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2016 EPPR MOSPA TTX



AFTER ACTION REPORT

June 13, 2016

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PREFACE

The Arctic Council’s Working Group for Emergency Prevention, Preparedness, and Response (EPPR) sponsored the Tabletop Exercise (TTX) of the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA), which was led by the United States (U.S.) Coast Guard’s Office for Marine Environmental Response Policy in partnership with the cooperating member states of the EPPR. This TTX After Action Report (AAR) was produced with input, advice, and assistance from the EPPR MOSPA Exercise Design Team, TTX Evaluators, and the U.S. Coast Guard Exercise Support Team.

The 2016 EPPR MOSPA TTX was an unclassified exercise. Control of information was based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. The AAR may be viewed by all exercise participants. All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and to protect this material in accordance with current EPPR directives.

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EXECUTIVE SUMMARY

EPPR MOSPA Background

Increased commercial maritime activity in the Arctic region elevates the risk of incidents as well as the need to plan and prepare for responses. Representatives from all eight Arctic member states work within various forums and working groups to mitigate risks and ensure safe, secure and environmentally responsible activities in the Arctic. One of these groups, the Arctic Council's Working Group on Emergency Prevention, Preparedness, and Response (EPPR), specifically addresses the areas of Marine Environmental Response (MER) and Search and Rescue (SAR) for the Arctic marine environment.

The EPPR is heavily engaged in the development of Arctic response protocols, shared technologies and executing pollution response exercises while drawing representation from the preparedness and response authorities across all eight Arctic nations. The EPPR focuses its efforts on providing support in the development of protocols and procedures for mitigating environmental threats in the Arctic.

The EPPR focuses much of its attention on exercising the *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA Agreement)*. The objective of the *MOSPA Agreement* is to strengthen cooperation, coordination and mutual assistance among the Parties on oil pollution preparedness and response in the Arctic to protect the marine environment from pollution by oil. Efforts include the development of *Operational Guidelines* (Appendix IV of the *Agreement*) that designate notification and request (and offer) for assistance protocols in the event of an incident requiring multilateral coordination. The EPPR works to exercise and maintain this *Agreement* by ensuring all eight Arctic nations remain engaged in multi-lateral discussions, which includes an annual exercise specific to the *Agreement*.

EPPR MOSPA 2016 TTX Overview

The first exercise under the *Agreement* was hosted by Canada in 2014, consisting of a communications exercise that simulated the Notification of parties and the Request for and receipt of Offers of Assistance. In September 2015, the U.S. hosted the next phase of the EPPR MOSPA exercise cycle, a workshop held at U.S. Coast Guard Headquarters. The emphasis of this workshop focused on the identification of the highest risk Arctic spill scenarios, the review of lessons learned from the 2014 Canadian-led exercise, as well as, updating the *Agreement* and *Operational Guidelines*, leading up to the EPPR MOSPA Stage Three TTX.

The EPPR MOSPA 2016 TTX was a three-stage exercise that was intended to engage EPPR member state representatives whose countries may be impacted by an oil spill that is large enough to require the implementation of the multilateral *MOSPA Agreement* and associated *Operational Guidelines*. The exercise began with a standard Notification with international Requests for Assistance, followed by each state analyzing their internal protocols for offering assistance. Finally, all participants met in June 2016 in Montreal to discuss the results of the Notification and Request for Assistance (Stages One and Two).

Summary of Observations and Recommendations

During the TTX, participants shared observations, recommendations and best practices to enhance both the EPPR exercise planning process and the Notification and Request for Assistance process. Several observations / recommendations included:

- Maximizing Use of EPPR Resources (website, Secretariat support).
- Exercises & Training.
- IMO International Offers of Assistance and *MOSPA Agreement* Overlap.
- EPPR Role with other Entities.
- Logistics.
- Liaison: Coordination of the National Response Operations to the MOSPA Organization.
- Communications & Notification.
- Data Sharing / Common Operating Picture.
- Forms.
- Request for Assistance Process.

Complete results of the 2016 EPPR MOSPA TTX are discussed in the Lessons Learned and Best Practices section of this document.

Conclusion

The EPPR MOSPA TTX provided participating nations insight to valuable lessons regarding the Notification and Request and Offer of Assistance protocols for each EPPR member state. The EPPR MOSPA TTX Participants, Design Team, and the Evaluators agreed the exercise objectives were successfully met. The overall efforts of the planners, participants, facilitators and evaluators made EPPR MOSPA TTX 2016 a success for the Arctic Council and all other participating entities.

2016 EPPR MOSPA TTX OVERVIEW

TTX Purpose

The purpose of the 2016 EPPR MOSPA Stage Three TTX exercise was to validate and update, as appropriate, the *MOSPA Agreement* and the associated *Operational Guidelines*. Specifically, the intent was to evaluate the Notification and Request/Offer of Assistance protocols for each EPPR member state in order to enhance collaboration in the event of a real-world incident.

TTX Description

2016 EPPR MOSPA TTX was a three-stage exercise that was intended to engage EPPR member state representatives whose countries may be impacted by an oil spill that is large enough to require the implementation of the multilateral *MOSPA Agreement* and associated *Operational Guidelines*. The exercise began with a standard notification with international Requests for Assistance, followed by each state analyzing their internal protocols for offering assistance. Finally, all participants met on June 13, 2016 in Montreal (Stage Three) to present and discuss the results of the Notification and Request for Assistance (Stages One and Two).

EPPR MOSPA Exercise Planning Cycle

With the initiation of the 2014 Canadian notification exercise, the EPPR began a progression through an exercise planning process that will culminate in an eventual full-scale exercise with a scenario and location as agreed upon by consensus of the EPPR member states. It is recognized that this exercise cycle will cover multiple Arctic Council Chairmanships and will be governed by EPPR initiatives and objectives that may fluctuate along with member state-specific resource and budgetary requirements. The figure below depicts the recommended exercise cycle.

