

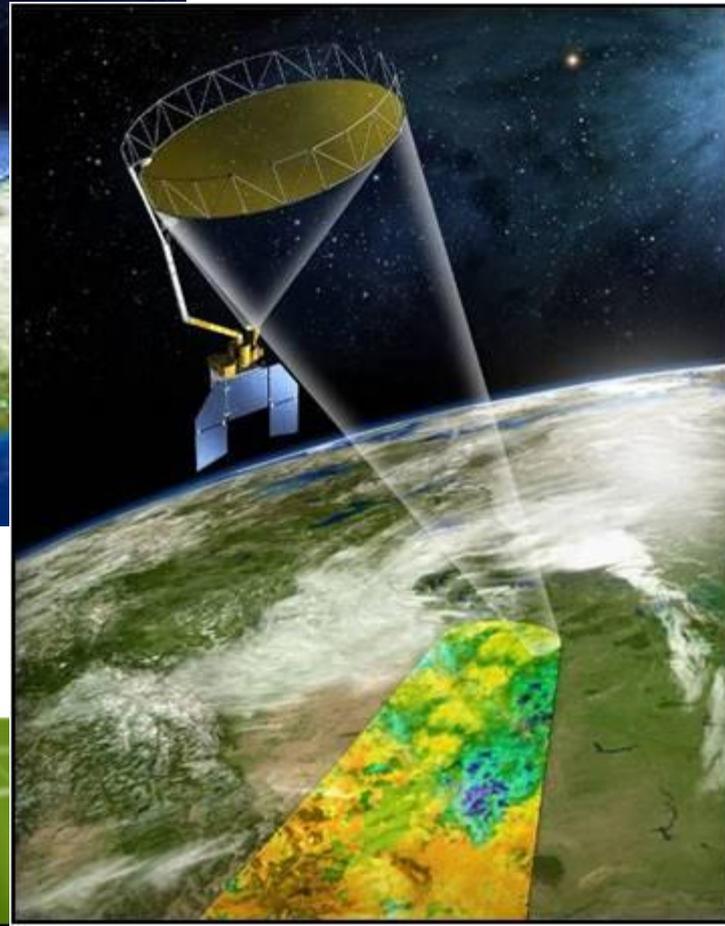
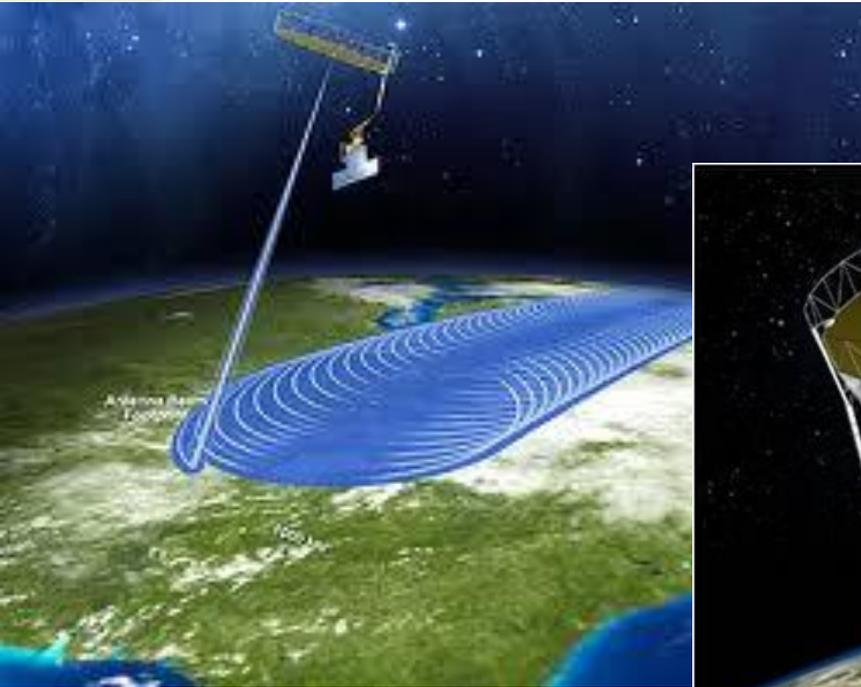


