

# Tiegan E. Hobbs

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## Education

### **PhD Geophysics** (2014 – 2019)

School of Earth & Atmospheric Sciences, Georgia Institute of Technology

Thesis: *Using Dense Geodetic and Seismic Instrumentation to Characterize Postseismic Behavior of the Nicoya Megathrust* (Andrew Newman)

### **MSCE Geotechnical Engineering** (2017 – 2019)

School of Civil & Environmental Engineering, Georgia Institute of Technology

### **MSc Geophysics** (2012 – 2014)

School of Earth & Ocean Sciences, University of Victoria

Thesis: *Insights from the Mw 7.8 Haida Gwaii Earthquake: Static Stress Modelling and Empirical Green's Function Analysis* (John Cassidy and Stan Dosso)

### **BSc Geology** (2008 – 2012)

Department of Earth & Planetary Science, McGill University

Honours Thesis: *Seismic Anisotropy in Southern Quebec using SkS Splitting* (Fiona Darbyshire)

## Work Experience

### **Adjunct Professor** *July 2020 – present*

University of British Columbia, Vancouver, BC

Department of Earth, Ocean, and Atmospheric Sciences

Full Time

### **Research Scientist** *May 2020 – present*

### **Postdoctoral Researcher** *June 2019 – April 2020*

Geological Survey of Canada, Vancouver, BC

Public Safety Geosciences Program

Full Time

### **Consultant & Field Party Leader** *May 2019 – present*

Europa Seismic Package Science Development Team (NASA ICEE-2)

Washington Glacier Deployment

Part-time

### **Freelance Science Writer** *January 2018 – present*

Temblor, Inc., Redwood City, CA, USA

Earthquake News

Part Time

### **Teaching Assistant** *January 2015 – April 2019*

Georgia Institute of Technology, Atlanta, GA, USA

Earth & Atmospheric Sciences Department

Part Time

### **Field Technician** *August 2018 – December 2018*

Georgia Institute of Technology, Atlanta, GA, USA

RISEUP Field Work in Antarctica (NASA PSTAR)

Full Time

### **Outreach Instructor** *September 2015 – April 2017*

Georgia Institute of Technology, Atlanta, GA, USA

'Kids Interested in Discovering Science' Club

Part Time

## Work Experience Continued

### **Teaching Assistant** *September 2012 – May 2014*

University of Victoria, Victoria, BC, Canada  
School of Earth & Ocean Sciences  
Part Time

### **Research Assistant** *May 2012 – September 2012*

University of British Columbia, Vancouver, BC, Canada  
Department of Civil Engineering  
Full Time

### **Geological Assistant** *May 2011 – August 2011*

Osisko Gold Royalties Ltd., Montréal, PQ, Canada  
Hammond Reef Development  
Full Time

### **Research Assistant**, *May 2010 – September 2010*

L'Université du Québec à Montréal, Montréal, PQ, Canada  
Département des sciences de la Terre et de l'atmosphère  
Full Time

## Published Work

**Hobbs, T.E.**, Journeay, J.M., LeSueur, P. (2021), *Developing a retrofit scheme for Canada's Seismic Risk Model*. Geological Survey of Canada, Open File 8822, 10 pages, doi:10.4095/328860.

**Hobbs, T.E.**, Journeay, J.M., Rotheram, D. (2021), *An Earthquake Scenario Catalogue for Canada: A Guide to Using Scenario Hazard and Risk Results*. Geological Survey of Canada, Open File 8806, 22 pages, doi:10.4095/328364.

Colvin, C., **Hobbs, T.E.** (2021). Finance Canada, Confidential Document.

**Hobbs, T.E.**, Newman, A.V., Protti, M. (2019), *Enigmatic Upper-Plate Sliver Transport Paused by Megathrust Earthquake and Afterslip*. Earth and Planetary Science Letters, PII:S0012-821X(19)30285-7.

**Hobbs, T.E.**, Kyriakopoulos, C., Newman, A.V., Protti, M., Yao, D. (2017), *Large and Primarily Updip Afterslip following the 2012 Mw 7.6 Nicoya, Costa Rica earthquake*. Journal of Geophysical Research: Solid Earth, 122, doi:10.1002/2017JB014035.

Yao, D., Walter, J.I., Meng, X., **Hobbs, T.E.**, Peng, Z., Newman, A.V., Schwartz, S.Y., Protti, M. (2017), *Detailed Spatio-Temporal Evolution of Microseismicity and Repeating Earthquakes following the 2012 Mw7.6 Nicoya Earthquake*. Journal of Geophysical Research: Solid Earth, doi:10.1002/2016JB013632.

Bird, A.L., Cassidy, J.F., Kao, H., Leonard, L.J., Allen, T.I., Nikolaishen, L., Dragert, H., **Hobbs, T.E.**, Farahbod, A.M., ... and Rogers, G.C., (2016), *The October 2012 magnitude (MW) 7.8 earthquake offshore Haida Gwaii, Canada*. Summary of the Bulletin of the International Seismological Centre, **49**, 7-12.