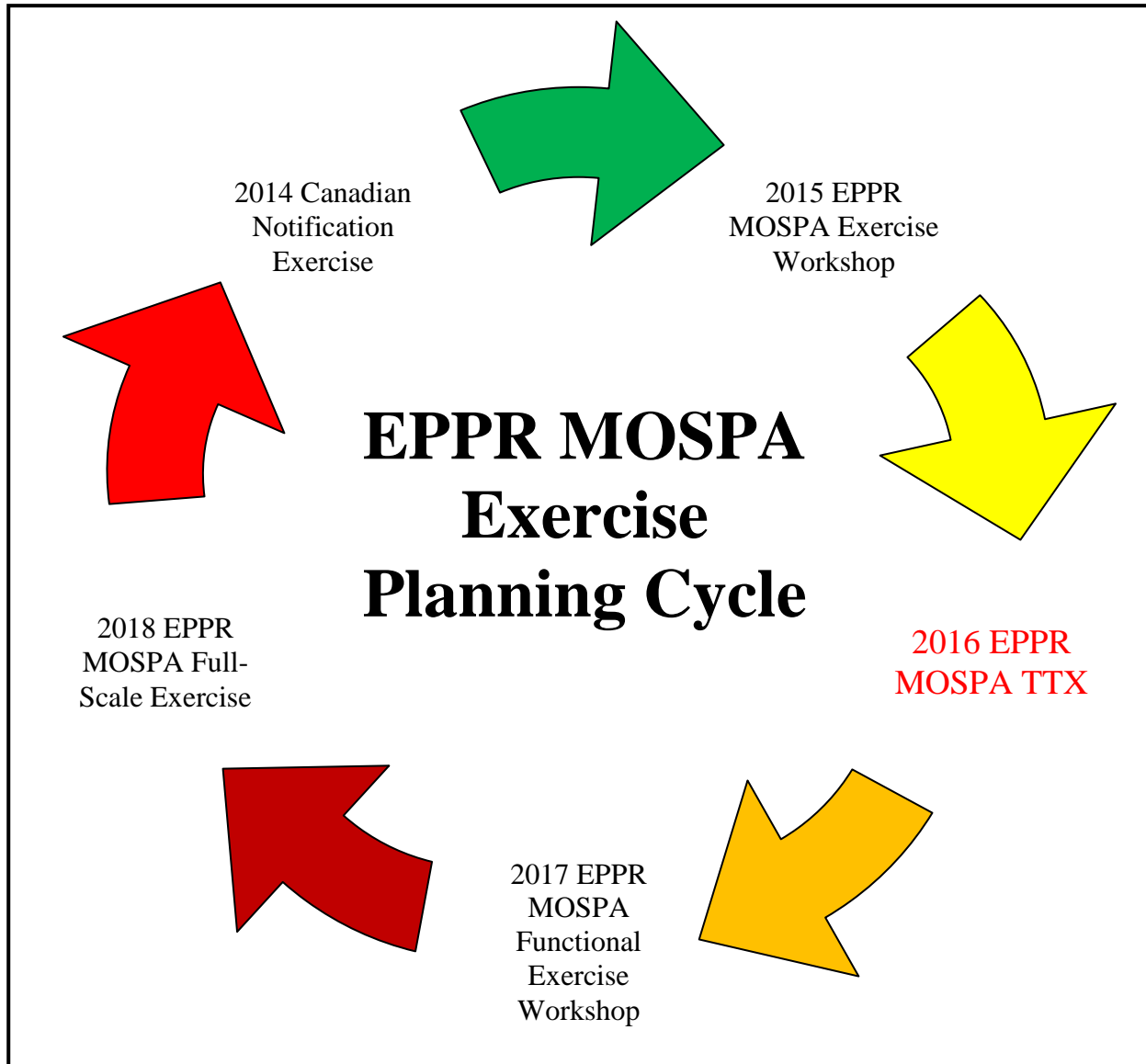
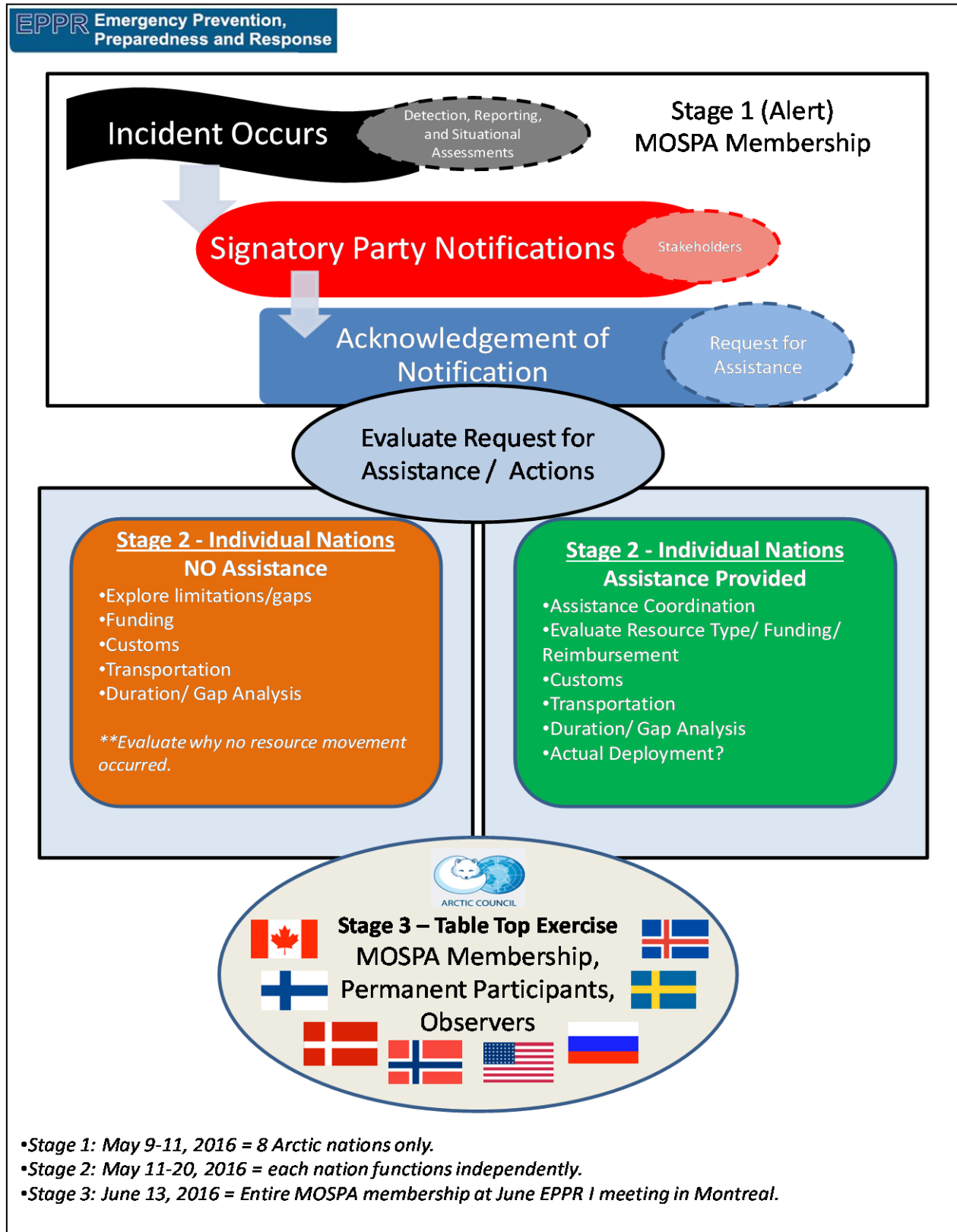


Diagram of the 2016 EPPR MOSPA Exercise



Timelines for 2016 EPPR MOSPA TTX

<i>Stage</i>	<i>Date / Duration</i>	<i>Description</i>
Stage One – Notification and Communications	May 9 – 11, 2016	<ul style="list-style-type: none"> ▪ Norway initiated Stage One w/ the notification of an incident on May 9, 2016. ▪ Acknowledgement of this notification should have been made, by each EPPR member state, w/in 48 hours. Notifications were submitted via phone, fax, or email.
Stage Two – Requests for Assistance	May 11 – 20, 2016	<ul style="list-style-type: none"> ▪ Since the incident exceeded Norway’s national and bi-lateral capabilities, Norway submitted a request for assistance to the other EPPR member states. ▪ Acknowledgement of receipt for this request for assistance should have been made, by each EPPR member state, w/in 48 hours. ▪ Offers of assistance period began on May 12th and ended on May 20th. ▪ EPPR member states utilized Stage Two to review internal protocols for receiving requests for assistance and for providing such assistance to an EPPR member state. ▪ Exploring/ documenting best practices/ challenges were included in this stage in order to develop the country specific report to be presented at the EPPR TTX on June 13, 2016. ▪ Norway, as the scenario host country, reviewed their own internal protocols for receiving assistance and will share those best practices and challenges.
Stage Three – TTX	June 13, 2016	<ul style="list-style-type: none"> ▪ EPPR HoDs (and their representatives), EPPR Exercise Design Team representatives, EPPR leadership (Chair, Vice-chair, Secretariat), Permanent Participants, and Observers met to review Stages One and Two in Montreal, Quebec. ▪ Each EPPR member state presented their country’s effort during Stages One and Two. ▪ The Evaluation Team captured lessons learned during the TTX and provides them in an After Action Report, which was presented before the EPPR HoDs on June 16, 2016.
Post TTX – After Action Report	June – September	<ul style="list-style-type: none"> ▪ Recommendations from the TTX After Action Report, and any potential updates to the <i>Operational Guidelines</i>, will be vetted through the EPPR and forwarded to the Senior Arctic Officials (SAO for approval), through the EPPR Secretariat by the October 2016 SAO meeting, or no later than the end of the U.S. Chairmanship to the Arctic Council.

TTX Agenda (June 13, 2016)

TIME	TOPIC	SPEAKER
0830 – 0900	Registration	Patti Bruns / Sherry Witt/ USCG
0900 – 0915	Opening Remarks/ Introductions <ul style="list-style-type: none"> ▪ Welcome ▪ Opening Comments 	Dr. Amy Merten, EPPR Chair
0915 – 0945	Administration <ul style="list-style-type: none"> ▪ Agenda ▪ TTX Rules & Procedures ▪ TTX Objectives ▪ TTX Process Overview (Stages One & Two Review) ▪ Scenario Briefing 	LCDR Wes James, USCG
0945 – 1005	EPPR MOSPA TTX Scenario Host Presentation	Norway
1005 – 1015	Break	
1015 – 1115	EPPR Member State Presentations <ul style="list-style-type: none"> ▪ 15 minutes each w/ 5 minutes for Q&A ▪ Review Stages One & Two Process ▪ Best Practices, Challenges & Lessons Learned ▪ Enhancements / Improvements / Recommendations 	Norway Canada Denmark
1115 – 1130	Break	
1130 – 1230	EPPR Member State Presentations, cont'd <ul style="list-style-type: none"> ▪ 15 minutes each w/ 5 minutes for Q&A 	Finland Iceland Russia
1230 – 1330	Lunch	
1330 – 1415	Conclude EPPR Member State Presentations <ul style="list-style-type: none"> ▪ 15 minutes each w/ 5 minutes for Q&A 	Sweden United States
1415 – 1445	Open Discussion <ul style="list-style-type: none"> ▪ Identify Best Practices, Challenges & Lessons Learned 	ALL
1445 – 1500	Break	
1500 - 1545	Hot Wash <ul style="list-style-type: none"> ▪ Identify/ prioritize updates to: <ul style="list-style-type: none"> – MOSPA Agreement / Operational Guidelines – Exercise design process ▪ Group Comments ▪ Evaluations 	ALL
1545 – 1600	Final Comments	ALL Dr. Amy Merten, EPPR Chair

Location of Exercise

The 2016 EPPR MOSPA TTX (Stage Three) was held on June 13, 2016 at Le Centre Sheraton Montreal Hotel in Montreal, Quebec, Canada.

