Deutscher Verein für Internationales Seerecht

Deutsche Landesgruppe des Comité Maritime International

Burchardstr. 24 • 20095 Hamburg • Tel.: 040-35097-0 • Fax: 040-35097-211 • E-Mail: info@seerecht.de • www.seerecht.de

Reply by the German Maritime Law Association

to the CMI IWG Questionnaire of 29 March 2017

"Unmanned Ships"

Dear Mr. President,

Ladies and Gentlemen,

The German MLA very much welcomes the chance to contribute to the discussions on the legal regime of unmanned shipping. This indeed seems to be one of the imminent issues on any maritime legal agenda, and one of the most challenging. The German MLA also appreciates that CMI is one of the leading players in the ongoing international discussion and strongly supports CMI's role in that field.

Please find enclosed the German MLA's comments to the Questionnaire. By way of a preliminary remark, the German MLA wishes to express some general considerations concerning the legal regime for unmanned shipping for which the Questionnaire, by its purpose being focused on details, does not leave any room.

The Questionnaire, in line with similar approaches by other bodies, undertakes to review certain key maritime conventions and seeks to determine whether or not the instrument in general or some of its provisions may or may not be applicable to various scenarios of unmanned shipping. As answers are provided by the national MLAs, there may be deviating results even though the same international regulations are reviewed. Also, it may be that within the same regulatory framework, some provisions may be applicable to unmanned shipping and others not. Therefore, one may expect that in many instances there will be a degree of uncertainty as far as the provisions applicability (or inapplicability) to unmanned shipping is concerned.

Unmanned shipping is a relatively new concept, which developed in the recent years in the wake of the technical progress made. As a result, the bulk of the legal maritime

framework applicable today never contemplated that crafts sailing on waters in fact would be unmanned. Thus, it may perhaps not be the most convenient approach to (in a sense retro-actively) test the respective provisions to provide answers in cases of unmanned shipping. In some jurisdictions, the purpose and the history of a provision are important aspects when it comes to questions of construction. This may, as a matter of fact, result in a direct exclusion of an application to unmanned ships even if based on a pure literal interpretation there may be room for another conclusion. Other jurisdictions may not be as strict. In any event, this would add to the imminent uncertainty concerning the application of existing regulations on unmanned shipping. To some extent, it would seem that the results may be somewhat arbitrary. Therefore, seeking to rely on existing regulations can be a doubtful basis when it comes to determine whether there is an adequate international legal basis for unmanned shipping today.

Unrestricted worldwide unmanned shipping requires an equally worldwide applicable international legal regime. It is obvious that an international convention for the sole purpose of regulating unmanned shipping would require many years if not decades before, if at all, it would ultimately become an internationally accepted and working instrument.

However, an alternative approach may be to focus on existing conventions which can be amended by tacit acceptance procedures. In so far, the SOLAS Convention may be the first choice as it covers all aspects of ship safety and thus has a wide scope of application. As will be recalled, in 2002 a completely new Chapter XI-2 was added to the SOLAS Annex featuring the novel ISPS provisions within a relatively short period of time following the tragic 9/11 events. It may be worthwhile to consider implementing new regulations on unmanned shipping on an international level in a corresponding way. Finally, it has to be recognised that it is difficult to predict the speed of further technological developments and improvements (making unmanned vessels more and more attractive, also from an economical aspect) at this stage. It seems rather probable that the importance of unmanned vessels will variate in different parts of the world at least in the nearer future and that therefore and also due to the fast and rather unpredictable evolution of technology, the establishment of common international regulations for unmanned vessels might be a considerable challenge. Therefore, regulation of unmanned shipping will greatly benefit from exemptions and experiences with projects on the national or/and regional level where it is much easier to establish a sufficient legal framework (besides operational/technological issues which would also be less challenging).

1. National Law

1.1 Would a "cargo ship" in excess of 500 grt, without a master or crew onboard, which is either

1.1.1 controlled remotely by radio communication?