Darbyshire, F.A., Bastow, I.D., Forte, A.M., **Hobbs, T.E.**, Calvel, A., Gonzalez-Monteza, A., Schow, B. (2015), *Variability and Origin of Seismic Anisotropy Across Eastern Canada: Evidence from Shear-wave Splitting Measurements*. Journal of Geophysical Research: Solid Earth, **120**, 8404–8421, doi:10.1002/2015JB012228.

**Hobbs, T.E.**, Cassidy, J.F., Dosso, S.E., and Brillon, C. (2015), *Coulomb Stress Changes Following the Mw 7.8 2012 Haida Gwaii, Canada Earthquake: Implications for Seismic Hazard*. Bulletin of the Seismological Society of America, **105**, 2B. doi: 10.1785/0120140158.

**Hobbs, T.E.**, Cassidy, J.F., and Dosso, S.E. (2015), *Rupture Process of the Mw 7.8 2012 Haida Gwaii Earthquake from an Empirical Green's Function Method*. Bulletin of the Seismological Society of America, **105**, 2B. doi: 10.1785/0120140175.

**Hobbs, T.E.** and Darbyshire, F.A (2012), *Point Estimates of Crustal Thickness Using Receiver Function Stacking*. McGill Science Undergraduate Research Journal, **7**, p. 19–25.

## Work In Preparation

**Hobbs, T.E.**, Journeay, J.M., Rao, A., Simionato, M., Martens, L., Kolaj, M., Rotheram, D., LeSueur, P. (2021), *Scientific Underpinnings of Canada's First National Seismic Risk Model*. Earthquake Spectra. *In Prep.*

**Hobbs, T.E.**, (2021), *Scenarios for British Columbia's Earthquake Immediate Response Plan*. Geological Survey of Canada, Open File #, # pages, DOI. *In Prep.*

**Hobbs, T.E.**, Yao, D., Neves, M.J.G.F.G., Newman, A.V., Peng, Z., Protti, M., Kemmerlin, M.S. (2022), *Defining the Relationship Between Afterslip and Aftershocks Using Dense Seismic and Geodetic Networks in Nicoya, Costa Rica*. Journal of Geophysical Research. *In Prep.*

**Hobbs, T.E.**, Journeay, J.M., Rao, A. (2022), *Validating Scenario Performance in the First Canadian Seismic Risk Model*. Earthquake Spectra. *In Prep.*

Bird, A.L., Journeay, J.M., **Hobbs, T.E.**, Cassidy, J.F., Wagner, C., Bristow, D., Deelstra, A., Chouinard, P. (2022), *Exercise Coastal Response 2022: Scenario Earthquake and its Potential Impacts*. Geological Survey of Canada, Open File #, # pages, DOI. *In Prep.*

## Conference Proceedings

**Hobbs, T.E.**. *Coming Together for "Smarter Solutions"*. Sustainability Research & Innovation Congress, Hybrid Virtual, Brisbane, Australia, 2021. *Invited Presentation.*

**Hobbs, T.E.**, Journeay, J.M., Rotheram, D., Chow, W., van Ulden, J., Wagner, C., LeSueur, P., Bird, A., Rao, A., Simionato, M. *Earthquake Scenarios for Community Resilience*. Vancouver Island Emergency Preparedness Virtual Conference, Virtual, Canada, 2021. *Invited Presentation.*

**Hobbs, T.E.**, Journeay, J.M., van Ulden, J., Rotheram, D., Chow, W., Herring, J., Pagani, M., Johnson, K., Rao, A. *A First Public National Seismic Risk Model for Canada*. Annual Meeting of the Seismological Society of America, Virtual, USA, 2021. *Oral Presentation.*

Styron, R., **Hobbs, T.E.**, Harrichhausen, N., Journeay, J.M. *Estimating Fault Slip Rates in the Cascadia Region of North America Using Joint Geologic-Geodetic Block Modeling*. Annual Meeting of the Seismological Society of America, Virtual, USA, 2021. *Oral Presentation.*

Wong, S., **Hobbs, T.E.**, Geertsema, M. *Evaluating Landslide Forecasting in British Columbia, Canada*. Annual Meeting of the Seismological Society of America, Virtual, USA, 2021. *Poster Presentation.*

**Hobbs, T.E.** *The Geological Survey of Canada's Earthquake Risk Assessment Framework to Support Canada's Emergency Management Strategy*. The Lands and Minerals Sector Science Advisory Committee – Science Policy Forum on Safety & the Environment, Ottawa, ON, Canada, 2021. *Oral Presentation.*

**Hobbs, T.E.**, Journeay, J.M., Yip, J.Z.K., Rao, A. *Benchmarking Scenario Performance in the First Generation Canadian Seismic Risk Assessment*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2020. *Poster Presentation.*

