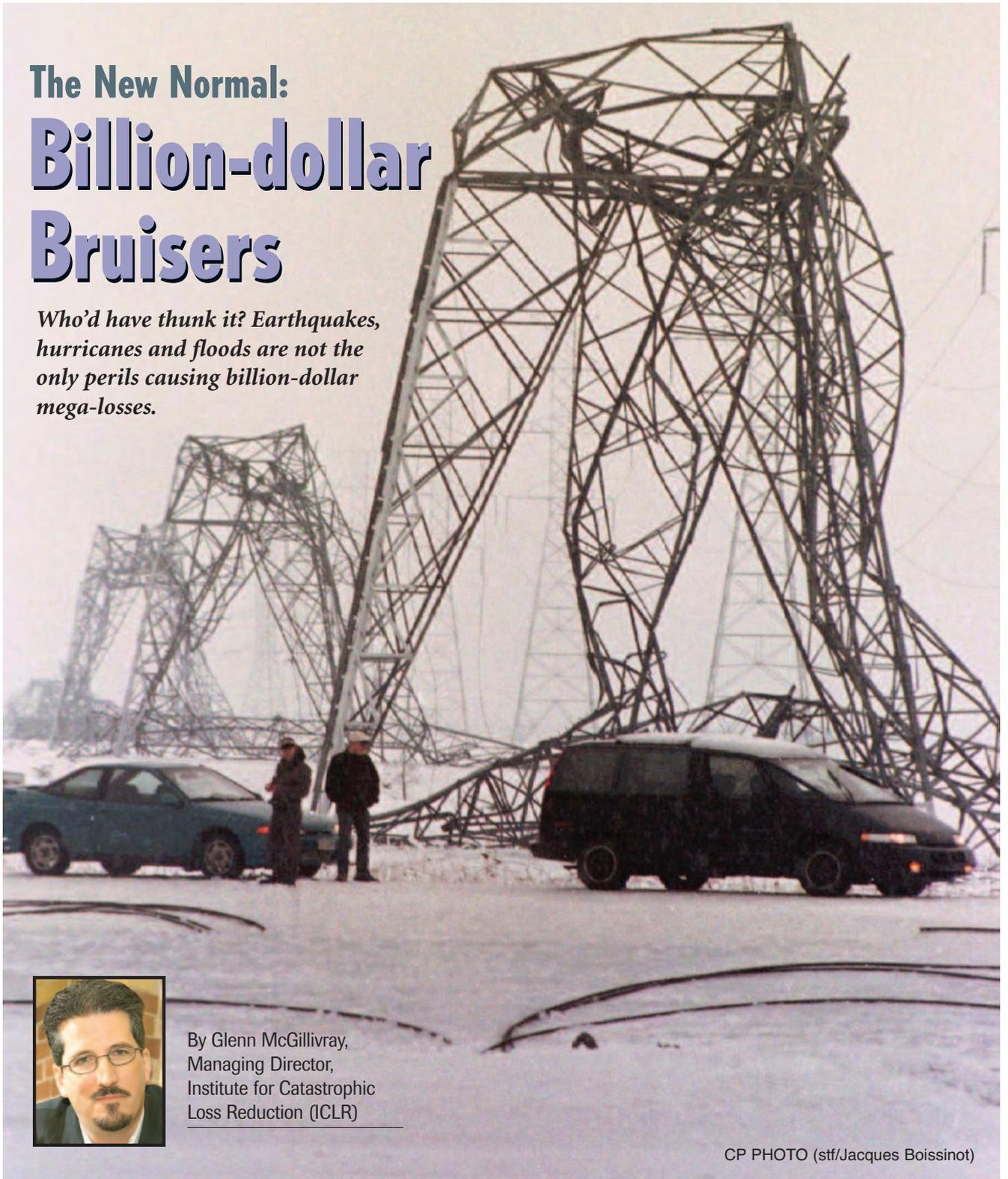


# The New Normal: Billion-dollar Bruisers

*Who'd have think it? Earthquakes, hurricanes and floods are not the only perils causing billion-dollar mega-losses.*



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CP PHOTO (stf/Jacques Boissinot)

**A**fter 2004 and 2005 brought back-to-back record years for insured losses, global claims totals in 2006 proved to be considerably more benign: Only three natural catastrophe events triggered insured losses of more than US\$1 billion each. Six such events occurred in 2005, seven in 2004 and none in 2000.

The three events in 2006 seem quite insignificant given the record North Atlantic hurricanes in the preceding two years, but something is worthy of mention in the metric: Of the three, US\$1-billion-plus events last year, two (or two-thirds) were U.S. tornadoes, something unheard of just 10 or 15 years ago.

