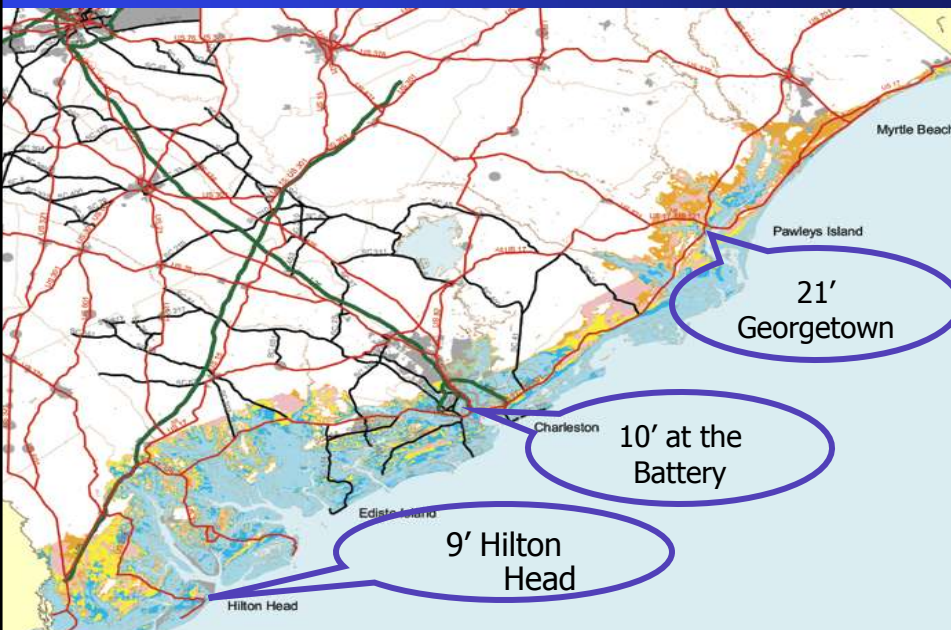
Hurricane Threat

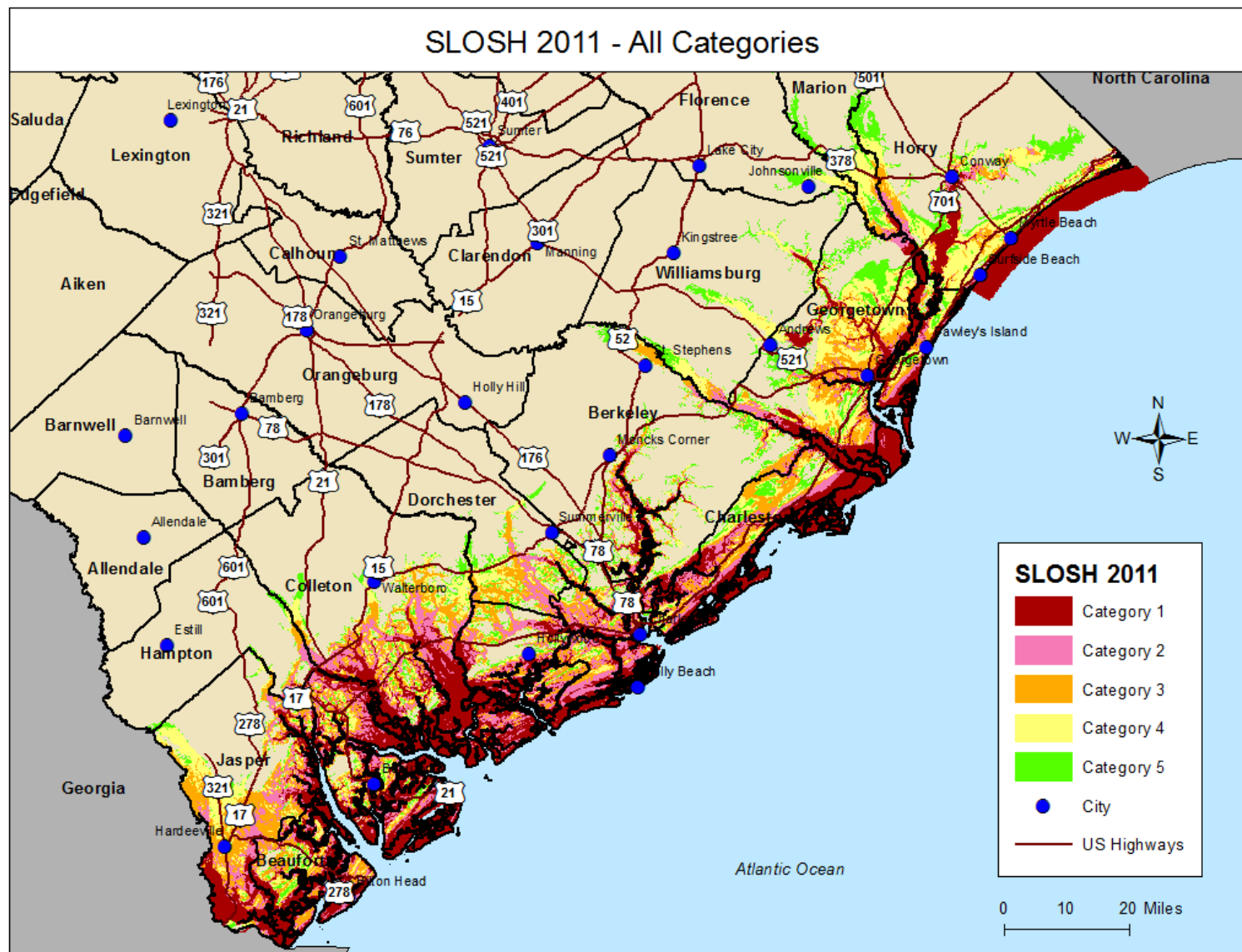
- Frequency – 23 landfalls since 1892
- Cost – Hugo 5th most costly in history – \$8 Billion
Damage
Planning and response cost
Life threatening & life taking
- Destructive
Surge/storm tide
Wind
Rain / Inland flooding
Tornadoes



