SNAFU, FUBAR & NIMS

OR

How I Stopped Fearing the Titanic and Learned to Build an Ark

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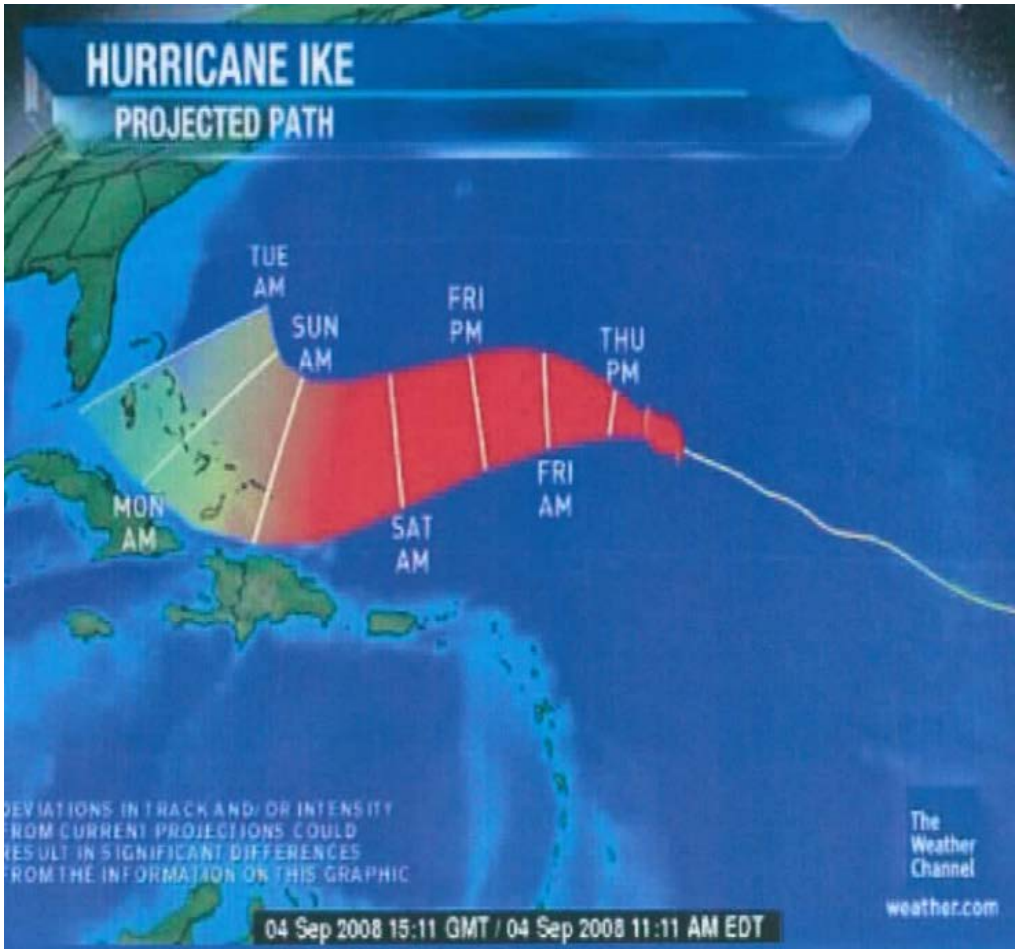
Galveston, Texas

Hurricane Ike 2008
Galveston Island



NIMS - Preparation & Prevention

- Monthly Meetings
- Emergency Mgmt. Plan Annexes
- Pre-position Contracts
- Mutual Aid Agreements
- Form ordinances & Orders
- City Charter
- Training



NIMS – Who's your Alexander Haig? (Who's in charge?)

