

Reinsurance Association of America Catastrophe Loss Development Study

CARE Seminar 2011

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RAA Catastrophe Loss Development Study

1	Data Sources and Limitations
2	General Observations
3	Results of the Study

Basis of the Study

- ❑ Latest study – 2010
 - 16 reporting reinsurers
- ❑ Quarterly development, paid and incurred losses
- ❑ Domestic and foreign exposure for included events
- ❑ 2010 study – net of retrocession

23 Events

Significant impact on the US reinsurers

Hurricanes:

Hugo (1989)
Andrew (1992)
Georges (1998)
Floyd (1999)
Tropical Storm Allison (2001)
Charley (2004)
Frances (2004)
Ivan (2004)
Jeanne (2004)
Katrina (2005)
Rita (2005)
Wilma (2005)
Gustav (2008)
Ike (2008)

Earthquakes:

Loma Prieta (1989)
Northridge (1994)
Chilean earthquake (2010)

Hail and Wind:

PCS event 38 (2001)
PCS event 88 (2003)

Other Events:

Oakland Fires (1991)
Los Angeles Riots (1992)
World Trade Center event (2001)
California Wildfires (2003)

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General Comments

- ❑ Data reflects changes in estimates and cedants reporting lags
- ❑ Reporting lag varies dramatically
 - Between cedants
 - By size of risk and type of reinsurance contract
 - Domestic exposure vs. international
- ❑ Loss adjustment expenses as defined by reinsurance agreements
- ❑ Cash calls may be included as paid losses

