Eareckson, Peter

From: Eareckson, Peter
Sent: Saturday, April 17, 2010 0:37
To:

Subject: Option A and B Questionnaires (Due 14 May 2010): SLF Tonnage CG
Attachments: Option_A_Questionnaire_Rev_0.pdf; Option_B_Questionnaire_Rev_0.pdf

Good day to you all:

I am distributing the attached Option A and Option B questionnaires, which are due on Friday, 14 May 2010 per the schedule of the Action Plan (http://www.uscg.mil/imo/slf/docs/tonnage/Action_Plan_Rev_0.pdf). Please limit responses to one set of Option A and B questionnaires per country, NGO, etc.

The questionnaires reflect input from many participants, who deserve my warmest thanks for their extraordinary contribution to this effort. While I've done my best to incorporate all the comments and suggestions, it is possible (and even likely) that I have overlooked someone's input, or not resolved comments to his/her satisfaction. If this is the case, by all means please let me know as soon as possible, so that I can take appropriate corrective action to make amends.

The questionnaires were created using Adobe Forms 8.0, and are best completed electronically, saved, and then returned to me via email, with a copy to the other group participants. Unfortunately, the resulting electronic forms are not compatible with earlier versions of Adobe (you can save and print a blank copy of both questionnaires, but you will not be able to save the completed questionnaires using earlier Adobe versions). So, if you experience difficulty saving the completed questionnaires, try to upgrade to the latest version of Adobe, if you can. In the event that this is not possible, please contact me so we can make other arrangements. Also, don't hesitate to contact me if you don't understand any questions or issues addressed in the questionnaires, or otherwise need assistance.

Although much of this group's work is directed toward technical aspects of tonnage measurement, the Option B questionnaire provides a vehicle for input from participants who are not necessarily tonnage specialists, but nonetheless bring a wealth of experience to the group on how tonnage is used. Further, very little detailed information on the subject of net tonnage has been gathered up to this point. Therefore, even partial responses to the Option B questionnaire would be much appreciated, and could provide the group with valuable insight.

With my thanks in advance for your help in completing this Round 1 work item, and my warmest regards to you all.

Sincerely,

Peter Eareckson
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Tonnage CG Website: http://www.uscg.mil/imo/slf/tonnagecg.asp

Tonnage CG Participant Name: **Date Completed:**

Issue 1 Length Definition

Requirement/Interpretation TM Convention, Article 2(8) *"Length" means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that water line, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.* TM.5/Circ.5, Definitions, Paragraph *Length should be calculated at 96% of the total length of a waterline at 85% of the least moulded depth measured from the top of the keel.*

Description of Issue There are several areas where neither the TM Convention nor TM.5/Circ.5 provide sufficient information to permit assignment in a consistent manner of the length dimension, which is a determining factor for applicability of the TM Convention, and is widely used for applying design standards and, in some cases, fees. For example, the term "least moulded depth", which is the basis for the length assignment, is undefined, and various interpretations of the term can lead to length dimensions varying on the order of 5% or more. Further, with the increasing use of trainable water-jet propulsion units and similar combination steering/propelling devices, many ships are no longer fitted with rudder stocks, which is a key input in the length determination. Also, length can vary depending on treatment of bulbous bows, raked bows, raked transoms, sloping transoms, etc.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

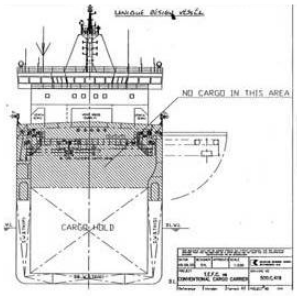
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 2 Novel Craft Provisions

Requirement/Interpretation TM Convention, Article 2(4) *"Gross tonnage" means the measure of the overall size of a ship determined in accordance with the provisions of the present Convention*. TM Convention, Regulation 1(3) *The gross tonnage and the net tonnage of novel types of craft whose constructional features are such as to render the application of the provisions of these Regulations unreasonable or impracticable shall be as determined by the Administration.*

Description of Issue Regulation 1(3) has been construed as allowing a flag State to calculate gross tonnage based on economic and safety considerations, "exempting" fully enclosed spaces which would otherwise have been included in tonnage. The result is the assignment of gross tonnage not reflective of a ship's "overall size" as defined in Article 2(4). As reported to Contracting Governments via TM Circular, the reduction in gross tonnage was approximately 60% in this case. Applying novel craft provisions in this manner can result in assignment of gross/net tonnages that have no relationship to a ship's overall size/useful capacity.



1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

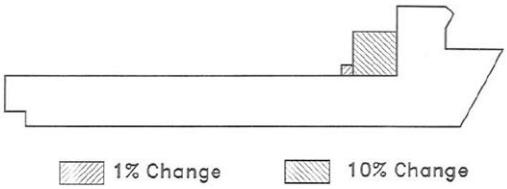
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 3 Tonnage Grandfathering

Requirement/Interpretation TM Convention, Article 3(2) *The present Convention shall apply to (a) new ships; (b) existing ships which undergo alterations or modifications which the Administration deems to be a substantial variation in their existing gross tonnage; (c) existing ships if the owner so requests; and (d) all existing ships, twelve years after the date on which the Convention comes into force, except that such ships, apart from those mentioned in (b) and (c) of this paragraph, shall retain their then existing tonnages for the purpose of the application to them of relevant requirements under other existing International Conventions.* TM.5/Circ.5, Application (Article 3(2)(d)) *The term "alterations or modifications which affect its tonnage" in Resolution A.758(18) means increase or decrease of more than 1% in either existing gross tonnage or gross tonnage calculated in accordance with the 1969 Tonnage Convention.*

