



for a living planet[®]

Implementation of the Polar Code – Results of a survey by WWF-UK

July 2019

1. Summary

The Polar Code (PC) entered into force on 1 January 2017. This study aims to identify the flag tonnages operating in both the Arctic and Antarctic polar areas during 2017 and 2018; the plans of those flag administrations to both enact and enforce PC requirements on their fleets; and the activities of Port State Control to enforce the PC.

The preliminary conclusions from the study based on responses to date, are as follows:

- (i) A large number of administrations had commercially operated SOLAS ships in the two polar areas during 2017 and 2018
- (ii) The majority of flag respondents have indicated that they have out-sourced implementation of the Polar Code to their ROs. It is unclear from these responses how administrations plan to identify ships, and enforce the requirements, under the PC.
- (iii) It is understood that if a vessel is due an inspection under an MOU scoring system and has or will undertake a voyage into polar waters, then the inspection would include PC requirements. There remains a question, how the risk-based scoring systems of PSC MOUs will take account of a geographically specific requirement such as the PC?
- (iv) It is considered unlikely that a Concentrated Inspection Campaign (CIC) on the PC will be undertaken in the near future.

Advocacy Points

- (i) The key point of Advocacy is the flag state IMSAS Audit. As noted in Section 5.1 of this Report, the Consolidated Audit Summary published by the IMO has not yet highlighted any entries on the Polar Code. There are, however, key elements of flag state responsibility that should be audited:
 - The flag has implemented the PC into national legislation
 - The flag state is monitoring independently the movements of its ships in polar waters, and can then check if both the Polar Certificate and the PWOM are in place. The flag state should be aware at any time how many of its ships have Polar Certificates.
 - The flag state should be aware when entering into agreements with ROs that the RO has expertise in operations in ice for different shiptypes, and of the different types of ice; in order to work with the ship owner in developing an effective PWOM. The flag state responsibility is set out in the RO Code under Part 2, which is mandatory under SOLAS, MARPOL and the Load Line Protocol.

- (ii) Following this the IMO Secretariat should be responsible for proposing updates to the RO Code, in line with feedback on flag state Oversight of ROs in Part 3 of the RO Code (Recommendatory).
- (iii) Port State Control MOUs should have independent means of assessing ships for inspection under the PC, based on previous movements in polar waters. At the moment this responsibility appears to be delegated to polar coastal states' assessment of movements in polar waters, and may be being undertaken under the states' coastal rather than port state responsibilities.
- (iv) Following on from this, as the PC has now been in operation for over 2 years, the PSC MOUs should agree a CIC on the Polar Code, probably at the 8th IMO Workshop on PSC in 2020.

2. Background

The IMO has adopted the International Code for Ships Operating in Polar Waters (Polar Code) and related amendments to make it mandatory under both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL). The Polar Code entered into force on 1 January 2017.

The PC includes mandatory provisions covering safety measures (part I-A) and pollution prevention measures (part II-A) and additional guidance regarding the provisions for both (parts I-B and II-B).

The safety provisions of the Polar Code will apply to new ships constructed after 1 January 2017. Ships constructed before 1 January 2017 will be required to meet the relevant requirements of the Polar Code by the first intermediate or renewal survey, whichever occurs first, after 1 January 2018.

The environmental provisions of the Polar Code apply both to existing ships and new ships.

The Code will require ships intending to operate in the defined Arctic waters and the Antarctic area to apply for a Polar Ship Certificate, which would classify the vessel as either:

- Category A - ships designed for operation in polar waters in at least medium first-year ice, which may include old ice inclusions
- Category B - a ship not included in category A, designed for operation in polar waters in at least thin first-year ice, which may include old ice inclusions
- Category C - a ship designed to operate in open water or in ice conditions less severe than those included in categories A and B.

Before receiving a certificate, a ship would require an assessment, taking into account the anticipated range of operating and environmental conditions and hazards it may encounter in the polar waters.

