2008 Hurricane Response Activity

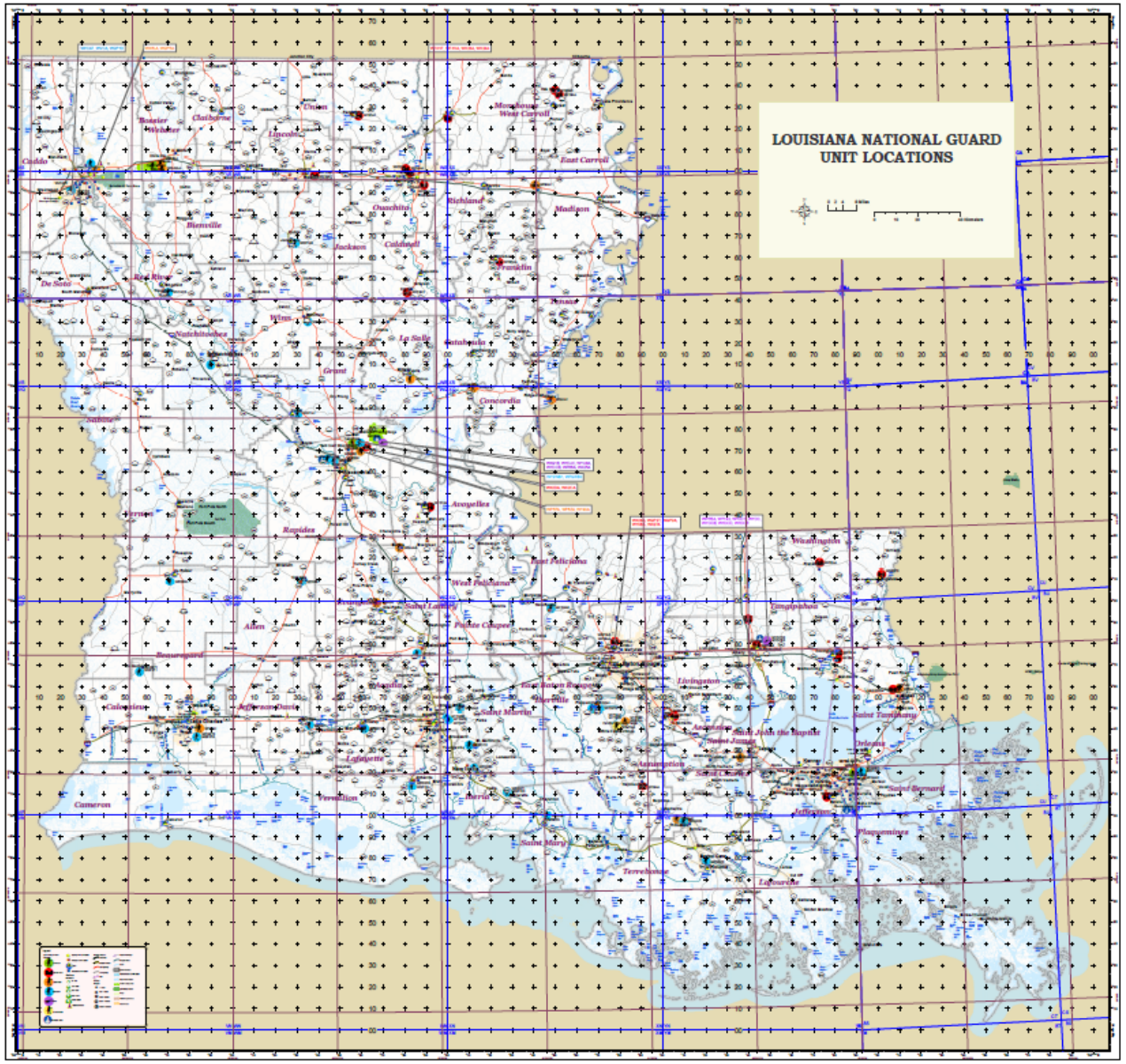
Louisiana National Guard

Mike Liotta
GIS Manager

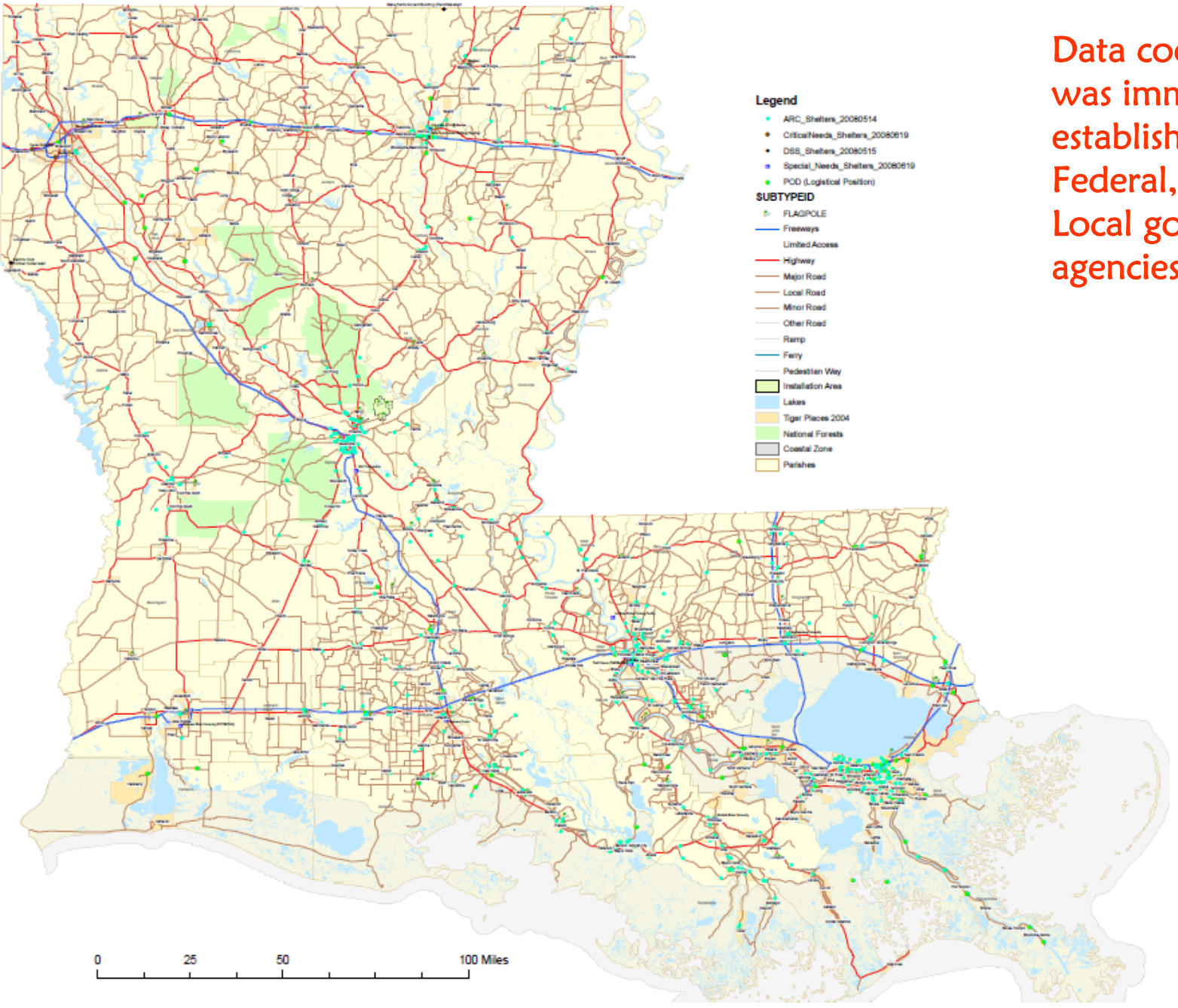
LANG Structure

- GIS management is managed by the Construction Facilities Maintenance Office/ Environmental Program.
- During times of emergency GIS staff and resources are dedicated to Joint Task Force/ Joint Operation Center
- Resources are then reimbursed based on usage.