Description of Issue Articles 3(2)(b) and (d) grant grandfathering privileges to certain older ships that have not undergone alterations "deemed by the Administration" to be a "substantial variation in their existing gross tonnage". This provision allows a qualifying ship's owner to use the preexisting national tonnage (GRT) to apply older breakpoints in international conventions, including SOLAS and MARPOL. As described in document SLF 38/10/1 dated 16 December 1993, there appeared to be broad agreement that "substantial variation" meant a gross tonnage change on the order of 10%, and that a 1% change was effectively within the limit of calculation accuracy. Nonetheless, TM.5/Circ.5 established a 1% change as the breakpoint for loss of grandfathering privileges, creating confusion among ship owners, presenting difficulties in ensuring compliance, and raising the possibility of legal challenge.



1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 4 Listing of Spaces on the International Tonnage Certificate (ITC)

Requirement/Interpretation TM Convention, Article 9(2) *The form of the certificate shall correspond to that of the model given in Annex II.* TM.5/Circ.5, Form of Certificate, Paragraph 2 *Information inserted in the "location" columns on the reverse of the International Tonnage Certificate (1969) should not be detailed.*

Description of Issue The reverse side of the ITC form provides for the listing of information on included spaces (both cargo and non-cargo spaces) and excluded spaces. Presumably, this was to permit ready verification that a ship has not undergone changes since the ITC was issued, and that spaces used for carrying cargo and stores had been properly accounted for in tonnage. However, with advances in ship designs and resulting complex hull and superstructure geometries, the practice of listing enclosed spaces by "tiers" is becoming increasingly difficult to maintain and consistently apply. Also, it is unclear whether smaller individual spaces (e.g., masts, deck lockers, settees) should be listed separately on the ITC. Additional guidance on this subject would help ensure consistency among flag States.

Name of Space	Location	Length (m)
Hull	-----	-----
Superstr 02-04 Lvl	Fr 35-68	37.22
Superstr 05-06 Lvl	40-52	16.31

For illustrative purposes only. TM Convention does not apply to warships

1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 5 Specifying Lengths of Spaces on the International Tonnage Certificate (ITC)

Requirement/Interpretation TM Convention, Article 9(2) *The form of the certificate shall correspond to that of the model given in Annex II.* TM.5/Circ.5, Form of Certificate, Paragraph 2 *Information inserted in the "location" columns on the reverse of the International Tonnage Certificate (1969) should not be detailed.*

Description of Issue The reverse side of the ITC form provides for specifying the length of all listed spaces, presumably to assist in verification that a ship has not undergone changes since the tonnages were certified. However, in many cases it is difficult to establish the length of a deckhouse or other above-deck space, as the ends of deck structures are frequently stepped, fitted with deck overhangs, have lockers or seating that is built into or otherwise attached to the structure, etc. This has led to inconsistent application, both within and between flag States.

1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

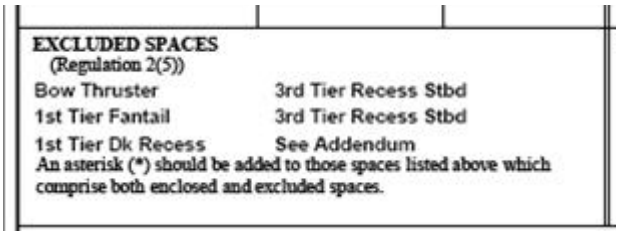
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 6 Listing Excluded Spaces on the International Tonnage Certificate (ITC)

Requirement/Interpretation TM Convention, Article 9(2) *The form of the certificate shall correspond to that of the model given in Annex II.* TM.5/Circ.5, Form of Certificate, Paragraph 2 *Information inserted in the "location" columns on the reverse of the International Tonnage Certificate (1969) should not be detailed.*

Description of Issue The reverse side of the ITC form provides a space for listing excluded spaces, but lacks sufficient room for specifying all excluded spaces on larger ships of complex design (e.g. cruise ships). Nor is it clear that the mere listing of an excluded space provides sufficient information to permit meaningful verification without access to associated tonnage calculations. Finally, space limitations on the form, and confusion regarding the need to even list excluded spaces, has resulted in different approaches among flag States, ranging from the attachment of addenda to the ITC, to omitting reference to the spaces altogether. Consideration should be given to either expanding this information (perhaps through use of a "standardized" addendum), or deleting the requirement altogether.



EXCLUDED SPACES
(Regulation 2(5))

Bow Thruster	3rd Tier Recess Stbd
1st Tier Fantail	3rd Tier Recess Stbd
1st Tier Dk Recess	See Addendum

An asterisk (*) should be added to those spaces listed above which comprise both enclosed and excluded spaces.

