

Canadian GNSS Activities

**8th International Committee on GNSS Meeting
Dubai, UAE
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Government
of Canada

Gouvernement
du Canada

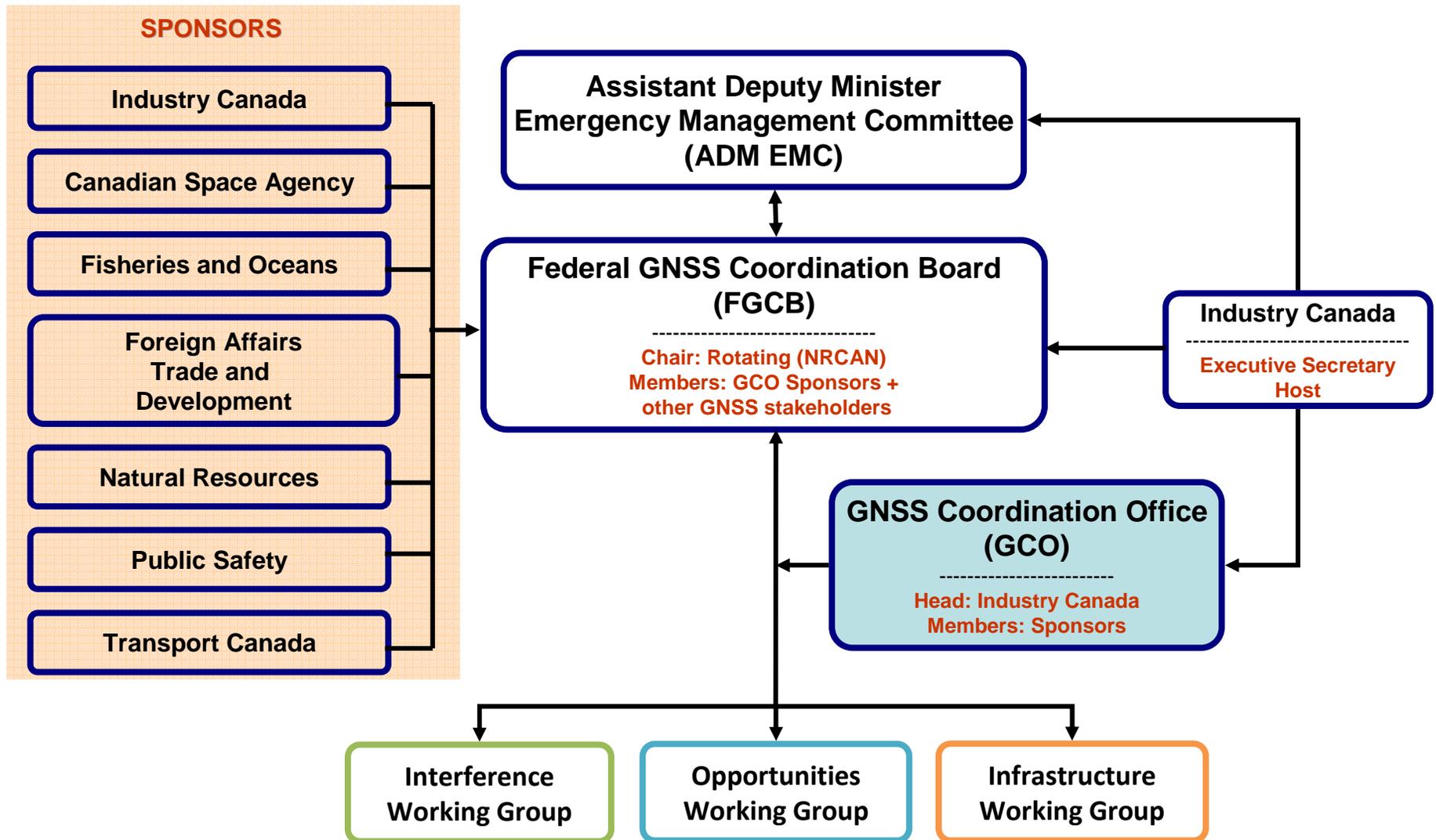
Canada

Canadian Federal GNSS Coordination Board