**Hobbs, T.E.**, Kaya, Y., Journeay, J.M., Singh, G., Bird, A.L., Cassidy, J.F., van Ulden, J., and Rotheram-Clarke, D. *Improving Situational Awareness During Early Earthquake Response Using Existing Seismic Risk Models to Rapidly Estimate Damage*. American Geophysical Union, San Francisco, CA, USA, 2020. *Poster Presentation.*

Kedar, S., Panning, M.P., Standley, I.A., Blaes, B.R., Walsh, W., Calcutt, S.B., Pike, W.T., Pierce, D.R., Schmidt, B.E., **Hobbs, T.E.**, Badalian, M., Liu, J., and Franklin, G.W. *The Europa Seismic Package*. American Geophysical Union, San Francisco, CA, USA, 2020. *Poster Presentation.*

Newman, A.V., Protti, M., Schwartz, S.Y., Dixon, T.H., **Hobbs, T.E.**, Voss, N.K., Kyriakopoulos, C., Yao, D., Chaves, E.J., Jiang, Y., Feng, F., DeShon, H., Walter, J.I., Yang, H., Xie, S., and Gonz'alez, V.M. *Two Decades of Geodetic and Seismological Insight into the Seismogenic Zone: A View from Nicoya, Costa Rica*. American Geophysical Union, San Francisco, CA, USA, 2020. *Oral Presentation.*

Pol, K., Journeay, J.M., and **Hobbs, T.E.** *Mainstreaming Seismic Resilience: Transforming Earthquake Risk Information into Plans for Resilient Communities*. Understanding Risk British Columbia Symposium, Vancouver, BC, Canada, 2020. *Workshop.*

## Conference Proceedings Continued

**Hobbs, T.E.**, Journeay, J.M., and Singh, G. *Test Driving a Rapid Disaster Modelling Methodology for British Columbia Earthquakes*. Understanding Risk British Columbia Symposium, Vancouver, BC, Canada, 2020. *Workshop*.

Journeay, J.M., Yip, J.Z.K., **Hobbs, T.E.**, Safaie, S., Bristow, D., Deelstra, A., and Chouinard, D. *Black Swans Over Vancouver: From Understanding Risk to Identifying Interventions and Related Risk Reduction Targets*. Understanding Risk British Columbia Symposium, Vancouver, BC, Canada, 2020. *Workshop*.

**Hobbs, T.E.**, Kaya, Y., Journeay, J.M., Singh, G., Bird, A.L., Cassidy, J.F., van Ulden, J. and Rotheram-Clarke, D. *Developing a Rapid Disaster Modelling Methodology for Earthquakes in British Columbia*. Natural Hazards Center Workshop, Boulder, CO, USA, 2020. *Poster Presentation*.

**Hobbs, T.E.**, Hughson, K.H.G., Quartini, E.S., Schmidt, B.E., Panning, M.P., Washam, P.M., Dichek, D.J.G., Hurwitz, B.C., Lawrence, J.D., Hulbe, C.L., Horgan, H.J. *Today Antarctica, Tomorrow Europa: Testing Broadband Seismometers in Icy Earthly Analogs*. Annual Meeting of the Seismological Society of America, Albuquerque, NM, USA, 2020. *Oral Presentation*. \*Cancelled for COVID19.

**Hobbs, T.E.**, Journeay, J.M., Rao, A. *Benchmarking the First Generation Canadian National Seismic Risk Assessment*. Annual Meeting of the Seismological Society of America, Albuquerque, NM, USA, 2020. *Oral Presentation*. \*Cancelled for COVID19.

Bombardier, M., **Hobbs, T.E.**, Cassidy, J.F., Kao, H., Dosso, S.E. *Analysis of the Atypical 2018 and 2019 Episodic Tremor and Slip Events in Northern Cascadia*. Annual Meeting of the Seismological Society of America, Albuquerque, NM, USA, 2020. *Poster Presentation*. \*Cancelled for COVID19.

**Hobbs, T.E.**, Journeay, J.M., Bird, A.L. *Assessing and Communicating Risk from Low-Activity Faults in British Columbia, Canada*. SAGE GAGE Workshop, Portland, OR, USA, 2019. *Poster Presentation*.

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Unexpected forearc sliver translation during relocking of the Nicoya, Costa Rica megathrust*. Megathrust Modeling Workshop (Modeling Collaboratory for Subduction Research Coordination Network), Eugene, OR, USA, 2019. *Poster Presentation*.

Lawrence, J.D., Schmidt, B.E., Glass, J.B., Hamerton, E.K., Bowman, J.S., Lawrence, J.P., Meister, M.R., Dichek, D., Ramey, C., Mullen, A.D., Bryson, F.E., Hurwitz, B., Spears, A., **Hobbs, T.E.** *Water Circulation and Microbial Diversity in Antarctic Ocean World Analog Environments*. AGU Astrobiology Science Conference, Seattle, WA, USA, 2019. *Oral Presentation*.