1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

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3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

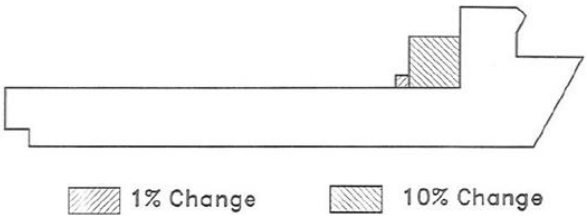
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 7 Remeasurement Following Alterations

Requirement/Interpretation TM Convention, Article 10(1) *Subject to any exceptions provided in the Regulations, an International Tonnage Certificate (1969) shall cease to be valid and shall be cancelled by the Administration if alterations have taken place in the arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry as indicated in the ship's passenger certificate, assigned load line or permitted draught of the ship, such as would necessitate an increase in gross tonnage or net tonnage.*

Description of Issue There are no universally accepted criteria for remeasuring a ship following alterations/modifications. Different administration apply different criteria: tonnage changes of unity, 1%, 2%, 5% and 10% have all been quoted, which can be problematic when a ship changes flag. Even small changes in assigned gross tonnage can cause ships to exceed critical regulatory breakpoints, affecting the design and operating standards that apply the ship (e.g., SOLAS, MARPOL, and STCW tonnage-based requirements). Further, it is unclear why a decrease in gross or net tonnage does not necessitate the remeasurement of a ship, if these parameters are to remain reflective of the ship's overall size and useful capacity, respectively.



1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 8 Acceptance of Interpretations of TM.5/Circ.5

Requirement/Interpretation TM Convention, Article 10(2) *A certificate issued to a ship by an Administration shall cease to be valid upon transfer of such a ship to the flag of another State, except as provided in paragraph (3) of this Article.* TM Convention, Article 13 *The privileges of the present Convention may not be claimed in favour of any ship unless it holds a valid certificate under the Convention.* TM.5/Circ.5, Cancellation of Certificate (Article 10(2)) *Ships holding an International Tonnage Certificate (1969), which do not comply with agreed interpretations of the provisions of the Convention, should be remeasured. The new characteristics should be determined and applied without delay.*

Description of Issue Article 13 precludes the claiming of the privileges of the TM Convention unless the ship holds a "valid" certificate under the Convention; however, the term "valid" is not defined in this context. The circumstances under which a port State could consider an International Tonnage Certificate (ITC) invalid, and therefore detain a ship, are unclear. TM.5/Circ.5 provides related interpretative language referring to Article 10(2), which appears to make the interpretations of TM.5/Circ.5 binding if a ship is undergoing a flag change. Consideration should be given to expanding this provision of TM.5/Circ.5 to include all ships, provided the interpretations are not applied retroactively.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

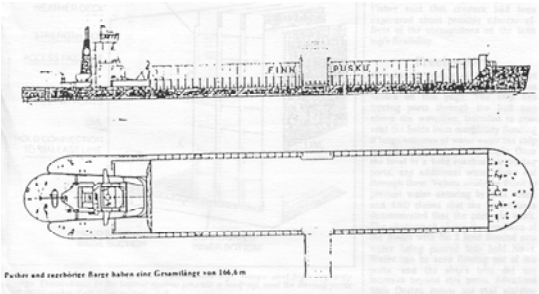
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

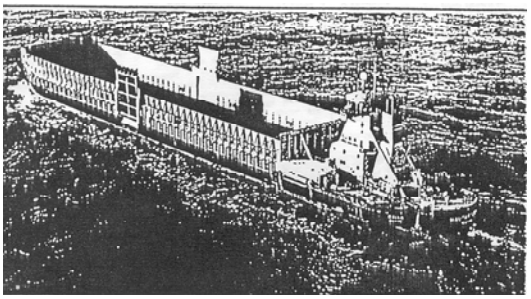
Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 9 Requirement for a Deck Above to Bound Enclosed Space

Requirement/Interpretation TM Convention, Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulk-head, shall preclude a space from being included in the enclosed space.*

Description of Issue Regulation 2(4) is unclear as to whether a space not within the ship's hull must be bounded by a deck above, in order for that space to be considered enclosed and therefore included in the total volume of all enclosed spaces (V). The issue was discussed at SLF 30 (document SLF 30/WP 4 dated 27 February 1985), and a decision made that, in effect, a deck above was required to bound an enclosed space, although there was not universal agreement on this interpretation. In theory, under this interpretation, the space bounded by the high coamings is not enclosed. Subsequently, IMO has taken different approaches, with volumes inside coamings of open-top containerships included in V, while volumes inside of coaming of dockships have been omitted.





1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 10 Treatment of Temporary Deck Equipment

Requirement/Interpretation TM Convention, Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulk-head, shall preclude a space from being included in the enclosed space.* TM.5/Circ.5, Definitions, Paragraph 4.3 *Tanks, permanently located on the upper deck, provided with removable pipe connections to the cargo system or the vent (de-airing) lines of the ship, should be included in* V_c.

Description of Issue Increasingly, ships in certain services are being fitted with temporary/semi-permanent tanks or modular installations such as portable quarters, seismic trailers, and processing facilities, which are sometimes referred to as "temporary deck equipment". Per Regulation 2(4), spaces bounded by portable partitions are included in volume measurement for tonnage calculation, yet TM.5/Circ.5 implies that a tank on the upper deck that is connected to ship systems must be "permanent" in order for it to be included in tonnage. While at least one flag State treats temporary deck equipment in the same manner as any other enclosed structure, it is not clear how other flag States are treating such spaces, nor is it clear how such spaces are to be identified on International Tonnage Certificates.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 11 Treatment of Deck Cargo Bounded by Enclosing Structure

Requirement/Interpretation TM Convention, Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulk-head, shall preclude a space from being included in the enclosed space.*

Description of Issue Neither the TM Convention nor TM.5/Circ.5 specifically addresses treatment of deck cargo. The space associated with deck cargo that is containerized or otherwise bounded by enclosing structure (e.g., portable liquid cargo tanks) appears to meet the definition of "enclosed space" in the sense that the space is bounded by "portable partitions or bulkheads". Therefore, it is unclear under what authority such enclosed deck cargo space may be ignored when calculating tonnage, as is typically the case, or why such spaces are treated differently from portable quarters and other temporary deck equipment spaces.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

