

# C4 2017

CatIQ's Canadian Catastrophe Conference

## February 1-3

Allstream Centre, Toronto ON

[www.catiq.com/c4](http://www.catiq.com/c4)

 #C42017

C4 2017 is brought to you by



*Bringing Together Industry, Academia and Government  
to Discuss Canadian Natural and Man-Made Catastrophes*

## C4 2017 Advisory Committee

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Director of Canadian Climate Forum

### **Nathalie Bleau**

Coordinator, the Built Environment Program,  
Ouranos

### **Claudette Cantin**

SVP, Chief Risk Officer,  
Munich Re of Canada

### **Paul Cutbush**

SVP Catastrophe Management,  
Aon Benfield Analytics

### **Steve Johnston**

Director, Corporate Reinsurance,  
Co-operators Group

### **Paul Kovacs**

CEO, PACICC and  
Executive Director, Institute for  
Catastrophic Loss Reduction (ICLR)

### **Megan Meaney**

Canadian Director,  
ICLEI - Local Governments for Sustainability

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VP Commercial Lines & Reinsurance,  
Aviva Canada

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Partners for Action,  
University of Waterloo

### **Carolyn Rennie**

Managing Director,  
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Enterprise and Development (SEED),  
University of Waterloo

### **Pat Van Bakel**

President & CEO,  
Crawford & Company (Canada) Inc.

### **Rebecca Wagner**

Associate Director, Prediction Services  
Operations - Central Region,  
Meteorological Service of Canada,  
Environment and Climate Change Canada

### **Kyle Winston**

President,  
CRU Group Inc.

## About C4

It is no question that the frequency and severity of natural and man-made catastrophes in Canada has been on the rise. Annual insured losses in Canada over \$1 billion dollars are becoming the norm. These catastrophic events, which directly impact the Canadian public, require industry, academia and all levels of government to work together before, during and afterwards. With such a great need to build collaboration and resilience, Catastrophe Indices and Quantification Inc. (CatIQ) has worked to organize a conference to address Canadian Catastrophes.

CatIQ's Canadian Catastrophe Conference (C4) is a content-driven discussion to foster collaboration before, during and after catastrophic events. This conference will provide an overview of catastrophes, discuss strategies in catastrophe management and explore sector perspectives. Overall themes will focus on preparedness and resiliency, available tools, and impacted stakeholders and policy makers working together for the greater good of all Canadians.

Connect with us on Twitter:



@CatIQ\_Inc  
#C42017

Save \$100 per delegate by registering before November 30<sup>th</sup>  
Save an additional \$100 per delegate by registering 3 or more!



CatIQ's Canadian Catastrophe Conference

REGISTER  
ONLINE

[www.catiq.com/c4](http://www.catiq.com/c4)

Registration fees include access to all sessions, the cocktail reception, breakfasts, lunches and workshops.

**Registration:**

*(all prices are in Canadian dollars, plus applicable taxes)*

	By Nov 30	From Dec 1
Individual delegate	C\$899.00	C\$999.00
Group rate (3 or more)	C\$799.00	C\$899.00

Government and academic rates are available. Contact [carolyn.rennie@catiq.com](mailto:carolyn.rennie@catiq.com) for more details

*Cancellation Policy:*

*Cancellation fee of C\$ 125+HST applies per delegate, no refunds after Dec 31, 2016.*

*Substitutions allowed at any time.*

Questions? Please contact Carolyn Rennie at (416)368-0777 x28 or [carolyn.rennie@catiq.com](mailto:carolyn.rennie@catiq.com)

For more information please visit our website: [www.catiq.com/c4](http://www.catiq.com/c4)

## Who Should Attend (What's In It For Me?)

C4 is built to find common ground and foster cross-section collaboration between the following:

- ✓ Insurance/Reinsurance Professionals
- ✓ All Levels of Government
- ✓ Academia/Researchers
- ✓ Risk Managers
- ✓ Other sectors/organizations dealing with resilience from catastrophes

7:30 - 8:50am **Breakfast** sponsored by Risk Sciences International

8:55 - 9:10am **Welcome and Acknowledgements & Intro Address**



**Jim Abraham**  
C4 2017 Emcee and  
Director,  
Canadian Climate Forum



**Carolyn Rennie**  
Managing Director,  
CatIQ Inc.

9:10 - 9:25am **CatIQ's 2016 CATs in Review**



**Carolyn Rennie**  
Managing Director, CatIQ

The conference will begin with an overview of natural and man-made catastrophes that occurred in 2016. This comprehensive review will include a chronology of events, geographic footprints of impacted areas, related media and insured loss estimates provided by CatIQ.

