SUB-COMMITTEE ON STABILITY AND LOAD LINES AND ON FISHING VESSELS SAFETY
55th session
Agenda item 9

SLF 55/INF.XXX
XXX October 2012
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DEVELOPMENT OF PROVISIONS TO ENSURE THE INTEGRITY AND UNIFORM IMPLEMENTATION OF THE 1969 TM CONVENTION

Information collected by the Correspondence Group

Submitted by the United States

SUMMARY

Executive summary:	This document provides contains information collected by the correspondence group on this agenda item that was established by SLF 54
Strategic direction:	2
High-level action:	2.1.1
Planned output:	2.1.1.2
Action to be taken:	Paragraph 5
Related documents:	SLF 55/9/XXX; resolutions A.388(X), A.494(XII), A.758(18), A.791(19) and MSC.234(82); circular TM.5/Circ.5

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Introduction

1 At its fifty-fourth session, the Sub-Committee established a correspondence group, under the coordination of the United States and with terms of reference as described in paragraph 9.8 of document SLF 54/17.

2 During the work of this group, a considerable amount of information was exchanged and collected, that provided the foundation for the group's report to the Sub-Committee as document SLF 55/9/XXX. The information was either included in, or obtained from responses to, two questionnaires, developed by the group for the Round 1 and Round 2 work, respectively, and which are referred to in document SLF 55/9/XXX. The Round 1 Questionnaire focused on evaluating proposed solutions to issues identified by the group's work. The Round 2 Questionnaire focused on evaluating text for proposed amendments to the TM Convention and updated interpretive documents, such as circular TM.5/Circ.5 and Assembly Resolutions A.758(18) and A.791(19).

Purpose

3 The purpose of this document is to provide the Sub-Committee with important detailed information collected during the group's work that was not included in document SLF 55/9/XXX. This collected information is considered to be relevant under this planned output, not only in

providing detailed information about the specific issues considered by the group, but also in identifying the various options that were developed by the group to address these issues, along with results of their evaluation by the group. Due to the magnitude and scope of this initiative, and the limited time available, the group did not have the opportunity in all cases to further develop individual proposed solutions, or to combine elements of various proposals for evaluation by the group. The group considers that documenting such detailed information that is otherwise not included in the group's report to the Sub-Committee could prove useful to the Sub-Committee during its further work on this planned output.

Information Collected

4 The information selected by the group for inclusion in this document is provided in annexes 1 to 5. A brief description of this information follows:

.1 **Annex 1 – Round 1 Issues, Proposals and Response**s This annex provides a description of each issue evaluated by the group during the course of its Round 1 work, along with a discussion of the associated solutions proposed by group participants, and a summary of comments offered by the group on each, as obtained from the Round 1 Questionnaires.

.2 **Annex 2 – Round 1 Results Summary** This annex summarizes the numerical scorings of the various proposed solutions to each identified issue, as obtained from the Round 1 Questionnaires.

.3 **Annex 3 – Unified Interpretations Proposals and Round 2 Results** This annex lists all revisions to the draft Unified Interpretations document (replacement for document TM.5/Circ.5) proposed by group participants during the course of the Round 2 work, and identifies the groups preferences for the various proposals as provided in the completed Round 2 Questionnaires.

.4 **Annex 4 – TM Convention Proposals and Round 2 Results** This annex lists all amendments to the TM Convention proposed by group participants during the course of the Round 2 work, and identifies the groups preferences for the various proposals as provided in the completed Round 2 Questionnaires.

.5 **Annex 5 – Round 2 Draft Assembly Resolution Reduced Gross Tonnage for Crew and Trainee Accommodation Spaces** This annex provides a draft Assembly Resolution addressing a reduced gross tonnage parameter for crew and trainee accommodation spaces that was offered by a group participant during the course of the Round 2 work, but was not sufficiently developed for the group to complete its evaluation. This draft resolution is associated with issue 11.c, "Use of Multiple Reduced Gross Tonnage Parameters".

Action requested of the Sub-Committee

5 The Sub-Committee is invited to use the information provided in the annexes during the course of its work on this planned output and take action as appropriate.

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ANNEX 1

ROUND 1 ISSUES, PROPOSALS AND RESPONSES

1 LENGTH

<u>Issue 1.a - Treatment of Unusual Hull Configurations</u> (SLF 53/5, annex 4, issue No. 1) The TM Convention and TM.5/Circ.5 do not provide sufficient information to permit assignment of the length dimension for certain unusual hull configurations in a consistent manner, which is a determining factor for applicability of the Convention, and is widely used for applying design standards and, in some cases, fees. These hull configurations include rudderless barges and column-stabilized units, as well as ships of various kinds fitted with bulbous bows, raked bows, raked transoms, and sloping transoms,. For example, the current TM.5/Circ.5 interpretations provide for applying the 96% factor of the TM Convention to rudderless barges, but not to column-stabilized units.

Proposals The group considered four proposals. One proposal recommended applying the 96% factor to the overall length measurement on the 85% waterline, or measuring to the rudder stock (if fitted) on that waterline. Two proposals recommended using Load Line dimensions, with one suggesting the invocation of novel craft provisions where the definitions differ and including an accompanying remark on the International Tonnage Certificate (1969) (ITC69), and the other suggesting simply that applicable Load Line interpretations be used. Another recommended applying the 96% factor in the case of column-stabilized units and other novel craft.

Questionnaire Responses Most respondents agreed with the proposal to apply the 96% factor to the length, including applying this factor to column-stabilized units. Several respondents argued against use of the Load Line dimensions on the ITC69, citing differences in definitions under the two Conventions, such as the treatment of the upper deck as opposed to the freeboard deck, especially for pure car carriers. One respondent also noted delays that could result because of the often late date of issuance of Load Line Certificates. One respondent suggested a remark on the ITC69 in cases where dimensions do not correspond to those on the Load Line Certificate. Another raised the issue of responsibility for an error in an assigned Load Line length that appears on an ITC69. Another argued against invoking novel craft provisions for the length assignment, on the basis that such provisions only apply for the gross and net tonnage assignment. Another suggested that for ships not covered by the current definition, the length should be taken as 96% of ship's overall length, instead of applying novel craft provisions.

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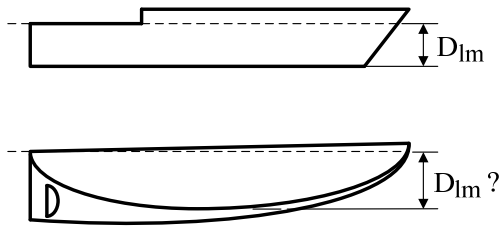
<u>Issue 1.b - Determining Least Moulded Depth (LMD)</u> (SLF 53/5, annex 4, issue No. 1) The term "least moulded depth", which is the basis for the length assignment, is undefined, and various interpretations of the term can lead to length dimensions varying on the order of 5% or more.



Proposals The group considered six proposals. One proposal recommended taking the length measurement at the underside of the upper deck in cases where it is not possible to establish a minimum depth due to a curved keel. Two proposals recommended, in effect, that the least moulded depth be defined as the smallest moulded depth along the length of the ship (i.e., measured from the top of the keel to the upper deck). One proposal recommended that the least moulded depth be taken as the vertical distance between the top of the keel at its lowest point and the underside of the upper deck at its lowest point. One proposal recommended using the Load Line Convention moulded depth definition for ships with inclined keels.

Questionnaire Responses Many different views were expressed on the various proposals. Most agreed, or agreed subject to changes, with the proposal to use the smallest depth along the length of the ship, with two respondents disagreeing on the grounds that the approach does not satisfactorily address configurations like those depicted in the lower of the two figures above, while several respondents made suggestions along the lines that in such cases, the least moulded depth could be taken at or near amidships. Another recommended using a tangent line approach instead, that takes into consideration raked straight keels, but with the moulded depth taken amidships in cases of curved keels. Two respondents highlighted differences between the TM Convention and Load Line Convention definitions related to least moulded depth, including the definitions of the upper and freeboard decks, with a third noting that the Load Line Convention also lacks a definition of least moulded depth, and a fourth describing a harmonization approach used by an Administration that could be applied, even for RO-RO ships, to arrive at consistent treatment. Several cited the need for illustrative figures.

<u>Issue 1.c - Trainable Rudders & Rudderless Ships</u> (SLF 53/5, annex 4, issue No. 1) With the increasing use of trainable water-jet propulsion units and similar combination steering/ propelling devices, many ships are no longer fitted with a rudder stock whose location is a key input in the length determination.

Proposals The group considered seven proposals. Four proposals recommended applying the 96% factor to the overall length on an 85% waterline in cases where the ship is not fitted with a rudder stock. One proposal recommended establishing an interpretation that trainable units are not taken into consideration, commenting that they are occasionally replaced with different units that could affect the length measurement. Another addressed a related issue on the possible

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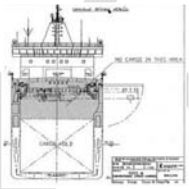
ambiguity in determining the length for situations where there are multiple rudders, recommending measurement to the axis of the aftermost rudder. Another suggested establishing an equivalent structure aft in situations where a rudder stock is absent.

Questionnaire Responses Most generally agreed with the application of the 96% factor to the overall length on an 85% waterline for ships without rudder stocks, and on establishing the interpretation on trainable units and the use of the aftermost rudder when establishing length measurements. One respondent suggested that the vertical axis of rotation of a trainable unit should instead be taken as equivalent to the axis of the rudder stock. Another commented that the recertification of the length in the case of a trainable unit replacement may be necessary only if modifications of a permanent nature are subsequently made. Another offered the opinion that the ship's overall length should not be used as the basis for applying the 96% factor, due to large variations in interpretations of this parameter under various international and domestic regulations. Most respondents disagreed with the proposal to establish an equivalent after structure for a rudder stock, with one respondent commenting that it is unclear what "equivalent" structure could be used.

2 NOVEL CRAFT

Issue 2.a - Applying Novel Craft Provisions (SLF 53/5, annex 4, issue No. 2) 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 tonnages 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 one 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.



Proposals The group considered six proposals. Four proposals sought to define novel craft in terms of those of nontraditional or unusual types or shapes, including those fitted with certain types of novel structures onboard, such as loading devices, or those to which the existing interpretations could not be applied. One proposal recommended establishing a framework under which IMO would evaluate each novel craft determination by a flag Administration. If approved, IMO would include it in the Unified Interpretations. If disapproved, IMO would recommend that the method not be used. One proposal recommended interpretations to the effect that in applying novel craft provisions, the gross and net tonnages must be reflective of the ship's overall size and useful capacity, respectively, and that an accompanying remark be included on the ship's ITC69. One proposal recommended that novel craft provisions not be construed as allowing exemption from measurement of those enclosed spaces which would otherwise have been included in tonnage, and proposed that Administrations be required to initiate IMO action to incorporate the novel craft determination into the Unified Interpretations. Another suggested that safety and economics not be used as a basis for novel craft determinations.

Questionnaire Responses There was little agreement on the proposals to define novel craft using language along the lines of nontraditional or unusual, with nearly equal numbers of respondents agreeing, or agreeing with changes, as disagreeing. One respondent who agreed

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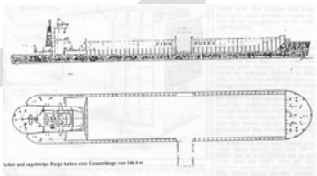
with comment expressed the view that the term "novel" should be used only when the measurement cannot be done using conventional methods. Respondents who disagreed highlighted the difficulties in making such determinations in the absence of specific criteria for what constitutes an “unusual” ship or ship type. There was little agreement on the proposal for IMO evaluation of novel craft determinations, with most neither agreeing nor disagreeing. Several respondents noted in some fashion the possible deterrent effect of this approach, but expressed concerns over the possible need for issuance of temporary ITC69s prior to a decision being made, the necessity of conducting this kind of work under planned outputs, and the disadvantage of frequent changes to the Unified Interpretations. Most agreed, with some changes, to the proposal to link novel craft determinations to a ship’s size and useful capacity, with one commenting that the corresponding remark on the ITC69 should not be included. Most agreed with the proposal to preclude exemptions and to incorporate determinations into the Unified Interpretations, with some expressing concerns along the lines of those expressed for the proposal recommending IMO evaluation. There was little agreement on the proposal related to safety and economics, with one respondent commenting that spaces where cargo is carried should not be excluded unilaterally. This respondent introduced the idea of creating a council of tonnage experts at SLF, while acknowledging the practical limitations of such an approach. One respondent commented that due consideration for safety should not be ruled out when applying novel craft provisions.

3 ENCLOSED SPACES

<u>Issue 3.a - Requirement for a Deck Above to Bound Enclosed Space</u> (SLF 53/5, annex 4, issue No. 9) 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), 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. Under this interpretation, the space bounded by 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 coamings of dockships have been omitted.



Proposals The group considered eight proposals. Several were along the lines of considering enclosed space to be bounded by the hull, by a deck, or by bulkheads or partitions without the need for a deck above to bound an enclosed space. Among these, various different approaches were recommended for: 1) establishing the number of “sides” of an uncovered space considered necessary to bound enclosed space; 2) treating low-sided boundaries such as bulwarks; and 3) accounting for the carriage of cargo or stores when deciding whether an uncovered space is eligible for exclusion. One proposal recommended that a space not within the hull must be bounded by a deck or covering above to be considered to be an enclosed space. One proposal recommended using novel craft provisions to apply an aspect ratio of height to width (a “1 in 4 rule”) to allow the upper portion of a large uncovered space to be treated as not enclosed, thereby eliminating the need for special treatment of certain ship types, including hopper barges, dockships, open-top containerships and offshore support ships. Another proposal recommended treating spaces bounded by coamings in both dockships and open-top containerships as enclosed spaces, noting the need for clarification.

Questionnaire Responses Most agreed with the proposals recommending that a deck above not be a condition for a space to be considered enclosed, and disagreed with the proposal advocating that such a condition be applied. Respondents expressed different views regarding whether two or three "sides" were necessary to bound enclosed space and if the "sides" should be connected as a condition for such treatment. One respondent commented that in performing such an evaluation, a deck above was considered to be a "side" in this context. Two respondents questioned a proposed height criterion of 1.5 m that was included in separate proposals, arguing against treating structures with low sides any differently, while one respondent recommended that any bulwarks required by the Load Line Convention should not be considered "partitions". Among those advocating a linkage between treatment as enclosed space and the usage of the space, some argued in favor of including the space in tonnage if the space is used, or intended, for carriage/appropriation of cargo or stores, with another arguing for inclusion on condition that the space is not equipped with lashing equipment. One respondent cautioned against developing detailed interpretations not rooted in the regulations of the TM Convention, while another argued for keeping rules general, because of the large number of different structures that must be addressed. Most disagreed with the proposed "1 in 4 rule", with respondents expressing concerns over the proposal's deviation from the TM Convention, its complexity, the possible misuse of novel craft provisions, and the potential for influencing future designs and adversely impacting safety.

Issue 3.b - Treatment of Temporary Deck Equipment (SLF 53/5, annex 4, issue No. 10) 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. Nor is it clear how such spaces are to be identified on the ITC69.

Proposals The group considered six proposals. One proposal recommended not including temporary/semi-permanent spaces in tonnage, if such spaces are listed as temporary on the ITC69. Two proposals recommended the inclusion of such spaces in tonnage, regardless of whether or not the spaces are considered "temporary", with one recommending a remark be included on the ITC69 specifying a maximum allowance for such spaces, upon request by the ship owner. One proposal recommended remeasurement of the ship after the temporary equipment is fitted or removed. One proposal recommended including in tonnage those temporary or semi-permanent spaces above the upper deck that are welded or bolted to ship structure, as well as those connected to ship systems, excepting containerized cargo with electrical connections for preservation of the contents. One proposal cited the current TM.5/Circ.5 interpretations, and suggested that equipment depicted in the photographs should be included if permanent. Two proposals included recommendations for development of precise definitions as to what constitutes a "temporary" space.

Questionnaire Responses Respondents expressed a wide range of views on the various proposals, centering around whether the degree of permanency of attachment and/or connectivity to ship systems should cause temporary deck equipment to be treated differently

from a tonnage measurement perspective. Most agreed with the proposal recommending inclusion of temporary deck equipment in tonnage without a required ITC69 remark, but many disagreed with remeasurement following the fitting or removal of these items, with one highlighting the impracticality of reissuing the ITC69 with each change and the implications for all statutory certificates of resulting changes in gross and net tonnage. There was little agreement on any of the other proposals, with agreement split between those favoring solutions based on the degree of permanency and/or connectivity to ship systems, and those favoring inclusion of all temporary deck equipment in tonnage, with differing views related to certification and recertification of this equipment as reflected on the ITC69. One respondent suggested that the proposal on remeasurement be modified to allow the Administration to decide on the need for remeasurement following temporary deck equipment removal. Another commented that a remark on the ITC69 specifying a space allowance should be mandatory, and should provide the number and a short description of the items. One respondent expressed concerns over distinguishing between a temporary generator not connected to ship's systems, and one that is part of the ship's electrical system, as well as the treatment of hull "bulges" on fishing vessels. Several respondents emphasized the need for precise definitions, with one maintaining that shipboard mobile cranes should not be categorized as temporary deck equipment, and are addressed under other interpretations. One respondent challenged the "portable enclosed space" terminology suggested in one proposal, expressing the view that this could be construed as encompassing freight containers, which are not be included in tonnage.

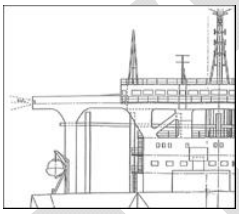
Issue 3.c - Treatment of Deck Cargo Bounded by Enclosing Structure (SLF 53/5, annex 4, issue No. 11) Neither the TM Convention nor TM.5/Circ.5 specifically addresses treatment of deck cargo. The space associated with deck cargo that is containerized or otherwise bounded by enclosing structure (e.g., 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.

Proposals The group considered five proposals, all of which recommended not including containerized deck cargo in tonnage. One proposal recommended that neither the deck cargo nor spaces bounded by deck cargo be included in tonnage. Another recommended establishing interpretations to the effect that deck cargo and life saving and other craft carried aboard a ship are not part of the ship, and therefore are not included in tonnage, offering a definition for "deck cargo" along the lines of freight that is transported and offloaded in its original container. Two proposals addressed ship spaces surrounding deck cargo, recommending that spaces bounded on at least three sides by wall-sided ship's permanent structure and which are used to house cargo, or are appropriated for cargo, should be included in tonnage. Of these, one proposal recommended that only extended ship's structures (i.e., those higher than standard side bulwarks) should be considered to enclose space in this context, with a need for clarifying diagrams.

Questionnaire Responses Most respondents agreed with the proposals, or portions thereof, recommending that deck cargo not be included in tonnage. One respondent commented that those cargo containers without permanent connections should not be included. One respondent questioned why containers were not included in tonnage, noting that cargo inside a container is,

in fact, bounded by partitions or bulkheads, and that including containers would solve the problem of the tonnage disparity between containerships and RO-ROs. There was little agreement on the proposals that also addressed spaces surrounding deck cargo. Two respondents commented to the effect that uncovered spaces appropriated for cargo and bounded by high (>1.5 m) wall-sided ship's structures should be included tonnage. Expressing a contrary view on the matter of the usage of the space, two respondents commented to effect that gross tonnage should represent overall size, without necessarily a linkage to whether that space is used to house cargo, and net tonnage should somehow represent the subset of that overall size that is dedicated to the "useful capacity". Another commented on the need for a clear definition of “stores” in this context. One respondent offered the general comment that exclusion of deck cargo goes against the meaning of net tonnage given in the Convention, as it does not represent the useful capacity, and expressed the view that not including deck cargo in tonnage is discouraging port authorities from using gross or net tonnage for charging purposes.

<u>Issue 3.d - Treatment of Spaces Underneath Overhangs</u> (SLF 53/5, annex 4, issue No. 12) 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.



Proposals The group considered five proposals. Two proposals recommended that open spaces below bridge wing structures not be included in tonnage. One proposal offered an approach, discussed at SLF 29, that addresses treatment of spaces beneath a variety of overhanging structures, including those having supporting stanchions, without regard to whether a structure extends side-to-side. Under this approach, the space must meet the requirements of Regulation 2(5) for an excluded space in order for it to be excluded from tonnage (e.g., not fitted with means for securing cargo or stores). Another proposal provided for excluding any space bounded by an overhang such as a bridge wing only if it satisfies all of the Regulation 2(5)(b) or (c) conditions. Another recommended that, in general, any space beneath a cantilevered overhanging structure like a bridge wing (i.e., one connected to ship's structure on only one side and open both fore and aft) not be considered an enclosed space, whether or not fitted with means for securing cargo or stores.

Questionnaire Responses A majority of respondents generally agreed with the proposals whose effect would be to not include spaces beneath bridge wings and similar structures regardless of whether or not fitted with means for securing cargo or stores. Expressing a contrary view, several respondents questioned the authority to treat any space below an overhead deck as, effectively, unenclosed. One respondent emphasized the difference in addressing space below a bridge wing that is immediately above a deck, as opposed to a bridge wing that is several decks above a deck. Several respondents expressed support for expanding interpretations to address structures that do not extend side-to-side. Two respondents commented on the effect of supporting stanchions, advocating a longitudinal maximum restriction of 0.6 m, instead of the 1 m^2 / 1 m^3 restriction discussed at SLF 29.

<u>Issue 3.e - Treatment of Topside Spaces of Complex Shape</u> (SLF 53/5, annex 4, issue No. 22) 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 interpretations as "not exceeding 1 m³", 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.

Proposals The group considered five proposals. One proposal recommended that spaces with a combined volume of less than 1 m³ and a horizontal or vertical cross-sectional area less than 1 m² not be included in V, with accessibility to the space taken into consideration. Along similar lines, another proposal recommended that inaccessible spaces separated on all their sides from other enclosed spaces, apart from the deck/surface contact, not be included in tonnage unless utilized for any purpose, provided their volume is less than 1 m³ or the contact area does not exceed 1 m², with some restrictions should the sectional area increase above the contact surface. Another proposal recommended that the evaluation of such spaces be based on location relative to the boundary plating (structural boundary surface if not constructed of metal). Under this proposal, spaces fitted external to the boundary plating, of volume not exceeding 1 m³, and having the largest cross-sectional area in the longitudinal direction of the structure not exceeding 1 m², should not be included in tonnage. One proposal recommended establishing interpretations to approximate volumes of linear structures and similar parts of the ship of sectional areas less than 1 m² (e.g., hollow deckhouse overhangs, cockpit coamings, settees, etc.) by multiplying an average (approximate) sectional area by an average (approximate) length. One proposal suggested that consideration should not be given to the amount of time needed to perform tonnage calculations, and that spaces such as those depicted in the photo appear eligible for exclusion unless the seats are considered a means for securing cargo (in this case the passengers).

Questionnaire Responses Respondents generally agreed with some elements of all the proposals, except for the proposal to approximate volumes, on which there was little agreement. Several respondents expressed opposition to establishing interpretations on a matter of accuracy, which in their view is best left to each Administration. Several respondents questioned the application of both volume and area criteria under two of the proposals. Regarding the proposal on spaces separated on all sides from other plating, one respondent commented that this would result in inclusion of smaller spaces that are attached to a structure's boundary plating. Regarding the boundary plating proposal, one respondent commented that by applying the area criteria longitudinally, as in the case of boxed bulwarks, there could be a significant effect on the tonnage. Regarding the proposal on amount of time to perform calculations, two respondents expressed the view that calculation time should not be a consideration. Two respondents additionally commented that the presence of passenger seating should not be a consideration in this context, with one noting that it also should have no bearing on the eligibility of a space to be treated as an excluded space.

<u>Issue 3.f - Treatment of Hull Spaces of Complex Shape</u> (SLF 53/5, annex 4, issue No. 23)
Column-stabilized units, such as semi-submersible drilling units, and ships of similar design are

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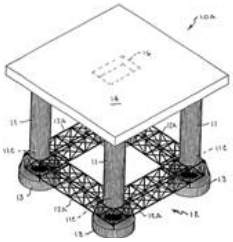
often fitted with cross-bracing, for which volumes can be extremely difficult to calculate. Consideration should be given to developing guidance on how to treat such volumes in an efficient and consistent manner.



Proposals The group considered three proposals. One proposal recommended development of clear definitions as to what should and should not be included in tonnage, with the method for determining volumes left to the naval architect's discretion. Another proposal recommended specific definitions for the terms “hull” and “appendage” based on discussions at SLF 30, with appendages to include structures fitted on the outer surface of the hull, whether solid or bounded by a metal cover. The third proposal recommended the inclusion in tonnage of all appendages, bracings, and other linear hull elements that are larger than 1 m^3 in volume, with provisions to approximate volumes of such items.

Questionnaire Responses Most agreed, with comments, on the proposals to develop clear definitions and include in tonnage appendages and bracings larger than 1 m^3 in volume, with less agreement on the remaining proposal related to the specific definitions. Several respondents commented to the effect that if definitions are clear, interpretations regarding allowable computational approaches could add unnecessary complexity, while another cautioned against including definitions that are overly detailed. Several respondents questioned the application of both volume and area criteria in measuring smaller spaces, with one advocating inclusion of the space in tonnage if the volume and/or area criteria are exceeded. Another questioned the treatment under the proposed definitions of a hollow appendage fitted to the hull that is open to the hull at the point of connection.

<u>Issue 3.g - Evaluating Accessibility of Masts, Kingposts and Supports</u> (SLF 53/5, annex 4, issue No. 24) TM.5/Circ.5 allows masts, kingposts, cranes, crane and container support structures that are greater than 1 m^3 in volume to be 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.

Proposals The group considered six proposals. Three proposals favored allowing some limited accessibility, depending on certain factors including whether the space is not readily accessible while the ship is undertaking its usual duties either at sea or in port, whether the access is needed only for repair, inspection or maintenance, or alternatively whether or not the space is accessible only through a bolted manhole or similar arrangement necessary for survey purposes. One of these proposals recommended expanding the list of structures included in these interpretations, while another recommended adding the criterion that the spaces in

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question not be fitted with means for securing cargo or stores. Two other proposals favored removing the accessibility criterion altogether, with one recommending that the area criterion also be eliminated, such that all masts and similar spaces of volumes greater than 1 m^3 are included in tonnage. The sixth proposal suggested that consideration should not be given to accessibility restrictions related to security requirements, as this could create a new kind of condition for exclusion of spaces that could be extended to other structures.

Questionnaire Responses There was little agreement on the proposals. Regarding the proposals that favored some limited accessibility, one respondent commented that the existing requirement for "completely inaccessible" is not appropriate, and that a means of access for inspection or maintenance should not prevent exclusion from tonnage. Another respondent summarized the history of the treatment of the spaces in question, noting that STAB 22 agreed that mast and air trunk volumes be excluded for consistency with treatment under earlier measurement systems, that SLF 30 deleted this exclusion, and that it was subsequently reinstated at SLF 38 with the "completely inaccessible" restriction included in an effort to resolve the conflict with the older measurement systems. Consequently, modifying this approach to allow limited access without affecting the exclusion is appropriate. Another commented that the need for a bolted closure as an accessibility criterion could be overly restrictive. Among those disagreeing, one commented that the inaccessibility of a space should not be taken into consideration when evaluating whether a partition bounds enclosed volume under Regulation 2(4) of the TM Convention. Another expressed the view that it was inappropriate to apply Regulation 2(5) restrictions on securing of cargo and stores in this situation, while others suggested combinations of, or other improvements to, the various proposals. Two respondents commented on the need to retain the area criterion, with one commenting that eliminating it could significantly increase tonnages.

Issue 3.h - Vertical Truss Structures (CG Round 1) Self-elevating drilling units are often fitted with vertical truss structures (e.g., legs and rigs). Currently, there are no clear instructions on measurement of the truss structures. Clarification would be helpful to ensure a uniform approach.

Proposals The group considered a single proposed solution, recommending that truss structures such as the legs and rigs of self-elevating drilling units not be included in tonnage.

Questionnaire Responses A majority of respondents agreed with the proposal, with one respondent commenting on the acceptability of the approach for any truss structures for which it is not possible to identify an enclosed volume. Among those who disagreed, one respondent preferred that the volume of such structures be included in tonnage if the entire assembly is greater than 1 m^3 in volume, without regard to whether or not the structure is movable. Another commented that truss structures on some semi-submersible drill rigs are used to adjust buoyancy during towing, and therefore should be included in tonnage. Another questioned whether these ships could be treated under novel craft provisions, noting that the structures in question occupy "space" both above and below the waterline.

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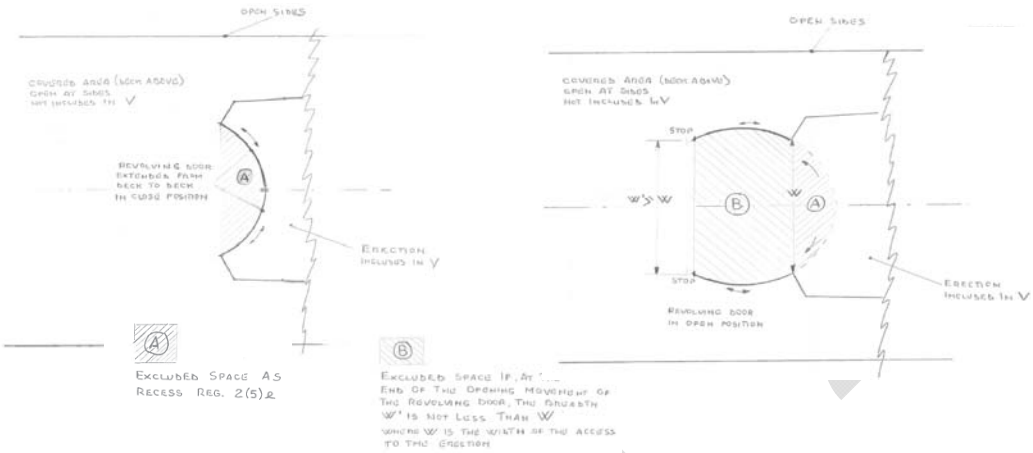
<u>Issue 3.i - Moveable Door Assembly Within a Covered Space</u> (Round 1) In applying excluded space provisions to a movable (i.e., retractable/revolving) door assembly that is within a covered space open on the side, it is unclear as to whether the door assembly itself is considered to be a partition that bounds enclosed space, or otherwise affects the exclusion of the surrounding space. In this case, the assembly extends from deck to deck. Figure A (left) shows the revolving door in the closed position. Figure B (right) shows the moveable door assembly in the open position, effectively creating the new space B, which covered and protected on its sides.



