



UiT The Arctic University of Norway

Canada and Russia's Perspectives on Institutional Interactions in Shipping Regulation: Polar Code and Beyond

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CIL – NCLOS Workshop
Protection of the Marine Environment and Shipping: Contemporary
Challenges and New Approaches

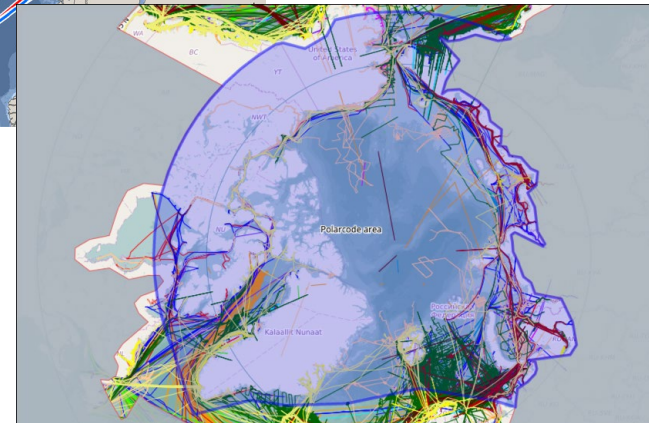
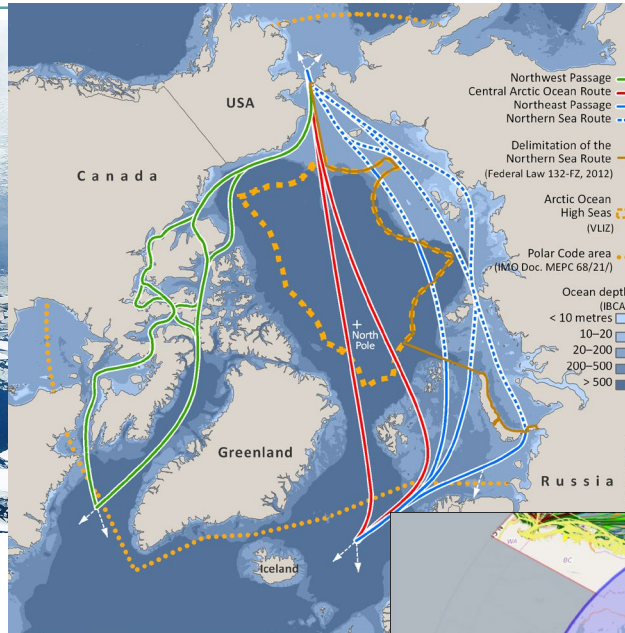
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NCLOS
NORWEGIAN CENTRE
FOR THE LAW OF THE SEA

Outline

- 1. **Who** regulates shipping in the Arctic?
- 2. **How** do Canada's and Russia's approaches differ? (POLARIS as litmus test)
- 3. **Why** do they differ? (Karen Litfin's framework)
- 4. So **what**?

New commercial opportunities in unique environmental and navigational conditions



- Shipping in the remote, vulnerable and harsh waters
- Polar Code: mandatory and recommendatory
- Spatial overlap with 'national systems of control'

The Polar Code's innovatory architecture

- Effective through amendments to other dynamic IMO instruments (SOLAS, MARPOL, STCW)
- The Polar Code is one of the first instruments developed by the IMO that, to a large extent, relies on the new regulatory paradigm (risk and goal-based)
 - frames some requirements as **goal-based standards (GBS)**.
- A (paradigm?) shift from the “culture of compliance” with prescriptive rules to the “culture of benchmarking”
- A functionally dynamic environment for further development

GBS and methodologies: examples

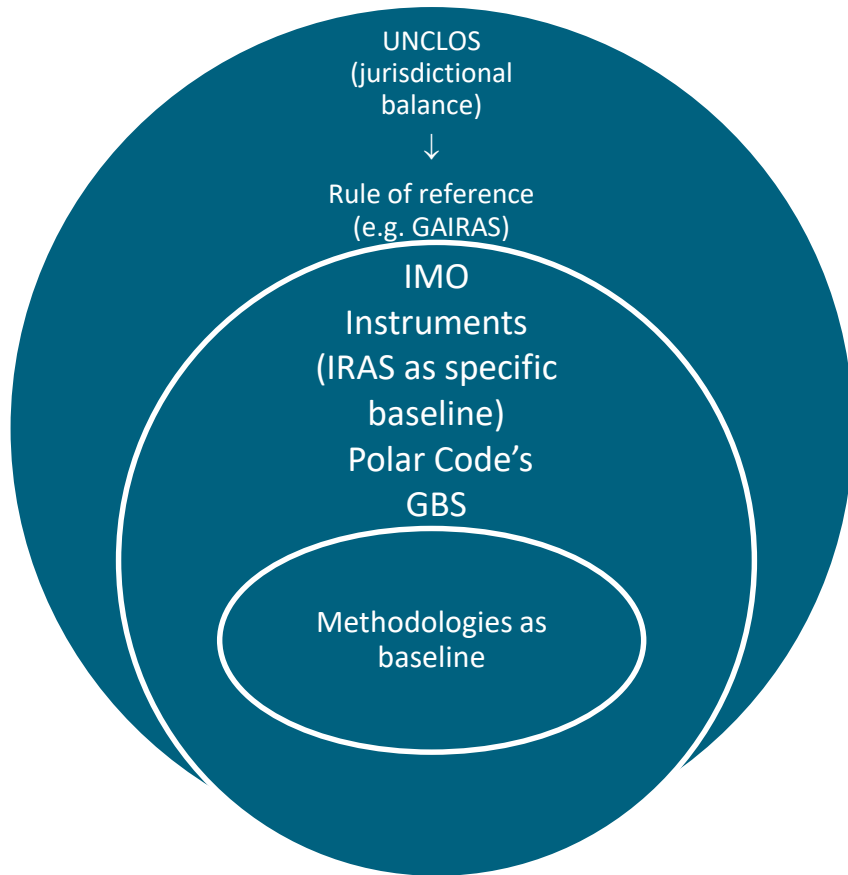
Polar Ship Certificate (PSC)

