



# Super Storm Sandy: A Wake-up Call?

---

**Stephen Ludwig**  
**Vice President**  
**Catastrophe Risk Management**

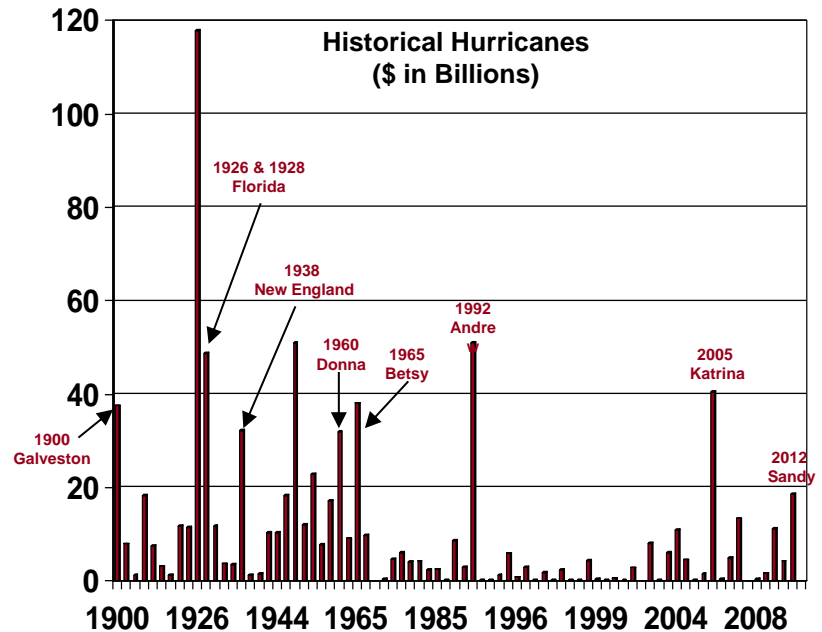
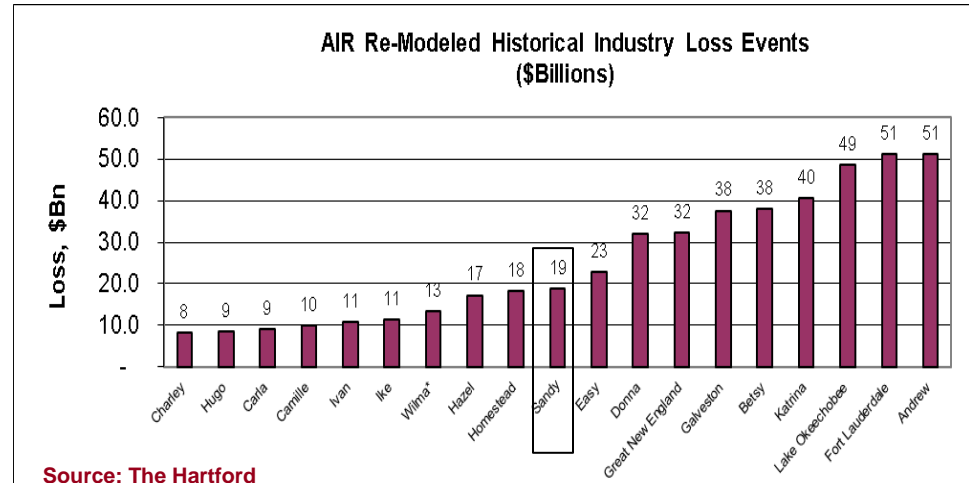
**May 16, 2013**