Proposals The group considered a single proposal, recommending that if the breadth (W') at the maximum opening movement of the moveable door assembly is not less than (W), the width of the access to the erection, the spaces A and B are not included in tonnage, this is based on the assumption that the doors are not portable partitions or bulkheads.

Questionnaire Responses A majority of respondents disagreed with the proposal, with one respondent expressing the view that the doors are, in fact, partitions. Another took issue with the characterization of space A as a recess in a boundary bulkhead, expressing the view that the door assembly does not constitute a bulkhead. This respondent provided a history of development of the language at the TM Convention, observing that the adjective “portable” originally applied only to the word “partition”, with “bulkhead” added later, and commenting that it remains unclear as to whether the adjective applies to both bulkheads and partitions. One respondent agreed with the exclusion of A but not B, as B extends into the deckhouse in excess of the one-half the width criterion, which equals W in this case.

<u>Issue 3.j - Enclosed Space Versus Excluded Space</u> (CG Round 1) The TM Convention is inconsistent in how it describes and treats spaces that are excluded from tonnage. The Convention states, in effect, that “excluded” means “excluded from the total volume of all enclosed spaces (V)”. However, associated figures indicate that “excluded” means “not enclosed”. It appears that the labeling in the figures (“O” (for “Open”), “C” (for “Closed”) and “I” (for “Included”)) derive from that used in Proposals A & C discussed at the 1969 Tonnage Conference, which eventually became the basis for the gross tonnage measurement system of the Convention, but which did not use the term “excluded”.

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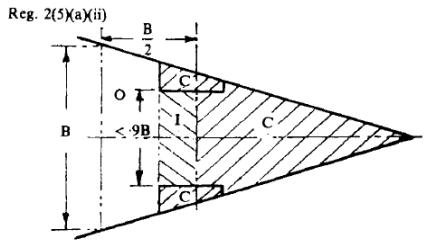
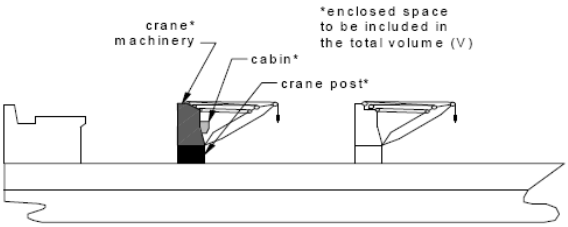
In the following figures: O = excluded space
C = enclosed space
I = space to be considered as an enclosed space
Hatched in parts to be included as enclosed spaces.



Proposals The group considered two proposals. One proposal recommended establishing the interpretation that an excluded space is an enclosed space in all cases, and revising the Appendix 1 figures accordingly if the TM Convention is amended for other reasons. A second proposal recommended, if there is agreement, to amend the TM Convention with a broader definition with details on how to identify and address excluded spaces, knowing that in all cases such spaces are "indoors" (enclosed).

Questionnaire Responses A majority of respondents agreed in principle with the first proposal, with one commenting that the matter could be satisfactorily treated through interpretations and another suggesting that the term "excluded" be interpreted as "enclosed but excluded". Most agreed with the second proposal, with no disagreement, although two respondents expressed preference for addressing the matter through interpretations. Another respondent expressed the view that an interpretation cannot supersede a provision of the TM Convention, and that the text and figures in the Convention need to be amended accordingly.

<u>Issue 3.k - Mobile Cranes</u> (CG Round 1) A clear definition of the term "mobile" as used in TM.5/Circ.5 should be given, as the term can lead to misunderstandings. A generally-accepted definition of mobile crane is one that is easily moved from one location to another. For cranes like the one shown in the picture below, the upper part rotates around its own axis; it does not actually "move" from its location.



Proposals The group considered a single proposal. The proposal recommended that only those cranes of a type which displace from one point to another (e.g., gantry cranes) should be exempted (i.e., not included in tonnage).

Questionnaire Responses There was little agreement on the proposal. A respondent who agreed, with changes, recommended establishing a detailed definition of mobile crane along the lines of a machine mounted on a non- or self-propelled, crawler- or wheel-mounted, mobile base, that is capable of travelling over a supporting surface without the need for fixed runways. One respondent who disagreed commented that machinery, meaning revolving cranes, movable loading/unloading equipment and other similar items or structures, should not be

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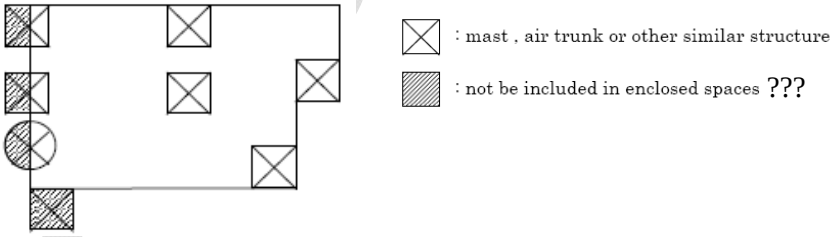
included in tonnage. Another expressed the view that crane structures, regardless of type, should be included in tonnage. Another questioned why the term “mobile crane”, rather than a more generic term, is used, citing the example of a spreader beam for a heavy lift ship, which is portable, but stowed on deck.

Issue 3.l - Independent Ventilators and Air Trunks (CG Round 1) Some flag States do not include in tonnage independent ventilators, air trunks and similar structures that exceed 1 m^3, as these types of structures generally do not represent a significant volume on most ship types. However, such structures can constitute a significant volume on ships like vehicle carriers.

Proposals The group considered a single proposal. The proposal recommended that such structures not be included in tonnage when the cross-sectional area is less than 1 m^2.

Questionnaire Responses A majority of respondents agreed with the proposal, although several were in disagreement. One respondent expressed agreement with applying the 1 m^2 area criterion only to air trunks, noting that a 1 m^3 volume criterion should be applied to other spaces. Three respondents commented to the effect that for this situation, a 1 m^3 volume criterion should be applied per the paragraph 3 interpretations of TM.5/Circ.5 (regulation 6).

Issue 3.m - Spaces Fitted to Outer Structure Boundary (CG Round 1) Clarification is required regarding treatment of the part of a mast, air trunk and other similar space fitted to the outer surface of a structure’s boundary.



Proposals The group considered a single proposal. The proposal recommended that the part of a space fitted to the outer surface of a structure’s boundary having at least three exposed sides and having the largest cross-sectional area in the longitudinal direction of the structure not exceeding 1 m^2 should not be included in tonnage.

Questionnaire Responses An equal number of respondents agreed, or agreed with changes, as disagreed with the proposal. Three respondents commented that per the paragraph 4.6 interpretations of TM.5/Circ.5 (Regulation 2(4)), spaces not separated on all their sides should be included in tonnage. Another respondent expressed preference for removing the sectional area criterion from the existing interpretations altogether to avoid impacts on ship designs, but recommended that the proposal be modified to take the cross-sectional area in a direction perpendicular to its longitudinal axis, should this view not prevail.

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<u>Issue 3.n - Devices for Safety, Fire Protection and Pollution Prevention</u> (CG Round 1) Clarification is required regarding treatment of devices for safety, fire protection, prevention of pollution and other similar equipment which is required by other conventions.

Proposals The group considered a single proposal, recommending that such equipment not be included in tonnage.

Questionnaire Responses An equal number of respondents agreed, or agreed with changes, as disagreed with the proposal. One respondent commented that if equipment is enclosed and fixed in place, its volume is included in tonnage, whereas the volume of equipment intended as moveable is not included. One respondent expressed the view that the TM Convention only addresses enclosed spaces, not devices, and questioned the need to clarify that devices are not included in tonnage. Two respondents expressed concern over the potential for effectively introducing a new category of excluded space under the proposal, with one commenting that spaces for NO_2 scrubbers could occupy considerable volume, and excluding them would be outside the scope of the planned output. Another observed that safety should not be linked to the determination of the size of a ship. One respondent suggested that lifesaving craft be treated as vessels, on which basis they are not included in the tonnage of the "parent" ship. Another expressed general agreement with excluding the volumes associated with such devices, provided that spaces containing the devices (e.g., fire stations) that are themselves deckhouses are included in tonnage.

<u>Issue 3.o - Width of End Openings</u> (CG Round 1) Additional clarification is needed for the treatment of opposite end openings under Regulation 2(5)(a)(i-iii). Specifically, it is not clear whether the erection must extend side-to-side (width = beam of the ship) in order for the space opposite such an opening to be excluded, or if a similar space might be excluded in a structure which is not side-to-side (e.g., a round house).

Proposals There were no proposals offered to the group for consideration for this issue, which was identified during the group's Round 1 work.

Questionnaire Responses Respondents offered various comments on addressing the identified issue, with two respondents commenting that clarification is needed, and another expressing the need to expand the Regulation 2(5) interpretations to structures that are not side-to-side, in addition to erections that extend side-to-side. One respondent noted that while the Annex I figures of the TM Convention show side-to-side spaces, nothing in the text of the Convention rules out similar treatment of spaces that are not side-to-side. One respondent commented along similar lines that the text is relevant to erections, and not only side-to-side

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erections, with the focus being on the breadth. Another commented that the breadth referred to in the text can be construed to mean the breadth of the deck structure at deck level at the line of the opening, which allows consideration of excluded space treatment for the spaces pictured above. Another referred to documents from the 1969 TM Conference, suggesting that term "outside plating" in Regulation 2(5)(a)(ii) was originally used in the context only of side-to-side erections.

Issue 3.p - Machinery as Enclosed Space (CG Round 1) It is unclear as to whether machinery should be treated as enclosed space, and included in tonnage.

Proposals The group considered a single proposal, recommending that machinery should not be included in tonnage, where machinery means revolving cranes, movable loading/unloading equipment and other similar items or structures.

Questionnaire Responses Most respondents either agreed with the proposal, or agreed subject to comment. One respondent commented that machinery, in general, should not be included, with machinery to include cranes with truss structures, mooring equipment, towing equipment on tug and supply ships, and other similar items, but that closed machinery structural foundations should be included. Two respondents agreed on condition that the TM.5/Cir.5 accessibility prohibitions are extended to include machinery, with one recommending that the requirement that machinery be separated on all sides from other enclosed spaces be similarly extended. Another respondent expressed the view that a clear definition is needed (e.g., the item must be "stand alone"). A respondent who disagreed argued that machinery should be included if it occupies a volume greater than 1 m^3 on the basis of the text of the TM Convention, expressing the view that machinery has been traditionally omitted because it was exempted under earlier measurement systems and as a matter of computational convenience.

Issue 3.q - Machinery Support Structures (CG Round 1) It is unclear as to whether machinery support structures should be included in tonnage.

Proposals The group considered a single proposal, recommending that machinery support structures having a volume not exceeding 1 m^3 should not be included in tonnage. Similar support structures having the largest cross-sectional area in the longitudinal direction of the structure not exceeding 1 m^2 should also not be included in tonnage.

Questionnaire Responses Most respondents either agreed with the proposal, or agreed with changes. One respondent emphasized that the current 1 m^2 exclusion applies only to air trunks. Two respondents commented that a support structure not exceeding the 1 m^2 sectional area

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criterion in either the transverse or longitudinal direction should also not be included. Another respondent commented to the effect that when such structures are completely inaccessible, above the upper deck, and separated on all their sides from other enclosed spaces, they should not be included, regardless of their sectional area or volume. Another, who disagreed with the proposal, expressed preference for treating machinery and their support structures in an identical manner to any other structures.

4 DEFINITION OF DECK, COVER AND PARTITION

Issue 4.a - Definition of Awning (SLF 53/5, annex 4, issue No. 13) Neither the TM Convention nor TM.5 Circ.5 define 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)? Interpretations are needed to determine whether fabric covers and partitions are considered to bound space that would otherwise not be enclosed.

Proposals The group considered six proposals. The proposals addressed various aspects of possible definitions for the term "awning", focusing principally on the function (e.g. protection from sun, rain, weather, etc.), its constructional features (e.g., rigid vs. flexible, material type, weathertight properties, whether or not it is foldable, etc.) and orientation (e.g., overhead, horizontal, vertical, fitting of drop/skirt, etc.). One proposal suggested that a list of accepted awning materials be developed and included in TM.5/Circ.5, recognizing the difficulty of maintaining such a list.

Questionnaire Responses A majority of respondents agreed, or agreed subject to changes, with five of the proposals. A majority disagreed with the remaining proposal, which recommended that an awning be considered only as cloth, or possibly a plastic light structure. The proposals receiving the most support recommended establishing a definition along the lines of an overhead covering, with roughly equal support for variants related to the awning's function (i.e., reduce impact of wind or water, offer shelter from the sun or weather, protect the deck from the sun only). Among the many comments provided, one respondent suggested using a dictionary definition for "awning", one recommended that the function be limited to protection from the sun, several respondents questioned restrictions on the material, including those relating to flexibly (e.g., sunroof blinds should qualify), one highlighted the difficulty of maintaining a list of materials, one recommended that vertical partitions not be excluded from the definition and questioned at what angle a horizontal partition would effectively become a vertical partition, one disagreed that the fitting of a drop should cause the space beneath the awning to be included in tonnage, and one expressed the view that the TM Convention provides for permanent awnings, which could be of rigid material.

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<u>Issue 4.b - Treatment of Exterior Spaces Bounded by Awnings</u> (SLF 53/5, annex 4, issue No. 14) 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 space, which is excluded from volume calculations only if it meets certain conditions. It is possible that paragraph 4.2 of TM.5/Circ.5 refers to spaces bounded <u>on the sides</u> by fabric-like material. Either way, it appears that TM.5/Circ.5 requires clarification.

Proposals The group considered seven proposals. Three proposals supported the interpretation that a space bounded by an awning cannot be construed as enclosed space under regulations 2(4) of the TM Convention, of which one proposal recommended removing the current interpretation on this matter from TM.5/Circ.5. Two proposals sought, in effect, to treat all side structures or partitions the same in this context, regardless of function or material, so that the presence or absence of an awning overhead would have no effect on whether such spaces were eligible for exclusion under Regulation 2(5). Another proposal recommended that a space beneath an awning used to protect cargo or stores be included in tonnage. Another urged agreement on the apparent contradiction identified in the description of this issue.

Questionnaire Responses Most respondents agreed with the two proposals that supported interpreting a space bounded by an awning as unenclosed space and that did not remove the associated language from TM.5/Circ.5. The proposal that sought to remove this language received little agreement, with those not in agreement noting that such a space could still be an enclosed space depending on the characteristics of any side partitions beneath the awning. Most respondents agreed with the two proposals that addressed side structures beneath awnings. One respondent who disagreed commented that regardless of whether an awning is considered to bound the space from overhead or on the side, the space bounded by the awning is not treated as enclosed. Most respondents disagreed with the proposal to include in tonnage space beneath an awning used to protect cargo. One respondent observed that as a result of discussions at the 1969 TM Conference, the term "awning" was inserted to exclude "sunshade" from "cover", with the issue revisited at SLF 28, including treatment of awnings covering deck cargo. Based on a review of this information, the respondent concluded that a space beneath an awning, bounded by fences, coamings, or other similar partitions used for cargo securing should be treated as enclosed space. Most respondents also agreed with the need to address the apparent contradiction in the interpretations, although one respondent who disagreed commented that there is no contradiction if one considers that an enclosed space may be within the bounds of an awning (i.e., a space within another space).

<u>Issue 4.c - Treatment of Interior Spaces Bounded by Awning-Like Materials</u> (SLF 53/5, annex 4, issue No. 14) 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 unclear how the presence of a boundary consisting of an awning-like material within an enclosed spaces affects the extent to which the space may be excluded.

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Proposals The group considered a single proposal, recommending that the presence of awning-like or other non-structural partitions that are located within excluded spaces (e.g., flexible partitions, false ceilings, etc.), other than when the ship is moored, will prevent the further "progression" of excludable space past the partition.

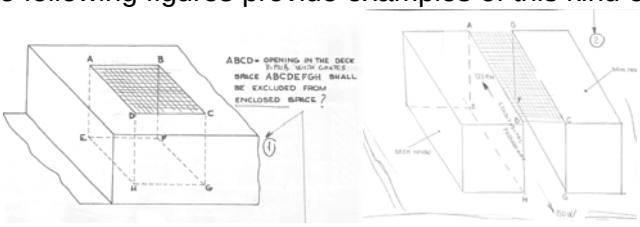
Questionnaire Responses A majority of respondents agreed with the proposal. Among those who agreed, one respondent observed that a cover used to protect the hull of a yacht from weather while moored should be ignored. Among those who disagreed, one respondent cited proposals for issues 4.a and 4.b, noting the need for amending interpretations on awnings and their relationship to enclosed spaces.

<u>Issue 4.d - Fitting of Grates Over Side/End Openings</u> (CG Round 1) Due to different reasons (not the least of which are concerns over piracy), it is becoming more frequent to see the fitting of grates and similar devices at external openings, to provide a barrier against intrusion. The picture below provides an example of this kind of arrangement.

Proposals The group considered a single proposal, recommending that grates fitted at side or end openings should not be considered a means of closure when applying the provisions of Regulation 2(5).

Questionnaire Responses Most respondents agreed with the proposal. In agreeing, two respondents expressed the view that this issue should probably be addressed in the TM Convention if amended for other reasons, with one commenting that the fitting of such gratings effectively does not protect spaces from the sea or weather, and was probably not envisioned at the time when the TM Convention was developed. Another respondent noted that, while not directly a tonnage matter, consideration should be given to how such gratings impact the means of escape through the opening in case of emergency.

<u>Issue 4.e - Fitting of Grates Over Deck Openings</u> (CG Round 1) Spaces that can be excluded in accordance with Regulation 2(5)(d) are frequently fitted with grates (e.g., in order to allow crossing). Also longitudinal passageways between deck houses are sometimes fitted with grates on the top. The following figures provide examples of this kind of arrangement.



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Proposals The group considered a single proposal, recommending that deck grates be considered as providing a means of closure under regulations 2(5)(d). This would preclude any space below from exclusion from tonnage.

Questionnaire Responses There was little agreement on the proposal. One respondent agreed that a grating could constitute a means of closure, such that the space ABCDEFGH in the left hand figure cannot be excluded, but that a grating is not a deck, and therefore the space ABCDEFGH in the right hand figure is not an enclosed space. Two respondents expressed views along the lines that grates may not constitute partitions or decks, and if this is the case, the presence of a deck grate should not cause the space below to be included in tonnage. Another respondent commented that the presence of grates whose only purpose is to provide safe access and prevent risk of injury to crew members should not change the status of the space.

5 EXCLUDED SPACES

<u>Issue 5.a - Shelves or Other Means for Securing Cargo or Stores</u> (SLF 53/5, annex 4, issue No. 15) Under Regulation 2(5), certain qualifying spaces may be excluded from tonnage provided they are not “fitted with shelves or other means for securing cargo or stores”, regardless of whether or not the spaces are appropriated for the carriage of cargo or stores. In addition, there has been disagreement on what constitutes "stores", as under the equally authentic French version of the Convention, the term "provisions" is used. Interpretations are needed for consistent application of the language “means for securing cargo or stores” and the definition of “stores”.

Proposals The group considered ten proposals. Four proposals sought in some way to include in tonnage all spaces utilized, appropriated or otherwise intended for the carriage of cargo or stores, regardless of whether fitted with means for securing cargo or stores. One proposal recommended interpretations to clarify that a space must be fitted with means designed for securing cargo or stores to be rendered ineligible for exclusion in this context. Another proposal recommended removing altogether the prohibition against the fitting of “means for securing cargo or stores” from Regulation 2(5), citing unnecessary safety risks when such devices are not fitted in order reduce tonnage, and the absence of any linkage between a ship’s overall size and whether or not an otherwise open space is fitted with such devices. The remaining proposals focused on what constitutes “stores”. The first of these proposals recommended defining stores in terms of items of necessity required to sustain the crew, as well as ship maintenance items. A second proposal recommended defining stores along the lines of food and other provisions for the consumption of passengers and crew. A third proposal recommended that equipment required by International Conventions on safety or pollution prevention not be treated as stores, and the final proposal recommended similar treatment for tools for navigation, maintenance, repair and similar operations.

Questionnaire Responses Most agreed, to varying degrees, with the proposals recommending inclusion in tonnage of cargo or stores spaces, without regard to the fitting of securing devices, excepting the proposal recommending that boundary structures (e.g., bulkheads or partitions) be interpreted as meeting the cargo securing condition, for which there was little agreement. A majority agreed with the proposal to interpret the cargo/stores securing

restriction in terms of the space being fitted with means "designed" for securing these items, and for removing the restriction altogether if the TM Convention is amended for other reasons. A majority expressed agreement with all of the proposals regarding the definition of stores, with the most support expressed for the proposal to define stores in terms of food for the consumption of passengers and crew, and the least support expressed for the proposal to exclude tools for navigation and maintenance from classification as stores. Among the many comments provided, several respondents stressed the need for, and importance of, linking all encloses spaces containing cargo to the gross and net tonnages. One respondent commented that spaces utilized in any way other than sheltering personnel should be included in tonnage. Another respondent commented that spaces dedicated to crew accommodation or safety should not be included in tonnage. Another respondent expressed the view that ship maintenance items are not stores, while another expressed a similar view about safety and pollution control equipment, and another argued in favor of relying on the presence of boundary structures for containing cargo or stores when interpreting regulations 2(5). Another suggested that some regulations concerning cargo stowage and securing could be useful for tonnage clarifications.

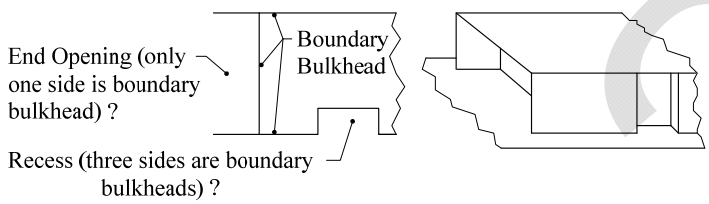
<u>Issue 5.b - Impact of End Opening Obstructions</u> (SLF 53/5, annex 4, issue No. 16) While Regulation 2(5)(a) addresses obstructions to end openings within a deck structure, neither this regulation nor TM.5/Circ.5 explicitly addresses the situation where there is an obstruction external to the opening, apart from the half breadth separation restriction of Regulation 2(5)(a)(iii) (Figure 6 in Appendix 1 to the Convention). For example, gantry structures on fishing trawlers, large cable reels on certain towing and industrial ships, 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.

Proposals The group considered five proposals. Three proposals recommended ignoring all obstructions external to the opening where the separation is at least half the breadth (B/2) of the deck/structure, while another proposal recommended a similar approach for those obstructions having a "reasonable" interval of separation. In addressing obstructions closer than the specified interval, all of these proposals recommended either ignoring the obstruction altogether or considering it to render the associated space ineligible for exclusion depending on its characteristics, with one proposal recommending that obstructions with a height or breadth less than 1 meter be ignored, two proposals recommending ignoring those obstructions that were not included in tonnage, and a fourth recommending applying the 90% criterion to the unobstructed portion of the opening. The remaining proposal recommended applying an approach discussed at SLF 29 that ignores smaller spaces not exceeding 1 m^2 in cross-sectional area or 1 m^3 in volume, unless their projected area exceeds 25% of the opening. Under this proposal, masts, air trunks, machinery and similar spaces not included in tonnage are also ignored.

Questionnaire Responses Although majorities of respondents either agreed with all of the proposals, or agreed subject to changes, a relatively large number expressed neither agreement nor disagreement. The most support was expressed for the proposal offering the approach discussed at SLF 29 and the least support was expressed for the proposal recommending use of the 90% criterion. One respondent supported application of the 25%

criterion in all cases, expressing the view that it was unreasonable that a small space (i.e., slightly exceeding 1 m on each side) could cause the entire space opposite an end opening on a large ship to be excluded. Another respondent expressed the need for clarifying diagrams.

Issue 5.c - Excluding Space Opposite an End Opening as a Recess (SLF 53/5, annex 4, issue No. 17) 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.



Proposals The group considered seven proposals. Three proposals recommended that a recess be defined in terms of a space bounded on three sides by boundary bulkheads, with one of these proposals recommending an additional condition that a recess also be bounded by a deck above, on the basis that otherwise the space would not considered enclosed, and a second recommending that qualifying side recesses be addressed. Another proposal recommended that a recess be defined in terms of space bounded on at least two sides by boundary bulkheads, and offered a definition of the boundary bulkhead along the lines of a bulkhead separating an enclosed interior space from the surrounding weather. One proposal citied Figure 10 of Annex 1 of the TM Convention, and questioned whether the two boundary bulkheads shown in the right hand portion of the figure, in fact, bound a "real" recess, and if not, whether three boundary bulkheads should be required. Another proposal offered a number of diagrams to be used in evaluating a variety of spaces, including recesses, reflecting views offered at an international meeting of tonnage experts held in 1990. The remaining proposal recommended that a recess opening be considered to extend from deck to deck notwithstanding the fitting of a curtain plate of a depth not exceeding by more than 25 millimeters the depth of the adjoining deck beams.

Questionnaire Responses A majority of respondents agreed with all of the proposals. The proposal receiving the most support was the one recommending that three boundary bulkheads along with a deck above be considered as necessary conditions for bounding a recess. One respondent expressed support for the linkage to boundary bulkheads, but disagreed with the stipulation for three, instead of two, bulkheads without amending the TM Convention to revise Figure 10. Along similar lines, another respondent cited the need to amend the TM Convention to implement this proposal, and commented to the effect that Figure 10 illustrates a "real" two-sided recess. Among the other comments provided, one respondent expressed the view that a recess extending for more than one tier should be not included as enclosed space. Another respondent commented that Regulation 2(5) should be expanded in the context of applying recess provisions, to ensure that gross tonnage is reflective of overall size. Another commented that certain open spaces whose purpose is simply to provide protection for the crew should not be penalized (i.e., by including them in tonnage).

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<u>Issue 5.d - Characteristics of End and Side Openings</u> (SLF 53/5, annex 4, issue No. 18)
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).

Proposals The group considered five proposals. One proposal recommended that the current requirement be more clearly defined and supported by a comprehensive set of diagrams, with another advocating better documentation for structures that cannot be treated as prescribed under Regulation 2(5). A third proposal also advocated a set of diagrams or pictures for clarity. Another proposal recommended new interpretations to comprehensively address end and side openings (including recesses) that ignore the following obstructions: 1) small spaces not exceeding 1 m^3 or with cross-sectional areas no exceeding 1 m^2, provided their combined area does not obstruct more than 25% of the opening area; 2) masts, air trunks, machinery and similar structures that are not included in tonnage; and 3) curtain plates meeting the requirements of regulations 2(5)(b). The remaining proposal recommended replacing the current prescriptive requirements with more generalized criteria if the TM Convention is amended for other reasons (e.g., excluding spaces "in way of" openings to a depth not exceeding half of the opening length/width, ignoring railings, etc.).

Questionnaire Responses Most respondents agreed with the proposals urging clearer definitions, and supporting documentation and diagrams, and a majority agreed with the remaining proposals. One respondent cautioned that more complex diagrams and interpretations could further complicate the matter, but acknowledged the need for illustrative guidance given the increasing complexity of ships, and expressed support for giving consideration to adoption of functional requirements. Two respondents commented that the 25% criterion should be further discussed. Another respondent commented that requirements on rails and stanchions should be met, excepting barriers against intrusion.

<u>Issue 5.e - Deck Structure Height Requirements for Side Openings</u> (SLF 53/5, annex 4, issue No. 19) 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).

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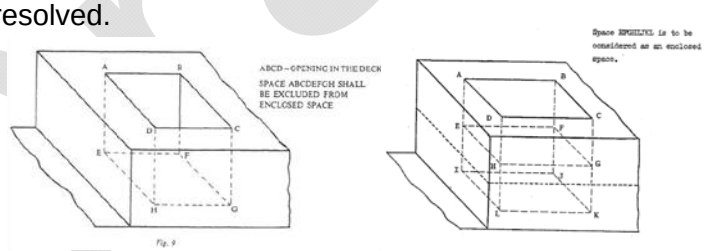
Proposals The group considered seven proposals. One proposal recommended that a clear definition be established as to what constitutes a deck as opposed to an intermediate platform in this context. A second proposal recommended that the opening height be evaluated against the height of continuous and/or complete decks in each tier. Another proposal recommended a similar approach to that of the second proposal, but provided detailed criteria with illustrative figures for evaluating breaks, openings, or steps, including steps in a structure's uppermost (exterior) deck, and proposed that liftable or removable decks be ignored. Another proposal recommended that the height be taken from structural decks, with false or removable decks ignored, recognizing the need for a clear definition of what constitutes a structural deck as opposed to an intermediate deck. Another proposal highlighted the difference between the Regulation 2(5)(b) and 2(5)(c) language regarding height measurements, and expressed the view that the "height of the erection" means the "height to the top of the superstructure", recommending interpretations and an accompanying illustrative figure. Another proposal recommended harmonizing the Regulation 2(5)(b) and 2(5)(c) language in this regard if the TM Convention is amended for other reasons. Another recommended that the height measurement be applied to the height of constructions between two decks.