9:30 - 10:45am **The Fort McMurray Wildfire**



Moderated by:  
**Skip McHardy**  
VP Canadian Catastrophe Operations,  
CRU Group Inc.



Keynote Speaker  
**Darby Allen**  
Regional Fire Chief,  
Regional Municipality of Wood Buffalo

On May 3, 2016, the town of Fort McMurray was impacted by Canada's costliest catastrophe to date. The Fort McMurray Wildfire caused over \$3.6 billion in insured losses and directly or indirectly impacted all Canadians. C4 2017's Keynote Speaker, Fire Chief Darby Allen, will share what happened and the ongoing lessons of recovery and resiliency from this unprecedented event.

10:45 - 11:10am **Networking Break** sponsored by Munich Re

### Morning Concurrent Sessions

11:15am-12:15pm **Concurrent A: Terrorism Risk: International & Canadian Perspectives**



**Moderator**  
**Mazdak Moini**  
VP Commercial  
Lines,  
Aviva Canada



**Charlene Chia**  
Senior Risk  
Consultant,  
AIR Worldwide



**Scott Bolton**  
Director, Business  
Development &  
Network Relations,  
Aon Risk Solutions



**Terry Chowanec**  
VP, National  
Security Operations,  
The Cadillac Fairview  
Corporation Ltd.



**Harris Silver**  
Manager High Risk  
Deployment, Operations &  
Contingency Planning,  
Production Solutions,  
CBC Radio Canada

When we talk about catastrophes, disastrous singular events are considered. In Canada, due to the frequency of occurrence, natural disasters top the list. However, man-made disasters such as terrorism pose a potential and significant threat that many have not yet considered. This panel of specialists in the field of Terrorism Risk will provide international and Canadian perspectives to shine some light on the topic of terrorism.

11:15am-12:15pm **Concurrent B: Societal Impacts**



**Rebecca Wagner**  
Associate Director,  
Prediction Services  
Operations - Central  
Region, Meteorological  
Service of Canada,  
Environment and Climate  
Change Canada



**Dr. David Laplante**  
Research Associate,  
Douglas Mental  
Health,  
University  
Institute



**Bill Tibbo**  
President & CEO,  
Bill Tibbo &  
Associates



**Dr. Liette Vasseur**  
UNESCO Chair in  
Community  
Sustainability and  
Professor,  
Brock University



**Jean-Philippe Tizi**  
VP, Emergency  
Management,  
Canadian  
Red Cross

Many are aware of the catastrophic property damage that can occur from natural disasters, but what about the effect to people? This panel of professionals, working in the fields of mental health and community sustainability, will share their observations on the societal impacts of catastrophes. Perspectives will include: observations from the Douglas Institute relating to the 1998 Ice Storm; practitioner experience dealing with the mental recovery required after catastrophic events; a view of community sustainability and social structure specific to work done in coastal communities off the Gulf of St. Lawrence; and a presentation from the Canadian Red Cross.

12:20 - 2:05pm

**Lunch & Student Delegate Presentations**

Co-sponsored by Aviva Canada and The Co-operators

CatIQ's Student Delegate Program provides networking opportunities to graduate students attending Canadian universities working in the field of, and researching topics related to, resilience from catastrophes. The top five students will be selected as winners of the C4 2017 Student Delegate program and will present their research during the opening lunch.

**Afternoon Concurrent Sessions**

2:10 - 3:10pm **Concurrent A: CAT Models - Model & Hazard Uncertainty**



**Moderator  
Paul Cutbush**  
SVP Catastrophe  
Management, Aon  
Benfield Analytics



**Dr. Elliot Klein**  
Senior Scientist,  
AIR Worldwide



**Justin Moresco**  
Manager,  
Model Product  
Management,  
RMS



**Tom Larsen**  
Hazard Product  
Architect  
CoreLogic



**Alexander Allmann**  
Head of Section/  
Expert, Corporate  
Underwriting,  
Munich Re

The alternative concurrent session delves deep into catastrophe (CAT) models with a focus on a particular peril that is heavily relied upon by models to predict its occurrence - earthquakes. Paul Cutbush from Aon Benfield will moderate a panel of subject matter experts from the top vendor models: AIR Worldwide, RMS, CoreLogic and Munich Re's CAT model.