Environment
Canada

Environnement
Canada

Canada

Applications, Products, and Outreach Plan for Canada



Stéphane Bélair,
Environment Canada

Ottawa, 21 March 2013



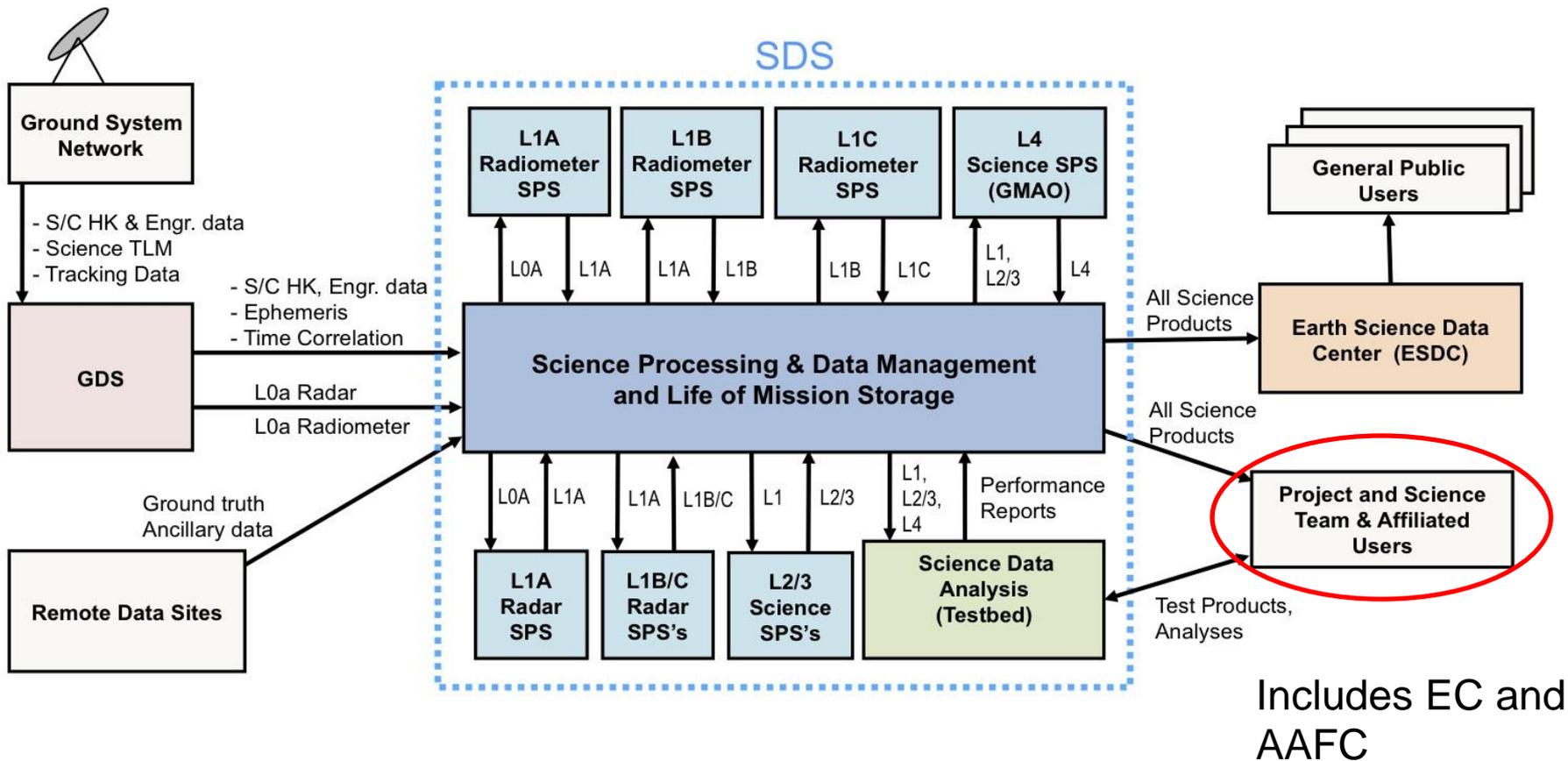
Environnement
Canada

Environment
Canada



SMAP SCIENCE DATA SYSTEM (SDS)

OVERALL DATAFLOW



SPS – Science Production Software

EC DATA FLOW

SDS



Level 1 data

Real time transfer (< 12h, a few hours best)

ENVIRONMENT CANADA

Monitoring: QA/QC, bias estimation and removal
Analyses and Assimilation: CaLDAS

Archives

Land surface analyses (SM, F/T, carbon, veg)
SMAP data... also in real time

EC Internal users

Deterministic NWP:
2.5km national; 10km global;
Land offline 200m Canada

Ensemble NWP:
regional; global; seasonal

International Joint Commission

Hydrology

OGDs

AAFC

DND

Command Canada

Provinces / Territories

Gov. Quebec
Gov. Manitoba
Hydro-Quebec
Forest fires
...