Questionnaire Responses Most respondents agreed with the proposal to harmonize language of Regulations 2(5)(b) and 2(5)(c). While most also agreed with the proposal to establish a clear definition of a deck as opposed to an intermediate platform in this context, there was little agreement on the remaining proposals that offered more specific definitions. One respondent expressed support for development of illustrative guidance. Another respondent questioned possible differences between the term "erection" and the related term in the equally authentic French version of the TM Convention, suggesting that understanding this difference could help resolve this issue.

<u>Issue 5.f - Restrictions on Excluding Space Below Uncovered Openings</u> (SLF 53/5, annex 4, issue No. 20) 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.



Proposals The group considered six proposals. Two proposals made recommendations along the lines of defining "immediately below" as extending to the next complete structural deck underneath the deck with the opening, with both indicating the need for a definition of "structural deck", and one recommending inclusion of a supporting diagram. One proposal recommended that the space lettered ABCDEFGH should be construed as "immediately below", while another, citing discussions at SLF 29, recommended that the space lettered ABCDLIJK should be similarly construed. Another proposal recommended establishing the interpretation that "immediately below" means to a depth not exceeding the distance to the deck below, or one-fourth the breadth of the ship, whichever is less. Another simply recommended better documentation.

Questionnaire Responses Most disagreed with the proposal that applied the one-fourth the breadth criterion. There was little agreement on the remaining proposals, other than the

proposal for better documentation, with which most respondents agreed. One respondent commented that if the space is above the upper deck, then ABCDIJKL should be excluded. Another respondent commented that account should be taken of whether or not the space is utilized and for what purpose. Another commented to the effect that consistent treatment is required, and that gross tonnage should express the measure of the ship's overall size.

Issue 5.g - Structures Along the Line of an Opening (CG Round 1) The text of Regulation 2(5)(a)(i) and the accompanying figure leave it unclear as to whether the curtain plate depth at the line of the opening is the only consideration that should be taken into account when evaluating characteristics of the opening when establishing the eligibility of the space for exclusion. For example, how would a deck beam or horizontal plate at the bottom of the opening that spans the opening be treated?

Proposals The group considered a single proposal, recommending the amendment of Regulation 2(5)(a) to reflect that structures at the line of the opening such as a transverse bulkhead, but excepting stanchions necessary for its support, will disqualify the associated space from treatment as an excluded space.

Questionnaire Responses There was little agreement on the proposal. One respondent commented that during discussions at SLF 29, there was agreement that structures not included in enclosed space and located at the line of the opening should be ignored. This respondent further recommended that a 25% area criterion be applied to such structures when evaluating whether they are considered to close the opening. Another respondent suggested that the same criterion as applied to curtain plates under this regulation could be applied to similar structures at deck level, and that a provision along these lines should be added to the regulation.

Issue 5.h - Adjoining Deck Beams on End Openings (CG Round 1) In applying the 25 millimeter curtain plate depth criterion of Regulation 2(5)(a)(i), it is unclear how to treat additional plates that extend below the bottom edge of an adjoining deck beam and act as stiffeners to the curtain plate, as shown in the pictures below.

Proposals The group considered a single proposal, recommending that sketches be provided to illustrate that the depth criterion is applied to the portion of the curtain plate below the lowest extremity of the adjoining deck stiffeners.

Questionnaire Responses Most respondents agreed with the proposal, or agreed subject to changes, and no respondents disagreed. One respondent who agreed commented that this criterion might be circumvented through the fitting of excessively deep brackets, and suggested

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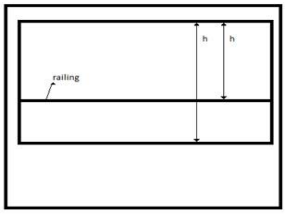
that the current criterion be replaced with something less prescriptive based on the structure's height (e.g., 90%) if the TM Convention is amended for other reasons. One respondent commented that general guidance on this matter would be helpful.

Issue 5.i - Rails and Fashion Plating for Side Openings (CG Round 1) Regulation 2(5)(b) provides no specific details as to what extent rails or fashion plating may be fitted at an opening in order for the space to be eligible for treatment as an excluded space.

Proposals The group considered a single proposal, recommending that rails or solid plates fitted at the opening and that occupy more than three frame spaces will disqualify the associated space from treatment as an excluded space.

Questionnaire Responses Most respondents either disagreed or expressed neither agreement nor disagreement with the proposal. One respondent, who agreed subject to changes, recommended that a 25% area criterion be applied to such structures when evaluating whether they will disqualify the associated space. One respondent commented that using a frame spacing criterion may be problematic in fiberglass ships or those with complex framing systems, and suggested removal of reference to "open rails" altogether in this regulation if the TM Convention is amended for other reasons. One respondent commented that the space pictured should be treated as an excluded space. Another respondent commented that the space should be included only if the opening is fitted with solid plates as opposed to rails. Another expressed the view that if rails and/or grates are fitted as devices intended as a barrier against intrusion, they should not be considered as a means of closure under this regulation.

Issue 5.j - Height of Side Opening Railings (CG Round 1) Under Regulation 2(5)(c), it is not clear, in the case where a horizontal railing is present, whether the opening height above the railing should be considered when applying the one-third height criterion, along the lines of treatment of railings under Regulation 2(5)(b).



Proposals The group considered a single proposal, recommending that the existence of a horizontal railing should be taken into consideration when applying height criteria, in the same manner as is done under Regulation 2(5)(b).

Questionnaire Responses Most respondents disagreed with the proposed solution. Two respondents highlighted the differences in the language of regulations 2(5)(b) and 2(5)(c) on the matter of railings, concluding that because rails are not called out in regulations 2(5)(c), they should be ignored under these provisions. One respondent commented that a railing should not be treated as a part of the bulwark/side shell in this context, while another commented that a simple railing (2 or 3 cm) should not be considered as a closing structure. Another respondent commented that the provision of a safety feature should not be penalized. One respondent who

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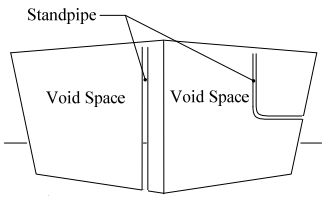
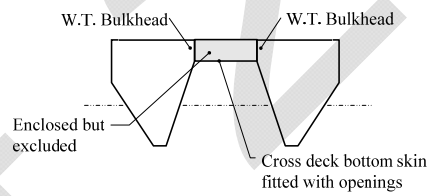
agreed with the proposal, with changes, expressed the view that the height should be measured from the top of the railing to the top of the erection (below the deck plate).

6 SPACES OPEN TO THE SEA

<u>Issue 6.a - Treatment of Spaces Inside the Hull as Open to the Sea</u> (SLF 53/5, annex 4, issue No. 25) 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 "spaces open 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.





Proposals The group considered seven proposals. Four of the proposals in some way sought to establish, as a condition for exclusion, the free communication with, or unrestricted influx of water to, the space. Of these, one proposal recommended establishment of an area criterion for the opening relative to the area of the bounded space (e.g., 75%), and two recommended that the space not contribute to the buoyancy of the ship nor be fitted with means for securing cargo or stores as a condition for exclusion, with one recommending the additional restriction that the space not be appropriated for the stowage of cargo or stores in any form. Two proposals recommended that an interpretation of the term "hull" be developed, with one suggesting that this term not include fairings of a non-structural nature. Another proposal recommended that if the TM Convention is amended for other reasons, the exclusion of space open to the sea be made mandatory, rather than optional, to help ensure uniformity. Another recommended that the existing TM.5/Circ.5 interpretations be expanded to provide more precise examples, in order to reduce the number of "similar spaces" which are not yet defined.

Questionnaire Responses Most respondents either agreed with the four proposals related to establishing a free communication condition, or agreed with these proposals subject to changes. Among the many comments provided on these four proposals, three respondents questioned how the area of a bounded space would be ascertained and the specific percentage to be used, two expressed the view that the presence of gratings should not cause an otherwise excludable space to be included in tonnage, one cautioned against overly prescriptive requirements, one commented that spaces of less than 1 m^3 in volume should be ignored, and three expressed the need for further development of the proposals. One respondent questioned the need to develop a definition for the term "hull", suggesting instead that in interpreting the regulation 6(3) "open to the sea" language, the focus should be on the Regulation 2(4) language about "partitions" that bound enclosed space. This respondent also expressed the view that no space above the upper deck should be excluded as open to the sea, and that the TM Convention does not establish a linkage between space open to sea, and the fitting of means for securing cargo or stores, or a ship's buoyancy. Most respondents agreed with the proposal to make excluding spaces open to the sea mandatory. A majority agreed, or agreed with changes, to the proposal to expand the list of spaces open to the sea, with two respondents commenting that examples should be used primarily to illustrate the interpretation, one respondent commenting that such a

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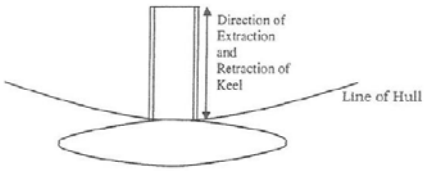
list could prevent technical innovation, and another expressing the view that performance and function should be considered, and not just rigid specific cases.

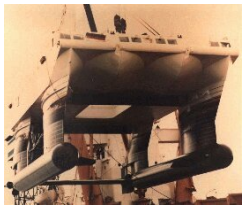
<u>Issue 6.b - Treatment of Spaces Outside the Hull as Open to the Sea</u> (SLF 53/5, annex 4, issue No. 26) Regulation 6(3) allows volumes of spaces open to the sea to be excluded from tonnage. The degree to which a space outside the hull is considered open to the sea has required interpretation in 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 by non-watertight closures; 3) bow thruster tunnels fitted with doors to reduce underwater resistance; and 4) sea valve recesses ("sea chests") fitted with fine mesh strainers.

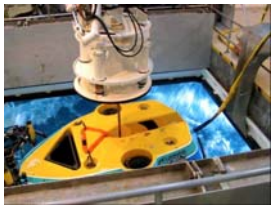


Proposals The group considered four proposals. Two proposals recommended that if the space is capable of being closed by a closing device, then the space should be included in tonnage, with one of these proposals stipulating that such a closure could either be watertight or non-watertight, and the other stipulating that the presence of a grating should not preclude treatment as open to the sea (e.g., sea chest recesses are always treated as open to the sea). Another proposal recommended establishing interpretations to the effect that for a space to be considered open to the sea, the space must be below the upper deck, in free communication with the sea, and without constructional features that could prevent the free exchange of water. This proposal suggested allowing Administrations flexibility in evaluating such spaces, to include outflow calculations and area ratios, with the possibility of establishing related guidelines (e.g., one second for a space to empty). The remaining proposal recommended use of a comprehensive approach that was offered in a proposal under issue 6.a.

Questionnaire Responses Most respondents either agreed with all of the proposals, or agreed subject to changes. One respondent expressed the view that the presence of a grate should not preclude a space from exclusion. Another respondent expressed support for further development of the proposal related to constructional features limiting free exchange of water, but commented that a prescriptive one second outflow guideline that might be suitable for a yacht is unreasonable for a large commercial ship.

<u>Issue 6.c - Treatment of Moon Pools</u> (SLF 53/5, annex 4, issue No. 27) Moon pools and similar large "through hull" openings are sometimes fitted with covers or are otherwise covered from above by an 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.





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Proposals The group considered four proposals. Two proposals recommended that when moon pools are fitted with any closing device, only that portion of the space below the closing device should be excluded, with one of these proposals stipulating that such a closure could either be watertight or non-watertight. Along similar lines, another proposal recommended the exclusion of the space underneath, provided the space is without means for securing cargo or used for cargo and entirely open. The remaining proposal referred to a comprehensive approach proposed under issue 6.a.

Questionnaire Responses Most respondents either agreed with all of the proposals, or agreed subject to changes. One respondent commented that closure criteria should address free communication with the sea, and referred to a proposal offered under issue 6.b. Another respondent expressed the view that closure devices fitted solely for safety should not be penalized, highlighting the difference between a closing device for a space carrying cargo, and one provided simply to prevent water egress on deck.

<u>Issue 6.d - Large Volumes of Spaces Open to the Sea</u> (SLF 53/9/5) Some ship designs have been developed to obtain additional buoyancy or an additional cargo capacity with no increase in the gross tonnage, making use of the open to the sea provisions regulation 6(3) to effectively reduce the ship's gross tonnage. Examples of such designs are: 1) ships with open bottom spaces between the inner skin and outer shell that hold air to gain additional buoyancy (figure 1); and 2) ships with cargo spaces between cross-deck structures with gratings openings to the sea (figure 2). The volumes of such spaces can be substantial, relative to the total volume of the ship.

Figure 1: A ship fitted with spaces between the inner skin and the outer shell to fill air for buoyancy

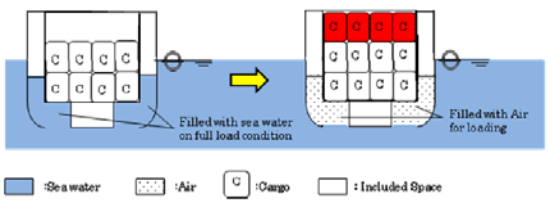
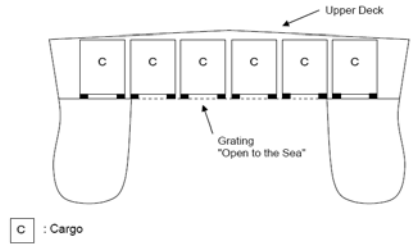


Figure 2: A ship fitted with grating cross-deck for securing cargo in multi-hull case

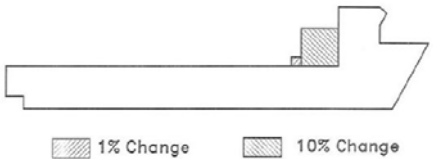


Proposals The group considered four proposals. Two proposals recommended the interpretation along the lines that spaces open to the sea, used or appropriated for holding cargo, and/or contributing to the buoyancy of the ship, should be included in tonnage. One proposal recommended the interpretation that the space must be in free communication with the sea at all times. The remaining proposal recommended that tonnage not be calculated with respect to the use of a space, but that spaces that are not always open to sea or are fitted with a means for securing cargo cannot be excluded.

Questionnaire Responses Most respondents either agreed with all of the proposals, or agreed subject to changes. In commenting on the proposal regarding free communication with the sea, one respondent cautioned that the language must address stern chutes and hawse pipes. Another respondent stated agreement in principle with this proposal, subject to including the provision that a space open to sea may not be excluded if used for the carriage of cargo, and noting that this approach would address situations where trapped air could prevent water from entering a tank. Another respondent expressed the view that there should be no linkage between exclusion of a space as open to sea and whether or not the space is buoyant or carries cargo or stores.

7 RE-CERTIFICATION FOR CHANGES AFFECTING TONNAGE

<u>Issue 7.a - Remeasurement Following Alterations</u> (SLF 53/5, annex 4, issue No. 7; SLF 54/INF.11) 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.



Proposals The group considered nine proposals. One proposal recommended establishing a 2% criterion for ships of less than 500 gross tonnage and a 1% criterion for larger ships. Two proposals recommended that any change to parameters used to calculate tonnage should require remeasurement, such that the ITC69 always reflects the ship's actual arrangements, with one of these proposals stipulating that the reissuance of the ITC69 in the event of a tonnage decrease should be at the owner's option. Another proposal recommended remeasurement after a tonnage increase or decrease of 1% or more. Two proposals recommended that the matter be left to the Administration, with one of these proposals recommending use of a 1% change in gross or net tonnage in the absence of established criteria from the Administration. One proposal recommended amending Article 10(1) to require remeasurement following tonnage decreases as well as increases, if the TM Convention is amended for other reasons. Another proposal recommended that an increase or decrease in gross or net tonnage of 1% or more should require remeasurement, with changes of less than 1% noted as a remark on the ITC69 to account for cumulative changes over time. Another proposal addressed one flag Administration's approach, under which a gross tonnage increase of unity (e.g., 500 GT to 501 GT) requires issuance of a new ITC69 reflecting the increase.

Questionnaire Responses There was little agreement on any of the proposals, excepting the proposal to address remeasurement following tonnage decreases as well as increases if the TM Convention is amended for other reasons, with which most respondents agreed. Regarding the proposals related to establishing criteria based on the percentage of tonnage change, one respondent who disagreed observed that for a ship of 150,000 gross tonnage, a 1% change means 1,500 gross tonnage (6000 m^3), another expressed support for using 2% for ships of less than 500 gross tonnage, another suggested a combination of percent tonnage change and changes to other information on the ITC69, and another urged that practical limits be adopted. Regarding the proposals related to remeasurement after a decrease in tonnage without necessarily amending the TM Convention, two respondents observed that this could be left to the Administration, with one noting that requiring such a remeasurement would contradict Article 10(1), and another observing that use of a 1% criterion for both tonnage increases and decreases might be the simplest solution. Regarding the proposals related to requiring remeasurement following any change affecting information on the ITC69, two respondents noted this approach would effectively require remeasurement regardless of an increase or decrease in tonnage, another commented that reissuance following tonnage decreases could be at the owner's option, another commented that not reflecting such changes on the ITC69 could be problematic in situations involving a change of flag or owner, two expressed the view that only appreciable changes should necessitate certificate reissuance, and another

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commented that small changes within agreed to limits should be recorded/noted on the existing certificate. Regarding the proposals that the matter be left to the flag Administration, one respondent commented to the effect that for reasons of uniformity, all Administrations should follow the same rules, another expressed the view that a 1% tonnage increase should be the official mandatory IMO cutoff, and another commented that clarification would be helpful provided that the limits developed are practical for the ship type/size, and that Administrations have some discretion for non-standard arrangements.

Issue 7.b - Remeasurement Following Net Tonnage Change (SLF 53/5, annex 4, issue No. 21; SLF 54/INF.11) 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?

Proposals The group considered five proposals. One proposal recommended reissuance of the ITC69 following any net tonnage change, with immediate reissuance if the principal dimensions or passenger numbers change, regardless of the magnitude of the tonnage change, and reissuance at the owner's option following changes involving gross tonnage decreases. On similar lines, another proposal recommended that any changes to the ship's characteristics (e.g., affecting V, V_c, D, d, N_1, N_2) should require reissuance, taking into account the Regulation 5(3) waiting period provisions in the case of net tonnage decreases. One proposal recommended establishing interpretations to the effect that tonnage decreases would be reflected in a remark on a reissued ITC69 indicating the twelve month waiting period. Another recommended leaving the matter to the Administration, another referred to a comprehensive proposal under issue 7.a that would address this matter, and the remaining proposals recommended recertification following changes only affecting net tonnage, as opposed to gross tonnage, in this context.

Questionnaire Responses There was little agreement on any of the proposals, although a majority of respondents agreed, or agreed subject to changes, with the proposal for reissuance following any net tonnage change with immediate reissuance upon changes to principal dimensions or passenger numbers. Among those agreeing, subject to changes, with this latter proposal, two respondents commented that the twelve month waiting period of regulation 5(3) should also be applied, and one commented that this should be left to the Administration. Among those disagreeing with this latter proposal, two respondents expressed concerns over the need to justify the benefits, with one expressing the view that this proposal's implementation could substantively increase costs for owners or flag States. Among the comments on the remaining proposals, one respondent referred to the Article 12(1) and 12(3) provisions related to flag State inspections, and another suggested an approach to accommodate Administrations that apply more restrictive criteria than the 1%.

Issue 7.c - Alterations to Tonnage Following Remeasurement by Another Body (CG Round 1) Consideration should be given for inclusion of criteria (e.g., percent change in the gross tonnage) under which remeasurement by the flag State should be carried out in the event that measurement by another entity (e.g., the Panama Canal Authority (ACP)) indicates that the an adjustment to the tonnage may be needed, even if the ship has not undergone alterations or modifications. For example, an ACP remeasurement that alters the PC/UMS net tonnage, in general, may not have an effect on the TM Convention gross tonnage assignment. If a flag Administration chooses to adjust the gross or net tonnage as a result, a classification society or

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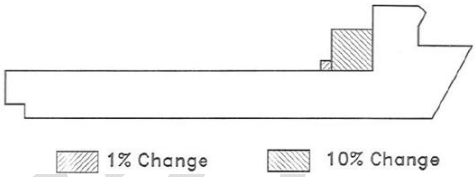
other authorized organization must reissue the ITC69 accordingly if acting on the flag Administration's behalf.

Proposals The group considered a single proposal, recommending that where a body other than a flag Administration (e.g., the Panama Canal Authority) recalculates the net tonnage based on its inspection of the ship, the ITC69 should be reissued if the net tonnage change exceeds [1%].

Questionnaire Responses A majority of respondents disagreed with the proposal, with many commenting to the effect that verification and correction of errors identified in this manner is the responsibility of the flag Administration.

8 USE OF NATIONAL TONNAGE

Issue 8.a - Criterion for Use of "Existing" Tonnage (SLF 53/5, annex 4, issue No. 3) 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, 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% criterion for a "substantial variation" and hence the breakpoint for loss of GRT grandfathering privileges.



Proposals The group considered five proposals. One proposal recommended that a substantial variation in the existing tonnage be defined as one where the gross tonnage is changed by more than 1% of the original gross tonnage. A second proposal was along similar lines, but recommended including a clarification that the tonnage change should apply to both the ship's original national (GRT) gross tonnage as well as the gross tonnage (GT) measured under the TM Convention. Another proposal sought a distinction between two cases: 1) existing ships during the 12 year transition period ending in 1994 for which a 10% criterion applied to GRT should be used as the determinant for measurement under the TM Convention; and 2) existing ships and other ships covered by Interim Schemes after that transition period for which a 1% criterion applied to GT should be used as the determinant for loss of GRT grandfathering privileges. Another proposal recommended removal of the interpretation of "substantial variation" from the Unified Interpretations, citing agreement at the 1969 Tonnage Conference as documented in SLF 54/INF 11 that a specific criterion would not be established, and instead suggested a guideline giving a range of values that have been considered acceptable in the past (e.g 1% to 10% of GRT). The remaining proposal expressed support for the existing TM.5/Circ.5 interpretations, noting that a SLF 38 drafting group chose the 1% criterion in view of the pending full coming into force of the TM Convention, so that there would be no confusion.

Questionnaire Responses A majority of respondents agreed with the proposal recommending the criterion of a 1% change in the original gross tonnage, or agreed with changes. Among those not in agreement, one respondent questioned how in situations involving flag changes, a

country proves the "existing tonnage" and by which means a new flag Administration can verify that the ship has not "substantially" changed since 1994, while another commented that it is not reasonable to change provisions under which a ship operates on the basis of changes acknowledged to be within the margin of measurement error. Regarding the other proposals, one responded expressed the view that because the TM Convention is now applicable to all ships, any discussion of applying a 10% cut-off for the purpose of Article 3(2)(b) has become irrelevant. Another respondent commented that Article 3(2)(b) does not make a distinction about alterations to "existing" ships before or after 1994 in the context of loss of grandfathering privileges, and that amendments to the TM Convention would be necessary to include such a distinction. Another questioned whether it was relevant to continue to assess substantial variations based on GRT tonnage 18 years after the full entry into force of the TM Convention, and commented that creating such guidelines at present seems unreasonable.

Issue 8.b - Use of National Tonnage Under Interim Schemes (CG Round 1) Clarifications, corrections and updates are needed regarding the use of national (GRT) tonnages under the older Interim Schemes (e.g., Resolutions A.494(XII) and A.540(13)). This stems from their original 1994 expiry dates, which was only later extended to the "life of the" ship per MSC 50/27, and the fact that they did not apply to ships covered by Article 3(2)(d) of the TM Convention. As a consequence, the Interim Schemes do not address the loss of GRT tonnage grandfathering upon alteration or modification, are unclear as to whether they apply to ships addressed by Article 3(2)(d) of the TM Convention, and appear to extend GRT tonnage grandfathering, not just to older tonnage-based provisions of SOLAS and MARPOL, but newer tonnage-based ones as well, requiring additional interpretations (e.g., MSC.1/Circ. 1231 and MSC/Circ.1157). Further, the STCW Interim Scheme was effectively canceled with the coming into force of the 1995 amendments, but continues to be referenced by documents that remain in effect (e.g., resolution A.791(19)).

Proposals The group considered a single proposal, recommending that a draft Assembly Resolution be developed that supersedes existing resolutions where appropriate and explains and consolidates updated requirements on GRT tonnage grandfathering for Interim Scheme ships.

Questionnaire Responses Most respondents agreed with the proposal. One respondent who agreed nonetheless questioned whether the drafting of such a resolution was within the group's terms of reference, while another respondent commented that a new resolution could be developed after consideration by the Sub-Committee.

Issue 8.c - Loss of Tonnage Grandfathering Under Interim Schemes (CG Round 1) Resolution A.758(18) provides for removal of the national (GRT) tonnages from ITC69 certificates if a ship undergoes "alterations or modifications which affect its tonnage". This implies, but does not explicitly state, that GRT grandfathering is lost upon such alterations or modifications. Further, the language used in this resolution is different than "substantial alteration" language in Article 3(2)(b). TM.5/Circ.5 appears - indirectly - to "interpret" the resolution as if the language were the same, but there has been confusion on this subject.

Proposals The group considered two proposals. One recommended that a draft Assembly Resolution be developed in conjunction with development of a new Assembly Resolution under issue 8.b, that provides language addressing loss of GRT grandfathering for Interim Scheme ships identical to that provided for "existing ships" under Articles 3(2)(b) and (d). A second proposal along similar lines recommended development of a draft Assembly Resolution to harmonize approaches.

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Questionnaire Responses Most respondents agreed with both proposals. One respondent commented that a new resolution could be developed after consideration by the Sub-Committee.

9 INTERNATIONAL TONNAGE CERTIFICATE (1969)

<u>Issue 9.a - Listing of Spaces on the Certificate</u> (SLF 53/5, annex 4, issue No. 4) The reverse side of the ITC69 form provides for the listing of information on included spaces (both cargo and non-cargo spaces), with associated excluded spaces annotated with an asterisk. Presumably, this was to permit verification that a ship has not undergone changes since the ITC69 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 ITC69.

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

Proposals The group considered five proposals. One proposal recommended establishing a new section of the Unified Interpretations providing appropriate guidance, with completed sample ITC69s. Another proposal recommended development of interpretations that provide for the listing of individual tiers as separate "spaces", along with a sample ITC69 and associated outboard profile to illustrate the appropriate level of detail. Another proposal suggested that the information should not be overly detailed, citing the complexity of the Suez Canal tonnage certificate. Another proposal recommended use of the remarks block for separate listing of spaces, such as crew accommodation spaces, and spaces needed to satisfy safety, security and operational needs, including those for cadets, pilots, riding gangs and maintenance personnel. The remaining proposal recommended listing all spaces on the ITC69 to permit verification by port authorities and for use when changing flag.

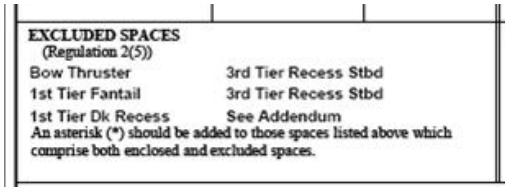
Questionnaire Responses Most respondents agreed with the two proposals to develop guidelines or interpretations and provide sample certificates, although one respondent commented that volumes should be listed as well, which when coupled with the calculations, could provide for easy spot checking, as well as verification when a ship changes flag. There was little agreement on the other proposals. Regarding the proposal to list all spaces on the ITC69, three respondents commented to the effect that this level of detail was not appropriate, with two respondents noting that such information is captured on the calculation sheets, and the third citing decisions at the 1969 Tonnage Conference on this matter, with inclusion of a sketch voted down and the listing of volumes specifically rejected. One respondent also commented that excluded spaces should not be listed, while another commented that in applying the provisions of Article 11 (acceptance of ITC69s) and Article 12 (valid ITC69 on board), the term "valid" has a different meaning than "having exact calculations" in this context. Regarding the proposal to use the remarks block for separate listings, three respondents commented along the lines that unnecessary remarks should not be included, with one noting the limited space available and suggesting the use of the calculation sheets for this purpose, while another expressed the view that consideration of such a listing might be premature and could possibly be outside the terms of reference.

<u>Issue 9.b - Specifying Lengths of Spaces on the Certificate</u> (SLF 53/5, annex 4, issue No. 5) The reverse side of the ITC69 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.

Proposals The group considered four proposals. Two proposals recommended that the length should be the overall length of the space, with one of these proposals additionally recommending inclusion of illustrative diagrams and a new section of the Unified Interpretations to provide appropriate guidance. Another proposal recommended establishing the interpretation that the length of the space is the longitudinal dimension to its extremities, including excluded spaces, and using a sample ITC69 and accompanying outboard profile to illustrate. The remaining proposal recommended that the length should be that of the space for which the volume is calculated.

Questionnaire Responses Most respondents agreed with all of the proposals, or agreed with changes. Among the comments provided, one respondent suggested that an average length be specified in lieu of an overall length, as in some cases the length can vary linearly in relation to the breadth and/or height of the space, and another questioned the meaning of the expression "measured space", expressing the view that the length should be the length of a tier, where a tier is the space bounded by a deck and can include excluded space. Another respondent commented more generally that the concept of tiers should also be taken into consideration. Another expressed the view that while guidance in the form of diagrams might be helpful, the increasing complexity of ships will mean that further prescriptive definitions will lead to a need for further interpretations.

