

Climate sentinels and Wintre-Mix sites

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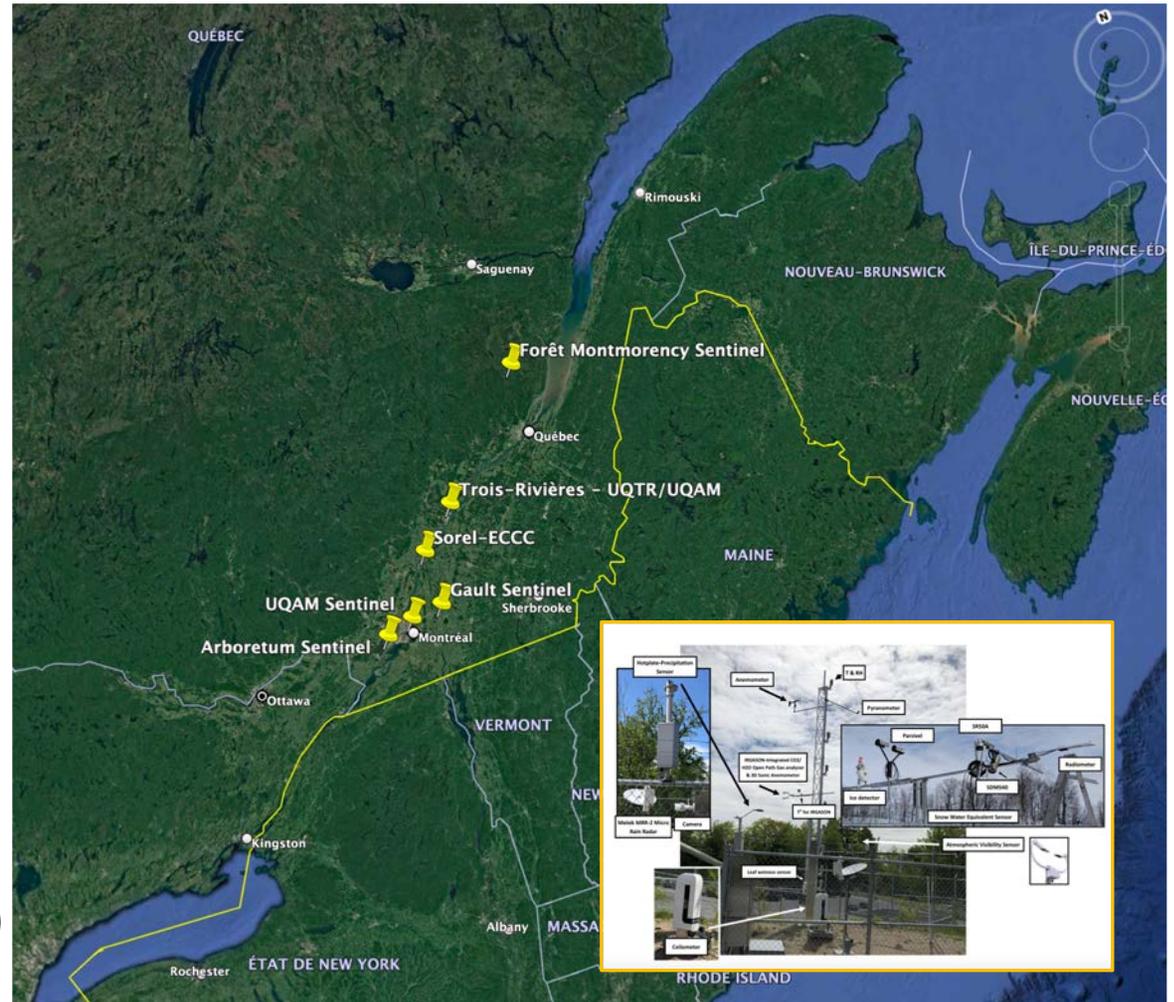
All sites along the Saint Lawrence River Valley

Sentinels

- Gault Sentinel (132 m ASL)
- Arboretum (49 m ASL)
- UQAM (70 m ASL)
- Forêt Montmorency (667 m ASL)

Wintre-Mix Sites

- Sorel – ECCC/UQAM/CU (16 m ASL)
- Trois-Rivières – UQTR/UQAM (47 m ASL)



