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INSIDE

Dear Reader,

Over the winter and spring period, two topics dominated the headlines of the insurance press: the excess supply of capital in all its different forms and the resulting softening of reinsurance terms; and the high number of snow, winter storm and flood events which occurred across Europe, the United States and Asia.

The fact that these two developments occurred simultaneously appeared to buck the standard trend of higher losses resulting in increasing rates. However, when you examine the insured loss figures more closely it is clear that with the estimated world-wide insured Nat Cat losses in Q4 2013 and Q1 2014 put at approximately USD 12bn, the period is more an average one than an exceptional one.

Our role at PERILS is not to quantify the market softening, but rather the insured property losses – by Property line of Business and geographical territory. In total, during this period we investigated some 17 events – a particularly high figure due to the unusual and persistent weather patterns experienced during the period.

In this issue of our newsletter, we are pleased to share with you an overview of these events and the related industry losses.

We would also like to take this opportunity to acknowledge the sterling work of the insurance companies who share their data with us. We are very aware that, given the high frequency of recent events and the numerous data collections required, this has placed additional pressure on our data providers. Despite this, their support throughout this busy period has remained as strong as ever and we would like to offer our sincere thanks to all of them. We are confident that in return for their efforts, they and our entire user community will benefit greatly from the increased availability of independent, high-quality insurance data.

Best regards,

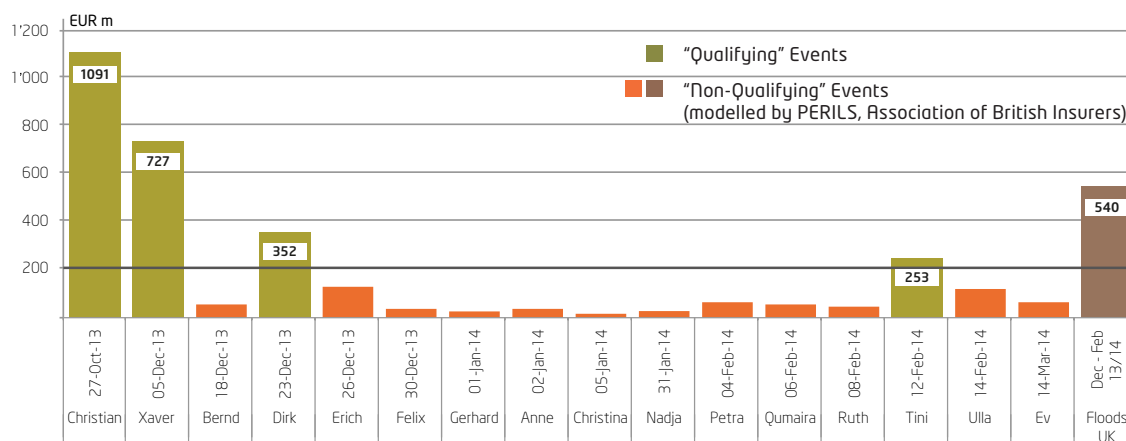
Edi Held
Head Products PERILS AG

Figures & Facts

> 100	number of data providing national insurance companies
12	number of countries covered: BE, CH, DE, DK, FR, IE, IT, LU, NL, NO, SE, UK
3	number of perils covered: wind, flood and earthquake
+ 2.3%	increase of total sums insured exposed to Wind Europe 2014 vs. 2013
4	minimum number of PERILS loss reports for qualifying events
15	number of captured events in the PERILS loss database
132	number of PERILS-based transactions placed since 1 Jan 2010
42	number of PERILS-based transactions at risk per 31 Mar 2014
USD 9.2bn	total of PERILS-based capacity placed since 1 Jan 2010
USD 4.3bn	PERILS-based capacity at risk per 31 Mar 2014

Cat Events

A very active 2013/2014 Europe windstorm season resulted in a combined industry loss figure of EUR 3.6bn but no exceptional single event loss.



per 12 May 2014

Figure 1: Industry event loss estimates for the European windstorm season 2013/14. Storms Christian, Xaver, Dirk and Tini were captured by PERILS. All other events were classified as “non-qualifying” because industry event losses were below PERILS’ EUR 200m capturing threshold.

