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# Staunch Maple '17 Critical Infrastructure Cross Sector TTX

*ISR Report 6079-01-03*

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# 1. INTRODUCTION

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## 1.1 Background

Critical Infrastructure (CI) refers to the processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of Canadians and the effective functioning of government. CI can be stand-alone or interconnected and interdependent within and across provincial and territorial (P/T) and national borders. Disruptions of CI could result in the catastrophic loss of life, adverse economic effects and significant harm to public confidence [1].

Coordination between private CI owners/operators and all levels of government within Canada is crucial to emergency management planning as during major emergencies the privately owned CI within Canada may directly impact the government's ability to respond. The continued operation of CI assets may be critical to the tactical response operations of government resources (e.g., use of cell towers, roads). CI stakeholders have expressed a need to better define the event management process during an emergency and require guidance on a coordinated approach that fosters the integration of the CI community within the municipal, P/T and/or federal response

This CI table top exercise (TTX) was the first phase of an exercise program being developed to support Defence Research and Development Canada's Centre for Security Sciences (DRDC CSS) and Public Safety Canada (PS). The TTX was conducted during the Main Planning Conference for Exercise Staunch Maple 2017 (Ex SM17) which is an annual test of the Canadian Armed Forces plans and arrangements support civilian authorities during a major event. The second phase of the DRDC-CSS exercise program will be a Functional Exercise (FSX) to be run concurrently with Ex SM17 in April of 2017.

The intended outcome of this exercise program is to produce an Event Management Guidance Document detailing the integration of the CI community in event response which could then be shared with other provinces or regions. This TTX also aimed to develop targeted injects for each CI owner/operator to be included in the Ex SM 17 FSX.

## 1.2 Purpose

The purpose of this document is to present the results of a tabletop exercise (TTX) held in Halifax, Nova Scotia 25 January, 2017 which exercised a draft coordination framework developed to assist CI owners/operators and all levels of government in coordination of emergency preparedness activities before and during an emergency.

## 1.3 Scope

This document outlines the common themes emerging from scenario discussions and provides recommendations for the improvement of the guidance framework document. These recommendations are focused on moving forward to the development of the second part of this exercise program, the functional exercise (FSX).

## 2. METHODOLOGY

### 2.1 TTX Format

This TTX was developed to elicit feedback from both CI owner/operators and government partners and was designed to coincide with the mid planning conference (MPC) for Exercise Staunch Maple '17. CI owner/operators participated for the full day of the TTX, with government partners participating for a half day in the afternoon.

The TTX was segmented into sections, each reflecting one of the main sections within the draft guidance framework document. Table 1 provides a breakdown of the schedule for the TTX and a short description of each item as presented to the participants.

**Table 1: TTX Agenda**

Time	Description	Notes
<b>0900-0930</b>	<b>Registration</b>	
<b>0930-0945</b>	TTX Overview	Facilitators will present TTX objectives and provide an overview of the draft framework (ConOps)
<b>0945-1000</b>	Scenario Start State Briefing	Facilitators will provide an overview of the Staunch Maple scenario
<b>1000-1015</b>	<b>Break</b>	
<b>1015-1145</b>	Requirements of CI community during the preparedness and response phases of an event.	Purpose is to gather what information CI owners and operators would require and how they get that information, from whom and what challenges are involved
<b>1145-1200</b>	Introduce discussion of interdependencies (by sector)	Facilitator will introduce session on identifying interdependencies
<b>1200-1330</b>	<b>Lunch</b>	
<b>1330-1430</b>	Discussion on interdependencies	Using the scenario, each sector will examine their interdependencies with other sectors and with government
<b>1430-1445</b>	<b>Break</b>	
<b>1445-1505</b>	Presentation and discussion of mornings results	Plenary session with both government and industry participants
<b>1505-1630</b>	Scenario based discussion similar to mornings work but focusing on government organizations.	Discussion of the current ways CI partners are engaged at all levels. This will be compared against draft ConOps and industry information captured in the morning to highlight gaps
<b>1630-1645</b>	<b>Wrap up</b>	N/A

The morning was focused on the CI owners and operators. Each key section of the draft guidance framework was presented and discussed among the CI owner/operators in the first half of the TTX:

- Steady-state Operations;
- Notifications;
- Planning During Events;

- Information Sharing; and
- CI Coordination.

Facilitators asked participants a series of questions for each key section and promoted discussion between each CI partner regarding current state planning and response and how this could be augmented with additional information and/or support from government agencies.

During the afternoon, representatives from various levels of government were included in a similar style of discussion as described above<sup>1</sup>. Facilitators once again asked a series of targeted questions for each key section from the guidance framework document, however these questions addressed the interdependencies between CI owner/operators and government during planning and response and identified the activities, information and support requirements of government departments.