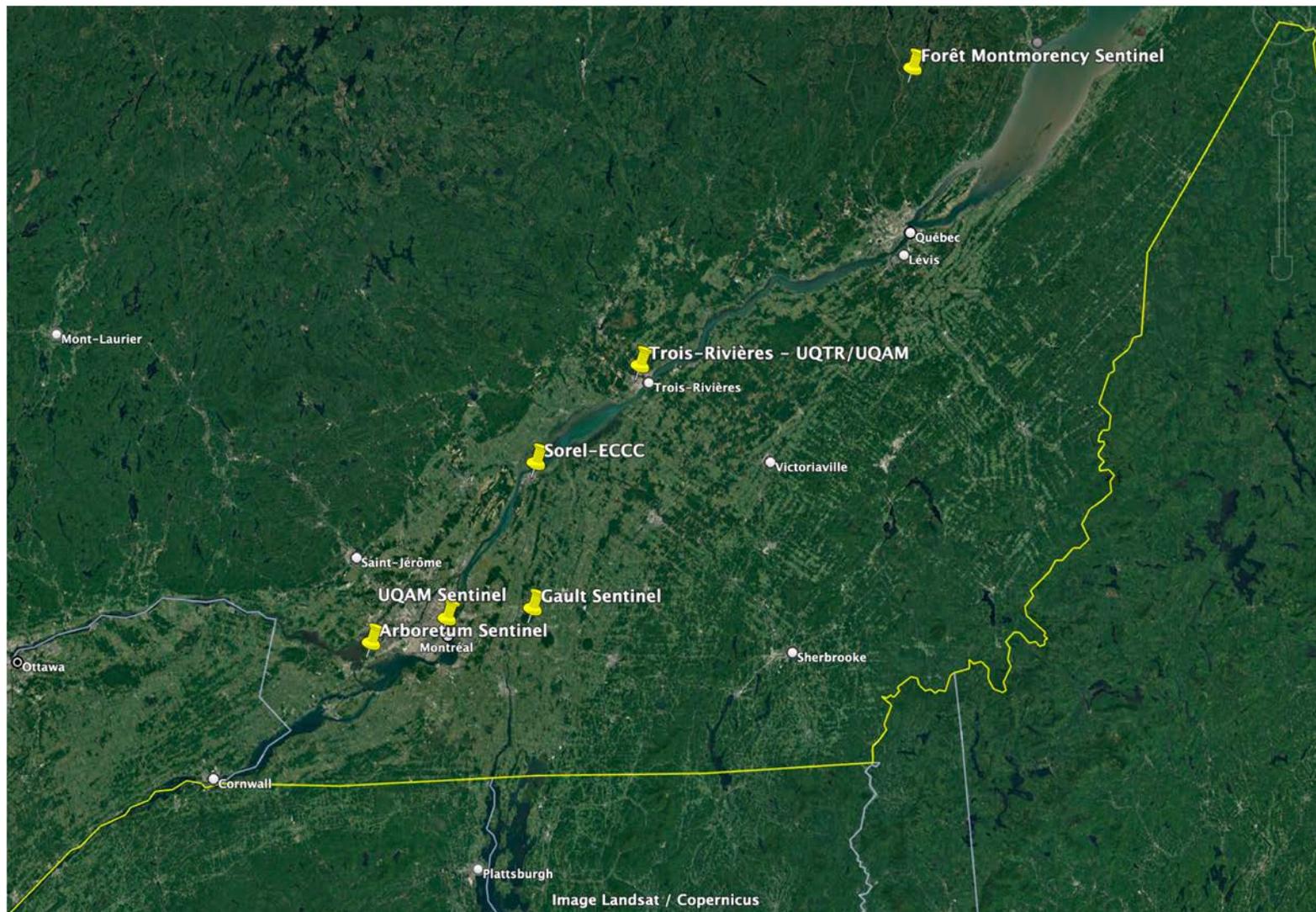
Meteorological variables measured

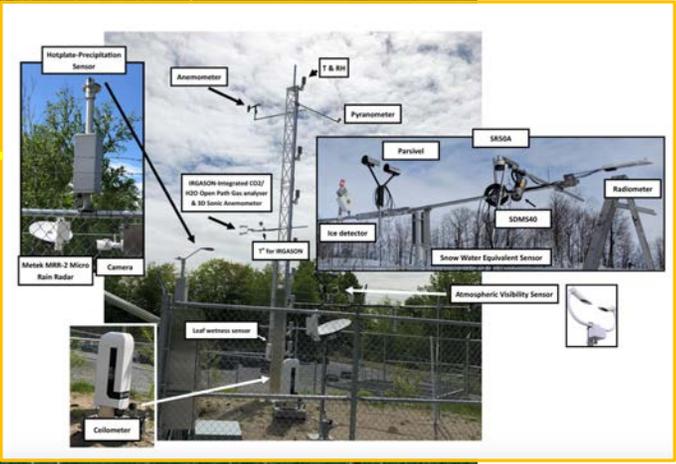
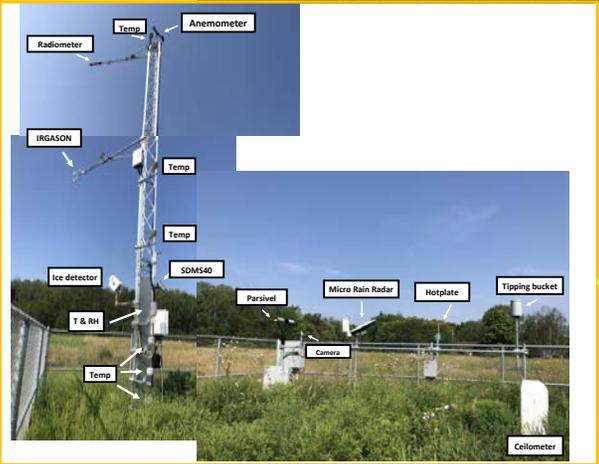
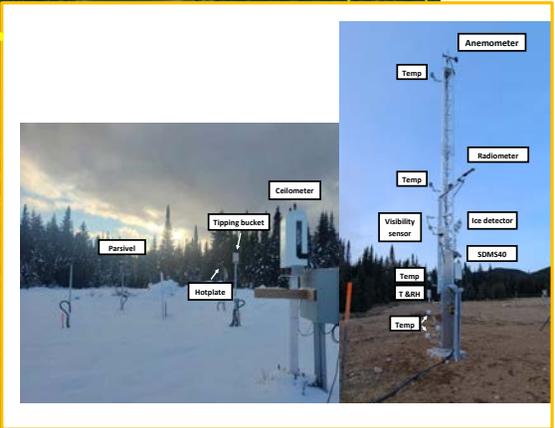
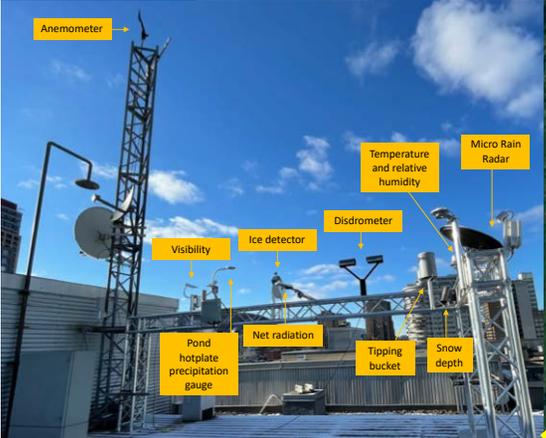
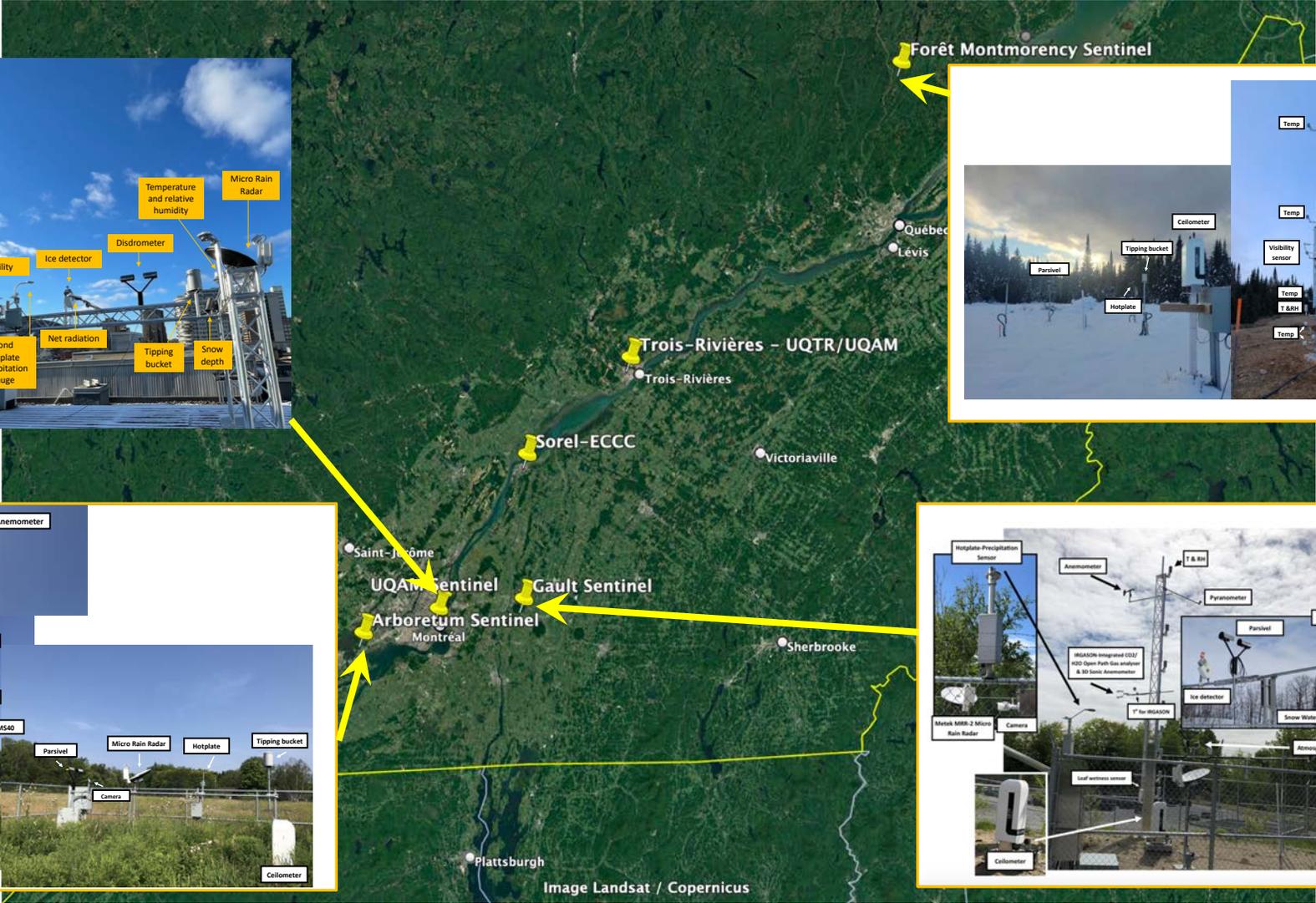
- Standard meteorological variables:
 - Temp, RH, Wind speed and direction (no wind direction at Trois-Rivières)
- Precipitation amount:
 - Rainfall and snowfall in liquid water equivalent
 - Snow depth
 - Icing amount (not in Sorel)
- Precipitation characteristics:
 - Full diameter and fall speed spectrum
- Precipitation aloft and clouds:
 - Micro Rain Radar (MRR) and ceilometer
- Other: Visibility, net radiation, ...



