

Command and Control Concepts and Solutions for Major Events Safety and Security: Lessons Learned from the Canadian Experience with Vancouver 2010 and G8/G20 Events

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Agenda

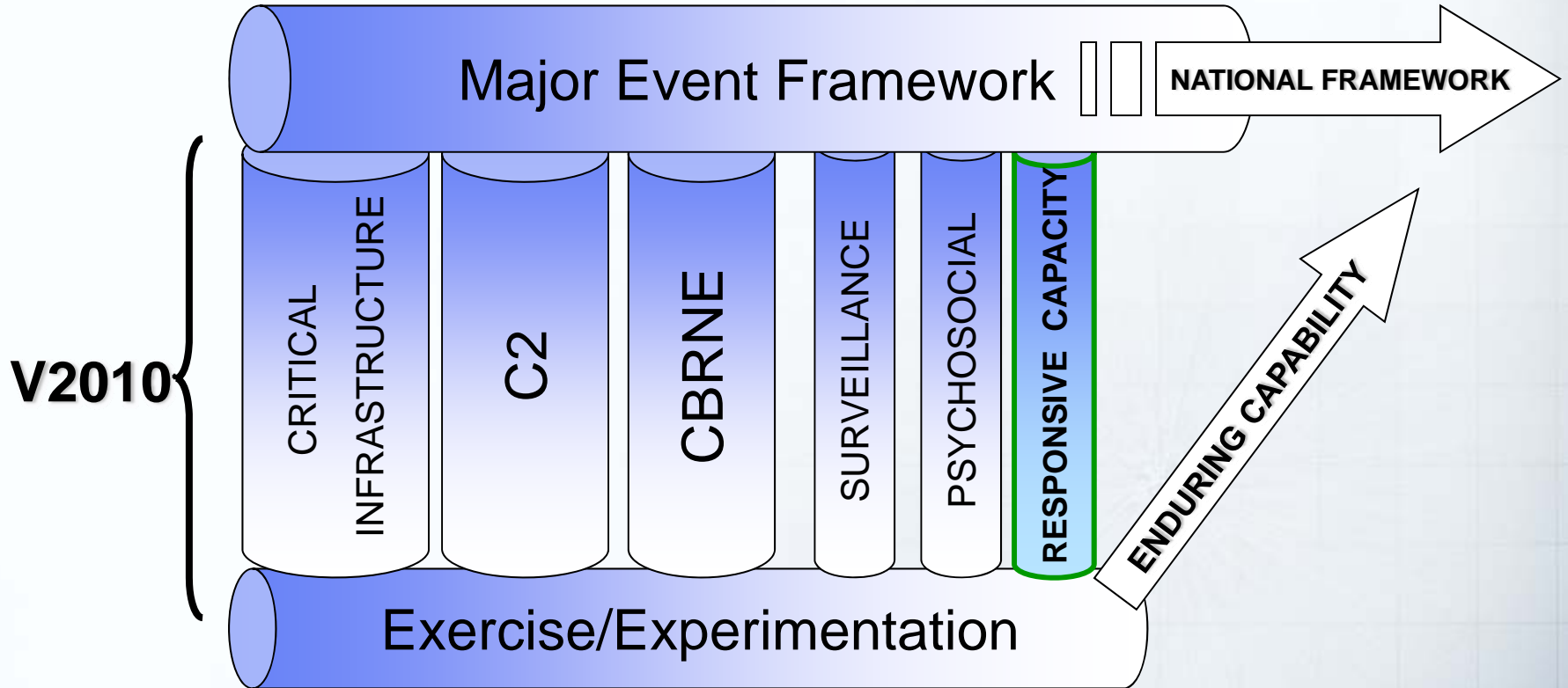
- Major Events Coordinated Security Solutions (MECSS) Project
- C2 Complexity
- C2 Domain of work
- Best Practices
- Conclusion

MECSS Objectives

- Primary:
 - Assist the functional authorities in reducing the security risk associated with V2010 through the coordinated application of Science and Technology.
- Secondary:
 - Contribute to the establishment of an enduring Major Event security architecture that can be applied to future Major Events in Canada.