- Statewide Unit maps immediately became referenced in Operational orders, and distributed to LANG units and units from other states



LA Shelters



Data coordination was immediately established between Federal, State and Local government agencies.

Governmental Agencies provided resources effectively using PDFs

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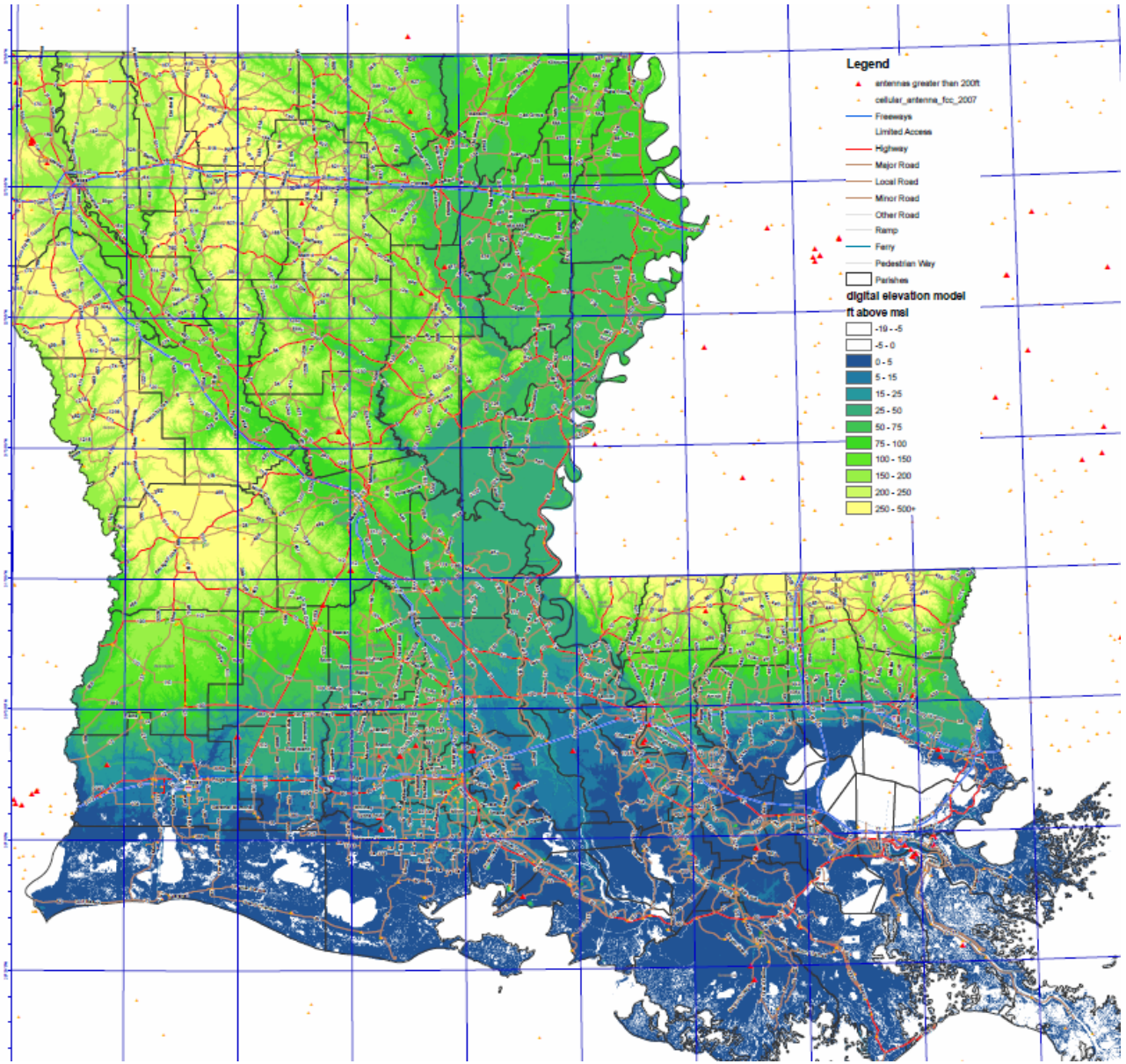
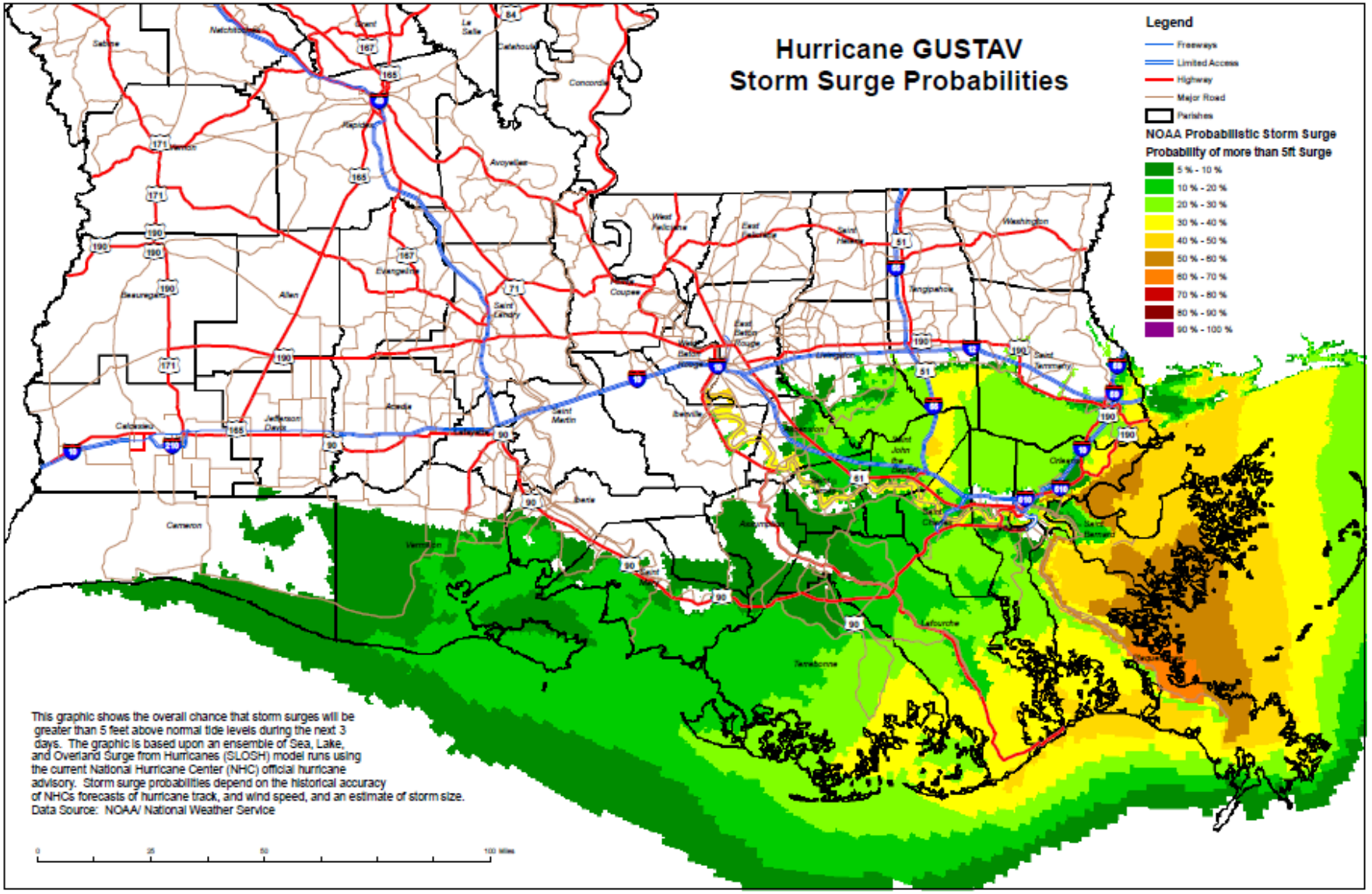
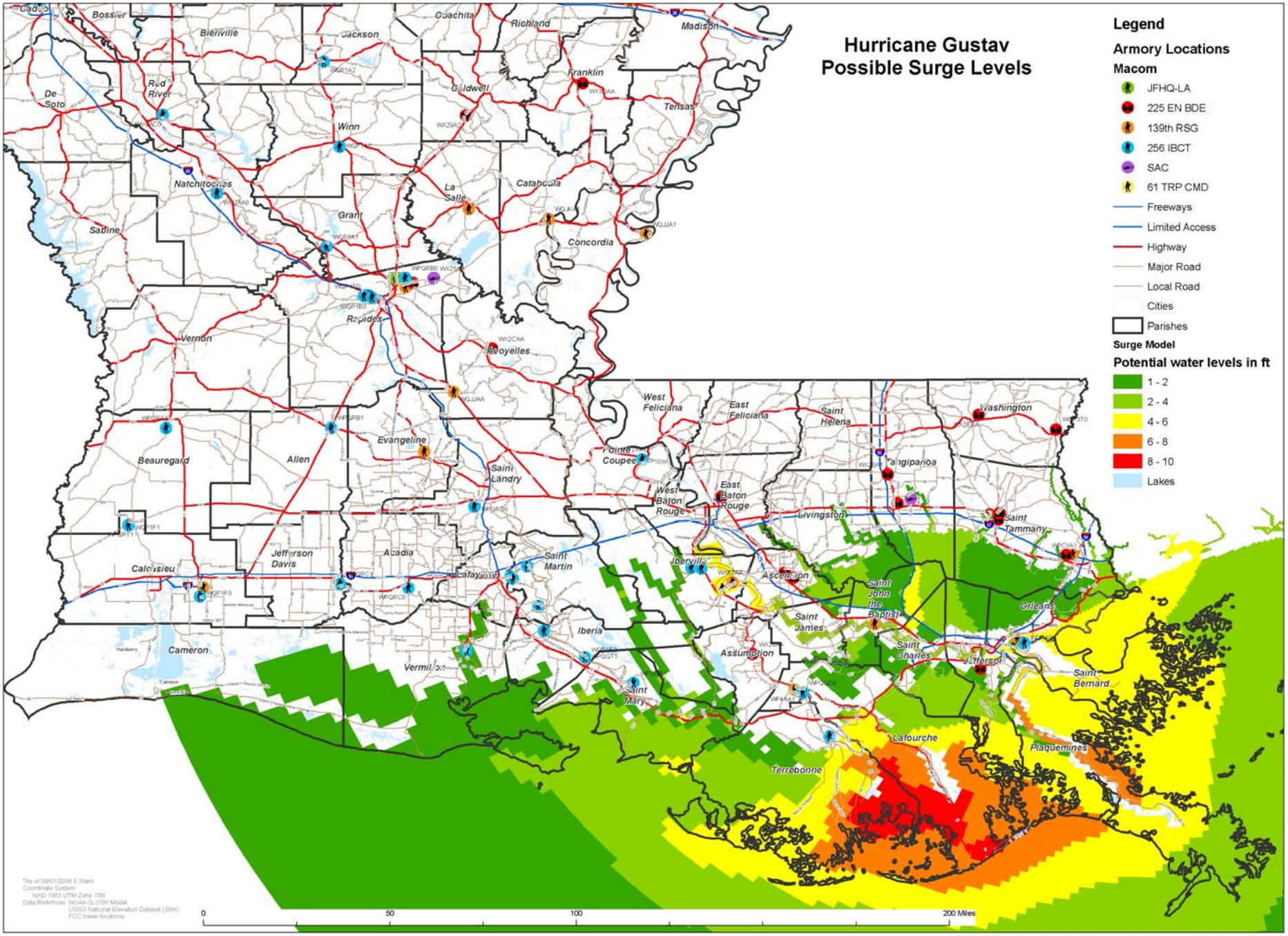
UNCLASSIFIED