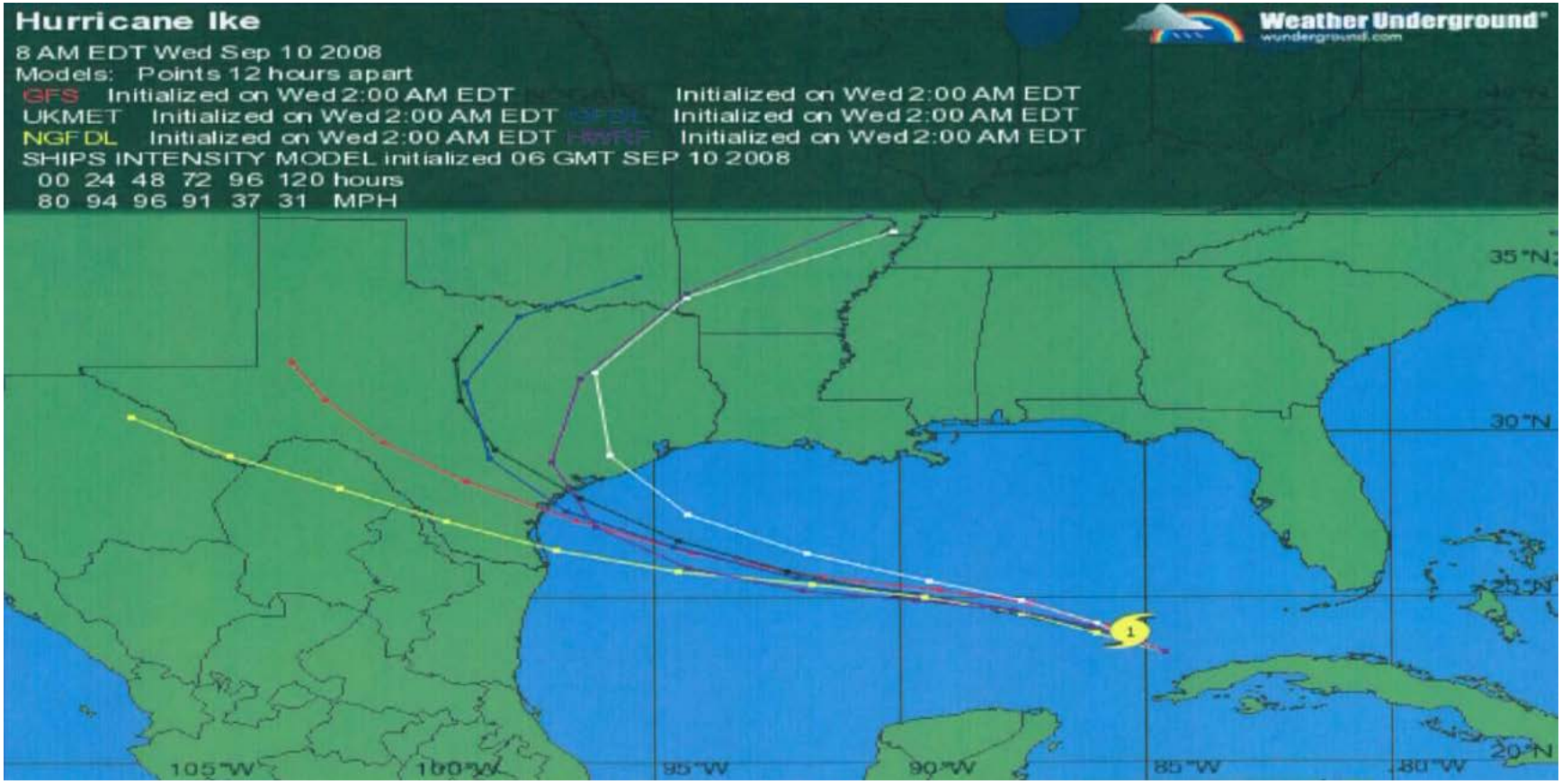
- In a disaster plan don't forget to make sure the individual or agency acting actually has the authority to do the act proposed in the plan.
  - Believe or not, some people don't check this….

- For example: City Charter. Section 3.04 – City Manager Powers and Duties
  - "…and **he shall act as the city's director of emergency management with all of the authority of that position either granted by the city's emergency management plan, the city council, state law, city or county ordinance."**

Federal Legal Authority

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121
- Homeland Security Act
- National Response Plan (NRP) (Incidents of national Significance)
- National Incident Management System (NIMS) (Operational part of the NRP)
- Emergency Support Functions (ESF) (federal assistance is structured around ESF)
- Public Assistance Grant Program
- National Flood Insurance Program (NFIP)
- Contracts and Procurements, 44 CFR Part 13, OMB Circular 1-102; 2 CFR Part 225.OMB Circular 87
- Mutual Aid Agreements for Public Assistance, FEMA Policy 9523.6, dated 8/13/07
- FEMA Acronyms