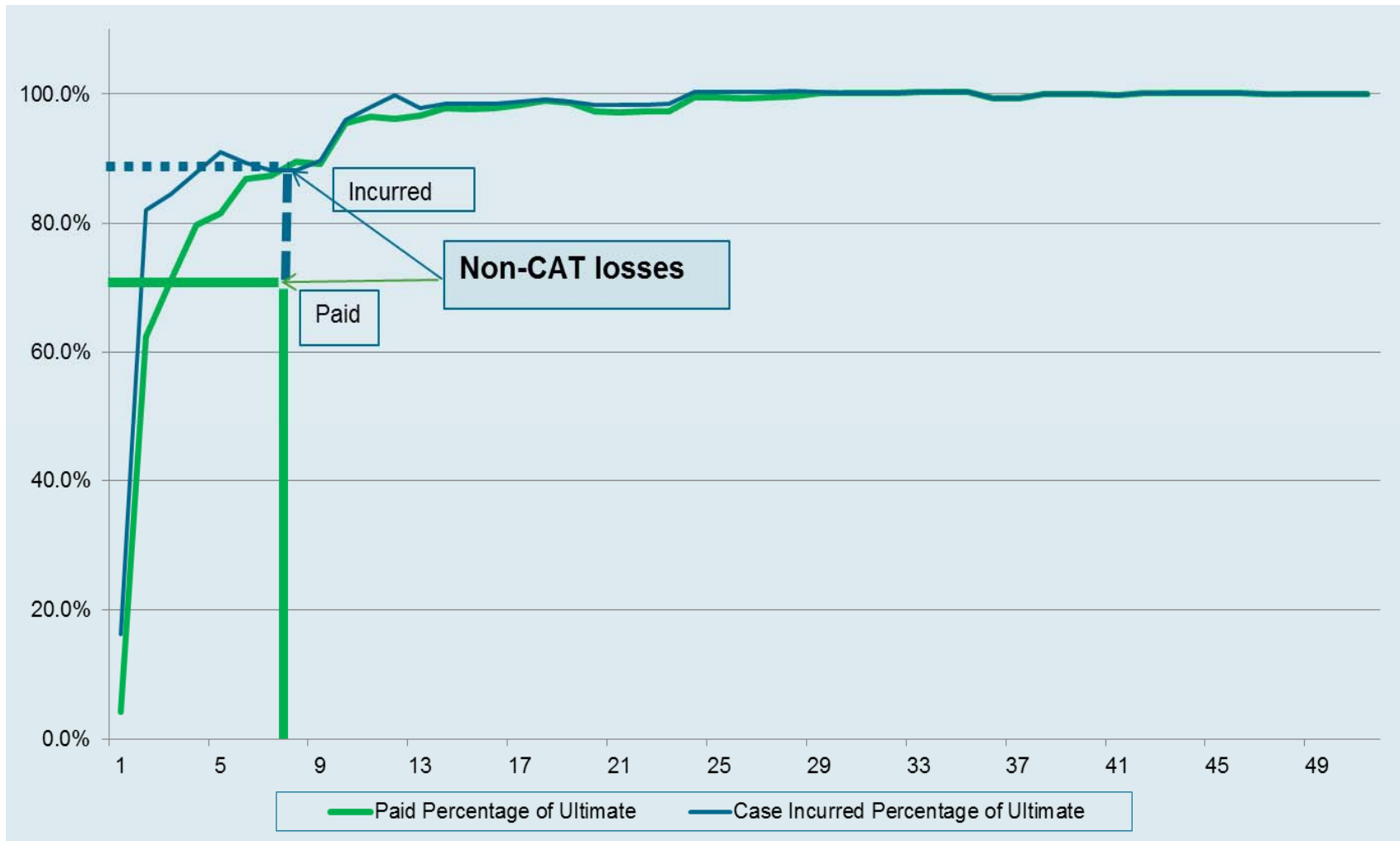
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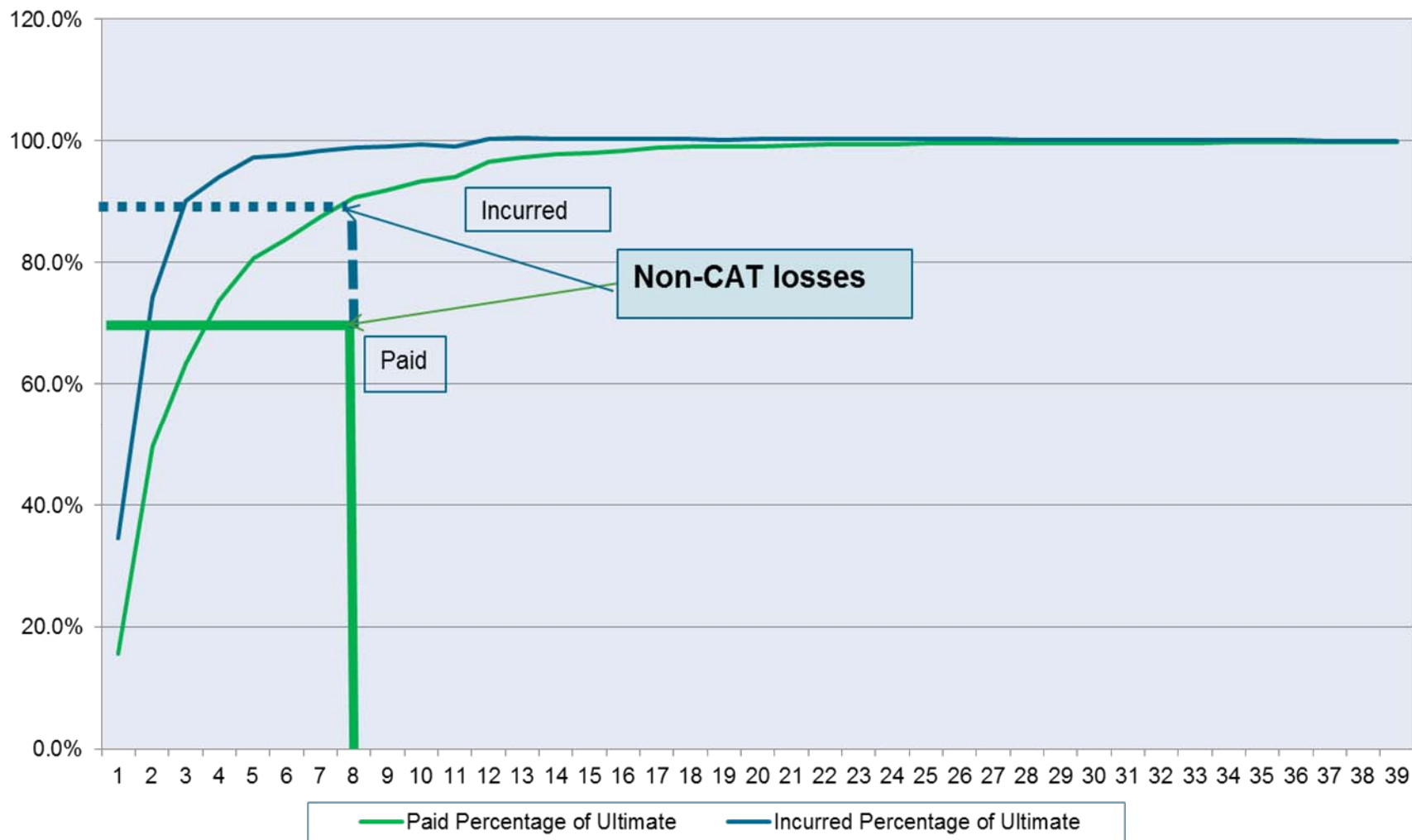
Mature Estimates