Mullen, A.D., Schmidt, B.E., Dichek, D., Lawrence, J., Meister, M.R., Ramey, C., Bryson, F.E., **Hobbs, T.E.**, Spears, A., Hurwitz, B., Serabyn, E., Bedrossian, M., Rider, S., Wallace, J.K., Nadeau, J.L., Lindensmith, C.A. *Digital Holographic Microscopy for the Icefin Underwater Vehicle: Initial Progress and Future Steps*. AGU Astrobiology Science Conference, Seattle, WA, USA, 2019. *Oral Presentation*.

Lawrence, J.D., Schmidt, B.E., Meister, M.R., Dichek, D.J.G., Ramey, C.D., Hurwitz, B., Spears, A.M., Mullen, A.D., Bryson, F.E., Buffo, J.J., Glass, J.B., Stockton, A.M., **Hobbs, T.E.** *Observations of Variable Basal Ice Morphology in Antarctica*. Ocean Worlds, Columbia, Maryland, 2019. LPI Contribution No. 2168, i.d. 6029. *Oral Presentation*.

Newman, A.V., **Hobbs, T.E.**, Kyriakopoulos, C., Protti, M., Dixon, T., Schwartz, S.Y. *Translating megathrust behavior into the Nicoya Crust, revealing a dynamic dance across the seismic cycle*. Annual Meeting of the Seismological Society of America, Seattle, WA, USA, 2019. *Oral Presentation*.

Schmidt, B.E., Lawrence, J., Meister, M., Dichek, D., Ramey, C., Spears, A., Mullen, A., Bryson, F., **Hobbs, T.E.** *In Situ Observations of the Erebus Glacier Tongue Grounding Zone by the Icefin HROV*. European Geophysical Union General Assembly, Vienna, Austria, 2019. *Oral Presentation*.

**Hobbs, T.E.**, Yao, D., Newman, A.V., Peng, Z., Protti, M. *Investigating Apparent Anticorrelation of Repeating Aftershocks and Afterslip in Nicoya, Costa Rica*. American Geophysical Union Fall Meeting, Washington, DC, USA, 2018. ID: T52B-03. *Oral Presentation*.

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Transient Forearc Sliver Transport Found During Postseismic Recovery*. Wegener 2018: 19th General Assembly of WEGENER, Grenoble, France, 2018. *Oral Presentation*.

## Conference Proceedings Continued

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Episodic forearc sliver translation during relocking of the Nicoya, Costa Rica megathrust: an unexpected observation*. Joint Meeting of the Latin American and Caribbean Seismological Commission and the Seismological Society of America, Miami, FL, USA, 2018. *Invited Presentation*.

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Unexpected forearc sliver translation during relocking of the Nicoya, Costa Rica megathrust*. UNAVCO Science Workshop, Boulder, CO, USA, 2018. *Poster Presentation*.

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Accelerated sliver transport during transition from postseismic to inter-seismic conditions*. American Geophysical Union Fall Meeting, New Orleans, LA, USA, 2017. ID: G43A-0902. *Poster Presentation*.

Voss, N.K., Liu, Z., **Hobbs, T.E.**, Schwartz, S.Y., Malservisi, R., Dixon, T., Protti, M. *Aseismic Slip Throughout the Earthquake Cycle in Nicoya Peninsula, Costa Rica*. American Geophysical Union Fall Meeting, New Orleans, LA, USA, 2017. ID: T13E-02. *Oral Presentation*.

**Hobbs, T.E.**, Newman, A.V., and Peng, Z. *Defining the Temporal Relationship Between Afterslip and Aftershocks Using Dense Seismic and Geodetic Networks in Nicoya, Costa Rica*. Seismological Society of America Annual Meeting, Denver, CO, USA, 2017. *Oral Presentation*.

**Hobbs, T.E.**, Kyriakopoulos, C., Newman, A.V., Yao, D., Dixon, T., Protti, M. *Recovering the Full Afterslip Following the 2012 Mw 7.6 Nicoya, Costa Rica Earthquake*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2016. ID: 137120. *Oral Presentation*.

Newman, A.V., Yao, D., Kyriakopoulos, C., Moore-Driskell, M.M., **Hobbs, T.E.**, Peng, Z., Schwartz, S., Protti, M., Gonzalez, V. *The Possible Decapitation of a Megathrust Indenter: Evidence from Imaging of Time-dependent Microseismic Structures before and after the 2012 Mw 7.6 Nicoya, Costa Rica*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2016. ID: 149139. *Oral Presentation*.

Newman, A.V., **Hobbs, T.E.**, Kyriakopoulos, C., Dixon, T., Schwartz, S.Y., Protti, M. *Partitioning of the Total Slip Signal through the Seismic Cycle: Results from the Nicoya Seismic Cycle Observatory (NSCO)*. Subduction Zone Observatory Workshop, Boise, ID, USA, 2016. *Poster Presentation*.