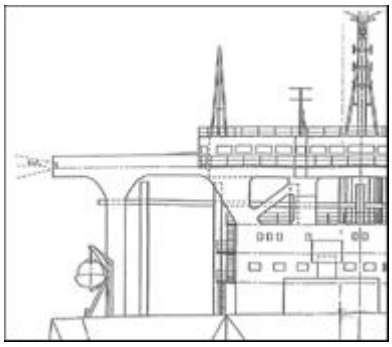
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 12 Treatment of Spaces Underneath Overhangs

Requirement/Interpretation TM Convention Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulk-head, shall preclude a space from being included in the enclosed space.*

Description of Issue Under the enclosed space definition of Regulation 2(4), space bounded by a deck above is considered enclosed space, and can be excluded only if it meets the excluded space requirements of Regulation 2(5). It appears that bridge wings and other overhangs do, in fact, bound enclosed space under this definition, even though as a matter of practice such spaces are generally ignored. Consideration should be given to developing generalized criteria (possibly under novel craft provisions) that could allow spaces with large height to breadth/depth aspect ratios, such as those bounded from above by bridge wings, to be considered as "unenclosed" and ignored from volume calculations.



1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 13 Definition of Awning

Requirement/Interpretation TM Convention Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening in the ship's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulk-head, shall preclude a space from being included in the enclosed space.*

Description of Issue The TM Convention treats spaces bounded by awnings differently than other spaces, but neither the TM Convention nor TM.5 Circ.5 defines what an awning is. For example, is an awning only cloth (e.g., canvas, tarpaulin), or does the term include other flexible solids such as plastic sheeting, or even materials such as Kevlar that have strength properties comparable to steel? Alternatively, should the term "awning" be defined on a functional basis (e.g., as a permanent or movable structure to protect the deck from the sun only). There have also be differences in interpretations as to whether, by extension, fabric covers and partitions are considered to bound space that would otherwise be enclosed. Depending on how this is interpreted, designers can obtain substantial reductions in tonnage through substitution of materials.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 14 Treatment of Space Bounded by Awnings

Requirement/Interpretation TM Convention, Regulation 2(4) *Enclosed spaces are all those spaces which are bounded by the ship's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings.* TM.5/Circ.5, Definitions, Paragraph 4.2 *Space located within the boundaries of "permanent or movable awnings" should be subject to treatment under regulation 2(5).*

Description of Issue. While Regulation 2(4) indicates that a "permanent or movable awning" is not considered to bound an enclosed space, TM.5/Circ.5 treats space within the bounds of such awnings as enclosed spaces, which is excluded from volume calculations only if it meets certain conditions. It is possible that Paragraph 4.2 was referring to spaces bounded on the sides by fabric-like material. Either way, it appears that TM.5/Circ.5 requires clarification.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 15 Shelves or Other Means for Securing Cargo or Stores in Excluded Spaces

Requirement/Interpretation TM Convention, Regulation 2(5) *Notwithstanding the provisions of paragraph (4) of this Regulation, the spaces referred to in subparagraphs (a) to (e) inclusive of this paragraph shall be called excluded spaces and shall not be included in the volume of enclosed spaces, except that any such space which fulfils at least one of the following three conditions shall be treated as an enclosed space: - the space is fitted with shelves or other means for securing cargo or stores; - the openings are fitted with any means of closure; - the construction provides any possibility of such openings being closed.*

Description of Issue Under Regulation 2(5), certain qualifying spaces may be excluded from tonnage calculations provided they are not "fitted with shelves or other means for securing or stores", regardless of whether or not the spaces are appropriated for the carriage of cargo or stores. Consistent application of this provision has proven problematic, as designers have devised ways to effectively secure cargo without the need for the space to be "fitted" with any means of securing it. In addition, there has been disagreement on what constitutes "stores", as under the equally authentic French version of the TM Convention, the term "provisions" is used. "Provisions" includes food and possibly other items of necessity, but not items such as ropes and life-jackets.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 16 Impact of End Opening Obstructions on Excluded Spaces

Requirement/Interpretation TM Convention, Regulation 2(5)(a) *Should the width of the space because of any arrangement except by convergence of the outside plating, become less than 90 per cent of the breadth of the deck, only the space between the line of the opening and a parallel line drawn through the point where the athwartships width of the space becomes equal to, or less than, 90 per cent of the breadth of the deck shall be excluded from the volume of enclosed spaces (Figures 2, 3 and 4 in Appendix 1).*

Description of Issue While Regulation 2(5)(a) addresses obstructions to end openings within a deck structure, neither this regulation nor TM.5/Circ.5 addresses the situation where there is an obstruction external to the opening. For example, gantry structures on fishing trawlers, large cable reels on certain towing and industrial vessels, and excessively high bulwarks extending on either side of the openings may serve to "protect" the openings, and are taken into consideration by some flag States. Guidance on how to address such situations would be helpful to ensure consistent treatment, and prevent exclusion of spaces that are effectively protected from the sea and weather.

