

Agenda Item 4.2 - AMSA Recommendation I(B) by USA

PAME II-2015 Agenda Item 4.2 (f)
AMSA Recommendation I(B)
AOR Final Report Recommendation 7
Pleasure Craft and Yacht Safety in the Arctic

Background

AMSA Report Recommendation I(B) provides in relevant part:

“That the Arctic states, in recognition of the unique environmental and navigational conditions in the Arctic, decide to cooperatively support efforts at the International Maritime Organization to strengthen, harmonize and regularly update international standards for vessels operating in the Arctic.”

AOR Report Recommendation 7 provides that:

“Arctic states could consider approaches, including at IMO, to address safety and environmental concerns with respect to other types of vessels that, due to their size, routes, and nature of activity, may not be subject to the Polar Code.”¹

I. Introduction

The Arctic has been attracting tourists since the 1800s.² Today, as sea ice in the Arctic Ocean retreats, its unique environment is fast becoming more accessible to visitors on yachts, pleasure craft and recreational vessels.³ This paper aims to shed light on the growth of pleasure craft use in the Arctic within the last ten years and to provide some recommendations for improving its safety. The balance of Part I defines the paper’s scope and describes Arctic sailing conditions, while subsequent Parts will cover three objectives: identifying pleasure craft traffic in the Arctic and describing a number of reported incidents within last 10 years (Part II), summarizing international policies and standards pertaining to pleasure craft (Part III), and offering recommendations for Arctic States to consider pursuing, either individually or collectively and in

¹ See also Arctic Council, Arctic Ocean Review – Final Report (May 2013), Section 3.4.1 (“Most of the policy and regulatory work for Arctic marine safety and environmental protection in the future will be undertaken through international bodies such as IMO, IALA, IHO, WMO, IWC, the Food and Agriculture Organization (FAO) and International Mobile Satellite Organization (IMSO), as well as by the individual Arctic Ocean coastal states. However, there are significant opportunities for the Arctic Council and its working groups to help guide, inform and influence this work through actions of the eight Arctic states, together and individually, within these international bodies.”) available at http://www.pame.is/images/03_Projects/AOR/Reports/126082_pame_sept_2.pdf.

² Arctic Council, Arctic Marine Shipping Assessment 2009 Report, 45 (2009) [hereinafter AMSA 2009 Report] available at http://www.pame.is/images/03_Projects/AMSA/AMSA_2009_report/AMSA_2009_Report_2nd_print.pdf.

³ *Id.* at 8–9. Note that there does not appear to be a globally recognized legal definition of “yacht”, “recreational vessel”, “pleasure craft” or similar term. For convenience, this paper will use the term “pleasure craft” throughout. See text below for explanation.

consultation with stakeholders as appropriate, to enhance the safety of pleasure craft activities in the Arctic (Part IV).

A. Scope

Pleasure craft tourism is distinguished from cruise tourism, which is conducted commercially. According to the International Maritime Organization (IMO), and for purposes of this paper, “pleasure crafts” are “vessels which are not subject to the International Convention for the Safety of Life at Sea (SOLAS) and do not routinely engage in commercial activities such as carrying cargo or passengers for hire.”⁴ [The 1972 Convention on the International Regulations for Preventing Collisions at Sea (COLREGs) does not define “pleasure craft” or “recreational vessel,” and neither does other IMO guidance.⁵] Each IMO Member State may thus define pleasure craft in its own way.⁶ Under U.S. law, recreational vessels are defined as vessels “manufactured or operated primarily for pleasure; or . . . leased, rented, or chartered to another for the latter’s pleasure.”⁷ To simplify references, this paper will include yachts and recreational vessels under the term “pleasure craft.”⁸

Neither PAME nor the Arctic Council has established a single use definition of the Arctic,⁹ so no specific geographical limit for the Arctic applies to pleasure craft traffic. The subsequent safety recommendations in this paper are not based on geographic boundaries. As the IMO does not regulate pleasure craft, that regulation is left to flag States, supplemented by safety recommendations issued by trade associations and similar organizations. Arctic States are encouraged to set their own appropriate range of applicability within areas subject to their respective national jurisdictions.¹⁰

B. Arctic Sailing Conditions

Seasonal ice cover heavily influences the timing and length of the Arctic sailing season, with other water and weather conditions playing critical roles. The most common intervals for marine activity, such as pleasure craft trips, are summer and fall.¹¹ Sea ice is most typically at its

⁴ International Maritime Organization, Non-Mandatory Guidelines on Security Aspects of the Operation of Vessels Which Do Not Fall Within The Scope of SOLAS Chapter XI-2 And the ISPS Code, 35 (2009) [hereinafter IMO Non-Mandatory Guidelines] available at [http://www.imo.org/OurWork/Security/Guide to Maritime Security/Guidance/Documents/MSC.1%20Circ.1283.pdf](http://www.imo.org/OurWork/Security/Guide%20to%20Maritime%20Security/Guidance/Documents/MSC.1%20Circ.1283.pdf) (including also the term “leisure craft” under the definition and note that “[t]his class of vessels might also encompass vessels being used as residences provided the vessel maintains a means of propulsion”). The 2009 AMSA Report also used the term “pleasure craft” as distinct from cruise ships. See AMSA Report at pp. 71, 86, 157 & 183.

