



## **Risk Assessment Users Group**

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**Teleconference Notes, March 06, 2013, 10:30 – 11:30**  
**1-877-413-4790 conference ID 3381344#**

@RiskAUG

### **Monthly RAUG meeting**

The Risk Assessment Users Group meets by telephone on the first Wednesday of every month, 10:30 - 11:30 am Pacific Time. It meets in person with the Hazus User Group at the annual Canadian Risk and Hazards Network Symposium.

### ***Attendees***

Tyler Crawford, Clarence Lai, Doug Allan, Solomon Tesfamariam, Eric Wright, Alain Goudreau, Bert Struik

### ***SCHEDULE***

- Introductions
- Your news and views
- Risk Assessment Special Session at CRHNet 2013: Description and discussion
- Risk Assessment Projects Compilation: Proposal and Process Discussion

### **Introduction**

The forum is to share knowledge about incorporating Risk Assessment into disaster reduction decisions in Canada. It is a forum supported by NRCan's Quantitative Risk Assessment Project of the Public Safety Geoscience Program until March 2014.

### **Your News and views**

#### ***Last month***

Conversation about using the Delphi method for risk assessment. Facilitated by Bert Struik. The slide deck, notes, reference paper and podcast are available on the RAUG website: <http://raug.mhrisk.ca> in the folder RAUG\_Meeting\_2013-02-06

## ***Upcoming events***

### **Fighting Mega-disasters Workshop**

Halpern Centre, Simon Fraser University, Burnaby Campus, Burnaby, BC.

7:45 – 16:30, Friday, April 26, 2013.

Free registration. See website for details.

Sponsored by the Centre for Natural Hazard Research, Simon Fraser University, Burnaby, BC.

<http://www.sfu.ca/cnhr/workshops.html>

### **5th International Conference on Natural Disaster Management (GiT4ND)**

Waterloo Institute for Disaster Management (WIDM) and Dewey College

October 9 - 11, 2013

at Dewey College; 5889 Coopers Ave., Mississauga, Ontario, L4Z 1P9 Canada.

Exhibition beside the 5th GiT4NDM 2013 to showcase state-of-the-art geo-information and communication technology products and services.

### **Canadian Risk and Hazards Network 10th Annual Symposium**

Regina, Saskatchewan

Radisson Hotel

November 5 - 8, 2013

Deadline for Proposals for Thematic Sessions extended to March 15: Post your proposal at

<http://www.crhnet.ca> >Annual Symposium > Program or send your proposal to Mieka Torgrimson, Emergency Management and Fire Safety Saskatchewan; [Mieka.Torgrimson@gov.sk.ca](mailto:Mieka.Torgrimson@gov.sk.ca)

Flyer posted to <http://raug.mhrisk.ca>

## **Discussions**

### ***Risk Analysis and Assessment Special Session: Canadian Risk and Hazards Network 10th Annual Symposium.***

This discussion is to get your feedback on the formulation of a special session on risk evaluation and assessment at CRHNet 2013.

The idea for the session is to discuss the use of tools and methodologies to measure potential losses from natural hazards: in particular floods and earthquakes. NRCan is collaborating with Agriculture Canada to develop and chair the special session. We would like to highlight what Hazus and LIRA can do to model flood and earthquake losses. What else should we foster???

Agriculture Canada developed a Land and Infrastructure Resiliency Assessment tool (LIRA). Harvey Hill summarized the LIRA project for this group on December 7, 2011.

From the website: <http://www.assiniboinewatershed.com/what-we-re-doing/lira> of the Assiniboine Watershed Stewardship Association.

#### **“The objectives of the LIRA project are to:**

- Assess the risk to a region's infrastructure systems and the environment, and

- Develop and rank adaptation options that reduce socio-economic and environmental costs.