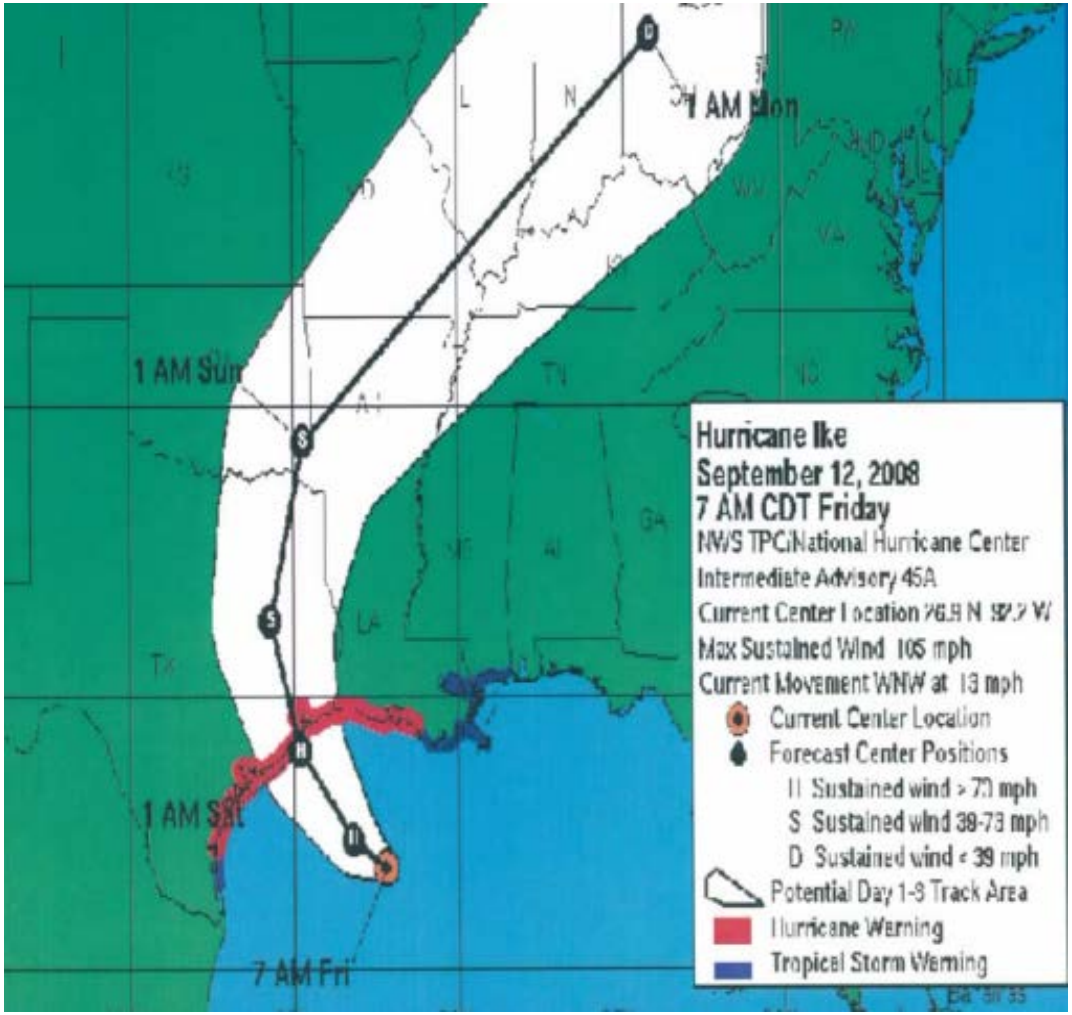
Wednesday Sept. 10th, 2008



- Declaration of Emergency / Local Disaster / Activate Emergency Mgmt Plan
- Ordered Evacuations
- Evacuate Special Needs Residents evacuated to Austin
- Legal Department Preparation

September 12th, 2008

- Ingress & Egress Restricted
- Curfew
- Public Necessity – Disconnect
- Shelter Essential Personnel