TTX Scenario

Russian shuttle tankers are loading Varandey blend crude oil at the Varandey loading buoy in the Pechora Sea, south of Novaya Zemlya in Russia. They transport the oil to Kirkenes, Norway where the oil is transferred by a ship-to-ship (STS) operation to a larger tanker which delivers the oil to the market.

On May 9, 2016, the bulk carrier TWINKLE ISLAND is underway from Murmansk to Vlissingen and the fully loaded tanker DELTA VICTORY is underway from Kirkenes to Rotterdam with “Varandey-crude” as cargo. In heavy fog, the bulk carrier TWINKLE ISLAND collided with the fully loaded tanker DELTA VICTORY on the starboard side in position N 70° 45.125’ E 031° 31.06’, near the Traffic Separation Sone (TSS) outside Vardø. Large quantities, approximately 25,000 m³ crude oil and approximately 1000 m³ Heavy Fuel Oil (HFO) leaked out from the tanker, which carries a Worst Case Discharge potential of 103,000 m³ of crude oil.

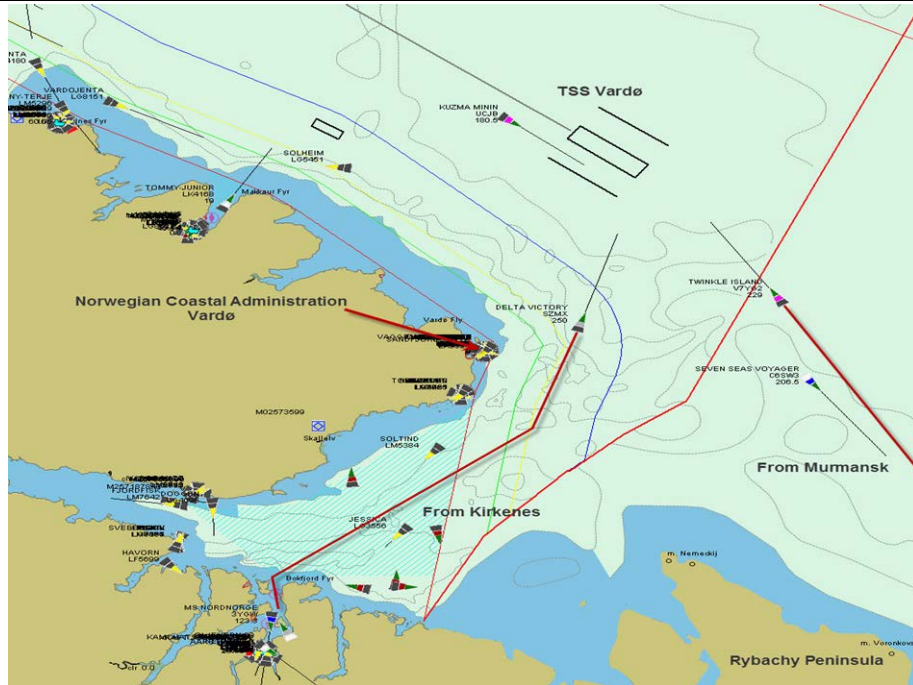
The master of the tanker immediately notified the Coastal Radio Station (CRS) with further notification to the JRCC and the Vardø Vessel Traffic System (VTS). The JRCC initiated a rescue operation and Vardø VTS notified (all notifications on May 9, 2016):

- Norwegian Coastal Administration (NCA) duty team.
- NCA Duty Team notified the Governmental Incident Commander and team along with National Authorities and Ministries.
- As part of Norway’s bi-lateral Barents Sea Agreement, the Russian Federation has also been notified.
- As part of the *MOSPA Agreement*, NCA also notified all EPPR member states.

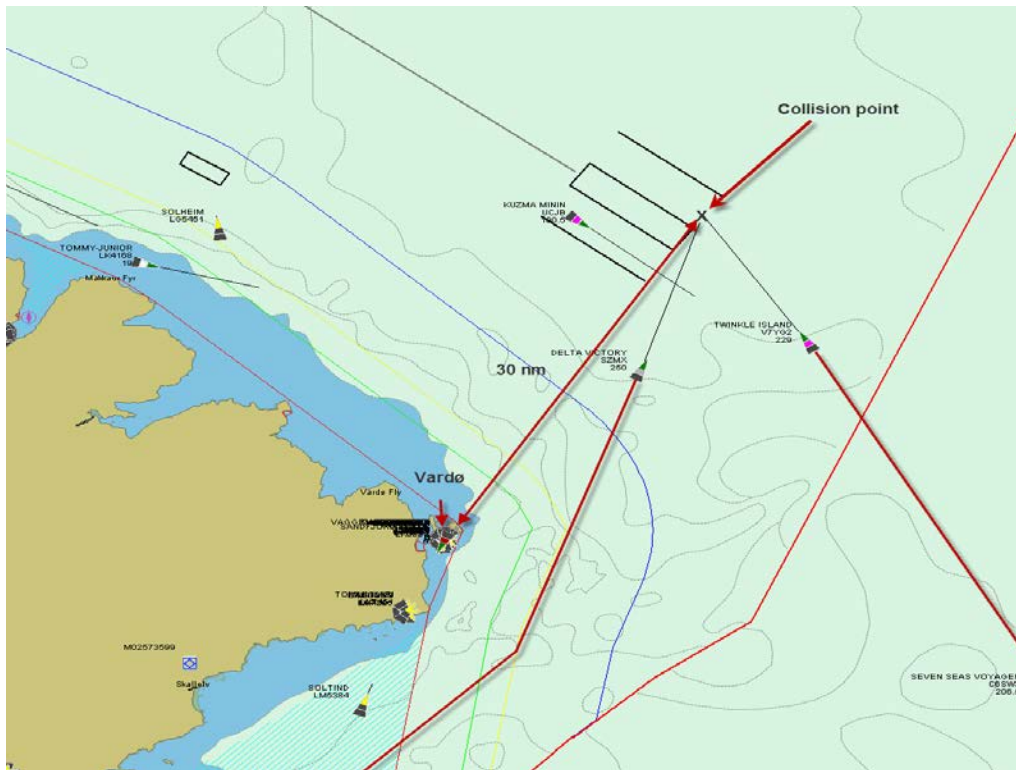
Scenario Key Issues

- The oil drifted against the coast and eastwards. Environmentally sensitive areas are impacted by the oil as it drifts ashore.
- National response resource inventories cannot sustain the response and Norway is seeking assistance through bi-lateral and multi-lateral agreements.
- On May 11, 2016, Norway requested assistance through the *MOSPA Agreement* and associated *Operational Guidelines* to include response equipment, response personnel, and COP/ information technology.
- The incident has generated significant national and international media interest.
- The incident severely limited Norway’s vessel traffic / commercial shipping system.