Climate sentinels

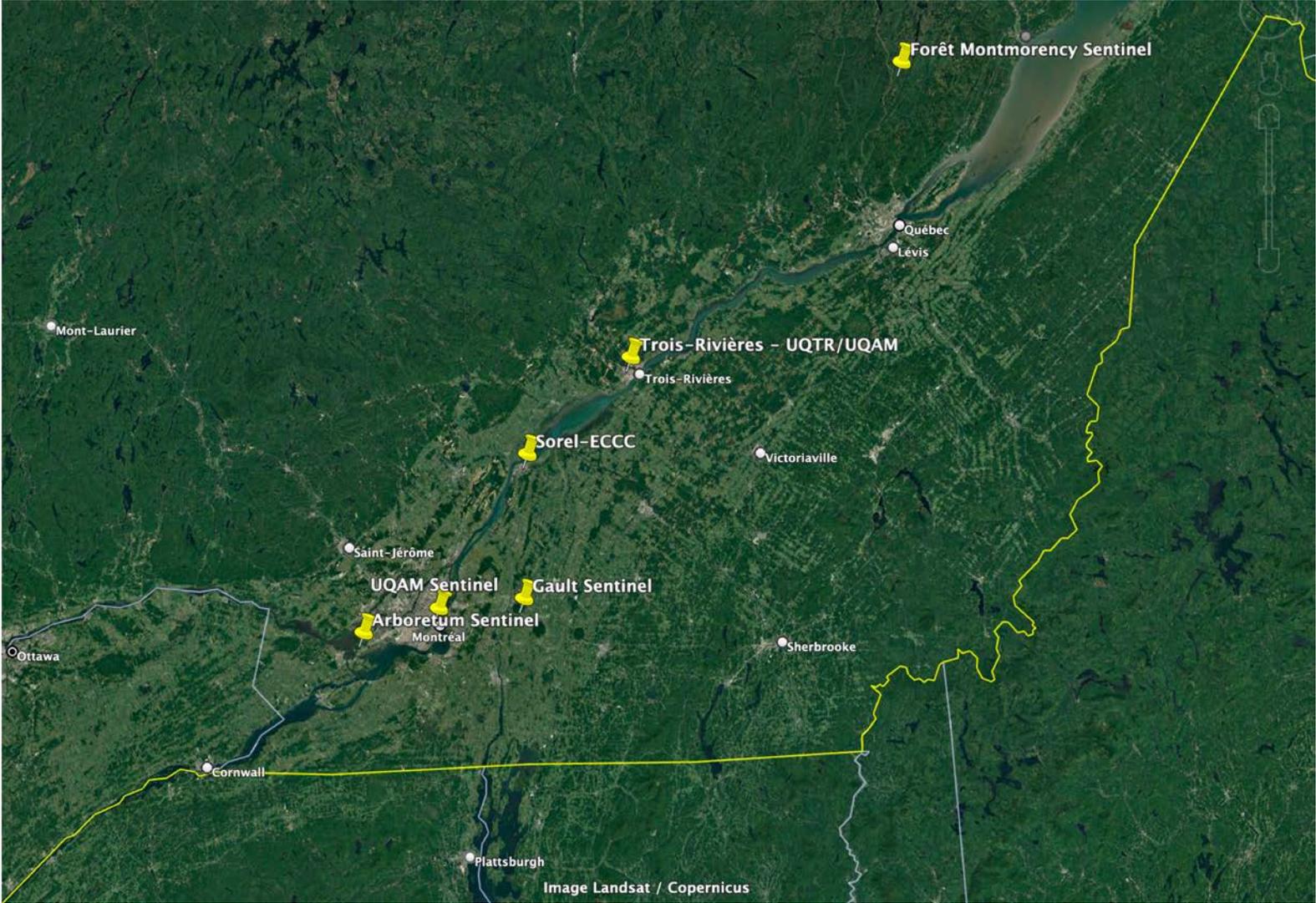
McGill and UQAM





All Canadian sites

McGill, UQAM and ECCC



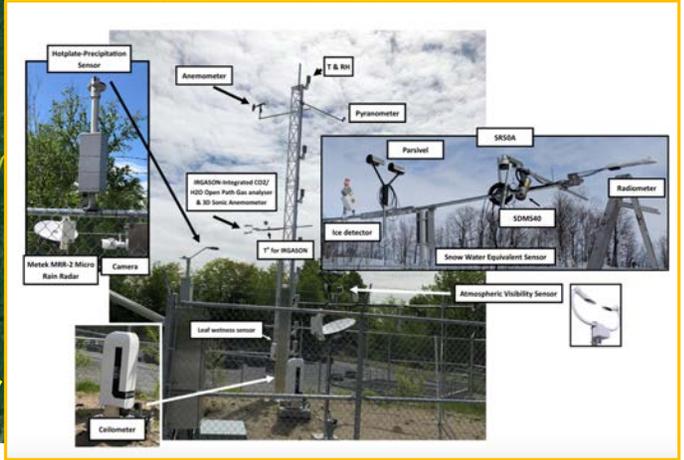