The Seawall, Galveston, Texas – Early Friday









SNAFU Downtown/City Hall … Friday





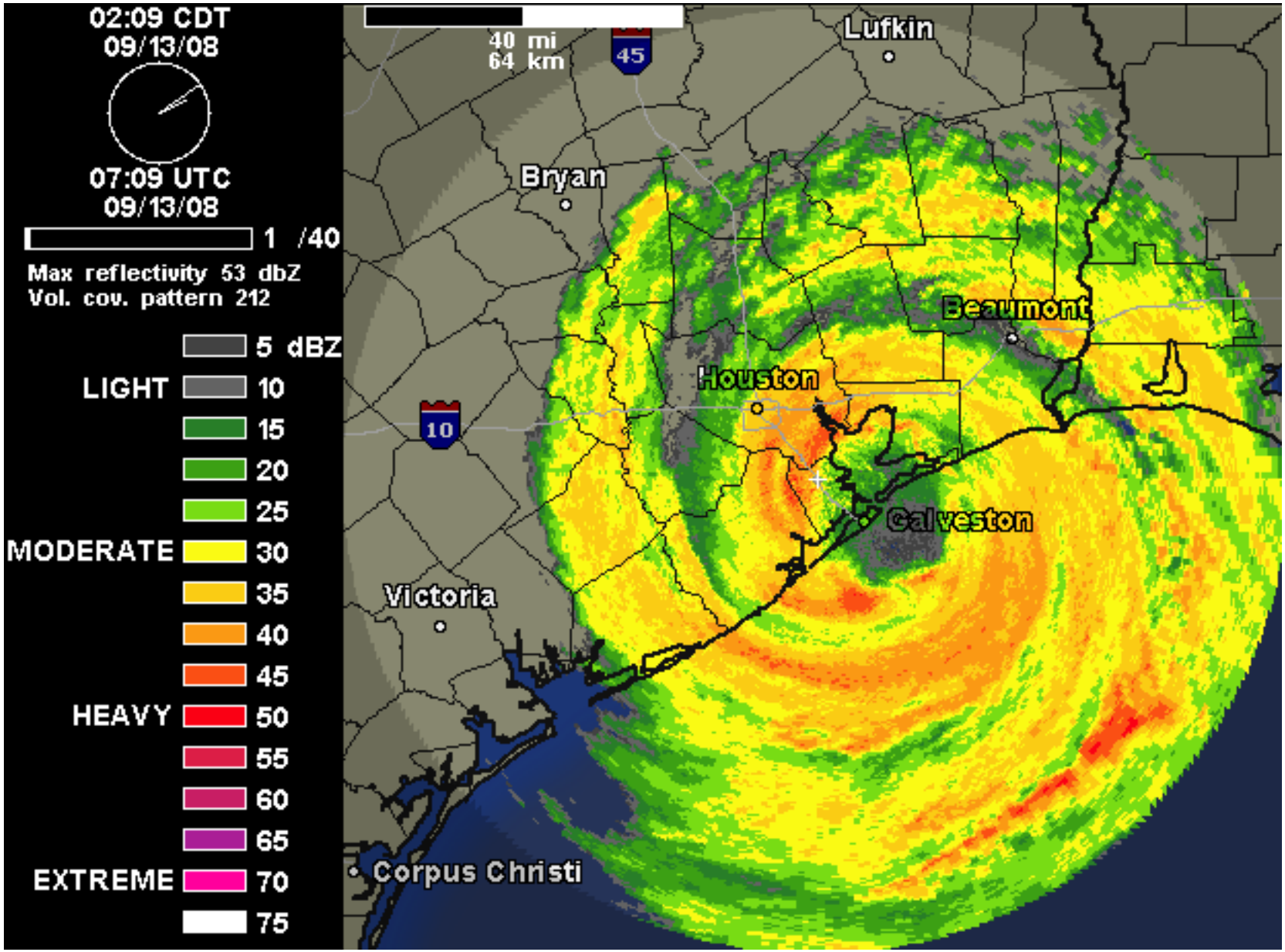
Friday Afternoon …











Ike landfall - The Weather Underground



FUBAR - Galveston Surge

- Behind Seawall
  - 12 to 13 ft. Surge
- West End
  - 10 to 12 ft. Surge
- Entire Island Affected
  - 90% Heavily Damaged
- Hurricane Force Winds
  - 10 pm to 10 am





- High Island Sunday, Sept. 14, 2008. (AP Photo/Houston Chronicle,



- AFTER PHOTO -- SEPTEMBER 2009 - High Island (AP Photo/Houston Chronicle, Smiley N. Pool)

Afterwards – No Ingress



…Damage









Sheltering Pets

PETS Act of 2006





Shelter Accessibility



Functional Needs Support Services

Services that enable individuals to maintain their independence in a general population shelter.



More on FNSS

Who Needs FNSS?

- Children and adults who may have physical, sensory, mental health, and cognitive disabilities
- Pregnant women
- Elderly
- People needing bariatric equipment

What is Needed?

- Durable medical equipment
- Consumable medical supplies
- Personal assistance services
- Communication assistance
- Assistance with activities of daily living
- Other goods and services as needed

Search & Rescue







Got UEVHPA?

(Uniform Emergency Volunteer Health Practitioners' Act)