1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

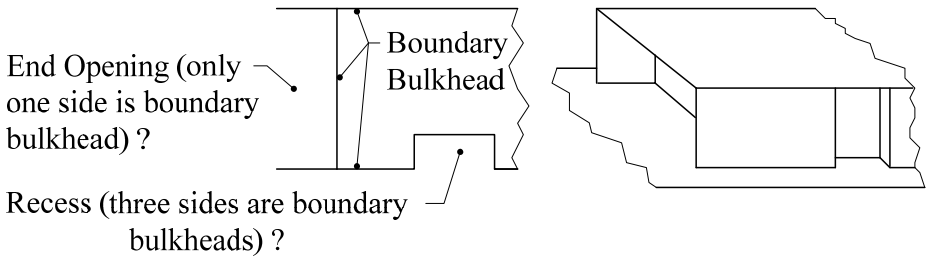
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 17 Excluding Space Opposite an End Opening as a Recess

Requirement/Interpretation TM Convention, Regulation 2(5)(a) *This provision shall be applied so as to exclude from the enclosed spaces only the space between the actual end opening and a line drawn parallel to the line or face of the opening at a distance from the opening equal to one half of the width of the deck at the line of the opening (Figure 1 in Appendix 1).* TM Convention, Regulation 2(5)(e) *A recess in the boundary bulkhead of an erection which is exposed to the weather and the opening of which extends from deck to deck without means of closing, provided that the interior width is not greater than the width at the entrance and its extension into the erection is not greater than twice the width of its entrance (Figure 10 in Appendix 1).*

Description of Issue If an opening in the end of a structure is treated as a "recess" under Regulation 2(5)(e) instead of a "space opposite an end opening" under Regulation 2(5)(a), up to twice the amount of space may be excluded. Various approaches have been used to address this issue, including the establishment of definitions for the term "boundary bulkhead" that would preclude treatment of a "typical" end opening as a recess. Clarification would be helpful to ensure consistency and avoid misuse.



1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 18 Characteristics of End and Side Openings for Excluded Spaces

Requirement/Interpretation Example: TM Convention, Regulation 2(5)(b) *A space under an overhead deck covering open to the sea and weather, having no other connexion on the exposed sides with the body of the ship than the stanchions necessary for its support. In such a space, open rails or a bulwark and curtain plate may be fitted or stanchions fitted at the ship's side, provided that the distance between the top of the rails or the bulwark and the curtain plate is not less than 0•75 metres (2•5 feet) or one-third of the height of the space, whichever is the greater (Figure 7 in Appendix 1).*

Description of Issue Under Regulation 2(5), the criteria for excluding space opposite end and side openings are largely prescriptive in nature, and can result in substantively different tonnage assignment on ships for which the physical arrangement varies only on the order of centimeters. Examples include: 1) criteria based on deck beam size under 2(5)(a); 2) requirements for a structure to be "side-to-side" under 2(5)(c); 3) impact of fitting of rails (allowed under 2(5)(b) but not under 2(5)(c)); and 4) prohibition against fitting of fashion plating to stanchions under 2(5)(b). Consideration should be given to development of functional requirements (possible under novel craft provisions). This would provide a more accurate indication of spaces that are sufficiently open to qualify for exclusion from tonnage where prescriptive requirements are inadequate and could adversely affect ship design.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 19 Deck Structure Height Requirements for Excluded Space Side Openings

Requirement/Interpretation TM Convention, Regulation 2(5)(c) *A space in a side-to-side erection directly in way of opposite side openings not less in height than 0•75 metres (2•5 feet) or one-third of the height of the erection, whichever is the greater. If the opening in such an erection is provided on one side only, the space to be excluded.*

Description of Issue Increasingly, ships of certain types (e.g., cruise ships, car carriers) have spaces opposite large side openings that may not qualify for exclusion as recesses under Regulation 2(5)(e), but could possibly be considered for exclusion under 2(5)(c). However, 2(5)(c) requires side openings to be at least "one third of the height" of the associated deck structure (erection) in order to allow a qualifying space to be excluded from volume calculations. It is unclear whether this height is taken to the top of the entire structure (the most "conservative" approach), or to an internal deck within the structure (an approach which could lead to fitting of "false" decks within the ship to allow smaller openings).

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

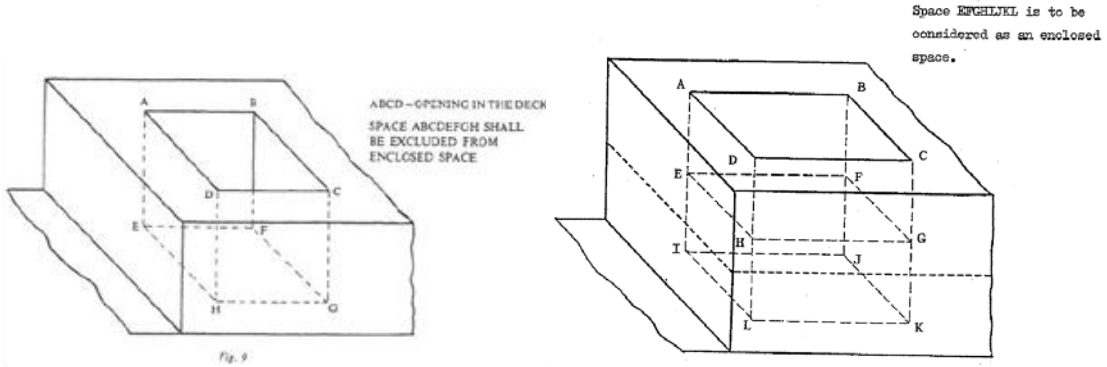
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 20 Restrictions on Excluding Space Below Uncovered Openings

Requirement/Interpretation TM Convention, Regulation 2(5)(d) *A space in an erection immediately below an uncovered opening in the deck overhead, provided that such an opening is exposed to the weather and the space excluded from enclosed spaces is limited to the area of the opening (Figure 9 in Appendix 1)*

Description of Issue The text of Regulation 2(5)(d) and the accompanying figure leave it unclear as to the extent to which a space "immediately below" a deck opening may be excluded. A question along these lines was raised by a flag State in document SLF 29/10 (3 November 1983), but was not resolved. Clarification would be helpful to ensure consistency and avoid misuse.