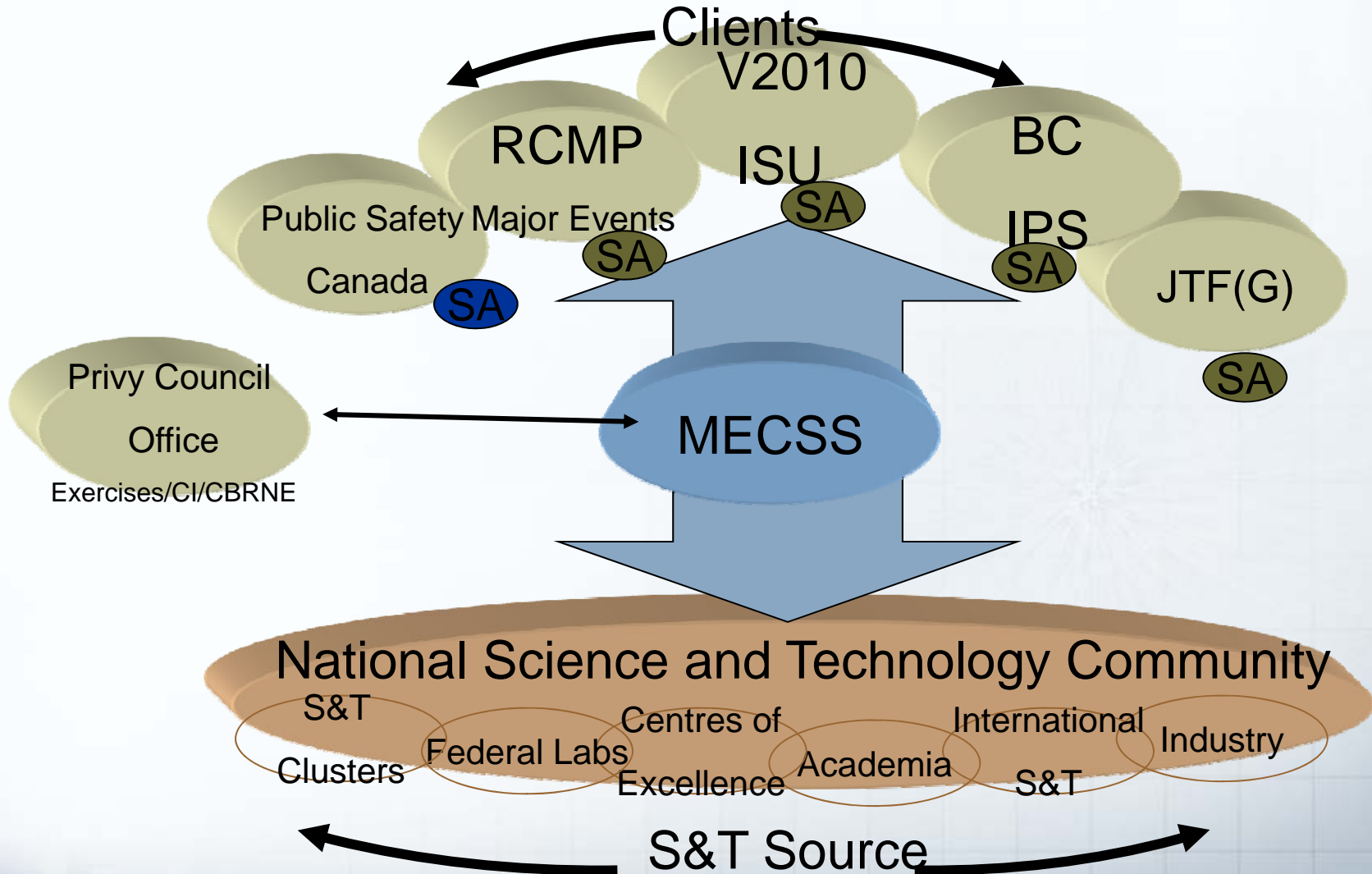
Managed as a project under the Public Security Technical Program within Defence Research and Development Canada Centre for Security Science