Mass Care Shelter



Mutual Aid Agreements & Disaster Relief









Disaster Relief







Damage to Homes

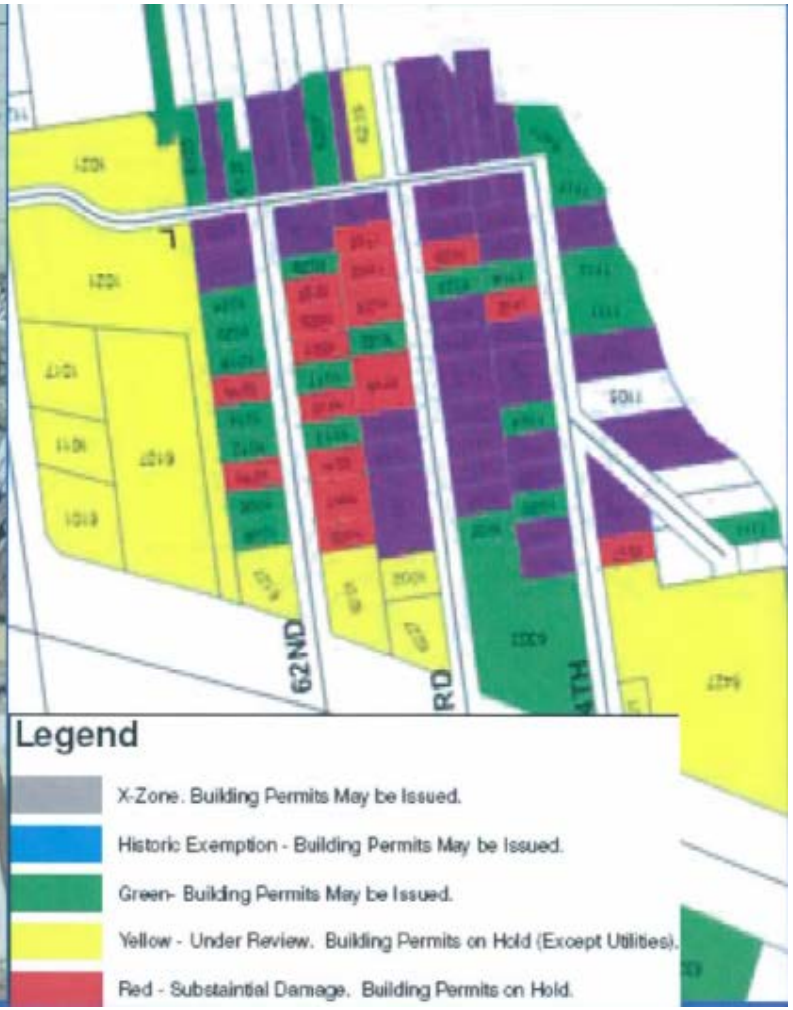
- 75% heavily Flooded, Possessions Destroyed
- City-wide Housing Estimated needs $735M
- Public Housing destroyed – not yet rebuilt
- Permitting Department overwhelmed
- EMPLOYEE HOMES!!





Cohen Subdivision





Eligible Work

Resulting from disaster, within disaster area & performed by the one legally obligated to repair/remedy it



Cleanup

- Approximately $90 million in debris removal (w/o monitoring costs)





Galveston Debris

- Within 7 months the City had collected:
  - 1.4 Million cubic yards
  - (the State, 5 Million cubic yards (TxDOT)
- 2.0 Million lbs. H. H. H. Waste
- 13,326 lbs. Dead Animals
- 56,406 White Goods
- 8,211 Televisions / etc.
- $10,807 Cubic Yards of Concrete…





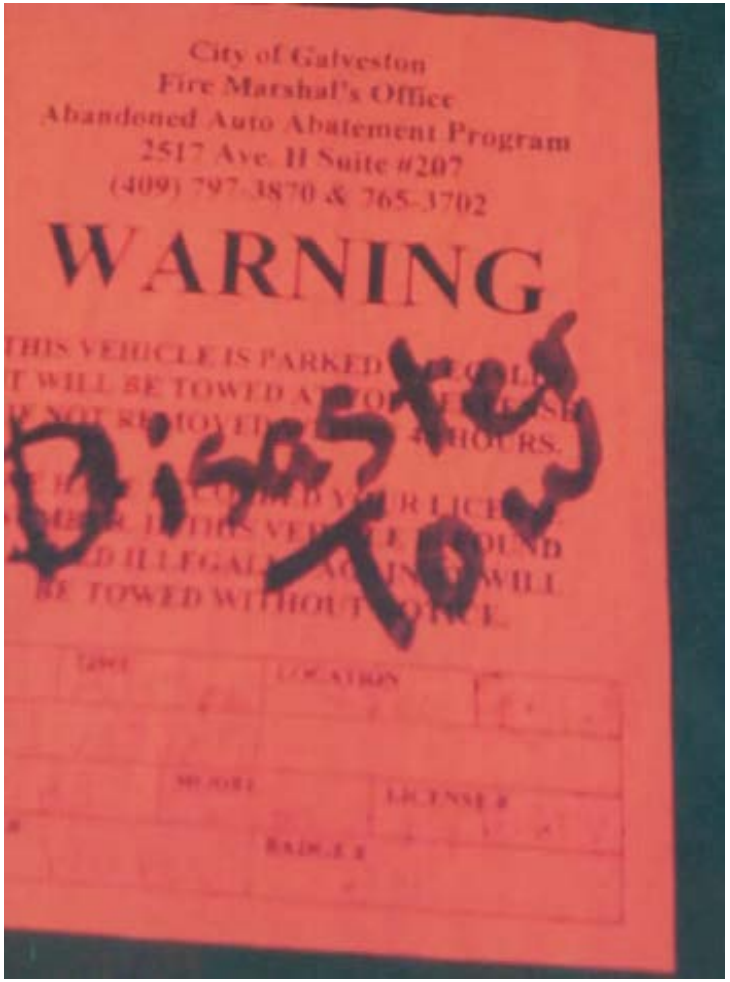
Final Debris Numbers

Description	Quantity	Unit
Debris Collected and Processed	1,641,923	Cubic yards
Household Hazardous Waste	2,270,120	Pounds
White Goods	60,649	each
E-waste	8,529	each
Dead Animals	13,326	each
Passenger Vehicle Removal	571	each
Vessel Removal	74	each
Hazardous Leaners and Hangers	3096	each
Saltwater Killed Tree Removal from Right of Way	4577	each
Saltwater Killed Tree Removal from Private Property	8503	each

Whose Responsibility – Ideal Lumber Co. or Owner?