- Requirement to have on board
- Granted by the Administration (in practice classification society)
- based on **Operational Assessment**
- To reference a methodology to assess operational capabilities and limitations in ice

Polar Water Operation Manual

- Goal:
provide the owner, operator, master and the crew with sufficient information regarding the ship's operational capabilities and limitations in order to support their decision-making process
- Functional requirement:
include ship-specific capabilities, limitations and procedures based on the **Operational Assessment**
To reference a methodology to assess operational capabilities and limitations in ice

Locating methodologies in the governance landscape



POLARIS as a system to help decision-making 1\2

- Polar Operational Limit Assessment Risk Indexing System (POLARIS) provides a **standard approach** for the evaluation of risk to the ship and assess operational limitations in ice
 - Translates the physical properties of sea-ice to risk indexes (ice regime & ice class)
- It is an **international** system developed by IACS with technical contributions from the delegations of Canada, Denmark, Finland, Russia and Sweden
- (**Interim** and **not binding**) IMO Guidance on Methodologies for assessing operational capabilities and limitations in ice (MSC.1/Circ.1519) presents POLARIS as '**acceptable methodology**'
 - Or alternative methodologies, such as the Canadian Arctic Ice Regime Shipping System (AIRSS); and the Russian Ice Certificate/Passport
- **to be updated 1 January 2021**

POLARIS: how it works

Overview of IMO Polar Code - Adobe Acrobat Reader 2017

File Edit View Window Help

13303754.pdf Sovereignty Bargain... Sovereignty in Wor... POLAR CODE TEXT... MSC 94-INF.13 - T... The Foreign Within... benefits and limits ... The_Polar_Code_A... Overview of IMO P...

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POLARIS

- Risk evaluated based on Ice Class & ice regime encountered
- Outcome is a **single value** Risk Index
- $RIO = (C_1 \times RV_1) + (C_2 \times RV_2) + (C_3 \times RV_3) + (C_4 \times RV_4)$
 - $C_1 \dots C_4$ concentrations of ice types within ice regime (mixture of different ice types and ice free water)
 - $RV_1 \dots RV_4$ Risk Values (RV) for each ice class

RIO _{sum}	Ice classes PC1-PC7	Ice classes below PC 7	Color Code
20 ≤ RIO	Normal operation	Normal operation	Blue
10 ≤ RIO < 20			Green
0 ≤ RIO < 10			Light Green
-10 ≤ RIO < 0	Elevated operational risk	Operation subject to special consideration	Yellow
-20 ≤ RIO < -10	Operation subject to special consideration	Operation subject to special consideration	Orange
-30 ≤ RIO < -20			Red

Increasing ice thickness (severity) →

Polar Ship Category	ICE CLASS	Winter Risk Values (RVs)											
		ICE FREE	NEW ICE	GREY ICE	GREY WHITE ICE	THIN FIRST YEAR 1ST STAGE	THIN FIRST YEAR 2ND STAGE	MEDIUM FIRST YEAR 1ST STAGE	MEDIUM FIRST YEAR 2ND STAGE	THICK FIRST YEAR	SECOND YEAR	LIGHT MULTI YEAR	HEAVY MULTI YEAR
		0-10 cm	10-15 cm	15-30 cm	30-50 cm	50-70 cm	70-95 cm	95-120 cm	120-200 cm	200-250 cm	250-300 cm	300+ cm	
A	PC1	3	3	3	3	2	2	2	2	2	2	1	1
	PC2	3	3	3	3	2	2	2	2	2	1	1	0
	PC3	3	3	3	3	2	2	2	2	2	1	0	-1
	PC4	3	3	3	3	2	2	2	2	1	0	-1	-2
	PC5	3	3	3	3	2	2	1	1	0	-1	-2	-2
B	PC6	3	2	2	2	1	1	0	-1	-2	-3	-3	-3
	PC7	3	2	2	2	1	0	-1	-2	-3	-3	-3	-3
C	IAA	3	2	2	2	1	1	-1	-2	-3	-4	-4	-4
	IA	3	2	2	2	1	0	-2	-3	-4	-5	-5	-5
	IB	3	2	2	1	0	-1	-2	-3	-4	-5	-6	-6
	IC	3	2	1	0	-1	-2	-3	-4	-5	-6	-7	-8
	No Ice Class	3	1	0	-1	-2	-3	-4	-5	-6	-7	-8	-8