<u>Issue 9.c - Listing Excluded Spaces on the Certificate</u> (SLF 53/5, annex 4, issue No. 6) The reverse side of the ITC69 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 ITC69, to omitting reference to the spaces 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.

Proposals The group considered five proposals. Three proposals recommended that the requirement for listing excluded spaces on the ITC69 be deleted, with one of these proposals stipulating that the requirement be deleted only if the TM Convention is amended for other reasons. Another proposal recommended that interpretations be developed to simply list the type or category of space, with spaces open to the sea not listed. The remaining proposal

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recommended that the listing of excluded spaces be sufficiently detailed to permit verification by port authorities, or when the ship changes flag.

Questionnaire Responses A majority of respondents disagreed with the proposal to provide sufficient detail to permit verification, and there was little agreement on any of the other proposals. One respondent expressed the view that interpretations to not list excluded spaces on the ITC69 could be used in lieu of amending the TM Convention if there was agreement on this matter. Another respondent expressed the view that Article 9(2) does not limit the size of the blocks on the ITC69 or the number of pages, as long as the ITC69 contains all of the required information. Another respondent suggested using addenda to the ITC69 to capture the excluded space information if the excluded space block is deleted, and that detailed information on excluded spaces could be provided on the calculation sheets for use during flag transfer. Another respondent expressed the view that excluded spaces should be identified in the calculations. Another commented that further consideration needs to be given to the appropriate documentation and recording of calculations and associated ITC69 information with respect to excluded spaces.

Issue 9.d - Keel Laid or Alteration Date on the Certificate (CG Round 1) Article 3(2)(b) is relevant to existing ships which undergo alterations or modifications which the Administration deems to be a substantial variation in their existing gross tonnage, as well as alterations or modifications carried out on an existing ship (not yet measured with the ITC69) during the 12 years transition period in order to apply the ITC69 before the expiry of the transition period. There is no uniform interpretation regarding the date that shown on the front of the ITC69 when a ship, already measured under the TM Convention, undergoes alterations or modifications of a "major character" as indicated in the asterisked note on the certificate.

Proposals The group considered a single proposal, which recommended that the date on the ITC69 be the same date as shown on the Cargo Ship Safety Construction Certificate or the Passenger Ship Safety Certificate, reflecting the date on which a conversion, or alteration or modification work of a major character, commenced.

Questionnaire Responses There was little agreement on the proposal. One respondent who disagreed commented that these could be different dates, as alterations/modifications are defined differently in the TM and the other Conventions. One respondent who also disagreed suggested addressing the issue instead by correcting the phrasing of the asterisked note via interpretations to refer to the date of either substantial alterations or alterations of a major character, and expressed support for minor technical amendments to the TM Convention to clarify this matter if the Convention is amended for other reasons. Another respondent focused on the use of the past tense term "underwent" in the ITC69 in referring to the alterations, and noted that most ITC69s currently specify a year only for this date, another respondent stressed the need to define "major character", while another supported correcting the language in the TM Convention only if it is otherwise being amended.

Issue 9.e - Certificate Attachments (CG Round 1) Some flag States have authorized attachments (including addenda) to ITC69s that contain volume and other ship information to supplement that which appears on the ITC69. In some cases these documents are modeled on the TM.5/Circ.5 Appendix 2 format for transferring calculations to other Administrations. Because the TM Convention is silent on such documents, their legal status is not clear, and there has been confusion as a result. For example, if there is no remark or other indication on the ITC69 referring to the attachment, is this document, in fact, a part or extension of the ITC69 itself, and therefore must it be retained on board the ship when engaged on an international voyage and presented to boarding officials? If so, does the flag State become legally

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responsible for the accuracy of that information, as is the case with the ITC69 itself? If a flag State audit is performed on the ship, are the attachments audited as well, and is it necessary to reissue these attachments when information changes or is found to be in error, even if the ITC69 itself does not have to be reissued? There may be a need for an attachment or continuation sheet to accommodate the growing number of Remarks required by some flag States.

Proposals The group considered two proposals. One proposal recommended establishing an interpretation to the effect that addenda are not legally part of the ITC69, while stipulating an allowance for continuation sheets should there be insufficient space on the ITC69 to include the required information. Another proposal recommended amendments to the TM Convention to change the ITC69 form to be more reflective of new ship designs, taking into consideration input on practical experience with these documents from Administrations and recognized organizations.

Questionnaire Responses A majority of respondents agreed with the proposal addressing addenda to the ITC69, and disagreed with the proposal recommending changing the ITC69 form, although one respondent expressed agreement with the latter proposal if the TM Convention is amended for other reasons. Noting that appendix 2 of TM.5/Circ.5 does not define "molded volume", one respondent questioned whether it could be deleted altogether, while another expressed the view that the calculation sheets are a necessity for determining the validity and accuracy of tonnage calculations upon flag transfer. Another expressed the view that if formal documents are to be carried onboard a ship, then their status needs to be clear.

Issue 9.f - Transmitting Copies of Calculations and Certificates Upon Flag Change (CG Round 1) In accordance with Article 10(3), upon changing flag, the former flag Administration must transfer a copy of the ITC69 and relevant calculations to the new flag Administration. However, the former flag Administration does not transmit the documents in all cases. In some cases the certificate is issued by an organization authorized by the flag Administration, and the documents are transferred between organizations.

Proposals The group considered two proposals. Both recommended transfer of a copy of the ITC69 and relevant calculations via the ship owner and/or authorized organization, with one stipulating transfer of copies of calculation sheets excepting the underdeck calculations, and the other recommending that these documents be subject to recertification inspections by officials in the new Administration.

Questionnaire Responses Most respondents agreed with both proposals, or agreed subject to changes. One respondent commented that the matter should be left to the flag Administrations, and referenced resolutions A.739 and A.787. Another respondent commented on the need to define what constitutes calculations when computer models are used, and questioned the authority under the existing language of the TM Convention to delegate the responsibility for transferring calculations to a third party. Another respondent suggested that a recognized organization should transfer the copies without flag Administration involvement, while another commented that the ship owner should be responsible for this transfer.

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10 APPLYING INTERPRETATIONS

Issue 10.a - Acceptance of Interpretations (SLF 53/5, annex 4, issue No. 8) Article 13 precludes the claiming of privileges of the TM Convention unless a 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 ITC69 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.

Proposals The group considered six proposals. One proposal recommended developing a draft circular making interpretations mandatory for all new ships and ships which undergo major modification, as an interim measure until related amendments to the TM Conventions could be implemented. Another proposal recommended amending the TM.5/Circ.5 interpretations to require mandatory application of new interpretations based on the keel laid date or date of alterations or modifications affecting tonnage. Another proposal recommended similar non-retroactive application, but on a non-mandatory basis and using the ship's keel laid date or substantial alteration date as the determining factors. One proposal recommended simply that the new interpretations not be applied retroactively. Another proposal recommended that the existing TM.5/Circ.5 provision on retroactive application following flag change be deleted. In referring to this provision, another proposal suggested that it may have been included to address special ship types that were the subject of the interpretations.

Questionnaire Responses Most respondents agreed with the two proposals to make interpretations mandatory, or agreed subject to changes. Among those who disagreed, two respondents commented that the existing TM Convention provides no authority to make interpretations mandatory, with another respondent commenting along similar lines that a circular providing interpretations is non-binding. One respondent expressed the view that the Sub-Committee should decide on the effective date to be used for new interpretations. Another commented in favor of using a circular as a preliminary measure, and another recommended that an MSC resolution be used as the vehicle to making the interpretations mandatory, noting that a circular might not be suitable for this purpose. Most respondents agreed with the proposal that new interpretations should not be applied retroactively, or agreed with changes, with one respondent commenting that new interpretations should be applied following alterations deemed to be substantial by the flag Administration. There was little agreement on the remaining proposals. Among the many comments provided, one respondent expressed the view that in applying new interpretations to newly modified ships, they should be applied only to the portion of the ship being modified, while another commented that in considering retroactive application, the flag Administration should take into consideration a ship's building or operating schedule. Another respondent commented more generally that the difficulty and complexity of the debate highlights the need for practical guidance rather than further mandatory interpretations.

11 IMPACT ON WORKING AND LIVING CONDITIONS

Issue 11.a - Extending Reduced Gross Tonnage to Crew Spaces (SLF 54/9/1, annex 3, issue 11; SLF 54/9/3, SLF 54/9/4; MSC 89/9/5; MSC 89/9/8) The concept of calculating a "reduced gross tonnage" for optional use in assessing fees has been adopted with respect to oil tanker segregated ballast spaces and open-top containerships that meet certain criteria, and could be extended to crew spaces as well, with the view toward improving working and living conditions onboard ships and fishing vessels. However, it is unclear whether the development of a reduced gross tonnage parameter for crew spaces would have the desired effect of

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improving the impact on working and living conditions on ships and fishing vessels, depending on the extent to which this new parameter would be used. For example, if this new calculation is to be voluntary, will it be used by any of the bodies which set tonnage-related fees (registration, harbour dues, etc.) and, consequently, deliver the desired practical benefits?

Proposals The group considered five proposals. One proposal recommended limiting reduced gross tonnage for crew spaces to those ships to which the Maritime Labor Convention is applied, should the introduction of this new parameter be deemed necessary, and advising port authorities to use the parameter for assessing fees. Another proposal recommended development of an Assembly Resolution to implement crew space reduced gross tonnage, citing possible influence of labour groups with port authorities in facilitating its voluntary adoption. Another proposal recommended development of an Assembly Resolution to implement crew space reduced gross tonnage as an alternative to a preferred implementation on a compulsory (permanent) basis, with the resolution to be relayed to ports, port authorities, classification societies, shipbuilders and ship owners by flag Administrations. Another proposal recommended that this issue not be considered as a tonnage related matter. The remaining proposal recommended that this issue be addressed by ensuring that acceptable minimum standards for such spaces are provided in other applicable International Conventions.

Questionnaire Responses Most respondents agreed with the first two proposals described above, or agreed subject to changes. Among the many comments provided on these proposals, two respondents commented that the reduced gross tonnage should be applicable to all ships (e.g., including fishing vessels), one commented that port authorities should be advised to use net tonnage for fee assessment, another expressed the view that spaces dedicated solely to crew accommodations and safety should be excluded on a mandatory basis, another expressed the view that a voluntary measure will not help and could be detrimental to the current concept of gross tonnage as the measure of the overall size of a ship, another commented that it would be better to directly relate port fees to the Maritime Labour Convention, while another commented to the effect that a decision should first be made on whether to develop a reduced gross tonnage parameter for crew spaces before deciding on the issue of linkage to the Maritime Labour Convention. There was little agreement on the remaining proposals. Two respondents cited the precedent of establishing reduce gross tonnage parameters for segregated ballast tanks and open-top containerships and another cited the discussion of this matter at SLF 54, when considering extension of this approach to crew spaces. Three respondents commented to the effect that mandating the use of reduced gross tonnage for fee assessment was outside of the group's terms of reference, one questioned the practicality of ensuring minimum standards in other instruments, and another further commented that the proposal to ensure minimum standards does not address the penalization of proactive provisions for crew accommodation and safety.

<u>Issue 11.b - Calculating a Reduced Gross Tonnage Parameter for Crew Spaces</u> (SLF 54/9/1, annex 3, issue 11; SLF 54/9/3, SLF 54/9/4; MSC 89/9/5; MSC 89/9/8) If a reduced gross tonnage parameter for crew spaces is developed, it is unclear how crew spaces should be defined for purposes of the volume calculations. For example, should the total volume of all enclosed spaces which are necessary for the accommodation and provision of the crew be calculated as a basis for this new parameter?

Proposals The group considered six proposals. One proposal recommended that reduced gross tonnage be calculated in a similar matter to segregated ballast oil tankers and open-top containerships by applying the K_1 factor of the TM Convention to the total volume of all enclosed spaces, less volumes of spaces for the accommodation or provision of the crew, including cabins, passageways, staircases, galleys, provision stores, mess rooms, change rooms,

hospitals, gymnasiums, recreation rooms, laundry, etc. Another proposal recommended that reduced gross tonnage be calculated by subtracting from the gross tonnage a crew space tonnage determined by applying the K_1 factor and a newly established K_c factor to the total number of crew rooms on the ship to which the Maritime Labour Convention applies. Another proposal recommended defining crew spaces in terms of those spaces used only by the crew, excluding spaces used for navigation matters, while another simply recommended that specific rules for crew spaces be developed. One proposal recommended that specific eligibility criteria for crew spaces be developed to ensure they meet some minimum standard that will benefit the seafarers involved. Another proposal recommended that this issue not be considered as a tonnage related matter.

Questionnaire Responses Excepting the two proposals to develop specific rules on crew spaces and to link eligibility to minimum standards, with which most agreed or agreed with changes, there was little agreement on any of the proposals. Among the many comments provided, two respondents expressed concern over the complexity of the formula related to the number of crew rooms, one questioned how the K_c factor was to be derived, and one expressed support for this approach, noting that it avoids the difficulty of categorizing the many ancillary crew related spaces. Two respondents commented that the rules on crew spaces should be as simple as possible, while another expressed the view that widespread adoption of the existing net tonnage for fee assessment would resolve the underlying concerns of this issue. Another commented that the proposals seeking to account for individual volumes of all crew-related spaces could be simplified by not including the purpose of the spaces. Another respondent questioned the difference between one of the proposed approaches, which involves subtracting volumes of crew spaces before calculating reduced gross tonnage, and the approach used for establishing segregated ballast reduced gross tonnage, which involves calculating tonnage of segregated ballast spaces, and subtracting this tonnage from gross to obtain reduced gross tonnage.

Issue 11.c - Use of Multiple Reduced Gross Tonnage Parameters (SLF 54/9/1, annex 3, issue 11, SLF 54/9/3; SLF 54/9/4; MSC 89/9/5; MSC 89/9/8) If a reduced gross tonnage parameter is developed for crew spaces, it is unclear how this parameter would be applied for segregated oil tankers and open-top containerships, for which a reduced gross tonnage is also calculated. For example, should the volumes be combined in a single parameter, or should they be listed separately, with separate reduced gross tonnages calculated?

Proposals The group considered a single proposed solution, recommending that each reduced tonnage and the total reduced tonnage be shown on the ITC69.

Questionnaire Responses Most respondents agreed with the proposal. One respondent commented to the effect that the crew space reduced gross tonnage could appear as an additional remark on ITC69s, along with the remarks for segregated ballast oil tankers or open-top containerships. Another respondent highlighted the difference in approach for calculating reduced gross tonnage for segregated ballast oil tankers and open-top containerships, and in the latter case, suggested calculating the open-top reduced gross tonnage first, on which the crew space reduction is applied. Another expressed the view that widespread adoption of net tonnage for fee assessment would eliminate the need to address this issue.

Issue 11.d - Treatment of Crew Accommodation Spaces (CG Round 1) The provisions of the TM Convention provide a significant commercial disincentive for the improvement of facilities for crew accommodation. This is a matter of concern in relation to: the improvement of living and social conditions for seafarers who are on board for significant periods of their working life; the provision of sufficient accommodation to facilitate additional crew or contractors

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as necessary; the provision of sufficient accommodation to facilitate supernumerary and training positions; and the need to facilitate the implementation of the provisions of the ILO Maritime Labour Convention 2006.

Proposals The group considered four proposals. One proposal recommended amending the Regulation 2(5) provisions of the TM Convention to provide for excluding from tonnage all spaces exclusively dedicated to crew accommodation. Another proposal recommended separate listings in the remarks block on the ITC69 for segregated oil ballast tanks, crew accommodate spaces as required by SOLAS (including ISPS Code), STCW and the Maritime Labour Convention, and other spaces needed to comply with relevant international requirements regarding safety, security and the safe operation of the ship. Another proposal recommended the development of a generalized framework for listing volumes under the various reduced gross tonnage provisions, allowing interested parties to apply tonnage reduction as they see fit. Another proposal recommended assimilating crew space reduced gross tonnage with the oil tanker segregated ballast reduced gross tonnage, defining and then subtracting the volume, but that for open-top containerships, only the final reduced gross tonnage be shown.

Questionnaire Responses A majority of respondents disagreed with the proposal to amend the TM Convention to exclude crew spaces. Regarding this proposal, two respondents commented to the effect that implementation would cause the gross tonnage to not be reflective of the ship's overall size, with one expressing the view that further pursuit of such amendments is beyond the scope of the planned output. One respondent commented that this could create a precedent for similar treatment of other spaces, but suggested language for inclusion in the Unified Interpretations should this proposal be carried forward. Another respondent commented that such a change would only remove a disincentive and not add a stimulus to provide better crew accommodations, such as could be done through introduction of mandatory crew accommodation requirements. Another expressed the view that the TM Convention should not be altered in this manner, and that a reduced gross tonnage approach was acceptable. There was little agreement on the remaining proposals. In commenting on the proposal to list spaces in the remarks block, one respondent expressed the view that unnecessary information should not appear on the ITC69, with another stating agreement but adding that there was a need to address the matter in a more substantive manner. Two respondents expressed opposing views on whether it was possible to harmonize the various reduced gross tonnages through the listing of individual reductions on the ITC69.

12 CERTIFICATE EXEMPTIONS

Issue 12.a – Single Voyage Exemption (SLF 53/5, annex 4, issue No. 29) Under Articles 2(3), 3(1), 7(1) and 12(1)(a), a ship flying the flag of a country that is party to the TM Convention is subject to the Convention and must have an ITC69 on board the ship when engaged on an international voyage. Consideration should be given to exempting ships from these requirements when engaged on a single international voyage between the originating country and the ship's flag State for purposes of ship delivery (e.g., after the ship is initially constructed or otherwise obtained).

Proposals The group considered two proposals. One proposal recommended establishing interpretations to provide for the use of simplified formula to calculate gross tonnage based on the product of principal dimensions and a coefficient to be established by the Sub-Committee, which would be valid for a single voyage to the flag State. The other proposal recommended development of a simplified formula for calculating the tonnage value, and the use of an accompanying single International voyage standard exemption certificate.

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Questionnaire Responses There was little agreement on the two proposals. In disagreeing with both, one respondent expressed the view that neither approach should be implemented through interpretations, but rather would require amendments to the TM Convention. Another respondent expressed possible support for both proposals should the Convention be amended for other reasons. Another respondent highlighted provisions of Articles 10 and 12 regarding validity of ITC69s, and noted the current TM.5/Circ.5 provisions requiring use of the latest interpretations following flag transfer. Another respondent commented to the effect that such provisions appear unnecessary, as based on experience, new buildings are known and can be handled in due time.

13 CARGO SPACES

Issue 13.a - Including Cargo Spaces in Tonnage (CG Round 1) Regulation 2(7) provides for including in the net tonnage computation only those enclosed cargo spaces that were also included in the gross tonnage computation. As such, spaces used for carriage of deck cargo are not included in the net tonnage computation, nor are they in the gross tonnage computation. For some types of ships, this can give a substantially reduced figure for the net tonnage, which per article 2(5) is the measure of the useful capacity of a ship, which in turn can discourage the use of net tonnage as a basis for charging port, lighthouse and other fees, in favor of other parameters that may provide a more realistic basis for charging. This brings into question the significance of the current method of determining tonnage without fully including the cargo spaces.

Proposals The group considered a single proposal, recommending that the definition of cargo space in Regulation 2(7) of the TM Convention be revised to reflect the changes in ship design, new types of ships, and carriage of cargo, over the period of time since the late 1960's when the TM Convention was prepared.

Questionnaire Responses A majority of respondents disagreed with the proposal. Among those who disagreed, one respondent observed that there was little support in recent work by the Sub-Committee for establishing a third tonnage parameter to address deck cargo (e.g., Option 5 in the annex to SLF 51/6). This respondent cited documents from the 1969 Tonnage Conference (e.g., TM/CONF/C.1/SR.15; TM/CONF/C.2/SR.1, 7, 14, 22 and 23), commenting that the design impact of containerized deck cargo under the TM Convention's measurement approach was taken into consideration at the Conference, and expressing the view that the principles relating to deck cargo treatment are fundamentally unchanged from that time. In neither agreeing nor disagreeing with the proposal, another respondent commented that inclusion of deck cargo in tonnage goes beyond the current concept of enclosed space, and that calculation of volumes could be problematic, noting the limitations of both a "maximum permitted volume" approach (e.g., not addressed by current International standards), and a "real deck cargo volume" approach (e.g., calculation by port authorities on a case-by-case basis as provided for under older British regulations). In support of the proposal, one respondent commented that confusion arising over treatment of new types of ships and different options of carrying cargoes could lead to adoption of parameters other than gross or net tonnage for assessing port and other fees. Another respondent highlighted the detrimental effects on the

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safety of certain aspects of ship designs and the disincentives to improve crew accommodations related to this issue, expressing concern over the future relevance of the TM Convention, and highlighting the consequences for setting limiting criteria in International Conventions and Codes should the TM Convention become irrelevant. This respondent commented that the situation will only get worse, and that the Correspondence Group should make it clear that action by the Maritime Safety Committee is needed to address these concerns.

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ANNEX 2

ROUND 1 RESULTS SUMMARY

Category, Issue and Proposed Solution[1]	Positions of Respondents				
	Agree	Agree w/ Changes	Neither Agree/ Disagree	Disagree	Consensus Rating[2]
1. Length Definition					
1.a Treatment of Unusual Hull Configurations					
1 Use 96% overall length or stem to fitted rudder stock (if fitted) on an 85% waterline.	7	3	2	2	Agree
2 Use dimensions from the Load Line Certificate and invoke novel craft provisions, with an ITC remark.	4	2	3	5	Disagree
3 Use 96% overall length for column-stabilized units and other novel craft.	7	2	5	0	Agree
4 Use Load Line interpretations.	2	5	4	3	Agree with Changes
1.b Determining Least Moulded Depth (LMD)					
1 Measure the length at the underside of the upper deck, if the ship has a curved keel.	4	2	3	4	Agree
2 Take LMD as the smallest depth along the ship's length, corresponding to the Load Line length.	5	6	1	3	Agree with Changes
3 Measure the length on a waterline parallel to the design waterline, if the ship has a raked keel.	8	3	2	0	Agree
4 Take LMD as the vertical distance between the top of the keel and the lowest point of the upper deck.	7	3	2	1	Agree
5 Take LMD as the smallest moulded depth along the ship's length.	5	2	3	3	Agree
6 Take LMD as the moulded depth as defined in the Load Line Convention, if the ship has an inclined keel.	5	0	6	3	Neither Agree/Disagree
1.c Trainable Rudders and Rudderless Ships					
1 Use 96% of the overall length on a waterline at 85% of the moulded depth, if the ship has no rudder stock.	8	5	1	1	Agree
2 Use 96% of the overall length on a waterline at 85% of the least molded depth, if the ship has no rudder stock.	10	3	1	0	Agree
3 Measure the length to the axis of the rearmost rudder if the ship is fitted with multiple rudders.	10	0	3	1	Agree
4 Use 96% of the total length on a waterline at 85% of least moulded depth, if the ship has no rudder stock.	9	4	1	0	Agree
5 Establish the interpretation that trainable propulsion units are not considered when determining length.	9	0	1	2	Agree
6 Revise the interpretations to use 96% of the total length on a waterline at 85% of the least molded depth.	10	2	1	0	Agree
7 Use an equivalent abaft structure as the basis for determining length, if the ship has no rudder stock.	0	0	2	11	Disagree
2. Novel Craft					
2.a. Applying Novel Craft Provisions					
1 Define novel craft as those that are novel in design; list ship types that are not considered novel craft.	5	3	2	5	Agree
2 Require novel craft determinations to be subject to IMO discussions, and issuance of revised interpretations.	3	4	5	2	Neither Agree/Disagree
3 Define novel craft in terms of design and structures, not to include ships of usual service or shape.	6	1	2	4	Agree
4 Establish interpretation that gross/net tonnage reflects overall size/useful capacity. Include an ITC remark.	8	3	2	1	Agree
5 Require Administrations to initiate IMO reviews of novel craft determinations; cannot exempt enclosed space.	8	4	2	0	Agree
6 Preclude safety or economics from consideration when applying novel craft provisions.	5	2	5	2	Agree
3. Enclosed Spaces					
3.a Requirement for a Deck Above to Bound Enclosed Space					
1 Exclude uncovered 3-sided spaces from tonnage, unless utilized for storage of cargo/stores.	4	5	1	5	Agree with Changes
2 Treat uncovered 3-sided spaces > 1.5 m high and space below cargo hatches as enclosed spaces.	3	7	2	1	Agree with Changes
3 Treat uncovered spaces bounded by 2 or more connected high coamings as enclosed spaces.	1	8	3	2	Agree with Changes
4 Require a deck or covering above as a condition for bounding enclosed space if the space is not within hull.	2	0	4	7	Disagree
5 Treat uncovered 3-sided spaces > 1.5 m high as enclosed spaces.	6	4	2	2	Agree
6 Treat portions of large uncovered spaces meeting a "1 in 4" height/width ratio rule as unenclosed.	3	0	2	9	Disagree
7 Include uncovered spaces appropriated for stowage of cargo/stores in tonnage.	4	2	5	3	Neither Agree/Disagree
8 Include spaces inside coamings on open-top containers/dockships in tonnage.	3	2	5	3	Neither Agree/Disagree
3.b Treatment of Temporary Deck Equipment					
1 Exclude temporary/semi-permanent spaces from tonnage, but record such spaces on the ITC.	6	4	1	4	Agree
2 Include temporary deck equipment in tonnage, when fitted.	8	2	2	2	Agree
3 Remeasure if temporary deck equipment is fitted/removed.	4	2	2	6	Disagree
4 Include temporary/semi-permanent spaces in tonnage, if welded/bolted to ship, or connected to ship systems.	4	4	2	4	Agree
5 Include temporary deck equipment in tonnage; utilize ITC remark providing a maximum allowance.	4	3	4	2	Agree
6 Include only permanently connected tanks in tonnage, per the current interpretations.	5	1	3	5	Agree
3.c Treatment of Deck Cargo Bounded by Enclosing Structure					
1 Include space within a permanent wall-sided structure in tonnage, if used to house cargo/stores.	7	4	1	3	Agree
2 Exclude deck cargo from tonnage.	6	4	2	1	Agree
3 Exclude deck cargo from tonnage; space appropriated for cargo within ship structures is in tonnage.	6	3	3	2	Agree
4 Establish interpretation that deck cargo and life saving craft are not part of the ship, and not in tonnage.	9	2	2	1	Agree
5 Exclude deck cargo and containers from tonnage.	9	0	3	2	Agree
3.d Treatment of Spaces Underneath Overhangs					
1 Treat space below an open bridge wing as unenclosed space.	9	1	0	4	Agree
2 Exclude space below a bridge wing from tonnage, if not fitted with means of securing cargo/stores (SLF 25).	6	4	1	3	Agree
3 Treat space below an open bridge wing, as pictured, as unenclosed space.	9	2	1	1	Agree
4 Establish interpretations that open spaces beneath cantilevered overhanging structures are unenclosed.	9	3	1	1	Agree
5 Exclude space bounded by a deck above from tonnage only if eligible for exclusion per regulation 2(5)(b) or (c).	7	3	3	1	Agree
3.e Treatment of Topside Spaces of Complex Shape					
1 Include spaces in tonnage, with volume > 1 m^3 and area > 1 m^2 , taking into consideration accessibility.	5	3	3	3	Agree
2 Exclude spaces outside boundary plating from tonnage, if volume < 1 m^3 and longitudinal area < 1 m^2.	7	1	3	2	Agree
3 Exclude inaccessible, independent, fixed enclosed spaces from tonnage, if volume < 1 m^3 and area < 1 m^2.	6	2	4	1	Agree
4 Establish interpretations for approximating volumes of linear structures of area < 1 m^2.	3	3	3	3	Agree
5 Do not give consideration to the "amount of time" needed to calculate tonnage.	6	3	4	0	Agree