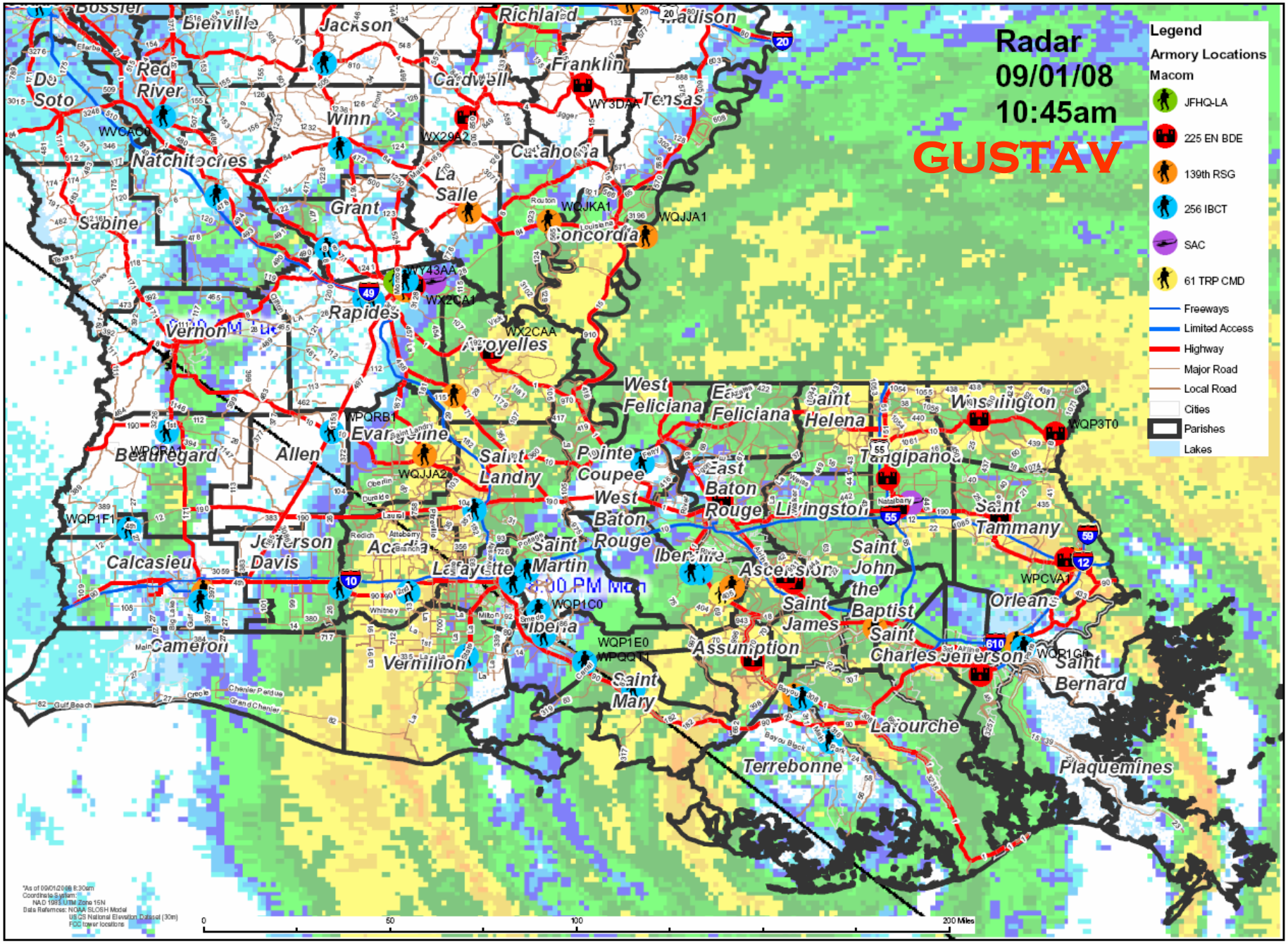
Statewide elevation data was distributed to Aviation Units to prepare for possible missions.