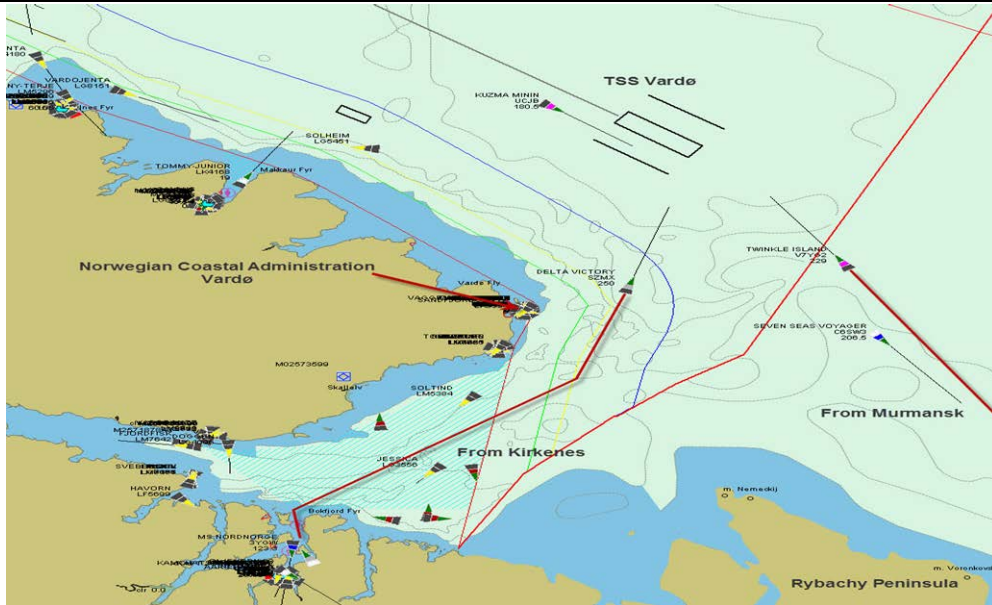
INCIDENT OVERVIEW MAP



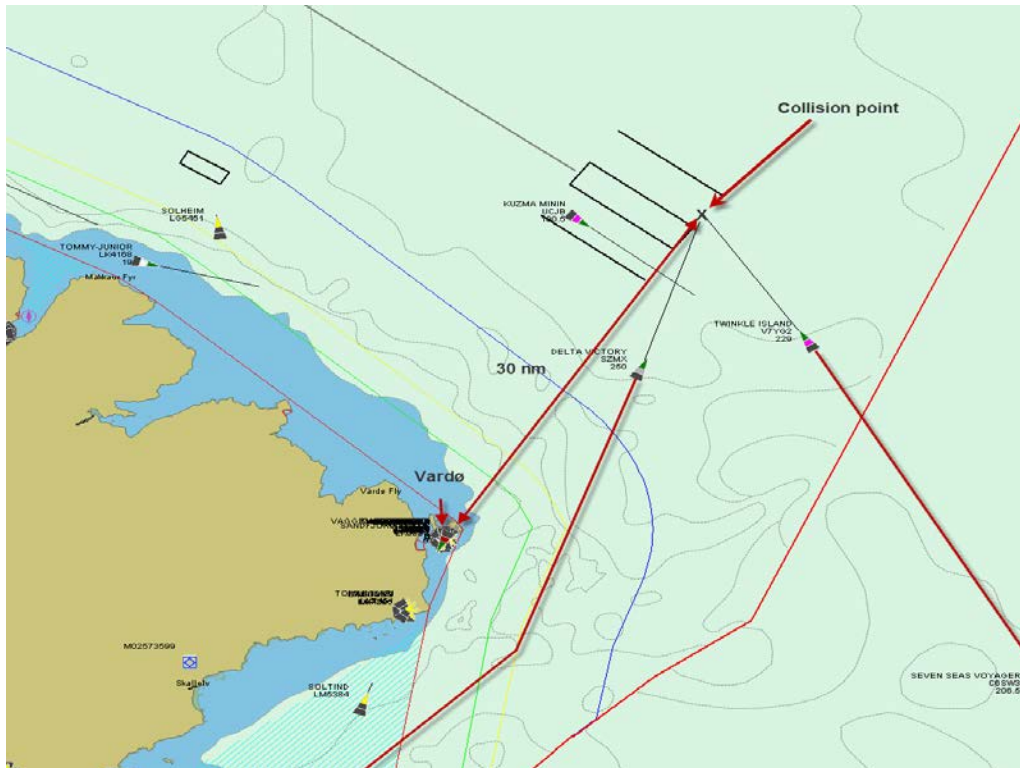
INCIDENT COLLISION POINT MAP



PREDICTED OIL DRIFT MAP



ENVIRONMENTALLY SENSITIVE AREAS



Exercise Design Team (EDT)

Representatives from each Arctic member state were selected based upon their subject matter expertise specific to environmental response within the Arctic marine environment and based upon specific knowledge of the *MOSPA Agreement* and *Operational Guidelines*. Each representative below participated in monthly EDT meetings and teleconferences, developed the exercise objectives and scenario, and collaborated on the development of the exercise planning process that ultimately led to the successful completion of the 2016 EPPR MOSPA TTX.

Arctic Member State	Name	Agency
Canada	David Tinley	Canadian Coast Guard
	Gwen Willems	Canadian Coast Guard
	Larry Trigatti	Canadian Coast Guard
	Joanne Munroe	National Energy Board
	Dan Barghshoon	National Energy Board
	Kent Lien	National Energy Board
Denmark	Jens Peter Holst-Andersen	Defence Command
	Nils Westergaard	Joint Arctic Command
Finland	Jorma Rytönen	Finnish Environment Institute
Iceland	Helgi Jensson	Environment Agency of Iceland
	Olafur Jonsson	Environment Agency of Iceland
Norway	Ole Kristian Bjerkemo	Norwegian Coastal Admin
	Bjorn Helge Utne	Norwegian Coastal Admin
Russia	Igor Veselov	EMERCOM of Russia
	Maxim Zayko	EMERCOM of Russia
Sweden	Bruno Axelsson	Swedish Coast Guard
	Bernt Stedt	Swedish Coast Guard
United States	Tom Ottenwaelder	U.S. Coast Guard
	Wes James	U.S. Coast Guard
EPPR	Amy Merten	EPPR Chair
	Patti Bruns	EPPR Secretariat

Exercise Participants

The 2016 EPPR MOSPA TTX featured representatives from each Arctic member state, as well as Arctic Council Permanent Participants and Observers, who may be impacted by an oil spill that is large enough to require the implementation of the multilateral *MOSPA Agreement* and associated *Operational Guidelines*. Participants reviewed their own internal Notification and Request for Assistance protocols, in Stages One and Two, to determine both best practices and recommendations for improving the overall Request for Assistance process. During Stage Three, nearly forty participants met to discuss the results of the Notification and Request for Assistance exercise stages and developed a consolidated list of best practices and recommendations to enhance the entire EPPR framework. The 2016 EPPR MOSPA TTX included participants, pictured right, from the following organizations and agencies:



EPPR	National Oceanic Atmospheric Administration
	Arctic Council Secretariat
Canada	Environment and Climate Change Canada
	Natural Resources Canada
	Yukon Government
	National Energy Board
	Canadian Coast Guard
Denmark	Defence Command Denmark
	Government of Greenland, Mineral Licence and Safety Authority
	Joint Arctic Command Denmark
Finland	Ministry of the Interior, Finland
	Ministry of the Environment
Iceland	Environment Agency of Iceland
Norway	Norwegian Coastal Administration
Russian Federation	Emercom of Russia
Sweden	Swedish Coast Guard
	Swedish Civil Contingencies Agency
United States	Department of Energy
	National Oceanic Atmospheric Administration
	Bureau of Safety and Environmental Enforcement
	U.S. Coast Guard
Italy	Italian Navy
Singapore	Maritime and Port Authority of Singapore
WWF	WWF Global Arctic Programme

EXERCISE OBJECTIVES & EVALUATION

Exercise Objectives

The following objectives (and sub-objectives) describe the specific goals (and expected outcomes) to be accomplished during the 2016 EPPR MOSPA TTX.

Objective 1: Test and evaluate the incident Notification and Request for Assistance protocols and forms under the *MOSPA Agreement* and *Operational Guidelines* with acknowledgements occurring within 48 hours of initiation of exercise.

- Replicate notification activities from the 2014 exercise to ensure that corrective actions have been met.
- Validate and update, as appropriate, the notification lists (contained with specific annexes of the *Operational Guidelines*) for each nation's point of contact through a pre-TTX "Connectivity Test".
- Measure the time necessary for response to notification.

Objective 2: Test and evaluate country-specific internal procedures for requesting and offering assistance to partner nations.

- Execute or replicate a deployment of resources to requesting nation.
- Identify and document best practices, challenges, and lessons learned to share during the TTX.

Objective 3: Test and evaluate the operability of Arctic Council/ EPPR- recognized systems and databases to facilitate situational awareness and transfer of real-time information across all parties.

- Utilize the Arctic Environmental Response Management Application (ERMA) to provide a common operating picture (COP).
- Identify challenges specific to internal/state-specific connectivity capabilities.
- Enhance, where applicable, the Pan-Arctic Spill Response Equipment Database and provide feedback for the future development of the final system.
- Pre-define the needs of each country with respect to a COP (such as ERMA). Use the needs of each country to identify sharing protocols, identify additional information to add to ERMA, and to identify ways to share information between ERMA and a COP system for each country.

Objective 4: Submit updates (through the EPPR) for all applicable sections and forms within the *Operational Guidelines* after exercising internal national protocols specific to Notifications and Requests for Assistance.

Evaluation Criteria

The evaluation was based on the *MOSPA Agreement* and *Operational Guidelines*. Validating criteria was accomplished through the following means:

- Observing the discussion and collecting support data.
- Analyzing the data to compare discussion with plan documentation.
- Determining possible changes to the *MOSPA Agreement* and the *Operational Guidelines*.

Evaluation Overview

Evaluator/Recorders were situated throughout the room to capture player discussions. A “Hot Wash” was conducted with the players immediately following the completion of the exercise to identify immediate concerns or issues for the group to address before moving into the evaluation phase. Participants provided detailed information on best practices and lessons learned through participant feedback forms that were analyzed and incorporated into this AAR.