Category, Issue and Proposed Solution[1]	Positions of Respondents				
	Agree	Agree w/ Changes	Neither Agree/ Disagree	Disagree	Consensus Rating[2]
3.f Treatment of Hull Spaces of Complex Shape					
1 Develop clear definitions as to what is included in tonnage. Do not specify the measurement method.	10	2	3	0	Agree
2 Establish definitions for "hull" and "appendage" based on the discussions at SLF 30.	4	2	7	1	Neither Agree/Disagree
3 Establish interpretations to include linear hull elements in tonnage, if volume >1 m³.	8	2	3	0	Agree
3.g Evaluating Accessibility of Mast, Kingposts and Supports					
1 Define inaccessible in terms of not readily accessible while the ship undertakes its usual duties.	4	4	1	6	Disagree
2 Remove the accessibility restriction, such that all masts and similar structures are included in tonnage.	2	1	2	9	Disagree
3 Allow restricted access for repair/inspection/maintenance, if not fitted with means to secure cargo/stores.	5	1	2	6	Disagree
4 Allow restricted access through bolted manholes, or similar arrangements, needed for survey.	2	4	2	6	Disagree
5 Remove the accessibility restriction, and provide for approximation of volumes of such structures.	6	0	0	8	Disagree
6 Preclude consideration of compliance with security requirements when evaluating accessibility.	5	0	8	1	Neither Agree/Disagree
3.h Vertical Truss Structures					
1 Exclude truss structures (e.g., legs and rigs) from tonnage.	7	0	5	2	Agree
3.i Movable Door Assembly Within a Covered Space					
1 Ignore the door assembly, unless it restricts the width of the associated "recess".	3	1	3	6	Disagree
3.j Enclosed Space Versus Excluded Space					
1 Establish the interpretation that excluded spaces are enclosed spaces. Revise Convention figures accordingly.	4	3	5	1	Neither Agree/Disagree
2 Establish a broader definition of excluded spaces, with all excluded spaces treated as enclosed spaces.	6	2	4	1	Agree
3.k Mobile Cranes					
1 Restrict the exclusion of mobile cranes from tonnage to those which displace from one point to another.	4	2	2	6	Disagree
3.l Independent Ventilators and Air Trunks					
1 Include independent ventilators and air trunks in tonnage only if area≥ 1 m².	6	3	1	4	Agree
3.m Spaces Fitted to Outer Structure Boundary					
1 Exclude spaces with at least 3 exposed sides from tonnage, if longitudinal area≤ 1 m².	4	1	3	6	Disagree
3.n Devices for Safety, Fire Protection and Pollution Prevention					
1 Exclude spaces for safety devices from tonnage, if such devices are required by other Conventions.	3	3	2	6	Disagree
3.o Width of End Openings					
(No proposed solutions were offered for consideration by the group)	-	-	-	-	
3.p Machinery as Enclosed Space					
1 Exclude machinery from tonnage.	4	5	1	4	Agree with Changes
3.q Machinery Support Structures					
1 Exclude structures from tonnage, if volume <1 m³ and longitudinal area < 1 m².	5	5	0	4	Agree
4. Definition of Deck, Cover and Partition					
4.a Definition of Awning					
1 Define awning in terms of a flexible material to reduce impact of wind or water. Develop list of materials.	7	3	2	3	Agree
2 Define awning in terms of a cover that can be folded or rolled up; fitting of a drop would enclose the space.	5	4	3	2	Agree
3 Preclude categorization as an awning, if in the form of a rigid or solid piece of material.	6	2	1	5	Agree
4 Define awning in terms of an overhead covering stretched over a frame offering shelter from sun/weather.	8	3	2	1	Agree
5 Define awning in terms of an overhead structure to protect the deck from the sun, without side boundaries.	6	5	2	1	Agree
6 Define awning in terms of a cloth or light plastic structure.	3	2	2	7	Disagree
4.b Treatment of Exterior Spaces Bounded by Awnings					
1 Preclude treatment of a space within awning boundaries as enclosed space.	9	2	0	3	Agree
2 Include spaces bounded by awnings in tonnage, if the awning protects cargo/stores.	2	1	3	8	Disagree
3 Treat a vertical "awning" as a partition. Spaces bounded by such partitions may be eligible for exclusion.	6	2	2	3	Agree
4 Preclude treatment of a space bounded by awning as enclosed space.	8	2	1	2	Agree
5 Remove the existing interpretation to treat space within awning boundaries as enclosed space.	5	1	4	3	Agree
6 Disregard awnings when evaluating the spaces below that may be fitted with enclosing side structures.	6	2	3	2	Agree
7 Obtain agreement on the apparent contradiction between the interpretations and the Convention.	8	1	3	1	Agree
4.c Treatment of Interior Spaces Bounded by Awning-Like Materials					
1 Establish interpretation that such partitions prevent progression of excluded space, unless fitted when moored.	7	0	3	3	Agree
4.d Fitting of Grates Over Side/End Openings					
1 Treat side grates as not providing a means of closure when applying regulation 2(5).	11	0	1	1	Agree
4.e Fitting of Grates Over Deck Openings					
1 Treat deck grates as providing a means of closure when applying regulation 2(5).	4	2	2	5	Disagree

Category, Issue and Proposed Solution[1]	Positions of Respondents				
	Agree	Agree w/ Changes	Neither Agree/ Disagree	Disagree	Consensus Rating[2]
5. Excluded Spaces					
5.a Shelves or Other Means for Securing Cargo or Stores					
1 Include spaces in tonnage if utilized in any way, regardless of fitting of means to secure cargo/stores.	8	3	2	2	Agree
2 Same as previous, with stores defined in terms of necessary items for maintenance or sustaining the crew.	4	2	3	4	Agree
3 Preclude categorization as stores those equipment items required for safety or pollution prevention	6	2	2	3	Agree
4 Preclude categorization as stores tools for navigation, maintenance or repair.	5	1	2	5	Agree
5 Include spaces used for cargo/stores in tonnage, regardless of fitting of means to secure cargo/stores.	7	2	2	2	Agree
6 Establish an interpretation defining stores as food and other provisions for crew and passengers.	7	2	4	1	Agree
7 Establish the interpretation that the cargo/stores securing restriction applies if fittings "designed" this purpose.	7	1	3	3	Agree
8 Delete the cargo/stores securing restriction altogether, If the Convention is otherwise amended.	8	1	1	3	Agree
9 Interpret fitting of means for securing cargo/stores to including boundary structures of cargo/stores spaces.	4	0	5	4	Neither Agree/Disagree
10 Preclude consideration of means for securing cargo, since spaces intended for cargo are marked with CC.	6	4	2	2	Agree
5.b Impact of End Opening Obstructions					
1 Ignore unless within half the structure breadth of the opening and having a height or breadth of ≥ 1 m.	3	3	7	1	Neither Agree/Disagree
2 Ignore unless within half the structure breadth of the opening and also included in tonnage.	4	2	4	2	Agree
3 Ignore if volume <1 m³, area < 1 m², and projected area ≤ 25% opening, or items are not included in tonnage.	5	2	4	2	Agree
4 Ignore unless within half the local deck breadth of the opening and also included in tonnage.	5	0	5	2	Agree
5 Apply the 90% criterion of regulation 2(5)(a) for items for which there is no reasonable separation interval.	2	1	8	2	Neither Agree/Disagree
5.c Excluding Space Opposite an End Opening as a Recess					
1 Define recess in terms of a space bounded on 3 sides by boundary bulkheads, with a deck above.	9	1	4	0	Agree
2 Define recess in terms of a space bounded on 3 sides by boundary bulkheads.	5	2	6	0	Neither Agree/Disagree
3 Treat a curtain plate as not invalidating the deck-to-deck restriction, if beam depth is not exceeded by >25mm.	6	1	4	1	Agree
4 Establish a definition of recess, taking into account diagrams to be used in evaluating a variety of spaces.	3	2	7	1	Neither Agree/Disagree
5 Define recess in terms of a space bounded on 3 sides by boundary bulkheads; side recesses may also qualify.	5	1	6	0	Neither Agree/Disagree
6 Establish an interpretation of recess as a space bounded on at least 2 sides by boundary bulkheads.	7	0	5	1	Agree
7 Preclude categorization of a recess as an end opening: it should be evaluated per Convention Annex 1 Fig.10[3]	4	1	8	0	Neither Agree/Disagree
5.d Characteristics of End and Side Openings					
1 More clearly define the current requirement, and include supporting comprehensive diagrams.	11	0	3	0	Agree
2 Establish interpretations to ignore certain obstructions, including small spaces (subject to a 25% limit).	5	4	3	0	Agree
3 More clearly define the current requirement and include supporting comprehensive diagrams/pictures.	7	0	5	0	Agree
4 Replace prescriptive requirements with more generalized criteria, if the Convention is otherwise amended.	5	2	5	0	Agree
5 Provide better documentation for structures that cannot be treated as prescribed under regulation 2(5).	8	0	4	1	Agree
5.e Deck Structure Height Requirements for Side Openings					
1 Establish a clear definition of what constitutes a deck as opposed to an intermediate platform.	9	1	3	0	Agree
2 Evaluate opening height against the height of continuous and/or complete decks in each tier.	6	0	4	3	Agree
3 Evaluate opening height using detailed criteria in treating breaks, openings, steps, and liftable/removable decks.	4	1	4	3	Agree
4 Evaluate opening height against the height of structural decks, with false/removable decks ignored.	5	1	2	3	Agree
5 Establish an interpretation to evaluate the opening against the height of the superstructure.	6	0	3	3	Agree
6 Provide consistent treatment of spaces in way of side openings, if the Convention is otherwise amended.	8	1	2	0	Agree
7 Evaluate opening height against the height of constructions between two decks.	4	1	5	3	Neither Agree/Disagree
5.f Restrictions on Excluding Space Below Uncovered Openings					
1 Define "immediately below" as extending to the next complete structural deck below, with a supporting diagram.	5	3	4	1	Agree
2 Construe the space lettered ABCDEFGH as being "immediately below" the opening.	4	2	4	3	Agree
3 Construe the space lettered ABCDLIJK as being "immediately below" the opening, per discussions at SLF 29.	5	0	6	2	Neither Agree/Disagree
4 Define "immediately below" as extending to the next complete structural deck below.	4	0	5	3	Neither Agree/Disagree
5 Establish the interpretation that "immediately below" means to the next deck below, or 1/4 the ship's breadth.	2	2	4	5	Disagree
6 Provide better documentation.	8	0	3	0	Agree
5.g Structures Along the Line of an Opening					
1 Amend regulation 2(5)(a) to reflect that such structures will disqualify the space from being excluded.	3	2	4	4	Neither Agree/Disagree
5.h Adjoining Deck Beams on End Openings					
1 Provide sketches to illustrate the application of the depth criterion relative to the adjoining plate stiffeners.	7	1	5	0	Agree
5 i Rails and Fashion Plating for Side Openings					
1 Disqualify the space from being excluded if opening has rails/solid plates occupying more than 3 frame spaces.	1	1	6	5	Neither Agree/Disagree
5 j Height of Side Opening Railings					
1 Take into consideration the existence of a horizontal railing when applying height criteria.	1	1	3	8	Disagree
6. Spaces Open to the Sea					
6.a Treatment of Spaces Inside the Hull as Open to the Sea					
1 Exclude from tonnage, if in free communication with sea and clear opening (e.g., 75% bounded space area).	5	7	1	2	Agree with Changes
2 Establish a hull definition, and set restrictions on water influx, buoyancy, and means to secure cargo/stores.	5	3	4	1	Agree
3 Exclude from tonnage, if a percentage of the bounded surface is in free communication with the sea.	6	3	3	1	Agree
4 Include all spaces within hull in tonnage, not to include fairings. Use novel craft provisions for borderline cases.	3	3	4	1	Neither Agree/Disagree
5 Make exclusion of spaces open to the sea mandatory, if the Convention is otherwise amended,	8	4	1	0	Agree
6 Expand interpretations to address free communication (e.g., entrapment), buoyancy and cargo/stores use.	8	2	2	0	Agree
7 Expand interpretations to provide more precise examples.	5	3	2	4	Agree

Category, Issue and Proposed Solution[1]	Positions of Respondents				
	Agree	Agree w/ Changes	Neither Agree/ Disagree	Disagree	Consensus Rating[2]
6.b Treatment of Spaces Outside the Hull as Open to the Sea					
1 Include in tonnage, if capable of closure with a closing device, whether watertight or non-watertight.	10	1	3	1	Agree
2 Apply the solution proposed for Issue 6.a to establish a hull definition, and set water influx and other restrictions.	5	2	3	1	Agree
3 Include in tonnage, if capable of closure with a closing device. Gratings do not preclude treatment as open.	9	1	3	1	Agree
4 Establish interpretations to address location (i.e., below upper deck) and free communication/exchange.	5	2	4	2	Agree
6.c Treatment of Moon Pools					
1 Include the space above the closing device in tonnage, whether watertight or non-watertight.	9	0	4	1	Agree
2 Apply the solution proposed for Issue 6.a to establish a hull definition, and set water influx and other restrictions.	5	1	4	1	Agree
3 Include the space above the closing device in tonnage.	8	0	4	1	Agree
4 Exclude the space underneath from tonnage, provided it is not used for cargo and is entirely open.	6	1	3	3	Agree
6.d Large Volumes of Spaces Open to the Sea					
1 Include spaces in tonnage, if used for holding cargo and/or contribute to the buoyancy of the ship.	11	3	1	0	Agree
2 Include spaces in tonnage, if appropriated for holding cargo and/or contribute to the buoyancy of the ship.	11	2	1	0	Agree
3 Include spaces in tonnage, if in free communication with the sea at all times.	5	4	2	2	Agree
4 Include spaces in tonnage, if not always open to sea or fitted with a means of securing cargo.	8	4	1	1	Agree
7. Re-Certification for Changes Affecting Tonnage					
7.a Remeasurement Following Alterations					
1 Remeasure if a [2%] tonnage change for ships of < 500 GT and a [1%] change for larger ships.	0	4	4	6	Disagree
2 Remeasure if any change to a tonnage calculation parameter (decrease optional): ITC always reflects ship.	2	5	2	6	Disagree
3 Remeasure if a 1% tonnage change.	2	4	1	7	Disagree
4 Matter should be left to each Administration.	4	1	4	5	Disagree
5 Remeasure if any change to a tonnage calculation parameter: ITC always reflects ship.	4	2	3	5	Disagree
6 Matter should be left to each Administration, with a 1% change in gross or net tonnage recommended.	2	2	4	6	Disagree
7 Require remeasurement for tonnage decreases as well as increases, if the Convention is otherwise amended.	10	1	2	1	Agree
8 Remeasure if a 1% tonnage change, with lesser changes noted in an ITC remark.	2	2	3	7	Disagree
9 Under one Administration's approach, remeasure if a gross tonnage change of unity.	2	2	9	1	Neither Agree/Disagree
7.b Remeasurement Following Net Tonnage Change					
1 Reissue ITC if any net tonnage change; immediately if dimensions/passengers change (optional if decrease).	3	6	2	3	Agree with Changes
2 Matter should be left to each Administration.	4	1	4	4	Agree
3 Reissue ITC if any change to ship characteristics (e.g., V, V_c, D, d, N_1 or N_2), subject to 12 month restriction.	3	3	3	4	Disagree
4 Establish interpretations to include a remark on a reissued ITC indicating the 12 month restriction.	2	5	5	1	Agree with Changes
5 Remeasure and reissue ITC in accordance with a comprehensive proposal under Issue 7.a.	4	1	6	2	Neither Agree/Disagree
6 Reissue ITC following changes only affecting net tonnage, as opposed to gross tonnage.	3	0	8	2	Neither Agree/Disagree
7.c Alterations to Tonnage Following Remeasurement by Another Body					
1 Reissue ITC if a body other than the flag State calculates tonnage and net tonnage changes by > [1%].	2	1	3	7	Disagree
8. National Tonnage					
8.a Criterion for Use of "Existing" Tonnage					
1 Define substantial variation as one where gross tonnage changes by more than 1% of the original tonnage.	6	2	3	4	Agree
2 Define substantial variation for 2 cases: 1) 1982-1994 transition period (10% GRT); 2) 1994-present (1% GT).	3	2	6	2	Neither Agree/Disagree
3 Remove the existing interpretation on substantial variation. Matter should be left to each Administration.	2	0	7	4	Neither Agree/Disagree
4 Define substantial variation as one where tonnage changes by more than 1% of the original GT or GRT.	5	0	6	2	Neither Agree/Disagree
5 The existing interpretation on substantial variation was selected at SLF in view of Convention coming into force.	5	0	9	0	Neither Agree/Disagree
8.b Use of Tonnage Under Interim Schemes					
1 Develop draft Assembly resolution with updated requirements on GRT grandfathering.	10	0	4	0	Agree
8.c Loss of Tonnage Grandfathering Under Interim Schemes					
1 Develop draft Assembly resolution on loss of GRT grandfathering privileges, similar to "existing" ship treatment.	8	0	5	0	Agree
2 Develop draft Assembly resolution on loss of GRT grandfathering privileges, harmonizing approaches.	7	1	6	0	Agree
9. International Tonnage Certificate (1969)					
9.a Listing of Spaces on the Certificate					
1 Develop a separate interpretations section with guidance and sample ITCs.	11	1	2	1	Agree
2 List all spaces on the ITC, to permit verification by port authorities or for flag changes.	7	2	1	4	Agree
3 Use the ITC remarks area for the separate listing of crew accommodation, safety, security, and other spaces.	3	2	3	6	Disagree
4 Establish interpretations to list individual tiers on the ITC, and include a sample ITC with outboard profile.	8	2	4	0	Agree
5 Ensure information on the ITC is not overly detailed.	5	0	5	4	Agree
9.b Specifying Lengths of Spaces on the Certificate					
1 Length is the overall length of the space; develop a separate interpretations section with diagrams/guidance.	10	4	1	0	Agree
2 Length is the overall length of the measured space.	8	3	2	0	Agree
3 Establish interpretations and sample ITC/outboard profile; length is to extremities, including excluded spaces.	8	3	2	1	Agree
4 Length is that of the space for which the volume is calculated.	6	3	3	2	Agree

Category, Issue and Proposed Solution[1]	Positions of Respondents				
	Agree	Agree w/ Changes	Neither Agree/ Disagree	Disagree	Consensus Rating[2]
9.c Listing Excluded Spaces on the Certificate					
1 Remove the requirement to list excluded spaces.	4	0	7	3	Neither Agree/Disagree
2 Specify that the listing be sufficiently detailed to permit verification by port authorities or for flag changes.	3	0	4	7	Disagree
3 Remove the requirement to list excluded spaces.	4	2	4	3	Agree
4 Establish interpretations to simply list the type/category of excluded space (e.g., Recess, Deck Opening)	3	4	4	2	Agree with Changes
5 Remove the excluded space block from the ITC, if the Convention is otherwise amended.	5	2	4	2	Agree
9.d Keel Laid or Alteration Date on the Certificate					
1 Use the same date as shown on the cargo/passenger ship safety certificate.	5	0	5	4	Agree
9.e Tonnage Certificate Attachments					
1 Establish interpretations on attachments to the effect that they are not legally part of the ITC.	7	1	4	2	Agree
2 Amend the Convention to change the ITC form to be more reflective of new ship designs.	0	1	8	5	Neither Agree/Disagree
9.f Transmitting Copies of Calculations and Certificates Upon Flag Change					
1 Transfer copy of ITC/relevant calculation via owner and/or authorized organization, excluding underdeck.	5	5	3	1	Agree
2 Transfer copy of ITC/relevant calculation via owner and/or authorized organization; subject to reverification.	6	4	4	0	Agree
10. Applying Interpretations					
10.a Acceptance and Retroactive Application of Interpretations					
1 Develop a draft circular making interpretations mandatory for new ships/ships undergoing major modifications.	6	3	2	3	Agree
2 Preclude new interpretations from being applied retroactively.	8	2	3	0	Agree
3 Remove the interpretation requiring retroactive application following flag transfer.	4	2	3	3	Agree
4 Establish interpretations to recommend application based on the ship's keel laid/substantial alteration date.	3	5	4	1	Agree with Changes
5 Establish interpretations to require mandatory application based on the ship's keel laid/alteration date.	5	3	3	2	Agree
6 The interpretation requiring retroactive application may be related to interpretations on special ship types.	1	2	8	1	Neither Agree/Disagree
11. Impact on Working and Living Conditions					
11.a Extending Reduced Gross Tonnage to Crew Spaces					
1 Do not consider this issue as a tonnage-related matter.	8	1	2	4	Agree
2 Limit reduced gross tonnage for crew spaces to those ships to which the Maritime Labour Convention applies.	3	7	3	2	Agree with Changes
3 Develop an Assembly resolution to implement crew space reduced gross tonnage. Compulsory preferred.	4	1	5	4	Neither Agree/Disagree
4 Develop an Assembly resolution to implement crew space reduced gross tonnage.	7	2	3	3	Agree
5 Address this issue by providing minimum acceptable standards in other Conventions.	7	1	3	3	Agree
11.b Calculating a Reduced Gross Tonnage Parameter for Crew Spaces					
1 Apply the K_1 factor to total volume less the volume of spaces for the accommodation or provision of the crew.	4	5	3	4	Agree with Changes
2 Do not consider this issue as a tonnage-related matter.	8	1	1	5	Agree
3 Apply the K_1 factor and a K_c factor to number of crew rooms to which the Maritime Labour Convention applies.	4	3	2	6	Disagree
4 Develop specific rules for crew spaces.	7	2	3	2	Agree
5 Develop specific eligibility criteria for crew spaces to ensure they meet minimum standards to benefit mariners.	7	2	4	2	Agree
6 Define crew spaces in terms of those used only by the crew, excluding spaces for navigation.	3	4	6	2	Neither Agree/Disagree
11.c Use of Multiple Reduced Gross Tonnage Parameters					
1 Show each reduced tonnage and total reduced tonnage on the ITC.	9	2	2	1	Agree
11.d Treatment of Crew Accommodation Spaces					
1 Exclude all crew spaces from tonnage through corresponding amendments to the Convention.	4	1	1	9	Disagree
2 List crew accommodation, ballast and other spaces on the ITC, if spaces needed for International compliance.	3	3	4	4	Neither Agree/Disagree
3 Develop framework for ITC remarks to list volumes under various reduced gross tonnage provisions.	3	3	7	2	Neither Agree/Disagree
4 Assimilate reduced gross tonnage values for segregated ballast tankers; show final value for containerships.	3	2	6	4	Neither Agree/Disagree
12. Certificate Exemptions					
12.a Single Voyage Exemption					
1 Allow use of simplified tonnage formula for single voyage of delivery to flag State.	4	1	4	4	Agree
2 Allow use of simplified tonnage formula for single voyage of delivery to flag State, with exemption certificate.	4	0	4	5	Disagree
13. Cargo Spaces (Addendum)					
13.a Including Cargo Spaces in Tonnage					
1 Amend Convention definition of cargo space to reflect changes in ship design since the late 1960's.	2	0	3	4	Disagree

NOTES:

1. The numbering of proposals corresponds to the order in which they appear under each issue in the Round 1 Questionnaire.
2. Consensus categorization per "Ranking Ordinal Scales Using the Consensus Measure", Issues in Information Systems, Volume V1, No. 2, 2005. The positions displayed reflect those receiving the most support, with "Agree" assumed to be the preferred response in all cases. The color coding scheme is based on the following Consensus Measures (Cns) values: Green (Cns >= 0.55); Yellow (0.37 <= Cns < 0.55); Red (Cns < 0.37).

With Consensus	With Limited Consensus	Without Consensus

3. Scores adjusted to reflect that the "Agree" block on the blank Questionnaire form for Proposal 5.c.7 was inadvertenly checked. The responses were counted as null if the responses immediately before and after were similarly null.

ANNEX 3

UNIFIED INTERPRETATIONS PROPOSALS AND ROUND 2 RESULTS[1]

Issue 1.a: Treatment of Unusual Hull Configurations (14 Responses)

Proposal 1 (7 Preferred) Revise Interpretation A.2(8)-2 to read: "The 96% overall length should be used for column-stabilized units, floating docks and pontoons." [*Revise this proposal to read: " . . . used for column-stabilized units, MODU's, floating docks . . . ".*]; [*Revise this proposal to read: " . . . used for column-stabilized units, MODU's, FOI's, floating docks . . . ".*]

Proposal 2 (5 Preferred) Revise Interpretation A.2(8)-2 to read: "When establishing the length of column-stabilized units such as semi-submersible drilling units, the following interpretation should be applied. Because the length under Article 2(8) for column-stabilized units is misleading, it would be appropriate for such units to use the overall length to the outside plating between fixed structures. The citation of the length (Article 2(8)) in the respective box of the International Tonnage Certificate (1969) should be deleted . . . ". [*Revise this proposal to read: " . . . Because the "96% of the total length on a waterline at 85% of the least moulded depth" under Article 2(8) for column-stabilized units is misleading, it would be appropriate for such units to use the 96% of the overall length to the outside plating between fixed structures . . . ".*]

Proposal 3 (2 Preferred) Revise Interpretation A.2(8)-2 to read: "The length of column-stabilized units such as semi-submersible drilling units is calculated in the same manner as for other kinds of ships."

[*Proposal 4 Revise Interpretation A.2(8)-2, by adding the following: "Where the stem contour is concave above the waterline at 85% of the least moulded depth, both the forward terminal of the total length and the fore-side of the stem respectively shall be taken at the vertical projection to that waterline of the aftermost point of the stem contour."*]

Issue 1.b: Determining Least Moulded Depth (LMD) (14 Responses)

Proposal 1 (5 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "The term "least moulded depth" means the minimum moulded depth measured from the upper deck at side to the top of keel. For ships in which the keel (or part of it) is a straight line, the least moulded depth is found by drawing a line parallel to the straight keel line of the ship (including skeg) tangent to the moulded sheer line of the upper deck. The least moulded depth is the vertical distance measured from the top of the keel to the upper deck at side at the point of tangency. In the case of a curved keel, where is not possible to find the parallel line to the keel line, the least moulded depth is the moulded depth measured in the midship section where, for this purpose, the midship section is, among the ship's sections with the maximum breadth, the one with the minimum depth." (insert figures 1-4, found at the end of this annex)

[1] Numbers in parentheses following each issue refer to the total number of Round 2 Questionnaire respondents who selected a preferred proposal for that issue. Numbers in parentheses following each proposal number refer to the numbers of respondents indicating the proposal was the one they preferred the most. Square bracketed text in red italics font was proposed by Round 2 Questionnaire respondents, without any evaluation by the group.

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Proposal 2 (1 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "The term "least moulded depth" is generally defined as the smallest depth along the length of the ship as defined in Regulation 2(2). If a ship has raked/curved keel lines and a step in the upper deck, then the moulded depth at midships should be used." (insert figures 5 and 6, found at the end of this annex)

Proposal 3 (4 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "The term "least moulded depth" means the smallest moulded depth along the length of the ship. Moulded depth is measured as described in Regulation 2(2). The least moulded depth is the vertical distance measured from the top of the flat plate keel (or equivalent lower terminus as described in Regulation 2(2)) at the lowest point along the keel's length; to the horizontal line that is tangent to the underside of the upper deck at the ship's side (or equivalent upper terminus as described in Regulation 2(2)) at the lowest point along the upper deck's length. For the purposes of this definition, the ship is considered to be trimmed on a waterline parallel to the design waterline." [*Revise this proposal to read: "In the definition of "length" in Article 2(8), the term "least moulded depth" is the vertical distance measured from the top of the flat plate keel (or equivalent lower terminus as described in Regulation 2(2)) at the lowest point along the keel's length to the horizontal line that is tangent to the underside of the upper deck at the ship's side (or equivalent upper terminus as described in Regulation 2(2)) at the lowest point along the upper deck's length. For the purposes of this definition, the ship is considered to be trimmed on a waterline parallel to the design waterline."*]

Proposal 4 (1 Preferred) Establish a new Interpretation A.2(8)-X, which reads : "In ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the designed waterline at 85% of the least moulded depth Dmin found by drawing a line parallel to the keel line of the ship (including skeg) tangent to the moulded sheer line of the upper deck. The least moulded depth is the vertical distance measured from the top of the keel to the top of the upper deck at side at the point of tangency."

Proposal 5 (2 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "The term "least moulded depth" is defined as the smallest depth along the length of the ship from the top of the keel to the [underside of the] upper deck as defined in Regulation 2 of the Convention. Where the ship has a straight raked keel then the least moulded depth is determined in accordance with the figure below. Where the ship has a curved keel, then the least moulded depth should be taken as that which, of the ship's sections in the midship region having the maximum breadth, has the least depth." (figure to be developed)

Proposal 6 (1 Preferred) Establish a new Interpretation of A.2(2)-X, which reads: "The term "least molded depth" means the vertical distance between: 1) the top of the flat plate keel (or equivalent) at the lowest point along its length; and 2) the horizontal line that is tangent to the underside of the upper deck at the ship's side at the lowest point along the upper deck's length. For the purposes of this definition, the ship is considered to be trimmed on a waterline parallel to the design waterline." (insert figure 7, found at the end of this annex)

Issue 1.c: Trainable Rudders and Rudderless Ships (13 Responses)

Proposal 1 (5 Preferred) Revise Interpretation A.2(8)-1 to read: "For ships without a rudder stock, the length is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel. <u>Additionally</u>, establish a new

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Interpretation A.2(8)-X, which reads: "For ships with multiple rudders the axis that is to be taken into account in the length calculation is the aftermost."

Proposal 2 (1 Preferred) Revise Interpretation A.2(8)-1 to read: "When establishing the length of a ship with multiple rudders, the axis of the rudder should be the rear-most one. The length of ships with rudder propellers and rudderless ships should be calculated at 96% of the total length of a waterline at 85% of the least moulded depth."

Proposal 3 (3 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "In ships fitted with an alternative steering device installed in place of the rudder (e.g., trainable propulsion unit, cycloidal propeller, etc.), the centerline of the axis of rotation of the device is considered equivalent to the axis of the rudder stock for purposes of establishing the length measurement. If more than one such device is installed, the axis of rotation of the aftermost device is considered equivalent to the axis of the rudder stock." Additionally, renumber Interpretations A.2(8)-1 and A.2(8)-2 to follow this new interpretation, and revise renumbered Interpretation A.2(8)-2 to read: "When establishing the length of a ship that does not have a rudder or alternative steering device, the length shall be taken as 96% of the total length on a waterline at 85% of the least moulded depth." [*Revise this proposal to read: " . . . equivalent to the axis of the rudder stock for purposes of establishing the length measurement. If more than one rudder or alternative steering device is installed, the axis of rotation of the aftermost rudder or alternative steering device is considered equivalent to the axis of the rudder stock."*]

Proposal 4 (0 Preferred) Revise Interpretation A.2(8)-1 to read: "When establishing the length of all rudderless ships, the length should be calculated as 96% of the total length of the waterline at 85% of the least moulded depth measured from the top of the keel."

Proposal 5 (4 Preferred) Establish a new Interpretation A.2(8)-X, which reads: "When a ship does not have a rudder stock, the length shall be taken as 96% of the total length on a waterline at 85% of the least moulded depth measured as defined in Regulation 2(2)." Additionally, establish a new Interpretation A.2(8)-X, which reads: "Where more than one rudder is fitted, then the rudder stock which is to be considered when determining the length shall be taken as the aftermost rudder stock."

