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## Scientific Letter

# Observations and Recommendations from the Table-Top Exercise PACIFIC JEOPARDY 2015

## Background

The Commander of the Maritime Forces Pacific (MARPAAC), through the Joint Rescue Coordination Centre (JRCC), is responsible for the search and rescue (SAR) operations in the MARPAAC area of responsibility. As a part of the development and updating of regional support plans, MARPAAC, jointly with multiple other government departments (OGD), established a two year exercise plan for a major maritime disaster (MAJMAR). Originally, this was to commence with a Table-Top Exercise (TTX) in late spring of 2014, followed by a Command Post Exercise (CPX) in spring 2015, and a full Field Training Exercise (FTX) in 2016<sup>1</sup> [1]. These would be conducted in order to ensure that all formation, OGD and civilian ferry corporations understood their roles in the exercise and could further develop their plans [1]. It utilizes a phased training approach, ensuring that the participants are engaged and able to “crawl” (TTX), before they can “walk” (CPX), and later “run” (FTX). This is key, since this is the first time so many federal and provincial commands have been brought together in British Columbia (BC) to train and include the consequence management aspect.

However, after the initial planning conference was held [2], a smaller TTX format (vice CPX) was decided upon in order to acquaint senior leadership with the complexity of the potential scenarios. As a result, TTX PACIFIC JEOPARDY 15 was scheduled for spring 2015 [3]. The CPX was rescheduled for spring of 2016. MARPAAC N02 Operational Research (N02OR) was asked by Commander MARPAAC through J7 to assist in the assessment of the exercise, and to identify lessons learned and possible areas of improvement for MAJMAR contingency planning. This Scientific Letter addresses the findings resulting from the TTX.

## Participants

The TTX was hosted by MARPAAC J7, with further support from JRCC, Air Component Command Element Pacific (ACCE(P)), Fleet Diving Unit (FDU), Joint Health Services Support (JHSS), Regional Joint Operations Centre (RJOC), and Maritime Security Operations Centre (MSOC). The OGD participants included Canadian Coast Guard (CCG), Royal Canadian Mounted Police (RCMP), Transport Canada (TC), Canadian Border Security Agency (CBSA), Public Security (PS), Health Canada (HC), British Columbia Ministry of Health (MoH), Emergency Management British Columbia (EMBC), British Columbia Emergency Health

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<sup>1</sup> The FTX is planned as a live exercise (LIVEX) involving BC Ferries and over 100 “actors” to simulate a large scale MAJMAR.



Services (BC EHS), British Columbia Coroners Services (BCCS), and Island Health (IH). Some of the OGDs had senior officials such as regional directors<sup>2</sup> attend the TTX.

## Scenario

A small Japanese fishing factory vessel, with a crew of forty personnel (all foreign nationals, no women or children<sup>3</sup>), had an engine room fire. At the time of the incident, the ship was off the West coast of Vancouver Island, approximately 15 nautical miles west of Tofino, BC. JRCC received the initial report advising of the incident, and specifying 18 or more casualties with serious injuries; the vessel was reported to be adrift. As the scenario evolved, three of the injured people succumbed to injuries.

As agreed to by all participants at the planning conferences, this scenario was a relatively straightforward MAJMAR. It was collectively developed by all parties to align with their agency's objectives for the exercise. While foreign nationals were considered, they were assumed to be Japanese, and thus they would not be considered a risk by the CBSA. That would significantly simplify casualty handling and consequence management. Also, the number of personnel was relatively low (only 40 people; all of them from the same country speaking common language, thus simplifying translation and consular considerations). While considered taxing on the provincial system, it stretched—but did not exceed—the capabilities of the resources identified to resolve the situation in a timely manner.

## Observations

In terms of the structure of the exercise, there was a drift in both scope and attendance. The TTX was first envisioned to be an operational level exercise, with the scenario familiar to all participants, details worked out in advance at the planning conferences (no “what if” scenarios), checklists developed prior to engagement of senior managers, and a turn-based response format for the exercise. However, it appears that this information was not followed by all agencies, as the attendance list grew in both number and seniority at the last minute. The unanticipated interest, although appreciated, made it difficult to keep the exercise within the intended scope. Though of educational value, this caused the event to be more of a scenario-based, facilitated discussion than an advanced table-top exercise [4]. The discussion also included exploration of some hypothetical futures, and discussed possible excursions from the scenario beyond the original intent.