MECSS Capability Domains

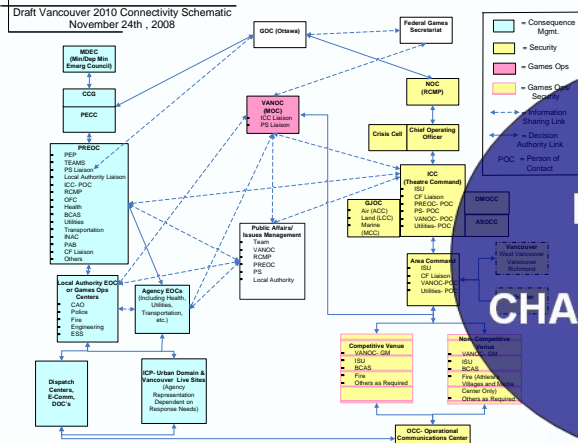


MECSS

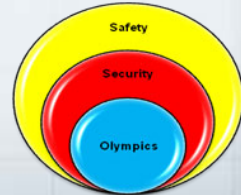
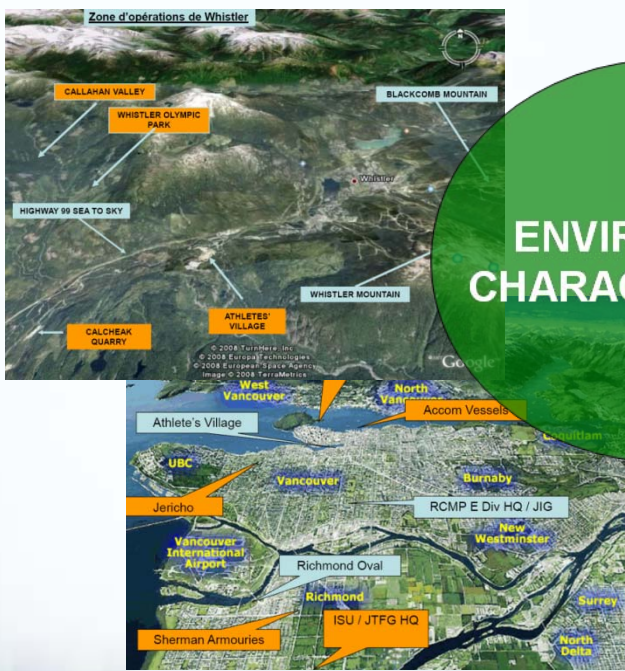
“Operationalizing S&T Investment”