LESSONS LEARNED AND BEST PRACTICES

Introduction

The 2016 EPPR MOSPA TTX focused on three elements:

- Notification of an incident from Norway.
- Request for Assistance from Norway to member nations and those member nations Offering Assistance in return.
- Exercising data-sharing between Norway's Common Operating Picture platform to the U.S. Arctic ERMA system.

In keeping with the no-fault nature of this exercise, the evaluation embodied in this report examines the plans and protocols discussed in this exercise. As an evaluated practice, discussions were documented in order to make recommendations for future improvements to the *MOSPA Agreement* and *Operational Guidelines*. Complete results of the recorded observations and recommendations are discussed in the following section.

Maximizing Use of EPPR Resources (website, Secretariat support)

- Observation: Utilize existing technological and administrative support for EPPR activities.
 - Recommendation: Consider maximizing the use of the EPPR resources for the use of:
 - A tool to capture lessons learned across countries.
 - A live document to update and maintain notification points of contact information.
 - A live meeting forum for EPPR planning.
 - Live tracking for notifications and the receipt of notifications for situational awareness during exercises and real world events.

Exercises & Training

- Observation: We do not have a process for tracking lessons learned and recommendations.
 - Recommendation: Create a process for tracking lessons learned and recommendations. A tool should be created that tracks the lessons learned from:
 - Historical EPPR exercises.
 - Bi-lateral Arctic exercises.
 - Other multi-lateral exercise.
 - Real-world events.

- Observation: The current MOSPA exercise process is focused on Notification and the Request for Assistance.
 - Recommendation: Future exercise planning process should investigate individual aspects of the *MOSPA Agreement* (such as funding, customs, liaisons, and logistics).

- Observation: There is a need to assess the 2016 exercise to determine if updates to the *MOSPA Agreement* and *Operational Guidelines* are needed.
 - Recommendation: Each country should provide information for the EPPR website on Stage One and Stage Two after action information. The Exercise Design Team (EDT) should prepare and finalize the 2016 EPPR MOSPA TTX After Action Report (AAR). The EDT should meet in July 2016 to review the AAR and identify updates to the *MOSPA Agreement* and *Operational Guidelines*. The final AAR should be approved by July 15, 2016. Updates to the *Operational Guidelines* should be presented to the EPPR by August 1, 2016 for submission to the Senior Arctic Officials by September 1, 2016.

IMO International Offers of Assistance and MOSPA Agreement Overlap

- Observation: Overlap exists between the *MOSPA Agreement* and the IMO International Offers of Assistance.
 - Recommendation: Cross walk the final IMO IOA with the *MOSPA Agreement* and *Operational Guidelines* to assess the overlap and differences. *Operational Guidelines* and the contact info provide valuable resource across the EPPR and beyond to the IMO.

Balance EPPR Role

- Observation: Multiple forums exist within the Arctic sphere. There may be an overlap of efforts and guidance. The intent is to not duplicate efforts between the EPPR, which is responsible for the *MOSPA Agreement*, and the Arctic Coast Guard Forum.
 - Recommendation: Need to identify how the Arctic Council will take EPPR recommendations and apply them where applicable.
 - Ensure EPPR coordination with other forums: Arctic Coast Guard Forum, Arctic Council Working Groups, Protection of the Arctic Marine Environment (PAME), IMO/IOA process, IMO OPRC, etc.
 - Refine the scope of the Arctic Coast Guard Forum and the EPPR for oil spill preparedness and response.

Logistics

- Observation: There are possible challenges with the alignment between EPPR Member States regarding Operational Security / Safety and Responder Liability.
 - Recommendation: Identify policies and procedures to ensure operational security for resources/ personnel while serving in another country.
 - Ensure work site safety policies are in place.
 - Recommend familiarity and identification of Requesting Party responder liability protocols.

Liaisons

- Observation: Lack of coordination exists specific to incident management logistics and incident support functions regarding international assistance during the response.
 - Recommendation: Identify considerations that are unique to international response coordination (from deployment to demobilization) and develop guidance to facilitate/ address the following:
 - Border crossings (response changes location due to oil movement).
 - Municipalities and areas within the impacted country.
 - Legal/administrative issues.
 - Logistics (resources upon arrival, staging).
 - Future training and exercises.
 - Support the assisting units from the border, airport and port.

Communications

- Observation: Confirmation of administrative and operational contacts as listed in the Operational Guidelines is not consistent nor does it occur when the contact information changes (ideal timeframe). Because this information changes routinely it is up to the EPPR member state to ensure their contact information is updated when appropriate through the EPPR Secretariat.
 - Recommendation: Highlight role of EPPR Secretariat and utilize as a conduit to ensure that information is received and updated as soon as possible.
 - Explore need for a database of contact information for Administrative and Operational contacts (from *Operational Guidelines*).
 - EPPR Member States should maintain their country-specific info in this database, as they are now responsible for their own info being accurate.
 - This database could also be utilized for confirming notifications and acknowledging receipt of request for assistance during activation of MOSPA (real-world or exercise).

- Assess existing systems that may offer this capability; AIES, POLREP, etc.
- Observation: A consistent mechanism for operational updates during a multi-lateral response does not currently exist.
 - Recommendation: Develop protocol for providing daily situational reports. This ensures the accurate flow of information from the Requesting Party to the supporting countries providing Offers of Assistance.

Data Sharing / Common Operating Picture

- Observation: The use of a common operating picture provides valuable information during a response. Sharing of data between EPPR member states to allow countries to utilize their own systems enhances situational awareness. Data sharing between ERMA and the Norway system (Kystinfo) recognized as a best practice due to ease of linking systems and the output products that enhanced situational awareness. However, the lack of coordination and understanding of each country's COP system limited initial coordination.
 - Recommendation: Propose an EPPR sub-WG to address/enhance data sharing/COP capabilities.
 - Review existing data sharing agreements and determine need to develop new ones or enhance language in Operational Guidelines to address COP/ data sharing as a recognized best practice.
 - Continue to explore opportunities for EPPR Member States to share data between systems.

Forms

- Observation: There is a challenge about how to get a single useful form for all Parties.
 - Recommendation: The forms in the *Operational Guidelines* should be modified to consider the following recommendations: streamlining the process with other countries; include other information (funding, operational objectives, time durations, country clearances); balancing simplicity of the form with additional information and data needs; reflects what is in the *Operational Guidelines*; and be in a dynamic, live format to collect information (i.e., inclusion of links) and allow typing / editing directly into the form. Ultimately, the forms would ideally link to a central EPPR website / database in order to maintain an up to date process.
- Observation: Majority of the EPPR Member States use other (i.e. POLREP) processes, which duplicates some of the information in the *Operational Guidelines* forms.

- Recommendation: Reduce duplicity across all notification/ request for assistance processes and forms. Maintain the *Operational Guidelines*, alter the *Operational Guidelines* or consider other existing options.

Request for Assistance Process

- Observation: There is a need to provide guidance to states about how to manage the Offers of Assistance. This guidance should include the following: (1) Prioritizing resources offered; (2) assessing logistical footprint to receive offers; (3) battle rhythm for surging resources; (4) identification of operational parameters/ limitations for equipment and personnel clearly defines expectations; (5) licensing, customs, export/ receiving certain equipment to operate in country; (6) command authority for U.S. resources/ personnel; (7) recommend identifying clear chain of command; how U.S. personnel / resources will integrate into Requesting Party’s response structure; and (8) identification of “In-country” team/ representatives to coordinate with Requesting Party (Norway) mitigates logistical/ operational issues.
 - Recommendation: A process or guidance document should be developed to streamline the contact process with the involved Parties (requesting, assisting). Coordination would involve several calls to resolve issues. Will take a lot of resources for the requesting party. There are many detailed questions that are not necessarily going to be captured in the forms. The process should also include logistics guidance on the transferring of equipment and the prioritization of equipment. Requesting party should focus on requesting a capability versus requesting specific resources. They should also list the operational objectives on the request.