1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 21 Remeasurement Following Net Tonnage Change

Requirement/Interpretation TM Convention, Regulation 5(1) *When the characteristics of a ship, such as V, Vc, d, N_1 or N_2 as defined in Regulations 3 and 4, are altered and where such an alteration results in an increase in its net tonnage as determined in accordance with the provisions of Regulation 4, the net tonnage of the ship corresponding to the new characteristics shall be determined and shall be applied without delay.* TM Convention, Regulation 5(3) *When the characteristics of a ship such as V, Vc, d, N_l or N_2 as defined in Regulations 3 and 4 are altered or when the appropriate assigned load line referred to in paragraph (2) of this Regulation is altered due to the change of the trade in which the ship is engaged, and where such an alteration results in a decrease in its net tonnage as determined in accordance with the provisions of Regulation 4, a new International Tonnage Certificate (1969) incorporating the net tonnage so determined shall not be issued until twelve months have elapsed from the date on which the current Certificate was issued; provided that this requirement shall not apply: (a) if the ship is transferred to the flag of another State, or (b) if the ship undergoes alterations or modifications which are deemed by the Administration to be of a major character, such as the removal of a superstructure which requires an alteration of the assigned load line, or (c) to passenger ships which are employed in the carriage of large numbers of unberthed passengers in special trades, such, for example, as the pilgrim trade*

Description of Issue It is unclear how the Regulation 5 language relates to the language in Article 10 of the Convention, which also addresses remeasurement. For example, if a change in the characteristics cited in Regulation 5 causes net tonnage to change by an amount of unity (one unit of net tonnage), does the Regulation 5 language require both gross and net tonnage to be recalculated and recertified, even if the gross tonnage change is not of sufficient magnitude to cause remeasurement?

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 22 Treatment of Topside Spaces of Complex Shape

Requirement/Interpretation Convention, Regulation 6(2) *Volumes of appendages shall be included in the total volume*. TM Convention, Regulation 7(2) *The volumes shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Administration*. TM.5/Circ.5, Definitions, Enclosed Spaces, Paragraph 4.6 *Masts, kingposts, cranes, crane and container support structures, which are completely inaccessible and above the upper deck, separated on all their sides from other enclosed spaces should not be included in the total volume of all enclosed spaces. Air trunks having a cross-sectional area not exceeding 1 m^2 may also be excluded under the before-mentioned conditions*. TM.5/Circ.5, Calculation of Volumes, Paragraph 3 *Enclosed spaces above the upper deck, appendages and spaces open to the sea not exceeding 1 m^3 should not be measured.*

Description of Issue Accounting for the volume measurement of miscellaneous topside spaces having complex shape can be problematic in terms of evaluating whether the space may be ignored under TM.5/Circ.5 guidance as "not exceeding not exceeding 1 m^3", and/or in the excessive amount of time involved in calculating the "enclosed volume". Examples include shore gangway storage, double skin bulwarks, outside moulded seating (which may or may not be part of a bulwark), Jacuzzis and sun lounges, recessed swimming pools and spaces bounded from above by complex roof designs. These features are typically seen on yachts of modern construction, but may also be encountered in other ship types, including passenger ships.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

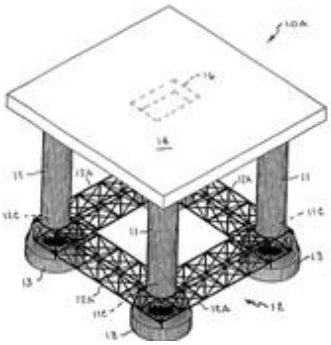
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 23 Treatment of Hull Spaces of Complex Shape

Requirement/Interpretation Convention, Regulation 6(2) *Volumes of appendages shall be included in the total volume*. TM Convention, Regulation 7(2) *The volumes shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Administration*. TM.5/Circ.5, Definitions, Enclosed Spaces, Paragraph 4.6 *Masts, kingposts, cranes, crane and container support structures, which are completely inaccessible and above the upper deck, separated on all their sides from other enclosed spaces should not be included in the total volume of all enclosed spaces. Air trunks having a cross-sectional area not exceeding 1 m^2 may also be excluded under the before-mentioned conditions*. TM.5/Circ.5, Calculation of Volumes, Paragraph 3 *Enclosed spaces above the upper deck, appendages and spaces open to the sea not exceeding 1 m^3 should not be measured.*

Description of Issue Column-stabilized units, such as semi-submersible drilling units, and ships of similar design are often fitted with cross-bracing, for which volumes can be extremely difficult to calculate. Consideration should be given to developing guidance on how to treat such volumes in an efficient and consistent manner.