By engaging with CI owners/operators separate from government representatives, facilitators were able to gather specific information regarding the information and support requirements of CI organizations during emergency preparedness and response. The inclusion of government departments in the afternoon of the TTX allowed for these requirements to be compared against the current information and support that is provided to CI owners/operators.

## 2.2 TTX Objective

The objective of the TTX was to further inform the development of a guidance document for the integration of the CI community in event response to be exercised during the FSX Exercise Staunch Maple '17 to be held in April 2017.

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<sup>1</sup> While the intent was to focus on CI owners and operators in the morning and bring the government representatives in for the afternoon, during the TTX a number of government partners were present throughout the entire day.

## 3. RESULTS

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### 3.1 Key Themes

The following key themes emerged from the discussion. They are the results of reviewing notes taken by facilitators and analysing the participant feedback forms that were submitted at the end of the day. These observations are grouped by themes that emerged from the discussion of the sections of the guidance document and a recommendation to address the observation is offered.

#### 3.1.1 Preparedness

**Observation: Inconsistency in emergency preparedness planning across sectors:**

During the TTX, it was identified that emergency preparedness planning is carried out in an inconsistent manner across CI sectors. For example some organizations use the Incident Command System (ICS) and its planning process, while other's do not. Some CI organizations involve government planners in their preparedness activities and have well established information management practices such as in the Transportation of Dangerous Goods (TDG) program of Transport Canada. These inconsistencies may cause gaps in planning when considering the complex interdependencies between CI sectors.

Recommendation: Continued TTXs or seminars within a region involving both government and CI representatives will ensure that best practices in emergency preparedness planning are exchanged in order to standardize emergency preparedness planning.

**Observation: The roles of Emergency Support Functions (ESFs) are unclear outside of Federal organizations:**

ESFs are unique to the Federal Emergency Response Plan (FERP) and are not utilized at the provincial or municipal level of response. It may therefore be necessary in the guidance framework document to offer a brief explanation of the role and function of the ESFs to facilitate understanding of their purpose for other organizations.

Recommendation: CI guidance document should outline clearly the role and function of ESFs as they apply to the FERP. Provincial and Municipal organizations should also be encouraged to incorporate this concept into their plans.

**Observation: Security Clearance processes for CI community:**

Sharing of information between CI sectors, as well as between government and CI owner/operators is made difficult particularly with classified information. This is an ongoing issue and one that is being addressed through various means at the federal level. Once this clearance process is resolved sensitive information can be provided between CI partners and government organizations.

Recommendation: The clearance of CI owners and operators for the receipt of classified

information needs to continue to be a priority.

**Observation: EM methodology is not consistent across sectors:**

Private organizations within Canada lack a common methodology and minimum standard for EM planning. Although established EM requirements exist for some CI sectors (e.g., ERAP program for TDG) others are not bound by legislation to maintain emergency response plans (ERPs) to a certain degree. This lack of standardization inhibits full cross-sectoral planning as the CI partners with minimal levels of EM preparedness may not be able to accommodate CI partners with advanced ERPs during an emergency.

Recommendation: Best practices in EM planning need to be exchanged with the broader CI community either through information portals such as the CI Gateway Portal, or through continued exercises and seminars.

**Observation: Awareness of current tools requires improvement :**

CI owners/operators are unclear of the tools and support resources that are available during emergencies. The awareness of these tools to all CI owners/operators needs to be led by Nova Scotia Emergency Measures Organization (NS EMO). These resources will in turn allow private CI owner/operators to fully engage in the municipal, provincial and federal response.

Recommendation: EM organizations need to continue to share information through such vehicles as the PS CI Gateway Portal.

### 3.1.2 Notifications

**Observation: Delays in receiving notifications lead to delays in response.**

Participants indicated that delays in notifications arriving within their organizations may delay their overall response in the early stages of an incident. Many participants mentioned that their connections with international and industry associations such as the American Water Works Association were a better source of initial information regarding emergency events than their contacts here in Canada. By better defining an effective strategy for the flow of information during initial event notification, CI partners will be able to mobilize resources based on information from partners within Canada and have confidence that the information is accurate and up-to-date.

Recommendation: Guidance document needs to contain a notification process that includes CI owners and operators in a timely manner.

### 3.1.3 Information Sharing

**Observation: Would be beneficial to map out the current information sharing networks:**

The current system for sharing information is complex, and is not done using a single methodology by all organizations. The flow of information is also not uniform across all

CI sectors. In order for both government (e.g., federal, provincial, local) and CI owner/operators to better define information sharing pathways, a map of the current process needs to be developed. By mapping the current information sharing networks, these stakeholders will be able to identify shortcomings and areas where efforts can be focused to provide an effective information sharing system.