# Was Sandy Really All That Super?



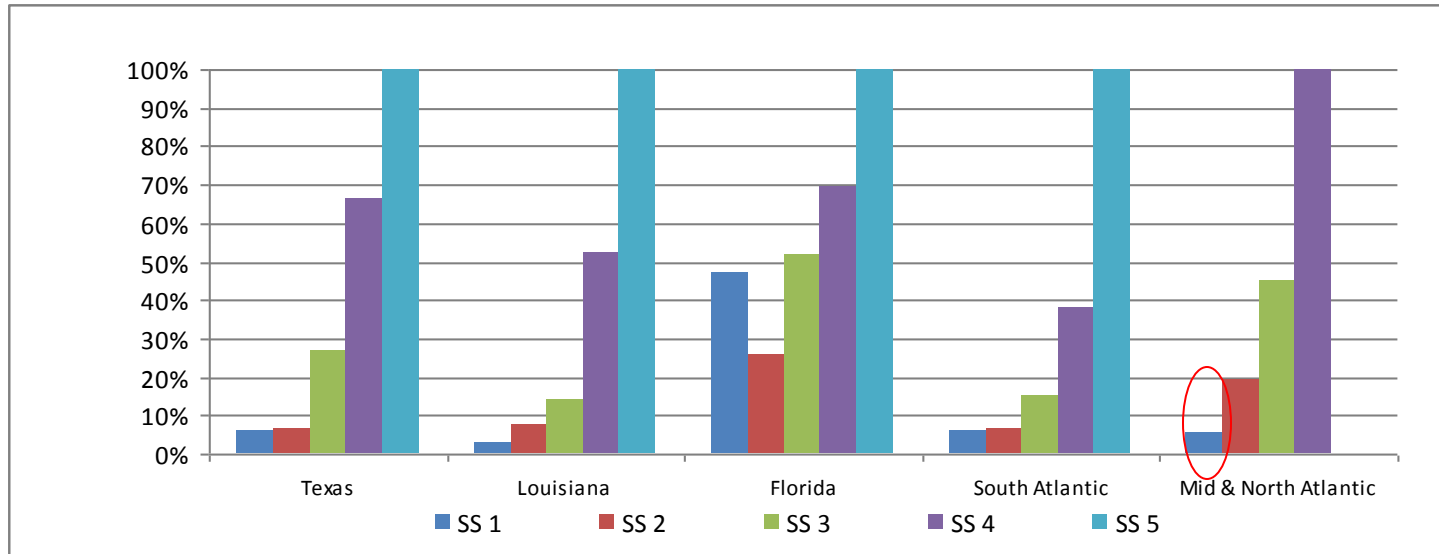
- At an estimated \$19B, Super Storm Sandy was the second largest insured industry loss in the United States, roughly half of the cost of Hurricane Katrina (\$41b).
- By many other metrics, however, Super Storm Sandy was not that large.
  - While storm surge was significant, Sandy made landfall with a broad windfield but with relatively low wind speeds.
  - After adjusting for inflation, population growth and the growth in the value of building stock in coastal areas of the U.S., insured losses from Sandy rank no higher than 10<sup>th</sup> on the all time list of large U.S. Hurricanes
  - From a modeling perspective, The Hartford would not be surprised to see losses on the order of Sandy once every 10-15 years.
- A hurricane making landfall in the Northeast as a Category 4 storm could generate insured industry losses of nearly 4 times the magnitude of Super Storm Sandy, with considerably greater economic disruption.