Towing Vehicles – Towing & EMAC





Beach Debris

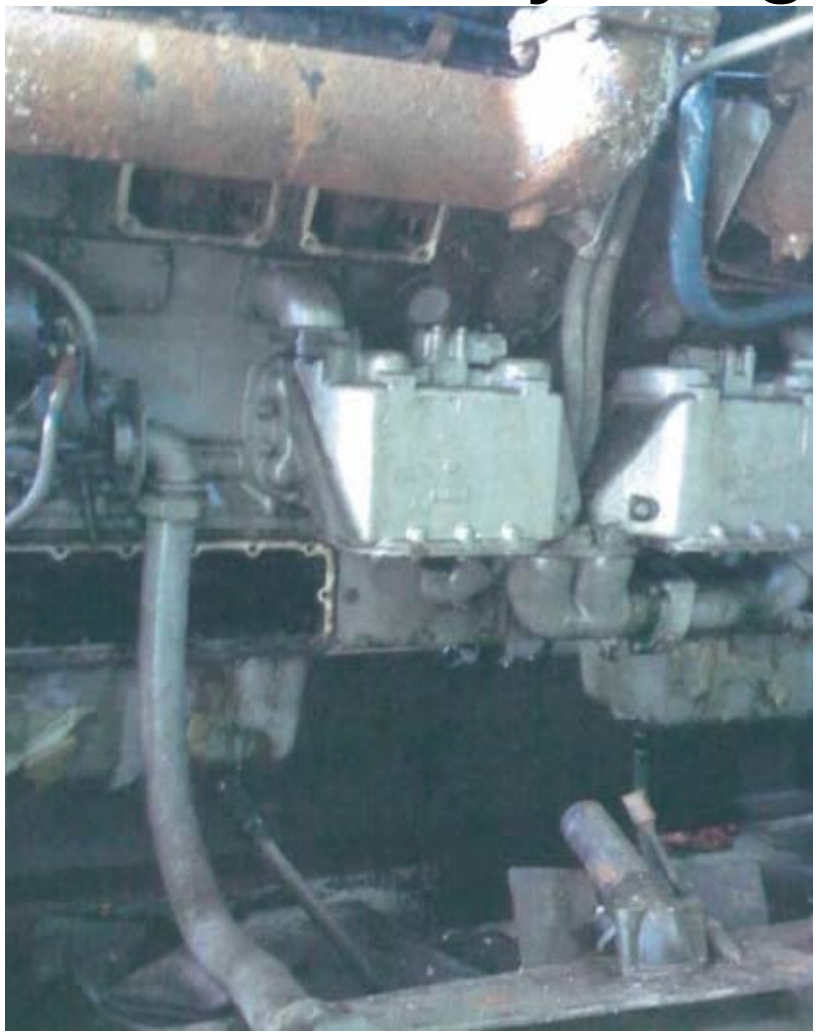
- Texas GLO
  - Sand Screened
- 1.1 Million cubic yards
  - Debris from Beaches
- 100,000 cubic yards
  - Concrete from Beache
- 35,000 cubic yards
  - From the West Bay



WWTP & FEMA



Wastewater Treatment Plant & “Fix Everything My Ass” - Jay Leno





“Substantial Damage” Example

- Low to Moderate Income Areas Hardest Hit
- Greater than 51% Damage >> Raise Home
- FEMA Forces Major Reconstruction of Homes
- FEMA HMGP Funding – limited utility