General Public



MEANS of DELIVERING the PRODUCTS

I: The SMAP CANADA SITE (images)

Environnement Canada



SMAP Canada

[Surface Fields](#) | [Assimilation](#) | [Surface Modeling](#) | [Monitoring](#) | [Main](#)

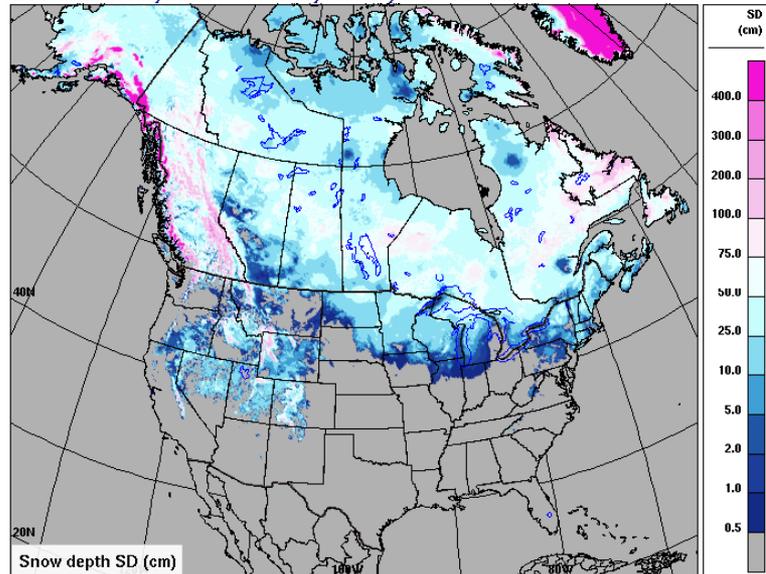
The Soil Moisture Active and Passive Mission (SMAP) Improving Environmental Predictions at CMC with SMAP

The Soil Moisture Active and Passive Mission (SMAP) will provide global measurements of soil