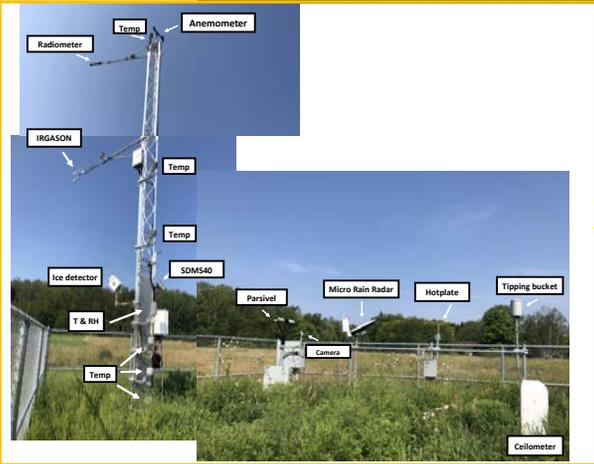
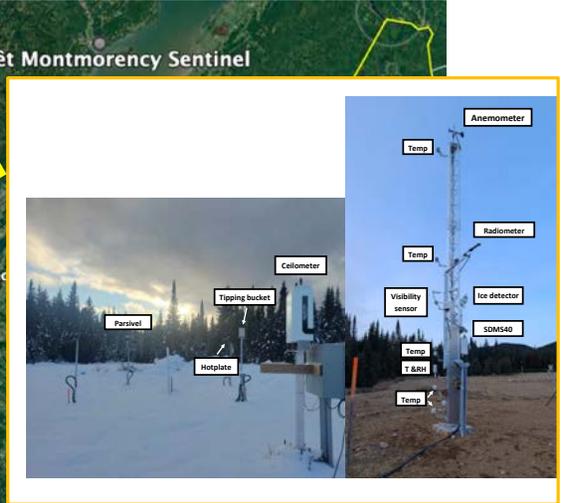
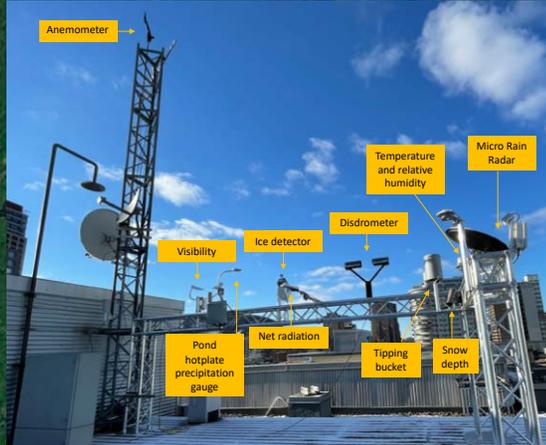
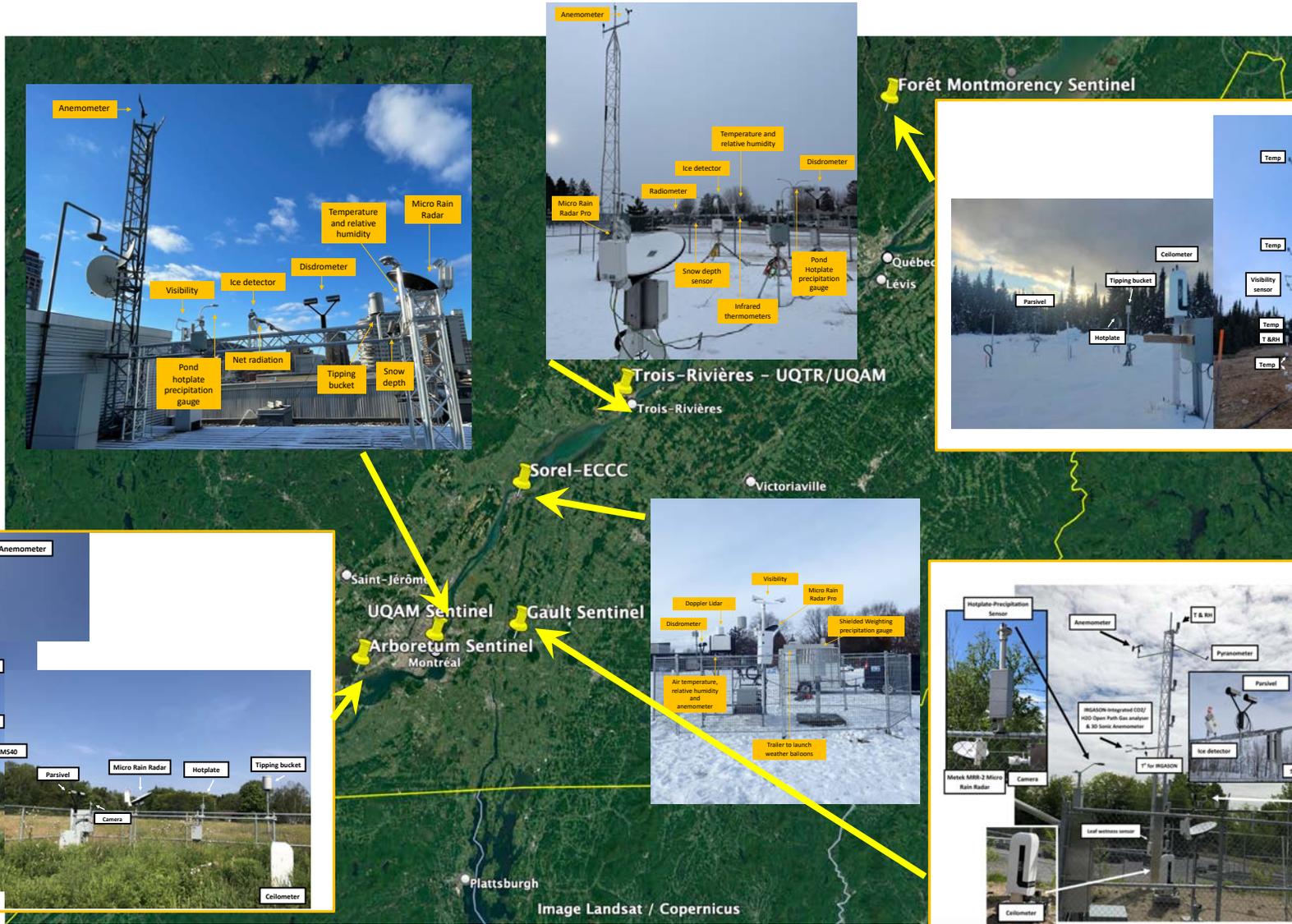
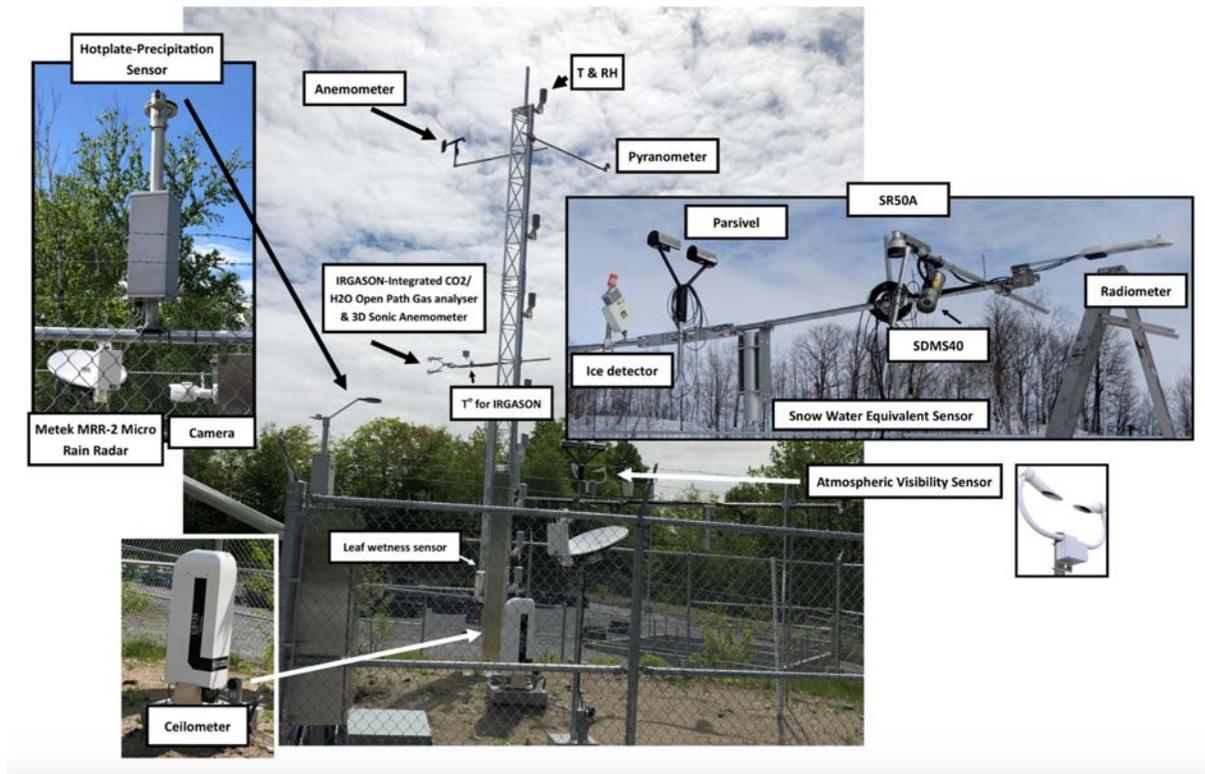