As NOAA data became available it was quickly integrated and distritbuted




Hurricane Gustav
Possible Surge Levels
Legend
Armory Locations
Macom
JFHQ-LA
225 EN BDE
139th RSG
256 IBCT
SAC
61 TRP CMD
Freeways
Limited Access
Highway
Major Road
Local Road
Cities
Parishes
Surge Model
Potential water levels in ft
1 - 2
2 - 4
4 - 6
6 - 8
8 - 10
Lakes
Caddo
Bossier
Bienville
Jackson
Ouachita
Richland
Madison
Red River
De Soto
Caldwell
Franklin
Tensas
Winn
Natchitoches
La Salle
Catahoula
Concordia
Grant
Sabine
Rapides
Vernon
Avoyelles
West Feliciana
East Feliciana
Saint Helena
Washington
Evangeline
Pointe Coupee
Tangipahoa
Beauregard
Allen
Saint Landry
West Baton Rouge
East Baton Rouge
Livingston
Saint Tammany
Jefferson Davis
Acadia
Saint Martin
Iberville
Ascension
Calcasieu
Lafayette
Saint John the Baptist
Orleans
Saint James
Iberia
Cameron
Vermilion
Assumption
Saint Charles
Jefferson
Saint Bernard
Saint Mary
Lafourche
Plaquemines
Terrebonne
0
50
100
200 Miles


