



Canadian context ...

- ◀ The federal government traditionally produced 1:50 000 and 1: 250 000 mapping information (department of Natural Resources).
- ◀ Other federal departments now have Geomatics requirements to support their activities and business decisional processes (Environment, Parks, Agriculture, Statistics, National Defence, Public safety, ...)
- ◀ As a result, information was often in duplication, hard to find and incompatible.

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Canadian context ...

- ◀ The provincial government traditionally produced 1:10 000 or 1: 20 000 mapping information (10 provinces, 3 territories).
- ◀ **Standards, Data models, content, level of detail, coverage and formats vary from a province to another**
- ◀ **Arrival of fully digital environments, GPS technologies, satellite imagery, ... reduced the differences (scale) between the provincial and federal datasets.**

The issue ...

- ◀ Data was outdated and not standardized
 - Coverage across the country was inconsistent and not meeting the evolving needs of the user
 - Data sharing/exchange and sales inhibited due to lack of standard data models
 - Same situation in many Provincial and Territorial mapping agencies

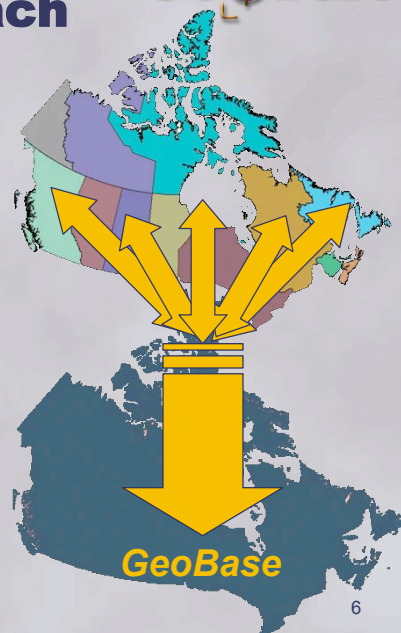
The needs for geospatial information has evolved ...

- Need current and accurate data (quality data)
- Need collaborative model / data collected once (authoritative)
- Need standardization and interoperability / (consistent data)
- Need maintenance plans (maintained closest to the source)

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The Partnership Approach

- ◀ Multi-jurisdictional partnerships
 - Federal, provincial, territorial mapping agencies realized that they could not meet the increasing needs for geospatial information on their own,
 - Need to pool resources and moving towards an agreement on and adoption of national standards for data models and maintenance
 - Industry Involvement (data production and maintenance contracts)
 - The data is freely available through a one stop shop (The GeoBase portal)



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- ◀ GeoBase is the fundamental geographic information that describes the Canadian landmass.
- ◀ GeoBase consists of images, elevations and geographic features, which are current, accurate and consistent throughout the country (quality). There will be only one data set, collected and maintained once the closest to the source (uniqueness).
- ◀ The purpose of GeoBase is to provide reference, context and underpinning to a wide variety of thematic data for government, business and individual applications through free and unrestricted access to a unique and shared base of quality geographic information over Canada.
- ◀ An initiative overseen by the Canadian Council on Geomatics (coordination body of federal and provincial jurisdictions).