Damage to Businesses

- Flooded & Mud damaged
- Lost inventory
- Mold & mildew damage





When First Responders are Disaster Victims

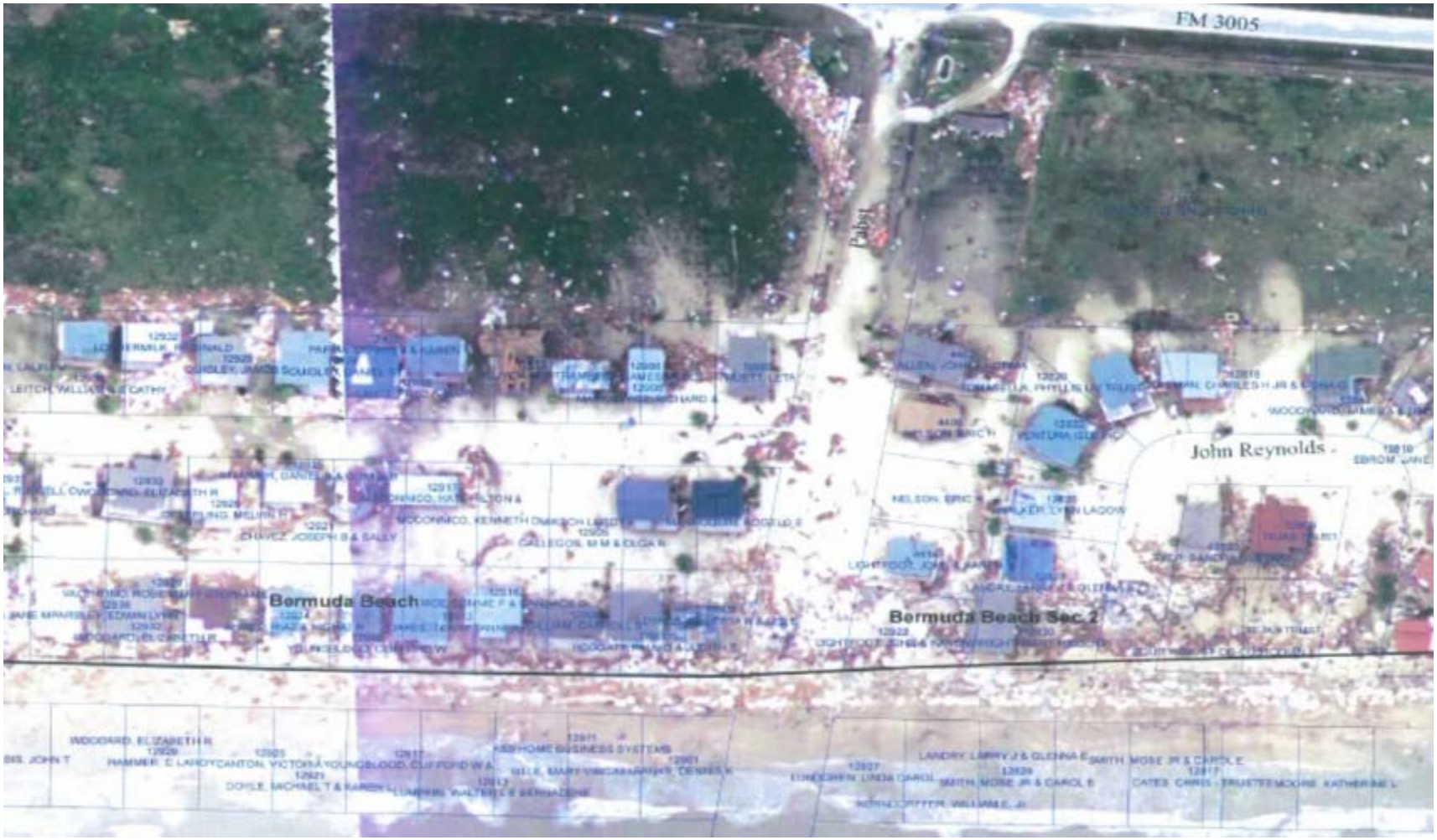


Emergency Operation Plan for Animals



- Develop an EOP with
- animal agencies
- Vet services
- shelters
- Community leaders who daily address issues affecting animals and their owners

Bermuda Beach



Where once were working water pipes…



CLOW


1915 Storm
August 16
1900 Storm
September 8
1900
SURVIVOR
STORM
Carla
STORM
CLUB



- Tom LeCroy walks through debris strewn in The Strand that suffered flooding in the aftermath of Hurricane Ike Saturday, Sept. 13, 2008, in Galveston, Texas. (AP Photo/Houston Chronicle, Brett Coomer)



- Tom LeCroy, owner of LeCroy's Louisiana Bistro, Monday, Aug. 30, 2009; he re-opened August 2009. (AP Photo/Houston Chronicle, Brett Coomer)



- Historic Balinese Room Friday, Sept. 12, 2008. (AP Photo/Houston Chronicle, Smiley N. Pool)



- In this later photograph, the night club, once listed on the National Register of Historic Places, is unseen, completely destroyed by the hurricane, leaving only a few piers in the surf as remaining traces across from the street from the Galvez Hotel, seen Aug. 2009. (AP Photo/Houston Chronicle, Smiley N. Pool)



- Murdoch's Pier and restaurants are seen amidst debris washed onto Seawall Blvd. and 23rd St. in Galveston, Texas, after Hurricane Ike on Saturday, Sept. 13, 2008. (AP Photo/Houston Chronicle, Johnny Hanson)



- One year later, in the "after" photo, the rubble of Murdoch's Pier has been cleaned up and businesses are returning Thursday, Aug 28, 2009. Murdoch's Pier is currently being rebuilt. (AP Photo/Houston Chronicle, Johnny Hanson)