Radar
09/01/08
10:45am
GUSTAV
Legend
Armory Locations
Macom
JFHQ-LA
225 EN BDE
139th RSG
256 IBCT
SAC
61 TRP CMD
Freeways
Limited Access
Highway
Major Road
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Cities
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Bossier
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Saint John the Baptist
Calcasieu
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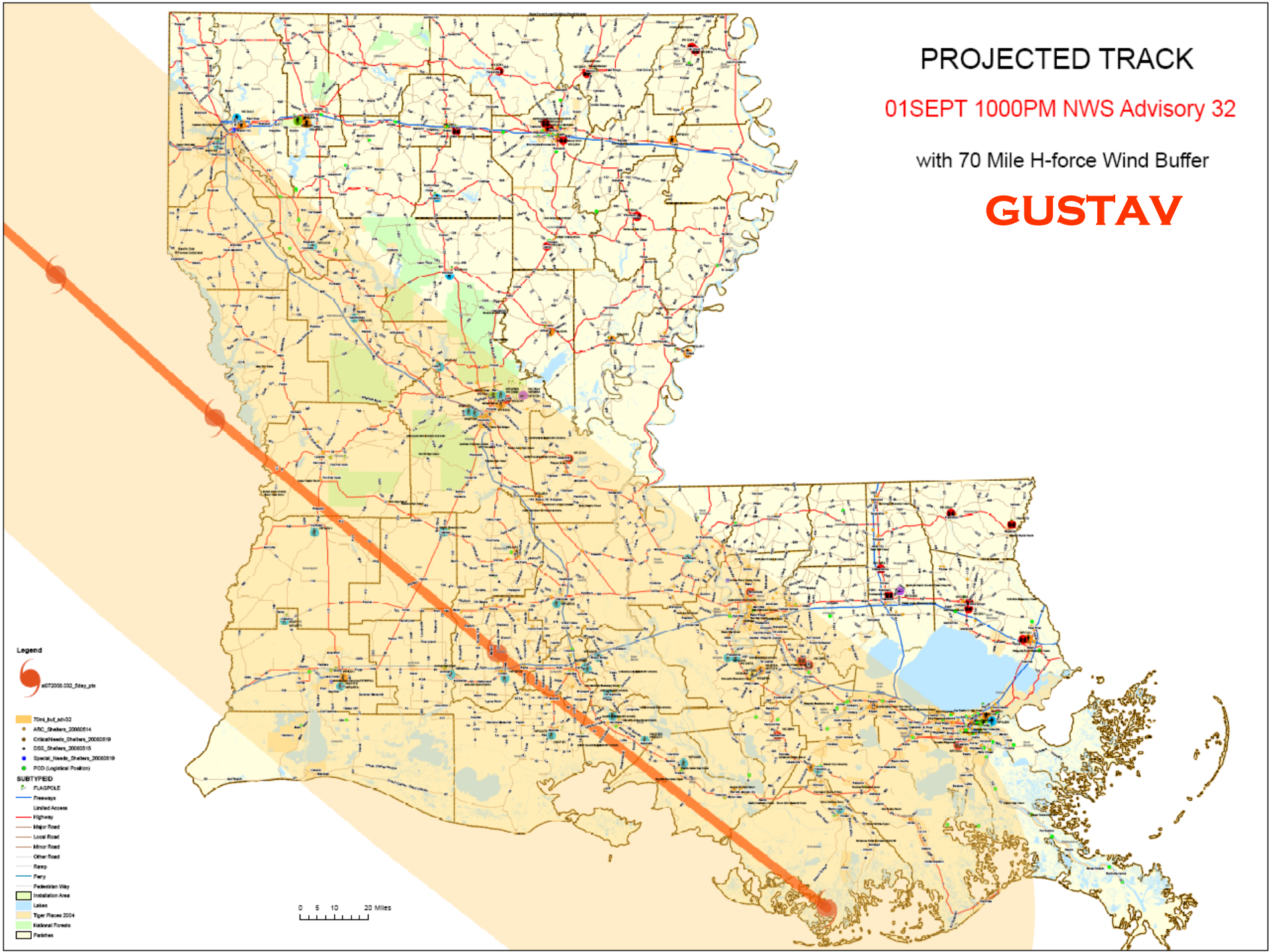
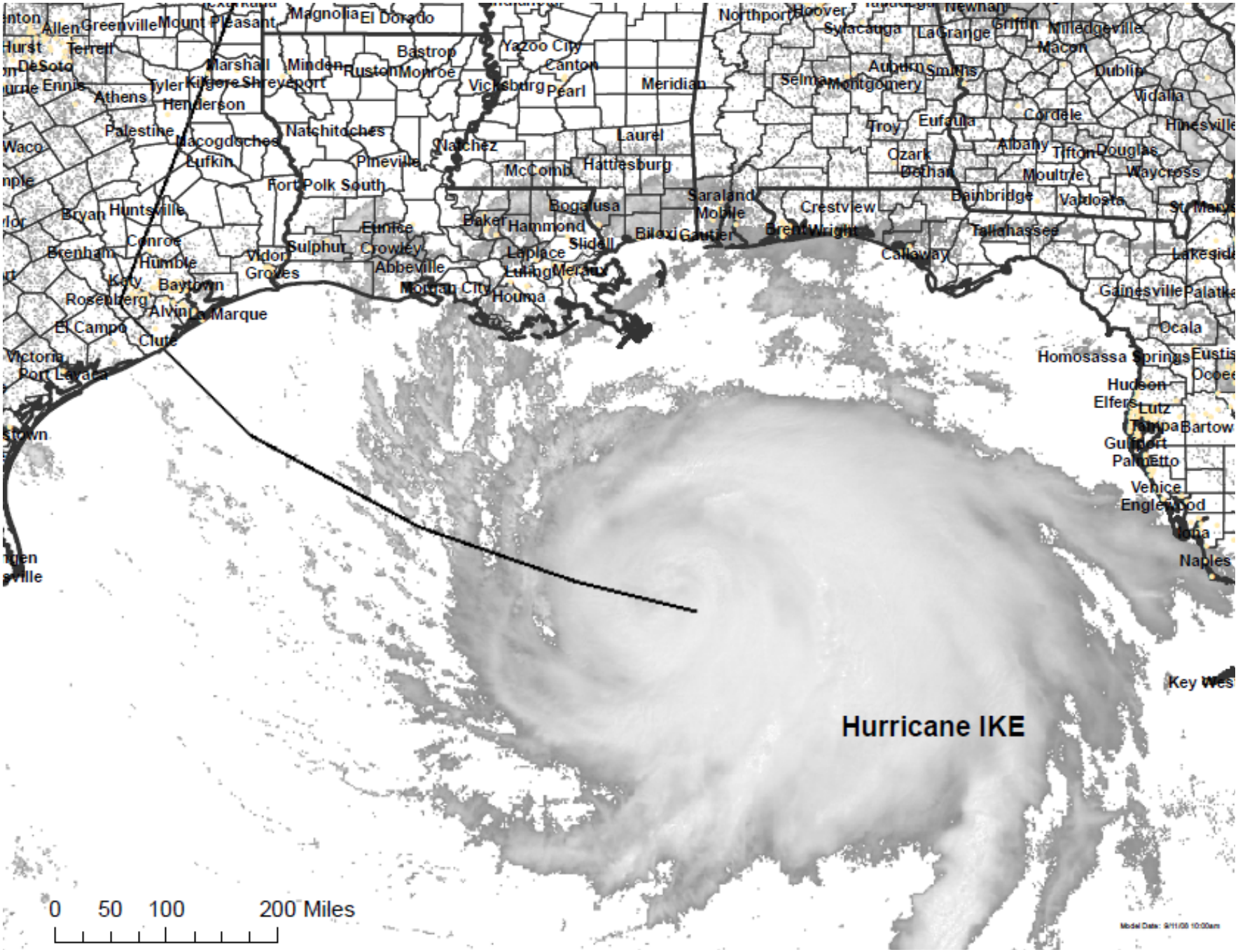
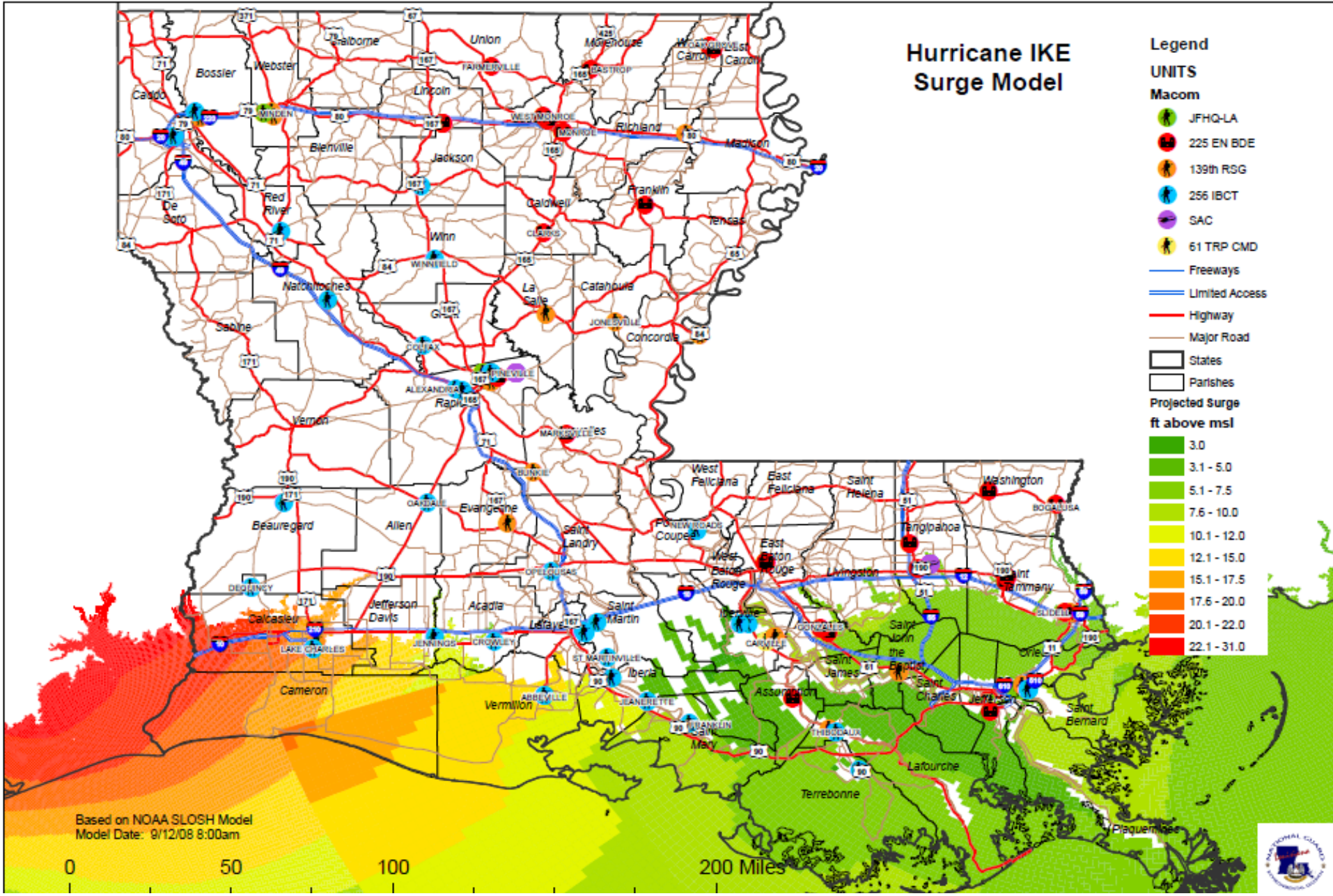
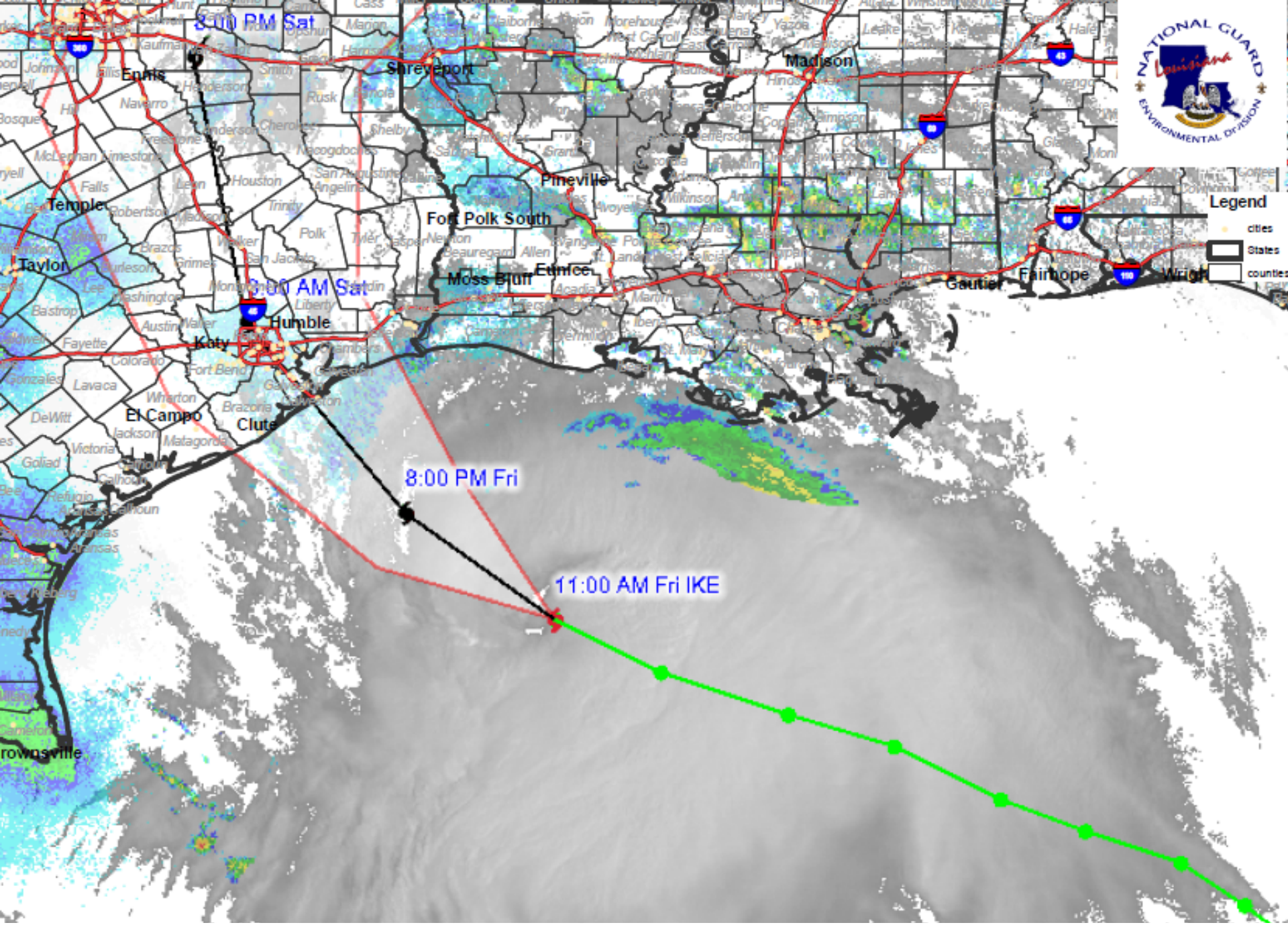
Saint James
Orleans
Cameron
Vermilion
Assumption
Saint Charles
Jefferson
Saint Bernard
Saint Mary
Lafourche
Terrebonne
Plaquemines
WVCAC0
WX29A2
WY3DAA
WQJKA1
WQJJA1
WY43AA
WX2CA1
WX2CAA
WPQRB1
WPQRA1
WQJJA2
WQP3T0
WQP1F1
WQP1C0
WQP1E0
WPQQT1
WPCVA1
WQP1C0
0
50
100
200 Miles