⁵ *Id.* Regulation 3 of the Safety of Life at Sea Convention (SOLAS) uses the term “pleasure yacht” but the phrase is not defined elsewhere in SOLAS. Although not addressed in this paper, COLREGS applies to “all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.” COLREGS, Rule 1(a). COLREGS defines “vessel” to include “every description of water craft, including non-displacement craft, WIG craft and seaplanes, used or capable of being used as a means of transportation on water.” COLREGS, Rule 3(a). Accordingly, pleasure craft are covered.

⁶ IMO Non-Mandatory Guidelines, at *id.*

⁷ 46 U.S.C § 2101.

⁸ Other terms for such craft, used by Arctic States, include “leisure craft,” “recreational craft,” “pleasure vessel,” or other combination of such words.

⁹ Arctic Council, Arctic Marine Tourism Project – Best Practice Guidelines, 3 (2015) [hereinafter AMTP 2015 Best Practice Guidelines].

¹⁰ See *id.* at 3.

¹¹ AMSA 2009 Report *supra* note 2, at 86.

minimum from the end of June through the end of November.¹² Furthermore, the summer and fall maritime seasons are expected to lengthen “if ice conditions continue to change and sea-ice extent reduces as predicted in the near term.”¹³

Regardless of the season, weather in the Arctic is notoriously challenging and changeable, and sailing in the region involves a host of distinctive considerations and factors. Monthly mean temperatures in July for different Arctic regions vary between 6° and 15°C, while winter temperatures vary from -5°C to -35°C.¹⁴ Pressure differentials that form during the winter lead to frequent and intense cyclonic storms, and while activity lessens in the summer, storms can still occur unexpectedly, especially as summer heads into fall.¹⁵ The most commonly known dangers to navigation and ship integrity, however, come from ice.¹⁶

The Arctic Ocean contains several types of ice: young ice, first-year ice, old ice (multi-year ice) and “ice of land origin.”¹⁷ Formed from the ocean surface freezing, young ice (also known as sea ice) is the most prevalent, but not generally a hazard for boats.¹⁸ First-year ice, between one to two meters thick, can sink pleasure craft, make travel prohibitive, or at the least impede progress for days.¹⁹ Surviving the summer melt season, first-year ice becomes old (or multi-year) ice that can thicken to five meters and become harder than concrete.²⁰ “Ice of land origin,” such as icebergs, ice islands, bergy bits, or growlers, are large floating masses that come from glaciers.²¹ Particularly insidious to many vessels are bergy bits and growlers, smaller pieces of icebergs that are difficult to detect.²²

Icebergs can cause serious harm to vessels. For example, when a vessel is at anchor, shifting ice can block exits and icebergs can prevent retrieval of the anchor.²³ Smaller boats, such as pleasure craft, are especially vulnerable to ice because of their lesser size and mass. The captain and crew must remain vigilant to prevailing ice conditions and ice movement in relation to currents and tide changes.²⁴

II. Arctic Pleasure Craft and Yacht Traffic

Canada’s Northwest Passage (NWP) has experienced much more pleasure craft transit than the Northern Sea Route, which is more popular with commercial cargo ships.²⁵ Between 2007 and

¹² See *id.* at 86. Certain areas of the Arctic Ocean remain ice-free, so sailing may be possible in those parts for much of the year.

Id. at 84.

¹³ *Id.* at 86.

¹⁴ *Id.* at 24.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.* at 22.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ UK Foreign and Commonwealth Office and High Latitudes, *Yachting guidelines for Antarctic Cruises*, 2–3 (2012) [hereinafter *FCO Yachting Guidelines*] available at <http://iaato.org/documents/10157/72175/ATCM35+Yacht+Guidelines.pdf>.

²⁴ *Id.*

²⁵ INTERNATIONAL LAW AND POLITICS OF THE ARCTIC OCEAN: ESSAYS IN HONOR OF DONAT PHARAND 192 (Suzanne Lalonde & Ted L. McDorman eds., 2015) available at <https://books.google.com/books?id=jdkuBgAAQBAJ&pg=PA184&lpg=PA184&dq=pleasure+craft+arctic&source=bl&ots=N8r>

2012, the NWP has seen pleasure craft traffic increase each year: 2007 (2 vessels); 2008 (7); 2009 (10); 2010 (12); 2011 (13); 2012 (22).²⁶ The sizes of pleasure craft in the Arctic have ranged from approximately 7.6²⁷ meters (24 feet) to 126 meters²⁸ (414 feet).