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Hurricane Risk / Threat







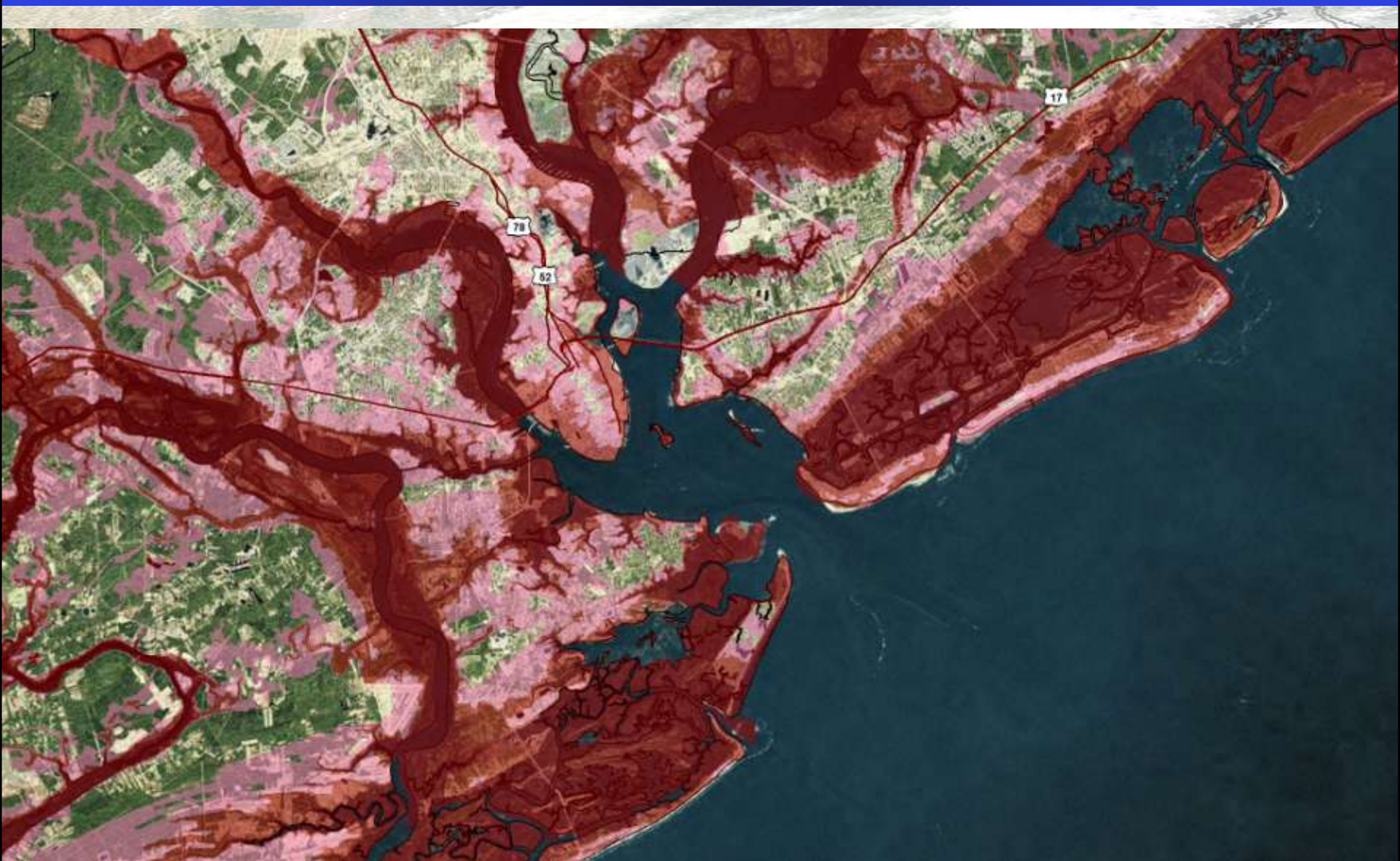
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- Category 1 & 2 Surge shown here (red and pink) is of most concern.
- Nearly one continuous zone along entire coast.