Environment Canada Environnement Canada

RDPS Surface Analysis valid for Tuesday February 19 2013 at 18:00Z

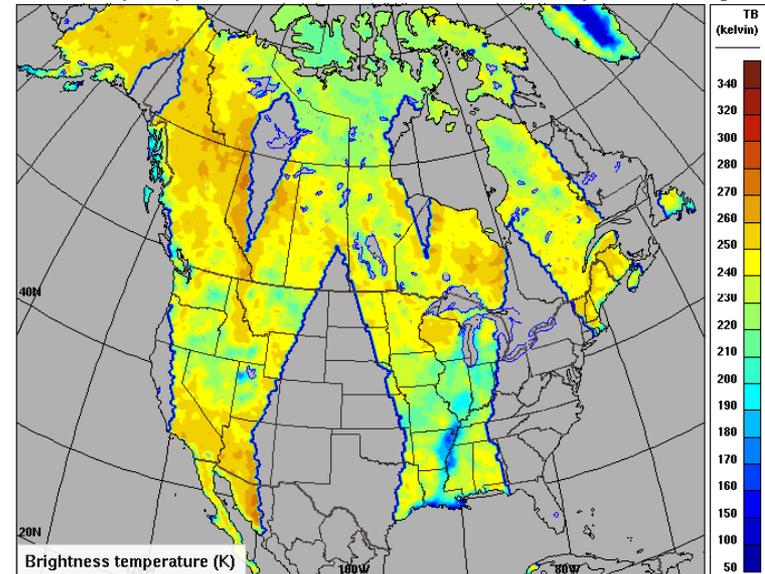


Environment Canada Environnement Canada

Mean Observation : Day 2013 02 19

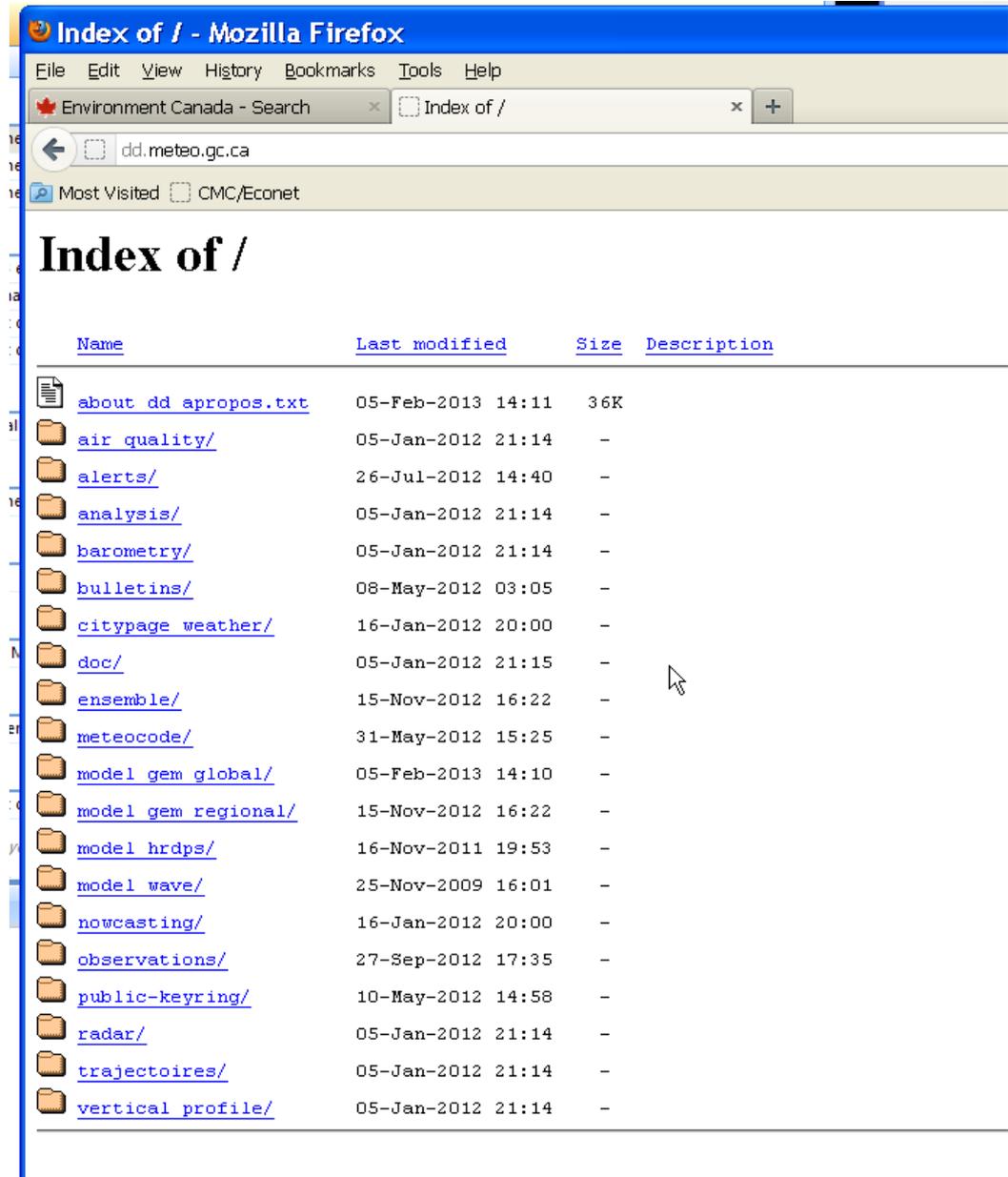
SMOS LIGHT (~33km)

× polarisation - Angle 40



MEANS of DELIVERING the PRODUCTS

II: DATAMART (raw data)