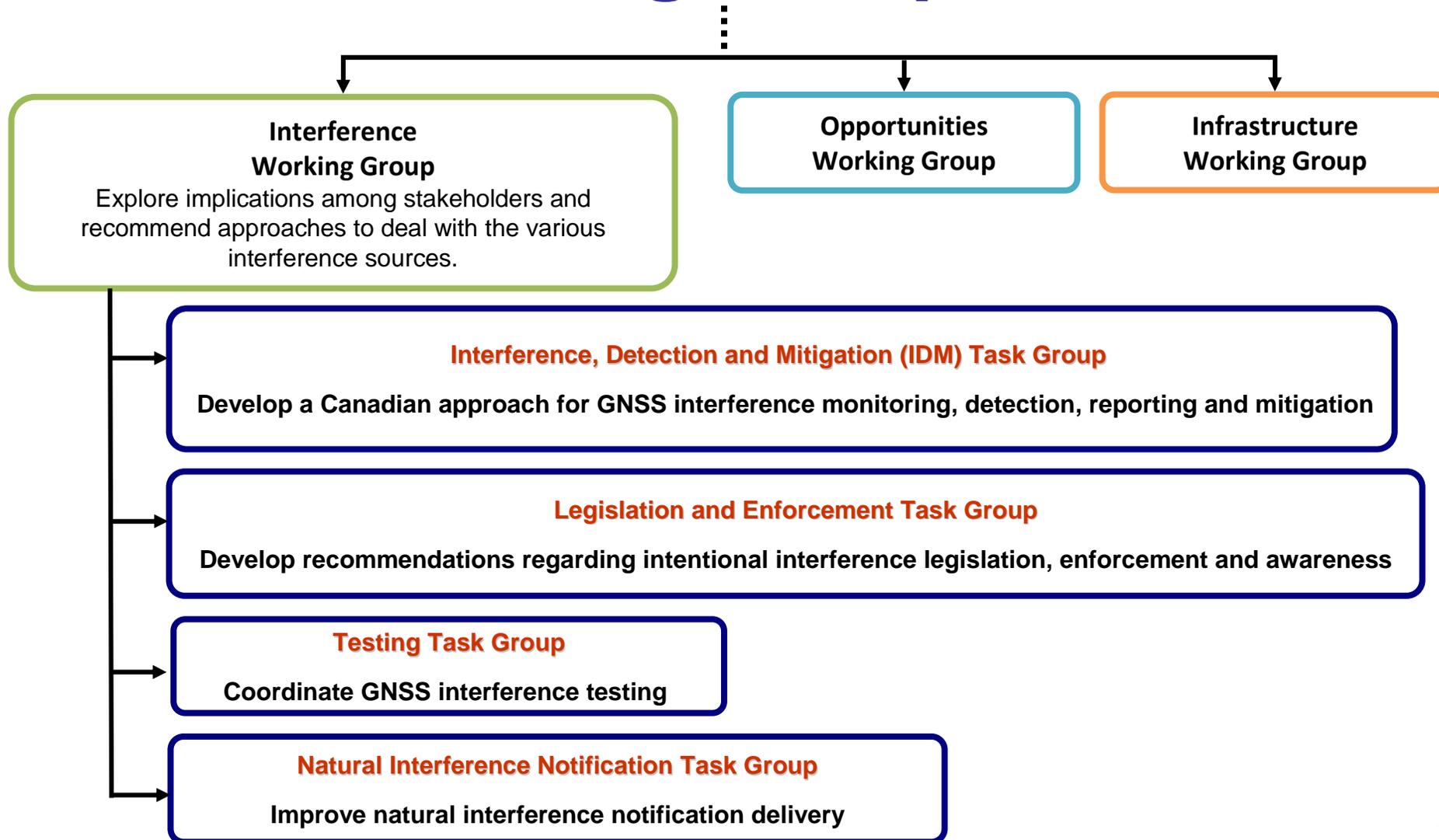
- Six government departments and one agency signed a MoU to establish the Federal GNSS Coordination Board (FGCB).
- Existing MoU is in effect until September 30, 2014.
- MoU renewal is supported by many departments. Planning for next phase is underway.