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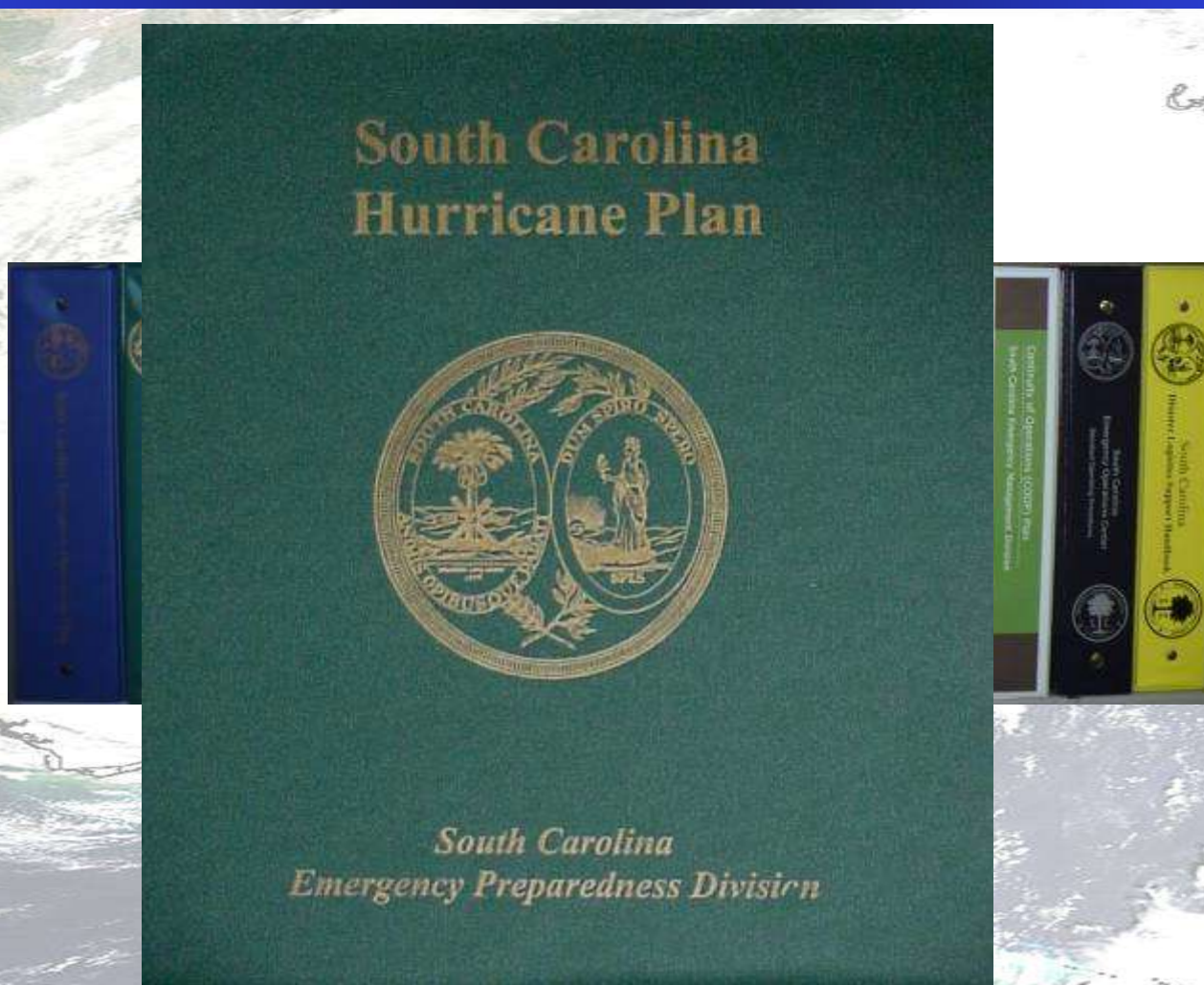
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- We will have an issue with people not leaving in a Cat 1 -2
- Shadow evacuations will increase traffic in every instance, but especially during large events
- Tourists will pose a problem
 - Lack of knowledge
 - Vehicles
 - Lack of intel about evac routes
- Most only have \$100 or less to spend per day on evacuations
- The number of extra vehicular traffic needs to be accounted for (15% - MH, 25% - Trailer, 30% - Boat, 15%- Camper)
- A majority of people plan to only be evacuating for 8 hours (max) most think it will take 4 hours or less to move out of the hazard zone
- Many people underestimate the destructive force of hurricane winds
- Many have not planned for hurricane season or have done very few things



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The Plan



Augments the EOP during hurricane season
(June 1 – November 30)



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The Plan

State Emergency Response Team Mission

To prevent or minimize injury to people and damage to property or to the environment resulting from a tropical cyclone by planning and coordinating the application of State and local resources to warning, evacuating, and sheltering South Carolina citizens and visitors in harm's way. Establish the conditions to conduct a successful response to any event and to coordinate recovery operations.



