



SAO Meeting
Yellowknife 26-27 March 2014

Hugi Ólafsson
PAME Chair




PAME Agenda Items

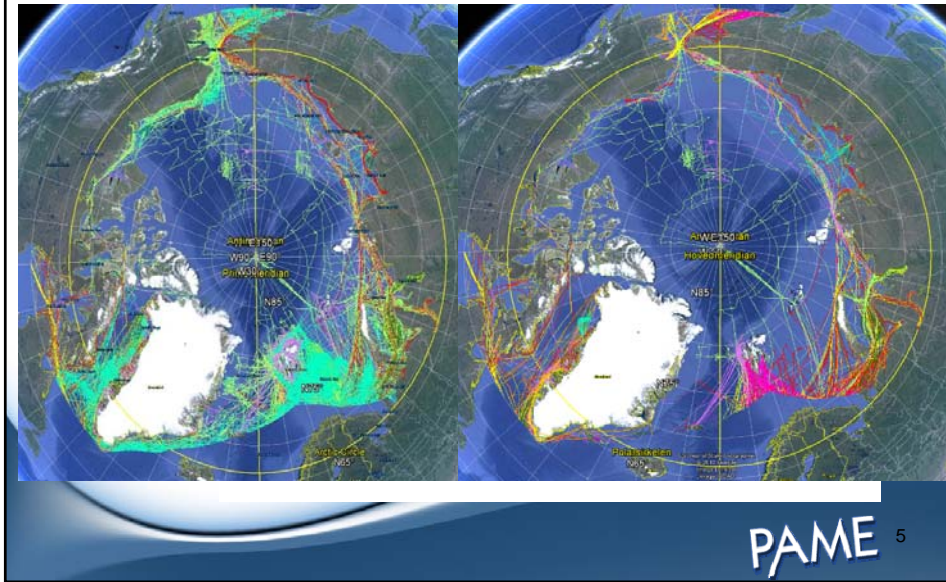
Agenda item 5.2.1: Arctic Marine Shipping Assessment (AMSA) Follow-up

- *AMSA I(B): Heavy Fuel Oil (HFO) Phase II and IIb Reports*
- *AMSA II(D): Specially Designated Marine Areas in the Arctic Report*
- *AMSA I(D): The Arctic Marine Tourism Project (AMTP)*

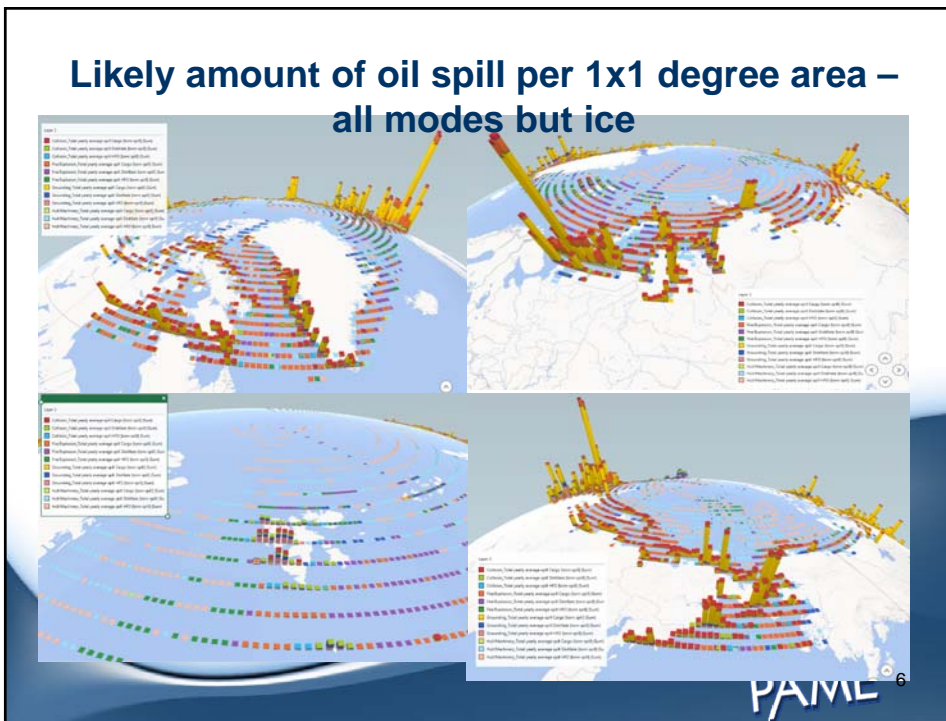
Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report