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GeoBase Principles

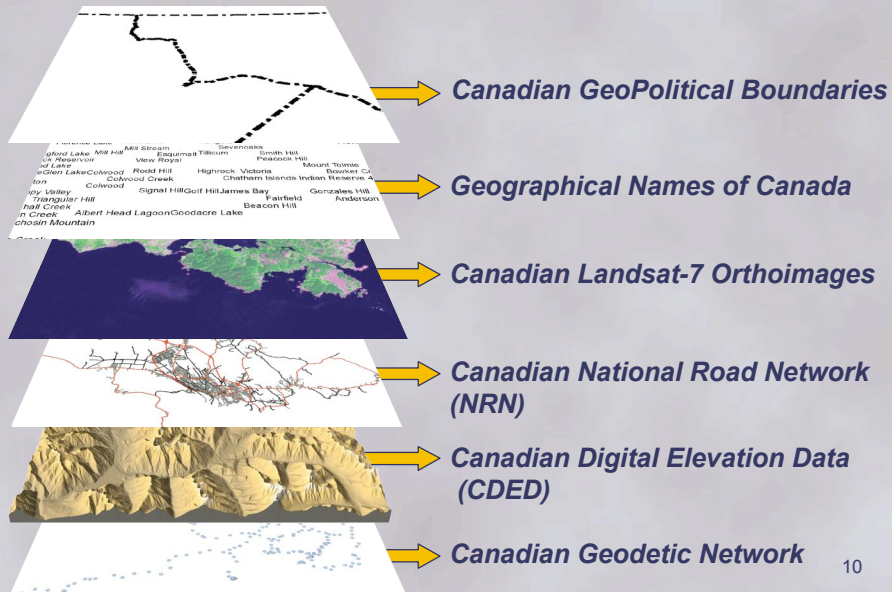
GeoBase Principles

- Source Data Collected Once
- Source Data Collected by Responsible Data Custodian
- Source data programs sustainable in the long term
- Cost of Maintenance and update shared amongst partners
- No charge for GeoBase Data
- No restrictions on use
- Common Licence

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GeoBase Data - Standards

- *Unique and Singular ID*
- *Standard Data Model and Quality*
- *Metadata defined*
- *Meet International Standards*
- *Seamless National Coverage*
- *Vertical Integration*



- Pending discussion and further consultation with users, collaborators and partners, investigate further development of existing minimum themes to target levels and for the addition of new themes

i.e.

- **Street names (addresses)**
- **Hydrographic network**
- **Watersheds**
- Land cover
- Electoral, municipal boundaries
- Parks, Indian Reserves and crown subdivisions
- Protected areas / Ecological zones

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Process for Adding New Themes

- *Proponent comes forward with proposal*
- *GeoBase SC makes initial assessment*
- *Proponent addresses required criteria*
- *GeoBase SC notifies CCOG of proposal*
- *Proposal goes forward for CCOG Resolution*

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Criteria for New themes

- *Data Coordinator Identified*
- *Broad requirement for the data*
- *Data Standards and Specs in place*
- *Maintenance defined*
- *National Coverage*
- *Leads to reduced redundancy?*
- *Closest to Source*
- *Available at no cost and with no restrictions*
- *Portal hosting costs addressed*

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GeoBase Portal

- ◀ The Public Face of GeoBase
at www.geobase.ca



- Portal is the first tangible output publicly launched on November 19, 2003 (International GIS Day)
- Usage
 - ◀ Constantly growing as data is made available
 - ◀ More than 1 400,000 data sets downloaded in 2005-06
 - ◀ Private Sector, Education, Government

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- ◀ Operational Policies
 - *NRCan is hosting and maintaining the GeoBase Portal*

- ◀ Future Directions
 - *Distributed Databases*
 - *Search tools*
 - *WMS/WFS*

- ◀ Most Federal and Provincial stakeholders function under cost recovery business models

- ◀ Coordinating multi jurisdiction needs, priorities and capacity in a timely fashion

- ◀ Maintaining effective and efficient data models in rapidly evolving International Standards environment

- ◀ Coordinating data delivery from various sources through an Internet portal

- ◀ Doing more with our current resources

- ◀ On going investment required to maintain the value of the data collection

The Benefits

- ◀ Meeting the needs
 - Public health, safety, environment and defense
 - Social and economic development
 - Supports decision-making, policy development and regulation

- ◀ External Benefits
 - Business integration and network benefits
 - Homogeneity – common reference and specifications – standards
 - Interoperability and standardization ease data exchange

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More Benefits

- ◀ Efficiency in using taxpayer dollars
 - Elimination of duplication and overlap in mapping
 - Collection and maintenance is cost shared
 - Improved output with less cost to Canadians
 - Low dissemination costs

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