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SC Specific Features

- Conglomerates
- Response Timeline
- Operating Conditions (OPCONS)
- Evacuation Timing
- Highway Traffic Operation
- Shelter Management



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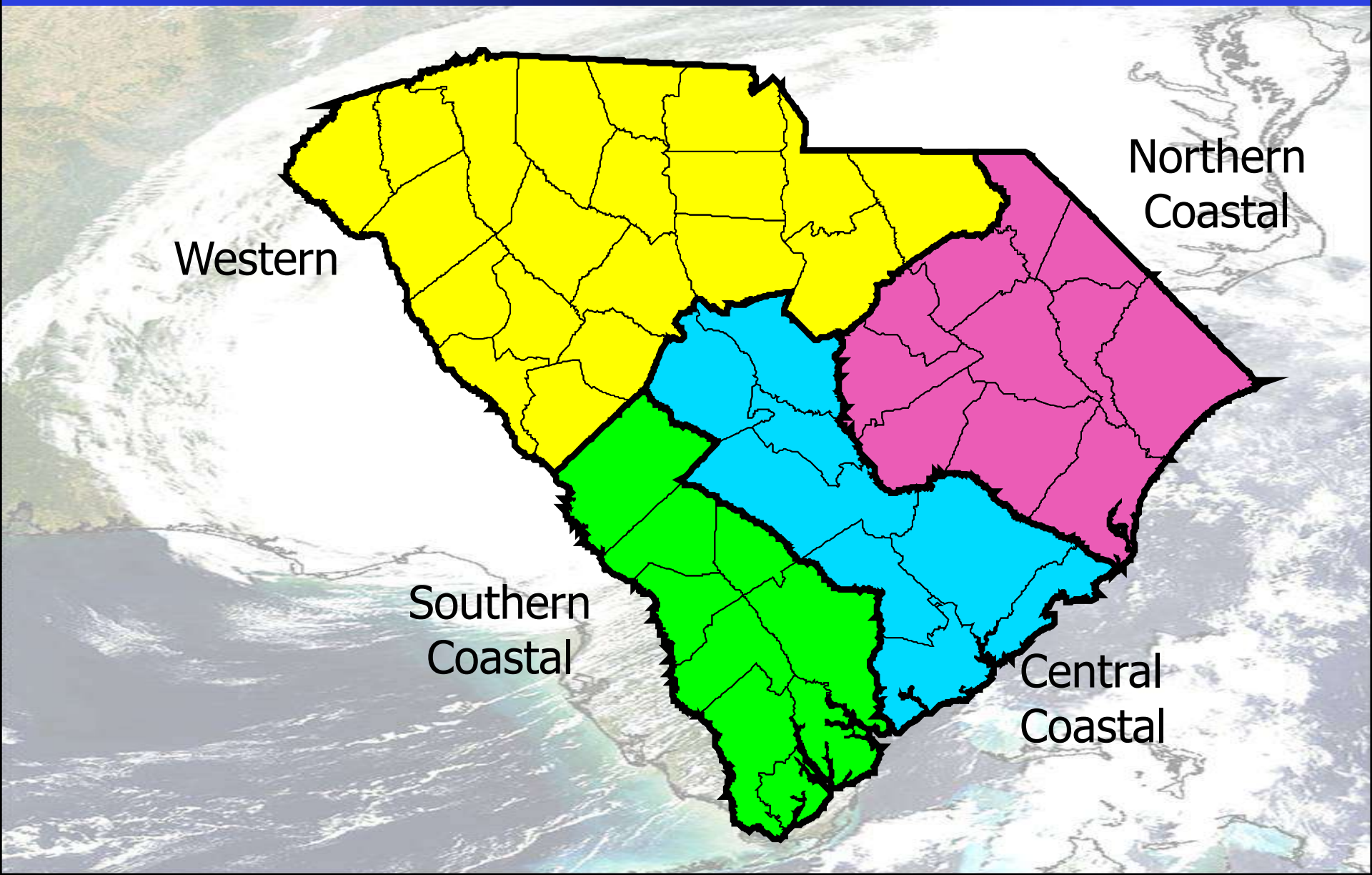
Conglomerates

Western

Northern
Coastal

Southern
Coastal

Central
Coastal





- Operating Conditions (OPCONS)
 - Alert Levels: 5 – Lowest to 1 – Highest based on the timing of a Evacuation order
 - OPCON 5 Day-to-day operations
 - OPCON 4 Possible threat to SC (72 Hours, 3 days)
 - OPCON 3 Significant threat to SC (36 hours)
 - OPCON 2 Evacuation imminent (24 hours)
 - OPCON 1 Evacuation begins (-6 hours)



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OPCONs

- OPCON 5
 - Normal, daily operations
 - Conduct training and briefings
 - ESFs review plans, SOPs and update alert rosters
 - Storms are tracked and monitored at this level.