Numerous pleasure craft have sailed through the Arctic over the last decade. According to publicly available information, the first American sailing boat to complete an East-West NWP was the *Cloud Nine* in 2007.²⁹ Between 2006 and 2013, the French yacht *Le Vagabond* undertook at least eight trips across the northern polar region.³⁰ The first full circle navigation of the Polar Basin was achieved in 2010 by a Norwegian vessel which sailed through both the Northeast and Northwest passages.³¹ Also in 2010, Englishman Bear Grylls set a record by sailing an 11-meter rigid inflatable boat through the NWP.³² The vessel *Polar Bound* has also transited the NWP at least four times—one transit in 2002, two in 2009, and one in 2012.³³ A luxury yacht owned by American Paul Allen, *Octopus*, has been to the Arctic at least three times (2010, 2012, 2013).³⁴ Even a homemade Russian boat, the 7.9-meter trimaran *Rus*, has entered the Arctic Circle.³⁵ In 2012, the sailboat *Beelzebub II* became the first sailing vessel in one season to complete a NWP after crossing through the M'Clure Strait.³⁶ Also in 2012, *Scorpius*, a yacht, set several world records for speed and endurance during its Arctic circumnavigation.³⁷

In 2014, endeavors to sail the NWP further increased. At least 21 pleasure craft attempted the trip for the first time.³⁸ Most of the vessels, however, did not complete the voyage and turned back due to ice. Only five recreational vessels, *Altan Girl*,³⁹ *Drina*, *Latitude*, *Novarra*, and *Silver Explorer* are known to have completed NWPs.^{40, 41} In addition, seven other vessels, which

[z38fisX&sig=IUfjOtdWVE3GK9TvrzbgwKUykY&hl=en&sa=X&ei=Ob3TVKerIMmbyASFtGoAw&ved=0CEsQ6AEwBzU#v=onepage&q=pleasure%20craft%20arctic&f=false](http://www.rccpf.org.uk/ppgs/arctic/3_nwp_hist_trans.pdf).

²⁶ *Id.* at 184; ANDREW WILKES ET AL., ARCTIC AND NORTHERN WATERS CH. 3 THE NORTHWEST PASSAGE 37–41 (Jane Russell ed., 2011), available at http://www.rccpf.org.uk/ppgs/arctic/3_nwp_hist_trans.pdf.

²⁷ A homemade Russian boat on a TransArctic trip through Canada's Northwest Passage, COLD UNITED (Aug. 25, 2011) available at <http://coldunited.com/tag/trimaran/>.

²⁸ Protection of the Arctic Marine Environment, AMSA Recommendation I(D) Cruise Tourism within the U.S. Arctic, 1–2 (2015) [hereinafter PAME 2015 AMSA Recommendation I(D)].

²⁹ Roger Swanson and Gaynelle Templin, *Northwest Passage Achieved!*, SAILING BREEZES ONLINE MAGAZINE (2008) available at http://www.sailingbreezes.com/sailing_breezes_current/articles/Feb08/CloudNine.htm.

³⁰ Eoghan Macguire, *Arctic vagabonds: French family make home on polar yacht*, CNN (Feb. 1, 2013) <http://www.cnn.com/2013/02/01/travel/vagabond-mainsail-arctic-family/>

³¹ *Northwest passage has been navigated in the past*, SKEPTICAL SCIENCE (2011) available at

<http://www.skepticalscience.com/northwest-passage-has-been-navigated-in-the-past-intermediate.htm>

³² Tim Levy, *Crossing the Northwest Passage with Bear Grylls*, EARTH'S FRONTIERS (2010) available at <http://www.cnn.com/2010/WORLD/americas/11/15/bear.grylls.expedition/>

³³ *2012 Blue Water Medal to David S. Cowper*, THE CRUISING CLUB OF AMERICA (2011) available at <https://www.cruisingclub.org/awards/blue-water/2012/cowper>.

³⁴ PAME 2015 AMSA Recommendation I(D) *supra* note 28, at 1–2.

³⁵ A homemade Russian boat on a TransArctic trip through Canada's Northwest Passage, COLD UNITED (Aug. 25, 2011) available at <http://coldunited.com/tag/trimaran/>.

³⁶ Matt Pearce, *Climate change breaks the ice: 3-man sailboat makes record voyage*, LOS ANGELES TIMES (Sept. 3, 2012) available at <http://articles.latimes.com/2012/sep/03/nation/la-na-nn-global-warming-northwest-passage-20120903>.

³⁷ *Scorpius yacht circumnavigated the Arctic in 60 days*, ARCTIC INFO, (2012) available at <http://www.arctic-info.com/news/01-10-2012/scorpius-yacht-circumnavigated-the-arctic-in-60-days>.

³⁸ Jimmy Cornell, *Northwest Passage Gate Opens*, NORTHWEST PASSAGE 2014 (Aug. 31, 2014) available at <http://northwestpassage2014.blogspot.com/2014/08/sv-drinas-ice-pilot-awakes-to-empty.html>.

³⁹ Completed journey after rescue by US Coast Guard Cutter *Healy*. See Appendix A *infra*.