2:10 - 3:10pm **Concurrent B: Resilient Indigenous Communities**



**Moderator**  
**Pat Van Bakel**  
President & CEO,  
Crawford & Company  
(Canada) Inc.



**Chief Matilda Ramjattan**  
Lennox Island  
First Nation



**Chief Steve Thomas**  
Mohawk Council  
of Akwesasne



**Regina Jacobs**  
Emergency Management  
Officer, Mohawk  
Council of Akwesasne



**Scott Peters**  
Environmental  
Assessment Officer,  
Mohawk Council  
of Akwesasne

This concurrent session will share alternative perspectives in emergency management and highlight resiliency efforts and rich traditional history from indigenous communities in Canada. Join leaders from the communities of Lennox Island First Nation and the Mohawk Council of Akwesasne to learn how they are preparing for climate change impacts.

3:10 - 3:35pm **Networking Break** sponsored by Swiss Re

3:40 - 4:40pm **Disaster Assistance**



**Moderator:**  
**Mazdak Moini**  
VP Commercial  
Lines and  
Reinsurance,  
Aviva Canada



**Jennifer Dolecki**  
Director, Recovery  
Branch, Alberta  
Emergency  
Management  
Agency



**Matthew Godsoe**  
Manager,  
Research Unit,  
Public Safety  
Canada



**Johanna Morrow**  
Manager, Recovery &  
Funding Program,  
Emergency  
Management BC



**Rod Story**  
Financial Advisor &  
Analyst, Office of the  
Parliamentary  
Budget Officer

The final session on the first day will discuss the financial implications of catastrophes with respect to disaster assistance programs. This panel will feature experts in Disaster Financial Assistance Arrangements and distribution to provincial governments directly impacted.

4:45 - 6:15pm **Cocktail Reception & Student Delegate Posters** sponsored by Aon Benfield



7:30 - 8:55am **Breakfast** sponsored by IB

9:00 - 10:15am **Lessons Learned from Ice, Flood & Hail**



**Moderator**  
Kyle Winston  
President,  
CRU Group



**Geoff Coulson**  
Warning Preparedness  
Meteorologist,  
Environment and Climate  
Change Canada



**Sharon Pollyck**  
Manager, Legislative  
Services & Corporate  
Communications,  
City of Airdrie



**John Duong**  
Manager of Systems  
Planning & Customer  
Service, Public Works  
Halton Region

In order to learn how to prepare for catastrophes, we need to look back and review what did - or did not - work in past scenarios. This session will feature speakers discussing the 2013 Toronto Ice Storm, 2014 Burlington Flooding and 2014 Airdrie Hail Storm.

10:15 - 10:40pm **Networking Break** sponsored by RMS

### Morning Concurrent Sessions

10:45 - 11:45am **Concurrent A: Geomagnetic Storms - The Next Black Swan**



**Paul Cutbush**  
SVP Catastrophe  
Management,  
Aon Benfield Analytics



**Dr. Balz Grollimund**  
Head Treaty  
Underwriting,  
Swiss Re



**Dr. Luis Marti**  
Director Reliability Studies,  
Standards and Compliance,  
Hydro One

A recent Cambridge Centre for Risk Studies report estimated that a severe solar storm could cost the US economy \$1.2tn in economic losses or \$333.7bn in insured losses. Based on such massive numbers, why haven't geomagnetic storms made it anywhere close to the level of notoriety of tropical cyclones or earthquakes? Moreover, with the majority of claims from solar storm catastrophes being indirect, service interruption claims, an important question is: How are Enterprise Risk Management and Business Continuity plans considering what appears to be an unconsidered Black Swan scenario?

10:45 - 11:45am **Concurrent B: Municipal Mitigation Success Stories**



**Moderator**  
Megan Meaney  
Director,  
ICLEI Canada



**Fiona Dercole**  
Section Manager,  
Public Safety District  
of North Vancouver



**Loretta Chandler**  
Director, Office of  
Emergency Management,  
City of Toronto



**Marie-Ève Marquis**  
Engineer - Department  
of the Environment,  
City of Montreal



**Alain Normand**  
Manager, Brampton  
Emergency Management,  
City of Brampton

Climate change will continue to bring an increase in extreme weather events, and it is evident that communities need to prepare. In order to highlight the return on investment for adaptation and climate change measures with respect to municipalities, engineers and risk managers from several municipalities will share their municipal success stories.

11:50am - 1:40pm **Lunch and Presentation** sponsored by CRU Group



**Keynote Speaker: George Kourounis**  
*Storm Chaser & Adventurer*

George Kourounis will provide us with an entertaining, educational and inspiring presentation. George's experience facing extreme weather and natural disasters is unparalleled. In this presentation, he describes his most fearful and rewarding experiences and how they have sculpted his outlook on the world. George's talk is an inspiring, personal chronicle of his quest to encounter and study some of the most awesome and powerful forces of nature.