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OPCONs

- OPCON 4 - 72 hours from Evacuation
 - SCEMD - Notify, brief and preparatory actions
 - Activation of the SEOC – ESFs 1, 6, 8, 13, 16 + EMD staff
 - Advisories, plot forecast data
 - Coastal county and Executive Group conference calls
 - **No movement of people or assets**
 - Begin to prepare the public
- OPCON 3 – 36 hours from Evacuation
 - EOCs 24 hour ops – ESFs 1,2,4,6,7,8,9,13,15,16,17,18,19
 - Media will start to be more plentiful in the building
 - Conference calls proliferate:
 - County calls and Executive Group – 3-4 each per day
 - FEMA / Hurricane Liaison Team (NHC) – 1-2 per day
 - Evacuation Liaison Team – 1 per day



- OPCON 3 Key events:
 - Governor's Declaration of Emergency
 - Activates the EOP, activates National Guard, may selectively close schools
 - Proactive preparation:
 - Distribute communications gear
 - Shelter preparations and staff notifications / movement
 - Special Medical Needs Shelters (SMNS) preparation
 - Deploy law enforcement to staging areas for evacuation/security
 - Deploy troopers and National Guard to staging areas
 - Preparing the public
 - Evacuation discussions
 - Implement Mass Evacuation Plan if requested/approved



OPCON 2 – 24-25 hours from Evacuation

- Full SEOC activation – Remaining ESFs activate
- Continue staging people (ESFs 2,4,6,13,15,16) & assets
 - Pre-position equipment for lane reversal/ counter flow
- Evacuation decision
- Prepare Public Information Phone System (PIPS); make shelters ready

OPCON 1 – Evacuation

- Evacuation or Mandatory Evacuation as required
- Notifications & announcements (Media, counties, states, FEMA, SEOC, EAS)
- State Assessment Team (SAT) on stand-by
- Activate PIPS
- Stage for debris clearance
- Execute shelter plans
- Prepare to execute Donated Goods plan (Coordinate Logistics Staging Area)



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Response Timeline

Annex 1

I. Evacuation Decision and Response Time Line

Evacuation Decision and Response Time Line	
Time Prior to Public Notification of an Evacuation	Operational Key Event, Decision Point, or Timing Window (timings are situation dependent)
OPCON 5 Day to day Operations	
Day to day Operations	<ul style="list-style-type: none">SCEMD: Monitor all Atlantic tropical depressions and named storms from June 1st to November 30th for potential threat to South Carolina.SCEMD: Track National Hurricane Center's (NHC's) tropical cyclone forecasts utilizing hurricane tracking tools. Update each forecast (every six hours) thereafter until threat to South Carolina is over.South Carolina National Guard (SCNG) conducts critical equipment readiness and locates replacements for any non-operable equipment. Maintain PERSTAT (personnel status) based on deployments.SCEMD: When a storm is located in a position approximately 96 hours from potential evacuation date and time, notify SC Department of Health and Environmental Control (SCDHEC) to alert healthcare facilities/nursing homes of potential evacuation timing.SCEMD: Notify key State partners of potential storm activity.
120 hours – 5 days DHEC unique tasks associated with Federal Medical Support Requirements	<ul style="list-style-type: none">ESF-8 Healthcare facility contract transportation providers planning (multiple trips)ESF-8 Mobilization of state Emergency Medical Services transport (multiple trips)ESF-8 FEMA Ambulance contract for 500 ambulances. (Requires a Presidential Declaration)ESF-8 Inter-state EMAC assistance planningESF-8 State school bus transport coordination
96 hours – 4 days ESF-8 Specific Tasks	<ul style="list-style-type: none">ESF-6 ARC coordinates with ARC National on shelter personnel request. ESF-8: Initiate conference call for licensed health care facilities and their associations. Continue calls as necessary until evacuation.ESF-8: Recommend census reduction measures for hospitals statewide.ESF-8 Healthcare facility contract transportation providers planning (multiple trips) (As required)ESF-8 Mobilization of state Emergency Medical Services transport (multiple trips) (As required)ESF-8 FEMA Ambulance contract for 500 ambulances (As required)ESF-8 Inter-state EMAC assistance planning (As required)ESF-8 State school bus transport coordination (As required)