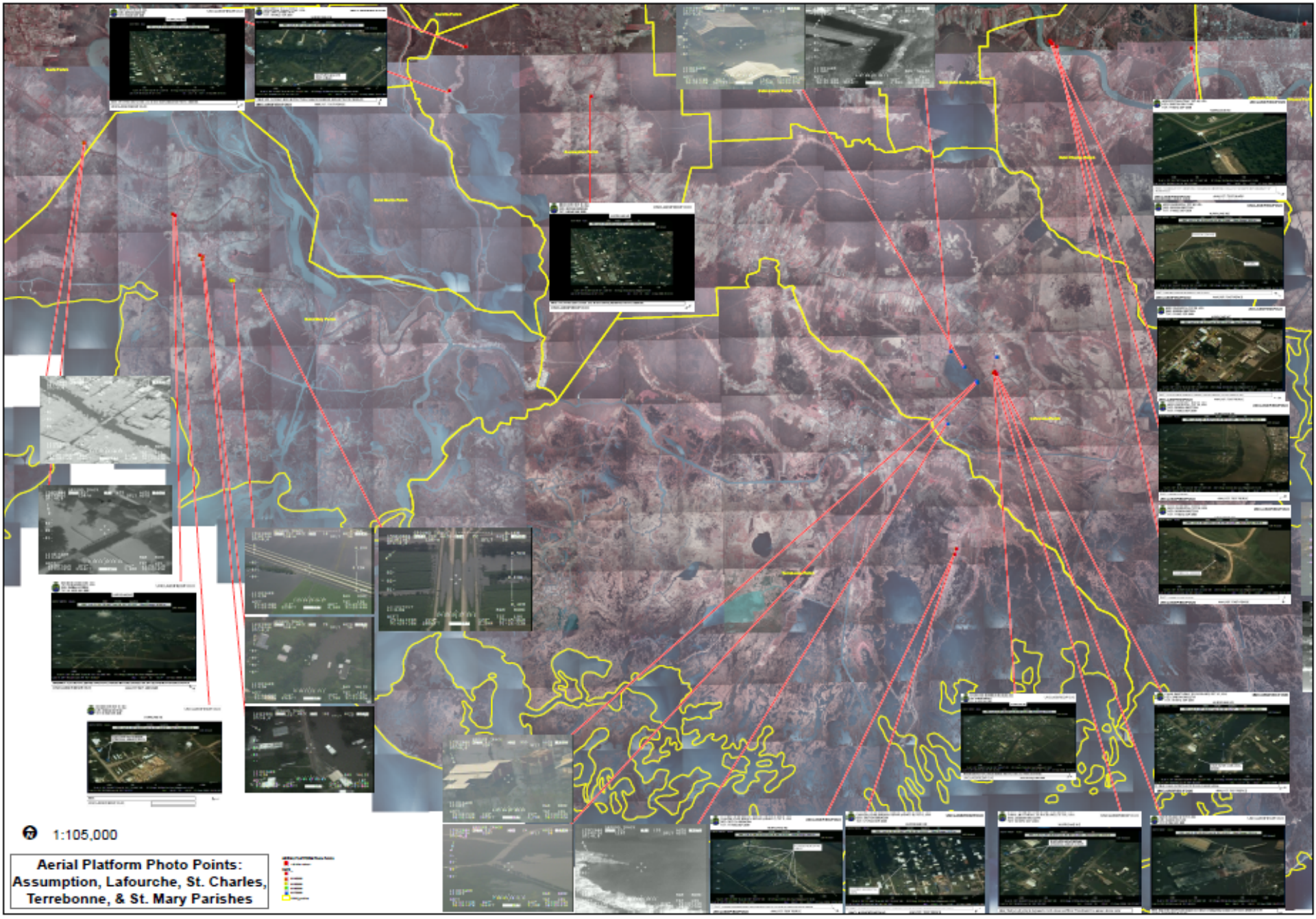

PROJECTED TRACK
01SEPT 1000PM NWS Advisory 32
with 70 Mile H-force Wind Buffer
GUSTAV
Legend
0 5 10 20 Miles