**Simply put, LIRA provides a proactive approach to minimize future negative impacts caused by extreme precipitation in our watershed.**

LIRA was developed by Ag Canada in order to create a tool that municipalities can utilize to facilitate planning and preparation for future flooding scenarios. The first test of the methodology took place in the RM of Corman Park, near Saskatoon, SK in 2008.

The AWSA is one of 3 watershed groups in the province that are currently undertaking LIRA pilot projects. We will be starting activities summer, 2011. See the map below for the study area.

#### **STEPS OF THE LIRA PROCESS:**

1. Map the landscape - We were out starting this summer, mapping the landscape of the two study areas in terms of land use (e.g. cropland, hay, pasture, etc), water-related infrastructure (e.g. culverts and bridges), and other residence/infrastructure info (e.g. farmyards, barns, corrals, etc).
2. Assign economic value to what was mapped.
3. Model various flood scenarios on the landscape (e.g. 1 in 10 yr flood, 1 in 100 yr flood, etc) and determined the economic impacts.
4. Rerun the flood model, this time with various mitigation options (e.g. wetland restoration, new water infrastructure, different zoning around urban centers, etc) and perform a cost/benefit analysis.
5. Reach informed decisions regarding flood risk management.”

Hazus is a loss-estimation tool that can work for urban assets for floods and earthquakes and rural assets for flooding. See <http://www.fema.gov/hazus>

### **Discussion of special session idea**

Alain is looking for sessions that cover:

- All hazards
- methodology
- how to assess risk for various hazards
- looks for a sandbox of different tools for a common framework
- best practices
- tools. Ex: Hazus, capability-based planning
- how to use risk assessment results. For example through capability based analysis that isolates instances with event times, and asks what do I need, who has it, how do it get it (and share), where is it and when is it available and so on. Whose mandate, do regulations or policy have to change. Full gap analysis based on the risk scenario.
- How to translate knowledge into action.
- When do we bend the metal (turn the ideas into action to create a product).

Should we therefore have a few sessions on risk assessment.

Solomon:

- how do we use the quantity of consequences of a disaster rather than the determination of risk, which minimizes the risk of meg-disasters because they are rare.

- can we base our decisions for action on the consequence analysis?

Bert: I understand this because John Clague and I are hosting a workshop on mega-disasters on April 26 at the SFU campus in Burnaby (<http://www.sfu.ca/cnhr/workshops.html>).

Alain: At the last Society for Risk Analysis conference a group presented on effects of mega-disaster consequences.

- We like to identify a nominal event that is at the maximum of the capability of response and is not the catastrophic event because they are overwhelming and defeat thinking about what can be done.
- We do look at catastrophic events because they are relative depending on local societal context.

Bert: Interested in catastrophic events for those that are critical to economic and societal survival and for the psychological aspects of our ability to examine them and decide what to do about them rationally. [why do we have programs to divert asteroids from colliding with the earth and not what to do with eruption “winters”? Because we can visualize a solution for one and not the other?]

Alain: That is where societal resilience comes to play; something those in rural settings know and do. They prepare for eventualities by ensuring they will be self sufficient for some time.

Alain: We at Public Safety and Defence Research and Development Canada were considering a session at CRHNet and it was being put forward by Connie Cheung and Shaye Friessen.

**Action:** Bert to check with Connie.

Appetite for a discussion of risk at CRHNet.

## ***Risk Assessment Projects Compilation: Proposal and Process Discussion***

Eric Wright's idea:

Link groups through an inventory of active and recently active risk assessment related projects.

Useful? Yes.

- Make a list of projects and people contacts working in the field and their expertise. Include:
  - Principle investigator and their institute
  - other key investigators?
  - Title
  - Abstract, short
    - Goal?
    - Methodology?
  - Status: active and inactive
  - Link to papers or abstract

How

- Database? Make a simple list first.
- Tab on database user group?
- Give to Bert to upload initially then move to self population if it warrants.
- Make it simple.
- Make this available on the RAUG site.

Call for RAUG discussion topics.

- Multi-hazard risk assessment: single indicator for area of multiple hazards.