1.1.2 controlled autonomously by, inter alia, a computerised collision avoidance system, without any human supervision

constitute a "ship" under your national merchant shipping law?

The German merchant shipping legislation contains some regulations, which seek to define the term "ship". These do not amount to general definitions but are mere clarifications as to what crafts are considered to be ships or not for the purpose of that particular regulation. However, there is one widely accepted definition based on a Supreme Court judgement from 1952. In that case, the Court had to determine whether a floating crane was a ship. According to the definition derived from that decision, a ship is

> *"… a floating hollow body able and designated to carry persons or objects on or under water …".*

As this definition does not require that the craft has a crew on board, an unmanned craft could be a ship for the purpose of that definition.

1.2 Would an unmanned "ship" face difficulty under your national law in registering as such on account of its unmanned orientation?

As a matter of German law, an entry into one of the ship registers can only be made if the respective craft is considered a ship. As stated above, the term "ship" is not defined in the respective legislation. Therefore, the general definition (see 1.1 above) would be applied. This definition does not require that the ship is manned. Neither is there any indication in the ship register legislation that it must be manned to be capable of being entered into the register.

The ship register has effect on private law issues concerning the ship as an object, such as the property in the vessel and mortgages. These need to be distinguished from flag issues, i.e. whether the craft is entitled to sail the German flag. In this respect, in order to determine whether a craft is a ship, the general definition established by the Supreme Court in 1952 (see 1.1 above) would be applied. That definition does not require that the craft is manned. In fact, in relation to at least one unmanned craft, the remote controlled "Roboship" – an 8 meter craft operated by the Ministry of Defence – a "Flag Attestation" confirming that it is entitled to fly the German flag has been issued (see enclosed).

1.3 Under your national law, is there a mechanism through which, e.g. a Government Secretary, may declare a "structure" to be a "ship" when otherwise it would not constitute such under the ordinary rules?

No, there is no such facility available in German law, which would allow the authorities to formally make a declaration that an object is considered to be a ship or, *vice versa*, to deprive a ship of such quality.

1.4. Under your national merchant shipping law, could either of the following constitute the unmanned ship´s master:

1.4.1. The chief on-shore remote controller

1.4.2. The chief pre-programmer of an autonomous ship

1.4.3. Another „designated" person who is responsible on paper, but is not immediately involved with the operation of the ship.

1.5. Could other remote-controllers constitute the „crew" for the purposes of your national merchant shipping law?

The German Safe Manning Ordinance ("Schiffsbesetzungsverordnung") contains rules on the ship's manning. The Ordinance applies to all merchant ships flying the German flag. The following comments are made based on the assumption that the Ordinance is applicable in case of a shore-based "crew" (as to the reservation, the see 3.1).

The Ordinance requires a seagoing ship to be “manned” (“besetzt”) in a proper way. That wording indicates that the crew needs to be physically present on board of the ship. Further, several of the provisions require that the crew must be „on“ the ship. For example:

> § 3 : *“Within the scope of his powers, the master has to ensure **on board the ship** that…” [emphasis added]*
>
> §§ 5, 6 and 7: *“**On ships** with a gross tonnage of more than 500…” [emphasis added]*

Further, in 2016 a new Section 9a, specifically concerned with watchkeeping was included. Subsequent to the general statement that every crew member engaged in watchkeeping must fulfil the requirements set out in the STCW Convention, the Section confirms that the ship officers serving on the bridge must be ”physically present” either on the bridge or a location directly connected (such as a chart room etc.). The provision contains a similar requirement with regard to the technical officers, who must be ready and immediately available to proceed to the engine room and, whenever necessary, be physically present in the engine room.

Finally, according to Section 8, the ship must have a so called Minimum Safe Manning Document (“Schiffsbesatzungszeugnis“). A sample of such document is attached. The function of this document is further set out below under 3.1. For the present purpose, it suffices to state that the wording of the document indicates that the crew members must be physically present on board the vessel:

> ”*The ship named in this document is considered to be safely manned if, when it proceeds to sea, **carries no less than the number and grades/capacities of personnel specified** in the table below*“.