Hurricane IKE
0 50 100 200 Miles
Allen
Greenville
Mount Pleasant
Magnolia
El Dorado
Terrell
Bastrop
Yazoo City
Canton
Marshall
Minden
Ruston
Monroe
Shreveport
Vicksburg
Pearl
Meridian
Tyler
Athens
Henderson
Palestine
Natchitoches
Natchez
Laurel
Lufkin
Pineville
McComb
Hattiesburg
Fort Polk South
Bryan
Huntsville
Bogalusa
Baker
Hammond
Eunice
Conroe
Crowley
Sulphur
Slidell
Biloxi
Gautier
Brenham
Humble
Vidor
Abbeville
Laplace
Luling
Morgan City
Houma
Katy
Baytown
Groves
Rosenberg
Alvin
La Marque
El Campo
Clute
Victoria
Port Lavaca
Northport
Hoover
Sylacauga
LaGrange
Griffin
Milledgeville
Macon
Auburn
Smiths
Dublin
Selma
Montgomery
Vidalia
Troy
Eufaula
Cordele
Albany
Tifton
Douglas
Ozark
Dothan
Waycross
Moultrie
Bainbridge
Valdosta
Saraland
Mobile
Crestview
Fort Walton Beach
Tallahassee
Callaway
Gainesville
Ocala
Homosassa Springs
Hudson
Elfers
Lutz
Tampa
Bartow
Gulfport
Palmetto
Vehicle
Englewood
Naples
Key West


Hurricane IKE
Surge Model
Legend
UNITS
Macom
JFHQ-LA
225 EN BDE
139th RSG
256 IBCT
SAC
61 TRP CMD
Freeways
Limited Access
Highway
Major Road
States
Parishes
Projected Surge
ft above msl
3.0
3.1 - 5.0
5.1 - 7.5
7.6 - 10.0
10.1 - 12.0
12.1 - 15.0
15.1 - 17.5
17.6 - 20.0
20.1 - 22.0
22.1 - 31.0
Based on NOAA SLOSH Model
Model Date: 9/12/08 8:00am
0
50
100
200 Miles


8:00 PM Sat
8:00 AM Sat
8:00 PM Fri
11:00 AM Fri IKE
Ennis
Shreveport
Madison
Temple
Taylor
Fort Polk South
Pineville
Moss Bluff
Eunice
Gautier
Fairhope
Humble
Katy
El Campo
Clute
Legend
cities
States
counties

Grand Isle
0
0.5
1
2 Miles
2007 NAIP Imagery
05 Sept 2008 NOAA Imagery
1:8,400


1:105,000
Aerial Platform Photo Points:
Assumption, Lafourche, St. Charles,
Terrebonne, & St. Mary Parishes

Lessons Learned

- Data Coordination has greatly improved
- Data sharing thru Web services works and improve efficiency
- When you have an abundance of data, but only a few that can actually assimilate, manipulate and analyze- distribution is difficult. You can collect all the imagery in the world, but if you can't get it in the hands of those that need it, in their remote locations, its not worth much.
- When there is no electricity, and the generator goes out, its hard to work in the digital world

After Action Review for LANG GIS

- Need a quick turn around on distributing data & imagery
- Staff needs to see a common operating picture
- Staff needs to have the ability to create situational maps with CURRENT resources

Response

- ArcGIS Server with Image Server
  - Point the server at a folder with imagery, and it will quickly create a service to distribute
  - Data resides on a centralized database, but each J staff can have customized viewers and with specific resources
  - Custom tools- measure, location, graphics, and export
  - Coordinate tools allow for location of points, ground identification, address locating, and then translation into other formats
  - Export tools allow each user to export their work to pdfs (and other imaging formats) using templates, which gives them the ability to email or print.

Demo

Louisiana National Guard
Help
Results
Map Contents
NOAA
Weather radar
LANG
Flag Poles
Transportation
Washracks
Buildings
Firing Fans
FEMA Data
Airports
Landing Fields
Installation Area
Tiger Places 2004
Parishes
Lakes
NED
1meter Elevation data
High Resolution Imagery
Statewide 2007 1meter Imag
Claiborne
Union
Morehouse
East Carroll
Bossier
Webster
Lincoln
West Carroll
Caddo
Ouachita
Richland
Madison
Bienville
Jackson
Red River
De Soto
Caldwell
Franklin
Tensas
Winn
La Salle
Catahoula
Grant
Concordia
Rapides
Avoyelles
Vernon
West Feliciana
East Feliciana
Saint Helena
Washington
Evangeline
Beauregard
Allen
Pointe Coupee
East Baton Rouge
Tangipahoa
Livingston
Calcasieu
Jefferson Davis
Acadia
Lafayette
Saint Martin
Iberville
Ascension
Saint Charles
Cameron
Iberia
Vermilion
Assumption
Saint James
Jefferson
Saint Mary
Lafourche
Terrebonne