Image Landsat / Copernicus

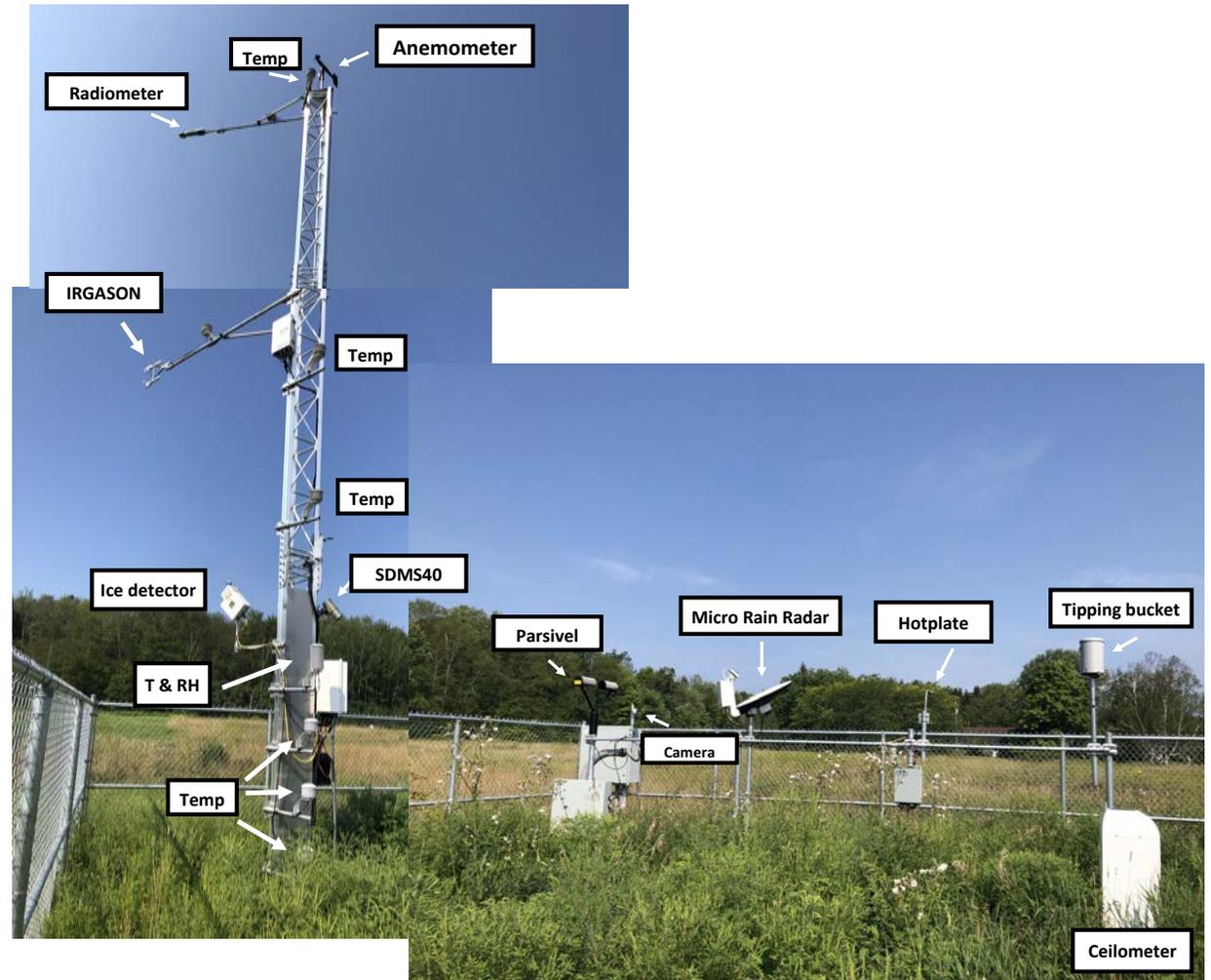
Gault Sentinel

- Lat: 45.53 Long: -73.15 and Z: 132 m ASL
- Soundings and manual observations/macrophotography;



