Environment Canada Environnement Canada

Canada

OGC Standards Implementations at Meteorological Service of Canada (MSC)

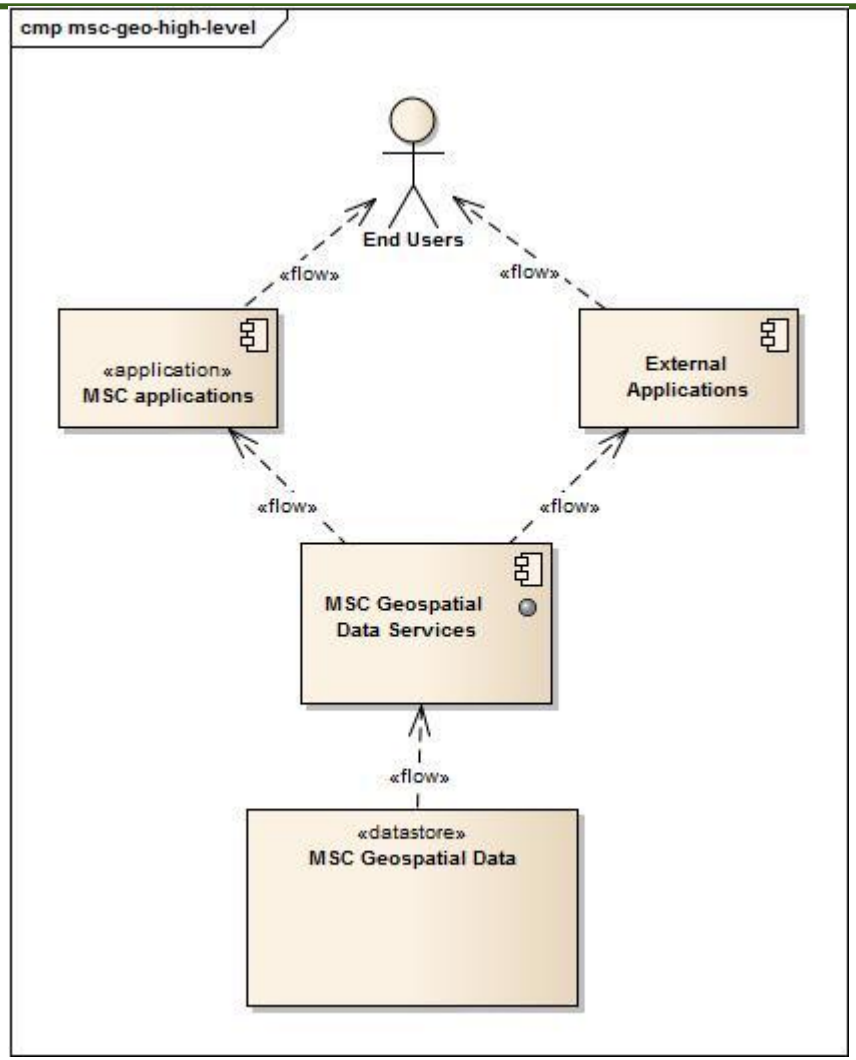
Tom Kralidis
Meteorological Service of Canada
4th Workshop on the use of GIS/OGC standards in meteorology
Reading, UK
4 – 6 March 2013