Issue 2.a: Applying Novel Craft Provisions (11 Responses)

Proposal 1 (3 Preferred) Establish a new Interpretation R.1(3)-X, which reads: "For the purpose of this Regulation, "novel craft" is one which is novel in its design and does not include ships of usual shape. Also new types of structures fitted on board that may impact on the tonnage measurement can be considered as "novel craft". Where a craft is to be measured under the novel craft definition, the gross tonnage should reflect the overall size of the ship and the net tonnage the useful capacity of the ship."

Proposal 2 (2 Preferred) Establish a new Interpretation R.1(3)-X, which reads: "Where ships are of novel design and/or new types of structures are fitted on board (e.g., loaders and similar structures) that may impact on the tonnage measurement, these can also be considered novel craft for the purposes of this Regulation. In any case, the gross and net tonnages should reflect the ship's overall size and useful capacity."

Proposal 3 (2 Preferred) Establish a new Interpretation R.1(3)-X, which reads: "In applying this Regulation:

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".1 The right of the Administration to determine tonnage of novel types of craft by application of methods other than those provided in the Regulations shall not be construed to allow exempting from measurement of those enclosed spaces which would otherwise have been included in tonnage. A novel type of craft shall be understood as one which is novel in its design and shall not include existing traditional types of ships of usual shape or those types already covered by the Unified Interpretations. The Administration shall communicate to the Organization the details of the method used to determine tonnage of a novel type of craft together with the definition/description of the novel type of craft and initiate necessary measures to include the corresponding interpretations to the Unified Interpretations as official IMO Interpretations;

".2 If the method proposed by the Administration is not accepted as an official IMO Interpretation and not included into the Unified Interpretations, then the Organization shall prepare and approve an alternative interpretation for the inclusion in the Unified Interpretations and notify the Administration on the need to have the ship's tonnage re-calculated. If based on the information provided by the Administration the Organization determines that the ship's design does not meet the criteria for a novel type of craft, then the Organization shall notify the Administration on the need to have the ship's tonnage re-calculated according to the Regulations for Determining Gross and Net Tonnages of Ships (Annex I to the 1969 Tonnage Convention) and respective Unified Interpretations applicable on the date when the ship's keel was laid or the ship was at a similar stage of construction;

".3 When an Administration has applied a novel craft interpretation that is not identified in the Unified Interpretations, a remark should be included on the International Tonnage Certificate (1969) to this effect (e.g., referencing the IMO circular notifying Contracting Governments of the Administration's novel craft determination)."

[*Revise this proposal by adding the following text from Proposal 6 after the first sentence of subparagraph 1: "The gross tonnage and the net tonnage of novel types of craft must be reflective of the ship's overall size and useful capacity respectively. As such, the phrase "render the application of the provisions of these Regulations unreasonable or impractical" cannot be construed as permitting deviations from these Regulations for reasons unrelated to the determination of the ship's overall size or useful capacity (e.g., to accommodate constructional features that increase a ship's enclosed volume without a corresponding increase in its tonnage for the purpose of avoiding adverse economic impacts)."*]

Proposal 4 (1 Preferred) Establish a new Interpretation R.1(3)-X , which reads: "When the Administration has determined the novel craft tonnage, the Administration shall submit the details of the method to the Organization as a proposal for an additional Unified Interpretation."

Proposal 5 (1 Preferred) Establish a new Interpretation R.1(3)-X, which reads: "For the purposes of this Regulation, a novel craft is one which is novel in its design, i.e., has a hull form which is unlike any previously employed by shipping. It does not include general cargo ships, oil tankers, chemical carriers, container ships, passenger ships, offshore supply ships, livestock carriers, yachts, tugs, barges or other craft of usual shape." Additionally, establish a new Interpretation R.1(3)-X, which reads: "Where a craft is to be measured under the novel craft definition, the gross tonnage should reflect the overall size of the ship and the net tonnage the useful capacity of the ship. The safety of the ship should not be impaired by any such determinations."

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Proposal 6 (2 Preferred) Establish a new Interpretation R.1(3)-X, which reads: "In applying these novel craft provisions, the resulting gross and net tonnages must be reflective of the ship's overall size and useful capacity, respectively. As such, the phrase "render the application of the provisions of these Regulations unreasonable or impractical" cannot be construed as permitting deviations from these Regulations for reasons unrelated to the determination of the ship's overall size or useful capacity (e.g., to accommodate constructional features that increase a ship's enclosed volume without a corresponding increase in its tonnage for the purpose of avoiding adverse economic impacts)".

[*Proposal 7 Establish a new Interpretation R.1(3)-X, which reads: "For the purpose of the Regulation, "novel craft" is one which is novel in its design, that has a hull form which is unlike any previously employed by shipping, and does not include ships of usual shape". Additionally, new types of structures fitted on board or the absence of a structure required by other IMO instruments that may impact on the tonnage measurement may be considered as "novel craft". In applying these novel craft provisions, the resulting gross and net tonnages must be reflective of the ship's overall size and useful capacity, respectively. As such, the phrase "render the application of the provisions of these Regulations unreasonable or impractical" cannot be construed as permitting deviations from these Regulations for reasons unrelated to the determination of the ship's overall size or useful capacity, such as to accommodate constructional features that increase a ship's enclosed volume without a corresponding increase in its tonnage for the purpose of avoiding adverse economic impacts."*]

Issue 3.a: Requirement for a Deck Above to Bound Enclosed Space (13 Responses)

Proposal 1 (3 Preferred) Add the following text at the end of Interpretation R.2(4)-1: "To include a space in the total volume of all enclosed spaces (V) that is above the upper deck and not utilized for the carriage of cargo or stores, a deck or covering above is required."

Proposal 2 (4 Preferred) Add the following text at the end of Interpretation R.2(4)-1: "If ship's spaces are uncovered above, bounded by high (h > 1.5 m) partitions or similar structures and used for cargo, then the spaces should be included in the total volume of all enclosed spaces (V)."

Proposal 3 (1 Preferred) Revise Interpretation R.2(4)-1 to read: "In applying this Regulation:

".1 Enclosed spaces are all those spaces which are bounded by the following structures:

"- the ship's hull;

"- fixed or portable partitions or bulkheads;

"- decks or coverings other than permanent or movable awnings; or

"- the above structures in any combination.

".2 There is no contradiction between the definition of enclosed spaces as being "bounded by . . . fixed or portable partitions or bulkheads . . . " and further clarification stating that the absence of a partition or bulkhead shall not preclude a

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space from being included in the enclosed space. Following the definition of enclosed spaces in this Regulation, a space shall be treated as an enclosed space even in case of absence of some bounding structures listed in the definition such as partition(s)/bulkhead(s) and/or a deck/covering: e.g., open boat designs; cargo holds having no overhanging decks/coverings; trapped air spaces in the ship's bottom contributing to buoyancy, etc.". Additionally, add a new Interpretation R.2(5)-X, which reads: "Following the meaning of Regulation 2(4), the absence of an overhead deck shall not preclude a space from being treated as an enclosed space but, according to Regulation 2(5), such enclosed space could still be excluded from the total volume of all enclosed spaces (V), unless it is fitted with any "means for securing cargo or stores". If the space described in this paragraph is appropriated for stowage of cargo or stores then its boundary structures are deemed to be equivalent to the "means for securing cargo or stores" (as they serve the purpose of cargo/stores containment) and this space shall be treated as "enclosed and included" rather than "enclosed but excluded"."

Proposal 4 (1 Preferred) Establish a new Interpretation R2(4)-X, which reads: "A minimum unit of enclosed space above the upper deck is a space bounded by at least [three] side bulkheads/partitions on a deck, or a space [bounded] by two decks."

Proposal 5 (1 Preferred) Same as Proposal 3, except that new Interpretation R.2(5)-X reads: " . . . securing cargo or stores" (as they are the requisite and lone means for the purpose of . . . ".

Proposal 6 (1 Preferred) Add the following text at the end of Interpretation R.2(4)-1: "For a space to be treated as an enclosed space, it must have structure on at least three side boundaries and a deck or floor. These boundaries can be any [portion] of a bulkhead, partition or the ship's hull. If such a space is not used for the storage of cargo and/or stores, then it should be treated as an excluded space. If it is used for cargo and/or stores, then it should be included in the total volume of all enclosed spaces (V) and the total volume of cargo spaces (V_c), where applicable. Bulwarks which are fitted to comply with the requirements of the 1966 International Convention on Load Lines, as amended, are NOT to be considered as a boundary."

Proposal 7 (2 Preferred) Revise Interpretation R.2(4)-1 to read: "The absence of a deck or covering does not preclude a space from being treated as an enclosed space, provided it is bounded on at least three sides by fixed or portable partitions or bulkheads, or by the hull." (insert figure 8, found at the end of this annex)

Proposal 8 (2 Preferred) Revise Interpretation R.2(4)-1 to read: "For a space to be treated as an enclosed space, it must be:

".1 Covered from above and below; or

".2 Covered from above or below and enclosed on three or more sides by partitions or bulkheads that exceed 1.5 m in height as measured from the lowest point of the enclosed space. In the case of two connected partitions, the space will be included if the angle is less than 90 degrees.

"In the situation where only a portion of a bulkhead or partition exceeds 1.5 m in height, the entire inboard space in way of that portion of the structure from the deck to the top of

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the structure must be included in the total volume of all enclosed spaces (V)." (insert figure 9, found at the end of this annex)

Issue 3.b: Treatment of Temporary Deck Equipment (14 Responses)

Proposal 1 (5 Preferred) Add the following text at the end of Interpretation R.2(4)-3: "The term "permanently located" means any spaces above the upper deck fixed (welded, bolted, laminated, glued) to the ship's structures, or connected to the ship's systems (electrical, ventilations, cargo etc.) Any space utilized for accommodations for persons shall be included in the total volume of all enclosed spaces (V). Containerized cargo is not included in this definition, even if connected to the ship's systems."

Proposal 2 (2 Preferred) Add the following text at the end of Interpretation R.2(4)-3: "Temporary/semi-permanent tanks, modular installations and cargo containers above the upper deck which have permanent connections to ship's structures/systems should be included in the total volume of all enclosed spaces (V)."

Proposal 3 (1 Preferred) Revise Interpretation R.2(4)-3 to read: "In applying this Regulation:

".1 If temporary/semi-permanent spaces situated above the upper deck are welded or bolted to the ship's structure or secured by using any other means of securing for the duration of at least one voyage, then these spaces should be included in the total volume of all enclosed spaces (V);

".2 These spaces shall be listed on the International Tonnage Certificate (1969) as temporary spaces;

".3 If addition of temporary spaces results in increase in either gross tonnage or net tonnage then, according to Article 10(1), an International Tonnage Certificate (1969) shall cease to be valid and shall be cancelled by the Administration and a new certificate shall be issued without delay;

".4 If removal of temporary spaces results in decrease in net tonnage then, according to Regulation 5(3) and subject to any other condition in this Regulation, a new International Tonnage Certificate (1969) shall not be issued until twelve months have elapsed from the date on which the current certificate was issued;

".5 If removal of temporary spaces results in decrease in gross tonnage only, then a new International Tonnage Certificate (1969) shall be issued following the application by the shipowner."

Proposal 4 (1 Preferred) Revise Interpretation R.2(4)-3 to read: "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 the total volume of all enclosed spaces (V) and the total volume of cargo spaces (V_c). In this context, "permanently located" means that the tanks that are not easily removable, which in practice implies that the tanks are welded to the ship."

Proposal 5 (1 Preferred) Same as Proposal 3, except that: 1) a new proposed Interpretation R.2(4)-3 paragraph 1 is inserted above proposed Interpretation R.2(4)-3 paragraph 1, which reads: "Tanks, permanently located on the upper deck, provided with

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removable pipe connections to the cargo system or the vent (de-airing) lines of the ship, should be included in V_c."; 2) the remaining paragraphs of the Proposal 3 Interpretation are renumbered accordingly; and 3) newly renumbered paragraph 2 reads ". . . of at least one voyage, and are not carried as cargo themselves, then these spaces . . . ".

Proposal 6 (1 Preferred) Add the following text at the end of Interpretation R.2(4)-3: "The term "permanently located" means secured to the hull and/or to the ship's systems. It does not include containers carried as cargo regardless of their contents or lack thereof. Containers which are used by any person on board the ship in the course of their duties are to be included in the total volume of all enclosed spaces (V) and the total volume of cargo spaces (V_c), regardless of their means of securing."

Proposal 7 (3 Preferred) Revise Interpretation R.2(4)-3 to read: "Enclosed spaces of a temporary or semi-permanent nature that are not carried as freight are included in the total volume of all enclosed spaces (V), regardless of method of attachment or duration of carriage. Examples include: modular living quarters, housed portable machinery spaces, and deck tanks used in support of shipboard industrial processes."

Proposal 8 (0 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "The space associated with deck equipment that is fitted, whether the deck equipment is temporary or not, should be included in the total volume of all enclosed spaces (V). Furthermore, the only condition for re-measuring a removed volume, will be with a certification from the owner/operator that the equipment will be "permanently removed"."

Issue 3.c: Treatment of Deck Cargo Bounded by Enclosing Structure (8 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Ship's spaces, above the upper deck, utilized for the transport of the cargo and bounded on at least three sides by extended ship's structures should be included in the total volume of all enclosed spaces (V) and the total volume of cargo spaces (V_c). The floor deck is not considered as one of the three boundaries and a space is included in this total volume, regardless of the presence of a cover. In this context, an extended ship's structure is one that is higher than [1.5 m]." <u>Additionally</u>, establish a new Interpretation R.2(4)-X, which reads: "Cargo container volumes should not be included in the total volume of all enclosed spaces (V). In this context, a cargo container should be considered any "box storage" that is loaded and unloaded from the ship with the contents."

Proposal 2 (4 Preferred) Add a new Interpretation R.2(4)-X, which reads: "Deck cargo, lifeboats and rafts should not be included in the total volume of all enclosed spaces (V)."

Proposal 3 (2 Preferred) Establish a new Interpretation R.2(7)-X, which reads: "Deck cargo not contained in enclosed space cannot be included in the total volume of cargo spaces (V_c)."

Proposal 4 (0 Preferred) Same as Proposal 3.b.6.

Issue 3.d: Treatment of Spaces Underneath Overhangs (11 Responses)

Proposal 1 (1 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Space below an open bridge wing should be treated as an unenclosed space."

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Proposal 2 (3 Preferred) In conjunction with Proposal 3.a.3, add the following text to the end of Interpretation R.2(5)-1, which reads: "Similarly, spaces below bridge wings should be treated based on the principles described in Regulation 2(5)."

Proposal 3 (7 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Open spaces directly below a bridge wing structure should not be treated as enclosed spaces."

Proposal 4 (0 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Spaces underneath overhangs should not be treated as enclosed spaces, except in the case where the distance from the base of the overhang to the deck below is equal to or less than the deck height".

Issue 3.e: Treatment of Topside Spaces of Complex Shape (6 Responses)

Proposal 1 (2 Preferred) Revise Interpretation R.2(4)-6 to read: "Enclosed spaces above the upper deck with a vertical (transversal) cross-sectional area not exceeding 1 m^2, separated on all their sides from other enclosed spaces which are included in the total volume of all enclosed spaces (V), apart from the surface of contact on the deck, should not be included in this total volume, provided that they are not accessible and/or utilized for any purpose. A space used for accommodating systems (e.g., electrical cable or pipes) or storage is meant to be "accessible" for the purpose of the above explanation. [Regardless from the above]:

".1 enclosed spaces above the upper deck with volumes not exceeding 1 m^3, separated on all their sides from other enclosed spaces included in the total volume of all enclosed spaces (V), apart from the surface of contact on the deck, should not be included in this total volume;

".2 enclosed spaces above the upper deck with a horizontal surface of contact on the deck not exceeding 1 m^2, separated on all their sides from other enclosed spaces included in the total volume of all enclosed spaces (V), should not be included in this total volume. If the horizontal surface above the point of contact on the deck becomes more than 1 m^2, the consideration given in the above for the exclusion of spaces should be met."

Proposal 2 (1 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Fixed enclosed topside spaces of complex shape (e.g., double skin bulwarks, seats, mouldings, Jacuzzis, swimming pools and similar structures), with a combined volume not exceeding 1 m^3 and a horizontal or vertical cross-sectional area not exceeding 1 m^2, should not be included in the total volume of all enclosed spaces (V)."

Proposal 3 (1 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "A space over 1 m^3 in volume and fitted on side bulkheads/partitions or decks/coverings should be included in the total volume of all enclosed spaces (V). A space exceeding1 m^3 in volume but not exceeding 1 m^2 in area, for which access is not allowed except for repairing, inspection and maintenance, and which is not fitted with shelves or other means for securing cargo or stores, should not be included in this total volume."

Proposal 4 (2 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "All spaces with a minimum horizontal cross-sectional area of 1 m^2 or greater at the deck or a vertical cross-sectional area of 1 m^2, and a volume of 1 m^3 or greater should be included in the total volume of all enclosed spaces (V). This includes double skin bulwarks, seats,

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mouldings, Jacuzzis, and swimming pools, as well as similar structures that are raised above the deck. When such a space is completely inaccessible [see later ..... for definition of completely inaccessible] the space may be excluded from this total volume."

Issue 3.f: Treatment of Hull Spaces of Complex Shape (9 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "If cross bracing volumes are used for storage or buoyancy purposes, then the bracing should be included in the total volume of all enclosed spaces (V)."

Proposal 2 (5 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "When the minimum cross-sectional area of cross bracing of column stabilized units exceeds 1 m^2, then the volume of the bracing should be included in the total volume of all enclosed spaces (V), unless the bracing does not contribute to the buoyancy of the ship."

Issue 3.g: Evaluating Accessibility of Mast, Kingposts and Supports (11 Responses)

Proposal 1 (0 Preferred) Revise Interpretation R.2(4)-6 to read: " . . . crane and container support structures and similar spaces, located above the upper deck and separated on all their sides from other enclosed spaces, should not be included in the total volume of all enclosed spaces (V) when they are not accessible or accessible only through bolted manholes or similar arrangements that are necessary for survey purposes. Air trunks having . . . ".

Proposal 2 (3 Preferred) Revise Interpretation R.2(4)-6 to read: " . . . crane and container supports and truss structures (e.g., legs, rigs, etc.) should not be included in the total volume of all enclosed spaces (V), provided they are separated on all their sides from other enclosed spaces, and are not used for cargo or stores. Air trunks having . . . ".

Proposal 3 (2 Preferred) Revise Interpretation R.2(4)-6 to read: "Cranes, crane and container support structures, masts, kingposts and similar structures, which are completely inaccessible and situated 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 (V). "Completely inaccessible" means that these structures have no openings other than those to provide access for inspection and maintenance purposes and that all such openings are fitted with covers held in position with a number of bolts which are always closed while the ship is undertaking her usual duties either at sea or in port. Covers fitted with quick release clips are not qualified for the purpose of rendering a structure inaccessible. Air trunks having . . .".

Proposal 4 (1 Preferred) Revise Interpretation R.2(4)-6 to read: " . . . should not be included in the total volume of all enclosed spaces (V). In order not to be included in this total volume, these spaces must not in themselves accommodate any type of function or object essential for the operation of the ship. Air trunks having . . . ".

Proposal 5 (1 Preferred) Revise Interpretation R.2(4)-6 to read: " . . . crane and container support structures, ventilators and other similar structures, which are not fitted with shelves or other means for securing cargo or stores, nor to allow access except for repairing, inspection, and maintenance, and are above the upper deck and separated on all their sides from other enclosed spaces, should not be included in the total volume of all enclosed spaces (V). The part of a mast, air trunk and other similar space fitted to the outer surface of a structure's boundary having at least three exposed sides and having a

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cross-sectional area not exceeding 1 m^2 should not be included in this total volume. All mobile cranes . . . ".

Proposal 6 (1 Preferred) Revise Interpretation R.2(4)-6 to read: "Cranes, crane and container support structures, masts, kingposts and similar structures, which are completely inaccessible and situated above the upper deck, should not be included in the total volume of all enclosed spaces (V). Air trunks having . . . ".

Proposal 7 (1 Preferred) Add the following text at the end of Interpretation R.2(4)-6: "The term "completely inaccessible" means not readily accessible while the ship is undertaking her usual duties either at sea or in port. Bolted access panels for inspection, maintenance and repair do not make a space readily accessible. If the space is fitted with shelves or other means for securing cargo or stores then it should be considered as being accessible and included in the total volume of all enclosed spaces (V)."

Proposal 8 (2 Preferred) Revise Interpretation R.2(4)-6 to read: "All masts, kingposts, air trunks, and support structures should be included in the total volume of all enclosed spaces (V) if they are larger than 1 m^3 in volume, regardless of the cross-sectional area and whether or not they are accessible. All mobile cranes . . . ".

Issue 3.h: Vertical Truss Structures (9 Responses)

Proposal 1 (7 Preferred) Establish a new Interpretation R.2(4)-X to read: "Open truss structures should not be included in the total volume of all enclosed spaces (V)."

Proposal 2 (2 Preferred) Same as Proposal 3.g.2.

Issue 3.i: Movable Door Assembly Within a Covered Space (7 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "The space bounded by a door, placed in an erection in a covered area, is not included in the total volume of all enclosed spaces (V) if, at the end of the opening movement of the revolving door, the breadth W' (breadth of access in open position) is equal to or greater than the breadth of access W (breadth of access in closed position)". (insert figures 10 and 11, found at the end of this annex)

Proposal 2 (5 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Open revolving/wing door spaces should not be treated as enclosed spaces."

Issue 3.j: Enclosed Space Versus Excluded Space (13 Responses)

Proposal 1 (13 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "If enclosed spaces comply with the conditions for exclusion specified in Regulation 2(5), then they shall be excluded from the total volume of all enclosed spaces (V). Such spaces shall be treated as an "enclosed but excluded spaces" to differentiate from "enclosed and included spaces" (those "enclosed spaces" which do not comply with the conditions for exclusion specified in Regulation 2(5))." <u>Additionally</u>, establish a new Interpretation R.2(5)-(X) which reads: "In applying this Regulation:

".1 Spaces excluded from the total volume of all enclosed spaces (V) are those spaces which are treated as enclosed ones under Regulation 2(4) but also comply with the conditions for exclusion under Regulation 2(5);

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".2 The volume of those enclosed spaces referred to in Regulation 2(5)(a) to (e) shall be excluded from the total volume of all enclosed spaces (V), unless at least one of the following three conditions takes place:

- the space is fitted with any 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."

[*Revise this proposal by amending subparagraph 2* to read: *" . . . - the space is used for cargo or stores . . . ".*]; [*Revise this proposal by adding the following paragraph to the proposed Interpretation A.2(5)-X: "Means for securing cargo or stores" in Regulation 2(5) includes any boundary structures (such as fixed or portable partitions or bulkheads without consideration of their height) of spaces appropriated for stowage of cargo or stores as these structures are requisite and lone means for the purpose of cargo or stores containment."*]

Additionally, establish a new Interpretation R.2(5)-X, which reads: "In Appendix 1 to the Convention, labeling in the figures shall be interpreted as follows:

".1 "O = excluded space" refers to an enclosed space or part of an enclosed space which corresponds to one of the situations described in Regulation 2(5)(a) to (e) and which satisfies the conditions for exclusion from the total volume of all enclosed spaces (V) specified in this Regulation;

".2 "C = enclosed space" refers to an enclosed space or part of an enclosed space which does not correspond to any of the situations described in Regulation 2(5)(a) to (e) and consequently can never be excluded from the total volume of all enclosed spaces (V);

".3 "I = space to be considered as an enclosed space" refers to an enclosed space or part of an enclosed space which corresponds to one of the situations described in Regulation 2(5)(a) to (e) but does not satisfy the conditions for exclusion from the total volume of all enclosed spaces (V) specified in this Regulation.

Issue 3.k: Mobile Cranes (9 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "All mobile cranes should be excluded from the total volume of all enclosed spaces (V). Mobile crane means, in this context, any crane that can be easily moved from a location to another without the need of fixed runways."

Proposal 2 (3 Preferred) Add the following text at the end of Interpretation R.2(4)-6: "The term "mobile crane" means a crane which:

".1 comprises, or is mounted on, a non- or self-propelled, crawler- or wheel-mounted, mobile base;

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".2 is capable of travelling over a supporting surface without the need for fixed runways (including railway tracks), and relies only on gravity for stability, with no vertical restraining connection between itself and the supporting surface, and no horizontal restraining connection (other than frictional forces at supporting-surface level) that may act as an aid to stability."

Proposal 3 (1 Preferred) Revise Interpretation R.2(4)-6 to delete the sentence: "All mobile cranes should be exempted."

Proposal 4 (1 Preferred) Revise Interpretation R.2(4)-6 to read: " . . . under the before-mentioned conditions. All mobile cranes should be excluded from this total volume. A mobile crane is a type of machine for hoisting heavy things like cargo, materials, provisions, etc., and which can be easily moved from one job site to another with little or no setup or assembly. Mobile cranes can be truck-mounted, wheel-mounted, or crawler-mounted. A mobile crane should not be confused with a fixed crane that has a means of rotation, or a gantry crane."

Issue 3.l: Independent Ventilators and Air Trunks (6 Responses)

Proposal 1 (4 Preferred) In conjunction with Proposal 3.g.4, revise Interpretation R.2(4)-5 to read: ". . . should not be included in the total volume of all enclosed spaces (V). In order not to be included in this total volume, these spaces must not in themselves accommodate any type of function or object essential for the operation of the ship. Air trunks having a cross-sectional area not exceeding 1 m^2 may also be excluded under the before-mentioned conditions, provided that the volume of the air trunks does not exceed 1 m^3. All mobile cranes . . . ".

Proposal 2 (1 Preferred) Same as proposal 3.g.5.

Proposal 3 (1 Preferred) Same as proposal 3.g.8.

Issue 3.m: Spaces Fitted to Outer Structure Boundary (1 Response)

Proposal 1 (1 Preferred) Same as proposal 3.g.5.

Issue 3.n: Devices for Safety, Fire Protection and Pollution Prevention (11 Responses)

Proposal 1 (6 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Movable devices (safety, fire protection, prevention of pollution equipment etc.) should not be included in the total volume of all enclosed spaces (V). If the device is a fixed and closed structure, it should be included in this total volume."

Proposal 2 (3 Preferred) Same as Proposal 3.c.2. [*Revise this proposal by adding the following: "Lifeboats and liferafts which are not contained within an enclosed structure can be ignored in the tonnage calculation."*]

Proposal 3 (2 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Devices for safety, fire protection, prevention of pollution and other similar equipment which are required by other conventions should not be treated as enclosed spaces."

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Issue 3.o: Width of End Openings (11 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation for R.2(5)-X, which reads: "In addition to erections extending from side to side, the requirements for excluded spaces under Regulation 2(5) are also applicable to structures that do not extend from side to side of the ship. In such structures B means breadth of a structure that does not extend from side to side of the ship, measured in way of the opening (see Appendix 1 to the Convention)." [*Revise this proposal by adding the following: "The measurement for determining the breadth is to be carried out at deck level."*]

Proposal 2 (7 Preferred) Establish a new Interpretation for R.2(5)-X, which reads: "When applying the provisions of Regulation 2(5), the phrase "breadth of the deck" means the breadth of the structure at the line of the opening of the space, regardless of whether or not the structure extends from side to side."

Issue 3.p: Machinery as Enclosed Space (10 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Machinery such as cranes with truss structures, mooring and towing equipment, and other similar items should not be included in the total volume of all enclosed spaces (V). If the machinery is fitted on a closed foundation, the foundation should be included in this total volume." [*Revise this proposal to read: " . . . should be included in this total volume if the area on the deck is greater than 1 m^2, or the volume exceeds 1 m^3."*]

Proposal 2 (6 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "Winches, revolving cranes, movable loading/unloading equipment and similar machinery and their foundations should not be treated as enclosed spaces."

Issue 3.q: Machinery Support Structures (10 Responses)

Proposal 1 (2 Preferred) In conjunction with Proposal 3.p.1, establish a new Interpretation R.2(4)-X, which reads: "If the machinery is fitted on a closed foundation, the foundation should be included in this total volume."

Proposal 2 (7 Preferred) Same as Proposal 3.p.2.

Proposal 3 (1 Preferred) Same as Proposal 3.g.4.

Issue 4.a: Definition of Awning (12 Responses)

Proposal 1 (0 Preferred) Add the following text at the end of Interpretation R.2(4)-2: "The term "permanent or movable awnings" means any material presented in the form of tissue. An awning can be easily removed and folded or rolled up for storage."

Proposal 2 (6 Preferred) Add the following text at the end of Interpretation R.2(4)-2: "An awning is a flexible nonmetallic material stretched over a frame for protection of open deck spaces from the impact of sun and bad weather."

Proposal 3 (1 Preferred) Revise Interpretation R.2(4)-2 to read: "In applying this Regulation:

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".1 Awning is a permanent or movable overhead structure to protect the deck from the sun only and does not include any side boundaries such as fixed or portable partitions, bulkheads or screens even if these side boundaries are made of non-weathertight materials;

".2 Space located within the boundaries . . . ".

Proposal 4 (1 Preferred) Establish a new Interpretation R.2(4)-X, which reads: "In applying this Regulation:

".1 the term "Awning" means an overhead covering offering shelter from the sun or weather, which can be folded and rolled up easily, and it is impossible to keep its own form naturally without frames;

".2 side or end partitions made by the above-mentioned material are not awnings;

".3 spaces consisting of awnings and partitions or bulkheads should be subject to treatment under Regulation 2(5)."