**Hobbs, T.E.**, Newman, A.V., Yao, D., Protti, M. *Continued Trenchward Procession of Upper Plate GPS Sites Following the 2012 Mw 7.6 Nicoya Earthquake*. General Assembly of the Latin American and Caribbean Seismological Commission, San Jose, Costa Rica, 2016. Paper Number 230. *Oral Presentation*.

Walter, J.I., Kao, H., Meng, X., Peng, Z., **Hobbs, T.E.**, Dotray, P., Newman, A.V., Mulder, T. *Dynamic interactions between the October 28th 2012 Haida Gwaii and January 5th 2013 Craig earthquakes and other faults in Southeast Alaska*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2015. Abstract ID: S13D-07. *Oral Presentation*.

**Hobbs, T.E.**, Newman, A.V., Protti, M. *Continued Trenchward Procession of Upper Plate GPS Sites Following the 2012 Mw 7.6 Nicoya Earthquake*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2015. Abstract ID: T43C-3017. *Poster Presentation*.

Newman, A.V., Kyriakopoulos, C., Feng, L., **Hobbs, T.E.**, Dixon, T.H., Malservisi, R., Protti, J.M. *The Continuum of Slip along the Subduction Megathrust: Observations and Understanding Gained from the Nicoya Seismic Cycle Observatory*. Seismological Society of America Annual Meeting, Pasadena, CA, USA, 2015. *Invited*.

**Hobbs, T.E.**, Cassidy, J.C., and Dosso, S.E. *Possible Interactions between the 2012 Mw 7.8 Haida Gwaii Subduction Earthquake and the Transform Queen Charlotte Fault*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2014. Abstract ID: S23A-4483. *Poster Presentation*.

**Hobbs, T.E.**, Cassidy, J.C., and Dosso, S.E. *Rupture Properties of the Mw 7.7 2012 Haida Gwaii Earthquake from an Empirical Green's Function Method*. Seismological Society of America Annual Meeting, Anchorage, AK, USA, 2014. Abstract ID: 14-003. *Oral Presentation*.

**Hobbs, T.E.**, Cassidy, J.C., and Dosso, S.E. *Coulomb Stress Changes Resulting from the Mw 7.7 2012 Haida Gwaii Earthquake*. Seismological Society of America Annual Meeting, Anchorage, AK, USA, 2014. Abstract ID: 14-002. *Poster Presentation*.

## Conference Proceedings Continued

**Hobbs, T.E.**, Brillon, C., Cassidy, J.C., Dosso, S.E., and Dragert, H. *Coulomb Stress Changes Following the Mw 7.7 2012 Haida Gwaii Earthquake*. Canadian Geophysical Union Annual Meeting, Saskatoon, SK, Canada, 2013. Abstract ID: 3D4.3--6606. *Oral Presentation*.

**Hobbs, T.E.**, and Darbyshire, F.A. *SkS Splitting Measurement of Seismic Anisotropy in Southern & Central Quebec*. Canadian Geophysical Union Annual Meeting, Banff, AB, Canada, 2012. *Poster Presentation*.

Darbyshire, F.A., and **Hobbs, T.E.** *Crustal Thickness Variations Across Central and Southern Québec From Receiver Function Analysis*. Canadian Geophysical Union Annual Meeting, Banff, AB, Canada, 2011. *Poster Presentation*.

**Hobbs, T.E.**, and Darbyshire, F.A. *Crustal Thickness Variations Across Eastern Canada and Maine From Receiver Function Analysis*. American Geophysical Union Fall Meeting, San Francisco, CA, USA, 2010. Abstract ID: T33D-2285. *Poster Presentation*.

## Invited Speaking Engagements

**Hobbs, T.E.** and Bevington, A. Panelist for the University of Northern British Columbia, Course GEOG 212, Prince George, BC, Canada, 2021.

**Hobbs, T.E.**, Journeay, M., van Ulden, J., Rotheram, D., Chow, W., Herring, J., Pagani, M., Johnson, K., Rao, A. *Canada's National Seismic Risk Model*. Keynote Speaker for the Graduate Student Symposium for Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA, USA, 2021.

**Hobbs, T.E.**, Journeay, M., van Ulden, J., Rotheram, D., Chow, W., Herring, J., Pagani, M., Johnson, K., Rao, A. *Earthquake Scenarios*. Presentation to Vancouver Emergency Community Telecommunications Organization (VECTOR), Vancouver, BC, Canada, 2021.

**Hobbs, T.E.**, Journeay, M., van Ulden, J., Rotheram, D., Chow, W., Herring, J., Pagani, M., Johnson, K., Rao, A. *Earthquake Scenarios for Task Force 2*. Presentation to Canadian Task Force 2, Calgary, AB, Canada, 2021.

**Hobbs, T.E.** *Canada's Seismic Risk Profile: A Path to Disaster Risk Reduction*. Carl Heiland Lecture at the Colorado School of Mines, Golden, CO, USA, 2021.