⁴⁰ *Northwest Passage*, NORTHWEST PASSAGE 2014 (June 11, 2014) available at <http://northwestpassage2014.blogspot.com/2014/06/list-of-2014-northwest-passage-vessels.html>.

had wintered over in the Arctic from 2013, continued their NWP crossings.⁴² Of these, four (*Arctic Tern*, *Gitana*, *Lady Dana*, *Triton*), and possibly a fifth, *Manguier*, completed the journeys.⁴³

Many other pleasure craft were not so fortunate. The table in Appendix A lists recent incidents involving pleasure craft in the Arctic. In this paper, “incidents” are considered situations where recreational vessels encountered equipment trouble, did not continue their planned course of sail due to adverse environmental conditions, or required external assistance in some form.

III. International Recreational Vessel Requirements and Organization Guidelines

To some degree, a number of IMO Guidelines appear relevant to pleasure crafts operating in the Arctic. These include the *IMO Guidelines for Ships Operating in Polar Waters* (Resolution A.1024(26)),⁴⁴ *IMO Guidelines for Voyage Planning for Passenger Ships Operating in Remote Areas* (Resolution A.999(25)),⁴⁵ and *IMO Enhanced Contingency Planning Guidance for Passenger Ships Operating in Areas Remote from SAR Facilities* (MSC.1/Circ.1184).^{46,47} The IMO has also, by means of Circular Letter No. 1996 (25 July 1997), disseminated the Large Commercial Yacht Code issued by the United Kingdom’s Maritime and Coastguard Agency. The Large Commercial Yacht Code is a set of requirements more suited to yachts than the regulations in the SOLAS, Load Line, and Standards of Training, Certification, and Watchkeeping Conventions.⁴⁸ The Code’s area of operation excludes Polar Regions,⁴⁹ but the Code provides that Yachts which intend to operate in Polar Regions must meet requirements of one of the recognized Classification Societies and stability conditions should include those for icing.⁵⁰

The Antarctic Treaty Parties Resolution 10, *Yachting Guidelines*, with its “Checklist of yacht specific items for preparing safe Antarctic voyages” merits mention here although it applies to the “other” pole.” Similarities in the climatic and oceanographic conditions that confront navigators at both poles suggest the relevance of these guidelines.⁵¹

⁴¹ Cornell Sailing, *Blue Planet Odyssey yacht successfully completes a transit of the Northwest Passage*, NORTHWEST PASSAGE 2014 (Sept. 29, 2014) [hereinafter *Blue Planet*] http://northwestpassage2014.blogspot.com/2014_09_01_archive.html.

⁴² *Northwest Passage supra* note 40.

⁴³ *Id.*

⁴⁴ IMO Guidelines for Ships Operating In Polar Waters (2009), available at <http://library.arcticportal.org/1475/>.

⁴⁵ IMO, Guidelines on Voyage Planning for Passenger Ships Operating in Remote Areas (2008), available at [http://www.imo.org/blast/blastDataHelper.asp?data_id=29939&filename=A999\(25\).pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=29939&filename=A999(25).pdf).

⁴⁶ IMO, Enhanced Contingency Planning Guidance for Passenger Ships Operating in Areas Remote from SAR Facilities (2006), available at https://www.uscg.mil/hq/cg5/cg534/MassRescueOps/MSC_Circ_1184_Pax_Ships_in_Remote_Areas.pdf.

⁴⁷ PAME 2015 AMSA Recommendation I(D) *supra* note 28, at 7–8.

⁴⁸ UK Maritime and Coastguard Agency, Merchant Shipping Notice: The Large Commercial Yacht Code (LY3), available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444652/LY3_-_Final_Version.pdf.

⁴⁹ *Id.* at section 3.2.1

⁵⁰ *Id.* at section 3.2.2. The Large Yacht Code also references the IMO Guidelines for Ships Operating in Polar Waters (2009). *Id.* at section 3.2.2.

⁵¹ Antarctic Treaty Parties Resolution 10 (2012) – ATCM XXXV – CEP XV, Hobart, available at http://ats.aq/devAS/info_measures_listitem.aspx?lang=e&id=524.

A number of Arctic States have laws that require a certificate of competence for operators of pleasure craft, which may require the operator to pass an examination or boating safety course. For example, Canadian laws require all operators to carry proof of competence on board, except persons operating in the Northwest Territories or Nunavut, who do not need such proof.⁵² Administering a similar-type of examination, Denmark requires Captains and Mates aboard pleasure craft to have a certificate of competency, but only if the vessel is 15 meters or longer.⁵³ Under Swedish law, a certificate of competence is required to operate a pleasure craft that is longer than 12 meters and wider than 4 meters.⁵⁴ Moreover, every Skipper (Captain) of a pleasure craft is subject to the Swedish Maritime Code.⁵⁵ In Norway anyone who operates a pleasure craft longer than 8 meters and/or has an engine stronger than 25hp must have a certificate of competence.⁵⁶ The United States Coast Guard has issued “Guidance on the Application of U.S. Inspection Law to Foreign Flagged Yachts Calling on Ports or Places within the Seventeenth District [which includes all U.S. Arctic waters]” (May 30, 2014).⁵⁷

The International Certificate of Competence (ICC) is another certification of competence available to pleasure craft operators. The United Nations Economic Commission for Europe (UNECE) Inland Transport Committee Working Party (ITCWP) on Inland Water Transport⁵⁸ Resolution 40 recommends that implementing governments, through competent national authorities, issue an ICC to pleasure craft operators who have (1) previously earned an official national certificate of competence and (2) satisfied certain other requirements related to pleasure craft operation.⁵⁹ As long as an exam was passed for the earlier national certificate of competence, the ICC can be obtained without passing another examination.⁶⁰ The ICC allows the holder to voyage internationally, but is not an alternative to a national qualification.⁶¹ Moreover the ICC is only relevant in a foreign State’s territorial waters; therefore it is particularly important for chartering a vessel in a foreign country.⁶² Finland and Norway have all accepted Resolution 40, while the United States and the Russian Federation have not;

⁵² *Id.* at § 7(4)(a).