Proposal 5 (1 Preferred) Same as Proposal 3, except that paragraph 1 of proposed revised Interpretation R.2(4)-2 reads: " . . . or movable overhead structure made of non-weathertight materials to protect the deck from weather conditions only and does not . . ." and subparagraph 2 of proposed revised Interpretation R.2(4)-2 reads: "Space covered by "permanent or movable awnings" should be . . .".

Proposal 6 (3 Preferred) Add the following text at the end of Interpretation R.2(4)-2: "An awning is a completely flexible nonspecific material of an unspecific form such as canvas or tarpaulin or plastic sheeting, designed to protect the deck from the impact of sun, wind or water although not necessarily wind- or water- proof. An awning can be easily removed and folded or rolled up for storage."

Proposal 7 (0 Preferred) Add the following text at the end of Interpretation R.2(4)-2: "An awning is a roof-like shelter or cover made of canvas or similar material, which extends from a structure with the purpose of protecting from the sun, wind, rain or any other elements. An awning should be easily removable, folded or rolled up."

Issue 4.b: Treatment of Exterior Spaces Bounded by Awnings (15 Responses)

Proposal 1 (4 Preferred) Revise Interpretation R.2(4)-2 to read: "A space bounded only by an awning should not be treated as an enclosed space."

Proposal 2 (4 Preferred) Add the following text at the end of Interpretation R.2(4)-2, as revised per Proposal 4.a.2: "A space bounded by an awning should not be treated as an enclosed space."

Proposal 3 (6 Preferred) Add the following text at the end of Interpretation R.2(4)-2: "Although, according to Regulation 2(4), an awning itself does not form an enclosed space, there could be another enclosed space situated under the awning or formed by partitions covered with the awning. The fact that the awning is spread over this space should not prevent the space of being treated as an enclosed one."

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Proposal 4 (1 Preferred) Revise Interpretation R.2(4)-2 to read: "While permanent or movable awnings are ignored under these Regulations, spaces beneath awnings may be subject to treatment as enclosed spaces (e.g., if bounded on three sides)."

Issue 4.d: Fitting of Grates Over Side/End Openings (12 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Grates fitted in order to provide a barrier against intrusion should not be considered as means of closure when applying this Regulation. Apart from the above, grates fitted for any other purpose should be considered as a means of closure."

Proposal 2 (8 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Side grates over openings should not be considered as means of closure when applying this Regulation." [*Revise this proposal by replacing "grates" with "gratings or similar structures"*]

Proposal 3 (0 Preferred) Same as Proposal 4.a.3 combined with Proposal 4.b.3.

Issue 4.e: Fitting of Grates Over Deck Openings (8 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Deck grates over openings should be considered as means of closure when applying Regulation 2(5)." [*Revise this proposal to read: "Grates over deck openings should not be considered as means of closure when applying Regulation 2(5)."*]

Proposal 2 (6 Preferred) Add the following text to the end of Interpretation R.2(4)-2: "Grates that in themselves do not constitute a solid deck could be construed as being "semi-permanent awnings" allowing spaces to be excluded in accordance with Regulation 2(5)." [*Revise this proposal to read: "Gratings or similar structures that in themselves do not constitute a solid deck should be construed as allowing spaces to be excluded in accordance with Regulation 2(5)."*]

Issue 5.a: Shelves or Other Means for Securing Cargo or Stores (14 Responses)

Proposal 1 (1 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Any space that, according to the provisions of Regulation 2(5)(a) through (e) should be treated as excluded space, if utilized for the carriage of cargo or stores, should be included in the total volume of all enclosed spaces (V) and, if utilized for the carriage of the cargo, also in the total volume cargo spaces (V_c)." Additionally, establish a new Interpretation R.2(5)-X, which reads: "Stores means any type of material except safety and Prevention of Pollution provisions." [*Revise this proposal to read: " . . . should be included in the total volume of all enclosed spaces (V), whether a means of securing is provided or not and, if utilized for the carriage of the cargo, also in the total volume cargo spaces (V_c) . . . ".*]

Proposal 2 (4 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Any space which is used for cargo or stores should not be considered as an excluded space when [applying] this Regulation." [*Revise this proposal to read: "Any enclosed space which is used for cargo or stores should not be considered as an excluded space when applying Regulation 2(5)."*]

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Proposal 3 (2 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "The term "means for securing cargo or stores" in this Regulation includes boundary structures (such as fixed or portable partitions or bulkheads) of spaces appropriated for stowage of cargo or stores, as these structures serve the purpose of cargo or stores containment."

Proposal 4 (2 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Stores are food and provisions for the consumption of the ship's crew and/or passengers, if applicable."

Proposal 5 (1 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "The term "means for securing cargo or stores" in this Regulation includes any boundary structures (such as fixed or portable partitions or bulkheads without consideration of their height) of spaces appropriated for stowage of cargo or stores, as these structures are a requisite and lone means for the purpose of cargo or stores containment." Additionally, and in conjunction with Proposal 3.a.5, establish a new Interpretation R.2(7)-X, which reads: "Any enclosed space appropriated for the transport of cargo should be considered as "enclosed and included space" according to the Regulation 4 interpretations above and should be included in the total volume of cargo spaces".

Proposal 6 (4 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "Any enclosed space which is used for the carriage of cargo or stores should be included in the total volume of all enclosed spaces (V), whether a means of securing is provided or not."

Issue 5.b: Impact of End Opening Obstructions (6 Responses)

Proposal 1 (0 Preferred) Establish a new Interpretation R.2(5)(a)-X, which reads: "With reference to the provisions of the Regulation 2(5)(a)(iii), if an obstruction external to an opening is closer to the opening than one half of the local deck breadth, it is disregarded if the obstruction itself is not included in the total volume of all enclosed spaces (V). Also disregarded is a side bulwark not higher than [1.5 m]."

Proposal 2 (6 Preferred) Establish a new Interpretation R.2(5)(a)-X, which reads: "When an obstruction external to an opening is not included in the total volume of all enclosed spaces (V), then it should be ignored. When an obstruction external to an opening is included in this total volume:

".1 it is considered to close the end opening when its distance to the opening is equal to or closer than half the local breadth on the deck;

".2 it is ignored if it is further away from the opening than half the local breadth on the deck." (figures to be developed)

[*Revise the above proposal by adding the following: "A side bulwark not higher than 1.5 m is not considered to close the end opening."*]

[*Proposal 3 Establish a new Interpretation R.2(5)(a)-X, which reads: "With reference to the provisions of the Regulation 2(5)(a), side erections external but close to an opening are to be considered when calculating 90% of the breadth. They are disregarded if the obstruction itself is not included in the total volume of all enclosed spaces (V)."*]

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Issue 5.c: Excluding Space Opposite an End Opening as a Recess (9 Responses)

Proposal 1 (3 Preferred) Establish a new Interpretation R.2(5)(e)-X, which reads: "A recess is a space bounded by three bulkheads which themselves form a boundary to an enclosed space and with a deck or covering above. A recess located in the sides (left or right) of the erection should be excluded also if the extension into the erection is greater than twice the width of its entrance if the ship's sides are completely open except for bulwarks not higher than [1.5 m] or open rails. A recess should be excluded also if it extends from deck to deck from more than one tier." Additionally, establish a new Interpretation R.2(5)(c)-X, which reads: "A space in an erection, directly in way of opposite side openings should be excluded. If the opening in such an erection is provided on one side only, the space to be excluded shall be limited to a maximum of one-half of the breadth of the erection." (insert figure 12, found at the end of this annex)

Proposal 2 (4 Preferred) Establish a new Interpretation R.2(5)(e)-X, which reads: "In addition to Regulation 2(5)(e), a recess is a space which is bounded by at least three bulkheads which themselves form a boundary to an enclosed space or which is bounded by at least two bulkheads, which themselves form a boundary to an enclosed space, and a partition. "Deck to deck" means an opening extending from deck to deck except for a curtain plate of a depth not exceeding by more than 25 mm (one inch) the depth of the adjoining deck beams or a false ceiling where fitted."

Proposal 3 (2 Preferred) Establish a new Interpretation R.2(5)- X, which reads: "An opening according to Regulation 2(5)(a) has one boundary bulkhead (see figure 4.1 in Appendix 1). An opening with a minimum of three sides that themselves form a boundary to an enclosed space shall be construed as a recess according to Regulation 2(5)(e)." (figure to be developed)

Issue 5.d: Characteristics of End and Side Openings (4 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "In applying this Regulation, spaces not included in the total volume of all enclosed spaces (V) should be ignored/disregarded."

Issue 5.e: Deck Structure Height Requirements for Side Openings (9 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.2(5)(c) that reads: "An opening that extends vertically over one or more tiers shall have the corresponding space assessed for exclusion on a tier-by-tier basis." (figure to be developed)

Proposal 2 (7 Preferred) Establish a new Interpretation R.2(5)(c)-X, which reads: "The height of the opening should be evaluated by the height between the continuous/complete decks in each tier." [*Revise this proposal by adding the following: "When determining the height requirement of the side opening in Regulation 2(5)(c); this should be taken as one third of the height, where the height is from deck to deck, ignoring any false ceiling that may be fitted. When the height of the side opening is not less than 0.75 m or one-third of the height of the erection, whichever is the greater, the space to be excluded shall be limited from the deck to the underside of any false ceiling. The space from the underside of the false ceiling to the deck above should be included in the enclosed space volume."*]

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Issue 5.f: Restrictions on Excluding Space Below Uncovered Openings (12 Responses)

Proposal 1 (0 Preferred) Establish a new Interpretation R.2(5)(d)-X, which reads: "There is no limit in the height of the space, provided that only the portion above the upper deck can be excluded."

Proposal 2 (1 Preferred) Establish a new Interpretation R.2(5)(d)-X, which reads: "An excluded space is limited to the area of the opening in the deck over and the deck below."

Proposal 3 (3 Preferred) Establish a new Interpretation R.2(5)(d)-X, which reads: "An opening that extends to a deck "immediately below" shall be interpreted as a space extending to the next complete structural deck below." (figure to be developed)

Proposal 4 (1 Preferred) Establish a new Interpretation R.2(5)(d)-X, which reads: "The term "immediately below" means a lower structural deck underneath of it."

Proposal 5 (7 Preferred) Establish a new Interpretation R.2(5)(d)-X, which reads: "The term "immediately below" means extending from the deck in which the opening occurs to the lower boundary of the opening being considered. Openings which penetrate the upper deck (as defined in Regulation 2(1)) are only excluded to the line of the upper deck." (figure to be developed).

Issue 5.g: Structures Along the Line of an Opening (10 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.2(5)(a)-X, which reads: "The presence of structures like a transverse bulkhead or any other structure along the line of the opening, which prevent the opening from extending deck to deck, except for the stanchions necessary for the erection's support, would disqualify a space within an erection opposite an end opening. Spaces not included in the total volume of all enclosed spaces (V) along the line of the opening should be disregarded." [*Revise this proposal to read:* " . . . prevent the opening from extending deck to deck, except for the stanchions necessary for the erection's support and for a curtain plate of a depth not exceeding by more than 25 mm the depth of the adjoining deck beams, would disqualify a space within an erection . . . ".]

Proposal 2 (8 Preferred) Establish a new Interpretation R.2(5)(a)-X, which reads: "The presence of structures like a transverse bulkhead or any other structure along the line of the opening which prevents it from being deck to deck, except for the stanchions necessary for its support, would disqualify a space within an erection opposite an end opening." [*Revise this proposal to read:* " . . . would disqualify a space from being an enclosed space within an erection opposite . . . ".]

Issue 5.h: Adjoining Deck Beams on End Openings (9 Responses)

Proposal 1 (9 Preferred) Establish a new Interpretation R.2(5)(a)-X, which reads: "The 25 mm curtain plate depth criterion should be applied to the portion of the curtain plate that extends below the lowest extremity of the adjoining deck stiffeners." (insert figure 13, found at the end of this annex)

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Issue 5.i: Rails and Fashion Plating for Side Openings (12 Responses)

Proposal 1 (4 Preferred) Establish a new Interpretation R.2(5)(b)-X, which reads: "Vertical plates or other similar supporting structures along the line of the exposed sides under an overhead deck exceeding 0.60 m [/ 1 frame] or total length exceeding 25% of exposed side should not be considered "stanchions."

Proposal 2 (8 Preferred) Establish a new Interpretation R.2(5)-X, which reads: "In applying Regulation 2(5)(b) and (c), vertical railings and stanchions necessary for support are not considered to close or reduce the size of a side opening."

Issue 6.a: Treatment of Spaces Inside the Hull as Open to the Sea (13 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "Apart from the spaces listed in Interpretation R.6(3)-1, for a space to be excluded as open to the sea under this Regulation, it must be either permanently flooded during normal operation or open to the action of the waves. In no circumstances should it contribute to the buoyancy of the ship. Any space which is open to the sea in this context must be in free communication with the sea. The clear opening must be more than [75%] of the bounded space to which it provides access. A hole, holes or pipe openings are not sufficient to treat a space as an excluded space. A space which is excluded under this Regulations shall not be used for cargo or stores. If the space is provided with a closing device, it should not be treated as such an excluded space. A grate should not be considered as a closing device."

Proposal 2 (4 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "In applying this Regulation:

".1 Spaces open to the sea are those spaces fitted in the ship's hull which are permanently flooded during normal operation of the ship or are open to the action of waves and/or allow free communication with the sea provided that in no circumstances they could contribute to the buoyancy of the ship at any time. Free communication with the sea means that sea water comes out of a space as quickly as it gets in solely under the force of gravity and no amount of water could be trapped in the space. Any holes or pipe openings are not sufficient to treat a space as being open to the sea;

".2 Volume of a space open to the sea can only be excluded from the total volume of all enclosed spaces (V) on condition that the space is not fitted with any means for securing cargo or stores and is not appropriated for the stowage of cargo or stores in any form;

".3 According to Regulation 6(3) and based on the above Interpretation in subparagraphs 1 and 2, volumes of spaces open to the sea may or may not be excluded from the total volume of all enclosed spaces (V) depending on whether or not these spaces are appropriated for the stowage of cargo or stores: if a space open to the sea is not appropriated for the stowage of cargo or stores then its volume shall be excluded from this total volume; if a space open to the sea is appropriated for the stowage of cargo or stores then its volume shall not be excluded from this total volume."

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Proposal 3 (1 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "Spaces which fulfill at least one of following two conditions shall not be excluded from the total volume of all enclosed spaces (V):

".1 the space has a mechanism or device which can restrict the influx of water to the space;

".2 the space provides buoyancy, or has a means for securing cargo or stores."

Proposal 4 (4 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "For a space to be treated as open to the sea it must be open to the action of the waves. In no circumstances should it contribute to the buoyancy of the ship. Any space which is open to the sea must be in free communication with the sea. Free communication means that sea water comes out of a space as quickly as it gets in solely under the force of gravity with no amount of water trapped in the space, the clear opening (i.e., not including any grating) must be more than [75%] of the bounded space to which it provides access. A hole, holes or pipe openings are not sufficient to treat a space as an excluded space. Spaces which are "open to the sea" shall not be used for cargo or stores."

Proposal 5 (2 Preferred) Revise Interpretation R.6(3)-1 to read: "Only those spaces which are below the upper deck and are continuously in free communication with the sea or weather may be excluded as open to the sea. Examples include: hawse pipes, sea-valve recesses, thruster tunnels, stern chutes in fishing ships, and dredging wells in dredgers."

Proposal 6 (0 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "For spaces or portions of spaces, such as described in Interpretation R.6(3)-1), to be treated as open to the sea, they must be either permanently flooded during normal operation or open to the action of the waves. Moreover, all spaces which are open to the sea must be also in free communication with it. A space provided with a closing device should not be treated as open to the sea."

Issue 6.b: Treatment of Spaces Outside the Hull as Open to the Sea (8 Responses)

Proposal 1 (1 Preferred) Same as Proposal 6.a.3.

Proposal 2 (7 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "If a space has the capability of being closed by a closing device which can be either watertight or non-watertight then it should be included in the total volume of all enclosed spaces (V) and the total volume of cargo spaces (V_c), where applicable."

Issue 6.c: Treatment of Moon Pools (10 Responses)

Proposal 1 (9 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "Where moon pools or similar through-hull openings are fitted with closing devices which can be either watertight or non-watertight, only that portion below the closing device should be excluded."

Proposal 2 (1 Preferred) Same as Proposal 6.a.3.

Issue 6.d: Large Volumes of Spaces Open to the Sea (14 Responses)

Proposal 1 (1 Preferred) Same as Proposal 6.a.1.

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Proposal 2 (7 Preferred) Establish a new Interpretation R.6(3)-X, which reads: "Spaces open to the sea should not be excluded from the total volume of all enclosed spaces (V) if they are used for cargo and/or buoyancy purposes."

Proposal 3 (3 Preferred) Same as Proposal 6.a.2.

Proposal 4 (1 Preferred) In conjunction Proposal 6.a.3, establish a new Interpretation R.6(3)-X, which reads: "Spaces open to the sea should not be excluded from the total volume if the spaces are appropriated for holding cargo and/or contribute to the buoyancy of the ship."

Proposal 5 (1 Preferred) Same as Proposal 6.a.4.

Proposal 6 (1 Preferred) Same as Proposal 6.a.5.

Proposal 7 (0 Preferred) Same as Proposal 6.a.6.

Issue 7.a: Remeasurement Following Alterations (5 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation A.10(1)-X, which reads: "The International Tonnage Certificate (1969) should always reflect the actual arrangement, construction, capacity, use of spaces, total number of passengers the ship is permitted to carry, assigned load line or permitted draught. The provisions of Regulation 5(3) should be taken into account in case of a decrease in net tonnage."

Proposal 2 (3 Preferred) Establish a new Interpretation A.10(1)-X, which reads: "The term "increase in gross tonnage or net tonnage" means increase of more than 1%."

Issue 7.b: Remeasurement Following Net Tonnage Change (8 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation R.5-1-X, which reads: "Appreciable changes to the characteristics of a ship, such as V, V_c, D, d, N_1 or N_2, as defined in Regulations 3 and 4, should result in the issuance of a new International Tonnage Certificate (1969), as soon as possible."

Proposal 2 (2 Preferred) Establish a new Interpretation R.5(1)-X, which reads: "The term "increase in its net tonnage" means an increase of more than 1%." Additionally, establish a new Interpretation R.5(3)-X, which reads: "The term "decrease in its net tonnage" means a decrease of more than 1%."

Proposal 3 (4 Preferred) Establish a new Interpretation R.5(1)-X, which reads: "Any changes to the net tonnage should result in the issuance of a new International Tonnage Certificate (1969), regardless of any change to the gross tonnage. If the principal dimensions or passenger numbers change, then regardless of the magnitude of the change in tonnage (including no change), the certificate should be reissued immediately. Where the net tonnage decreases, the owner can decide whether a new certificate is required, always observing the 12 month delay required by Regulation 5(3)." [*Revise this proposal to read*: " *. . . be reissued immediately. Where the net tonnage decreases, the 12 month delay required by Regulation 5(3) should be observed.*"]

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[*Proposal 4 Establish a new Interpretation A.10(1)-X, which reads: "The term "increase or decrease in gross tonnage or net tonnage" means increase or decrease of more than 1%."*]

Issue 8.a: Criterion for Use of "Existing" Tonnage (11 Responses)

Proposal 1 (5 Preferred) Establish a new Interpretation A.3(2)(b)-X, which reads, "The term "substantial variation in their existing gross tonnage" means a change of more than 1%." Additionally, revise Interpretation A.3(2)(d)-1 to read: "In applying this Article:

".1 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;

".2 According to Article 3(2)(d) and based on the clarifications and interpretations in resolutions A.494(XII), A.541(13) and A.758(18), all existing ships required to be measured under the provisions of the International Convention on Tonnage Measurement of Ships, 1969, shall have their gross and net tonnages determined in accordance with the 1969 Tonnage Convention and the International Tonnage Certificate (1969) issued to these ships but may still retain their then existing tonnages for the purpose of the application of relevant requirements under the other International Conventions unless these ships undergo alterations or modifications leading to the change of more than 1% in either existing gross tonnage or gross tonnage calculated in accordance with the 1969 Tonnage Convention."

[*Revise subparagraph 2 of this proposal to read: " . . . leading to the change of more than 1% (increase or decrease) in either existing . . . ."*.]

Proposal 2 (1 Preferred) Same as Proposal 1, except that new Interpretation A.3(2)(b)-X reads: "In applying this Article:

".1 The term "substantial variation in their existing gross tonnage" means a change of more than 1%;

".2 This criterion should only concern disposition under Article 3(2)(b), but not under Article 10 or Regulation 5."

Proposal 3 (1 Preferred) Establish a new Interpretation A.3(2)-X, which reads: "For the purposes of Articles 3(2)(b) and (d), a "substantial change" is one where the gross tonnage is changed by more than 1% of the original gross tonnage. Where the gross tonnage changes by more than this value, the new gross tonnage should be used for all purposes."

Proposal 4 (4 Preferred) Remove Interpretation A.3(2)(d)-1 in its entirety.

Issue 8.b: Use of Tonnage Under Interim Schemes (8 Responses)

Proposal 1 (1 Preferred) Same as Proposal 8.a.1.

Proposal 2 (7 Preferred) See proposed Draft Assembly Resolution: "Use of National Tonnage in Applying International Conventions" in Annex 3 to SLF 55/9/XXX.

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Issue 8.c: Loss of Tonnage Grandfathering Under Interim Schemes (8 Responses)

Proposal 1 (1 Preferred) Same as Proposal 8.a.1.

Proposal 2 (7 Preferred) Same as Proposal 8.b.2.

Issue 9.a: Listing of Spaces on the Certificate (11 Responses)

Proposal 1 (8 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "When listing spaces on the International Tonnage Certificate (1969), the following should be noted:

"1. A list of included spaces on the certificate should be completed according to the form giving particulars of uniform tonnage calculation as shown in the annex to permit verification by the Port Authorities or for flag changes;

"2. Individual tiers should be listed as separate "spaces" on the certificate;

"3. The "length" on the reverse side of the certificate should be the overall length of the space;

"4. Excluded spaces and spaces open to the sea should not be listed on the certificate."

Proposal 2 (3 Preferred) Revise Interpretation A.9(2)-2 to read: "The information on spaces included in tonnage on the reverse of the International Tonnage Certificate (1969) should be of sufficient detail to permit verification of the main characteristics of the ship, such as during inspections conducted under Article 12. At the Administration's discretion, spaces of comparatively small volume that are outside the boundaries of the ship's hull, superstructure, deckhouses, and other principal structures may be listed as a single entry (e.g., "Lockers/Trunks/Other", with the location and length specified as "Various"). Refer to the annex for an example illustrating a sufficient level of detail for the ship concerned." (insert figure 14, found at the end of this annex).

Issue 9.b: Specifying Lengths of Spaces on the Certificate (11 Responses)

Proposal 1 (5 Preferred) Establish a new Interpretation A.9(2)-X, which reads: The "length" entered on the reverse of the International Tonnage Certificate (1969) is the overall longitudinal dimension from the forward most extremity to its aftermost extremity of the measured space.

Proposal 2 (3 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "The "length" on the reverse of the International Tonnage Certificate (1969) should be the overall length of the space."

Proposal 3 (2 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "The "length" entered on the reverse of the International Tonnage Certificate (1969) should include the overall length of the measured space." [*Revise this proposal to read: "For each space mentioned under gross or net tonnage on the reverse of the International Tonnage Certificate (1969), the "length" entered should include the overall length of the measured space."*]

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Issue 9.c: Listing Excluded Spaces on the Certificate (6 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "Excluded spaces and spaces open to the sea should not be listed on the International Tonnage Certificate (1969)."

Proposal 2 (4 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "The listing of excluded spaces under the "Excluded Space" heading on the reverse of the International Tonnage Certificate (1969) is at the discretion of the Administration."

Issue 9.d: Keel Laid or Alteration Date on the Certificate (4 Responses)

Proposal 1 (2 Preferred) Establish a new Interpretation A.9(2)-X, which reads: "When a ship, already measured in accordance with the 1969 Tonnage Convention, undergoes alterations or modifications of a "major character", the date shown on the front of the International Tonnage Certificate (1969) should be the same date as shown on the Cargo Ship Safety Construction Certificate or on the Passenger Ship Safety Certificate, as appropriate, at the point: "date on which work for a conversion or an alteration or modification of a major character was commenced"."

Proposal 2 (2 Preferred) Add the following text at the end of Interpretation A.9(2)-1: "The "Date" shall usually be the same date as the one noted on other international certificates, such as the Cargo Ship Safety Construction Certificate or the Passenger Ship Safety Certificate."

Issue 9.e: Tonnage Certificate Attachments (3 Responses)

Proposal 1 (3 Preferred) Add the following text at the end of Interpretation R.7-1: "One should be issued by the flag Administration or by any person or organization duly authorized by it."

[*Proposal 2 Establish a new Interpretation A.9(2)-X, which reads: "Where there is insufficient space on the certificate to list all the spaces on the ship, an addendum document may be issued."*]

Issue 9.f: Transmitting Copies of Calculations and Certificates Upon Flag Change (10 Responses)

Proposal 1 (7 Preferred) Establish a new Interpretation A.10(3)-X, which reads: "Upon transfer of a ship to the flag of another State, the entity that has issued the existing International Tonnage Certificate (1969) (old Administration or the organization authorized by the Administration) shall transmit as soon as possible a copy of the International Tonnage Certificate (1969) and the relevant tonnage calculations to the new Administration or to the organization authorized by the Administration for the issuance of the new International Tonnage Certificate (1969)."

Proposal 2 (1 Preferred) Revise Interpretation A.12-1 to read: "A copy of the relevant tonnage calculations may be provided . . . ships flying their flag. A copy of the calculations shall, however, be transmitted to the Administration of the new flag State from the previous flag State along with a copy of the current certificate."

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Proposal 3 (2 Preferred) Establish a new Interpretation A.10(3)-X, which reads: "A copy of the International Tonnage Certificate (1969) carried by the ship at the time of transfer and a copy of the relevant tonnage calculations may be transferred to the new Administration through the ship's owner or the recognized organizations."

Issue 10.a: Acceptance and Retroactive Application of Interpretations (7 Responses)

Proposal 1 (6 Preferred) Establish a new Interpretation A.13-X, which reads: "An International Tonnage Certificate (1969) held by a ship is valid if the ship's gross and net tonnages have been determined in accordance with the 1969 Tonnage Convention (see Article 7(1)) and the main characteristics of the ship correspond to the data given in the certificate (see Article 12, paragraphs (1)(b) and (3))." Additionally, establish a new Interpretation A.13-X, which reads: "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."

Issue 11.c: Use of Multiple Reduced Gross Tonnage Parameters (7 Responses)

Proposal 1 (7 Preferred) See proposed Draft Assembly Resolution: "Reduced Gross Tonnage for Crew Spaces" in annex 5 to this document.

Issue 12.a: Single Voyage Exemption (2 Responses)

Proposal 1 (1 Preferred) Establish a new Interpretation A.7(1)-X, which reads: "In case of a single international delivery voyage of a ship not already provided with the International Tonnage Certificate (1969), an interim tonnage certificate with tonnage values calculated in accordance with the provision of the MSC/Circ.653 may be issued. [the text of the interim certificate should be developed by a correspondence group or the Sub-Committee]. The interim certificate shall remain in force for a period not exceeding [six months] or until arrival at destination."

Proposal 2 (1 Preferred) Same as Proposal 1, except that proposed new Interpretation A.7(1)-X reads: " . . . an interim tonnage certificate with tonnage values calculated taking into account MSC/Circ.653 may be issued. The interim certificate shall . . .".

