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

Major Event Framework

Critical Infrastructure
C2
CBRNE
Surveillance
Psychosocial
Responsive Capacity

Exercise/Experimentation

V2010

NATIONAL FRAMEWORK

ENDURING CAPABILITY
MECSS

“Operationalizing S&T Investment”

Clients
V2010

RCMP
ISU

Public Safety Major Events
Canada

SA

SA

BC
JPS

SA

SA

JTF(G)

Privy Council
Office
Exercises/CI/CBRNE

MECSS

National Science and Technology Community

S&T Clusters
Federal Labs Excellence
Centres of
Academia
International
S&T
Industry

S&T Source
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
MECSS 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

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

Very Good | Good | Acceptable | Limited | Bad
MECSS 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