In conclusion, German law seems to require that merchant vessels be physically manned. Not only do the crew members need to be on board the ship, but they must be present at specified places (bridge, engine room etc.) during watches. As a result, the answers to questions 1.4 and 1.5 must be “no”, none of the persons with the functions described in 1.4 and 1.5 qualify as a master of a ship for the purposes of the current German merchant shipping legislation.

2. UNCLOS

2.1 Do you foresee any problems in treating unmanned ships as "vessels" or "ships" under the Law of the Sea in your jurisdiction (i.e. that such ships would be subject to the same rights and duties such as freedom of navigation, rights of passage, rights of coastal and port states to intervene and duties of flag states) in the same way as corresponding manned ships are treated?

No, unmanned ships in principle would enjoy the same rights and have the same duties as manned ships. Nevertheless, regard must be had to the fact that the ship is unmanned, which may give rise to intensified supervision and control by the coastal state and other security related issues.

2.2 Paragraphs (3) and (4) of UNCLOS Article 94 include a number of obligations on flag states with respect to the manning of such ships. Do you think that it is possible to resolve potential inconsistencies between these provisions and the operation of unmanned ships without a crew on board through measures at IMO (under paragraph (5) of the same Article) or do you think other measures are necessary to ensure consistency with UNCLOS. If so, what measures?

Yes, it should be possible to resolve potential conflicts with Art. 94 (3) and (4) of UNCLOS by way of IMO measures under Art. 94 (5). These may include but are not limited the following issues:

- developing general standards for software and hardware used to operate the unmanned vessel,
- developing standards for the qualifications and training of the shore-based personnel involved,
- developing standards for documentation and data processing,
- adapting ISM requirements to unmanned shipping,
- ensuring that the flag state and the respective coastal states are able to intervene at any time.

However, the question of (possible) interpretation of UNCLOS Art. 94 and the duties for flag States imposed by it in this respect is an interesting issue and States Parties to the Convention might have differing views on this. Further, it has

to be emphasized that any interpretation of UNCLOS and its relevant provisions has to take into account that the technological developments leading to unmanned vessels were not foreseeable during the drafting of the Law of the Sea Convention some forty years ago and therefore the respective provisions of UNCLOS should be interpreted carefully, in a functional manner.

3. SOLAS

3.1 Does your national law implementing the safe manning requirement in Regulation 14 of Chapter V of SOLAS require at least a small number of on board personnel or does the relevant authority have the discretion to allow unmanned operation if satisfied as to its safety?

As stated above under 1.4 and 1.5 the manning of seagoing vessels under German flag is regulated by the German Safe Manning Ordinance. According to the Ordinance a shipowner must man the ship in such a way that the following is ensured:

- ship safety,
- safe watchkeeping,
- compliance with requirements regarding occupational safety and protection of the environment,
- law and order as well as security on board, and
- effective communication among the crew.

The Ordinance does not prescribe any specified number of minimum on board personnel (no standard crews depending on ship size or range of trade). Instead, the shipowner submits a proposal for safe manning of his ship to the competent authorities for their verification. In Germany, the ship safety division of the BG Verkehr is responsible for this verification and the subsequent issuance of the Safe Manning Certificate (attached).

When issuing the Safe Manning Certificate, the BG Verkehr will make its decision based on the requirements set out in the Sections 2 and 4 through 7 of the Safe Manning Ordinance. Section 2 expressly allows BG Verkehr to take automated processes into consideration:

> *"Moreover, for the manning of the ship, the operational requirements, especially the type of ship, **the level of automation**, the equipment, the intended use, the sequence of ports, the route and the type of freight carried shall be taken into account." [emphasis added]*

As a result, as the level of automation may be considered, it appears to be arguable that BG Verkehr could find that no crew needs to be on board. However, this again may be doubtful as the term "level of automation" is related to the "manning of the ship", which in turn would be understood to refer only to a crew on board the ship, rather than shore-based individuals. This is supported, as set out above under 1.4 and 1.5, by Section 9a of the Safe Manning Ordinance which requires that the ship officers on the bridge and the technical officer are physically present on the bridge and in the engine room, respectively.