Due to the late additions, the venue was changed and moved to a gymnasium where the acoustics were very poor. It was often difficult to hear many speakers. The event was also kept very short; since it can be difficult to get so many diverse attendees together, it may be useful to keep them together for longer discussions.

Moving on the exercise itself, the initial part of the TTX consisted of round table introductions, followed by a discussion of available JRCC SAR assets (including CCG and CAF<sup>4</sup> air and water-borne assets). The scenario was introduced next. The JRCC/CCG representative outlined initial response options, including their initial response assumptions and limitations; OGD representatives then added additional comments. While the JRCC/CCG response appeared

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<sup>2</sup> A number of attendees were unplanned, last minute additions.

<sup>3</sup> At the request of the various provincial health authorities, to simplify the processing of the persons involved.

<sup>4</sup> It was also pointed out by the RJOC Officer in Charge (OIC) that for a large scale, longer-term incident it would be possible to bring in other Canadian Armed Forces (CAF) assets, including the long-range maritime patrol aircraft, the ready-duty ship, or even CAF assets from other parts of Canada, should the scenario turned into a multi-day event.



scripted, a follow-on discussion revealed that although there are well-defined, standard processes, the response might differ slightly depending specifics of the incident. The JRCC/CCG was followed by scenario responses from OGD partners.

Although JRCC stated that it was the SAR region (SRR) command lead, and if a BW was stood up by Commander MARPAC, the primary location for the lead agency Emergency Operation Centre (EOC) would be at MARPAC HQ. Other locations are possible, depending upon the Commander MARPAC and operational considerations. Concerns were raised by some OGDs about the ability to use cellular telephones in the main BW EOC due to security measures.<sup>5</sup> Other agencies were free to set up their own EOC's.

The lead agency and structure in a scenario like this was clearly explained during the initial and main planning conferences for the TTX. However, due to attendance creep, not all attendees were present for such discussions, causing initial confusion regarding the command and control (C2) structure during the SAR event.

Upon receipt of an emergency call, there would be many parallel and looped (at various levels of command) notifications about the SAR incident, which compounded some agencies' confusion. Figure 1 captures an attempt to visualize at least some of the initial notification phone calls upon first indication of an incident (with optional calls indicated in dashed lines, depending on the size and severity of the incident). This situation resembles a complex game of "telephone"; it is feasible that, because of different routing and perhaps no timestamp, some critical information may arrive to a particular decision maker out of sequence. This could mean that stale information that was later updated will be treated as more recent, and thus more accurate. There is also no validation process to ensure the information is correct (a key point of failure when relaying information through multiple persons) and no central repository of information. This highlights the need to refer to lead agency's situation report (SITREP) in all communications, and to be able to obtain a copy of it (either via email, paper or fax).

To assist in the assessment process of the TTX, a survey was administered to the participants solely for the purposes of quality assurance and improvement of the training exercise.<sup>6</sup> Only three questions were asked:

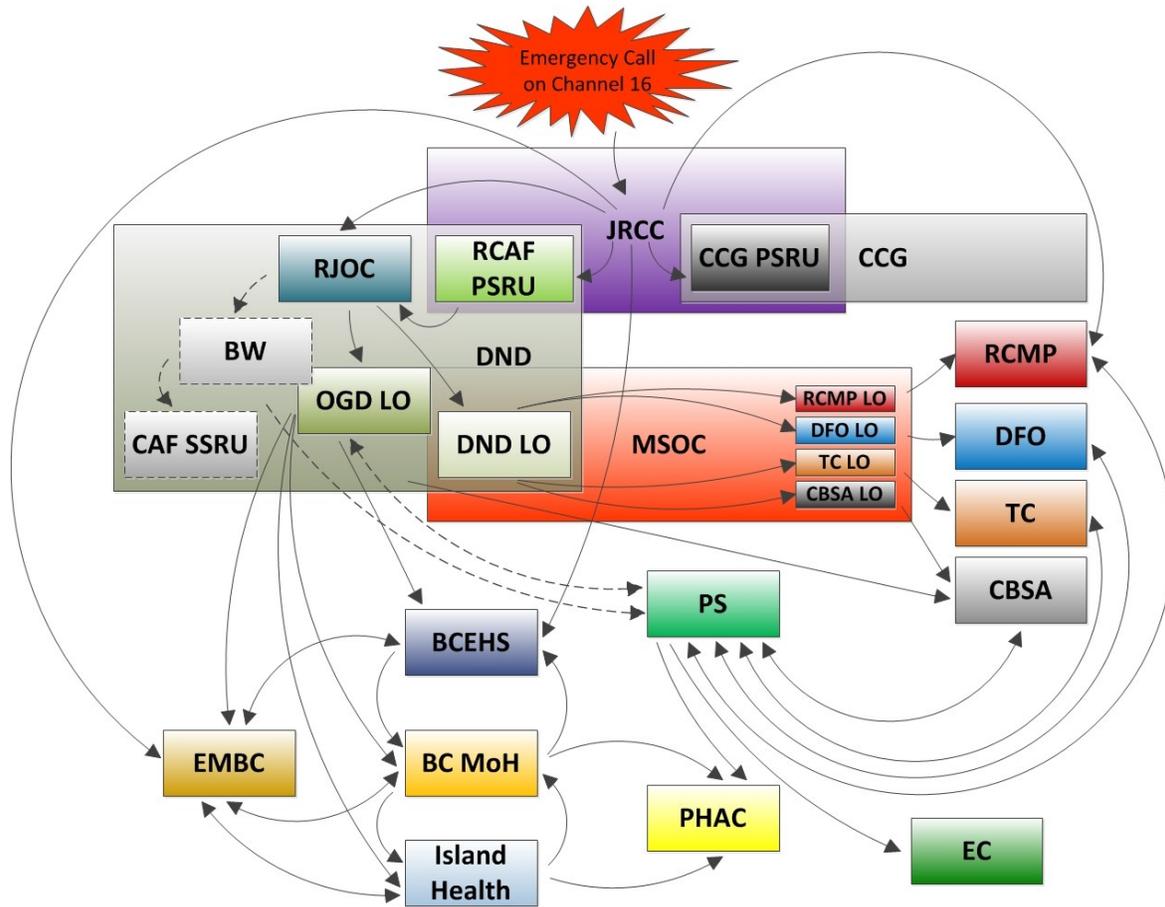
1. Were the government representatives able to effectively make decisions based on the information they had available?
2. Were the government representatives able to resolve the issues they were faced with?
3. Were the right people included in the government representatives? If not, who was missing?

In Question 1, the participants almost unanimously responded that the representatives were able to effectively make decisions based on the information they had available. This may be due in part to the large number of participants from a number of agencies, who were able to answer questions regarding a fairly broad range of topics, and the fact that relatively few decisions were actually required.

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<sup>5</sup> This seems to be a galvanizing issue for many participants, as their personnel depend on (instantaneous) cellular communications as the primary coordination means.

<sup>6</sup> These activities, under Article 2.5 of [5], do not fall within the scope of Research Ethics Board review.



**Figure 1:** Reporting of the major maritime incident between various government agencies<sup>7</sup>.

There was overwhelming agreement in Question 2 that the representatives were able to resolve the issues they were faced with, although a few common themes were highlighted:

- The lack of public affairs personnel from each organization prevented resolution of media release questions;
- Despite the wording of the scenario to establish jurisdiction (or not), the reality of the situation may necessitate answers to difficult questions dealing with real people that cannot be delegated to a party that is not on scene; and
- The lack of a common casualty tracking system between first responders means patients will have to be reassessed multiple times, possible costing time, resources, and potential loss of data.