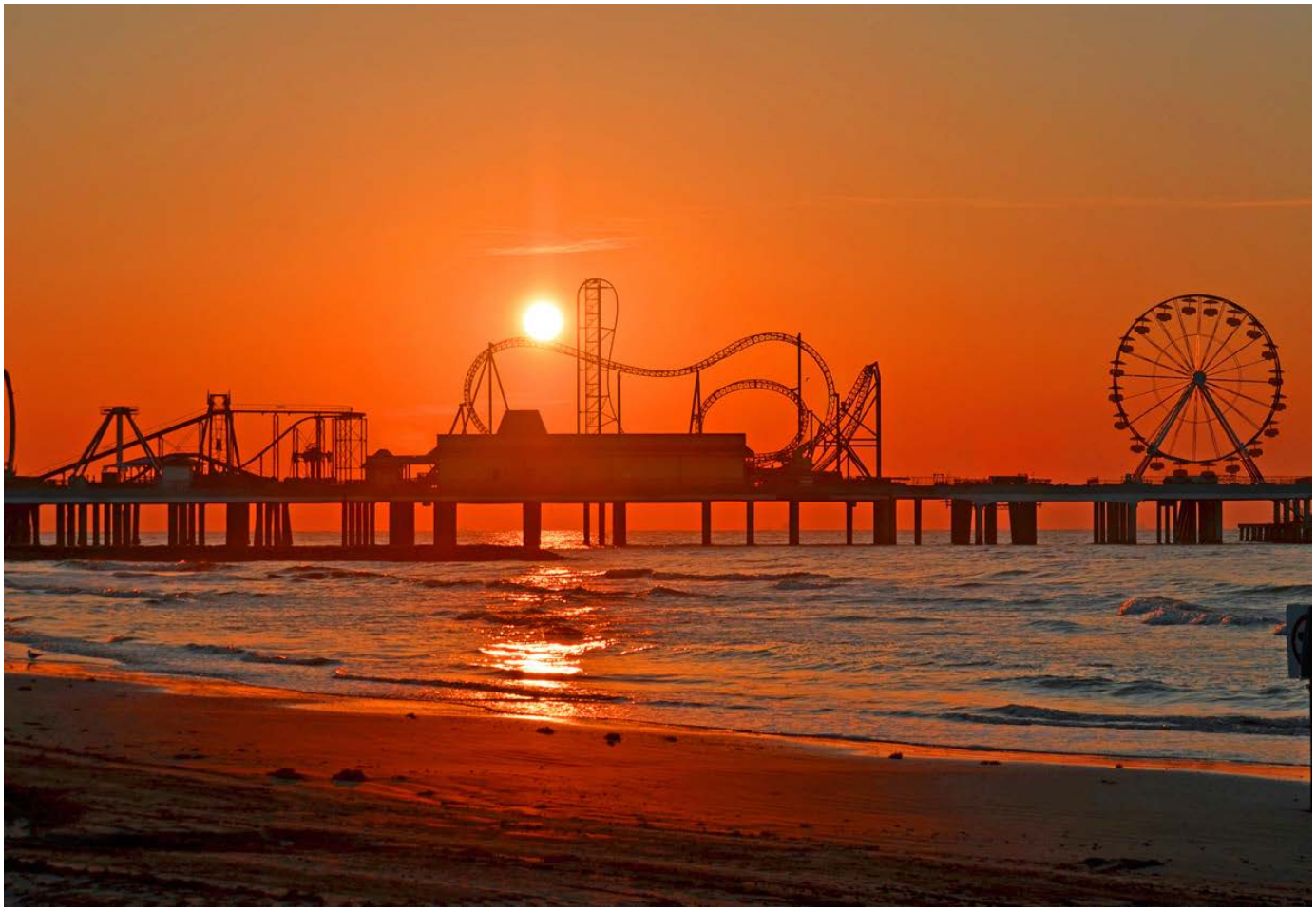
Before & After Hurricane Carla





Left, Galveston Pleasure Pier after Hurricane Carla in 1961. Right, Flagship Hotel in the same spot after Hurricane Ike

Locals embrace Hurricane Ike 4 years later



The newly rebuilt Galveston Pleasure Pier with 16 rides, restaurants, and retailers.

Other disasters…Bastrop, Texas



- Bastrop Fire - http://linapps.s3.amazonaws.com/linapps/photomojo/kxan.com/photos/2011/09/g974-texas-is-burning/21650-bastrop-fire-darkens-the-citys-horizon-76d4a.png

South Carolina Perspective



Going to the market - by kayak
Charleston, SC
August 28, 2012



Waterskiing in downtown Charleston, SC - August 28, 2012

Dallas Tornado

- http://www.youtube.com/watch?v=agLN1Z7ROmE
- http://www.youtube.com/watch?&v=agLN1Z7ROmE#t=116s