MSC’s Geospatial Strategy

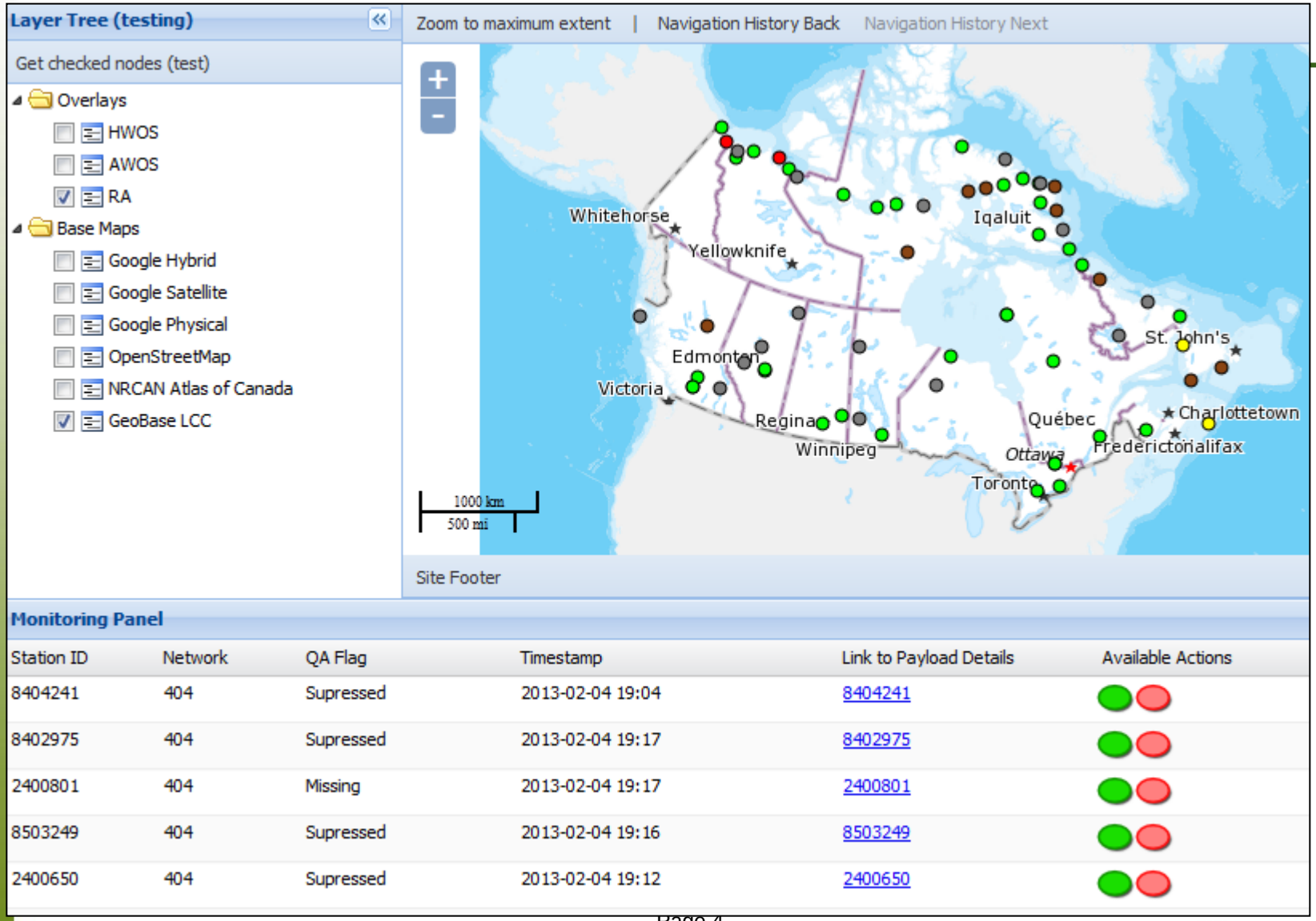
- Vision*: "All MSC data and products are geospatially enabled to improve the utility and effectiveness of MSC’s services."*
- Geospatial vital to delivery of MSC's mandate and strategic outcomes of the Government of Canada:
  - *Canadians are equipped to make informed decisions on changing weather, water and climate conditions*
- MSC's ADM David Grimes is current president of WMO
- Alignment with other activities / infrastructures:
  - Canadian Geospatial Data Infrastructure (CGDI)
  - Federal Committee on Geomatics and Earth Observation (FCGEO)