In contrast to the 2012/2013 Europe windstorm season, the period from late October 2013 through to mid February 2014 witnessed a high frequency of extra-tropical cyclones. A key factor in this was a pronounced west wind drift coupled with an above average pressure difference between subpolar and subtropical zones over the North-eastern Atlantic region (see also section “Winter Season 2013/2014”).

PERILS investigated no less than 16 windstorms events and the floods in the UK for their potential to result in a market-wide insured property loss of more than EUR 200m (Figure 1).

These events were selected based on sources including data from insurance companies, wind speed data (see wind speed maps in inset) and scenario loss considerations using PERILS vulnerability data.

As a result of these investigations, windstorms Christian (also known as St. Jude, Allan, and Simone, see Figure 2), Xaver (also known as Bodil and Sven), Dirk and Tini (also known as Darwin) were deemed to have exceeded the EUR 200m threshold in the markets covered by PERILS (Table 1). As a result, these events are classified as “qualifying” and are fully captured by PERILS.

Event Name	Event Start Date	Peril	Countries most affected	Loss estimate in EUR*
Christian (St Jude)	27 Oct 2013	WS	BE, DE, DK, NL, SE, UK	1'091m
Xaver	5 Dec 2013	WS	DE, DK, NO, NL, SE, UK	727m
Dirk	23 Dec 2013	WS	FR, UK	352m
Tini	12 Feb 2014	WS	IE, UK	253m

Table 1: “Qualifying” events during the winter 2013/2014. Four events occurred with market-wide insured property losses exceeding EUR 200m. Total insured property loss for all four events amounts to EUR 2.4bn.

*latest available loss estimates, per 12 May 2014

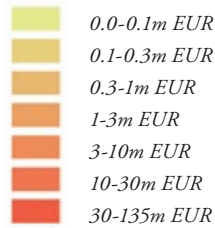
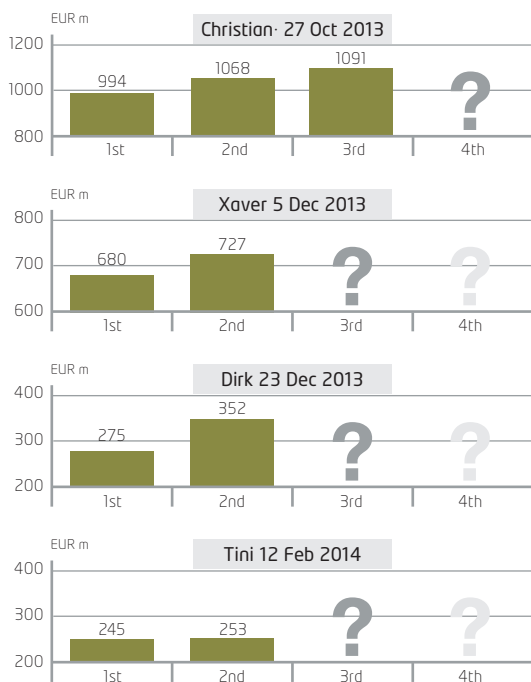


Figure 2: Windstorm Christian (St Jude, Oktoberstormen / Allan, Simone, 27 October 2013), market-wide insured property losses:
For subscribers to the PERILS Database, the industry loss figures, based on ultimate gross loss estimates as reported by insurance companies, are available in full resolution, i.e. by CRESTA zone and by the property sub-lines Residential, Commercial, Industrial and Agricultural.



The related loss reporting is in line with PERILS' reporting schedule for qualifying events (see Figure 3): event losses are released six and twelve weeks, six and twelve months after the respective occurrence dates. The 3rd and following loss reports contain loss data per CRESTA zone, occupancy and coverage types. All of the other events fell below the EUR 200m threshold (Table 2). For the UK flood events which occurred between December 2013 and February 2014, no events were classified as qualifying events when the prevailing reinsurance event definitions were applied (168 or 504 hours clause).

Figure 3: PERILS Loss Reporting. PERILS' loss estimates for storms Christian, Xaver, Dirk and Tini (as available at 12 May 2014).