⁵³ Act on Manning of Ships Part 4 (Act no. 15, 13 January 1997) available at

<http://www.dma.dk/SiteCollectionDocuments/Center%20for%20S%C3%B8farende%20og%20Fiskere/pleasurecraft.pdf>.

⁵⁴ Marcella Castells i Sanabra and Jordi Torralbo Gavilán, *Study on the License Requirements for Pleasure Boats in the European Union*, 5th International Conference on Maritime Transport, Technological Innovation and Research 1107–08 available at

<http://upcommons.upc.edu/e-prints/bitstream/2117/16649/1/STUDY%20ON%20THE%20LICENSE%20REQUIREMENTS%20FOR%20PLEASURE%20BOATS%20IN%20THE%20EUROPEAN%20UNION.pdf>.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ On file with Peter H. Oppenheimer, Chief, International Section, NOAA Office of General Counsel. This U.S. Coast Guard Guidance for the Seventeenth District is similar to the Guidance issued by the U.S. Coast Guard’s Eleventh District, available at <http://www.c2csanfrancisco.com/wp-content/uploads/2012/12/D11-Policy-Ltr-12-01.Yachts.pdf>.

⁵⁸ UNECE Working Party on Inland Water Transport, *Terms of Reference*, 1 (2012) available at

<http://www.unece.org/fileadmin/DAM/trans/main/sc3/tor/ToR-SC3e.pdf> (noting that the Working Party “act[s] within the framework of the policies of the United Nations and the Economic Commission for Europe (hereafter UNECE) under the general supervision of the Inland Transport Committee (hereafter ITC) and in conformity with the Terms of Reference of UNECE (E/ECE/778/Rev.4)”).

⁵⁹ UNECE Inland Transport Committee Working Party on Inland Water Transport, *International Certificate for Operators of Pleasure Craft, Resolution 40, Revision 3, 3–5 (2013) [hereinafter Resolution 40]* available at <http://www.unece.org/fileadmin/DAM/trans/doc/2013/sc3wp3/ECE-TRANS-SC3-147-rev3e.pdf>.

⁶⁰ *Id.* at 4.

⁶¹ See UNECE, *Inland Water Transport*, available at <http://www.unece.org/trans/main/sc3/sc3.html>.

⁶² See *Id.*

Resolution 40 does not mention the status of other Arctic nations.⁶³ No Arctic specific elements to the ICC exist, but the ICC allows operators who possess it to travel to an Arctic State's waters and prove competence to the Arctic State's officials.

Several International organizations and associations have also developed recreational vessel guidelines. Several of these entities require their members to follow their guidelines regarding safety and environmental awareness in the Arctic. For example, The Association of Arctic Expedition Cruise Operators (AECO) requires members to agree to visitor, site, wildlife, operational, and biosecurity guidelines.⁶⁴ The International Association of Antarctica Tour Operators (IAATO) is another international organization that promotes safe and environmentally responsible private-sector travel, through visitor guidelines for example, in the Antarctic.⁶⁵ IAATO has over 100 members.⁶⁶ The IAATO visitor guidelines require all visits to be in accordance with the Antarctic Treaty and offer guidance on environmental awareness, preservation of the Antarctic's pristine nature, and boating safety.⁶⁷

IV. USA Recommendations

The United States encourages all States that flag pleasure craft that sail in the Arctic regularly to evaluate and where necessary or appropriate, take steps to enhance the safety of pleasure craft in the Arctic while at the same time promoting sustainable Arctic marine tourism.

The USA more specifically recommends that PAME member governments:

- (1) adopt a ROD reiterating this encouragement;
- (2) invite a representative of a pleasure craft association or an individual who has extensive experience sailing pleasure craft in the Arctic or Antarctic to make a presentation on Arctic pleasure craft safety and opportunities for enhancing such safety;
- (3) invite a PAME member government expert – perhaps from a Transport Ministry or a Coast Guard -- to make a presentation on national government experience with pleasure craft safety in Arctic waters subject to its jurisdiction;
- (4) explore the possibility of developing a PAME work plan project that would more comprehensively assess existing and projected pleasure craft activities in the Arctic, identify existing international, industry and other stakeholder standards, policies and recommendations that pertain to Arctic pleasure craft safety and the prevention of pollution from such craft in the Arctic, and evaluate whether there are opportunities for PAME to help enhance pleasure craft safety and pollution prevention, for example by supplementing or suggesting amendments to those standards, policies and recommendations; and

⁶³ Resolution 40 *supra* note 59, at 8–9 (listing the Finnish Transport Safety Agency as Finland's competent authority and the Norwegian Maritime Authority as Norway's competent authority).