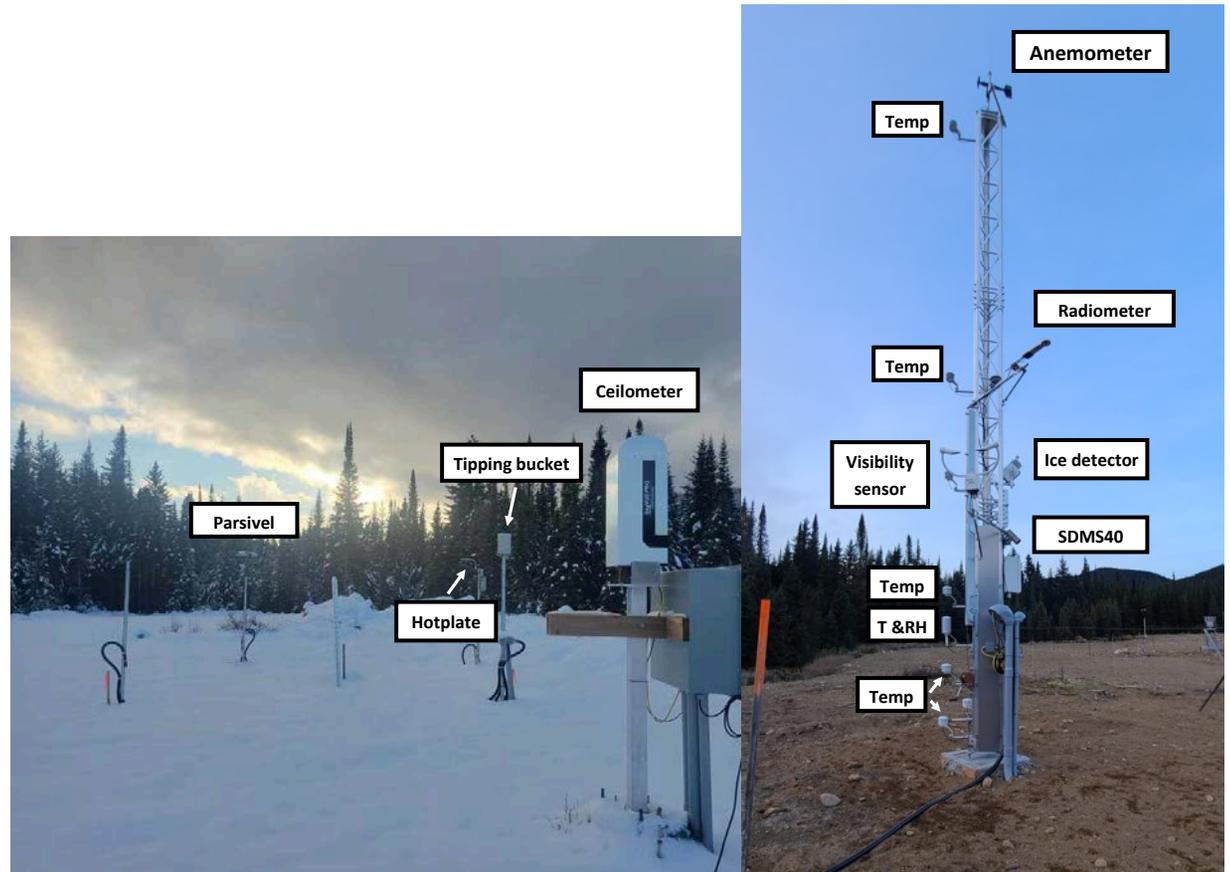
Arboretum Sentinel

- Lat: 45.43 Long: -73.94 and Z: 49 m ASL



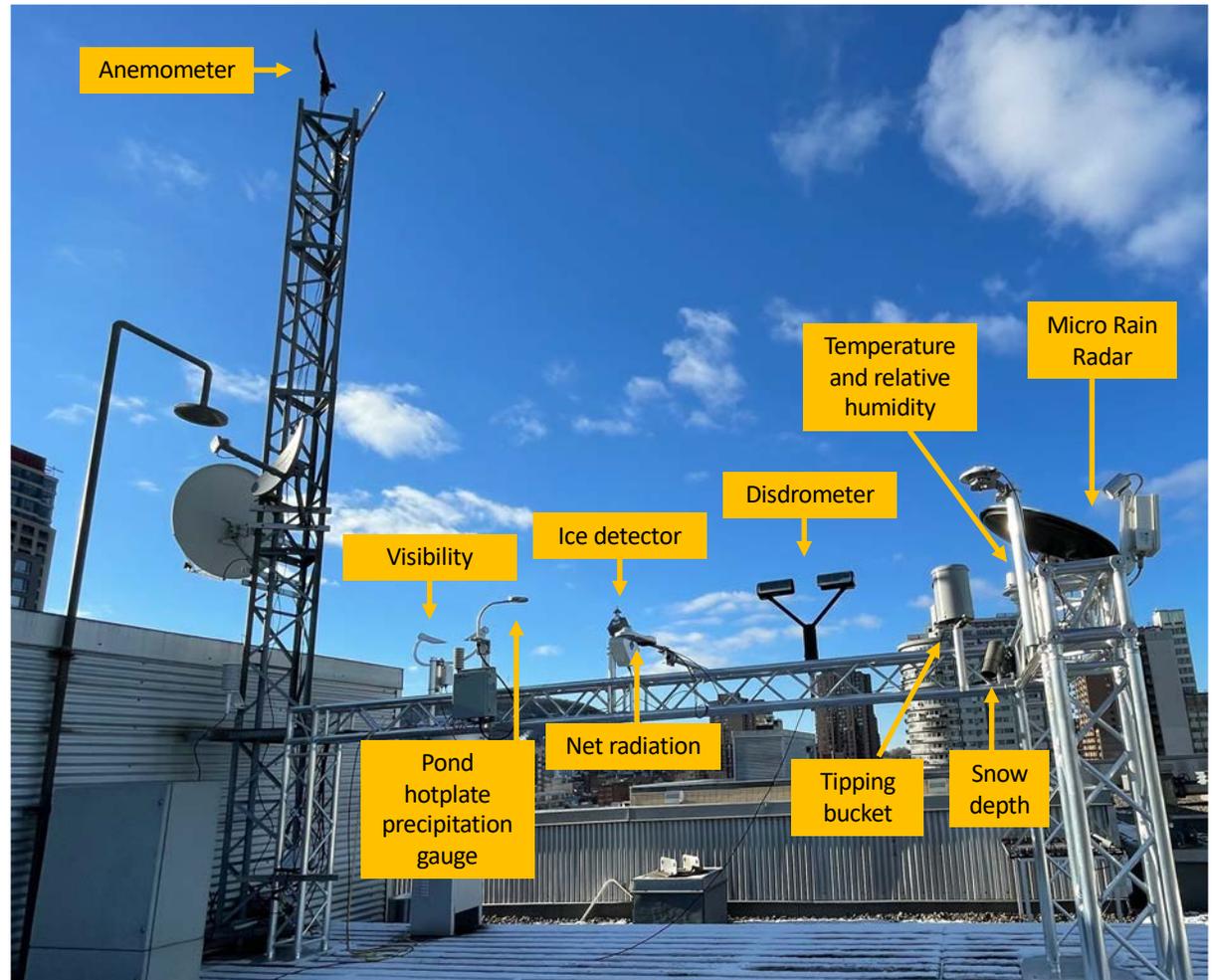
Forêt Montmorency Sentinel

- Lat: 47.43 Long: -71.51 and Z: 667 m ASL
- Collaboration with Université Laval



UQAM Sentinel Downtown Montreal

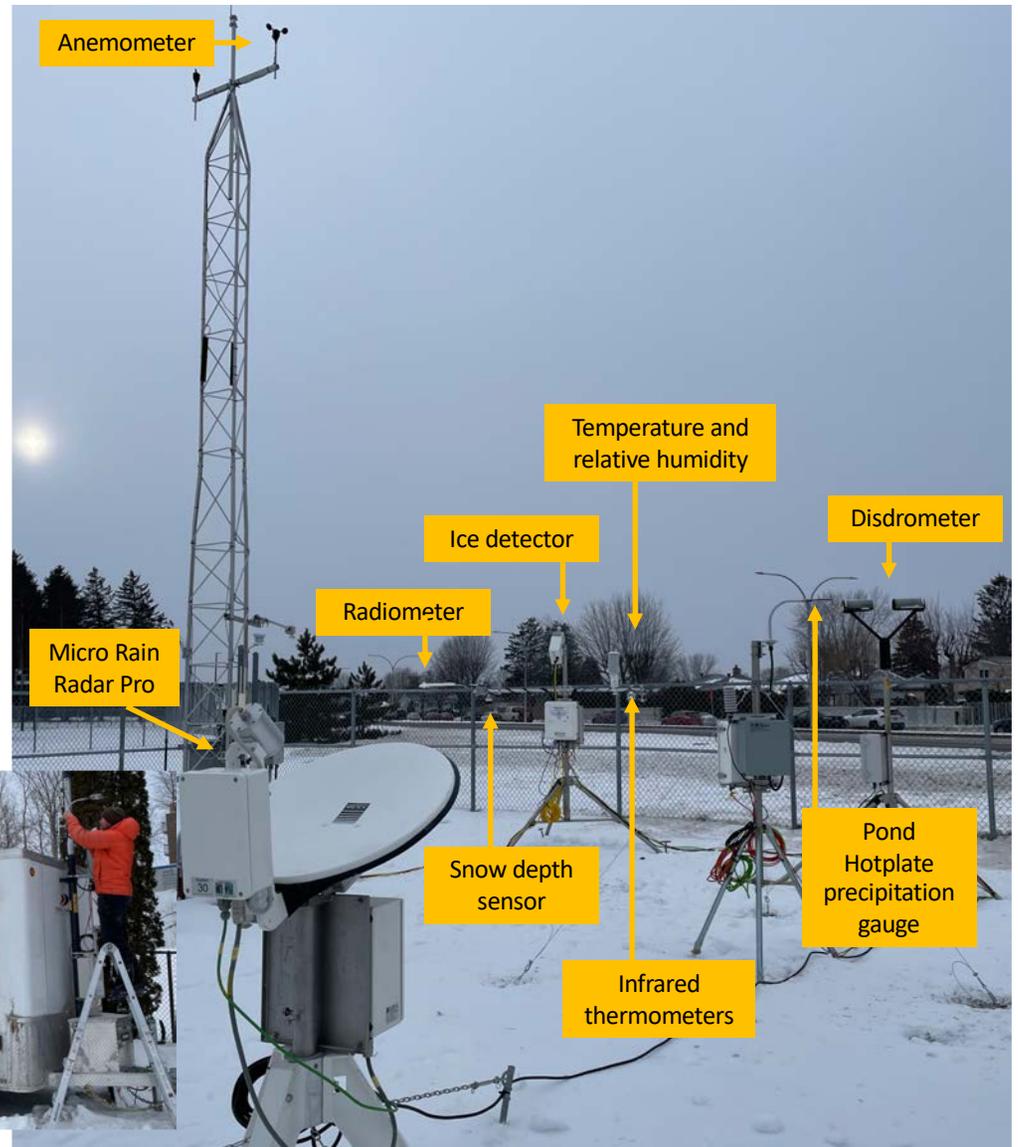
- Instruments are being installed now. Everything should be ready next week
- Lat: 45.5 Long: -73.57 and Z: 70 m ASL
- Lidar and ceilometer may also be installed and working on time for the project