In April 2001, I wrote: “A new world

order may be taking shape for property and casualty insurers and it could shake many an unprepared carrier to its very foundation. This new regime comes as a result of the birth and subsequent rise of \$1-billion-plus insured natural loss events that fall outside the realm of earthquake, hurricane and flood.

“Not all that long ago, such events were

thought to be highly unlikely, if not downright impossible. But since the mid-1980s, the roll call of such losses has proven naysayers wrong.”

Assuming \$1-billion-plus losses arising from severe weather storms and tornadoes are now becoming the order of the day, the result is that the industry may need to rethink how it purchases catastrophe reinsurance.

### THE NEW NORMAL: BILLION-DOLLAR LOSSES

Five years ago, I talked about how natural hazards other than the traditional trio mentioned above had begun — and at the time I predicted they would continue — to trigger progressively larger insured loss totals.

At that time, by way of example, I noted the Munich hailstorm of July 12, 1984 had caused insured damage of US\$476 million (US\$928.9 million in 2006 dollars). The storm marked one of the first times an event as normally low-grade as a hailstorm triggered significant insured damage, providing a hint of what was to come.

Sure enough, a few years later, on July 11, 1990, softball-sized hail hit Denver, Colorado, destroying roofs, siding and cars. Insured damaged came in at US\$625 million (US\$980.1 million in 2006 dollars).

The October 1991 fire in Oakland, California provided further evidence of the emerging phenomenon: that fire triggered insured losses of US\$1.7 billion (US\$2.5 billion in 2006 dollars), with eco-

omic losses estimated to be twice that figure. Another urban wildfire, the October 1993 Altadena/Sierra Madre fire near Los Angeles, triggered insured losses of US\$950 million (US\$1.3 billion in 2006 dollars).

The losses escalated from there. On May 5, 1995, a Fort Worth, Texas hailstorm triggered insured losses of US\$1.1 billion (US\$ 1.4 billion in 2006 dollars), making it the most costly hailstorm in U.S. history. Closer to home, the January 1998 Ice Storm caused Cdn\$1.4 billion (Cdn\$1.8 billion in 2006 dollars) in insured losses. In Sydney, Australia, an April 1999 hailstorm caused US\$982 million in insured losses (US\$1.2 billion in 2006 dollars). And on May 2, 1999, a series of tornadoes ripped through 18 U.S. states causing insured damage of US\$1.5 billion (US\$1.9 billion in 2006 dollars).

### DIFFERENT WEATHER PERILS

Since publication of my April 2001 piece, the list of US\$1-billion catastrophe losses has expanded (one of the biggest events occurred just after the article had gone to press), confirming my thesis.

On Apr. 10, 2001, a powerful storm ripped across the state of Missouri, packing powerful winds, driving rain, baseball-sized hail and tornadic storms. Almost 70,000 homes and business were affected; 22 TWA planes were forced out of service due mostly to minor damage. North St. Louis County and parts of St. Charles County alone suffered an estimated US\$700 million in insured damage. The total damage figure of US\$2.5 billion

(2006 dollars) easily usurped that of the May 5, 1999 Fort Worth event, making it the most costly hailstorm in U.S. history — a record that still stands.

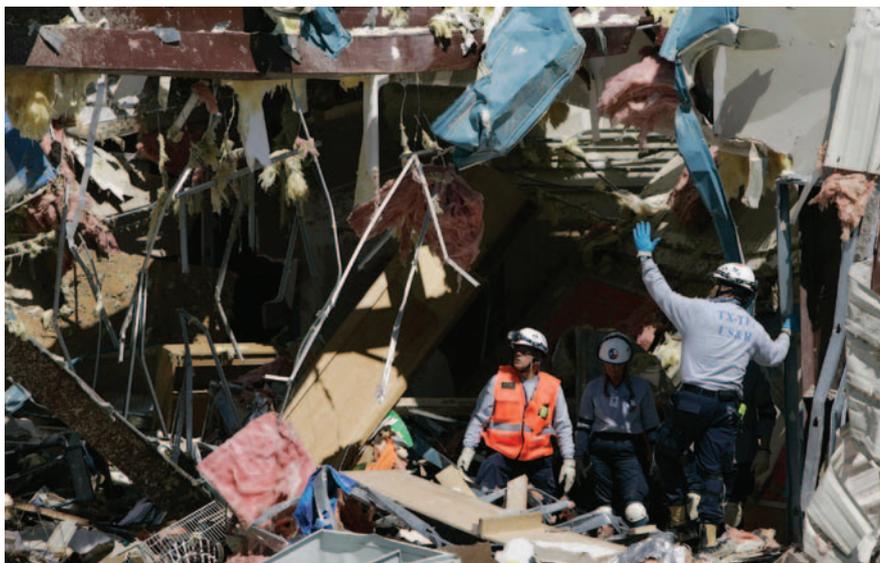
The ‘Old’ and ‘Cedar’ Fires in California each reportedly began on Oct. 25, 2003. The Old Fire destroyed more than 1,000 structures and burned in excess of 150,000 acres in the San Bernardino Mountains. The Cedar Fire, located south of Ramona in central San Diego County, destroyed 2,820 structures and consumed 280,278 acres. It remains the second-largest wildfire in U.S. history. Total insured damaged from the two fires has been reported at close to US\$3 billion.