In general, most participants agreed that the right people were included for Question 3. However a list of missing representatives was compiled that included: Department of National Defence (DND) senior staff, representative of the SRR commander to simulate command authority, Environment Canada (EC), Public Affairs (PA) / communications / legal (for all

<sup>7</sup> BW = Battle Watch [6], RCAF = Royal Canadian Air Force, PSRA = Primary Search and Rescue Assets, SSRA = Secondary Search and Rescue Assets, LO = Liaison Officer, PHAC = Public Health Authority Canada, EC = Environment Canada, DFO = Department of Fisheries and Oceans.



departments at federal and provincial levels), PHAC (asked to attend but could not), United States Coast Guard,<sup>8</sup> other provincial health authorities (coastal),<sup>9</sup> and the ship's owner's representative (for this scenario). While some of the participant suggestions are valid (depending upon the scenario description and scope of the exercise), many are beyond the original intent for an operational-level TTX such as this.

## Discussion

While the scenario was intentionally limited in terms of the scope of the incident (only 40 personnel onboard, from a single (G7) country), it illustrated some potential weaknesses of the response systems. Discussions of possible excursions, such as what would happen if the ship personnel represented a threat to Canada from either a health or security perspective, were highlighted to test during subsequent exercises. It was identified by the participants that an additional TTX, reflecting the assumed FTX scenario (i.e., major cruise ship or ferry accident), should be conducted in order to develop contingency plans that would be validated during the exercise. Such scenarios would progress the capabilities of the participating agencies to look at more extreme situations, and could identify potentially serious gaps in the emergency response preparedness. This TTX and the follow-on CPX are intended to address the issues noted with the exercise structure and participant list, as the intent evolved over time through the planning conferences held by J7 and JRCC.

From the OGD, especially from provincial agencies, it was identified that, while it would be desirable to have additional liaison within JRCC, their personnel depend on (instantaneous) cellular communications as the primary coordination means. This is not currently possible within the MARPAC HQ building.

As the number of attendees was greater than expected and some seniority levels higher than required for the type of event planned, the TTX went from a turn-based table-top exercise to a facilitated discussion. Because of the assumption that all participants knew the background information and the purpose of the TTX, there was no formal extensive read ahead package or lead in to the exercise. As a result, the personnel who had never attended any of the previous planning sessions were unfamiliar with much of the scenario, and the event turned into more of an "education" session. Those who gained the most were still those whose continued participation started from the outset of the planning process; however, it was still of value to all, as indicated by the survey results.

## Recommendations

Since the TTX PACIFIC JEOPARDY 15 scenario was limited in scope at the participating agencies' request, and the exercise evolved into a facilitated discussion, it is recommended that the second TTX (either as a multi-day event, or even split into multiple TTX events) be organized as follows. The scenario should reflect the FTX scenario, with a major passenger ship (a cruise ship or a ferry) being involved, with large numbers of casualties from multiple countries. It is recommended that the next TTX be led by, at the minimum, N31 given the new scale and in order to provide the ability to consider senior-level decisions that would be taken in the case of an actual disaster. The larger scenario will require additional participants written in,

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<sup>8</sup> The scenario was written specifically so that they would not have to be contacted. The purpose was to get the regional consequence management piece completed first before engaging others.

<sup>9</sup> Ibid.



to better simulate information flow and answer questions (such as PA, EC, etc.). Specific joining instructions should be sent out prior to the start of the TTX and reiterated at the start of the events.

The recommended follow-on TTX events should be organized as multi-turn tabletop games<sup>10</sup>; each turn should include sufficient time to allow responses from all participants, prior to injects which would be specific to participating agencies and would somewhat depend on the decisions made earlier. Since one of the purposes of the TTX is to develop regional support plans for a MAJMAR, it is important to conduct detailed mission analysis and develop Courses of Action (COAs) during the TTX [7] following the standardized Operational Planning Process [8] (as a formalized way to structure the exercise and extract more useful results). The mission analysis should answer the detailed questions posed in Annex A.

For COA development, capability cards could be used; in addition, event cards simulating happenings outside of the gamed incident (such as other SAR incidents, major road accidents, political and media events, etc.) could be employed. The COA development process should consider most-likely and worst-case scenarios for the event; the TTX organizers could act as a challenge board / red team to question possible COAs. The final deliverable should include assumptions, identified tasks, assets, organization, and possible contingencies. Issues of coordination, logistics, and jurisdiction should also be considered.