1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 24 Evaluating Accessibility of Mast, Kingposts and Support Structures

Requirement/Interpretation Convention, Regulation 6(2) *Volumes of appendages shall be included in the total volume*. TM Convention, Regulation 7(2) *The volumes shall be calculated by generally accepted methods for the space concerned and with an accuracy acceptable to the Administration*. TM.5/Circ.5, Definitions, Enclosed Spaces, Paragraph 4.6 *Masts, kingposts, cranes, crane and container support structures, which are completely inaccessible and above the upper deck, separated on all their sides from other enclosed spaces should not be included in the total volume of all enclosed spaces.*

Description of Issue TM.5/Circ.5 allows masts, kingposts, cranes, crane and container support structures that are greater than 1 m^3 in volume to ignored when calculating volume, if they are "completely inaccessible". In practice, however, the majority of such spaces are accessible in some fashion for survey and maintenance, which brings the "accessibility" constraint into question. This matter should be reviewed in the interest of ensuring consist measurement treatment of such spaces.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

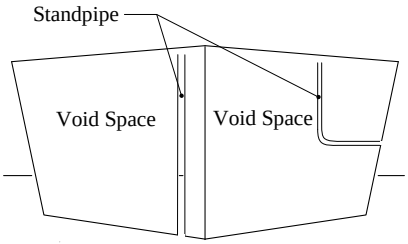
6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

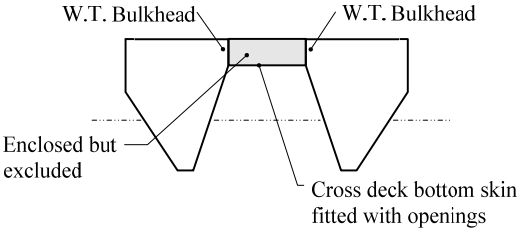
Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 25 Treatment of Spaces Inside the Hull as Open to the Sea

Requirement/Interpretation TM Convention, Regulation 6(3) *Volumes of spaces open to the sea may be excluded from the total volume.* TM.5/Circ.5, Calculation of Volumes, Paragraph 2 *Hawse pipes, sea-valve recesses, thruster tunnels, stern chutes in fishing vessels, dredging wells in dredgers and other similar spaces fitted in the ship's hull should be dealt with as spaces open to the sea.*

Description of Issue Regulation 6(3) allows volumes of spaces open to the sea to be excluded from tonnage. The degree to which a normally flooded or free-flooding space inside the hull is considered "open" has required interpretation, in view of the criteria of Regulation 2(5) that requires spaces above the upper deck to be reasonably "open" before they may be excluded. Further, designers have sought to reduce tonnage or principal dimensions through contrivances to treat otherwise enclosed spaces as spaces that are "open spaces to the sea". Examples include: 1) standpipes in underdeck voids and ballast spaces; 2) holes in bows and sterns of ships of all types; and 3) holes in cross-deck structures on multi-hull ships. Consideration should be given to developing guidance on how to treat such volumes in a consistent manner





1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

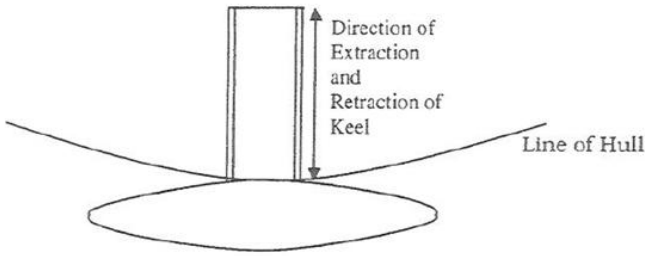
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 26 Treatment of Spaces Outside the Hull as Open to the Sea

Requirement/Interpretation TM Convention, Regulation 6(3) *Volumes of spaces open to the sea may be excluded from the total volume.* TM.5/Circ.5, Calculation of Volumes, Paragraph 2 *Hawse pipes, sea-valve recesses, thruster tunnels, stern chutes in fishing vessels, dredging wells in dredgers and other similar spaces fitted in the ship's hull should be dealt with as spaces open to the sea.*

Description of Issue Regulation 6(3) allows volumes of spaces open to the sea to be excluded from tonnage. The degree to which a space outside the hull is considered open to the sea has required interpretation in cases where free communication between the space and the sea is in some way restricted. Examples include: 1) "wells" or "pockets" for retractable keels and stabilizers with fairing plates; 2) semi-weatherproof storage spaces in the stern step areas of yachts that are protected from the sea non-watertight closures; 3) bow thrusters tunnels fitted with doors to reduce underwater resistance; and 4) sea valve recesses ("sea chests") fitted with fine mesh strainers.



1. **Types of ships principally affected (check all that apply).**

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. **Estimate of number of ships potentially affected as percentage of world fleet.**

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. **Estimate of potential impact on gross/net tonnage assignments of affected ships.**

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. **Opinion on need to amend TM Convention to address.**

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. **Opinion on effect on ship design / safety / crew accommodation if unresolved.**

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

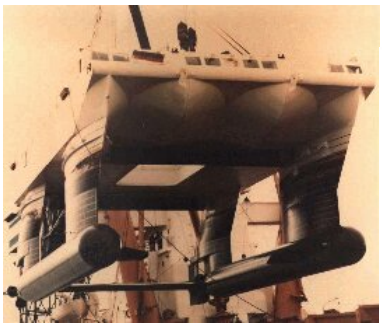
6. **Opinion on overall importance of resolving issue to ensure uniform application/integrity.**

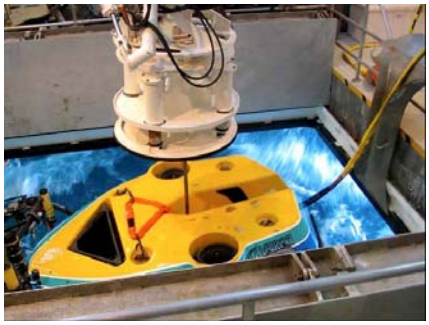
Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 27 Treatment of Moon Pools

