Storms and Precipitation Across the continental Divide Experiment

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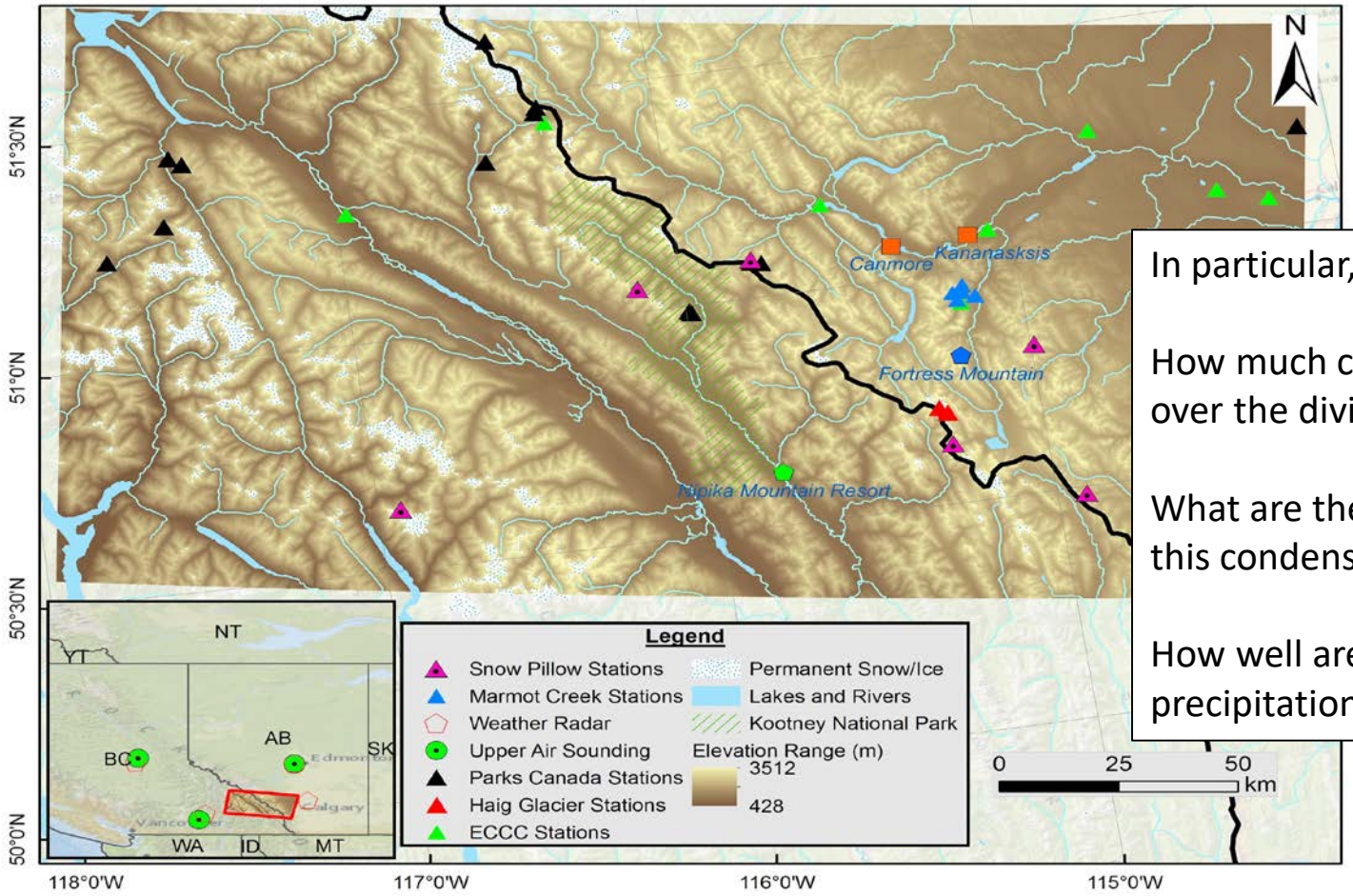
Objectives

To better understand the atmospheric conditions leading to storms and precipitation, including its type, across the continental divide.



In particular,

How much condensate is passing over the divide ?

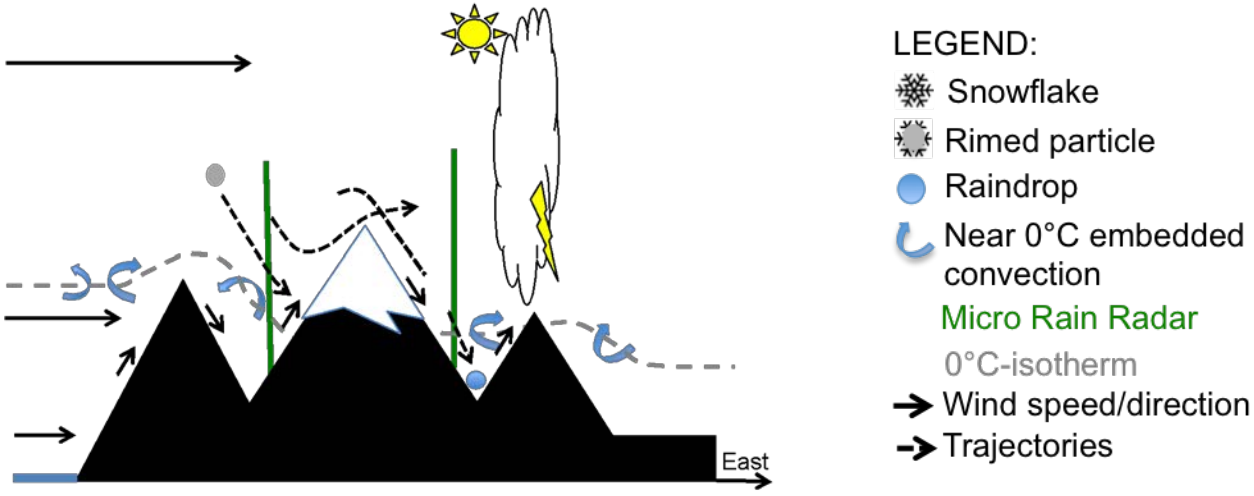
What are the factors governing this condensate ?

How well are these features of the precipitation simulated?

Approach

- Field project – May/June 2019
  - Install weather instruments on both sides of the continental divide
  - Collect manual observations of precipitation and weather conditions

- Modelling activities
  - Conduct simulations of precipitation events documented
  - Use Lagrangian approach to compute trajectories of precipitation



Links to other GWF projects

Pillar 1

Pillar 1

- Short-Duration Extreme Precipitation in Future Climate
- …

Pillar 3

- Mountain Water Futures
- Climate-Related Precipitation Extremes
- …

GWF Core

- U of S Technical Team:
  - Fortress Mountain Snow Laboratory
  - Canadian Rockies Hydrological Observatory
  - Airborne Cold Regions Laboratory
- GWF Core Modelling Team
- GWF Data Management Team
- …

Progress

- Started to address the deliverables for year 1
  - Recruit HQP
  - Acquire observations database, satellite information and model reanalysis
  - Begin conducting numerical simulations with GEM and the trajectory model
  - Begin the surface-based climatology of precipitation events over the SPADE region
  - Organize a SPADE workshop at one of the user group's locations to continue field experiment planning and exchanging information among researchers and with users.
- A first conference call is planned on 1 February 2018