1:45 - 3:00pm

## **How to Create an Inventory of Canadian Hazard Data**



**Moderator**  
**Jason Thistlethwaite**  
Assistant Professor,  
School of  
Environment,  
Enterprise and  
Development,  
University of Waterloo



**Jim Abraham**  
Director,  
Canadian  
Climate Forum



**Nicky Hastings**  
National-Scale  
Geohazard Risk  
Project Lead,  
Geological Survey of  
Canada, Natural  
Resources Canada



**Steve Taylor**  
Research Scientist,  
Forest Fire,  
Pacific Forestry  
Centre, Canadian  
Forest Service



**Tom Kralidis**  
Senior Systems  
Scientist,  
Meteorological  
Service of Canada

At C4 2016, an overarching outcome from the conference was hazard data: Where can it be found? What format is it in? What data requirements do different users or clients have? This session will discuss available data formats in Canada and include representatives from government agencies such as the Geological Survey of Canada, Canadian Forest Services, and Meteorological Service of Canada. Additional perspectives such as the use of social media and hazard data compilation success by the Co-operators will also be discussed.

3:00 - 3:25pm

## **Networking Break** sponsored by Arctic Fire Safety

3:30 - 4:45pm

## **Wildfire Risk Management**



**Moderator**  
**Glenn McGillivray**  
Managing Director,  
ICLR



**Andreas Siebert**  
Head Geospatial Solutions,  
Munich Reinsurance  
Company



**Manuel Chirouze**  
Managing Director,  
Natural Hazards and  
Geoscience for the Americas,  
Guy Carpenter



**Ian Frost**  
Director, Complex Claims,  
Wawanesa Mutual  
Insurance Company

The final plenary session is a panel of insurance professionals who will discuss Wildfire Risk Management. How will the insurance industry better prepare for wildfires in the future? What have been the claim experiences, such as with Fort McMurray, and how have they or could they change processes in the future? Join Glenn McGillivray as he moderates the panel including Munich Re, Guy Carpenter, and Wawanesa Mutual Insurance Company.

**END OF DAY TWO**



7:30 - 8:55am **Breakfast** sponsored by Guy Carpenter**Interactive Workshops**

Interactive Workshops Sponsored by Partners for Action and AMEC Foster Wheeler will provide delegates with the opportunity to learn about the current state of Flood Risk Assessment, and the Diagnosis of Extreme Weather. After presentations from subject matter experts, breakout table will discuss gaps, challenges and opportunities related to each topic (as outlined below).

**\*\*Workshops will run simultaneously. Participants will attend one workshop in the early morning session and the alternate workshop in the late morning session\*\***

**Interactive Workshop Schedule**

	Group A	Group B
9:00 - 10:30am	Flood Workshop	Weather Workshop
10:30 - 10:55am	Networking Break sponsored by AIR Worldwide in the Foyer	
11:00am - 12:30pm	Weather Workshop	Flood Workshop
12:30 - 1:30pm	Closing Networking Lunch	

**Flood Workshop: Perspectives in Flood Risk Assessment and Mitigation** sponsored by

**Moderator**  
Shawna Peddle  
Director,  
Partners for Action,  
University of  
Waterloo



**Moderator**  
Šárka Cerná  
Product & Business  
Development,  
Aon Benfield Impact  
Forecasting



**Lapo Calamai**  
Director,  
Catastrophic Risk  
and Economic  
Analysis,  
IBC



**Matthew Godsoe**  
Manager,  
Research Unit,  
Public Safety  
Canada



**Steve Litke**  
Senior Program  
Manager,  
Fraser Basin  
Council



**Rehana Rejabali**  
Senior Engineer  
Flood Risk &  
Communications,  
Toronto & Region  
Conservation  
Authority (TRCA)



**Ingrid Robinson**  
Director,  
Enterprise Risk  
Management,  
Brookfield GIS

**Weather Workshop: Improving the Diagnosis of Extreme Weather - “From Forecasting to Reality”**

sponsored by



**Moderator**  
Rebecca Wagner  
Associate Director, Prediction  
Services Operations - Central  
Region, Meteorological Service  
of Canada, Environment and  
Climate Change Canada



**Jim Abraham**  
Director,  
Canadian Climate  
Forum



**Carolyn Rennie**  
Managing Director,  
CatIQ Inc.



**Shawn Allan**  
Manager,  
Met-Ocean Services  
Group,  
AMEC Foster  
Wheeler



**Mark Schuster**  
Severe Weather  
Meteorologist,  
Environment and  
Climate Change  
Canada

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For information on sponsorship please contact Carolyn Rennie by phone (416)368-0777 x28 or email [carolyn.rennie@catiq.com](mailto:carolyn.rennie@catiq.com)

**Register Now!**  
**[www.catiq.com/c4](http://www.catiq.com/c4)**