Index of / - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Environment Canada - Search x Index of / x +

dd.meteo.gc.ca

Most Visited CMC/Econet

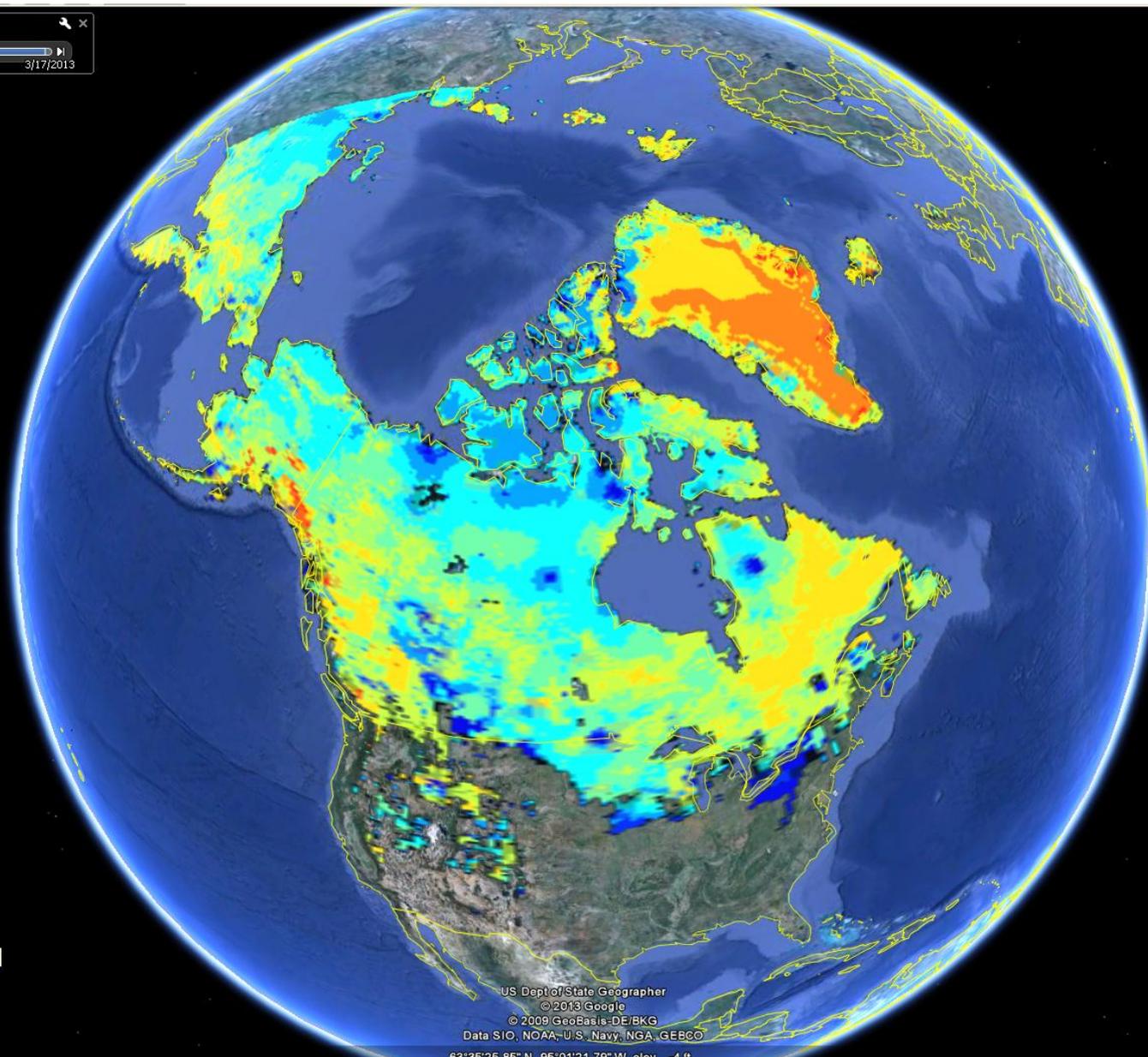
Index of /

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 about dd apropos.txt	05-Feb-2013 14:11	36K	
 air quality/	05-Jan-2012 21:14	-	
 alerts/	26-Jul-2012 14:40	-	
 analysis/	05-Jan-2012 21:14	-	
 barometry/	05-Jan-2012 21:14	-	
 bulletins/	08-May-2012 03:05	-	
 citypage weather/	16-Jan-2012 20:00	-	
 doc/	05-Jan-2012 21:15	-	
 ensemble/	15-Nov-2012 16:22	-	
 meteocode/	31-May-2012 15:25	-	
 model gem global/	05-Feb-2013 14:10	-	
 model gem regional/	15-Nov-2012 16:22	-	
 model hrdps/	16-Nov-2011 19:53	-	
 model wave/	25-Nov-2009 16:01	-	
 nowcasting/	16-Jan-2012 20:00	-	
 observations/	27-Sep-2012 17:35	-	
 public-keyring/	10-May-2012 14:58	-	
 radar/	05-Jan-2012 21:14	-	
 trajectoires/	05-Jan-2012 21:14	-	
 vertical profile/	05-Jan-2012 21:14	-	