Event Name	Event Start Date	Peril	Countries most affected
Bernd	18 Dec 2013	WS	FR, IE, UK
Erich	26 Dec 2013	WS	BE, IE, NO, UK
Felix	30 Dec 2013	WS	NO, UK
Gerhard	1 Jan 2014	WS	FR, UK
Anne	2 Jan 2014	WS	IE, UK
Christina	5 Jan 2014	WS	UK, NO
Nadja	31 Jan 2014	WS	IRL, UK








Event Name	Event Start Date	Peril	Countries most affected
Petra	4 Feb 2014	WS	FR, IRL, UK
Qumaira	6 Feb 2014	WS	BE, DE, FR
Ruth	8 Feb 2014	WS	FR, UK
Ulla	14 Feb 2014	WS	BE, FR, IE, NO, UK
Ev	14 Mar 2014	WS	DE, DK, NO, SE
Floods UK *	Dec 13 to Feb 14	Flood	UK

Table 2: "Non-qualifying" events during the winter 2013/2014.
These events were investigated by PERILS but were found to be below the market-wide event loss threshold of EUR 200m.

* No qualifying event when applying prevailing reinsurance event definition

Qualifying Events 2013/2014

Maximum gust speeds

	< 80 km/h (<22m/s; <50mph)
	80-100 km/h (<22-28m/s; 50-62mph)
	100-120 km/h (28-33m/s; 62-75mph)
	120-140 km/h (33-39m/s; 75-87mph)
	140-160 km/h (39-44m/s; 87-99mph)
	160-180 km/h (44-50m/s; 99-112mph)
	> 180 km/h (>50m/s; >112mph)

CHRISTIAN (ST JUDE, OKTOBERSTORMEN / ALLAN, SIMONE)

27-29 October 2013
total insured loss of EUR 1'091m

After its formation, Christian moved east and deepened rapidly, fuelled by the remnants of tropical storm Lorenzo and a strong jet stream, before hitting the southern part of the UK late on Sunday 27 October 2013. From there the system travelled at a very high speed of up to 100 km/h in a north-easterly direction. The highest wind speeds recorded were on the Isle of Wight, UK (159km/h), Zeebrugge, Belgium (119km/h), Lauwersoog, Netherlands (130km/h), Sankt Peter-Ording, Germany (172km/h), on the Kegnaes peninsula, Denmark (193km/h) and at Hallands Väderö, Sweden (151km/h).



XAVER (SINTERKLAASSTROM, BODIL, SVEN)

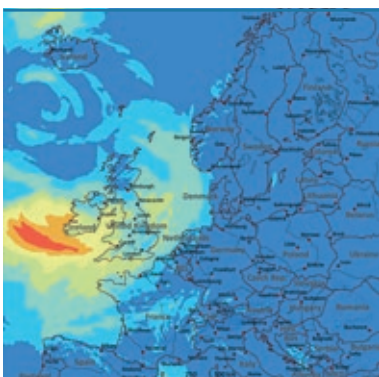
5 - 6 December 2013
total insured loss of EUR 727m

The Xaver depression formed in the Atlantic to the west of Iceland on 4 December 2013. It quickly moved south-eastward towards the British Isles, deepening as it moved. The first strong winds hit the northern part of the UK in the early hours of Thursday 5 December 2013. From there, the system continued in an easterly direction over the North Sea where it reached a minimum central pressure estimated at 960mb in the early evening of 5 December 2013. It moved further east into Norway and the Baltic Sea, before entering the Baltic States and Western Russia on Friday 6 December 2013.

DIRK

23 - 25 December 2013
total insured loss of EUR 352m

After its formation over Newfoundland, Dirk travelled quickly eastward over the North Atlantic driven by a powerful jet stream. It reached Western Europe on 23 December, where the first strong gusts were recorded in Ireland that afternoon. On Christmas Eve, the system reached its minimum pressure over land with a recorded 936mb at Stornoway, off the north-west coast of Scotland, probably the lowest land station value since 1886. From there, the system slowly moved in a north-easterly direction towards northern Norway, before finally dissipating on 27 December. The Eiffel Tower in Paris registered a gust of 144km/h (although this was still far below the 216km/h recorded during windstorm Lothar on 26 December 1999).