⁶⁴ AECO Guidelines available at <http://www.aeco.no/guidelines/> and <http://www.aeco.no/guidelines/site-guidelines/>.

⁶⁵ See IAATO Directory available at <http://apps.iaato.org/iaato/directory/list.jsf>.

⁶⁶ IAATO Visiting Guidelines available at <http://iaato.org/visitor-guidelines>. Note that these are in fact Antarctic Treaty Guidelines adopted by the Antarctic Treaty Parties. See Antarctic Treaty Parties Resolution 3 (2003), ATCM XXXIV – CEP XIV, Buenos Aires, *General Guidelines for Visitors to the Antarctic*, available at http://www.ats.aq/devAS/info_measures_listitem.aspx?lang=e&id=496.

⁶⁷ See *id.*

- (5) explore the possibility of developing a PAME ROD that would recommend IMO consideration of pleasure craft safety in Phase II of the Polar Code.

Appendix A⁶⁸

Name (alphabetical) Year in Arctic Flag	Description of Pleasure Craft or Voyage	Incidents
<i>Altan Girl</i> 2012 Canada	Sailboat owned by Erkan Gursoy attempted to sail the NWP, but became trapped in Arctic sea ice. ⁶⁹ Vessel measured 11 meters (36 feet). ⁷⁰ Ultimately completed a solo west-to-east NWP on 10/24/14, after the <i>Healy</i> rescue. ⁷¹	U.S. Coast Guard cutter <i>Healy</i> rescued Erkan after cutting a 19 kilometer (12 mile) path through the ice to reach him. The <i>Healy</i> had been on a National Science Foundation-funded research mission at the time. ⁷²
<i>Aventura IV</i> 2014 UK	Yacht sailed by 15-year-old Nera Cornell and her grandfather, Jimmy Cornell, on a 1.5-month Arctic voyage from July–August 2014. ⁷³ Vessel measured 13.5 meters (44 feet). ⁷⁴	None officially recorded, though beset by ice; self-rescued and retreated. ⁷⁵
<i>Fine Tolerance</i> 2005 Australia	Yacht attempting NWP became stuck in ice; ultimately completed NWP after being rescued. ⁷⁶	Rescued by Canadian Coast Guard icebreaker <i>Sir Wilfred Laurier</i> . ⁷⁷
<i>Fiona</i> 2009 US	Yacht attempted and completed NWP, but not without difficulty. Vessel measured 12.8 meters (42 feet). ⁷⁸	Trapped in ice and requested icebreaker assistance. ⁷⁹

⁶⁸ **Disclaimer:** The information in this table is gathered from publicly available news and government sources. This list is not necessarily exhaustive, and it is accurate only to the extent of the information contained in the cited sources for which the U.S. does not make a particular claim of accuracy.

⁶⁹ Michelle Theriault Boots, *Mariner trying to sail Northwest Passage rescued after sailboat gets stuck in sea ice near Barrow*, ALASKA DISPATCH NEWS (July 13, 2014) available at <http://www.adn.com/article/20140713/mariner-trying-sail-northwest-passage-rescued-after-sailboat-gets-stuck-sea-ice>.

⁷⁰ *Id.*

⁷¹ *Northwest Passage supra* note 40.

⁷² Boots *supra* note 69.

⁷³ Nera Cornell, *All posts by: Nera Cornell*, CORNELL SAILING (2014) available at <http://cornellsailing.com/author/nera>.

⁷⁴ *About Aventura*, CORNELL SAILING (last updated 2014) available at <http://cornellsailing.com/aventura/about-aventura/> (listing dimensions of Aventura IV).

⁷⁵ Cornell Sailing, *Video: Aventura trapped by ice in Arctic Bay*, CORNELL SAILING (2014) available at <http://cornellsailing.com/2014/08/video-aventura-trapped-ice-arctic-bay/> (containing a video of Aventura IV trapped in ice).

⁷⁶ Wilkes et al. *supra* note 26, at 2, 40.

⁷⁷ Roger B. Swanson, *Into the Ice Return to the Northwest Passage*, SAILING BREEZES available at http://www.sailingbreezes.com/sailing_breezes_current/articles/Aug06/intoice5.htm/

⁷⁸ Wilkes et al. *supra* note 26, at 41.