MEANS of DELIVERING the PRODUCTS

III: WEB MAPPING SERVICE (layers)

Environment Canada
3/15/2013 8:00 am
3/15/2013 3/17/2013



Navigation controls including a compass, a 3D view toggle, a street view pegman, and a vertical zoom slider.



borders and other items in the 3D viewer

US Dept of State Geographer
© 2013 Google
© 2009 GeoBasis-DE/BKG
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
63°35'25.85" N 95°01'21.79" W elev -4 ft

© 2010 Google

Eye alt 6853.15 mi

MEANS of DELIVERING the PRODUCTS

IV: The NEW “WATER” OFFICE



Environment
Canada

Environnement
Canada

Canada



Français
canada.gc.ca

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Contact Us

Help

Search

[Home](#) >

Real-time Data

Text Search

Google Map

My Station List

Historical Data

Water Survey of
Canada

FAQ

Site Map

[Proactive Disclosure](#)

Real-time Hydrometric Data

This site provides public access to real-time hydrometric (water level and streamflow) data collected at over 1700 locations in Canada. These data are collected under a [national program](#) jointly administered under federal-provincial and federal-territorial cost-sharing agreements. It is through [partnerships](#) that the [Water Survey of Canada program](#) has built a standardized and credible environmental information base for Canada.



Date Modified: 2012-11-21

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[Important Notices](#)

http://www.wateroffice.ec.gc.ca/index_e.html

OUTREACH

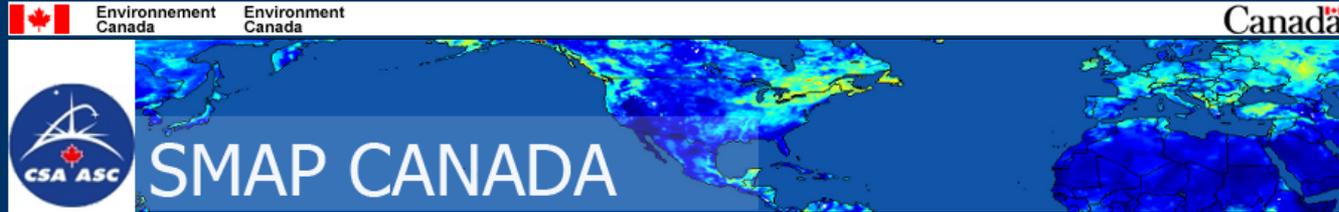
EC and AAFC's current clients

Would be useful to plan an event (e.g., workshop), with emphasis on stakeholders, to inform, gather information and suggestions, and establish a plan (within our means)

Collaboration with SMAP project, if possible

DOCUMENTATION and REPORT

(progress report, presentations, general information, ...)



[Surface Fields](#) | [Assimilation](#) | [Surface Modeling](#) | [Monitoring](#) | [Main](#)

[SMAP Project at CSA](#)

The Soil Moisture Active and Passive Mission (SMAP) Improving Environmental Predictions at CMC with SMAP

The Soil Moisture Active and Passive Mission (SMAP) will provide global measurements of soil moisture and its freeze/thaw state. These measurements will be used to enhance the understanding of processes that link the water, energy and carbon cycles, and to extend the capabilities of weather and climate prediction models.

- A. [The SMAP mission](#)
- B. [Canadian contribution to SMAP](#)
- C. [The Canadian science team](#)
- D. [Canadian field campaigns for SMAP](#)
- E. [SMAP data and products](#)
- F. [Surface analyses](#)
- G. [SMAP-related meetings and workshops](#)
- H. [Upcoming meetings of interest](#)

A. THE SMAP MISSION

The Soil Moisture Active and Passive (SMAP) mission is planned for launch in October 2014 and will provide measurements that will play a crucial role in furthering our understanding of the Earth's water,

ONCE in SPACE... MANY APPLICATIONS POSSIBLE
JUST a FEW EXAMPLES

Apart from...

**NWP, climate, agriculture, drought and floods,
hydrology**

Could also include...

**Sea-ice / lake ice
Transport, mobility
Melting snow
Near-surface winds over water
Forest fire indices**