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**APPENDIX A: EXERCISE NOTIFICATION & REQUEST FOR
ASSISTANCE FORM**

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Operational Guidelines

Sample Spill Notification / Request for Assistance Form

Notification

Request for Assistance

1. CONTACT INFORMATION

2.	Date / Time (UTC):	May 9, 2016 / 11:00 UTC	3.	Pages (Including Cover):	7
4 (a).	From (Reporting Party):	Norwegian Coastal Administration HQ	5 (a).	To (Reporting Party):	United States Coast Guard
4 (b).	Name / Position:	Department for Emergency Response	5 (b).	Name / Position:	National Response Center (NRC)
4 (c).	Fax / Telephone:	+4733034949	5 (c).	Fax / Telephone:	Telephone: +1-800-424-8802 Fax: 1-202-267-1322
4 (d).	Email:	vakt@kystverket.no	5 (d).	Email:	NRC@uscg.mil

INCIDENT SPECIFICS

6. Type of Incident (Primary Cause/ Secondary):		Collision	7. Incident date/ time:	May 9, 2016 / 07:00 UTC
8. Product Type:	9. Estimated Volume Released:	Varandey-Crude	25000 m ³ crude oil and approx 1000 m ³ HFO	
10. Source of Pollution:	11. Max Potential:	Vessel	103000 m ³ crude oil, approx 1200 m ³ HFO and 200 m ³ MDO	
12. Is Source Secured?		Yes <input type="checkbox"/>		No <input checked="" type="checkbox"/>
		If Yes -Date/Time/Method Used to Secure:		
		If No – Mitigation Measures Currently in Place:		
13. Geographic Location of Incident:		Traffic Separation Zone (TSS) outside Vardø		
14. Position:		Latitude: N 70° 45.125'		Longitude: E 031° 31.06'

15. ACKNOWLEDGMENT OF NOTIFICATION RECEIVED

15 (a). Date / Time Acknowledged (UTC):		15 (b). Country / Organization:	
---	--	---------------------------------	--

NOTES: Numbering for each section should be utilized to facilitate cross-referencing if using an alternate means of communication. Sections 1 – 5 provide basic contact information for the notifying and receiving parties. Sections 6 – 14 provide incident-specific information. Section 15 details the date / time that the receiving party acknowledges receipt of the incident information. **The notifying party should, at a minimum, send page one of this form when making just the “Notification” with the “Notification” box marked (at top of this page). If a “Request for Assistance” is desired, proceed to the following pages to include additional information and ensure to also include page (1) of this form with the “Request for Assistance” box marked (at top of this page).**

INCIDENT SPECIFIC - ADDITIONAL INFORMATION

16. SITUATION ASSESSMENT			
16 (a). Current Assessment:	Russian shuttle tankers are loading Varandey blend crude oil at the Varandey loading buoy in the Pechora sea, south of Novaya Zemlya in Russia. They transport the oil to Kirkenes, Norway where the oil is transferred by an STS operation to a larger tanker which bring the oil to the market.	16 (b). Complicating Factors:	Shipping traffic, heavy fog
		16 (c). Mitigating Factors:	Weather improving
		16 (d). Other:	<p>The master of the tanker immediately notified the Coastal Radio Station (CRS). The further notification will be:</p> <ul style="list-style-type: none"> • The JRCC has initiated a rescue operation; • NCA duty team was notified by the Vardø VTS; • NCA duty team have notified: <ul style="list-style-type: none"> ○ The Governmental Incident Commander and his team; ○ National Authorities and Ministries; ○ The Russian Federation (Murmansk) is notified according to the Barents Sea Agreement (POLWARN). • National resources (vessels, surveillance aircraft, satellite services etc) are mobilized.
17. SHEEN / SLICK PARAMETERS:			
17 (a). Length & Width:	2.5 km long x 1 km wide	17 (c). Color:	Dark black, brown
17 (b). Odor:	Strong smell of hydrocarbon close to the spill	17 (d). Direction of Movement:	SE towards land
18. WEATHER CONDITIONS:			
18 (a). Air Temperature:	Heavy Fog, light precip	18 (c). Wind Speed:	5.0 m/s
18 (b). Wind Direction:	NW		
19. POLLUTION SOURCE INFORMATION:			
Name of Vessel #1:	Bulk carrier TWINKLE ISLAND	Length of Vessel:	229 m
Tonnage:	GT: 43013	Draft of Vessel:	15 m
Cargo Type:	Bulk Cargo	Cargo Amount:	77678 mt Coal
Fuel Type (Capacity):	HFO 1200 m ³ / MDO 300 m ³	Fuel Amount:	1200 mt HFO / 350 mt MDO
Is the vessel aground?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
20. ADDITIONAL POLLUTION SOURCE INFORMATION:			
Name of Vessel #2:	Tanker DELTA VICTORY	Length of Vessel:	250 m
Tonnage:	GT: 62320	Draft of Vessel:	21 m
Cargo Type:	Crude	Cargo Amount:	103000 mt Crude oil / UN:1267
Fuel Type:	HFO IFO 380/ MDO 30	Fuel Amount:	1200 mt HFO / 200 mt MDO
Is the vessel aground?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

21. FACILITY INFORMATION (IF INVOLVED):

21 (a). Facility Name:	None	21 (c). Type of Damage Sustained:	None
21 (b). Type of Facility (Near shore, Offshore):	None	21 (d). Discharging Pollutants (type)?	None

22. OTHER INFORMATION:

Has the responsible party retained a response organization/ contractor?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
	If so, please list contractor information:			

Additional comments/information (e.g., cause of incident, responsible party information, areas impacted, immediate implications, trajectories, location of ICS command center, etc.)

- A mobilization of national resources continues.
- A request for assistance was submitted to the Russian Federation (Murmansk) Monday evening, according to the Barents Sea Agreement.
- The following additional request for assistance under the MOSPA Agreement is detailed below under section 23 and 23 (a).

23. SPECIFIC REQUEST FOR ASSISTANCE / RESOURCE REQUIREMENTS

<input checked="" type="checkbox"/> Subject Matter Expertise Personnel Support Request	<input checked="" type="checkbox"/> Resource/ Equipment Request
<input checked="" type="checkbox"/> Information Technology Support Request	<input type="checkbox"/> Other

Populate Spreadsheet on the following pages in order to provide resource specific information.

23 (a). RESOURCE SPECIFIC INFORMATION

Equipment Type	Task Option	Sub Type Options	Capabilities	Product Name/ Manufacturer	Owner Name / Contact Info	Other Specifications	Date Needed / Available	Location Needed	Duration Needed
Aircraft / Dispersant	Spray Platform / Spray Equipment Aircraft		Immediate / On-Scene multi-engine/ Spray equipment aircraft	TBD	TBD	One fully equipped dispersant aircraft	TBD	North of Norway port / airport/ location TBD	TBD
Aircraft/Remote Sensing/ Surveillance/ Tracking/ Detection	Specialized equipment for detection and remote sensing	Video systems for visual documentation	Immediate/ On-scene. Multi engine	TBD	TBD	Two fully equipped surveillance Aircraft	TBD	North of Norway port / airport/ location TBD	TBD
Aircraft/ Helicopter	Cargo transports /observation platform	Helicopter	Immediate/ On-scene. Multi engine	TBD	TBD	4 Helicopters for multi-purpose use	TBD	North of Norway port / airport/ location TBD	TBD

Boom	Ocean	Inflatable	Immediate/ On-scene. Boom Height >104 cm	TBD	TBD	30,000 meters ocean boom	TBD	North of Norway port / airport/ location TBD	TBD
Boom	Offshore/near -shore /inland	Other	Immediate/ On-scene. Boom Height >46 to 104 cm	TBD	TBD	10,000 meters conventional boom	TBD	North of Norway port / airport/ location TBD	TBD
Boom	Offshore/near -shore /inland	High speed containment system	Immediate/ On-scene. Boom Height >46 to 104 cm	TBD	TBD	10 units high speed boom	TBD	North of Norway port / airport/ location TBD	TBD
Remote Sensing/ Surveillance/ Tracking/ Detection		Satellite imagery	Immediate	TBD	TBD	area images	TBD	North of Norway port / airport/ location TBD	TBD

Temporary storage	Open ocean	Tank Ship	Capacity needed 60 000 cubic. Immediate/ On-scene (port of entry to be determined)	TBD	TBD	temporary storage for the sea force	TBD	North of Norway port / airport/ location TBD	TBD
Vessels (non-skimming)	(to be populated by Offering party)	Tug boat	12 systems. Immediate/ On-scene (port of entry to be determined)	TBD	TBD	towing/handling booms close to the coast	TBD	North of Norway port / airport/ location TBD	TBD
Vessels (skimming)	Self-contained (dedicated) oil recovered vessel. (SORV)	multi-purpose skimmers	10 systems. Immediate/ On-scene (port of entry to be determined)	TBD	TBD	operating open sea	TBD	North of Norway port / airport/ location TBD	TBD
Personnel	Private /government/ non profit	Incident Management Team (IMT)	individual experts	TBD	TBD	varying qualifications: ICS Experts , SCAT Experts, Dispersants Experts	TBD	North of Norway port / airport/ location TBD	TBD

Personnel	Private /government/ non profit	Areal observer	Liaison	TBD	TBD	various Liaison personnel experts on offered systems	TBD	North of Norway port / airport/ location TBD	TBD
Personnel/ Shoreline Cleaners	Private /government/ non profit	Manual cleaners/ Shoreline Clean-up and assessment Technique (SCAT) team members	300 people	TBD	TBD	working in teams	TBD	North of Norway port / airport/ location TBD	TBD
Personnel / bird cleaners	non profit	Manual cleaners /others	50 people	TBD	TBD	working in teams	TBD	North of Norway port / airport/ location TBD	TBD

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**APPENDIX B: COUNTRY-SPECIFIC REPORTS FOR
STAGES ONE & TWO**

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The following country-specific information highlights the information as presented by each EPPR Member State representative during the 2016 TTX.

