

Seismic Monitoring Challenges at the AGS

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Project Staff

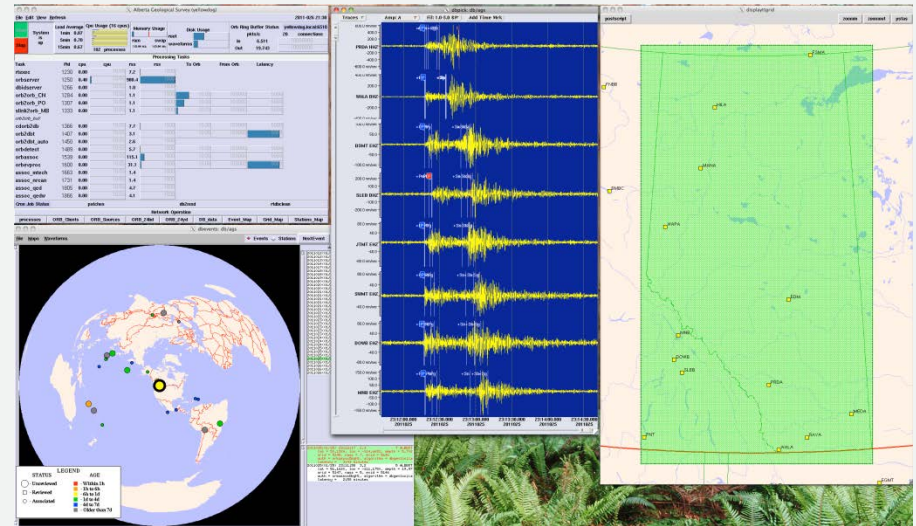
» Geophysicists

- Myself
 - Staff from 2008 to present
- Ryan Schultz
 - Student from 2010 to 2011
 - Staff from 2012 to 2019
- Javad Yusifbayov
 - Student from 2016 to 2018
 - Staff 2018 to present
- Mauricio Canales
 - Recently hired



Antelope installation

- » Acquired in the spring of 2010
 - Installed initially on a Mac Pro
 - “yellowdog” 2010-2018
 - Operational system running on RHEL server
 - “trinity” 2018 to present
 - Sandboxed system running on RHEL VM
 - “valentine” 2019



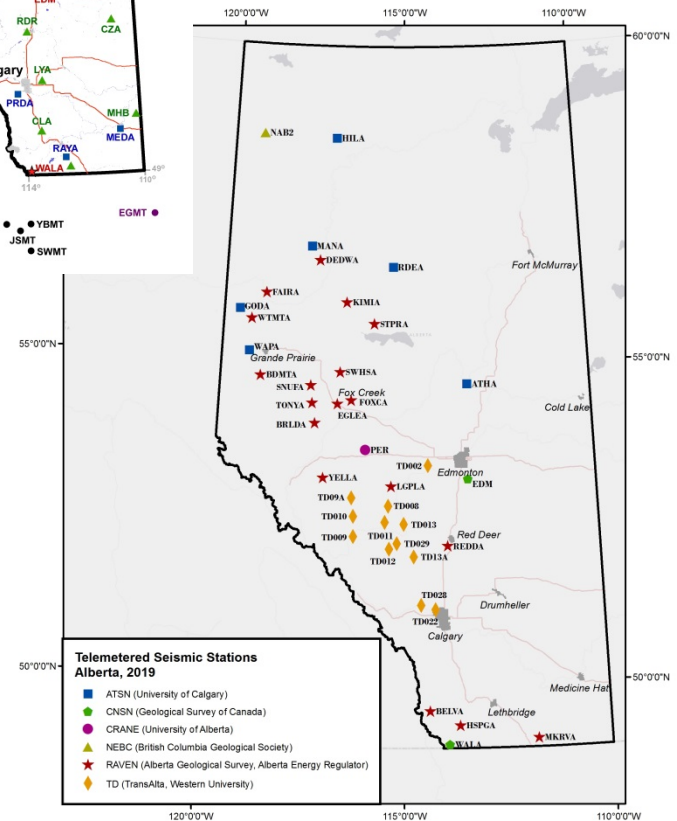
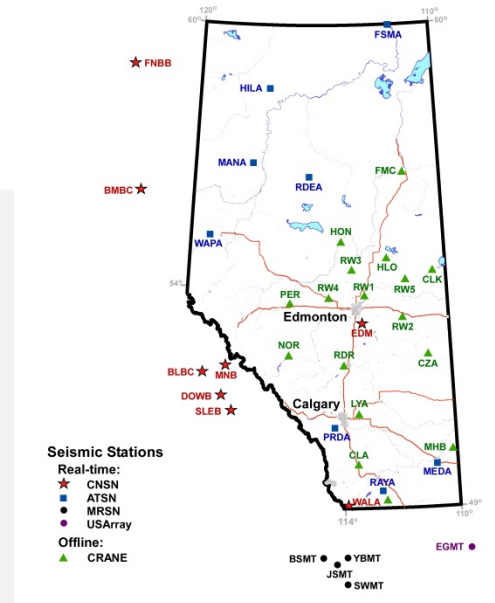
Stations