**Hobbs, T.E.** *Communication and Effectiveness in Disaster Risk Reduction*. Lecture for the Colorado School of Mines, Engineering, Design & Society, Golden, CO, USA, 2021.

**Hobbs, T.E.**, Campbell, A., Reyes, B., Nasser, A., Gregory, D., Kolaj, M., Seyhan, E., *Canada's New Earthquake Science: Learning from Loss Models*. Panelist at Institute for Catastrophic Loss Reduction Workshop, 'Tail Risk' and 'Canada's 6th Generation Seismic Hazard Model' sessions, London, ON, Canada, 2020.

**Hobbs, T.E.**, Journeay, J.M., Kolaj, M., Podlaha, A., and Trendafiloski, G. *New Perspectives on Earthquake Risk in Canada*. Panelist at CatIQ Connect session, moderated by John Schneider, Toronto, ON, Canada, 2020.

**Hobbs, T.E.**, and Hilt, M.P. *Regional Seismic Risk Modelling and its Impact on Policy Development*. Lecture for the University of British Columbia, Course CIVL 506, Vancouver, BC, Canada, 2020.

**Hobbs, T.E.** *Earthquake Scenarios for Community Resilience*. Presentation to the Board of the Mid Island Emergency Coordinators and Managers, Qualicum Beach, BC, Canada, 2020.

**Hobbs, T.E.** *Earthquake Scenarios for Community Resilience*. Presentation to the Strathcona Emergency Program Committee, Campbell River, BC, Canada, 2020.

**Hobbs, T.E.**, Journeay, J.M., Bird, A.L., Cassidy, J.F. *Seismic Scenarios in British Columbia*. Presentation to the British Columbia Seismic Safety Commission, Victoria, BC, Canada, 2020.

**Hobbs, T.E.**, Journeay, J.M. *Implementing Updated Fragility & Vulnerability Functions in Scenario Earthquakes*. Presentation to City of Vancouver Seismic Engineering Review Committee, Vancouver, BC, Canada, 2020.

**Hobbs, T.E.** *Using Dense Seismic and Geodetic Networks to Examine [Unexpected] Postseismic Behaviour of the Nicoya, Costa Rica Megathrust*. Tectonics Seminar Series at the Pacific Geoscience Centre, Sidney, BC, Canada, 2020.

## Invited Speaking Engagements Continued

**Hobbs, T.E.**, Journeay, J.M. *An Earthquake Risk Profile of Canada: Knowledge to Inform Disaster Resilience Planning*. Seminar presentation for the Canadian Hazards Information Service, Ottawa, ON, Canada, 2020.

**Hobbs, T.E.**, Journeay, J.M., Cassidy, J.C. *Earthquakes in British Columbia: Preparing for the ‘Big One’ and the ‘Other Ones’*. Presentation to the Metro Vancouver Regional District & Regional Engineers Advisory Committee Utility Tabletop Exercise, Burnaby, BC, Canada, 2019.

**Hobbs, T.E.**, Journeay, J.M. *An Earthquake Risk Profile of Canada: Knowledge to Inform Disaster Resilience Planning*. Presentation to the Director General Interdepartmental Table on Earthquake Risk, Government of Canada, Ottawa, ON, Canada, 2019.

**Hobbs, T.E.**, Journeay, J.M. *Eastern Canada Earthquake Scenarios*. Workshop presentation for ‘Earthquake Risk Modeling in Canada: From Knowledge to Action’, London, ON, Canada, 2019.

**Hobbs, T.E.** *Seismicity in British Columbia*. Presentation to the Union of British Columbia Municipalities Convention, Vancouver, BC, Canada, 2019.

## Science News Publications

**Hobbs, T.E.** (2020), *Dual disaster planning, communication and reason for hope: a discussion with professor Sam Montano*, Temblor, <http://doi.org/10.32858/temblor.086>

**Hobbs, T.E.**, Shinji, T. (2020), *Significant Idaho earthquake unlikely to cause unrest in Yellowstone*, Temblor, <http://doi.org/10.32858/temblor.081>

**Hobbs, T.E.** (2020), *Earthquake strikes Utah amid COVID-19 pandemic*, Temblor, <http://doi.org/10.32858/temblor.078>

**Hobbs, T.E.** (2020), *Shaking on Mars Creating Good Vibrations On Earth*, Temblor, <http://doi.org/10.32858/temblor.075>

Eyidoğan, H., **Hobbs, T.E.** (2020), *Recovery Underway Following Damaging 24 January 2020 Elazığ Earthquake in Eastern Turkey*, Temblor, <http://doi.org/10.32858/temblor.070>

**Hobbs, T.E.** (2020), *More unrest in the Caribbean as Jamaica is struck by a magnitude 7.7 earthquake*, Temblor, <http://doi.org/10.32858/temblor.069>

**Hobbs, T.E.** (2019), *Can science tell when a large earthquake will be followed by an even larger one?*, Temblor, <http://doi.org/10.32858/temblor.056>