Ships will need to carry a Polar Water Operational Manual (PWOM), to provide the Owner, Operator, Master and crew with sufficient information regarding the ship's operational capabilities and limitations in order to support their decision-making process.

The chapters in the Code set out goals and functional requirements specifically covering: ship structure; stability and subdivision; watertight and weathertight integrity; machinery

installations; fire safety/protection; life-saving appliances and arrangements; safety of navigation; communications; voyage planning; manning and training; prevention of pollution by oil; control of pollution by noxious liquid substances in bulk; prevention of pollution by harmful substances carried by sea in packaged form; prevention of pollution by sewage from ships; and prevention of pollution by garbage from ships.

Training requirements

Mandatory minimum requirements for the training and qualifications of masters and deck officers on ships operating in polar waters became mandatory under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and its related STCW Code from 1 July 2018.

3. Outline of study

This study aims to identify the flag tonnages operating in both the Arctic and Antarctic polar areas during 2017 and 2018; the plans of those flag administrations to both enact and enforce PC requirements on their fleets; and the activities of Port State Control to enforce the PC.

The operational flags in both the Arctic and Antarctic were identified using data provided by IHS Markit, based on the monitoring of AIS broadcasts. The criteria for the search were as follows: all SOLAS ships of 500GT and above, operational in the following areas during 2017 and 2018:

Arctic: North of 58 degrees

Antarctic: South of 60 degrees

All FPSOs, non-propelled barges, fishing vessels, yachts and all government-owned ships were excluded from the study.

The administrations of significant tonnages in either the Arctic or Antarctic were contacted by email through either personal contacts or through their IMO Permanent representative. Polar Coastal state Administrations were also contacted. All Port State Control (PSC) Secretariats were contacted. Two leading Recognised Organisations (ROs) were also contacted about their operations under the Polar Code - I am very thankful for responses from DNVGL and LR.

The questions asked of Operational Administrations were as follows:

- (i) Pointing towards websites or documents where it would be possible to track the Administration's implementation of the Polar Code into national legislation.
- (ii) The number of polar ship certificates issued by the Administration
- (iii) Any problems the Administration has experienced with their owners in implementing the Polar Waters Operations Manual (PWOM).

One additional question was asked of Polar Coastal States:

- (iv) on Port State Control, are they inspecting visiting ships in line with the PC (under the IMO principle of "no more favourable treatment"), and are they advocating within their PSC MOUs CICs under the PC?

[I was aware that a lot of work on the Polar Code is being undertaken by the Coastal States, both in the Arctic Council and within PAME; so I was content to focus on question (iv) on PSC, which is pertinent to this study]

The focus of the questions to PSC Secretariats was as follows:

- (i) How do PSC authorities know when to look for the Polar Code Certificate or Operations Manual? Do they rely on the honesty of the ship owner that they

have or plan to operate in polar waters, or does the MOU, for example, monitor ship movements in polar areas?

(ii) Are there any plans for a CIC on the Polar Code in the near future?

Public sources of PSC data were searched to identify which PSC MOUs have been active in monitoring the Polar Code through identified deficiencies.

4. Results

The results to date are summarised in the Annex. It is expected that further responses will be received. There was further follow-up at IMO MSC 101 in June 2019, and (incl. PSC Secretariats) this will be continued at IMO III 6 in July 2019.

5. Preliminary Conclusions

5.1 Flag States

The first conclusion that can be drawn from the study is the large number of administrations that had commercially operated SOLAS ships in the two polar areas during 2017 and 2018, since the PC entered into force.

All Administrations that have responded have indicated national legislation and marine notices that confirm the entry into force of the PC into their national law.

The majority have also indicated that they have out-sourced implementation of the Polar Code to their ROs, and were, therefore, unable to answer accurately the second two questions: on the number of PC Certificates issued, and any problems with the development of PWOMs. Where an answer on the number of issued PC Certificates issued has been given by the Administration, they have been included in the Annex.