Further, the wording of the Safe Manning Certificate (enclosed) supports the view that individuals located ashore cannot man the ship for the purposes of the Safe Manning Ordinance. There is a data entry box for each individual function on board of the vessel (master, chief mate, navigational watchkeeping officer, general purpose rating, etc.) but no corresponding box for shore-based individuals. The Safe Manning Certificate also explicitly states:

> *"The ship named in this document is considered to be safely manned if, when it proceeds to sea, **it carries**…" [emphasis added]*

Nevertheless, a different interpretation may be possible if the view is adopted that the responsible authorities are entitled to exercise their discretion in such a way that the figure "zero" be entered in all the boxes of the Safe Manning Certificate. Thereby, the authorities would effectively decide that no crew was needed on board a particular ship in order for it to be safely manned. The authorities in such case with support of Section 8 could attach to the Safe Manning Certificate additional ancillary requirements setting out the minimum number and functions of the shore-based personnel and the relevant remote control systems. However, it appears doubtful whether the purpose of the Safe Manning Ordinance in fact would allow such an interpretation. In any case, it seems much more likely that the German Safe Manning Ordinance would be amended in order to specifically allow a "zero" crew if specific requirements are met.

3.2 Regulation 15 of SOLAS Chapter V concerns principles relating to bridge design. It requires decisions on bridge design to be taken with the aim of, inter alia, "facilitating the tasks to be performed by the bridge team and the pilot in making full appraisal of the situation …". In the context of a remote controlled unmanned ship, could this requirement be satisfied by an equivalent shore-based facility with a visual and aural stream of the ship's vicinity?

Yes, it should be possible, in principle, to satisfy the requirements of Regulation V/15 SOLAS, relating to bridge design by a shore-based facility, provided that the visual and aural perception by the relevant sensors in relation to events in the unmanned vessel's vicinity were equal to or better than the required human perception and the data transmitted without delay and loss of data to the shore-based facility.

3.3 As interpreted under national law, could an unmanned ship, failing to proceed with all speed to the assistance of persons in distress at sea as required by Regulation 33 of SOLAS Chapter V, successfully invoke the lack of an on-board crew as the reason for omitting to do so (provided that the ship undertook other measures such as relaying distress signals etc.)?

No, the duty to assist persons in distress should apply also to unmanned ships. However, in order to determine what kind of assistance must be rendered, the fact that the vessel is unmanned and thus is not able to perform certain tasks needs to be taken into consideration. For example, an unmanned ship still may be able to stay on the windward side of the vessel or person in distress to give some protection from the elements, or it may be the first ship to arrive on the scene so that the unmanned vessel's shore-based facility is the party first able to assess the situation, or the unmanned vessel may assist to relay VHF communication with the persons in distress.

4. <u>COLREGS</u>

4.1 Would the operation of an unmanned „ship" without any on board personnel, per se, be contrary to the duty / principle of „good seamanship" under the COLREGS, as interpreted nationally, regardless of the safety credentials of the remote control system?

4.2 Would the autonomous operation of a „ship“, with or without any on-board personnel or any human supervision, be contrary to the duty / principle of „good seamanship“, under the COLREGS, as interpreted nationally, regardless of the safety credentials of the autonomous system?

COLREGS in general does not refer to individuals when certain actions are described or required. Instead, reference is made to ”the vessel“. Thus, upon a plain reading of the text, neither the remotely controlled nor the autonomous operation of a “ship” in itself seems to be contrary to good seamanship. Instead, the decisive question will be whether the controlling person or, as the case may be, the autonomous program, respectively, is capable of operating and navigating the ship in a way that corresponds with the established principles of what is good seamanship.

4.3 As interpreted under national law, could the COLREG Rule 5 requirement to maintain a "proper lookout" be satisfied by camera and aural censoring equipment fixed to the ship transmitting the ship's vicinity to those "navigating" the ship from the shore?