# Was Sandy Really All That Super?



## HIG Insured Loss Relativities by Storm Strength

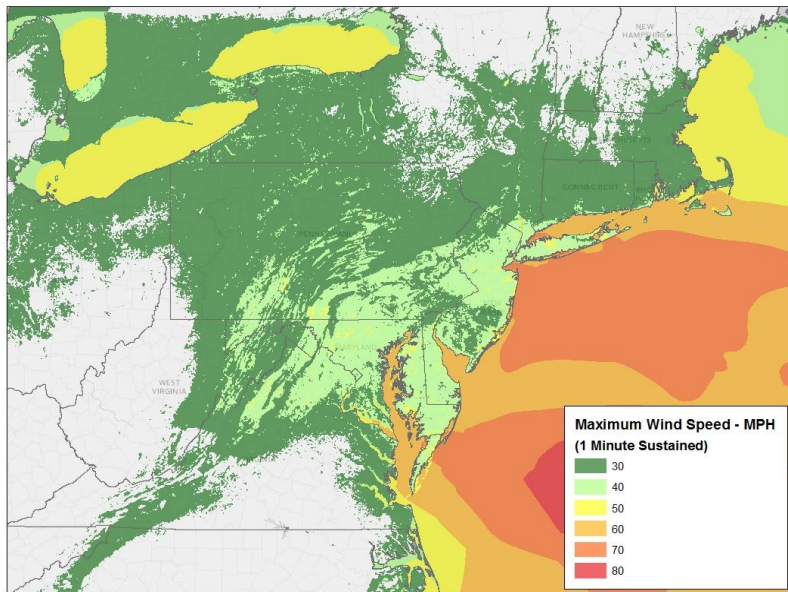


**When compared with potential losses in the Northeast associated with larger hurricanes, Super Storm Sandy represents a small percentage of the total loss potential of a NE land-falling storm.**

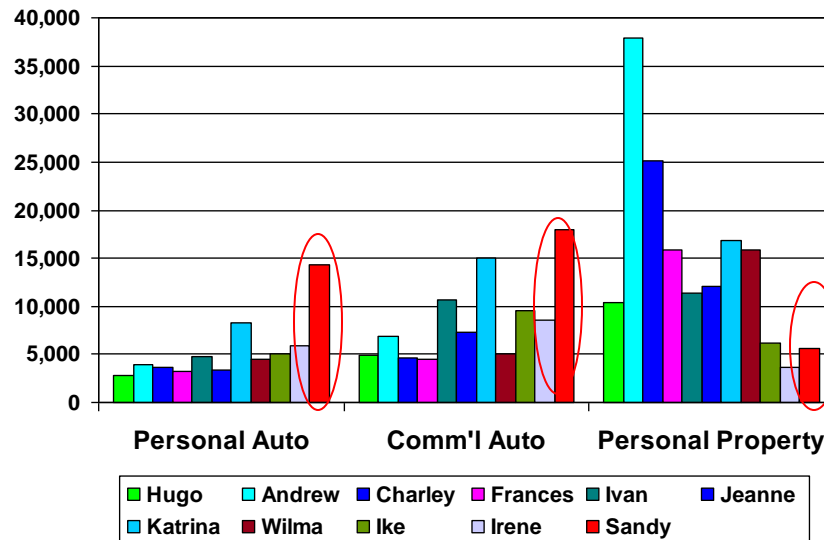
- **Category 5 hurricanes are not shown for the NE given the low probability of a hurricane maintaining Category 5 strength that far north in the Atlantic.**
- **Relativities are provided for HIG's portfolio which has larger concentrations in the NE: different insurance portfolios may show different results.**

**When compared with land-falling hurricanes along the entire East Coast, Super Storm Sandy could be 1/5 – 1/8<sup>th</sup> the size of a major category 4/5 hurricane along the southern U.S. coastline.**