Wintre-Mix Trois-Rivières site

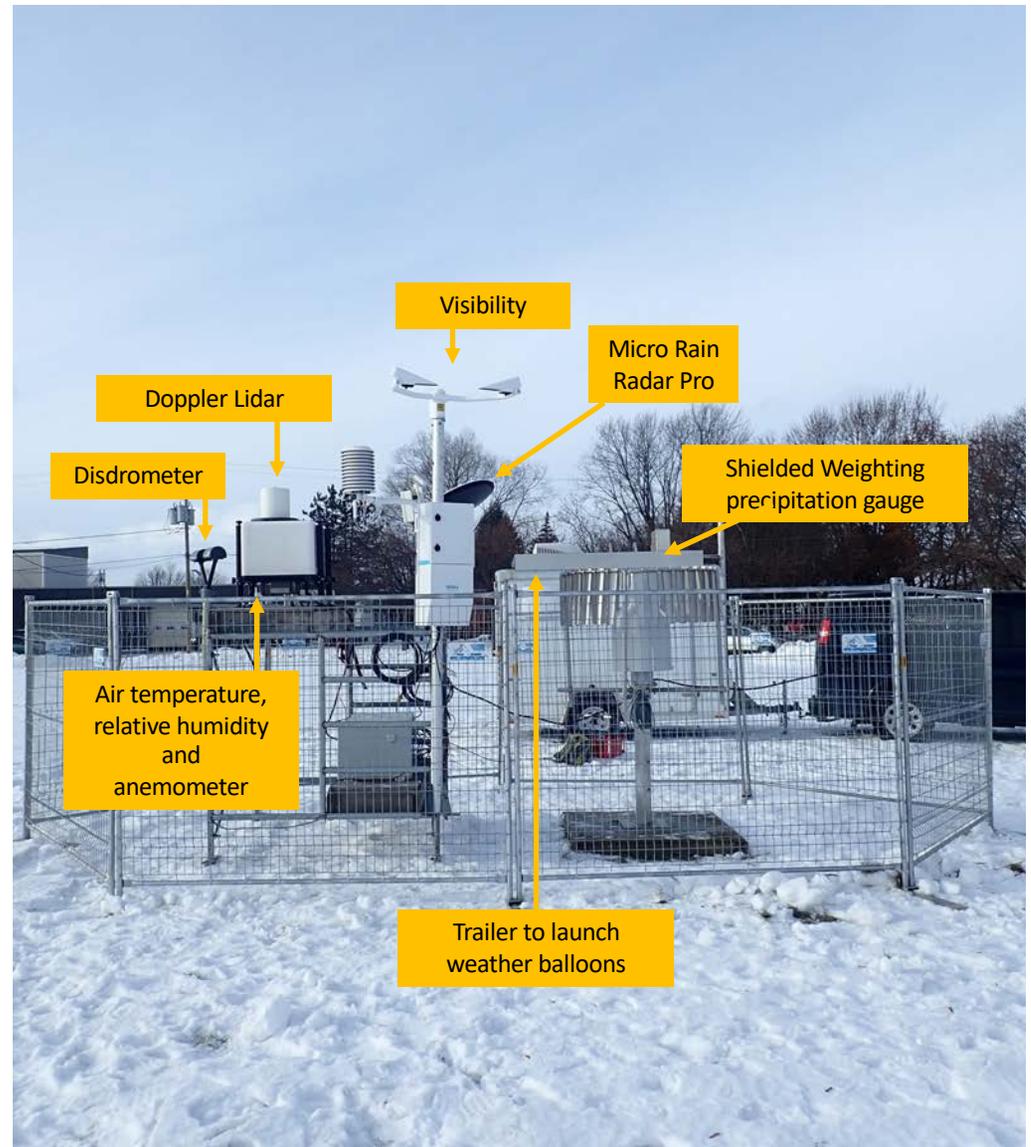
- Installed on 8 December 2021 at the Université du Québec à Trois-Rivières (UQTR) by UQAM
- Lat: 46.34 Long: -72.58 and Z: 47 m ASL
- Bring the trailer next week
- Soundings and manual observations/macrophotography; Probably alternate with Sorel

Trailer to launch weather balloons



Wintre-Mix Sorel site

- Installed on 7 December 2021 at the Sorel by the ECCC and UQAM
- Lat: 46.03 Long: -73.11 and Z: 16 m ASL
- CU Radiometer will be installed in January 2022
- Soundings and manual observations/macrophotography; Probably alternate with Trois-Rivières



Summary

- 4 Climate sentinels and 2 Wintre-Mix sites
- All sites measure standard meteorological variables at the surface, precipitation amounts and characteristics at the surface and precipitation aloft
- 6 sites measure icing amounts
- Soundings and manual observations (plan for now):
 - All IOPs at Gault
 - At Sorel or Trois-Rivières depending on the conditions