<i>Geraldine</i> 2008 US	Yacht attempted and completed NWP, but not without difficulty. Vessel measured 14 meters (46 feet). ⁸⁰	Experienced mechanical mishaps, engine trouble, fried electrical system, and fouled propeller, which necessitated on-the-go repairs. ⁸¹
<i>Idlewild</i> 2005 Canada	Yacht attempting NWP became stuck in ice. Vessel measured 17.3 meters (57 feet). ⁸²	Escorted by Canadian Coast Guard icebreaker <i>Sir Wilfred Laurier</i> . Rescued at the same time as <i>Fine Tolerance</i> (mentioned above). ⁸³
<i>Jotun Arctic</i> 2005 Norway	Yacht attempting to continue NWP after overwintering near Arctic Bay became stuck in ice again. ⁸⁴ Vessel measured 13 meters (43 feet). ⁸⁵	Escorted by CCG icebreaker <i>Sir Wilfred Laurier</i> . Rescued at the same time as <i>Fine Tolerance</i> (mentioned above). ⁸⁶
<i>Luck Dragon</i> 2007 UK	Jeffery Allison hoped to sail around the world via the NWP, but en route to Dutch Harbor, bad weather and a crew mutiny forced Allison and his two hired hands to abandon ship. ⁸⁷	Vessel eventually abandoned in the Bering Sea. ⁸⁸
<i>Perithia</i> 2009 Germany	14.6 meter (48 feet) yacht attempted and completed NWP, but not without difficulty. ⁸⁹	Lost sails and engine in storm. CCG rescued yacht outside Cambridge Bay. ⁹⁰
On Jet Skis 2013	After weather briefings from Canadian Coast Guard, Steve Moll and six other Americans	With ice trapping their jet skis and fuel boat, the

⁷⁹ Margaret Johnston et al., *Strategies for Managing Arctic Pleasure Craft Tourism: A Scoping Study*, Report to Transport Canada 23–25 (2013) available at http://www.arctictourismandclimate.lakeheadu.ca/sites/default/files/Pleasure_Craft_Aug2013-7_ONLINE.pdf.

⁸⁰ David Shaw, *Northwest Passage*, SOUNDINGS (July 31, 2009) available at <http://www.soundingsonline.com/features/lifestyle/237752-northwest-passage>.

⁸¹ *Id.*

⁸² Wilkes et al. *supra* note 26, at 40.

⁸³ Johnston *supra* note 79, at 23–25; Swanson *supra* note 77.

⁸⁴ Sarah Minogue, *Northwest Passage more congested than ever*, NUNATSIAQ ONLINE (Sept. 30, 2005) available at http://www.nunatsiaqonline.ca/archives/50930/news/features/50930_01.html.

⁸⁵ *Id.*

⁸⁶ Johnston *supra* note 79, at 23–25; Swanson *supra* note 77.

⁸⁷ Eric W. Manchester, *Yachting in the Arctic*, PACIFIC YACHTING, Feb. 2009, at 82 available at <http://www.arcticwandering.com/pacificyachting.htm/>

⁸⁸ Johnston *supra* note 79, at 23–25.

⁸⁹ Wilkes et al. *supra* note 26, at 41.

⁹⁰ Johnston *supra* note 79, at 23–25.

US	attempted to cross the NWP during their jet ski circumnavigation of the globe. ⁹¹ Real-time freezing in the Franklin Strait, however, locked them in ice and thwarted the crossing. ⁹²	Americans called CCG icebreaker, <i>Sir Wilfred Laurier</i> , to rescue them. ⁹³
<i>Tico</i> 2010 France	In a rowboat, Matthieu Bonnier rowed solo to Resolute, Canada after starting out from Greenland; he became the first person to row across Baffin Bay from Greenland to Canada's border. ⁹⁴	Stuck in ice; towed to Cambridge Bay by a Canadian Coast Guard auxiliary boat and did not continue NWP. ⁹⁵
<i>Arctic Wanderer</i> ⁹⁶ 2006 US	When sailing from Greenland to Alaska, mechanical troubles caused Gary Ramos to winter in Cambridge Bay. Still stranded one year later, he flew back to the US for work. When he attempted to retrieve his boat, Canadian officials denied him reentry.	Problems with Immigration because Canadian officials believed he had been living illegally at Cambridge Bay.
<i>Barrabas</i> ⁹⁷ 2008 UK	Adrian Flanagan's yacht <i>Barrabas</i> was the first British vessel to enter Russia's Arctic territorial waters; he became the first to circumnavigate the world solo via the Arctic. Vessel measured 11.6 meters (38 feet).	None officially recorded, but hitched a ride with a ship in the Russian Arctic because sea was icebound (not a rescue).
<i>Berserk II</i> ⁹⁸ 2007 Norway	Vessel sailed from Greenland to Cambridge Bay, but failed to report to immigration officials and attempted to hide two crewmembers. Crew actions also triggered community concerns about behavior. Steel-hulled sailboat measured 14.6 meters (48 feet).	"Wild Vikings" onboard charged with immigration offenses ⁹⁹

⁹¹ Bob Weber, *Jet ski crossing of Northwest Passage fails*, The HAMILTON SPECTATOR (Sept. 6, 2013) available at <http://www.thespec.com/news-story/4068357-jet-ski-crossing-of-northwest-passage-fails/>.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ Frenchman Cruises *The Northwest Passage By Rowboat*, BOATTEST.COM (Sept. 1, 2010) available at http://www.boattest.com/resources/view_news.aspx?newsid=4259.

⁹⁵ Johnston *supra* note 79, at 23–25.

⁹⁶ Manchester, *Yachting in the Arctic*, *supra* note 87.