- ❑ Hurricane Hugo (1989 - ultimate at 3/31/02)
- ❑ Hurricane Andrew (1992 – ultimate at 3/31/02)
- ❑ Loma Prieta Earthquake (1989 – ultimate at 3/31/02)
- ❑ Oakland Fires (1991 – ultimate at 3/31/02)
- ❑ LA Riots (1992 – ultimate at 3/31/02)
- ❑ Hurricane Georges (1998 – ultimate at 3/31/06)
- ❑ Northridge Earthquake (1994 – ultimate at 3/31/06)
- ❑ Hail and Wind Event 38 (2001 – ultimate at 3/31/06)
- ❑ Hurricane Floyd (1999 – ultimate at 3/31/08)
- ❑ Hail and Wind Event 88 (2003 – ultimate at 3/31/08)

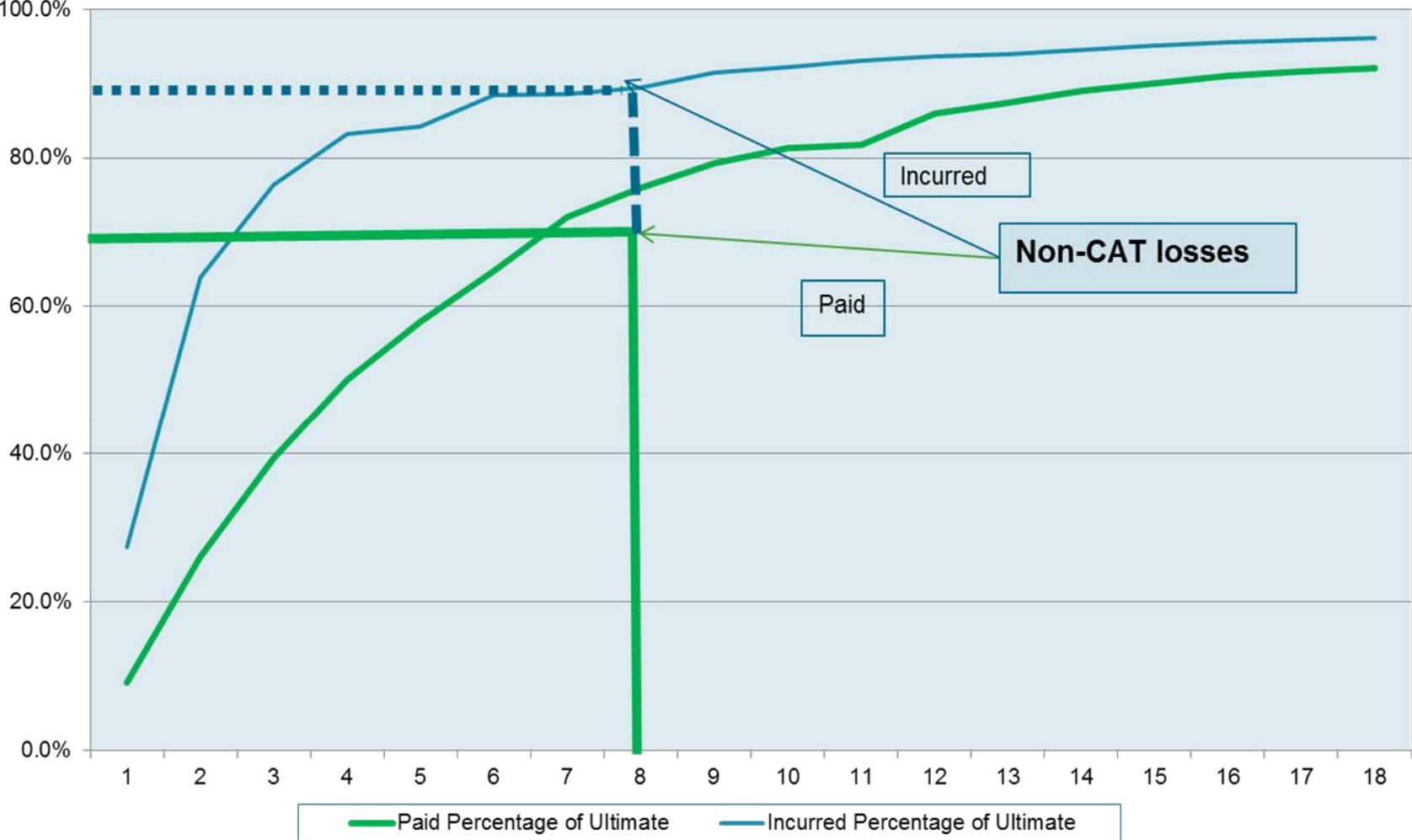
Hurricane Hugo



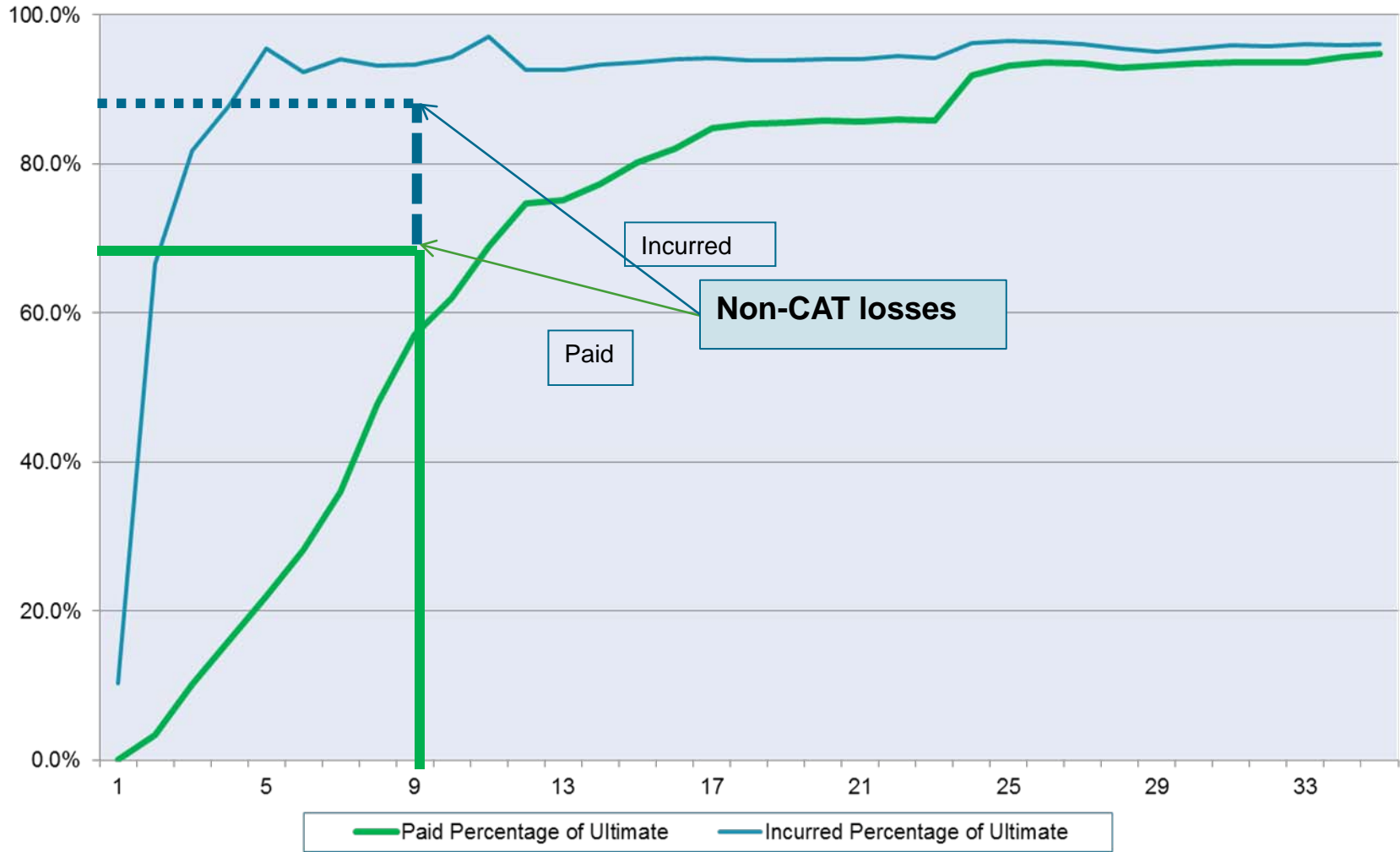
Hurricane Andrew



Hurricane Wilma



WTC – Property Losses Only



RAA Study vs. PCS vs. Swiss Re SIGMA

Event	PCS Estimate (\$b)	Swiss Re SIGMA (\$b)	Study Losses (\$b)	Number of Companies
Hugo	4.2	4.6	0.4	12
Andrew	15.5	16.0	1.2	12
Georges	3.0	3.5	0.5	15
Allison	2.5	3.6	0.2	8
Charley	7.5	8.1	0.8	19
Frances	4.6	5.1	0.8	19
Ivan	7.1	12.9	1.1	19
Jeanne	3.7	3.8	0.4	19
Katrina	41.1	64.8	7.5	19
Rita	5.6	10.1	1.5	19
Wilma	10.3	12.6	2.0	19
Gustav	2.2	4.0	0.1	18
Ike	12.5	20.0	2.1	21
Northridge Earthquake	12.5	14.0	0.7	13
Chilean Earthquake		5.5	1.3	14
WTC		18.8	3.7	12

QUESTIONS?