Phases

- Foundation
- Pilot Projects
- Major Projects / External Services



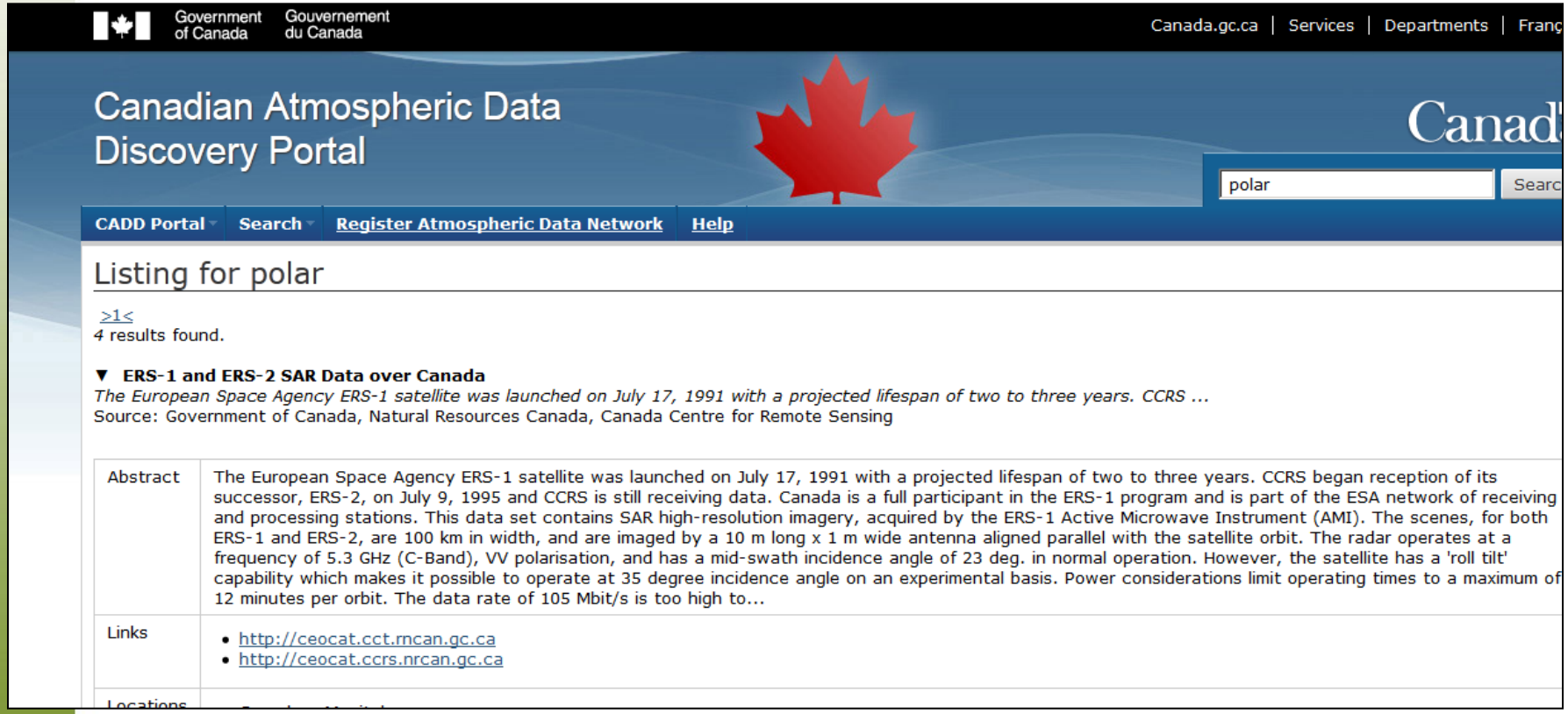
Data Quality Dashboard



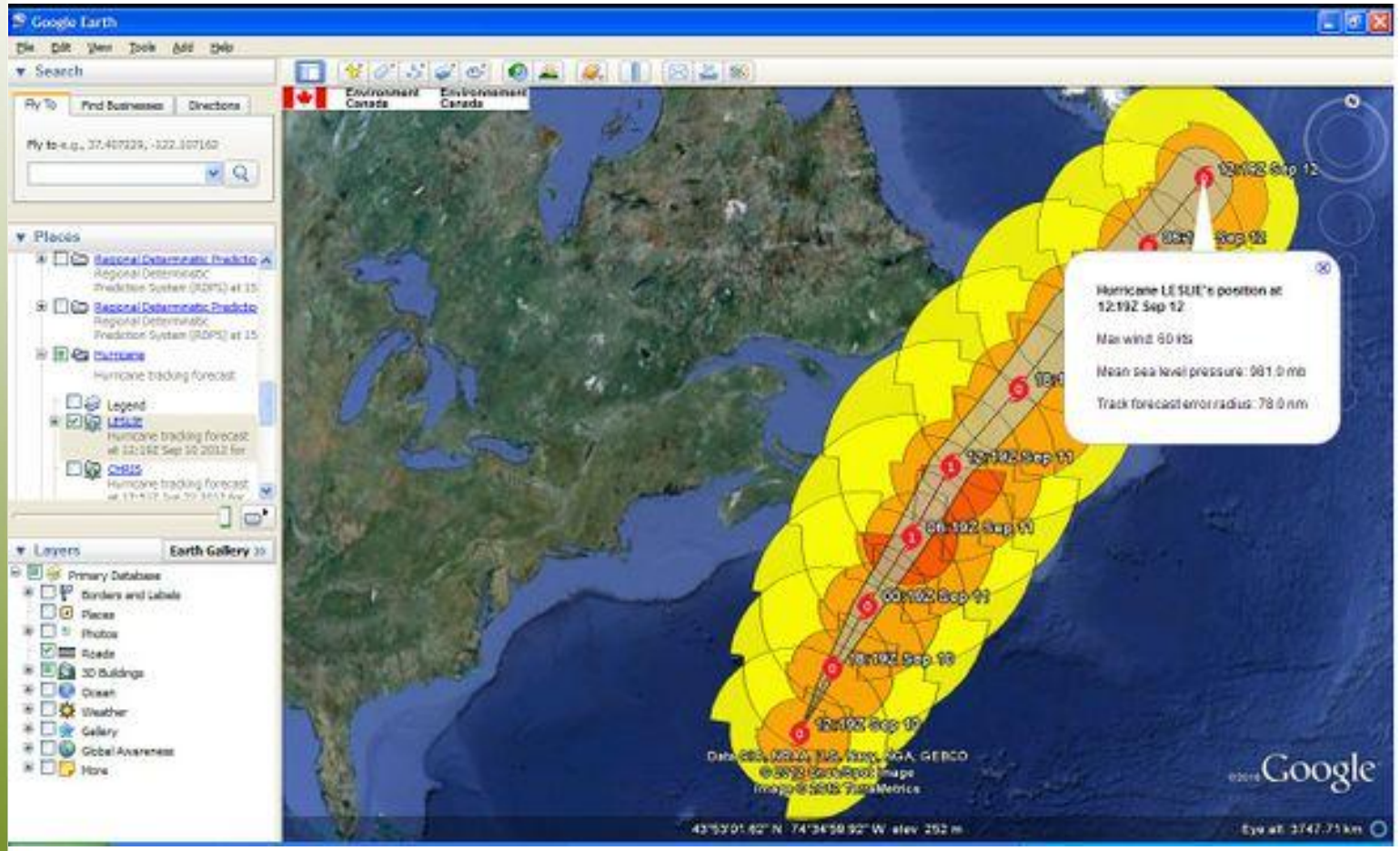
Monitoring Panel

Station ID	Network	QA Flag	Timestamp	Link to Payload Details	Available Actions
8404241	404	Supressed	2013-02-04 19:04	8404241	
8402975	404	Supressed	2013-02-04 19:17	8402975	
2400801	404	Missing	2013-02-04 19:17	2400801	
8503249	404	Supressed	2013-02-04 19:16	8503249	
2400650	404	Supressed	2013-02-04 19:12	2400650	

Canadian Atmospheric Data Discovery Portal (CADD)



GeoMet



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WIS DCPC (pending approval)

- Metadata: ISO WMO Core Metadata profile
  - Client specific output (crosswalk of other ISO profiles)
- Catalogue:
  - CSW
  - SRU
  - OAI-PMH

World Ozone and Ultraviolet Radiation Data Centre (WOUDC)

- GAW WDC circa 1962
- Ozone, UV
- http://woudc.org/
- Next generation web presence
- Government of Canada look and feel compliance
- Data Services tier to deploy OWS endpoints and OM based payloads
- October 2013

OGC Climatology / Hydrology Information Sharing Pilot (CHISP-1)

- EC, NRCan, US EPA , USGS
- Cross border scenarios / use cases
- Hydrological modelling
- Modelling and assessment of nutrient flux
  - Water quality data integration
- EC Hydrometric observations WaterML 2.0
- http://www.opengeospatial.org/node/1661

MSC Data Management System

- Authoritative line of business meteorological data management framework
  - Surface Weather
  - Aviation
  - Marine
  - Satellite
- ~500GB / month
- Ingest, decode, QA, product generation of met data for Canadian public, WMO and beyond
- 24 x 7 mission critical requirement

MSC Data Management System

- Application Schemas
  - Observations
  - Forecasts
  - Alerts
- Based on OM 1.0.0

MSC Data Management System

Thank you!

tom.kralidis@ec.gc.ca