NORWAY

Stage One and Stage Two Lessons Learned

- The forms might be in an easier format for making inputs, i.e. word document.
- If fax should be used in the future, the form might be changed: one column with fax number and one column with phone number?
- To prepare one separate document to each country is very time consuming. If possible, we might include all parties in one form?
- Is it necessary to confirm with a form? Is just a reply by e-mail or phone satisfactory?
- If no confirmation within e.g. 15 or 30 minutes, there might be guidance that the notifying party should call the other party.
- Despite the Connectivity test in February, we discovered several changes in contact info. How can we secure that the contact information is correct in the future?
- The phone and fax numbers must be written clearly with country code and correct numbers. National free numbers seems to be a challenge.
- The notification and request for assistance through the bilateral agreement between Norway and the Russian Federation worked well. We also used this contact point for further contact to Russia.
- We informed in the e-mail to Russia about other parties in Russia that also received the request for assistance. Is this procedure needed?
- What is included in the estimated daily cost? For example, is fuel and manning included in the estimated cost?
- What kind of capacities do the vessels have (pulling capacity, oil recovery capacity, equipment onboard etc.)?

CANADA

Stage One Lessons Learned

- Canada continues to work to improve our internal notification procedures for the Government Operations Centre.
- All forms contained the required information necessary for Canada to make initial decisions.
- Suggest including a map / graphic of impacted area, along with spill trajectories, if possible, in the forms.
- This same information will be reviewed and confirmed in the MOSPA Appendices.
- Notifying nation could consider use secondary contact points if they do not receive notice of receipt.

Stage Two Lessons Learned

- Suggest including information on overall response objectives in the Request for Assistance.
- May help receiving nation prioritize assessment of available, effective assets and personnel.
- In theory, the overall Request for Assistance process works for Canada, but Canada continues to work to improve our internal notification procedures for the Government Operations Centre.
- Canada and the US may wish to discuss how both North American Coast Guards can assist each other in sharing information and support to requesting nation.

DENMARK

Stage One Lessons Learned

- Internal information sharing and notification worked well.
- Initial incident notification had basic and sufficient information for establishing a first impression of the incident, but should if possible be combined with available graphic materials (charts etc.).
- The overall Notification process work well.
- The KoD experienced some challenges concerning information sharing due to use of unique forms only related to MOSPA. Other Bi- and multilateral agreements use the POLREP reporting system.

Stage Two Lessons Learned

- More information concerning practical/legal issues regarding liaison officers and related duties.
- The overall Request for Assistance process work well.

Exercise Planning Feedback

- It was a good and informative planning process.
- It is recommended that the exercise manual shall be available as early as possible.
- It is recommended to hold a final planning conference (e.g. Webinar). It seemed that there were a lot of issues in the last meeting, and it warranted a final meeting to address them to the group.

FINLAND

Stage One Lessons Learned

- Finland do not have any special recommendations or concern related the Operational

Guidelines.

- The Notification and Request for Assistance, however, differs from the HELCOM system in operational use in the Baltic Sea area. HELCOM's way is the priority in the Baltic Sea area.
- Furthermore, Finland is also facing EU's own alert systems related to Civil Protection and the use of their CECIS system.
- Fourth level of alert procedures here is the Copenhagen agreement, thus in the case of some large-scale accidents, for example in the Northern Part of the Gulf of Bothnia, a set of Notification and Alert procedures need to be considered case by case and phase by phase.
- The Notification process used in the Stage One worked ok.

Stage Two Lessons Learned

- Request (and Offer) for Assistance:
 - Request for assistance was received by MRCC and delivered to SYKE without delay.
 - SYKE's duty officer called Norway and confirmed certain facts – Syke personnel studied the request and processed their response.
 - Booms and special container for wildlife treatment were offered.
 - Swedish Coast Guard contacted us (SYKE) and joint agreement was made: Sweden will offer their KBV-vessel – in 2014 Table Top Exercise (led by Canada) Finland contacted Arctia Shipping and Finnish Lamor Ltd, and was able also to offer one icebreaker and extra amount of booms. In real emergency situation we are used to use our network in the Baltic Sea area.
- Finland has a lot of boom and special equipment in depots. Their availability for any assistance request is larger in the winter time due to the fact that booms etc. cannot be used in ice. Sending out large amounts of this material must not endanger the national preparedness level too much.
- Information received was ok. In a real situation details need to be confirmed by direct contacts.
- The updated forms (Notification, Request for Assistance, etc.) captured all of the pertinent/ required information. Next exercises and simulated cases, however, will give new lessons learned to update current tools.
- Need to identify how the Arctic Council will take EPPR recommendations and apply them where applicable. Need to refine the scope of the Arctic Coast Guard Forum and the EPPR for oil spill preparedness and response although taking also into account that the Arctic Coast Guard Forum does not have representatives from the main designated response authorities in all countries.
- When exploring need for a database of contact information for Admin and Operational

contacts (from Operational Guidelines) provided in accordance with the rules in article 5 of the MOSPA-agreement. Explore the possibilities to adjust the MOSPA-agreement to facilitate an easy way to update the quite frequently changing contact details of relevant authorities.

Exercise Planning Feedback

- Exercise Planning Feedback
 - Assistance Request phases need to be tested :
 - In table tops.
 - Within full-scale exercises or in simulated exercises where certain parts will be run using fast time simulation(s).
 - Some exercises need to be run following the simulated time frame to understand the logistical demands (how long it would take to send and receive assistance, etc.).

ICELAND

Stage One Lessons Learned

- Notification process:
 - EAI has an administrative role and ICG has an operational role.
 - EAI contacts ICG when notified. Short briefing discussing status and possible assistance.
 - EAI, ICG and the Icelandic Transport Authority (ITA) will meet under certain circumstances to discuss scenarios and solutions.
 - Depending on threat or threat type more agencies could be involved e.g. the Icelandic Radiation Safety Authority.
- Cooperation between ICG (operational) and EAI (administrative) is very good. Emergency phone forwards calls to EAI specialists.
- What type of information should be included in the initial incident notification?
 - date and time, position, short description of incident, type of vessel and type of possible pollution and amount/sizes.
- Iceland has no comments regarding the updated forms.
- Lesson learned for Stage One:
 - *Fax machine number not correct in the Operational Guidelines (OG). E-mail not present for EAI in OG.*

Stage Two Lessons Learned

- Request (and Offer) for Assistance:
 - Norwegian Coast Guard requested assistance to JRCC - ICG (operational role) on

the 11th.

- Due to an ongoing operation, formed was noticed on the 12th. Form filled out and sent to EAI (Admin role) on the 17th. EAI sent offer of assistance on the 20th.
- Resources offered were:
 - 1 fully equipped maritime surveillance aircraft (MSA) transported to area
 - Dash 8, Q300 w/SLAR, EO/IR and search radar equipped for remote sensing.
- Best practices:
 - Exercise went smoothly. *Short lines of communications.*
 - JRCC ICG has a “hotline” to EAI – always someone on call.
- Challenges:
 - Should the request for assistance be sent to both admin and op?
 - The focus should be directed more on which sources are needed.
 - The request procedure was well executed and the process fits well overall for Iceland.

Exercise Planning Feedback

- A live database or document (e.g. Google doc) picturing participant status from each country. A live database could give an overview to several different agencies in the same country participating in exercise.
- Confirmation from end receiver would have been appreciated (to administrator – EIA).

RUSSIA

Stage One and Stage Two Lessons Learned

- Best Practices, Challenges & Lessons Learned
 - Passed connectivity test in 2014 within information shared between ministries.
 - Release of equipment and vessels for scenario were sent to Norwegian site.
 - Emails and faxes changing and sometimes non-receipt misunderstood.
 - Continue to work on updating contact points.
 - Every year phone numbers are changed by phone companies.
- Enhancements / Improvements / Recommendations
 - Need another agreement for oil pollution on shoreline.
 - National Response Center for information exchange.