SC Hurricane Plan Evacuation and Response Timeline

June 2012

Annex 1

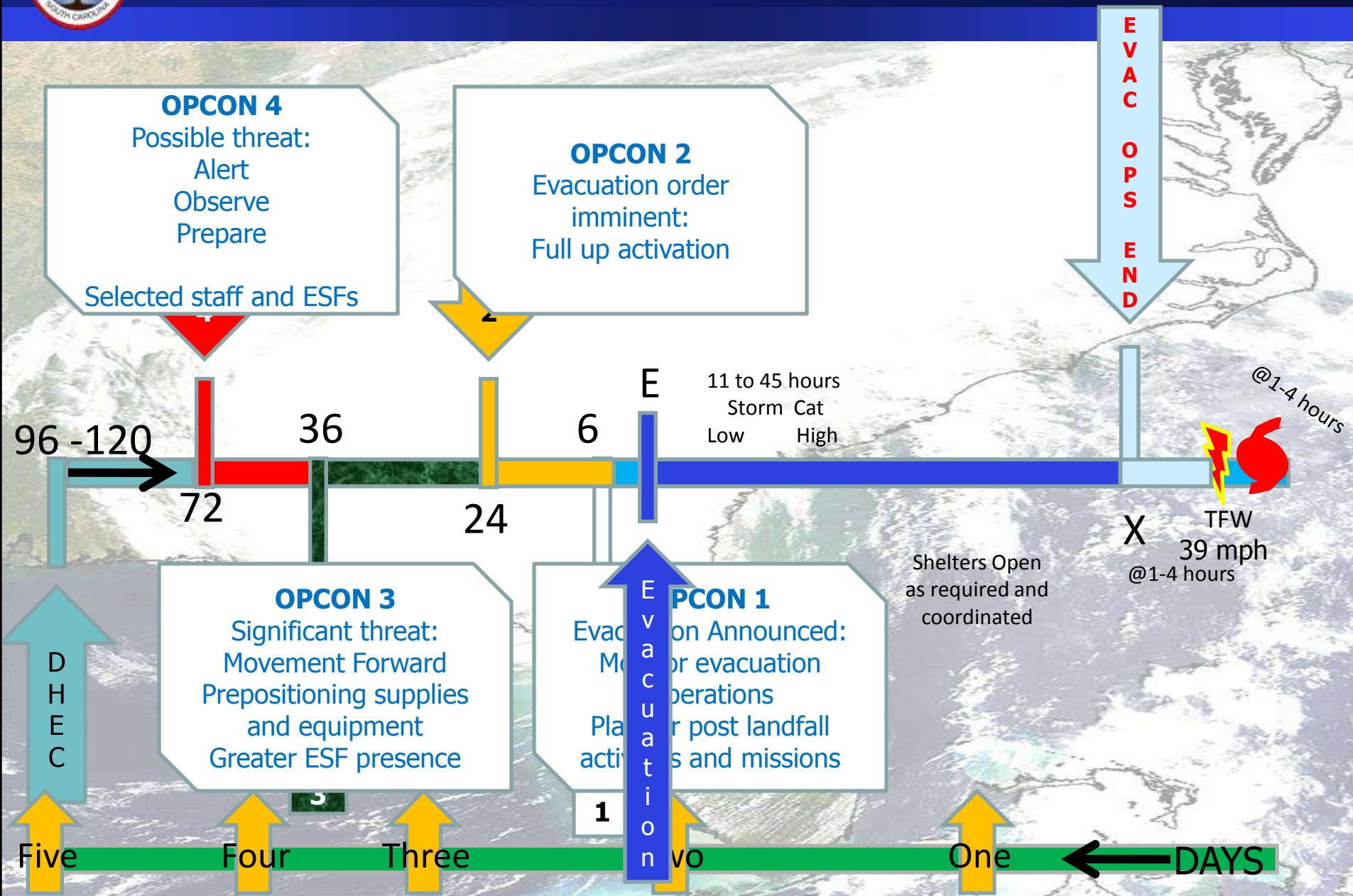
Evacuation Decision and Response Time Line (continued)	
Time Prior to Public Notification of an Evacuation	Operational Key Event, Decision Point, or Timing Window (timings are situation dependent)
OPCON 4 - 72 Hours Prior to Evacuation	
- 72 Hours	<ul style="list-style-type: none">SCEMD: Activate the Emergency Operations Plans (EOP) as requiredSCEMD: Assess storm forecast and potential state regional impact using hurricane-tracking toolsSCEMD: Advise key personnel and ESFs to begin preparation for possible mass evacuation; notify ESFs 1, 6, 8, 13, 18, 19SCEMD: Brief Governor and staff after receipt of advisories, as requiredSCEMD: Conduct coastal county conference calls to discuss advisories, Governor's guidance and future actionsSCEMD: Initiate OPCON 4 activities as requiredSCEMD: Increase SEOC activation staffing as appropriateSCEMD: Enhance public awareness campaignSCEMD: Notify ESFs and State agencies to initiate ESF SOP activities *SCDOT notifies districts and reviews schedules and agreementsIssue National Guard warning order for State activation ** If insufficient time to issue Warning Order, may need to source units from locations closer to evacuation area and phase forces in as they are activated.SCDPS issues warning order to SC Highway Patrol (SCHP) ** If insufficient time to issue Warning Order, SCDPS may have to warn and deploy forces as trooper shift work dictates, and phase augmenting troopers to prioritized Traffic Control Points (TCPs). May request State Law Enforcement Division (SLED) or SC Department of Natural Resources (SCDNR) assist with TCRs.SCEMD: Consider requesting a Governors State of Emergency to support disaster operations.SCEMD: Consider requesting a Presidential Emergency Declaration to support pre-disaster preparation.Consider recommending National Guard request Title 32 funding supportESF 13 issues notification to all officers to be on alert, ready to respondSCEMD: Assess storm forecast and potential state regional impact using hurricane-tracking toolsSCEMD: Brief Governor and staff after receipt of advisories, as requiredSCEMD: Continue coastal county conference calls, as scheduled, to discuss advisories, Governor's guidance and future actionsSCEMD Request NG LNOs forward deployed to selected County EOCsESF-6 ARC verify with ARC National on shelter personnel requestESF-6 / ESF-8 Submit pre-scripted shelter staff requestsESF-8 Monitor Healthcare facility contract transportation providers planning (multiple trips) (As required)ESF-8 Monitor Mobilization of state Emergency Medical Services transport (multiple trips) (As required)ESF-8 Monitor FEMA Ambulance contract for 500 ambulances as requiredESF-8 Monitor Inter-state EMAC assistance planning (As required)ESF-8 Monitor State school bus transport coordination (As required)

