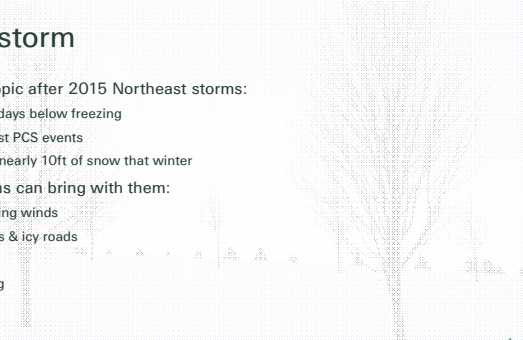



Winterstorm

- Emergent topic after 2015 Northeast storms:
 - 30 straight days below freezing
 - Six Northeast PCS events
 - Boston had nearly 10ft of snow that winter
- Winterstorms can bring with them:
 - high damaging winds
 - heavy snows & icy roads
 - freezing
 - ice damming



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Winterstorm Reinsurance Considerations



Winterstorm Loss Occurrence

- Multiple snow storms
- Ice Damming – Melting vs. Formation
- Tying discovery to occurrence
- Multi "Penit"

Ways to address ambiguity

- Expand the hours clause
- Specific Freeze (Ice Dam) language
- Eliminate the hours clause
i.e. Agg Cover

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Wildfire



Wildfire

- The 'Perfect Storm'
 - 2016 flooding brings fresh vegetation (fuel) after several prior years of drought
 - 2017 droughts hit again
- Five of the top twenty most destructive wildfires in CA recorded history occurred in 2017
 - Nearly \$12.3bn of insurance claims resulted
 - ~40,000 Residential structures were damaged
 - Sadly 42 lives were lost
- 2018 offered no reprieve
 - Mendocino wildfire burned nearly 460,000 acres, the largest in recent history
 - Carr wildfire also made the top 20 list for most destructive and acres burned
- Wildland Urban Interface/Intermix (WUI) continues to grow
- The vast majority of the most destructive wildfires are human related causes

Wildfire Reinsurance Considerations

The diagram illustrates two wildfire-related processes: Modelling and Occurrence. Modelling is associated with 'exposure data' and 'regulatory review'. Occurrence is associated with 'human ignition', 'hours + radius', and 'mudslide & proximate cause'.

Flood

An aerial photograph showing a residential neighborhood completely inundated with floodwater. Houses, streets, and a bridge are visible above the water level.

Closing the US Flood Protection Gap

- Insurers have the opportunity to capitalize on a growing risk pool with more confidence than ever before.

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USD billion
The total amount American households are underinsured by in an average year.

85%
Percentage of American homeowners who do not have a flood policy.

10

Why Now?

Better understanding of physics of flooding 	High resolution maps 	Fully probabilistic inland and surge models
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Flood Reinsurance Considerations

Auto Comprehensive Exposure

Coastal risks: Wind & Surge Correlation

Modelling: Fluvial Pluvial Surge

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