Teleconference Notes, September 21, 2011, 10:30 – 11:30
1-877-413-4790 conference ID 3381344#

Introduction

The forum is the 5th of monthly opportunities to share knowledge about incorporating Hazus 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.

The teleconference program consisted of:

1. Introductions and program
2. Podcasts available
3. CRHNet 2011 (Canadian Risk and Hazards Network Annual Symposium October 18 – 21, 2011; Delta Hotel Ottawa, Ontario)
4. CRHNet 2012. (Annual Symposium, October Sutton Hotel, Vancouver, BC)
5. Vignette update of the NRCan Quantitative Risk Assessment Project.
6. CanHUG Evolution
7. Discussion topics for the fall

Podcasts

Jamie Caplan and Brenna Riley made and posted three podcasts of CanHUG and RAUG presentations and they are available at http://www.usehazus.com/hugs/podcast/ . Jamie and Brenna facilitate the USA Hazus user groups for FEMA. The usehazus website contains podcasts from various other USA based HUG and HUG symposium presentations. For example, one of those podcasts is a talk on Hazus flood loss evaluation for places in North Dakota that flooded this spring. The slide deck for that podcast is available from usehazus.com and the HUG Symposium 2011 site (http://hazus.net/content/index.php?page=proceedings-2011)

CRHNet 2011 (Canadian Risk and Hazards Network Annual Symposium October 18 – 21, 2011; Delta Hotel Ottawa, Ontario)

See www.crhnet.ca for details including links to registration and updates on the program.

The draft program has the session on risk assessment, including HAZUS on Thursday afternoon. Program includes 5 talks on risk assessment and a talk on using Hazus in Canada.

Several sessions are focused on defining levels of community resilience and building resilience; the theme of the symposium.

CRHNet 2012. (Annual Symposium, October 24- 26, 2012, Sutton Place Hotel, Vancouver, BC)

NRCan Quantitative Risk Assessment Project highlighting HAZUS, and projects through Defence Research and Development Canada, Public Safety Canada and Canadian Centre for Security Science projects on Risk Assessment will form a multi-day program of interest to the user group. Various training and support programs will be described.

Symposium theme built around the safety and security of transporting goods and services.

Vignette: Update on the NRCan Quantitative Risk Assessment Project; Miro Nastev, Nicky Hastings, Murray Journeay

The project is to develop Hazus for use in Canada to encourage disaster reduction through risk-based land-use decisions. The project is now a formal partnership between FEMA and Defence Research and Development Canada through a technical annex of project activity signed on August 12 2011.

The new versions of Hazus will be directly usable in Canada having a Canadian geographic data structure based on census divisions, Canadian seismic parameters and Canadian national level datasets for demographics and buildings.

Adaptation

The Canadian version will be maintained by NRCan during the remaining 2.5 years of its project. During this time a long term maintenance and management model will be developed. Copies of the upcoming Canadian versions will be available from the Geological Survey of Canada. The first edition of the Canadian version, Hazus 2.1, with the new seismic module will be available in 2012. The seismic module allows a user to model scenarios based on the national building code probabilistic parameters or on historic events. A beta version is in hand with GSC for testing. Hazus 2.1 works with ArcGIS 10.

Damage functions for debris flood and debris flows have been developed by BGC Consultants and will be available on the GSC website. The results of this work will be published in the peer reviewed journal Natural Hazards.

A fire module is not available for Hazus but has been recognized by FEMA as a potential for a future module. FEMA is currently developing a tsunami module. Canadian representatives will sit on the design and development board of this module.

The QRA Project is working with Defence Research and Development Canada on a separate project to integrate Hazus and MASAS (Multi-Agency Situational Awareness System). Murray Journeay has offered to provide updates on that development if you write him an email expressing your interest. MASAS is a software tool to provide access and integration of geospatial data useful for visualizing the impact of a hazard event (situation). Data management is Geoconnections compliant.

Case Studies

Two primary studies are active, one in eastern and the other in western Canada. The eastern study in the corridor from Quebec City to Ottawa is regional transboundary study as FEMA and USGS are currently carrying out a risk assessment study in the New England states. It models generic building classes and calibrates percentages of building types with detailed inventories conducted within the ongoing risk assessment studies from university groups in Ottawa, Montreal and Quebec City. Incorporated in the study are probabilistic earthquake scenarios with various return periods and deterministic earthquake scenarios developed for New England states and southeast Canada. This trans-border project has currently 2 Canadian and 9 USA earthquake scenarios in hand based on historic earthquakes. The Canadian scenarios are the M5.8 1732 Montreal and the M7.5 1663 Charlevoix earthquakes. Several other Canadian earthquake scenarios will be added to the catalogue in collaboration with GSC seismologists (Miro Nastev contact is: miroslav.nastev@nrcan.gc.ca)

In western Canada, Hazus loss estimations and support for using those estimations in land-use and development recommendations are being done for the District of North Vancouver (earthquake, flood and debris flow) and high level earthquake analyses are being done for Metro Vancouver. Beta runs of the earthquake loss estimates were recently done and are in review. We have developed an earthquake scenario library with several scenarios for testing, and are developing other representative scenarios. The NRCan team is currently developing a beta version of the visualization and modelling tool for evaluating risk assessment results from Hazus The software operates as part of geospatial modelling program Community Viz (http://placeways.com/communityviz/). This visualization / modelling tool is an extension to ArcInfo. The tool will allow a user to examine the impacts and consequences of different mitigation scenarios.

Connecting Hazus

A key deliverable of the NRCan project is to connect various groups and users to exchange knowledge on quantitative risk assessment and using the Hazus methodology. The project has facilitated the CanHUG user group and Risk Assessment User Group (RAUG) for the past 7 months and will continue until 2013.

In addition to the work with the two case study partners, the team connects with various stakeholders in risk-based issues. In British Columbia, the NRCan project has provided presentations of the risk assessment methodology for Emergency Management BC, the Metro Vancouver integrated partnership for regional emergency management, member communities of Metro Vancouver, representatives from several federal and provincial departments, and members of the engineering community.

The project is in the process of developing a joint community of practice website to connect risk assessment users from across the country. We will keep you updated on the progress of this community of practice

The future of CanHUG

We are looking for suggestions as to how we operate the Canadian Hazus Users Group? Now and into the future after the NRCan QRA Project is completed. Please think about it. We can experiment with options now.

Discussion topics for the fall

Flood loss evaluation story for North Dakota

Training opportunities

Pre Hazus-training overviews for various communities: e.g. EM, land-use, engineers.

Bert Struik
while listening to Dire Straits playing "Sultans of Swing"
Thanks to Nicky and Miro for their reviews of the text
21 September 2011