⁹⁷ Ellie Simmonds, *Sailor Returns to Britain*, THE OXFORD TIMES (May 21, 2008) available at <http://www.oxfordtimes.co.uk/news/2287097.print/>.

⁹⁸ Manchester *supra* note 87, at 83.

⁹⁹ Margaret Johnston et al., *Strategies for Managing Arctic Pleasure Craft Tourism: A Scoping Study*, Report to Transport Canada 12–13 (2013) available at http://www.arctictourismandclimate.lakeheadu.ca/sites/default/files/Pleasure_Craft_Aug2013-7_ONLINE.pdf.

<i>Blue Shadow Two</i> 2010 <i>Unknown</i>	N/A	Ran out of gas between Churchill and Arviat. ¹⁰⁰
<i>Fortrus</i> 2012 <i>Australia</i>	Luxury yacht visited Cambridge Bay and triggered community concerns about passenger behavior due to excessive partying and alleged harassing of native wildlife. Vessel measures 34 meters (112 feet). ¹⁰¹	Investigation under Nunavut Liquor Act resulted in several liquor violations and concerns about interactions with wildlife. ¹⁰²
<i>Manevai</i> 2014 <i>France</i>	Vessel attempted, but did not complete, an east-to-west NWP in 2014. ¹⁰³ Vessel measures 14 meters (46 feet). ¹⁰⁴	None officially recorded, but turned back due to ice blockage.
<i>Scorpius</i> 2012 <i>Russian</i>	Yacht, captained by Sergei Nizovtsev, set several world records during its Arctic circumnavigation: it became the first sailing ship to (1) cruise around Spitsbergen Island from the north, (2) circle the North Pole in 60 days, and (3) circumnavigate the North and South Pole in the same year. ¹⁰⁵ Vessel measures 30 meters (98 feet).	None officially recorded, but stuck in ice floes in the East Siberian Sea with the crew preparing for evacuation. After drifting for several days, however, the boat broke free with no damage. ¹⁰⁶
<i>Suilven107</i> 2014 <i>UK</i>	Yacht owned by John Andrews attempted a NWP in 2014, but did not complete it. Vessel measures 14.3 meters (47 feet).	None officially recorded, but beset by ice; self-rescued and retreated.
<i>Small Motorboat108</i> 2006 <i>Romania</i>	Romanian who had been deported re-entered Canada from Greenland on a 6-meter (20 foot) motorboat.	Apprehended and charged with immigration violation by Canadian authorities.

¹⁰⁰ *Id.*¹⁰¹ Jane George, *Private yacht visitors to Nunavut create mixed impression in Cambridge Bay*, NUNATSIAQ ONLINE (Oct. 1, 2012) available at<http://www.nunatsiaqonline.ca/stories/article/65674private-yacht-visitors-to-nunavut-create-mixed-impression-in-cambridge/>.¹⁰² Johnston *supra* note 79, at 23–25.¹⁰³ *Northwest Passage supra* note 40.¹⁰⁴ *Manevai—FS2004—position and weather*, SAILWX.INFO (Nov. 12, 2014) available at <http://www.sailwx.info/shiptrack/shipposition.phtml?call=FS2004>.¹⁰⁵ ARCTIC INFO, *supra* note 37.¹⁰⁶ Anna Subbotina, *The yacht “Scorpius” broke away from ice captivity*, SCORPIUS NIZOVITSEV.NET (Sept. 2, 2012) available at http://www.nizovtsev.net/eng/sobitia/v_obyatiah_pyati_okeanov/?doc=788.¹⁰⁷ *Blue Planet, supra* note 41.¹⁰⁸ Johnston, *supra* note 79, at 23–25.

<p><i>By Rowboat</i></p> <p><i>The Old Pulteney</i> 2011 UK</p> <p>2013–2014 France</p>	<p>Crew of 6 led by Jock Wishart became the first ever to row to the magnetic North Pole.</p> <p>In a 6-meter (20 feet) long rowboat that weights 160 kilograms (200 pounds), Charles Hedrich attempted to become the first person to row the NWP. After stopping for the winter because of ice at Tuktoyaktuk, Northwest Territories in 2013, Hedrich resumed his quest in June 2014 and made it at least as far as Gjoa Haven in the Queen Maud Gulf; no subsequent information was found on adventure's outcome.¹⁰⁹</p>	<p>After reaching the pole, expedition extracted by plane because waters were freezing and preventing them from rowing back.¹¹⁰</p> <p>None recorded, but became iced-in at Tuktoyaktuk, Northwest Territories in 2013.¹¹¹</p>
---	---	--

¹⁰⁹ Michele LeTourneau, *Man rowing Northwest Passage*, NORTHERN NEWS SERVICES (Sept. 1, 2014) available at http://www.nnsl.com/frames/newspapers/2014-09/sep1_14mr.html.

¹¹⁰ *Id.*

¹¹¹ *French man hopes to complete 7,000-km Northwest Passage trip in 2014*, NORTHWEST PASSAGE 2014 (July 14, 2014) available at

<http://northwestpassage2014.blogspot.com/2014/07/french-man-hopes-to-complete-7000-km.html>.