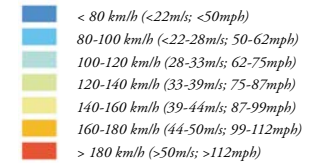


TINI (DARWIN)

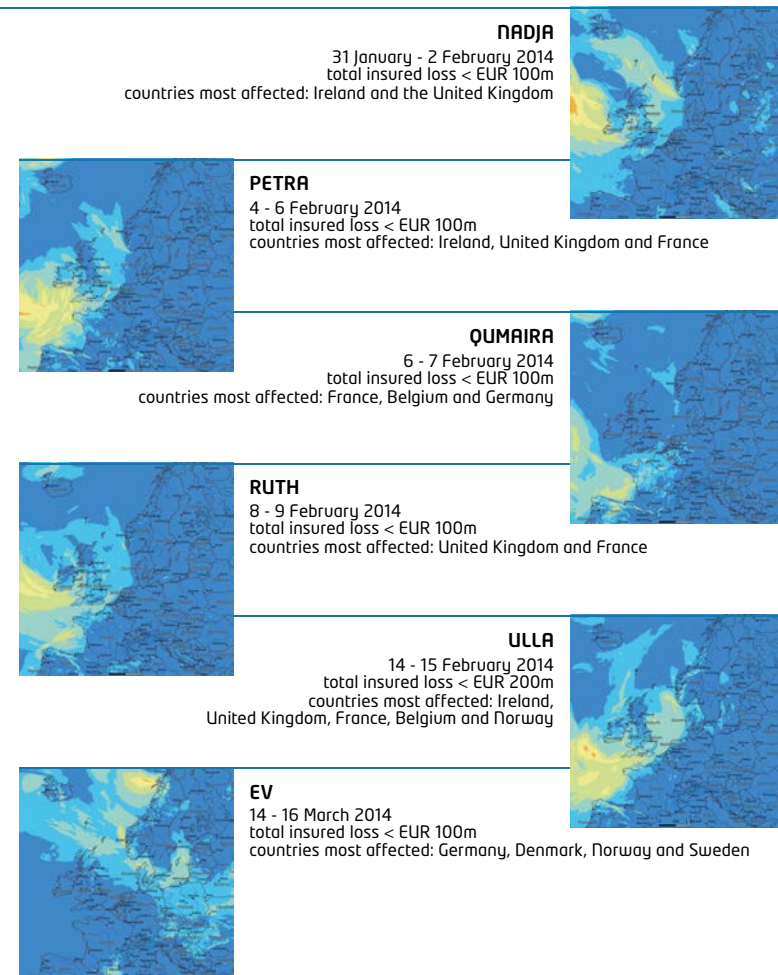
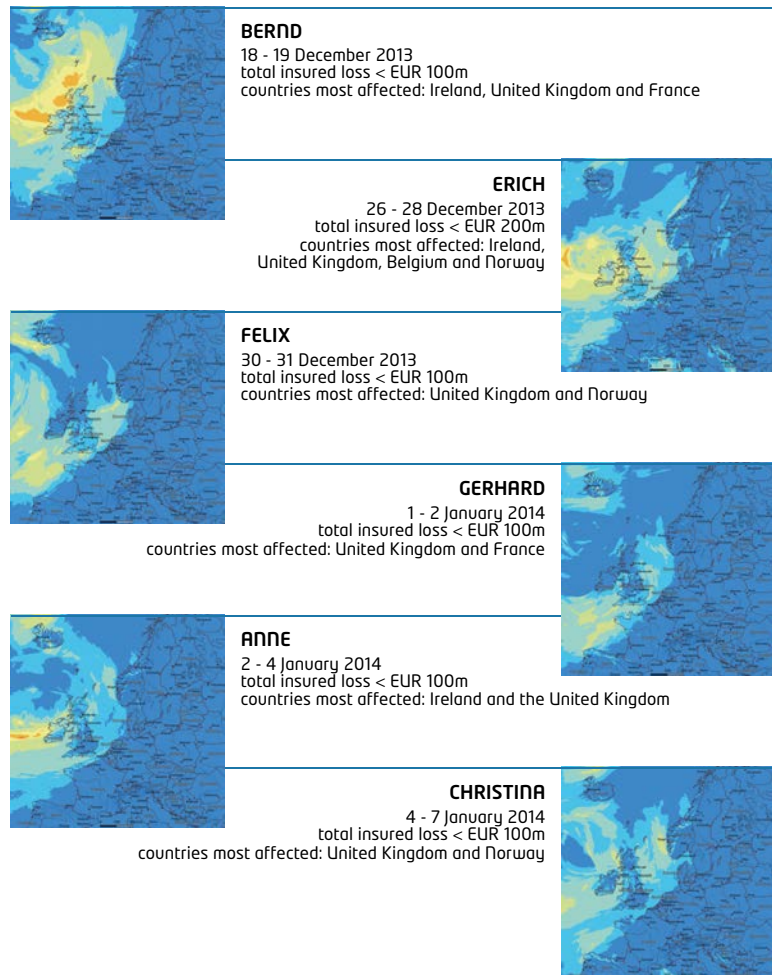
12 - 13 February 2014
total insured loss of EUR 253m