# Lessons Learned: Wind Damage

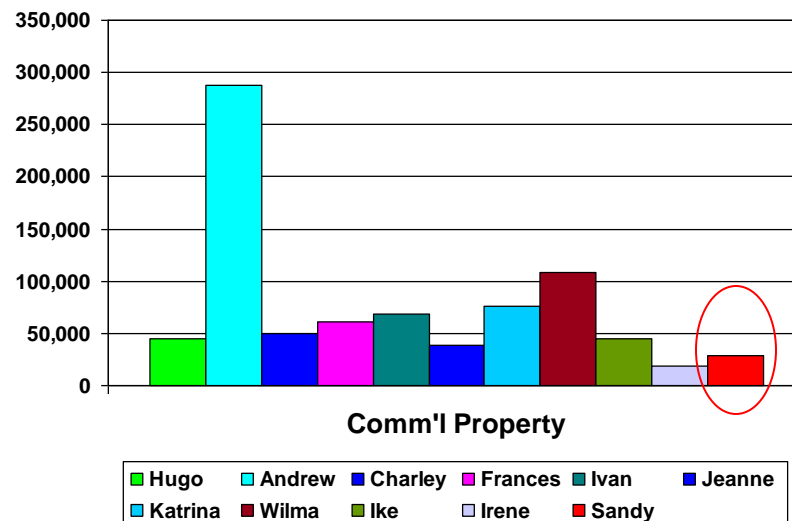


## Average Severities: Auto & HO



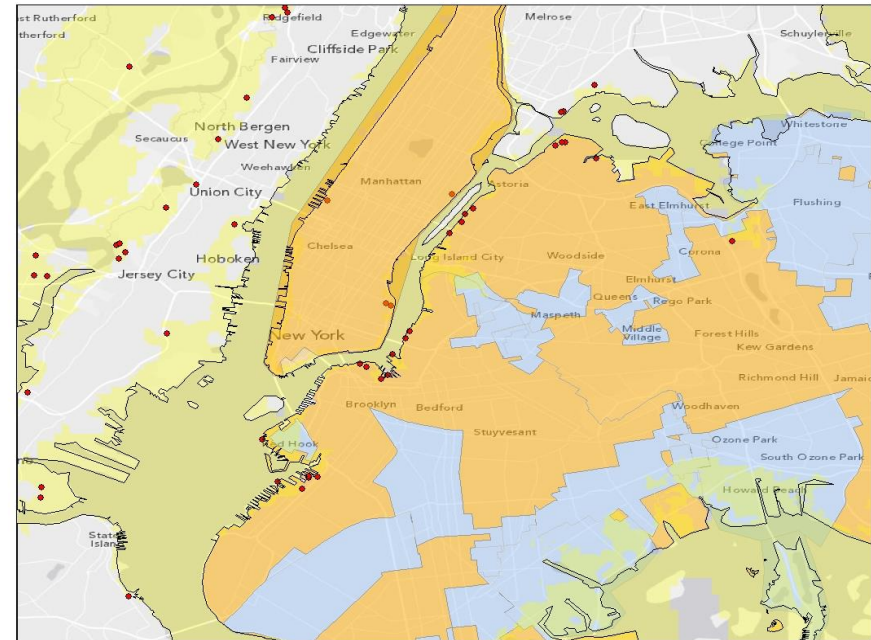
- **What's in a name?**
  - "Hurricane" or post-tropical storm.
  - Coastal peak gusts at hurricane strength
  - Overall, broad wind field with relatively low wind speeds except along coast.
  - Large coastal surge and flooding drove significant auto losses.
- **Key Takeaways**
  - Labels matter: Hurricane vs. Wind Event
  - Claims were widespread but average severities for property losses were low
  - Tree damage was a recurrent theme in areas not pruned by Hurricane Irene or the October 2011 Winter Storm

## Average Severities: Commercial



# Lessons Learned: Flooding

- Significant storm surge given the speed and direction of the storm, along with the influence of tides.
- Considerable commercial flooding, automobile flood losses, power outages and business interruption claims.
- Key Takeaways
  - Auto losses represented up to 1/5th of industry claims as compared to 3-8% for a typical hurricane. “Move your car!!”
  - Three-quarters of commercial property claims contained a time element component given power loss and coastal flooding. Determining coverage was key, but relatively clear:
    - Wind damage
    - Flooding
    - Power Failure
- Flood maps proved inadequate, exposing when flood limits were not well managed.
- The event demonstrated the value of understanding and managing power disruption.



## Vendor Provided Event Data

- Substation locations near flood inundated areas

■ AIR flood inundation area

## Consolidated Edison provided designations

### Cause of Power Outage

■ Flood or Preemptive Shutdown

■ Wind