SWEDEN

Stage One Lessons Learned

- It was a challenge to use the templates since they differ from the ones we normally use in all other agreements.
- What type of information should be included in the initial incident notification?
- Do the updated forms (Notification, Request for Assistance, etc.) capture all of the pertinent/ required information? Yes, except that there should be somewhere to indicate the cost for offers. (Not for the notification phase).
- Are you aware of any incorrect or missing contact information that you would like included in the Operational Guidelines? One wrong e-mail in first contact was corrected in our reply. We made a correction at the last telephone conference just before the start of the exercise but still this was not communicated to everyone.
- Does the overall Notification process work for your country? Yes

Stage Two Lessons Learned

- Do you have an internal Request (and Offer) for Assistance best practices that you would like to share? To have some idea on how much of national resources you can offer without putting your own country/region at risk (SE 25-30% in general).
- What type of information should be included in the Request for Assistance? More wanted/needed functions of than specified equipment.
- Do the updated forms (Notification, Request for Assistance, etc.) capture all of the pertinent/ required information? Yes.
- Are you aware of any incorrect or missing information specific to Requests and Offer of Assistance that you would like included in the *Operational Guidelines*? Indication of cost.
- Does the overall Request for Assistance process work for your country? Yes

Exercise Planning Feedback

- Good with a connectivity test in advance.
- Teleconferences between physical meetings good.
- Choice of scenario has to be balanced – big enough to pose challenges but not a disaster.
- Good work done by US – thank you!

UNITED STATES

Stage One Lessons Learned

- **Best practices:**
 - Utilizing a central collection point for receiving information.
 - Disseminating that information via a conduit.
 - Ensuring our decisional entities are involved early (Dept of State).
 - Agency’s familiarity with EPPR/ MOSPA process.
 - Increased awareness across Nat’l Response Team of U.S. role in Arctic.
- **Challenges:**
 - Email only successful method during Stages One & Two.
 - Only had 1-800 # for Nat’l Resp Center listed in Operational Guidelines.
 - Recommend update to include “202” numbers.
 - Information flow from Nat’l Response Center to the Nat’l Response Team agencies worked well but not formally defined.
 - Developing new notification policy for international incidents / exercises.
 - Managing real-world events from a political standpoint in a 24-hour news cycle.
 - Does the overall Notification process work for your country?
 - Yes, with above recommendations.

Stage Two Lessons Learned

- **Best practices:**
 - Utilizing a central collection point/ agency for consolidating offers of assistance.
 - Incorporating State entities early on facilitates multiple processes.
 - Beta-tested Request and Offer of Assistance forms capture majority of pertinent/ required information.
 - Identification of “In-country” team to coordinate with Requesting Party (Norway) mitigates logistical/ operational issues.
 - Identification of operational parameters/ limitations for equipment and personnel clearly defines expectations.
 - Maximize opportunity to align w/ existing international agreements.
- **Challenges:**
 - Funding: agencies desired clearly defined funding commitments prior to deployment.
 - Recommend update to Operational Guidelines / Forms to better ID funding mechanisms.

- Operational updates/ tracking:
 - Recommend protocol for providing daily situational reports.
- Understanding Requesting Party’s logistical footprint will facilitate surging rhythm for resources/ personnel.
 - Recommend Requesting Party ID capabilities/ time duration (short vs. long term) for receiving requested resources.
 - Licensing, customs, export/ receiving certain equipment to operate in country.
- Command Authority for U.S. resources/ personnel.
 - Recommend identifying clear chain of command; how U.S. personnel / resources will integrate into Requesting Party’s response structure.
 - Identification of “In-country” team/ representatives to coordinate with Requesting Party (Norway) mitigates logistical/ operational issues.
- Operational Security / Safety.
 - Recommend identifying policies/ procedures to ensure operational security of U.S. resources / personnel while serving in another country.
 - Ensure equitable health/work site safety policies in place.
 - Identify protocols for treating U.S. personnel injured on response.
- Private Contractors/ Resources/ Responder Liability.
 - Recommend Requesting Party ID upfront if requesting only governmental resources or private resources as well (OSROs). How would this work?
 - Recommend familiarity & identification of Requesting Party responder liability protocols.
- Forms
 - Recommend alignment with International Offers of Assistance IMO guidelines (i.e., reimbursement process, common lexicon).
 - Include financial information on forms.
 - Include country clearance protocols/ requirements on forms (visas, passports).

Exercise Planning Feedback

- Maintain open communication.
- Set clear expectations.
- Ensure consistent participation in teleconferences/ meetings.
- In-person meetings preferred.
- Maintain multi-country approach.
 - Host nation, evaluators, exercise lead, etc.
- Strive for eventual full-scale exercise.

APPENDIX C: EXERCISE PARTICIPANT FEEDBACK SUMMARY

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Evaluation Form Summary

At the conclusion of the tabletop exercise, participants were provided the opportunity (via participant feedback form) to provide observations and recommendations concerning the content and conduct of the exercise.

Exercise Assessment (Scale 1-5; 1 – Strongly Disagree, 5 – Strongly Agree)

A. The exercise was well-structured and organized.	4.95
B. The exercise scenario was plausible and realistic.	4.72
C. The construct of the scenario allowed for me to carry out my position.	4.27
D. Participation in the exercise was appropriate for someone in my position.	4.18
E. The participants included the correct people in terms of level and mix of disciplines.	4.18

Observations and Recommendations

- Make use of regional skills and capabilities.
- Align forms to existing to existing agreements and interoperable systems.
- Start with past recommendation and resolutions to prevent repeating work.
- Compile a list of technical capabilities for data sharing/mapping and points of contact.
- Organize a follow-up meeting focusing on COP / data-sharing management.
- Ensure design principles and objectives build upon and reference recommendations from previous EPPR MOSPA AARs.
- Incorporate comments from the open discussion into the next exercise.
- Link lessons learned to the next MOSPA exercise?
- Continue scheduling exercise planning meetings with EPPR meetings.
- Conduct tabletop exercise with all MOSPA nations to (hear/see) what is going on; allows questions and answers in the room.
- Expand exercise objectives beyond initial notification, i.e. funding, logistics.
- Follow up with same type exercise and have the opportunity to look “deeper” into issues.
- The EPPR MOSPA exercise process should be kept at strategic level and not guiding nation-state processes and implementation.
- Push for policy decisions rather than minor tactical/practical matters.
- Take time to implement lessons learned in Guidelines, etc.
- Resolve contact phone numbers and email issues.
- Stress the importance of communications and implementation of a notification and receipt process.
- Countries identified internal issues that need to be resolved.
- Conduct a review meeting with experts (informal) discussing the pros and cons of what went right and wrong.

Exercise Hot Wash

- Exercise Objectives were achievable.
- Scenario: Utilize library of scenarios developed at the 2015 Workshop.
- Exercise Documentation: Build off of these documents for the future.
 - o Make our exercise products available to other Arctic forums.
 - o Posting of the 2014 and 2016 After Action Reports.
 - o Report to the Ministries on this exercise would be helpful.
- Exercise Design Team
 - o There was a good balance of size to allow for efficiencies.
 - o Share roles and responsibilities. This is a U.S.-led exercise, using a Norwegian scenario, conducted in Canada, with evaluators from Finland and Canada.
- Meetings: Coordinating with other meetings was helpful for exercise planning.
- Technology: Teleconferences have limitations. Utilizing a "Webinar" will mitigate when in person meetings are not possible.
- Design: Phased (multiple stages) approach very valuable, utilize when appropriate for future exercise.

APPENDIX D: STAGE THREE PARTICIPANTS

2nd MOSPA Table Top Exercise - Montreal, Quebec, Canada, June 13, 2016

Full Name	Email Address	Company	Job title
EPPR			
Merten, Amy	amy.merten@noaa.gov	NOAA	Chief, Spatial Data Branch
Bruns, Patti	patti@arctic-council.org	Arctic Council Secretariat	Executive Secretary - EPPR
Canada			
Bryant, Tanya	tanya.bryant@canada.ca	Environment and Climate Change Canada	Manager, Environmental Emergency Policy
Chouinard, Francois	francois.chouinard@canada.ca	Natural Resources Canada	a/Deputy Director, Offshore Petroleum Management Division
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Fraser, Patrick	Patrick.Fraser@dfo-mpo.gc.ca	Canadian Coast Guard	Operations Support
Kingdom of Denmark			
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Norway			
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Utne, Bjørn Helge	bjorn.helge.utne@kystverket.no	Norwegian Coastal Administration (Kystverket)	Senior Adviser
Russian Federation			
Zayko, Maxim	mchs-mz@yandex.ru	Emercom of Russia	Deputy Director of the International Department
Sweden			
Stedt, Bernt	bernt.stedt@coastguard.se	Swedish Coast Guard HQ	Head of Response
Danielsson, Annette	annette.danielsson@msb.se	Swedish Civil Contingencies Agency	Strategic Adviser
United States			
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Helton, Doug	Doug.Helton@noaa.gov	NOAA	Operations Supervisor
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Kentch, Eugene	eugene.s.kentch@uscg.mil	U.S. Coast Guard	Senior Exercise Planner
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Moore, David	david.moore@bsee.gov	Bureau of Safety and Environmental Enforcement	Chief - Oil Spill Preparedness Division

Ottenwaelder, Thomas	thomas.a.ottenwaelder@uscg.mil	U.S. Coast Guard	Commander
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Witt, Sherry	sherry.witt@csra.com	CSRA	USCG Contractor
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Singapore			
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