» Real time stations 2006 - 2014

- CNSN (Canada)
 - Leduc/Edmonton
 - BC stations

» Offline stations

- CRANE
 - 5 to 15 used to backlog from 2006 - 2012



Mandate

» Monitoring earthquakes within Alberta

➤ Blasts

- Saved in database

➤ Natural

- Saved and reported in an Interactive GIS map

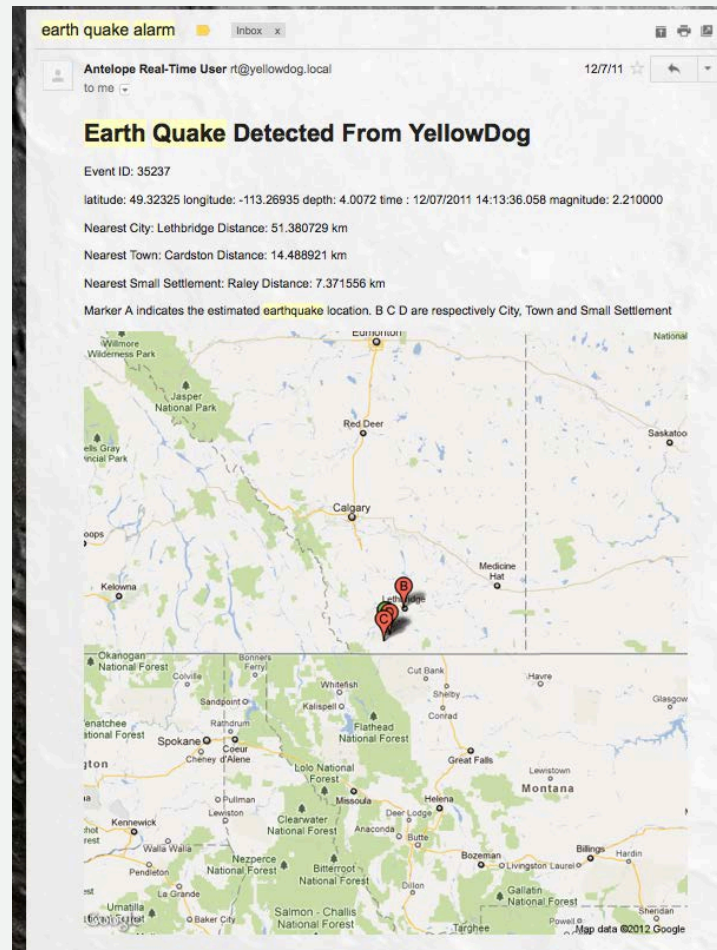
➤ Induced

- Saved and reported in an Interactive GIS map