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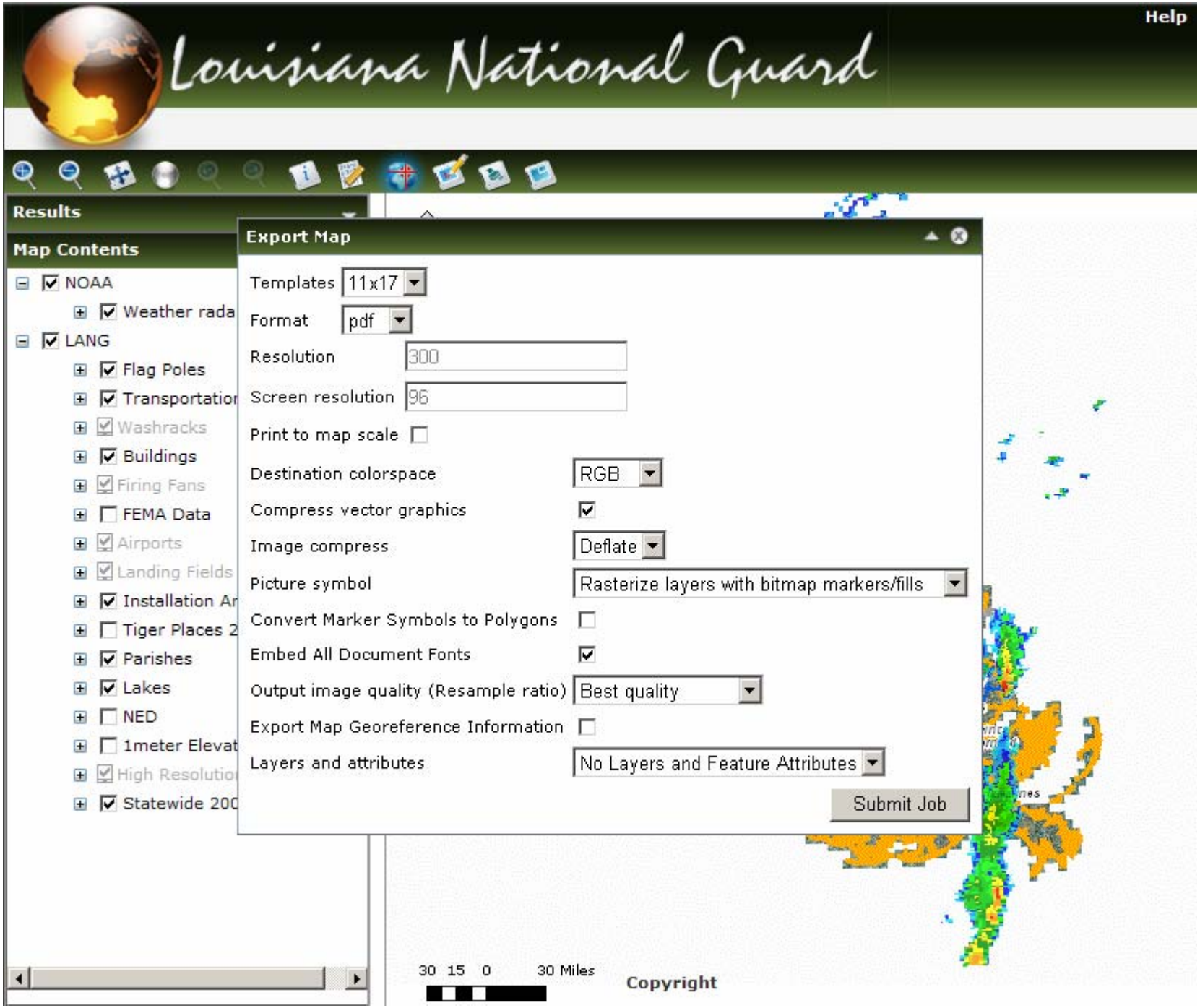
Landing Fields
Installation Area
Tiger Places 2004
Parishes
Lakes
NED
1meter Elevation data
High Resolution Imagery
Statewide 2007 1meter Imag
Coordinates
UTM
DD
DDM
DMS
MGRS
X Coordinate
Y Coordinate
Ex. 425000.5, 3950000.5
Locate Coordinate
Locate Coordinate
30 15 0 30 Miles
Copyright


Louisiana National Guard
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Flag Poles
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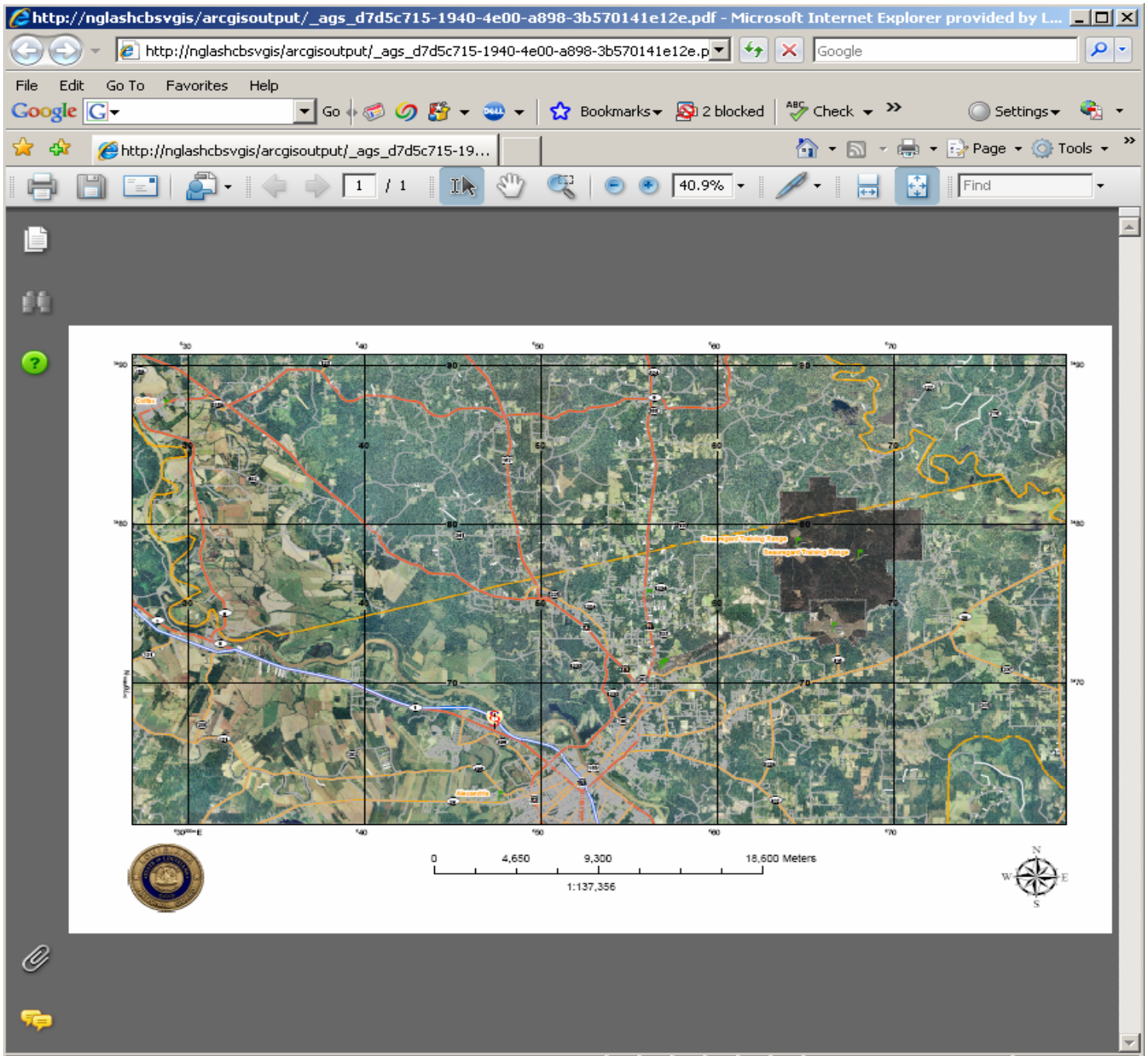
Washracks
Buildings
Firing Fans
FEMA Data
Airports
Landing Fields
Installation Ar
Tiger Places 2
Parishes
Lakes
NED
1meter Elevat
High Resolutio
Statewide 200
Export Map
Templates 11x17
Format pdf
Resolution 300
Screen resolution 96
Print to map scale
Destination colorspace RGB
Compress vector graphics
Image compress Deflate
Picture symbol Rasterize layers with bitmap markers/fills
Convert Marker Symbols to Polygons
Embed All Document Fonts
Output image quality (Resample ratio) Best quality
Export Map Georeference Information
Layers and attributes No Layers and Feature Attributes
Submit Job
30 15 0 30 Miles
Copyright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File Edit Go To Favorites Help
Google
Go
Bookmarks
2 blocked
Check
Settings
http://nglashcbsvgis/arcgisoutput/_ags_d7d5c715-19...
Page
Tools
1 / 1
40.9%
Find
0
4,650
9,300
18,600 Meters
1:137,356
N
W
E
S
Done
Unknown Zone

LOUISIANA
STATE OF LOUISIANA
UNION JUSTICE
CONFIDENCE
NATIONAL GUARD