Decreasing Ice class ↓

Increased Risk ↘

ABS

13.33 x 7.50 in

POLARIS as a system to help decision-making 2\2

- the idea behind POLARIS is that risk assessment methodology may be the glue to ensure **coherence**
- **A common baseline** for decision-making
 - Upstream
 - flag States, classification societies, coastal States, underwriters
 - Downstream
 - shipowners, masters, crew (on-board, real-time decision making)
- To yield accurate results, it has to be **used** and **updated** based on experience
- Here: **harmonization (popularity) can actually have an effect on quality!**
- Appears to be the methodology of choice except for ships classed with RMRS for the NSR (a big share of ships in the Arctic)

Comparison of Canada and Russia: what they do

- Negotiation of the Polar Code (submissions)
 - Canada more proactive and POLARIS largely relies on Canada's experience (essentially updated AIRSS)
 - Russia took part, but in a rather reactive manner
- Implementation
 - Canada's Arctic Shipping Safety and Pollution Prevention Regulations (ASSPPR)
 - embracing POLARIS, mandatory after phasing out of AIRSS
 - not surprising as it is just a better version
 - real-time flexibility offsets (ice navigator, reporting to Minister, clearance)
 - Russia keeps its own comprehensive system (prescriptive, based on decades of experience)

Russian system: what is the alternative methodology?

- MSC.1/Circ.1519 refers to Russian Ice Certificate (Ice Passport): speed restrictions
- But the NSR regime is broader:

- » Zone/Date Scheme
- » No room for real-time flexibility to rely on POLARIS (or similar) to enter outside the window prescribed by Admission Criteria
- » MOHs reintroduced in 2020 (can give instructions)
- » RMRS ice class (not always compatible with POLARIS)

Source: Sergey Tolmachev, Planning of Voyage and Navigating on the NSR, 4th Annual Meeting of the Arctic Shipping Best Practice Information Forum, November 2020.

Admission

ADMISSION CRITERIA

- ice class (RMRS ice classes)
- season (July - November)
- voyage area (28 NSR areas)
- ice conditions (Heavy, Medium, Light, Open water)

Ice class/all year	12, 13, 14			
Arc 4 (IACS PC7)	H	M	L	O
	-	-	+	+

ADMISSION CRITERIA DEFINES WHETHER SHIP CAN NAVIGATE INDEPENDENTLY (+) OR WITH ICEBREAKING ASSISTANCE (-)

Summing up

- POLARIS not binding, not perfect, but has merits (harmonization of an important baseline)
- Success depends on many factors (use and reporting about experience)
- NSR regime not particularly conducive to POLARIS, may lead to further fragmentation (one methodological paradigm outside the NSR, another within the NSR)

Comparison of Canada and Russia: why they do what they do

- Polar Code as environmental problem solving instrument (also POLARIS)
- Autonomy, control and legitimacy as functional dimensions of sovereignty >>> subject to bargain
- Control: similar concerns about externally generated processes
 - For RF more need to balance with economic (and strategic) development imperative!
- Autonomy (independence): differences
 - Different geography and potential impact of the erosion of Art. 234 for sovereignty claims
 - Strong class society in Russia (class homogenization an autonomy problem) vs lack of one in Canada (class homogenization a technical challenge)
 - Russia's 100 years' experience: shareable? (no Russian input on icebreaking)
 - Article 234: Canada to enact more stringent environmental rules, Russia to defend comprehensive regime (a business model)
- Legitimacy (the recognized right to make rules):
 - Very clear State-centric approach to sovereignty, international law vs RBO
 - UNCLOS as living instrument
 - BBNJ
 - ITLOS AO

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(Liberal?) International Rules-based order?

- Sometimes the commitment of Russia to the law of the sea in the Arctic is questioned. But clear commitment to UNCLOS and institutions (within their mandates), suspicious of the RBO!
- What is RBO then? (not conservative, westphalian sovereignty-based, **formalistic** international law)
 - Merely political discourse or legal significance? Not clear, but we see consistent use of the terminology primarily in the west
 - ‘more’ than international law > broader sources (soft law, practices, recommendations) blurs distinction between binding and non-binding, significance of consent (maximizing **effectiveness**)
 - ‘less’ than international law > more flexible, amorphous, more convenient for the US+ pursuing a political goal of universalization of the western vision of a liberal RBO

Conclusions

- Russia has little incentive to fully embrace international standards (and processes) (autonomy and perceptions of legitimacy)
- Canada more focused on control, Russia on autonomy and legitimacy
- Standardized and good methodology for operational risk assessment may take long (or never)
- Implications for the future Arctic governance (legitimacy)
 - Russia's emphasize for 'stability' (UNCLOS, CLCS), strict guidance by the mandates (ITLOS, ISA), fear for harm (flexible rules-based order; BBNJ potential modification to core treaties)

Thank you!

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