The responses from two ROs (DNVGL and LR)

ROs have a general agreement with a flag administration to certify ships under the PC. They do not receive ship by ship instructions from the administration to so certify. It is, therefore, the responsibility of the owners to seek PC certification from the RO.

There would be PSC and insurance consequences if a ship operated in polar waters without PC certification. ROs do not police PC compliance through tracking movements, but work with owners to facilitate the PC process.

On the PWOMs, the two ROs consulted have indicated that the process of certification has improved over time. There is a pre-requisite for a basic knowledge of the challenges in polar waters, and external experts often have to be involved if owners are lacking in this knowledge.

The flag state is ultimately responsible for the compliance of its ships. Some flag administrations have indicated that they could monitor LRIT to track the movements of their vessels in polar waters (but no general confirmation so far that they do so).

Flag states are required under the ISPS Code to track their ships movements under LRIT. It is understood that coverage of polar waters is not comprehensive under Inmarsat, but that this coverage will improve with Iridium mobile satellite services¹.

The flag administration can also access a ship's PC certificates via the RO's online systems. Is this likely to be investigated under flag state Audits? The first Consolidated Audit Summary Report (CSAR) to cover the period 2017(Circular Letter 3879), since the PC entered into force, contained no references to the Polar Code. Perhaps this is too early. There will be a further CSAR published later in 2019.

5.2 Port State Control

Replies have been received from the US Coastguard, Caribbean MOU (CMOU), and some general comments from Tokyo MOU, but so far from no other MOU. I am, therefore, grateful for opinions on PSC from a number of polar coastal states in drawing preliminary conclusions on PSC.

The CMOU does not inspect under the PC.

The US Coastguard monitors ship movements in the US Arctic via AIS/LRIT. With regard to port calls and scheduling for PSC exams, this is managed via the Coast Guard's electronic Notice of Arrival System (eNoA) and a related PSC screening tool w/in the CG's database. If a vessel has made a voyage in Polar Waters subject to the jurisdiction of the U.S., the resulting PSC exam would include a review of Polar Code compliance. A total of seven foreign ships have been subject to a Polar Code examination as part of a PSC exam. No deficiencies were issued.

With regard to Tokyo MOU and Paris MOU, it is understood that if a vessel is due an inspection under the MOU scoring system and has or will undertake a voyage into polar waters, then the inspection would include PC requirements. [Note: The Tokyo Guidelines on the Polar Code were agreed at their Committee Meeting in December 2018 but are not available to the public].

There remains a question, therefore, how the risk-based scoring systems of the MOUs will take account of a geographically specific requirement such as the PC?

A CIC on the PC in the near future is unlikely (according to one view) as these campaigns tend to focus on issues that impact all members. Tokyo MOU has also indicated that they have no plans for a CIC on the PC.

However, given the range of flags with operational tonnage in polar areas, as shown by this study, this might change.

A search of PSC databases shows that Tokyo, Paris and Black Sea MOUs have already been active in identifying deficiencies in ships under the Polar Code - the absence of ship certificates, or non-availability of the Polar Waters Operations Manual. A total of 9 ships were identified with deficiencies under the PC during 2017 and 2018.

Trevor Downing
TJD Maritime Consultants, for WWF-UK
July 2019

¹ There was a paper at IMO MSC 101 on Iridium; which is expected to start providing GMDSS services in 2020.

Annex

No. of unique vessels operating in the Arctic and Antarctic 2017-2018 by flag (in order of Arctic Tonnage)