Despite the general reference to duties of “the vessel” in COLREGS, the requirement to maintain proper visual and aural lookout in Rule 5 in German case law has been held to refer to the respective perception of the individual(s) designated to maintain lookout. If additional means are available, these must also be employed, which however does not relieve the ship from its duty to maintain a proper lookout at all times. The use of radar equipment, therefore, has not been considered to release the vessel from the duty to maintain a proper visual and aural lookout. As a result, a fully autonomous vessel does not seem to satisfy the criteria of Rule 5.

In considering whether Rule 5 requires the lookout to be physically present on board, a distinction needs to be made between lookout as a function (watchkeeper) and as an activity (carried out by the watchkeeper). The expression “lookout” is often used interchangeably in the case law and literature, which is enhanced by the fact that COLREGS Rule 5 is usually discussed together with STCW Rule 4-1 of Section A-VIII/2, where “lookout” clearly refers to a physical person. Rule 5, on the other hand, is unclear in this regard. Indeed, in practice, the distinction will usually be without significance, as a failure to designate a

watchkeeper will result in the failure also to fulfil the lookout activity. However, in establishing whether a shore-based lookout is in line with Rule 5, the distinction is relevant as, from a plain reading, a vessel seems more likely to be in breach of the Rule if one or more watchkeepers need to be “maintained”, whereas arguably the lookout activity by sight and hearing can be “maintained” from a distance.

Assuming in the following that the lookout – whatever its definition – can be “maintained” remotely, the next question is whether it is possible to maintain a visual and aural “proper lookout” by way of transmission of information from cameras and aural equipment to a shore-based facility. Whereas, as stated above, the use of technical means does not release the vessel from its duty to keep a lookout, the fact that the information is perceived *by way of* technical means does not in itself constitute a breach of Rule 5, c.f. for example that binoculars are used. Clearly, the visual and aural information transferred would need to enable the lookout to see and hear at least as good as if he would had he been physically present on board, but also other factors presumably would need to be taken into consideration such as the likelihood and consequences of a possible malfunctioning of the technical equipment.

4.4 Would a ship navigating without an on-board crew constitute a "vessel not under command" for the purposes of COLREG Rule 3(f), read together with COLREG Rule 18, as interpreted under your national law?

No. The term "vessel not under command" as defined in Rule 3(f) refers to a vessel which through some exceptional circumstance is unable to manoeuvre as required by these Rules and is therefore unable to keep out of the way of another vessel. Thus, the provisions do not seem to address a situation where the vessel operates without a crew. This is confirmed by the French original version as well as the German translation of the Rule, which refer to a “disabled vessel”. On the other hand, an unmanned vessel may well become a “vessel not under command” in the course of a voyage, due to technical failures, such as for example in the case of a signal error or black out. However, normally an unmanned vessel will not have the right of way as a vessel not under command as prescribed by Rule 18.

5. STCW

5.1 The STCW Convention purports to apply to "seafarers serving on board seagoing ships" Would it therefore find no application to a remotely controlled unmanned ship?

The STCW Convention would probably not apply to a remotely controlled unmanned ship due to its current wording. According to the wording in its Article III, the STCW Convention only applies to seafarers *serving on board* seagoing ships. This excludes seafarers only performing land-based activities and/or non-seafarers.

5.2 As interpreted under national law, can the STCW requirement that the watchkeeping officers are physically present on the bridge and engine control room according to Part 4 of Section A-VIII/2 be satisfied where the ship is remotely controlled?

No. Assuming that the STCW Convention applies at all (which does not seem to be the case, see above), the STCW requirements that the watchkeeping officers be physically present on the bridge and in the engine control room according to Part 4 of Section A-VIII/2 cannot be satisfied where the ship is remotely controlled. The provisions can only be construed under German law to require physical presence on the bridge and in the engine room. Especially Part 4, Sections 14 (Lookout), 18.1 (Watch Arrangements) and 24.1 and 24.2 (Performing the Navigational Watch) unequivocally require physical presence. Considering the duties of the navigational or engineering watch, most of the duties stipulated in Part 4 of Section A-VIII/2 seem to be *technically* modifiable to being performed by one or more remote controller(s) and/or computer systems in future. This would, however, require new legal rules on watchkeeping.

