



Environment and  
Climate Change Canada

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Canada



**MSC contributions to GWF**  
***Climate-related Precipitation Extremes***

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# Areas of interest

- Severe weather
  - Extreme rainfall
  - Hail
  - Freezing Precipitation
    - Freezing rain
    - Freezing Drizzle
    - Ice Pellets
  - Lightning



# Possible contributions

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- Case studies of specific high-impact precipitation/convection events with emphasis on understanding antecedent conditions to help improve early detection.
- Identification of physical processes associated with these events to improve forecaster anticipation, conceptual models, and diagnosis/prognosis techniques.
- Analysis of historical data and events from a climatological perspective to determine frequency and likelihood of extremes (e.g., precipitation and other high-impact weather events).
- Exploration of the use of proxy data for high-impact weather diagnosis, e.g., lightning characteristics as a proxy for hail occurrence.