Tini was identified by the Free University of Berlin on 10 February 2014, when it was located over the North Atlantic. The following day it moved eastwards and deepened rapidly while travelling in a north-westerly direction over the British Isles. It reached the North Sea in the early hours of 13 February, and started to move in a northerly direction. The system gradually weakened the following day over the Norwegian Sea. The highest gust value of 180km/h was registered in the UK on Great Dun Fell in England's Pennine mountain range (848m a.s.l.).

2013/2014 Europe Windstorm Season



*Maximum gust speeds in km/h
Source: COSMO-EU, DWD*



Business Update

Release of the updated PERILS Industry Exposure Database for 2014. Consolidation in the use of PERILS data in risk transfer products.

Update of the PERILS Industry Exposure Database for 2014

On 1 April 2014, PERILS released the Industry Exposure Database for 2014. It contains updated market-wide property sums insured exposed to windstorm Europe, flood Italy and UK and earthquake Italy. The in-force date of the sums insured is 1 January 2014 and the

Total Sums Insured	Change 2014 -2013 in original currency
Belgium WS	6.4%
Denmark WS	6.1%
France WS	1.4%
Germany WS	3.4%
Ireland WS	3.8%
Luxembourg WS	4.2%
Netherlands WS	4.0%
Norway WS	6.1%
Sweden WS	3.7%
Switzerland WS	3.1%
United Kingdom WS	4.9%
Total WS	3.5%
Italy EQ	20.2%
Italy FL	21.9%
United Kingdom FL	4.8%

data is available in a CRESTA zone, occupancy type (residential, commercial, industrial and agricultural) and cover type (building, content, business interruption) resolution.

The industry exposure is based on data directly collected from more than 100 national insurance companies representing about 60% of the overall market in terms of property premium. As in previous years, year-on-year developments are mainly driven by movements in collected sums insured data and movements in market benchmarks (Table 3).

Consolidation in the use of PERILS data in industry-loss-based risk transfer

At 31 March 2014, there were USD 4.3bn of PERILS-based limits at risk, an increase of +7% compared to 31 March 2013. Of this, USD 2.9bn (68%) related to 144A ILS transactions and USD 1.4bn (32%) to private transactions. Some 79% of the total capacity used PERILS data for structured industry loss triggers (e.g. Country- or CRESTA-weighted) and 72% was acquired for retrocession purposes (Figure 4).

Table 3: PERILS Industry Exposure Database 2014. On 1 April 2014, PERILS issued the update of its exposure database. Compared to 2013, the total sums insured movement over all eleven windstorm markets combined is +3.5% at constant FX rates. Year-on-year developments are mainly driven by movements in collected sums insured data and movements in market benchmarks. To its subscribers the market-wide sums insured data are available per CRESTA zone, property occupancy and coverage type.