All vessels versus HFO vessels



Likely amount of oil spill per 1x1 degree area – all modes but ice



PAME I-2014 RoD

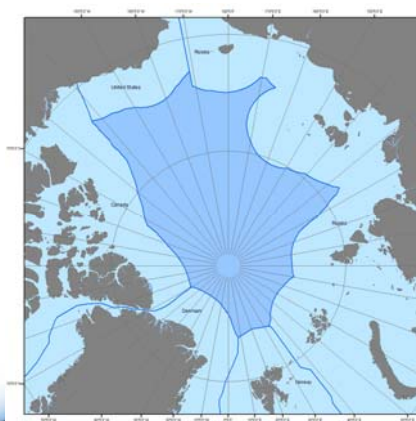
*PAME welcomes the valuable contribution of the final HFO Phase II and IIb reports and requests the Secretariat to **post them to the PAME website related to background documents**. Taking into account these reports and any other relevant information, PAME invites member governments **to identify and inform PAME II-2014 of any discrete marine areas that would benefit from a more detailed risk analysis** that would also take into consideration areas of heightened ecological and cultural significance and such other elements that may be appropriate (e.g. age of ships).*

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Agenda item 5.2.1: Specially Designated Marine Areas in the Arctic Report (AMSA II(D))

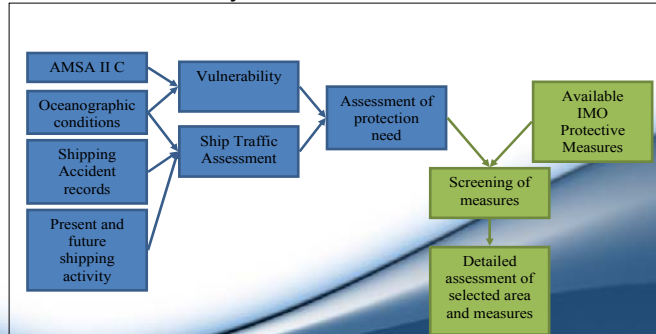
Co-Leads: Canada, Finland, Norway, Russian Federation, United States

Objective: to explore the need for, and as appropriate make recommendations regarding internationally designated areas in the high seas area of the Arctic Ocean that warrant protection from the risks posed by international shipping activities



Scope and approach

- The objective is to explore the need for, and as appropriate make recommendations regarding, internationally designated areas in the high seas area of the Arctic Ocean that warrant protection from the risks posed by international shipping activities.
- It is emphasized that this report focuses solely on the high seas area of the Arctic Ocean. No assessment is made regarding the need to protect designated areas which are under the jurisdiction of the Arctic Ocean coastal states.



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Executive summary – Part I

- **Part I explores the need for protection of the high seas area and describes two main issues A) traffic volumes and B) vulnerability of the area:**
 - Present ship traffic is very limited (0.7 ship years per annum).
 - Estimates for future ship traffic are very uncertain. The *High* scenario point to an exposure of 15 ship years per annum.
 - The risk of shipping accidents is low in comparison with almost any other area.
 - The most prominent natural property of the area is the sea ice conditions with strong seasonal variations.
 - Even if the vulnerability of the area is evident, there are significant limitations to the present state of knowledge. Pack ice is globally unique, and vulnerability to future shipping activity is most pronounced for polar bears and two species of gull; primarily to oil spills.

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Executive summary – Part II

- **Part II of report reviews available IMO measures suited to protect vulnerable areas, in particular the Special Areas (SA) option and the Particularly Sensitive Sea Area (PSSA) option.**
 - DNV conclude that it is difficult to find support for Special Area (SA) designation under MARPOL. Possible to pursue the application of a PSSA for providing additional protection of the Arctic high seas.
 - Three possible avenues to pursue the PSSA option are outlined.
 - A “Core sea ice area” as a sanctuary for unique and vulnerable Arctic high seas ecosystems, and to protect this through a PSSA designation with Areas to be avoided is considered the most feasible option.
 - This option ensures protection of an increasingly important core area, but will likely not impede movement on the high seas

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Overview of discussed protection options

Option	Description	Pros	Cons
1	<ul style="list-style-type: none"> • The Arctic high seas area is designated a PSSA in its entirety • A VTS with SRS is established to monitor traffic. • Areas to be avoided are enforced in the PSSA in a dynamic fashion, reflecting the movement of the ice edge etc. 	<ul style="list-style-type: none"> • Potentially very effective shielding of sensitive areas 	<ul style="list-style-type: none"> • Likely major impact on freedom of movement on the high seas • Low levels of predictability • Difficult to administrate and effectuate
2	<ul style="list-style-type: none"> • The Arctic high seas area is designated an PSSA in its entirety • A VTS with SRS is established to monitor traffic and offer guidance 	<ul style="list-style-type: none"> • The PSSA status enhances awareness and vigilance 	<ul style="list-style-type: none"> • No direct added protection
3	<ul style="list-style-type: none"> • One or more “core sea ice area» is defined to establish a PSSA • Areas to be avoided enforced 	<ul style="list-style-type: none"> • Ensures protection of an increasingly important core area. • Will likely not impede movement on the high seas. 	<ul style="list-style-type: none"> • Large areas left without added protection

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PAME I-2014 RoD

*PAME welcomes the valuable contribution of the final AMSA II(D) report and requests the Secretariat **to post it to the PAME website related to background documents**. PAME invites member governments **to submit to PAME II-2014 their views on the report recommendations**. As part of these views, member governments are invited to indicate whether, and if so how, international protection for the high seas area of the Central Arctic Ocean might be pursued by Arctic States at IMO.*

