

INDIGENOUS MAPPING WORKSHOP



For the UN COPUOUS
Scientific & Technical
Subcommittee
Meeting



A Collective Presentation by:
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On the occasion of the **UN COPUOUS Scientific & Technical Subcommittee Meeting**, online, February 7-18, 2022



2021IMW GLOBAL MAP OF PARTICIPANTS



INDIGENOUS MAPPING WORKSHOP EVENTS TIMELINE



CONTRIBUTIONS BY NASA

TECHNICAL SESSIONS

- Basics of Satellite Imagery
- Applications: Wildfire Monitoring
- Applications: Flooding
- Applications: Habitat Mapping
- Applications: Drought

PANEL: REMOTE SENSING FOR INDIGENOUS RIGHTS AND INTERESTS

- Dr. Amber McCullum (Moderator, NASA)
- Nikki Tulley, member of Navajo Nation
- Dr. Emily Missyabit McAuley, member of Lake Manitoba First Nation

COLLABORATIVE SESSIONS

- Burn severity mapping and creating storymaps (with ESRI Canada)
- Office hours (Canadian Space Agency)

Monitoring Fires with Satellite Data





CONTRIBUTIONS BY NASA

LESSONS LEARNED

- Understanding important issues for Indigenous communities is critical
- Conducting end-to-end 3 part training series on mapping burn severity and communicating with Story Maps was very successful
- Increased understanding of the diversity of Indigenous knowledge systems and perspectives as well as innovative uses of geospatial technology

FUTURE CONSIDERATIONS

- Incorporate Indigenous knowledge into trainings
- Continued collaborations with all IMW partners
- Improve understanding of geospatial needs by Indigenous communities and organizations



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Indigenous Mapping
Workshop 2021

Day 4: NASA Data for Flooding

NASA's Indigenous Peoples Capacity Building Initiative
Cindy Schmidt and Amber McCullum

Wildfire Burn Severity
Around Lytton First Nation
Analyzing wildfire impacts using Landsat imagery

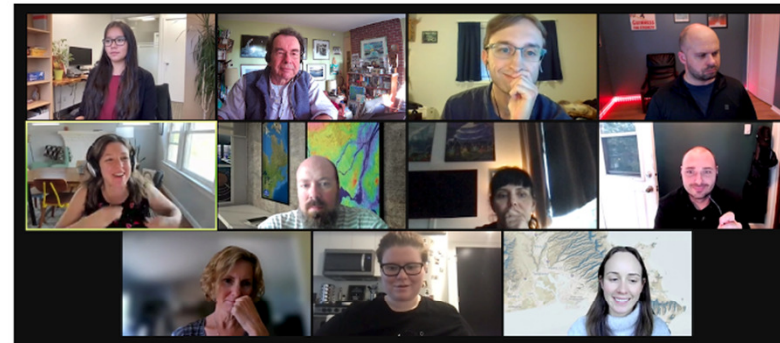
CONTRIBUTIONS BY THE CANADIAN SPACE AGENCY

TECHNICAL SESSIONS

- Introduction to **Radar** Satellites
Accessing Radar Imagery
 - Application: Radar & **Biodiversity Mapping**
 - Application: Radar & **Sea Ice Mapping**
 - Application: Radar & **Flood Monitoring**

ONLINE PARTICIPANTS

- Total of 150 people predominantly from Indigenous communities seeking geospatial analysis know-how



CONTRIBUTORS

- Canadian Space Agency
- Natural Resources Canada
- Environmental & Climate Change Canada



CONTRIBUTIONS BY THE CANADIAN SPACE AGENCY

LESSONS LEARNED

- Effective **geospatial learning** with Indigenous communities requires **two-way engagement**
 - Traditional Knowledge
 - EO satellite technology tools

OUTLOOK

- Continued collaboration: 2022IMW
- Future projects to be determined

SHARING & EXCHANGING EXPERIENCE

- Government scientists
- Community mapping practitioners
- CEOS community at large

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 INDIGENOUS MAPPING
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