**Hobbs, T.E.** (2019), *Over 66 million people participate in international ShakeOut; prompts evaluation of personal preparedness*, Temblor, <http://doi.org/10.32858/temblor.052>

**Hobbs, T.E.** (2019), *Indonesian “Black Swan” quake: a painful reminder of last year’s M 7.5 Palu shock*, Temblor, <http://doi.org/10.32858/temblor.044>

**Hobbs, T.E.** (2019), *August 1, 2019, magnitude-6.8 Chile earthquake reveals stress is building on the megathrust*, Temblor, <http://doi.org/10.32858/temblor.042>

**Hobbs, T.E.** (2019), *How Apollo 11’s moonquakes changed our understanding of earthquakes*, Temblor, <http://doi.org/10.32858/temblor.041>

Stein, R.S., Rollins, C., Sevilgen, V. **Hobbs, T.E.** (2019), *M 7.1 SoCal earthquake triggers aftershocks up to 100 mi away: What’s next?*, Temblor, <http://doi.org/10.32858/temblor.038>

Stein, R.S., **Hobbs, T.E.**, Rollins, C., Ely, G., Sevilgen, V., Toda, S. (2019), *Magnitude 7.1 earthquake rips northwest from the M6.4 just 34 hours later*, Temblor, <http://doi.org/10.32858/temblor.037>

**Hobbs, T.E.**, Rollins, C. (2019), *Earthquake Just North of Cascadia is Felt Along Canada’s West Coast*, Temblor, <http://doi.org/10.32858/temblor.036>

**Hobbs, T.E.**, Rollins, C. (2019), *Earthquake early warning system challenged by the largest SoCal shock in 20 years*, Temblor, <http://doi.org/10.32858/temblor.035>

## Science News Publications Continued

- Hobbs, T.E.** (2019), *The first Marsquake is recorded*, Temblor, <http://doi.org/10.32858/temblor.031>
- Hobbs, T.E., Stein, R.S.** (2019), *El Salvador Earthquake: A Moderate Event in An Area of Extreme Seismic Risk*, Temblor, <http://doi.org/10.32858/temblor.025>
- Hobbs, T.E.** (2019), *Deep earthquake in Peru is felt along the length of South America*, Temblor, <http://doi.org/10.32858/temblor.024>
- Hobbs, T.E.** (2019), *Large Earthquake in Papua New Guinea re-ruptures major fault in just 19 years: More to follow?*, Temblor, <http://doi.org/10.32858/temblor.022>
- Hobbs, T.E.** (2018 – present) *T. Hobbs Field Research Blog* Retrieved from <https://thobbsfield.wordpress.com>
- Hobbs, T.E.** (2018, October-December) *Planetary Habitability & Technology Blog* Retrieved from <https://nobusinesslikesnowbusiness.wordpress.com>
- Hobbs, T.E.** (2018, July 11-25) *Alaska Amphibious Community Seismic Experiment Blog* Retrieved from <https://alaskaamphibious.wordpress.com/2018/07/11/> ; <https://alaskaamphibious.wordpress.com/2018/07/18/>
- Hobbs, T.E., Toda, S.** (2018), *Did Tuesday's M 7.9 Kodiak earthquake nudge the Alaskan Megathrust closer to failure?*, Temblor, <http://doi.org/10.32858/temblor.005>
- Hobbs, T.E.** (2018, January 23) *M 7.9 Alaska earthquake strikes off the coast of Kodiak Island, triggering a tsunami and questions*. Retrieved from <http://temblor.net/earthquake-insights/m7-9-alaska-earthquake-strikes-off-the-coast-of-kodiak-island-triggering-a-tsunami-and-questions-6143/>

## Techniques

GPS & seismic fieldwork	Risk Modelling (OpenQuake)	Coulomb stress analysis
Geodetic inversion	Slope Stability Analysis	Instrument design
GIS Software	Tableau Data Visualization	InSAR processing
SkS splitting	Receiver function stacking	Waveform Matching

## Training

- Short Course** Remotely-Piloted Aircraft System Ground School (Coastal Drone Co.), 2021
- Online Course** Indigenous Canada (University of Alberta), 2021
- Short Course** Bear Aware (St. John's Ambulance), 2021
- Short Course** Avalanche Safety Training (AST) Level 1 (Canada West Mountain School), 2019
- Short Course** 5-day Mountaineering Course (Northwest Mountain School), 2019
- Short Course** Wilderness First Aid (Coast Wilderness Medical Training), 2019
- College Course** Introduction to GIS (Fanshawe College), 2019
- Short Course** Advanced Webinar: SAR for Disasters and Hydrological Applications (NASA), 2019
- Apply-to-Sail Participant** Alaska Amphibious Community Seismic Experiment (GeoPRISMS), 2018
- Short Course** Aftershock Forecasting (SSA), 2018
- Short Course** Probabilistic Seismic Hazard Analysis with Slab 2.0 (SSA), 2018
- Short Course** Communicating Science for Impact (UNAVCO), 2018
- Short Course** Gipsy-X User Training (JPL), 2017
- Short Course** Probabilistic Seismic Hazard Analysis (SSA), 2017
- Short Course** Advanced INSAR Processing (UNAVCO), 2015



