



# Geomatics Atlantic 2017

150 Years of Canadian Geomatics

November 23-24, 2017  
St. John's, Newfoundland

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# Conference Program

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Newfoundland & Labrador Branch (CIG-NL)  
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Thursday, Nov. 23

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7:30 Registration Open

8:30 Introduction and Opening Remarks – *Geomatics Atlantic Conference Committee*

8:35 Official Welcome – *MHA Mark Browne, Parliamentary Secretary to the Minister of Tourism, Culture, Industry, and Innovation*

8:45 **Keynote Address:** A history of geomatics in Canada – *Prashant Shukle, Director General for the Canadian Centre for Mapping and Earth Observation*

**Session 1** **GIS TECHNOLOGY** (*Andrew Cuff, Moderator*)

9:35 Using ArcGIS Online to improve data quality and operational efficiency at Nalcor Energy's Lower Churchill project – *Karl Keough*

9:55 Using open geospatial standards in mobile applications – *David O'Mahony*

10:15 GIS turning points: past, present, and into the future – *Chris North*

10:35 Break

**Session 2** **LiDAR TECHNOLOGY** (*Kirk Regular, Moderator*)

10:55 Connecting the dots: towards a LiDAR program for Newfoundland and Labrador – *Randy Gillespie*

11:15 Getting the point: working directly with .las bytecode – *Gerard Noseworthy*

11:35 Three dimensional mapping of an ancient basilica in Greece through terrestrial laser scanning – *Peter Dare, Maria Papaioannou*

11:55 Lunch

12:55 **Keynote Address:** Agile aerospace: how Planet's little satellites are disrupting the business of remote sensing in a big way – *Sam Loeff, Director of Sales for Planet Labs Geomatics Corp*

Thursday, Nov. 23, continued

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**Session 3**

**LOCAL GOVERNMENT AND GEOMATICS** (*Randal Greene, Moderator*)

13:45 Flood vulnerability mapping in Conception Bay South, NL: The use of GIS in applying collaborative evidence based policies – *Heather Ward*

14:05 Affordable GIS for small municipalities – *Ryan Ruttgaizer*

14:25 We can't afford not to: exploring geographic information applications for small communities – *Kathleen Parewick, Randal Greene*

14:45 **Municipal asset management panel discussion** – *Kathleen Parewick, Moderator*

15:25 Break

**Session 4**

**OCEAN MAPPING AND MARINE GEOMATICS** (*Randy Gillespie, Moderator*)

15:40 Ocean mapping program: linking the knowing with the doing – *Paul Elliott*

16:00 Seabed mapping through vessels of opportunity in the north – *Kirk Regular*

16:20 Surveying through the North-West Passage using the Norbit multibeam system – *Sarah Porter*

16:40 Side Scan Sonar: what lies beneath? – *Chris Keats*

17:00 – 19:00

**Exhibitor Reception – Salon A (Exhibition and Food Area)**

Friday, Nov. 24

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8:00 Registration Open

**Session 5** **THE MARINE ENVIRONMENT** (*Nadine Wells, Moderator*)

8:30 “Any port in a storm?”: mapping ports of refuge in Newfoundland and Labrador fisheries – *James Shewmake*

8:50 Determining appropriate spatial scales for evaluating juvenile Haddock associations with seabed habitat – *Andrew Cuff, Robert Gregory, Kate Dalley*

9:10 Delphi vs. GIS: a comparison of two methods for identifying ecologically and biologically significant areas in Canada – *Nadine Wells, Margaret Warren, Krista Tucker*

9:30 Creating extensive high-resolution bathymetry, geomorphology, and substrate maps for Newfoundland and Labrador waters – *Emilie Novaczek, Benjamin Misiuk, Rodolphe Devillers, Elaine Hynick*

9:50 Mapping anthropogenic threats to marine organisms: a case study from Atlantic Canada – *David Lieske, Robert Ronconi, Laura McFarlane Tranquilla, Sue Abbott*

10:10 Break

**Session 6** **WETLAND ENVIRONMENTS** (*Bahram Salehi, Moderator*)

10:30 An operational method for wetland classification in Newfoundland and Labrador using publicly available satellite data – *Sahel Mahdavi, Bahram Salehi, Meisam Amani, Jean Granger, Brian Brisco, Weimin Huang*

10:50 A multiple classifier system to improve wetland classification using SAR data – *Meisam Amani, Bahram Salehi, Sahel Mahdavi, Jean Granger, Brian Brisco*

11:10 Moving to RADARSAT constellation mission (RCM) for wetland classification – *Fariba Mohammadimanesh, Bahram Salehi, Masoud Mahdianpari, Brian Brisco*

11:30 Separability analysis of wetland classes using optical satellite data – *Meisam Amani, Bahram Salehi, Sahel Mahdavi, Jean Granger, Brian Brisco*

Friday, Nov. 24, continued

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11:50 A methodology for quantifying land-cover patterns along open-water and disturbance gradients for wetland reclamation – *Jennifer Ridge, Derek Robinson*

12:10 Lunch

**Session 7** **ECOLOGY AND CONSERVATION** (*Rodolphe Devillers, Moderator*)

13:10 An agent-based model of human-black bear conflict – *Karl Keough*

13:30 Multigrain resource selection functions: R package for landscape inference at multiple spatial scales for predicting species occurrence – *Michel Laforge, Alec Robitaille, Eric Vander Wal*

13:50 The stoichiometric landscape: mapping the biogeochemical matrix with wildlife in mind – *Travis Heckford, Shawn Leroux, Eric Vander Wal, Matteo Rizzuto, Yolanda Wiersma*

14:10 Systematic conservation planning: applying the boreal ecosystems analysis for conservation networks (BEACONS) approach – *Melissa Brake, Christie Macdonald, Randal Greene, Lindsay Notzl*

14:30 Delineating the human footprint for conservation planning – *Randal Greene, Lindsay Notzl, Christie Macdonald*

14:50 An approach to develop new leaf area index (LAI) and soil moisture index using the red-NIR spectral space – *Meisam Amani*

15:10 Break

**Session 8** **UAV APPLICATIONS** (*Sherry Warren, Moderator*)

15:25 From eroding cliffs to mine tailings: using UAVs in geoscience – *Melanie Irvine, Gillian Roberts*

15:45 Photogrammetric-based iceberg profiling using UAV imagery – *Somayeh Yavari, Bahram Salehi, Robert Briggs*

16:05 Terrestrial oil spill detection using UAV imagery – *Masoud Mahdianpari, Bahram Salehi, Fariba Mohammadimanesh*

16:25 A new noise removal method for point cloud generation of UAV imagery of forest areas – *Somayeh Yavari, Bahram Salehi*

16:45 Closing Remarks – *Geomatics Atlantic Conference Committee*