(cntd.) Is the situation different with respect to ships with a significantly reduced manning (bearing in mind that the scope of the convention only applies to seafarers on board seagoing ships)?

Possibly. With significantly reduced manning on board a sea-going vessels in addition to a remote controller, watchkeeping under the current German STCW regime is conceivable, provided that maximum working hours and minimum rest hours as per Standard A2.3 (5) of the Maritime Labour Convention 2006 and/or the

respective national law (Sections 42 et seq. of the German Maritime Labour Act) are complied with. The watchkeeping provisions of the STCW Convention require that watches "*are maintained at all times*", Part 4, Section 9, and that, in particular, the bridge shall be unattended "*at no time*", Part 4, Section 18.1. In conclusion, today constant "physical" watchkeeping around the clock is required.

Some provisions in Part 4 of Section A-VIII/2 of the STCW Convention refer to personnel not engaged in watchkeeping, e.g. the helmsperson (Part 4, Section 16) or the Chief Engineer (Part 4, Section 77). In other words, the presence of such personnel other than watchkeeping personnel is assumed by the STCW Convention. Subject to the maximum working hours and minimum rest hours as per Standard A2.3 (5) of the Maritime Labour Convention 2006 and/or the German Maritime Labour Act, this may require additional crew in addition to the watchkeeping crew under the current legal regime. In any event, it would seem that these additional duties could also be *technically* performed by one or more remote controller(s) and/or computer systems. Again, however, this would require new legal rules on watchkeeping.

6. Liability

6.1 Suppose a "ship" was navigating autonomously i.e. through an entirely computerised navigation / collision avoidance system and the system malfunctions and this malfunction is the sole cause of collision damage – broadly, how might liability be apportioned between shipowner and the manufacturers of the autonomous system under your national law?

The below answers are given based on the following assumptions:

- The use of an autonomously navigating ship is allowed under the relevant international as well as national law;
- The system's malfunction is the sole cause of the collision damage, meaning that there was no fault or neglect on part of the shipowner or any of the persons for which he is liable (i.e. the shipowner exercised due diligence to prevent malfunctions by periodically maintaining and updating the navigation and collision avoidance system);
- The collision takes place between two ships; and

- The term “collision damage” refers to damage to the other ship and to any property or persons on board that other ship, i.e. the question deals with the liability of the shipowner and manufacturer vis-a-vis third parties only (in this regard it may be noted that due to how the question 6.1 is framed, under German law, there would be no need to apportion liability between the shipowner – who will not be liable in the absence of fault as set out below – and the manufacturer).

Liability of the Shipowner

Under the German Commercial Code (“Handelsgesetzbuch”), the owner of the ship that caused the collision (through its fault) is liable for collision damage to the other ship and to any objects or persons on board, Section 570. As the liability is fault based, the owner would not be liable if the sole cause was the system’s malfunction. Also the liability in tort under the German Civil Code (“Bürgerliches Gesetzbuch”) is fault based, Sections 823 *et seq*. For this reason, the shipowner would not be liable at all in the circumstances assumed here.

Liability of the Manufacturer of the Autonomous System

The manufacturer of the autonomous system under certain circumstances could be liable under the German Product Liability Act (“Produkthaftungsgesetz”), which implements the European Council Directive 85/374/EEC of 25 July 1985 on the Approximation of the Laws, Regulations and Administrative Provisions of the Member States Concerning Liability for Defective Products.