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FIGURES FOR DRAFT UNIFIED INTERPRETATIONS

figures 1-4 Unified Interpretations Proposal 1.b.5

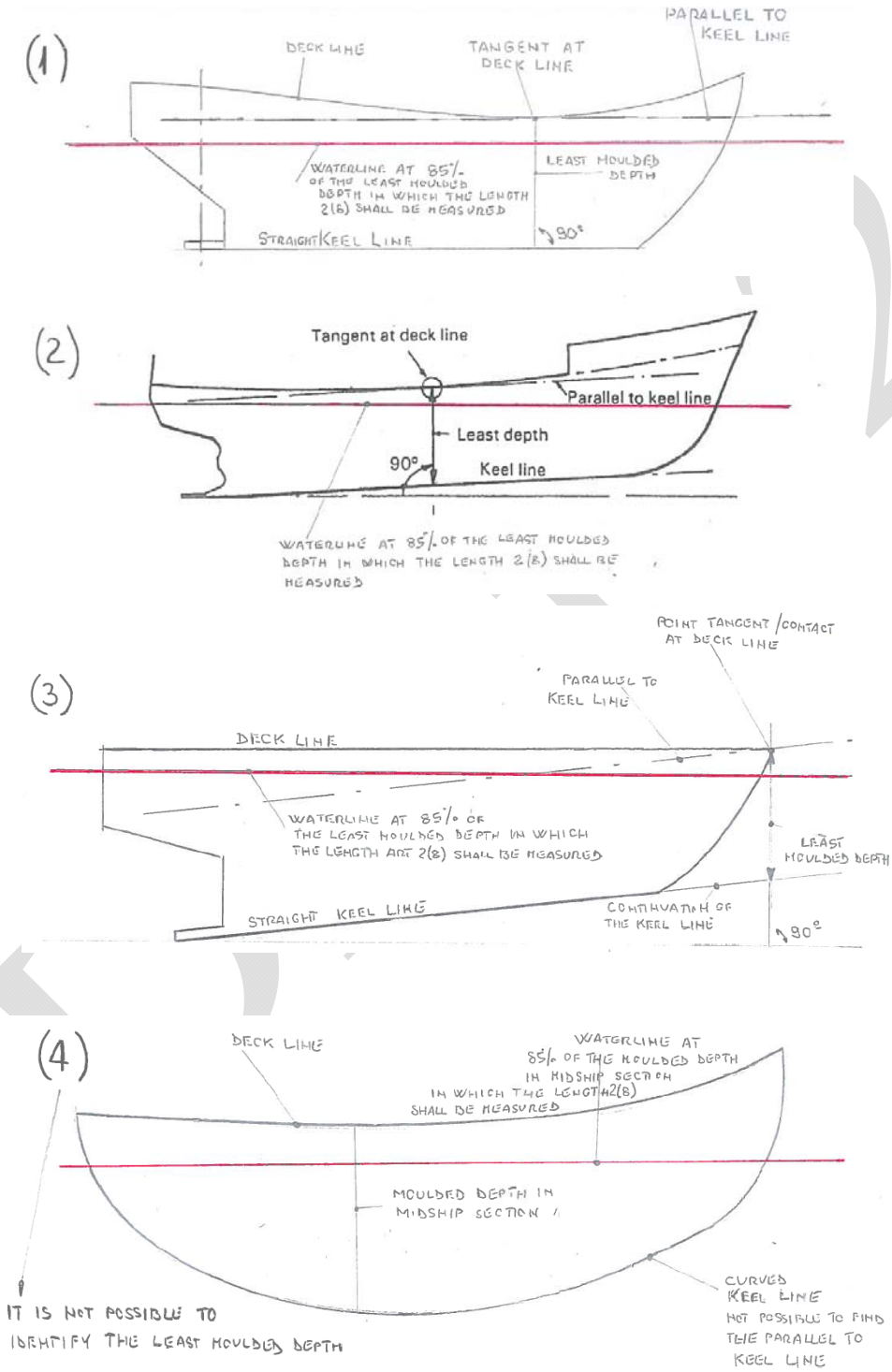


figure 5 Unified Interpretations Proposal 1.b.2

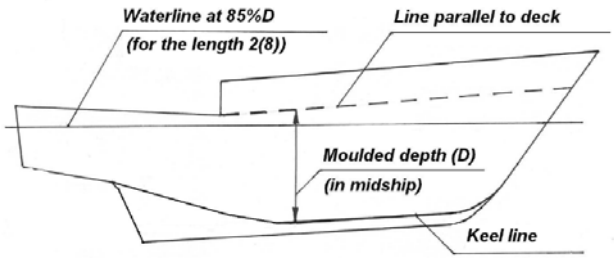


figure 6 Unified Interpretations Proposal 1.b.2

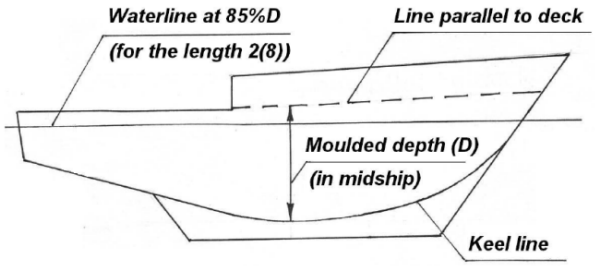


figure 7 Unified Interpretations Proposal 1.b.6

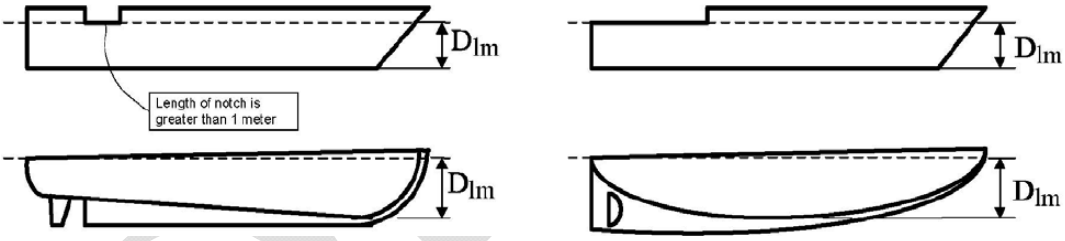


figure 8 Unified Interpretations Proposal 3.a.7

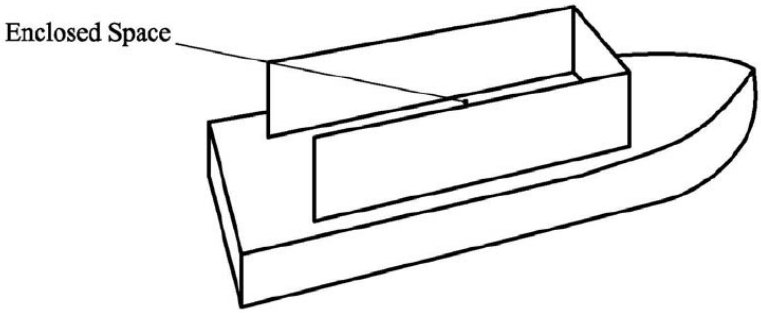
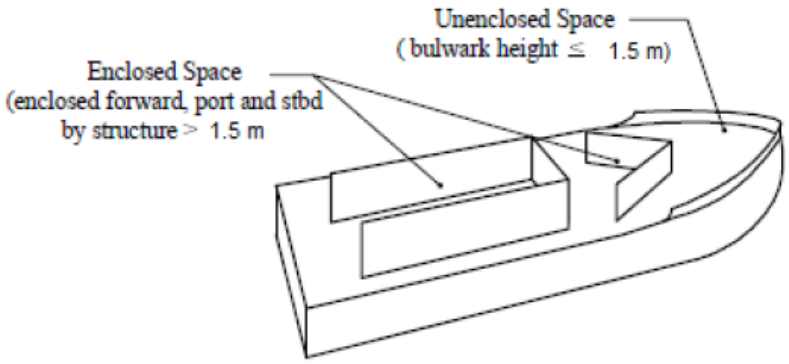


figure 9 Unified Interpretations Proposal 3.a.8



figures 10 &11 Unified Interpretations Proposal 3.i.1

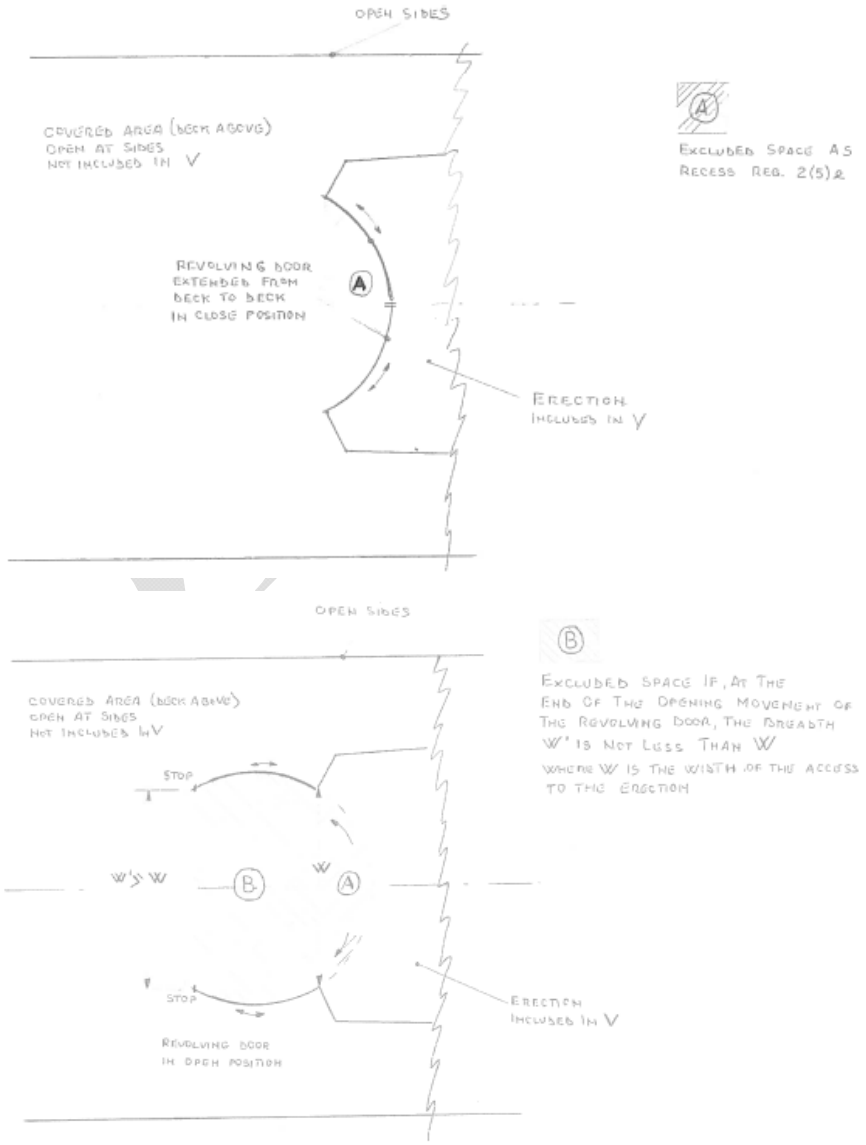
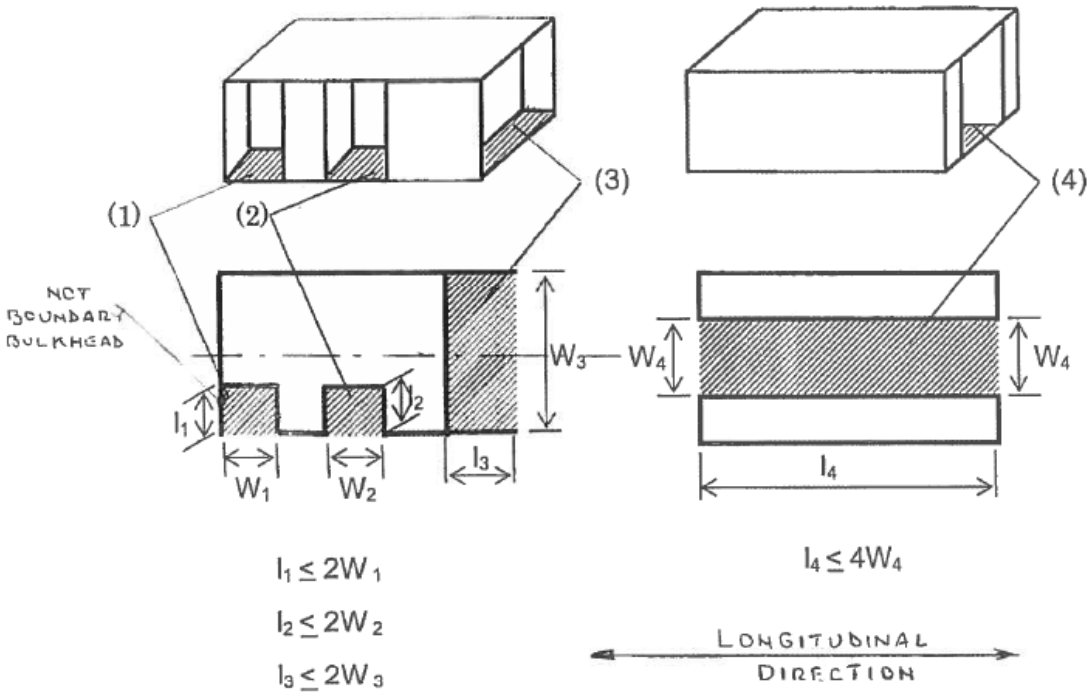


figure 12 Unified Interpretations Proposal 5.c.1



(1) It is not a recess – Bounded by only two boundary bulkheads –
It should be excluded due to the side opening.

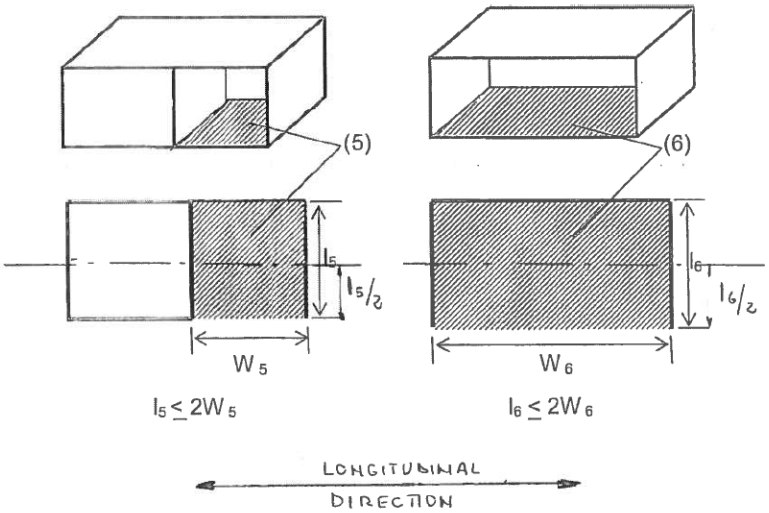
(2) It is a recess – Bounded by three boundary bulkheads –
It should be excluded.

(3) It is not a recess – Bounded by only one boundary bulkhead –
It is a space within an erection opposite an and opening and it can be excluded only if the provision of the Reg. 2(5)(a)(i) are met.

(4) It is not a recess - Bounded by only two boundary bulkheads –
It is a space within an erection opposite an and opening and it can be excluded only if the provision of the Reg. 2(5)(a)(i) are met.

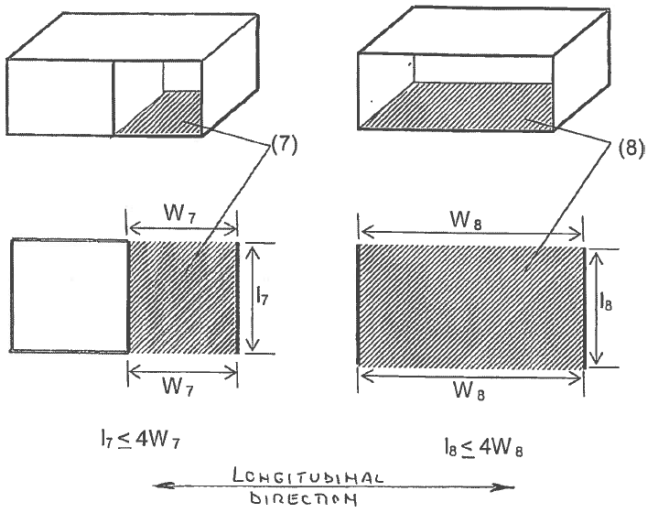
(continued)

figure 12 (continued)



(5) It is not a recess – Bounded by only one boundary bulkhead –
Should be excluded a space limited inboard from the side opening to one-half of the breadth of the erection ($l_5/2$), due to the only one side opening.

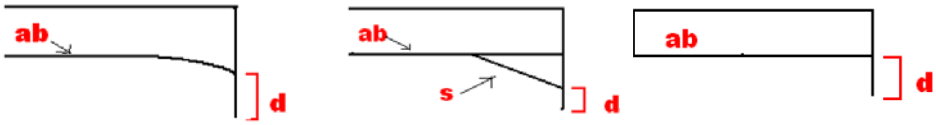
(6) It is not a recess – There are not boundary bulkhead –
Should be excluded a space limited inboard from the side opening to one-half of the breadth of the erection ($l_6/2$), due to the only one side opening.



(7) It is not a recess – Bounded by only one boundary bulkhead –
Should be entirely excluded due to the two sides opening.

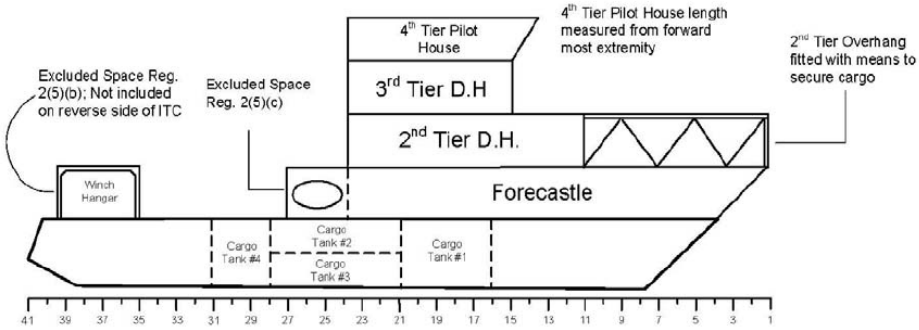
(8) It is not a recess – There are not boundary bulkhead -
Should be entirely excluded due to the two sides opening.

figure 13 Unified Interpretations Proposal 5.h.1



Where d = curtain plate depth, s = stiffner, ab = adjoining beam

figure 14 Unified Interpretations Proposal 9.a.2



SPACES INCLUDED IN TONNAGE

GROSS TONNAGE			NET TONNAGE		
Name of Space	Location	Length (m)	Name of Space	Location	Length (m)
Underdeck	----------	----------	Cargo Hold 1	Fr 16-21	6.86
Forecastle*	Fr 1-27	31.09	Cargo Hold 2	Fr 21-28	9.60
2nd Tier Cargo Hold	Fr 1-11	13.72	Cargo Hold 3	Fr 21-28	9.60
2nd Tier Deckhouse	Fr 11-24	17.37	Cargo Hold 4	Fr 28-31	4.11
3rd Tier Deckhouse	Fr 15-24	10.67	2nd Tier Cargo Hold 1	Fr 1-11	13.72
4th Tier P.H.	Fr 13-24	11.89			
Lockers/Trunks/Other	Various	Various			

NUMBER OF PASSENGERS
(Regulation 4(1))

Number of passengers in cabins with not more than 8 berths: 0

Number of other passengers: 0

EXCLUDED SPACES
(Regulation 2(5))

Winch Hangar Reg. 2(5)(b); Foc'sle Dk Pump Space Reg. 2(5)(c)

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

MOULDED DRAUGHT
(Regulation 4(2)) 5.49 m

Date and place of original measurement: **June 29, 2012 at Washington, DC**

Date and place of last previous remeasurement:

REMARKS:

ANNEX 4

TM CONVENTION PROPOSALS AND ROUND 2 RESULTS[1]

Issue 1.c: Trainable Rudders & Rudderless Ships (6 Responses)

Proposal 1 (6 Preferred) Revise Article 2(8) to read: " . . . on that waterline, if that be greater. If a ship does not have a rudder stock, the length shall be 96 per cent of the total length on the waterline at 85 per cent of the least moulded depth. In ships designed with a rake . . . ".

Issue 3.a: Requirement for a Deck Above to Bound Enclosed Space (5 Responses)

Proposal 1 (5 Preferred) Revise Regulation 2(4) to read: ". . . portable partitions or bulkheads, or by decks or coverings other than permanent or movable awnings. No break . . . nor the absence of a deck, partition, or bulkhead, shall preclude . . . ".

Issue 3.o: Width of End Openings (3 Responses)

Proposal 1 (3 Preferred) Establish a new Regulation 2(5)(a)(iv), which reads: "The space within an erection opposite an end opening can take place in structures which are not side to side (e.g., round houses). The opening must have a width equal to or greater than 90 per cent of the width of the erection measured at deck level at the line of the opening of the space. The space must be bounded by "at most" one boundary bulkhead and the opening must face compulsorily this boundary bulkhead. The space within an erection opposite an end opening is not exclusively for spaces perpendicular to the longitudinal axis of the ship, but may be situated in any direction."

Issue 4.d: Fitting of Grates Over Side/End Openings (1 Response)

Proposal 1 (1 Preferred) Revise Regulation 2(5)(b) to read: " . . . or stanchions fitted at the ship´s side, provided that a) the distance between the top of the rails or the bulkwark and the curtain plate is not less than 0.75 m (2.5 ft) or one third of the height of the space, whichever is greater and b) the fitting of such railings or the bulkwark is for protecting cargo and/or spaces from sea or weather (Figure 7 in Appendix 1)." <u>Additionally</u>, revise Regulation 2(5)(c) to read: " . . . one-half of the breath of the deck in way of the opening. The presence of railings or grates over these spaces fitted for security purposes shall not preclude such spaces from being treated as an excluded space (Figure 8 in Appendix 1). However, if such openings are fitted with solid means of closure, this space should be treated as an enclosed space since this is one of the three conditions of Regulation 2 (5) that disqualifies an excluded space."

Issue 5.b: Impact of End Opening Obstructions (2 Responses)

Proposal 1 (2 Preferred) Revise Regulation 2(5)(a) to add a new subparagraph (a)(iv), which reads: "External obstructions to the opening where the separation is greater than half the breadth (B/2) of the structure should be ignored. If such obstructions are located

[1] Numbers in parentheses following each issue refer to the total number of Round 2 Questionnaire respondents who selected a preferred proposal for that issue. Numbers in parentheses following each proposal number refer to the numbers of respondents indicating the proposal is the one they preferred the most.

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within at least half the breadth (B/2) of the structure but whose volume is not included in tonnage, then they should also be ignored."

Issue 5.c: Excluding Space Opposite an End Opening as a Recess (2 Responses)

Proposal 1 (2 Preferred) Add the following text at the end of Regulations 2(5)(e): "The recess must be bounded by at least two boundary bulkheads. Boundary bulkheads are those bulkheads which themselves form a boundary to an enclosed space."

Issue 5.g: Structures Along the Line of an Opening (1 Responses)

Proposal 1 (1 Preferred) Add the following text at the end of Regulations 2(5)(a)(i): "The presence of structures like a transverse bulkhead or any other structure along the line of the opening which prevents it from being deck to deck, except for the stanchions necessary for its support, would disqualify a space within an erection opposite an end opening."

Issue 5.h: Adjoining Deck Beams on End Openings (1 Responses)

Proposal 1 (1 Preferred) Revise Regulation 2(5)(a)(i) to read: " . . . one half of the width of the deck at the line of the opening (Figures 1 and X in Appendix 1)." (accompanying figure X is found at the end of this annex)

Issue 5.j: Height of Side Opening Railings (2 Responses)

Proposal 1 (2 Preferred) Same as the revision to Regulation 2(5)(b) of Proposal 4.d.1.

Issue 6.a: Treatment of Spaces Inside the Hull as Open to the Sea (5 Responses)

Proposal 1 (1 Preferred) Revise Regulation 6(3) to read: " . . . from the total volume. For a space to be treated as open to the sea, it has to be in free communication with the sea. Also, the clear opening, not including any grating, must be more than 75 % of the bounded space to which it provides access."

Proposal 2 (4 Preferred) Revise Regulation 6(3) to read: "Volumes of spaces open to the sea shall be excluded from the total volume."

Issue 6.d: Large Volumes of Spaces Open to the Sea (3 Responses)

Proposal 1 (3 Preferred) Revise Regulation 6(3) to read: "Volumes of spaces open to the sea may be excluded from the total volume of all enclosed spaces (V). For the space to be excluded as open to the sea, it has to be in free communication with the sea. Also, the clear opening, not including any grating, must be more than 75% of the bounded space to which it provides access. Volumes open to the sea should not be excluded from the total volume if the spaces are appropriated for holding cargo and/or contributing to obtain additional buoyancy for the ship."

Issue 7.a: Remeasurement Following Alterations (6 Responses)

Proposal 1 (6 Preferred) Revise Article 10(1) to read: " . . . such as would necessitate an increase or decrease in gross tonnage or net tonnage."

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Issue 9.a: Listing of Spaces on the Certificate (4 Responses)

Proposal 1 (4 Preferred) Revise Annex II by adding a fourth column to the gross and net tonnage tables on the reverse side of the International Tonnage Certificate (1969) form. The fourth column shall have the heading "Volume". The volume figures shall be in cubic metres.

Issue 9.c: Listing Excluded Spaces on the Certificate (3 Responses)

Proposal 1 (3 Preferred) Revise Annex II to remove the "Excluded Spaces" box from the International Tonnage Certificate (1969) form.

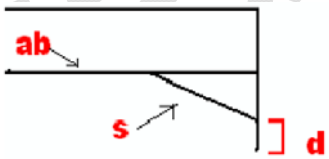
Issue 11.d: Treatment of Crew Accommodation Spaces (4 Responses)

Proposal 1 (4 Preferred) Revise Regulation 2(5) to read: "Notwithstanding the provisions of paragraph (4) of this Regulation, the spaces referred to in subparagraphs (a) to (f) inclusive of this paragraph shall be called excluded spaces and shall not be included in the volume of enclosed spaces, except that any space referred to in subparagraphs (a) to (e) which fulfils at least one of the following three conditions shall be treated . . . twice the width of its entrance (Figure 10 in Appendix 1). . . .

"(f) A space exclusively dedicated to the accommodation of ship's crew."

FIGURES FOR TM CONVENTION

Figure X: TM Convention Proposal 5.h.1



where d = curtain plate depth, s = stiffener, ab = adjoining beam

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ANNEX 5

DRAFT ASSEMBLY RESOLUTION

REDUCED GROSS TONNAGE FOR CREW AND TRAINEE ACCOMMODATION SPACES

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

RECALLING ALSO that the Assembly adopted resolution A.850(20), concerning Human Element vision, principles and goals for the Organization; acknowledging the need for increased focus on the Human Element to include safety standards and environmental protection for the purpose of significantly reducing maritime casualties and recognizing that proper crew space sizes are a part of that Human Element,

[NOTING that the 94th session of the International Labour Conference adopted the Maritime Labor Convention, 2006, to improve working and living conditions for seafarers, including establishment of minimum standards for the size of certain crew accommodation spaces onboard ships,

NOTING ALSO that the 96th session of the International Labour Conference adopted the Work in Fishing Convention, 2007, to improve the working conditions of fishers, including establishment of minimum standards for sleeping rooms onboard fishing vessels,]

BEING AWARE that the 2010 Conference of Parties to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (the 2010 Manila Conference) addressed the anticipated shortage of qualified officers to effectively man and operate ships, and recommended measures to encourage the provision of suitable accommodation for trainees on both existing and new ships,

BEARING IN MIND that the Assembly, through resolution A.747(18), and the Maritime Safety Committee, through resolution MSC.234(82), established methods and procedures for calculating a reduced gross tonnage parameter for recommended use in applying tonnage-based fees to segregated ballast oil tankers and open-top containerships, respectively, as a means of addressing tonnage-related cost impacts associated with certain ship design features,

RECOGNIZING that the establishment of a similar reduced gross tonnage parameter for crew and trainee accommodation spaces could help encourage the provision of such spaces on ships of all types that are measured in accordance with the International Convention on Tonnage Measurement of Ships, 1969 (1969 Tonnage Convention),

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee, [at its ninety-second] session,

1. ADOPTS the Recommendations concerning reduced gross tonnage for spaces used for the accommodation of the crew and trainees, the text of which is set out in the Annex to the present resolution;

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2. AGREES that Governments which are Contracting Governments to the 1969 Tonnage Convention should use these Recommendations when applying the provisions of this Convention;

3. INVITES Governments to advise port, harbour and pilotage authorities, and other entities that may collect tonnage-based fees, to apply the Recommendations, where appropriate, when assessing such fees.

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ANNEX

RECOMMENDATIONS ON CALCULATING REDUCED GROSS TONNAGE FOR CREW AND TRAINEE ACCOMMODATION SPACES

1 To encourage the provision of adequate and suitable spaces for crew and trainee accommodations on existing and new ships measured under the International Convention on Tonnage Measurement of Ships, 1969 (1969 Tonnage Convention), the Administrations are recommended to accept the following:

2 through X

[To be developed. Include paragraphs that address definitions of, and minimum requirements for, crew and trainee accommodation spaces, describe how volumes are calculated, and discuss treatment of multiple reduced gross tonnages, the $GT_{Rcombined}$ parameter, etc, per the paragraph which follows regarding ITC69 remarks.]

Remarks on International Tonnage Certificates (1969)

X Make one of the following entries, as applicable, under "Remarks" on the International Tonnage Certificate (1969):

.1 For ships covered by resolution A.XXX only,

"The accommodation spaces for . . . *(insert "crew" and/or "trainees", as applicable)* . . . comply with the requirements of resolution A.XXX, and the volume of such spaces is . . . *(insert volume)* . . . m^3, corresponding to a tonnage of . . . *(insert tonnage)* . . . "

The reduced gross tonnage which should be used for the calculation of tonnage-based fees is . . . (*insert* GT_{Rcrew}) . . . "

.2 For ships covered by resolutions A.XXX and A.747(18),

"The accommodation spaces for . . . *(insert "crew" and/or "trainees", as applicable)* . . . comply with the requirements of resolution A.XXX, and the volume of such spaces is . . . *(insert volume)* . . . m^3, corresponding to a tonnage of . . . *(insert tonnage)* . . . . Additionally, the segregated ballast tanks comply with the requirements of resolution A.747(18), and the volume of such spaces is . . . *(insert volume)* m^3 . . . , corresponding to a tonnage of . . . *(insert tonnage)* . . . "

The combined reduced gross tonnage which should be used for the calculation of tonnage-based fees is . . . (*insert* $GT_{Rcombined}$) . . . "

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.3 For ships covered by resolutions A.XXX and MSC.234(82),

"The accommodation spaces for . . . *(insert "crew" and/or "trainees", as applicable)* . . . comply with the requirements of resolution A.XXX, and the volume of such spaces is . . . *(insert volume)* . . . m^3, corresponding to a tonnage of . . . *(insert tonnage)* . . . . Additionally, the ship is defined as an open-top containership under resolution MSC.234(82) and the equivalent volume of such spaces is . . . *(insert equivalent volume*[1]*)* . . . m^3, corresponding to a tonnage of . . . *(insert tonnage)* . . . "

The combined reduced gross tonnage which should be used for the calculation of tonnage-based fees is . . . (*insert* $GT_{Rcombined}$) . . . "

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[1] Equivalent volume may be calculated using the formula $V_{eq} = 4.5755 * (GT - GT_{Ropen\text{-}top})^{0.9691}$