Flag	Arctic		Antarctic		Queried	Response	PC implemented into National Legislation	Notified No. Commercial vessels issued (or to be issued) with Polar Certificates	Polar Coastal state inspecting foreign flags where past or forward voyage to/from the state is polar
	No. of ships	Total Tonnage	No. of ships	Total Tonnage					
Marshall Islands	1013	36,630,058	31	1,410,007	y	y	y (1)		
Liberia	795	29,152,522	36	1,219,879	y	n			
Panama	814	26,865,744	29	460,429	y	y	y (2)	4	
Malta	757	22,839,137	13	311,965	y	n			
Bahamas	808	15,348,221	30	801,725	y	n			
China (including HK)	406	14,782,814	10	179,958	y	n			
Singapore	407	12,354,368	14	378,041	y	y	y (3)	4	
Greece	182	10,122,317	1	80,591	y	n			
Norway	937	8,456,461	7	75,143	pending				
Cyprus	385	5,946,145	8	196,229	y	n			
Netherlands	660	4,959,492	15	155,692	y	n			
Russia	912	4,765,392	16	98,609	pending				
Bermuda	62	3,552,565	0	0	y	n			
Portugal	181	3,285,863	9	226,605	y	holding			
Isle of Man	124	3,246,588	1	109,716	y	n			
Denmark	219	3,241,105	5	51,750	y	y	y (4)		
United Kingdom	267	3,195,361	7	206,507	y	n			
Antigua & Barbuda	474	2,984,563	9	76,076	y	n			
Italy	76	2,866,709	4	159,292	y	n			
USA	127	2,628,418	6	73,532	y	y	y (5)		y
Finland	123	1,550,992	0	0	y	holding			
Sweden	84	1,240,309	0	0	y	holding			
Cayman Islands	40	1,098,362	4	73,320	y	n			
Gibraltar	134	891,243	5	50,988	y	n			
Philippines	38	784,828	1	4,028	y	n			
Croatia	20	779,207	0	0	y	n			
Germany	81	765,348	3	111,019	y	holding			

No. of unique vessels operating in the Arctic and Antarctic 2017-2018 by flag (in order of Arctic Tonnage) - continued

Flag	Arctic		Antarctic		Queried	Response	Polar Code implemented into National Legislation	Notified No. Commercial vessels issued with Polar Certificates	Polar Coastal state inspecting foreign flags where past or forward voyage to/from the state is polar
	No. of ships	Total Tonnage	No. of ships	Total Tonnage					
Belgium	32	721,735	2	1,397	y	y	y (6)	under investigaton	
Korea, South	19	661,844	1	10,850	y	n			
Turkey	32	598,492	3	9,139	y	n			
India	14	587,680	0	0	y	n			
Indonesia	38	544,041	14	124,812	y	n			
Barbados	101	535,414	1	2,035	y	y	y (7)		
Palau	13	512,423	3	13,334	n				
Curacao	16	399,422	1	2,291	n				
Japan	9	377,908	1	8,706	n				
Switzerland	15	365,852	0	0	n				
Faeroe Islands	75	360,573	3	15,612	n				
France	33	309,891	1	22,655	y	n			
Comoros	17	305,250	2	5,892	n				
Thailand	10	291,424	0	0	n				
St Vincent & The Grenadines	54	267,550	3	6,119	n				
Libya	5	266,039	0	0	n				
Spain	8	228,200	0	0	y	n			
Irish Republic	39	215,551	0	0	n				
Luxembourg	24	214,113	0	0	n				
Vanuatu	16	205,441	3	18,108	n				
Taiwan	4	198,053	0	0	n				
Canada	25	186,887	0	0	y	y	y (8)	5	In accordance with Paris & Tokyo MOUs
Malaysia	3	184,500	1	2,521	n				
Belize	17	178,808	2	1,467					
Unknown	28	178,438	6	45,789					
Cook Islands	21	159,233	1	22,655	y	n			
Seychelles	5	120,059	0	0	n				
St Kitts & Nevis	15	119,797	0	0	n				

No. of unique vessels operating in the Arctic and Antarctic 2017-2018 by flag (in order of Arctic Tonnage) - continued