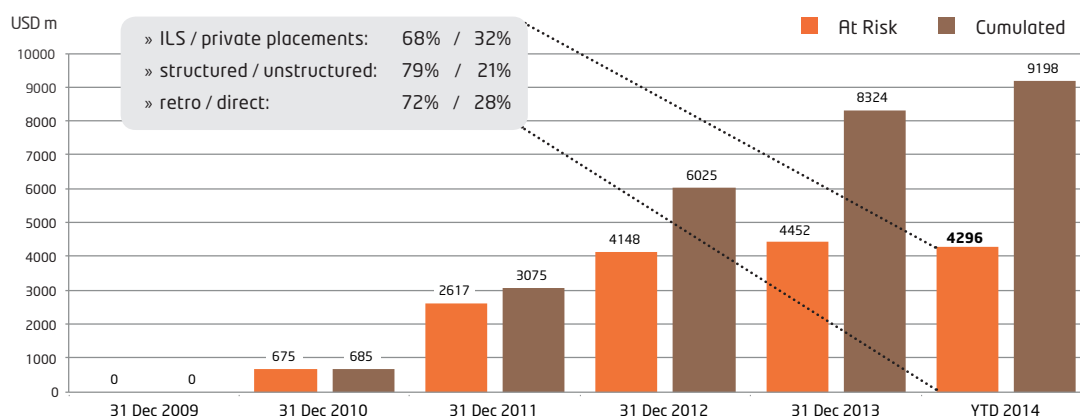


Figure 4: PERILS-based limits at risk. As at 31 March 2014, a total of USD 4.3bn of PERILS-based limits was at risk. The cumulated total of limits issued since 1 Jan 2010 was USD 9.2bn.

Winter Season 2013/2014

The winter season 2013/2014 in Europe was exceptional from a meteorological and hydrological perspective, especially for the British Isles. Despite this, it cannot be considered an exceptional period in terms of insured losses.

In this section, we look to define what can be considered as extraordinary and what not, in the context of the winter season 2013/2014. We also discuss whether climate change has played a role in the recent storm and flood

activity. To conclude, we highlight the value of the data gathered for both risk takers and risk modellers alike, even though the overall loss figure was relatively moderate.

Air pressure	Record lows	24 Dec 2014 (Dirk): 936mb at Stornaway (Scottish Highlands) – this was potentially the lowest land station value since 1886 for the UK.
Jet stream	Relatively strong, persistent, occurring at low latitudes	The average NAO index* for Nov 2013 to Feb 2014 was the 4th highest in the last 15 years with 72% of daily values exceeding the average value of 0.13.
Storm surge	Record highs	In Germany, storm surge levels came close to those observed in 1962. In Belgium and the Netherlands, they exceeded the record levels of 1953 .
Storm activity	High number of depressions	PERILS investigated a record number of 16 storms .
Rain, flood	Record amounts	The rainfall total for Dec/Jan in southwest and central UK was 372mm – the highest since 1910 . Combination of tidal, pluvial, fluvial and groundwater flooding

Table 4: Meteorological characteristics of the winter 2013/14.
The table shows which elements of the 2013/2014 European winter season were exceptional (also based on the UK Met Office).

* The NAO index is a measure of the pressure difference between the Icelandic low and the Azores high (high NAO Index = strong jet stream).

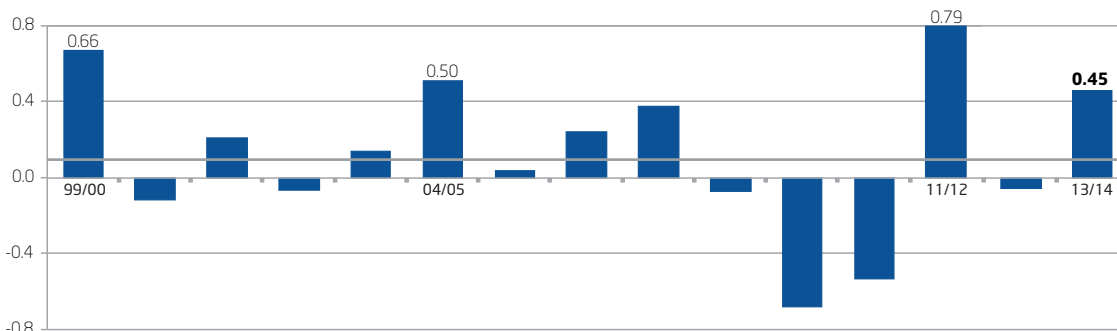


Figure 5: Average NAO Index values for the four-month period November to February, 1999-2014.