## Awards & Funding

**NSERC Alliance: Pacific Alliance**

Federal Partner

PI: Michael Bostock

pending

**NSERC Alliance: Quantifying the Seismic Resilience of the Transportation Network in the Lower Mainland, BC**

Federal Partner

PI: Carlos Molina-Hutt

pending

**NSERC CREATE: EArthquake Research Training for Hazards response (EARTH-CREATE)**

Non-academic Partner

PI: Christie Rowe

pending

**NSERC Discovery Grant: Identifying Potentially Active Faults in Mainland British Columbia Using Available Datasets**

Principal Investigator

2022 – 2027

**NSERC CREATE: Pacific Rim Ocean Data Mobilization and Technology (PRODIGY)**

Non-academic Partner

PI: Philippe Tortell

2021 – 2027

**Award for Outstanding Service**

Georgia Institute of Technology, School of Earth and Atmospheric Sciences

2019

**Student Presentation Award**

Seismological Society of America

2018

**NSERC Post-Graduate Doctoral Fellowship**

Natural Sciences and Engineering Research Council of Canada

2016 – 2018

**Kurt Frankel Award for Excellence in Field Work**

Georgia Institute of Technology, School of Earth and Atmospheric Sciences

2017

**Student Travel Award**

Seismological Society of America

2017

**Invitation for Dean's Lecture Series**

University of Victoria, Faculty of Graduate Studies

2014

**Fellowship for Graduate Students**

University of Victoria, Faculty of Science

2012, 2013

**Student Travel Award**

Canadian Geophysical Union

2012, 2013

**Introduction to Research Scholarship**

GEOTOP, Montréal, Quebec

2012

## Awards & Funding Continued

### **Logan Award**

McGill University, Faculty of Science  
2011

### **Frederick M. Connell Award**

McGill University, Faculty of Science  
2011

### **Graham Scholarship in Science**

McGill University, Faculty of Science  
2011

## Service

### **Co-Chair**, Hazards Equity Working Group

American Geophysical Union Natural Hazards Section  
2020 – present

### **Scientist**, Skype A Scientist Program

<https://www.skypeascientist.com/>  
2018 – present

### **Expert Reviewer**, Seismic Retrofit Guidelines

Engineers and Geoscientists British Columbia  
2020

### **Coordinator**, Georgia Tech Science Showcase Series

Ponce City Farmers Market, Atlanta, GA  
2018

### **Science Coordinator**, Graduate Student Symposium

Georgia Institute of Technology, School of Earth and Atmospheric Sciences  
2017

### **Member**, Society of Exploration Geophysicists

Georgia Institute of Technology Chapter  
2015 – 2018

### **First Year Mentoring Chair**, Graduates in Earth and Atmospheric Sciences Council

Georgia Institute of Technology  
2015 – 2017

### **Vice President**, Graduates in Earth and Atmospheric Sciences Council

Georgia Institute of Technology  
2014 – 2016

### **Volunteer**, 'Let's Talk Science' National Outreach Program

University of Victoria  
2013 – 2014

### **Vice President External**, Montereian Society

Department of Earth and Planetary Science's Undergraduate Student Council  
McGill University  
2010 – 2011

### **President**, Environmental Residence Council

**Vice President of Environment**, University Residence Council  
McGill University  
2008 – 2009

## Teaching Assistant Experience

### **EOS 120: Dynamic Earth**

School of Earth & Ocean Sciences  
University of Victoria, Victoria, BC, Canada

### **EOS 170: Natural Hazards**

School of Earth & Ocean Sciences  
University of Victoria, Victoria, BC, Canada

### **EOS 201: Sedimentary Geology**

School of Earth & Ocean Sciences  
University of Victoria, Victoria, BC, Canada

### **EAS 2600: Earth Processes**

Earth & Atmospheric Sciences Department  
Georgia Institute of Technology, Atlanta, GA, USA

## Manuscript and Proposal Reviews

2021 – Natural Sciences and Engineering Research Council Alliance Proposal (#)

2021 – GEOLOGY (G48675)

2020 – Nature Communications (NCOMMS-20-45887-T)

2020 – National Science Foundation Collaborative Research Proposal (#2025104)

2019 – Journal of South American Earth Sciences (SAMES\_2019\_275)

2018 – Nature Scientific Reports (SREP-18-23971-T)

2018 – Tectonics (2017TC004771RRRR)

## Thesis Committees

2021 – Megan Caston (MSc), University of Victoria, BC, Canada

## Professional Organizations

American Geophysical Union (*AGU*)

Seismological Society of America (*SSA*)

Latin American and Caribbean Seismological Coalition (*LACSC*)