Flag	Arctic		Antarctic		Queried	Response	PC implemented into National Legislation	Notified No. Commercial vessels issued (or to be issued) with Polar Certificates	Polar Coastal state inspecting foreign flags where past or forward voyage to/from the state is polar
	No. of ships	Total Tonnage	No. of ships	Total Tonnage					
Latvia	19	116,591	0	0	n				
Iran	3	107,727	0	0	n				
Lithuania	14	90,916	0	0	n				
Nigeria	8	68,394	1	2,948	n				
Kuwait	1	63,440	0	0	n				
Dominica	5	51,148	0	0	n				
Qatar	2	50,816	0	0	n				
Chile	5	49,864	4	29,170	y	y	in process		
Sierra Leone	9	48,494	2	4,188	n				
Moldova	8	32,638	0	0	n				
Saudi Arabia	1	29,575	0	0	n				
Mexico	3	28,907	0	0	n				
Estonia	24	28,789	0	0	n				
Bangladesh	1	28,615	0	0	n				
Sri Lanka	2	25,408	0	0	n				
Montenegro	1	24,288	0	0	n				
Egypt	3	21,074	0	0	n				
Poland	8	20,201	0	0	y	n			
Lebanon	3	20,022	0	0	n				
Vietnam	5	19,654	0	0	n				
Togo	8	19,304	0	0	n				
Mauritius	1	18,972	0	0	n				
Tuvalu	1	18,061	0	0	n				
Tanzania (Zanzibar)	3	17,133	0	0	n				
United Arab Emirates	3	14,387	2	3,591	n				
Algeria	1	11,494	0	0	n				
Iceland	7	11,044	0	0	y	y	y (9)	y	
Brazil	3	10,320	1	81,429	y	holding			

No. of unique vessels operating in the Arctic and Antarctic 2017-2018 by flag (in order of Arctic Tonnage) - continued

Flag	Arctic		Antarctic		Queried	Response	PC implemented into National Legislation	Notified No. Commercial vessels issued (or to be issued) with Polar Certificates	Polar Coastal state inspecting foreign flags where past or forward voyage to/from the state is polar
	No. of ships	Total Tonnage	No. of ships	Total Tonnage					
Falkland Islands	2	9,760	2	9,760	n				
Mongolia	2	7,754	0	0	n				
Albania	1	7,564	0	0	n				
Georgia	1	7,265	0	0	n				
Azerbaijan	1	7,226	0	0	n				
Bulgaria	1	1,957	0	0	n				
Cape Verde	1	1,324	0	0	n				
Australia	1	1,155	2	7,250	y	y	y (10)		in accordance with Tokyo MOU
Turkmenistan	1	854	0	0	n				
Kazakhstan	1	592	0	0	n				
Kiribati	0	0	1	23,401	n				
Palau	0	0	2	20,690	n				
Nauru	0	0	1	19,131	n				
Vanuatu	0	0	3	18,108	n				
Nigeria	0	0	1	2,948	n				
Argentina	0	0	1	2,824	y	n			
New Zealand	0	0	1	2,291	y	y	y (11)	1	in accordance with Tokyo MOU
Angola	0	0	1	1,209	n				
Djibouti	0	0	1	871	n				
Peru	0	0	0	0	n				
South Africa	0	0	0	0	y	holding		2	
Uruguay	0	0	0	0	y	y	n	0	

Spreadsheet References:

(1)



MN-2-011-52.pdf

(2)



MMC-341 - POLAR
CODE NOVIEMBRE 2

(3) <https://sso.agc.gov.sg/SL/MSA1995-RG11?DocDate=20121217>
<https://sso.agc.gov.sg/Act/PPSA1990?ViewType=SI>

(4)



Consolidated Notice
B-01012017.pdf



Order on special
training and compete

(5) [CG-CVC Policy Letter 16-06](#)

(6) [Integrated European union policy for the arctic ECSA position paper](#)

(7) Bulletin 276

(8)



Canada Gazette Part
I_Vol 151_no 26.pdf

(9) <https://www.samgongustofa.is/siglingar/althjodalog-og-reglur/birting-gerninga-imo>

(10) <https://www.amsa.gov.au/about/regulations-and-standards/index-marine-orders>

(11)



maritime-rules-variou
s-amendments-2017-