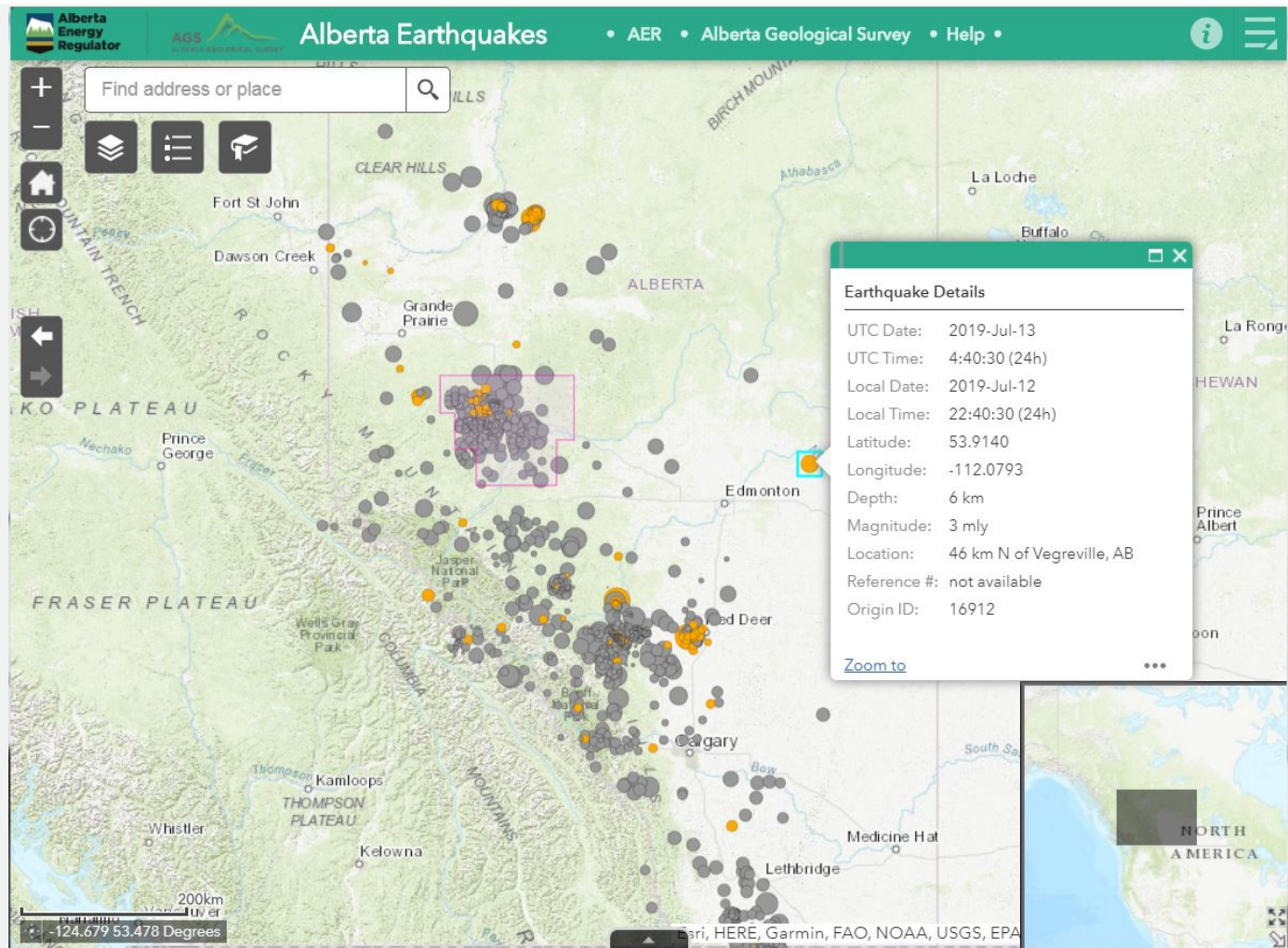
» Supporting energy regulation

- Relate suspected induced events to operations and advise management
- Contribute to research on induced seismicity

Email Earthquake Alert



Interactive Map

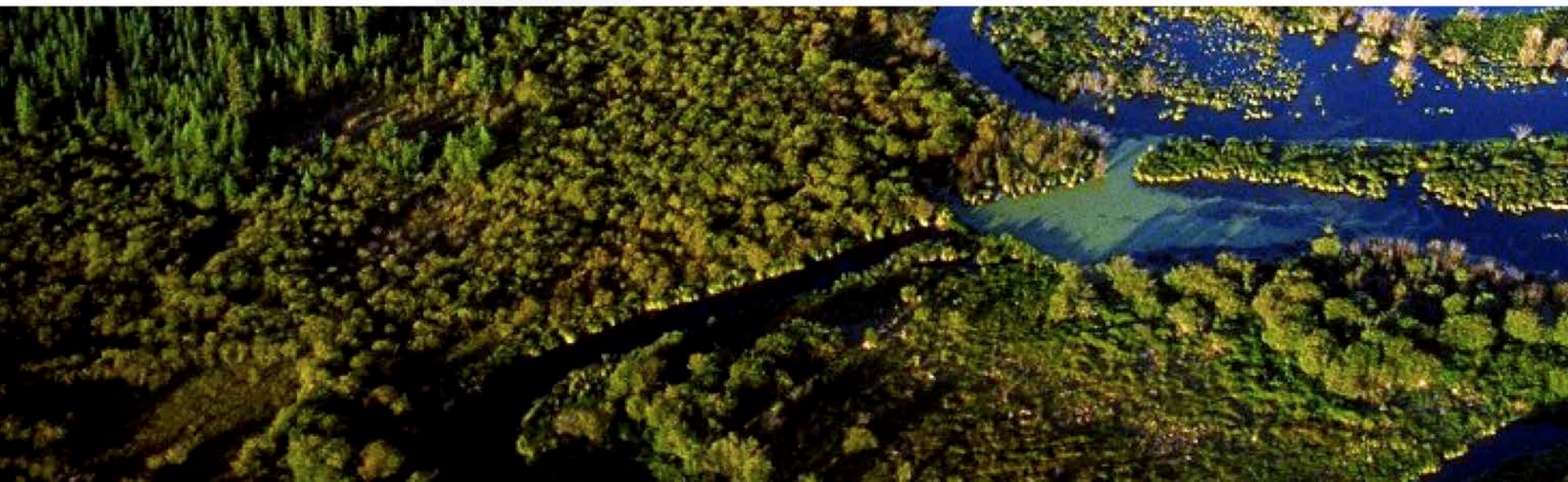


Demo

- 》 Waveform acquisition
- 》 orbdetect
- 》 orbassoc
- 》 db_earthquake_alert
- 》 Interactive ArcGIS map



Questions





Thank you