Requirement/Interpretation TM Convention, Regulation 6(3) *Volumes of spaces open to the sea may be excluded from the total volume.* TM.5/Circ.5, Calculation of Volumes, Paragraph 2 *Hawse pipes, sea-valve recesses, thruster tunnels, stern chutes in fishing vessels, dredging wells in dredgers and other similar spaces fitted in the ship's hull should be dealt with as spaces open to the sea.*

Description of Issue Moon pools and similar large "though hull" openings that are sometimes fitted with covers or are otherwise covered from above by enclosing structure within the ship's hull or above the upper deck. In addition, some moon pool wells are fitted with retractable doors at their lower extremities, or at some distance from the keel, which in some cases serve as non-watertight fairings and in others as watertight closures. It is unclear as to whether spaces fitted with such covers or doors may be excluded as open to the sea under Regulation 6(3), and if so, to the extent the space above the doors may be treated as excluded.





1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Issue 28 TM.5/Circ.5 Format and Content

Requirement/Interpretation TM.5/Circ.5 Paragraph 1 *The Maritime Safety Committee, at its sixty-third session (16 to 25 May 1994), agreed to a consolidated set of interpretations of the provisions of the International Convention on Tonnage Measurement of Ships, 1969, as set out in the annex, which supersede interpretations contained to in circulars TM.5/Circ.1, TM.5/Circ.l/Corr.l and TM.5/Circ.3.*

Description of Issue The consolidated interpretations of Annex of TM.5/Circ.5, which is 11 pages long, have grown considerably since such interpretations were initially issued in 1979 as a 3 page document. Further, interpretations established over the years were often developed to address specific situations, rather that providing broader guidance applicable to more general situations. In addition, updating of the Circular is necessary consistent with MSC Resolution 234 on open-top containerships. Consideration should be given to comprehensive review of this document, with the view toward replacing it with an updated version that is easier to use. This updated version could consolidate interpretations where appropriate, and express them in a more general way.

1. Types of ships principally affected (check all that apply).

Passenger ☐ Dry Cargo ☐ Liquid Cargo ☐ Industrial / Offshore ☐ Other ☐ Not Applicable / Don't Know ☐

2. Estimate of number of ships potentially affected as percentage of world fleet.

Very Small (<10%) ☐ Small (10% -30%) ☐ Moderate (30%-70%) ☐ Large (>70%) ☐ Not Applicable / Don't Know ☐

3. Estimate of potential impact on gross/net tonnage assignments of affected ships.

Low (<10% GT/NT) ☐ Moderate (10%-30% GT/NT) ☐ High (>30% GT/NT) ☐ Not Applicable / Don't Know ☐

4. Opinion on need to amend TM Convention to address.

Not Needed ☐ Possibly Needed ☐ Needed ☐ No Opinion / Don't Know ☐

5. Opinion on effect on ship design / safety / crew accommodation if unresolved.

Little Effect ☐ Moderate Effect ☐ Large Effect ☐ No Opinion / Don't Know ☐

6. Opinion on overall importance of resolving issue to ensure uniform application/integrity.

Low ☐ Moderate ☐ High ☐ No Opinion / Don't Know ☐

Questionnaire Option B (Promote Net Tonnage) **14 April 2010 Rev 0**

Tonnage CG Participant Name **Date Completed**

1. To what extent do you estimate that net tonnage under the TM Convention (NT) is being used (as opposed to gross tonnage (GT), deadweight tonnage, or other vessel parameters) in your country and/or the geographic region(s) under your purview, for each of the purposes listed below.

Extent NT is used for the following	Small	Medium	Large	No Opinion / Don't Know
Tonnage duties and Customs fees	☐	☐	☐	☐
Port/harbor fees, light dues etc.	☐	☐	☐	☐
Corporate income taxes	☐	☐	☐	☐
Vessel registration size limits	☐	☐	☐	☐
Other	☐	☐	☐	☐

2. Assuming an IMO Circular or Resolution is developed to promote use of NT as opposed to GT for applying tonnage-based fees, provide your opinion as to the importance of addressing the following items in the Circular or Resolution.

Item to be addressed in Circular/Resolution	Don't Address	Possibly Address	Definitely Address	No Opinion / Don't Know
NT's reflection of cargo spaces / # passengers	☐	☐	☐	☐
NT's current use to assess corporate income taxes	☐	☐	☐	☐
NT's current use to assess tonnage-based duties/fees	☐	☐	☐	☐
In no case is NT taken as less than 0.3 GT	☐	☐	☐	☐
Using NT instead of GT for assessing fees will:				
Avoid the crew space "penalty"	☐	☐	☐	☐
Avoid the segregated ballast space "penalty"	☐	☐	☐	☐
Avoid the environmental protection space "penalty"	☐	☐	☐	☐
Improve ship safety through higher freeboards	☐	☐	☐	☐

3. Were an IMO Circular or Resolution to be developed, in your opinion at what level should it be issued?

SLF ☐ MSC ☐ Assembly ☐ No Opinion / Don't Know ☐

4. Please list any studies, articles, documents, etc., you are aware of that describe how net tonnage is currently being used, either domestically or internationally.

5. Please provide any suggestions on ways to promote use of the net tonnage parameter (e.g., other than via an IMO Circular/Resolution, or by addressing additional issues in the Circular/Resolution).