SC Hurricane Plan Evacuation and Response Timeline

June 2012



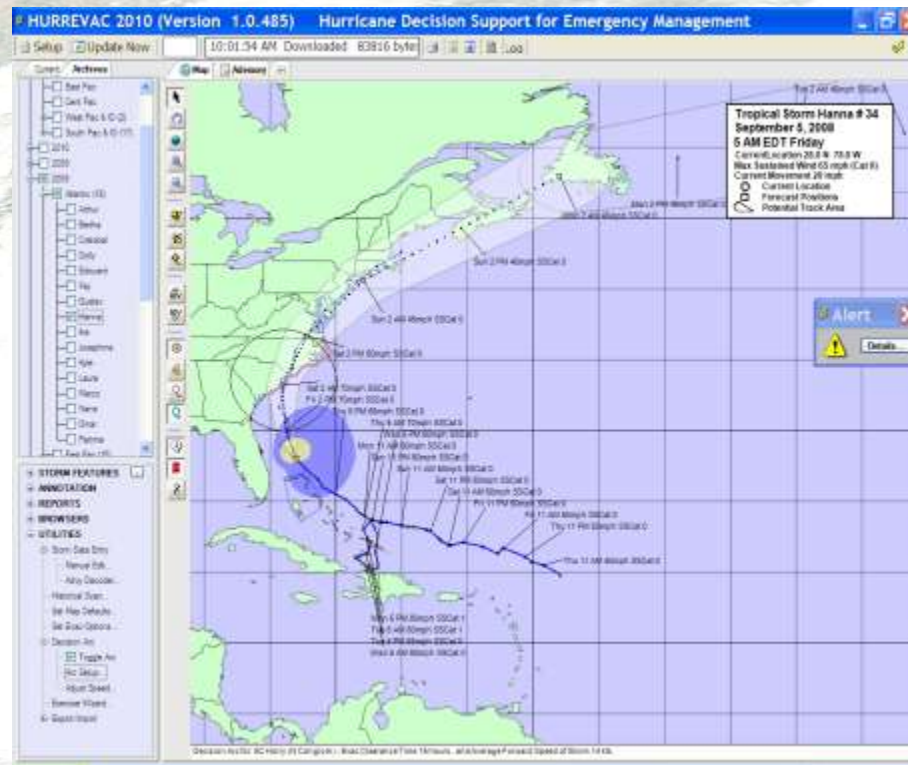
SCEMD Evacuation Operations Timeline





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Decision Tool-HURREVAC



HURREVAC - FEMA / US Army Corps of Engineers project

- Assists with timing of response actions
- Date/time of **Evacuation as determined by HES**



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Clearance Times

Clearance Times (in hours) for High Tourist Occupancy

<u>AREA</u>	Category 1-2 <u>Normal / Reverse</u>	Category 3 <u>Normal / Reverse</u>	Category 3 (4)-5 <u>Normal / Reverse</u>
Beaufort	24.50 / 17	N/A	27.25 / 19
Charleston	20.00 / 16.25	28.25 / 18	31.50 / 20.25
Myrtle Beach/ Georgetown	26 / 15	33 / 19	41 / 27

* No appreciable Clearance Time reduction.