In order to strengthen the rigour, facilitate collecting relevant information, and maximize benefits to regional support plan development, it is recommended that N02OR be involved in the planning, execution, and evaluation of the follow-on TTX events. The results of this TTX would then inform the CPX to be held in spring of 2016.

Lastly, based on the observations from TTX PACIFIC JEOPARDY 15, several recommendations for actual response planning can be made:

- Develop a brief common interagency reporting template for major incidents that would be succinct and easily understood.<sup>11</sup> This template should include lines for key information; including, for example: time of the report, source of report, initial responding agency, lead agency, vessel/aircraft information, and number of persons involved number and severity of casualties (using simple categories common to all agencies);
- Develop a detailed common interagency reporting template (mission brief format) that could be used to provide situational updates to all involved agencies, and the baseline truth could be used by PA for the media releases; and
- Choice of location or operation of a joint EOC should consider the use of OGD responding agencies' cellular devices.

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<sup>10</sup> Personnel that are skilled in time management, can direct large discussion groups, and have a familiarity with the problem at hand, with the ability to remain authoritative yet respectful, are required to lead such events.

<sup>11</sup> The CAF already uses a similar format; this would require proposing and adopting a format across multiple government organizations. The lead agency would be required to deliver information using this format during the event.



## References

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- [4] U.S. Department of Homeland Security, Homeland Security Exercise and Evaluation Program (HSEEP) (online), [http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep\\_apr13\\_.pdf](http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf), Apr 2013 (Access Date: 10 Jun 2015).
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- [6] Commander Joint Task Force Pacific, Letter of Promulgation Maritime Forces Pacific/Joint Task Force (Pacific) Headquarters Battle Watch Standard Operating Procedures, Department of National Defence, 6435-3120-1 (A/J36/MARPAC eDOCS 348956), 8 May 2014.
- [7] CF Operational Planning Process, Joint Doctrine Manual issued on Authority of the Chief of Defence Staff, 6 Nov 2002.
- [8] Chief of Defence Staff, The Operational Planning Process (OPP) Change 2, Canadian Forces Joint Publication 5.0, Department of National Defence, B-GJ-005-500/FP-00, 2008.

## Attachments

Annex A: Mission Analysis Requirements

This Scientific Letter is a publication of Defence Research and Development Canada. The reported results, their interpretation, and any opinions expressed therein, remain those of the authors and do not necessarily represent, or otherwise reflect, any official opinion or position of the Canadian Armed Forces (CAF), Department of National Defence (DND), or the Government of Canada.

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## Annex A Mission Analysis Requirements

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The mission analysis should answer the following questions (as gleaned from questions raised by the participants of TTX PACIFIC JEOPARDY 15):

- What assets are available to respond (across province, and other locations in Canada)?
- What are key access points, routes, airports, and other infrastructure? Is there a need to close particular roads to ensure ingress/egress by the response teams?
- What are the locations of medical facilities/hospitals; what are their capacity/capabilities?
- How many people are involved, how many casualties, severity, health and security risk to general population in the area/target hospitals and medical facilities?
- What is the potentially best case/most likely/worst case development of the situation?
- Is there a risk of overwhelming provincial/national capabilities?
- What are the risks facing first responders? This includes environmental, health, and security threats, including possibly wildlife.
- Is there a potential for environmental disaster, pollution concern, etc.?
- What is the impact on the ability to respond to other SAR incidents and emergency calls within immediate area, region, and the province?
- Are there any risks to public security by anyone onboard? Any inadmissible persons?
- Which countries are involved?
- What are the domestic media implications?
- Who is going to deal with media?
- Who is going to deal with foreign consulates and legal representatives?
- Are there foreign assets (i.e., United States capabilities, possibly other passenger vessels) that could be leveraged, and is there legal basis for doing so?
- What are the legal issues, considerations, and constraints in terms of dealing with foreign nationals, foreign property, and vessel owners, insurance companies, etc.?

Of the questions raised, only the last three were not dealt with during the scenario development process or the planning conferences.



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