Variables Influencing Complexity of Response

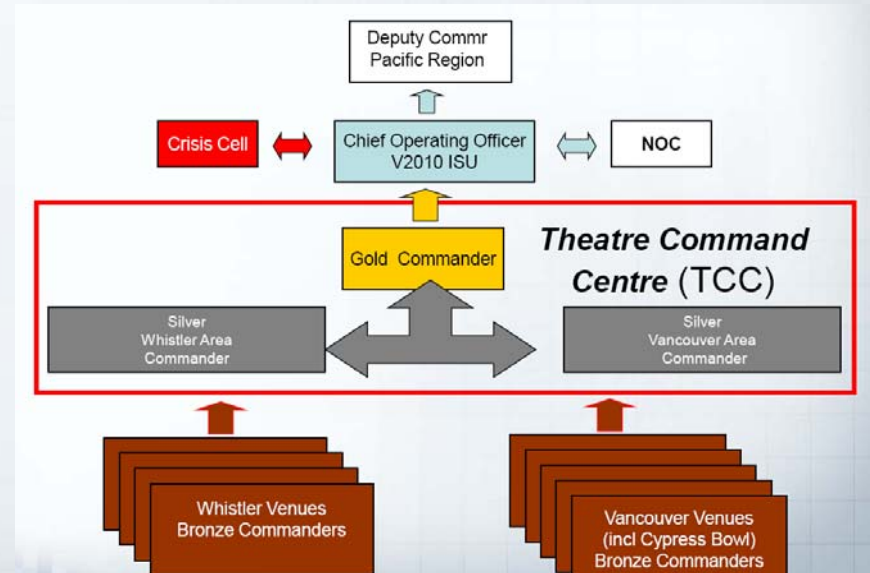


COMPLEX SITUATION



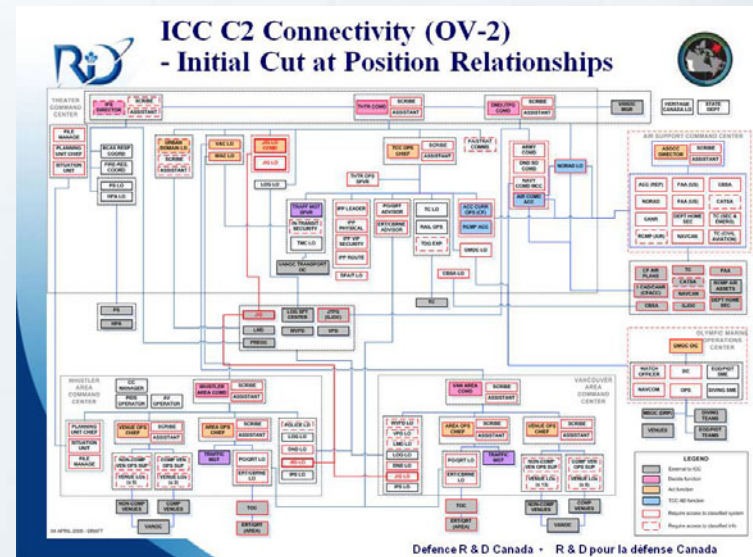
C2 Complexity of V2010

- Largest domestic security event in Canadian history
- Geography
 - 2.1M people in the Greater Vancouver area
 - 2 areas of operations – 150 sq km (Vancouver and Whistler)
 - Canada’s busiest port/airspace
 - 30+ Olympic venues
- Organizations
 - 140 + federal/provincial/municipal organizations
- People
 - 5500 athletes and officials
 - 10,000 media
 - 25,000 Games volunteers
 - 15,000 security workforce
- Event
 - 60 days of celebration
 - 27 days of sport



MECSSS Activities in the C2 Domain (1/2)

- IT Architecture Options Analysis
- V2010 Integrated Security Unit C2 Concept of Operations
- Command Centre Designs
- C2 Architecture and Process Modeling
- Confirmation Architecture Framework



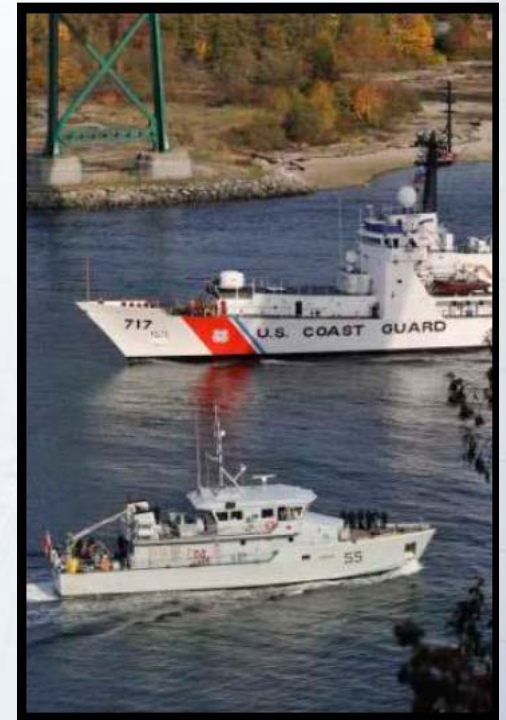
Option 1 vs 2 vs 3 - Comparison

Evaluation Criteria	Option 1 Oval	Option 1 Spread Eagle	Option 4 Pants
Face-to-Face Interaction	Good equidistance	Distance and orientation issues	Best equidistance, some orientation issues
Easy Access to SA Info	Some orientation issues	Better viewing angles	Some orientation issues
Stand-Up Briefer	Bigger distance	Engaging	More engaging
Real-estate Extent	Reasonable width	Requires more width	Compact
Individual Desktop Space	Desktop clashes at the extremes	Least clashes	Some desktop clashes at the bend
Scalability	Can add people on the unused portion	Limited	Limited
Overview of the TCC	Good for the people in the center	Good for everyone	Good for the people in the center

Very Good Good Acceptable Limited Bad

MECSSS Activities in the C2 Domain (2/2)

- Collaboration Framework
- Communication and Information System Studies
- Olympic Marine Operation Centre Analysis
- Shift Scheduling and Mobilization Planning
- Scientific Support to C2 Related Exercises
- Deployment of C4ISR Mobile Lab