An outbreak of tornadoes in May 2003, which saw 401 twisters tallied in one week, broke a 29-year-old record of 245 in one week (the old record was established during the period of March 30 to April 5, 1974). Nineteen states were hit with various combinations of rain, hail, wind and tornadoes. Swiss Re has insured loss figures pegged at US\$3.5 billion (2006 dollars).

Finally, as noted off the top, U.S. tornadoes accounted for two of just three natural catastrophe events in 2006 that triggered \$1-billion-plus losses. One tornado outbreak occurred Apr. 6-8; the other happened April 13-15. The April 6-8 series began in the Great Plains and continued to South Carolina. Seventy-four confirmed tornadoes ripped across 13 states, the bulk of them happening during the afternoon and evening of Apr. 7. The storms were particularly devastating in Tennessee: In total, 13 people were killed, 12 in Tennessee. A few weeks later, the ‘Easter Week Tornado Outbreak’ marked the third major outbreak of tornadoes in April 2006. As noted by Swiss Re, the April 6-8 series caused insured damaged of US\$1.3 billion. The April 13-15 series caused insured damage of US\$1.9 billion.

### BULLS-EYE

The fact that these types of natural loss events are now known to cause, in some cases, several billion dollars’ worth of insured damage suggests an increase in the concentration of insurable equity. Every year there are more homes, vacation properties and vehicles; more factories, warehouses and stores. Cities are getting bigger. New subdivisions are going in



Search-and-rescue team members look through debris at an elementary school in Eagle Pass, Texas, on Apr. 25, 2007, after a tornado swept through the area. (AP Photo/Eric Gay)

where wheat or cornfields recently stood. Once there might have been an old clunker in the driveway; now there is a pair or trio of high-end vehicles. In short, everyday we are becoming bigger and more expensive targets.

Hand in hand with this, there is increasing development in high-risk zones. More people are living on coastlines, on or near fault lines, in chalets at the bases of snowy mountains and in the wildland/urban interface. According to a May 29 article on wildfire in the *Insurance Journal*, “more than 6 million homes in the Golden State [California] stand in wildfire ‘red zones’ and that number is expected to grow by 20% in the next decade.”)

The uncertainty presented by climate change only adds to the challenge.

### **SHOULD INSURERS BE CONCERNED?**

Such events might throw a monkey wrench into commonly-held industry theories about what catastrophe reinsurance covers should be bought and why. Tornadoes, hailstorms, wildfires and other threat scenarios listed above are traditionally understood as high-frequency but low- to mid-severity events; therefore, they are often not well covered by catastrophe reinsurance. Many firms, particularly larger carriers, often purchase catastrophe reinsurance for a broader range of perils than would a mid- to small-sized regional player. Larger national players that must contend with earthquake and hurricane risks on top of tornado, hail, wildfire and other risks would typically purchase Cat XL covers with high attachment points, crafted for low-frequency, high-severity events.

According to industry data, on average, insurers usually do not activate most of their CAT XL protection until the aggregate loss level approaches US\$6 billion. Generally, catastrophe deductibles exceed the losses produced by tornado, hail and other non-earthquake/hurricane/flood events. Therefore most of the losses associated with such perils fall into the gap between coverage and are absorbed net by the insurer — sometimes badly hitting their bottom lines.

Because of the random, usually localized nature of tornado, hail and other such losses, the damage is not usually as widely distributed within the industry as

with other natural catastrophe events. Accordingly the losses to insurers will vary. But for many insurers, the annual net aggregated losses caused by tornadoes, hail and other perils could possibly exceed those caused by a major hurricane or earthquake in any given year. Indeed, over the past 30 years or so (excluding the record years of 2004 and 2005), total property catastrophe losses caused by tornadoes and hailstorms (US\$42 billion) has been greater than catastrophe losses associated with either hurricanes (US\$34 billion) or earthquakes (US\$17 billion). According to RMS, “...tornado and hail

events in the United States and Canada cause an average of over US\$5 billion in insured losses each year.”

So if the observations here are indeed something to take note of — and \$1-billion-plus losses caused by natural perils outside the traditionally obvious threats of earthquake, hurricane and flood are becoming commonplace — then results for many property and casualty carriers in North America could become a lot more volatile in the future. Consequently, some carriers may have to completely rethink how they protect their bottom lines with reinsurance. **CU**