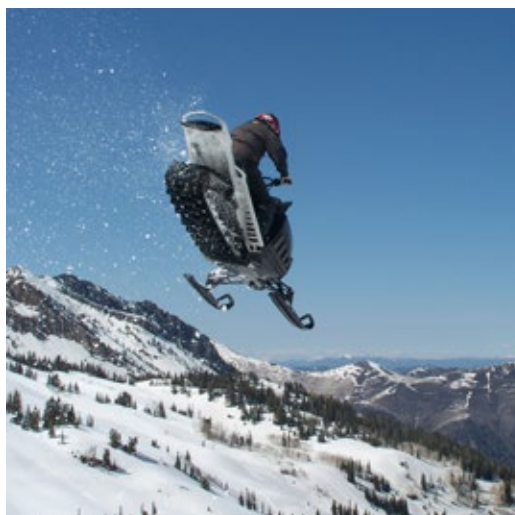
Source NAO values: National Oceanic and Atmospheric Administration

What was exceptional

In the winter of 2013/14, PERILS investigated a record 16 storms and the flooding in the UK. The high number of events was primarily due to a pronounced temperature and pressure gradient between subpolar and subtropical regions. This, together with a strong jet stream occurring at low latitudes, pushed waves of low pressure systems composed of mild and consequently humid air towards Western and Northern Europe (Table 4, Figure 5). The weather pattern was also linked to the jet stream in the Pacific and the extraordinary cold weather experienced in many parts of North America.

What was not so exceptional

Even if from a meteorological perspective the past winter can be considered exceptional, it was not in respect of the resulting insured losses. Based on the events investigated, PERILS estimates the total insured property loss from the storms and flooding for the period from the end of October to the end of February to be EUR 3.6bn. This figure is



significantly below the EUR 10.1bn loss which was experienced in 1999/2000 (Anatol, Lothar, Martin; PERILS estimates).

It should also be noted that the events were limited to Western and Northern Europe, with Central and Eastern Europe remaining relatively unaffected by major events.

Was it Climate Change?

The above-average storm and flood activity of the past winter of course raises the question of whether this can be attributed to climate change. The answer is that we don't know. This is due to the fact that we simply cannot state that a series of events that affected a relatively small geographical extent and occurred over a period of a few months is evidence of a phenomenon that is global and occurs over a period of decades.

Perhaps a more pertinent question is whether, in the long-term, climate change will have a broader impact on the frequency and/or intensity of winterstorms?

A number of climate models predict that the polar regions will warm at a faster rate than the subtropical and tropical latitudes. The resulting lowering of the difference in temperature and pressure is likely to reduce the frequency of extratropical cyclones (ETC) as their primary energy source stems from the temperature contrast between warm and cold air masses. However, at the same time, higher temperatures allow the air to carry more humidity leading to more latent heat possibly intensifying ETCs. This could mean that while we might experience fewer winter storms in the future, those which do occur will be of a greater intensity and will bring more precipitation.

The 2013 IPCC report concludes that: “[...] the global number of ETCs is unlikely to decrease by more than a few percent [...] and it is very likely that increases in winter precipitation by the end of the 21st century will result in [...] enhanced extremes of storm-related precipitation.”

As to where these phenomena will occur, whether specific weather patterns will become more persistent (lock-in effects), and how much of the anticipated change in weather can be attributed to human activity, the models’ answers to these questions are even more uncertain.

More data

All models, may they be climate or Cat risk models, benefit greatly from increased data availability. Each of the events which occurred during the winter season 2013/2014 can therefore be considered to contain valuable information. For those events which were of particular significance to the insurance industry, PERILS was able to capture and process such data and make it available to the PERILS community.

Combining CRESTA-zone based industry loss figures with exposure and gust information strengthens the base data which is necessary for improving the quality of models and thus for conducting a sound assessment of Cat risk.

Outlook

Over the coming months, we will continue to work on expanding PERILS' primary remit – generating industry insurance data based on data gathered directly from insurance companies – into new territories and perils of relevance to the industry.

At the same time, we want to understand from our data providing companies how the data gathering process can be made more efficient, minimizing the efforts required of these companies while maintaining the scale and quality of our database.

In both of these endeavours, we look forward to continuing to work closely with you to ensure that our market data is of the greatest practical benefit to the insurance industry.

With our very best regards,

Your PERILS Team

Zurich, May 2014



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