FGCB Governance Structure



FGCB Working Group Activities



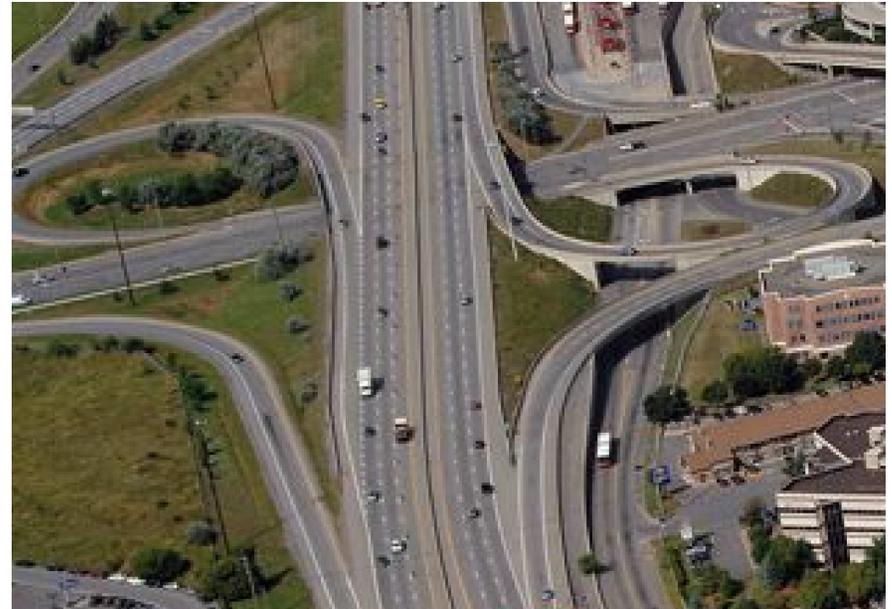
IDM Task Group Activities

- Unintentional Interference
 - Radio services operating in adjacent or remote frequency bands.
 - Natural sources such as space weather events (e.g. solar flare) producing results varying from local degraded performance to disruptive regional interference.
 - Active repeaters.
- Low-Cost, Low-Power Jammers
 - Risks are mostly manageable, but problems due to jammers will increase.
- High-powered (military grade) jammers
- Spoofing - increasing concern



Low Power Jammers on Canadian Highways

- Jamming events are likely occurring on a daily basis in high-traffic areas
 - 2 to 3 jamming events/day at a single location in Ottawa
 - ~50 jamming events seen in 13 days of collection by Montreal's airport
- Two incidents at Canadian airports



Way Forward...

- Develop policies and practices with respect to Canadian usage of GNSS to address events and possibilities of GNSS disruption.
- Continue to develop an understanding of threats to GNSS services in Canada.
- Investigate the impact of GNSS outage to Canadian critical infrastructures.
- Develop a Canadian GNSS outage reporting strategy in coordination with public safety officials.
- Clarify and strengthen penalties related to deliberate GNSS interference.
 - Evaluate the possibility of amending the *Radiocommunication Act* to implement Administrative Monetary Penalty System (AMPS)
 - Implement a stand-alone criminal offence of using radio jamming devices
- Outreach to key GNSS stakeholders to educate them as to issues of GNSS interference.
- Participate in international coordination meetings/workshops related to IDM issues.

Infrastructure Working Group

- Inventories of GNSS infrastructure circulated among key Government of Canada departments.
- Workshop held in May 2013 involving six Departments, one federal agency and an academic group. This workshop provided a forum for detailed technical presentations of activities in GNSS.
- Significant changes in Canadian GNSS infrastructure are taking place, including new continuously operating stations for surveying and geoscience applications. Other infrastructure to be refurbished.
- User requirements and geodetic standards are also evolving.
- Coordination across multiple departments increasing as a result of the working group's efforts.



THANK YOU

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