Recommendation: Guidance document needs to propose an information sharing network that includes CI owners and operators both during all phases of EM.

**Observation: Delay in receiving verified information can be days, organizations are reaching out to international associations to get information:**

In order to make decisions regarding their infrastructure, many stated that they cannot wait to receive information from the government. The CI owners and operators outlined that because of this delay, they have used their own networks either through parts of their companies, or through professional or industry associations to get this information. All participants would welcome an improved methodology or technology to facilitate rapid information sharing.

Recommendation: Priority should be given to the development of an improved information distribution system to include government and CI partners.

### 3.1.4 Coordination

**Observation: Role of IC is unclear for this type of incident:**

Discussions during the TTX determined that the responsibility of the IC in an event of this complexity and scale was unclear. Smaller, localized incidents can be handled by IC executed at local levels, and may include a unified command system in some circumstances, however, participants were unable to identify how the role of IC would transition to higher levels of authority during a national level event.

Recommendation: This requires further investigation and clearer processes for the expected transfer of IC to higher levels of government. The guidance document must reflect this.

**Observation: Supply chain related interdependencies are not considered and/or well understood during emergency response operations:**

It was indicated that during emergency response planning, the supply chains in place to acquire, move and develop resources are not considered. These supply chains may be activated by numerous CI sectors within the same region and can become overwhelmed quickly when a large volume of requests begin to come in for the movement/acquisition of various goods. These suppliers must be considered in emergency preparedness planning to ensure that these goods will be available when multiple organizations make simultaneous requests and that response efforts will not be halted due to emergency supplies being unavailable.

Recommendation: The use of Memorandums of Understanding (MOUs) or Mutual Aid Agreements was also mentioned as being an avenue for further exploration for enhancing joint emergency planning. Through communication and coordination, CI

sectors could strategically select vendors for various products, and identify whether conflicts will occur when a multi-sector emergency occurs.

**Observation: Many organizations work independently through emergency response planning within their organization. A better method for linking these “silo’d” organizations into a larger preparedness planning effort needs to be developed.**

Participants identified that most CI owners/operators conduct emergency response planning individually within their own organizations. There is a low level of coordination between individual CI organizations across each of the CI sectors and this lack of coordination in preparedness planning will create difficulties in enabling an all encompassing response. Sharing planning information (without sharing sensitive information) across each sector, and between different sectors is key to coordinated response planning.

Recommendation: A method for connecting these organizations in the preparedness phase of emergency planning needs to be developed and will be further explored during the FSX.

## 4. CONCLUSION

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### 4.1 Next Steps

The completion of this TTX was the first step in the development exercise program and the refinement of the draft guidance framework. By introducing CI owners/operators and government departments at all levels of government to the framework, a preliminary list of observations were collected at the TTX.

The questions developed to facilitate the TTX were created to identify which areas of the framework document are correct and are accurate, and which areas need further investigation to better guide CI owners/operators in the preparedness planning process. These areas requiring further investigation will form the basis for developing the key events for the FSX in April, 2017.

Following the FSX, the exercise team will develop a list of recommendations for improving the guidance framework. These recommendations will be based on observations collected during exercise play regarding the requirements that CI owners/operators have for better coordinating preparedness planning. These recommendations will then be incorporated into the guidance framework as appropriate in hopes of developing a functional guidance document.

### 4.2 CI Injects for FSX

Effective discussions between CI owners/operators and government departments during this TTX enabled key events and injects to be developed in draft form for the FSX in April. These key events, which will be developed through injects into the exercise within the FSX scenario, were developed as a result of gaps and areas where further investigation into current processes were identified. The exploration of these gaps during the FSX will further inform the development of the guidance framework by identifying how gaps can be resolved, and through what means (e.g., increased communication, coordination, information sharing, etc.).

## REFERENCES

- [1] Public Safety Canada, National Strategy for Critical Infrastructure, 2009.

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This document outlines the common themes emerging from scenario discussions and provides recommendations for the improvement of the guidance framework document. These recommendations are focused on moving forward to the development of the second part of this exercise program, the functional exercise (FSX).

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Le présent document énonce les grandes lignes des thèmes courants qui ressortent des discussions sur les scénarios et contient des recommandations sur la façon d'améliorer le document-cadre d'orientation. Ces recommandations portent sur la poursuite de l'élaboration de la deuxième partie de ce programme d'exercices, l'exercice fonctionnel (XF).