Best Practices: Fostering Multi-Agency Collaborations

- Lead Agency
- Legal Authorities
- Perform Collaboration Situation Assessments



Best Practices: Collective Planning and Execution of Operations

- Pre-Event Planning
- Organizational Framework
- Leadership Structure
- C2 Centers and Infrastructures
- Assessment Model
- Collective and Individual Training
- Communication
- In-Progress Reviews
- Partnership Management
- Intelligence
- C2 of CBRNE Ops
- Public Safety
- Public Affairs
- Private Sector Coordination



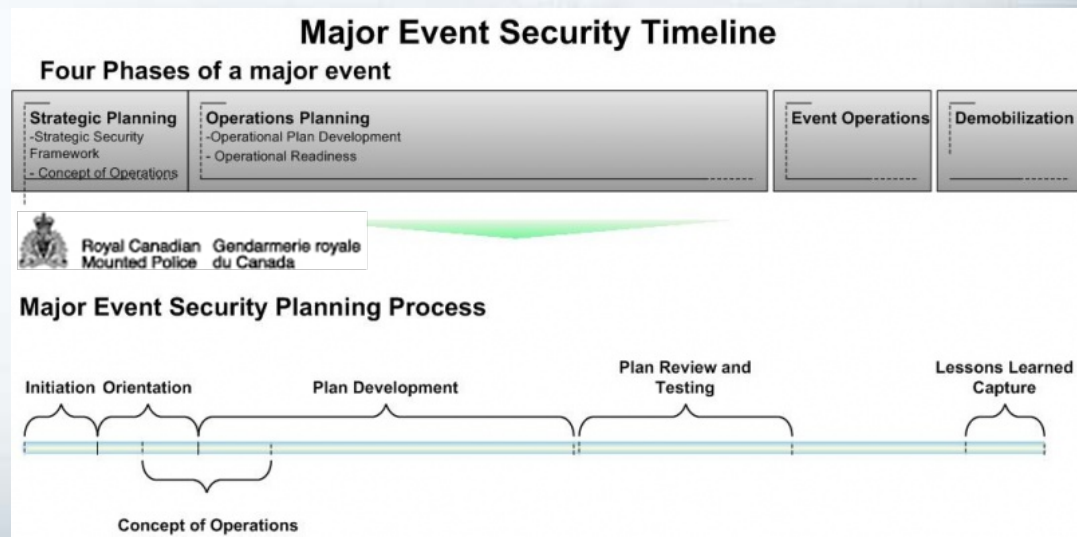
Best Practices: Potential Obstacles

- Limited Information Sharing
- Interoperability Issues
- Lack of Common Terminology
- Structure Silos
- Financial and Time Constraints
- Cultural Barriers
- Governance Issues



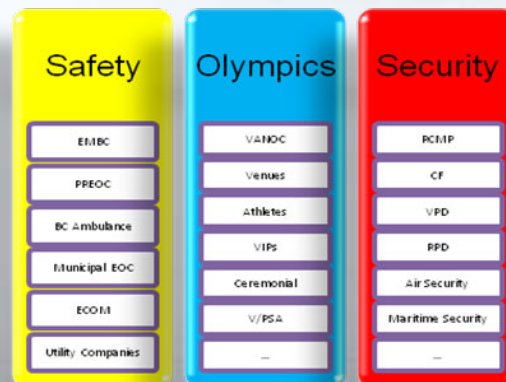
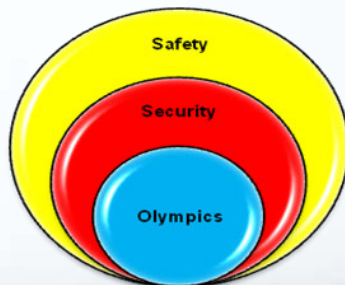
Potential Enablers

- Integrated Command Structures
- Common Information Sharing Systems and Protocols
- Outcome Management and Cost Reduction
- Scalable Governance Structures
- Community of Interests
- Whole of Government Approach
- Knowledge Management Systems



Conclusion

- Complexity of C2 for major events requires a collaborative response from a large variety of stakeholders
- C2 is the integrative layer for major events safety and security operations
- Obstacles related to governance, culture, interoperability, terminology, etc are not trivial
- Integrated command structures, information sharing, whole of government approach, KMS, integrated planning framework are potential enablers



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