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Evacuation Management

- Evacuations
 - Not a strong storm
 - People requested to leave barrier islands & immediate coastal areas
 - Manufactured housing
 - **Mandatory**
 - Strong storm - danger high - response slow
 - People ordered to leave barrier islands, immediate coastal and inland areas
 - Manufactured housing
 - Nursing homes and hospitals
 - Can do one or both
 - Can evacuate part or entire coast



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Evacuation Management

- Traffic Control Points manned by Highway Patrol, county, local law enforcement and National Guard
- Intelligent Transportation Systems (ITS)
 - Cameras, radar, counters, message boards, etc.
- Coordinated pre-season
 - Local, County and State coordination and agreement
 - Storm Intensity, tourist population, safety of support personnel, traffic volume and inflow of traffic from Georgia and Florida
 - Planned during daylight hours prior to rush hours
- Public Awareness
 - Strong Public Affairs participation - get the word out
- Single Authority
 - The Governor holds the authority for evacuations



SCEMD Intelligent Traffic System (ITS)

- 350 Closed Circuit TV Cameras
- 360 side-fire radars for speed detection
- 8 Incident Response Programs statewide
- 146 Automatic traffic recorders



- 96 Portable Changeable Message Signs
- 57 Permanent Changeable Message Signs
- 24 Highway Advisory Radios
- Internet access to traffic cameras



- Shelter types
 - Congregate or General Population shelters
 - 250 shelters for @160,000 citizens
 - Special Medical Needs Shelters
 - At least one in every county
 - Managed by SCDHEC & SCDSS
 - Shelter for people with medical conditions beyond the scope of regular shelter capability
- Congregate Shelter management/program team
 - SC Department of Social Services – Lead
 - American Red Cross
 - SC Department of Health and Environmental Control – nurses as available
 - Volunteer Partners and state agencies



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Reversals

- Lane Reversal
 - I-26 reverse from Charleston to Columbia
 - US 278, 3 lane reversal in Beaufort County
 - US 21, 3 lane reversal in Beaufort County
 - US 501, 4 lane reversal in Horry County



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Reentry / Security

- Reentry is one of the most difficult operations to conduct
 - Control of areas that still present hazards
 - Orderly return by evacuated population
 - Mass reentry by population, overwhelms damaged local infrastructure
 - Coastal counties have developed reentry plans
- Security Missions post landfall
 - Conducted by evacuation management resources
 - Coordinated (pre-scripted or real time)



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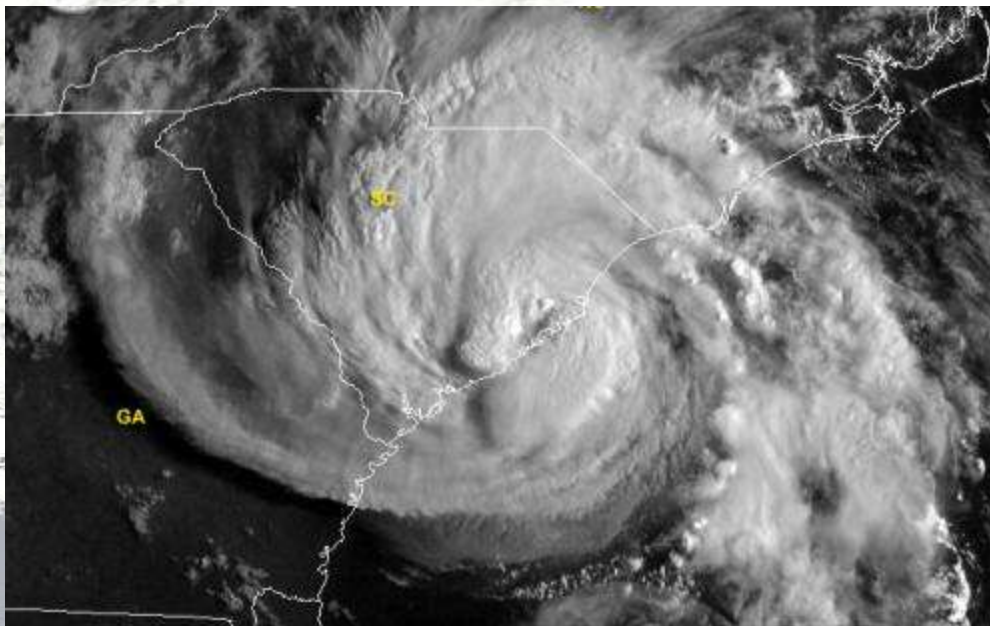
This season



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2012 Season Forecast

As of March 2012, the general forecast for this season.....



Dr. William Gray
U of Colorado
8-11 / 4-6/ 1-2

Or

NOAA
May 2012

9-15 / 4-8/ 1-3



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New Protocols

- No Voluntary Evacuation
- No Voluntary & Mandatory shelters
- Default to reversal
 - Decide not to



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Questions?