According to Section 1 of the Product Liability Act, the manufacturer is liable if a defect in the product causes death or personal injury. Product liability also arises in case of damage to any object other than the defective product itself, if the object is normally used or consumed for private purposes and was in fact also mainly used for that purpose. In principle, therefore, as far as property damage is concerned, only consumers are protected by the product liability legislation. Although the definition of “product” in Section 2 is limited to movable objects and electricity, it is recognised that software is a product within the meaning of the provision. The Act does not contain any particular rules relating to ships so that it would as such apply also to damages caused by or to a ship. In practise, however, the requirement that the damage has been caused to an object used mainly for private purposes will limit its relevance for collisions between vessels as far as property

damage is concerned (one can imagine e.g. yachts in private use as a type of property to which the Act would apply). For personal injuries, however, the Act would apply. As liability under the Act is strict, the manufacturer will be liable for the defect irrespective of fault. The manufacturer's liability is only excluded in very limited circumstances (see Section 1 Paragraph 2). Liability for death and personal injury is capped (see Section 10). Property damage is subject to a franchise of EUR 500.

For damage not falling under the scope of the Product Liability Act, the manufacturer could be liable in tort under Sections 823 *et seq*. of the Civil Code. That liability is, in principle, fault based. The manufacturer is responsible for his own as well as for his representatives' acts and omissions (Section 823). The same applies if the manufacturer failed to select, instruct and equip his servants properly (Section 831). Liability based on Sections 823 *et seq*. is unlimited and supplements the product liability.

6.2 Art. 3 and 4 of the 1910 Collision Convention provide for liability in cases of fault. As interpreted under your national law, does the fact that the non-liability situations listed in Art. 2 are not conversely linked to no-fault, leave room for the introduction of a no-fault (i. e. strict) liability (for e.g. unmanned ships) at a national level?

Art. 2 of the 1910 Collision Convention (hereinafter referred to as the "Convention") reads as follows:

> *"If the collision is accidental, if it is caused by force majeure, or if the cause of the collision is left in doubt, the damages are borne by those who have suffered them. This provision is applicable notwithstanding the fact that the vessels, or any one of them, may be at anchor (or otherwise made fast) at the time of the casualty."*

Historical Background

Germany incorporated the provisions of the Convention into the German Commercial Code ("Handelsgesetzbuch") in 1913. Art. 3 and 4 of the Convention explicitly state that the liability of the owner of the vessel only arises in case of fault. This corresponds with the underlying principle in German tort law, according to which liability is only imposed on the injuring party in case of unlawful,

intentional or negligent violations of third party rights (see also 6.1 above). Therefore, the German literature, at the time of incorporation, was of the opinion that the provision by which Art. 3 and 4 were incorporated into the German Commercial Code was in fact redundant (nevertheless, it was incorporated).

In 1982 the German Congress on Traffic Law contemplated and ultimately recommended the introduction of a (limited) no-fault liability for the transport of dangerous goods on sea-going vessels but simultaneously recognised that such regulation would need to be subject to international law making. In international maritime law, such a regime, the 2010 HNS Convention, appears to be on the verge of becoming reality. At the same time, however, the Council also concluded that there was no need for a general introduction of a no-fault liability in shipping.

The Current Legal Situation

The relevant parts of the German Commercial Code underwent a comprehensive reform in 2013. Upon recommendation of the Panel of Experts the provisions of the 1910 Convention were enacted into the German Commercial Code without touching the previous statutory system of the old German Commercial Code, in which the provisions were enacted into national law by way of transformation (as opposed to literal incorporation).

Whereas the fault based liability in Art. 3 and 4 of the Convention has found its way into Sections 570 and 571 of the German Commercial Code, the Code contains no corresponding provision to Art. 2 of the Convention. After having emphasised that the burden of proof for fault in the case of a collision rests with the party claiming fault (i.e. fault is not presumed), the legislator concluded that Art. 2 does not add anything to the legal position established by Art. 3 and 4 as in all scenarios mentioned in Art. 2 fault cannot be proven.

Based on this interpretation of the 1910 Convention in German law, the fault based liability regime in Art. 3 and 4 exhaustively governs all collision cases so that there is no room for the introduction of a strict liability in connection with collisions involving unmanned vessels.