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Agenda item 5.2.1: The Arctic Marine Tourism Project (AMTP)

Co-leads: Canada and the United States

Authorizing Documents:

- Senior Arctic Officials Report to Ministers (15 May 2013)
- The 2013 AOR Final Report, Recommendation 4
- The PAME 2013-2015 Workplan
- The 2013-2015 Canadian Chairmanship of the Arctic Council (sub-theme of 'safe Arctic shipping')

Objective:

The AMTP represents the first project in a potential suite of renewed efforts by the Arctic Council to analyze and promote sustainable tourism across the circumpolar Arctic. Organized through the Protection of the Arctic Marine Environment (PAME) Working Group, the AMTP will focus on aspects of shipborne tourism that fall outside the responsibility of the International Maritime Organization (IMO), and will result in the convening of two dedicated workshops, ongoing intercessional work, and the creation of a final 'Best Practice' report for endorsement by Arctic Council Ministers in Spring 2015.

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The Arctic Marine Tourism Project (AMTP) Status - March 2014

- AMTP scoping workshop in February 2014 in Girdwood, Alaska to review the draft AMTP workplan prepared by Canada.
- On 13 February PAME approved in principle the AMTP workplan
- Canada hosted the inaugural AMTP workshop on 18-19 March in Ottawa.
- Over 30 participants from government (including northern communities), industry, academia and the NGO community attended.
- The objectives of this two day workshop were:
 - To generate multi-stakeholder discussion on emerging trends and environmental, economic and social impacts (positive and negative) related to marine tourism across the Arctic Region.
 - To distil the essence of these discussions into a workshop report which will be used to inform the development of 'Arctic Marine Tourism Best Practices.'

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The AMTP: Next Steps

- Upon completion, the AMTP workshop report will be circulated to the broader PAME and Arctic Council community for review and comment.
- A second workshop is tentatively scheduled for early fall in Northern Canada.
- The combined outcomes of both workshops, along with work conducted intercessionally, will form the backbone of a proposed Arctic cruise tourism 'Best Practices' document that will be submitted to the SAOs and Arctic Ministers for approval.
- In addition to this 'Best Practices' document (scheduled for submission by spring 2015), future complementary deliverables building off of it also anticipated at a later date.

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Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report

Lead: United States

Objective: Avoiding major disasters in Arctic offshore oil and gas operations through improving safety management systems and safety culture



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Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report

Project History

- | | |
|-------------------------|---|
| – September 21-24, 2011 | Project Approved for the Workplan |
| – March 26-27, 2012 | Project Started at PAME I 2012 |
| – June 10-12, 2012 | HSE Workshop with EPPR RP3 |
| – September 16, 2012 | Safety Culture Workshop |
| – May 15, 2013 | Workshop Reports Published |
| – August 1, 2013 | First Draft HSE Management Systems Report and Guidance sent for National Review |
| – November 25, 2013 | Second Draft sent for “technical” National and Peer Review |
| – December 21, 2013 | Technical writer/editor begins drafting final report |
| – January 14, 2014 | Draft Report Circulated for final National Review |
| – February 13, 2014 | Report Approved by PAME |

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Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report

Report Structure

Executive Summary

1. Introduction, Background & Context
2. Purpose, Scope & Format of Guide
3. Target Audience(s)
4. The Challenging and Diverse Arctic Operating Environment
5. Importance of Safety Culture
6. Lessons Learned from International Experience
7. Some Regulatory Regimes and Standards Around the Arctic
8. Guidance Tools and Approaches for Improving Safety Culture and Safety Management Systems

9. Conclusions

Appendices

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Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report

Appendices

- A. Comparisons of Selected National Safety Management Systems Requirements
- B. Deepwater Horizon Findings and Recommendations and Results of Regulatory Reviews and Reforms from the HSE Management Systems and Safety Culture Workshops
- C. List of Deepwater Horizon Investigations
- D. List of selected published HSE Guidance
- E. Current National HSE Initiatives
- F. Safety Culture - Definitions, Attributes and Indicators
- G. Some Regulatory Coordination Mechanisms
- H. Existing Arctic Council Guidance

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Agenda item 5.2.2: The Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report

Guidance and Recommended Approaches

- 8. Guidance Tools and Approaches for Improving Safety Culture and Safety Management Systems**
 - 8.1 *Continuous Improvement***
 - 8.2 *Risk Assessment/Hazard Identification***
 - 8.3 *Management of Change***
 - 8.4 *Training and Competence for the Arctic***
 - 8.5 *Accountability and Responsibility***
 - 8.6 *Operating Procedures***
 - 8.7 *Quality Assurance/Mechanical Integrity***
 - 8.8 *Documentation and Reporting***
 - 8.9 *Communication***

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Action by SAOs

SAOs are requested to review and approve the Arctic Offshore Oil and Gas Guidelines: Systems Safety Management and Safety Culture Report.

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