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Choi, Junghwan; Lee, Sangil; Kim, Soyeon

# **Article**

Improving the current regulatory issues concerning training ships for maritime institutions: The South Korean case

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# Improving the current regulatory issues concerning training ships for maritime institutions: The South Korean case\*



Junghwan Choi<sup>a</sup>, Sangil Lee<sup>b,\*</sup>, Soyeon Kim<sup>c</sup>

- a Law School, Dalian Maritime University, Dalian, China
- <sup>b</sup> Division of Marine system engineering, Korea Maritime & Ocean University, Busan, South Korea
- <sup>c</sup> Law of the Sea Research Centre, Korea Maritime Institute, Busan, South Korea

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#### ABSTRACT

Unlike commercial vessels, training ships have the unique purpose of providing students attempting to become ships' officers with the onboard training education referred to in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW code). More than 100 people, including students, are usually aboard these internationally seagoing vessels. Despite training ships requiring strict safety management to prevent maritime accidents and protect lives, they are excluded from the application of key international rules and regulations concerning the safety of these ships due to an ambiguous legal status. Furthermore, there is no comprehensive safety management system at the central governmental level over training ships as they are operated by individual maritime institutions despite them being national property. Against these backgrounds, this research analyses current regulatory issues of training ships at the IMO level and the domestic level by referring to South Korean case. This research conducts a doctrinal legal study to understand the current legal status of training ships the application limits of the IMO regulatory instruments. The research concludes by referring to the necessity of the development of training ships Code to enhance he safety of training ships in the future.

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# 1. Introduction

Training Ships are a distinct type of vessel used to fulfil the onboard training requirements necessary for candidates to acquire officer and engineer certification under Section A II/1 and A III/1 of the STCW Code. More than 100 people including instructors, officers, engineers, professors, ratings, and students are normally embarked on training ships. Training ships have an additional similarity to passenger ships in that they often conduct international voyages in which they berth at foreign ports (Yoon et al., 2010). Based on these considerations, the importance of the safety of training ships cannot be overemphasised.

There have been tragic passenger ship accidents in South Korea. On 15th April 2014, M/V Sewol, carrying 476 people on board, sank off on the southwest coast of South Korea (Lee, 2017; Kim, 2015). In an accident that remains a source of profound sadness and torment for the Korean people, a total of 304 people died, 250 of whom were 18-year-old secondary school students (Korean Bar Association, 2015). One of the principal reasons for this accident was the failure to apply the International Ship Management Code (ISM Code) under domestic law (Bang, 2016). In consideration of some companies' business capacity and lack of manpower, the South Korean Shipping Act allowed an exceptional provision for passenger ships such as the M/V Sewol that only engage in domestic voyages (Suh and Kim, 2017). After the M/V Sewol accident, South Korea revised the Shipping Act to strengthen the marine safety management system for domestic passenger ships (Kim, 2015). Another example was the M/ V Hableany accident on Hungary's Danube River on 29th May 2019. As of May 31, 2019, the BBC listed on its website that, in an incident that claimed the lives of 26 Koreans, the M/V Hableany collided with a cruise ship, the Viking Sinyn, and sank into the Danube.

<sup>\*</sup> This article is based on a study first reported in The Korea Institute of Maritime Law, titled 'Improvement of Legal Regime for Safe Operation of the National University Training Ships in Korea (2016)'.

<sup>\*</sup> Correspondence to: Division of Marine system engineering, Korea Maritime & ocean university, 727 Taejong-ro Yeondo-gu, Busan 49112, South Korea.

E-mail address: silee@kmou.ac.kr (S. Lee).

Section A II/1 and A III/1 of the STCW Code.

Training ships must have a strict safety management system to avoid the loss of lives. As with domestic passenger ships, many people can be killed in one accident. Despite the awareness of the danger of an accident, training ships are excluded from the application of ISM and ISPS code of the International Convention for The Safety of Life at Sea (SOLAS). As non-commercial ships under international law, training ships are not considered subject to port state control. Regulatory limits on training ships may lead to maritime accidents. For instance, South Korea has 10 training ships operated by two national maritime universities, four different fisheries colleges of national universities and one Institute of Maritime and Fisheries Technology (KMI, 2019) Such training ships, as government ships, are attached to the Ministry of Education and the Ministry of Ocean and Fisheries. On an annual basis, more than 100 students conduct onboard ship training related to learning the STCW code. However, training ships are still excluded from domestic laws relating to safety and security management systems. The responsibility and authority for the control of training ships falls on each maritime institution (Kim et al., 2012). Moreover, there is still no comprehensive governance of the safety management of training ships at the central government level. As a result, the lack of supervision and regulation of the safety management of training ships risks another marine accident. In addition, while training ships are seagoing vessels, they do not have the applicable international compensation regimes for the carriage of students in case of an accident.2

Even though training ships are operated by governments and are considered non-commercial ships, this research argues for the necessity of applying the ISM Code, the ISPS Code and port state control to establish systematic safety management in order to protect students from maritime accidents. In pursuit of this goal, the following aims are discussed:

- to understand the legal status of training ships in international law
- to examine how training ships are regulated under South Korean domestic laws, using ship safety as a typical example
- to identify current regulatory issues for training ships that lack a safety and security management system, have limitations on port state control and lack international compensation regarding the carriage of students
- to suggest possible international responses capable of enhancing safety and security management systems over training ships through amending existing conventions along with proposing the development of a special code

#### 2. The legal status of training ships

#### 2.1. What is a training ship?

# 2.1.1. The definition of 'training ships'

Training ships are defined as ships that offer a student an opportunity to fulfil the mandatory minimum requirements for the certification of officers and engineers on ships of 500 gross tonnage or more under section A II/1 and A III/1 of the STCW Code.<sup>3</sup> The purpose of a training ship is therefore to provide students with onboard training, and this vessel is normally owned by the government of a flag state and each institution managing it (Emi, 2009).

States having the largest interest in cultivating a strong seafaring profession normally operate training ships.(Yutaka 2017).

2.1.2. Characteristics of training ship compared with commercial ships
Unlike other commercial ships or government ships, training
ships have different navigational and functional aspects. First and
foremost, training ships have a large number of people. In addition
to the officers and crew, more than 100 students are often embarked
on such ships. They are trained to become ships' officers in accordance with STCW requirements per annum. Maritime institutions
that have exclusive training ships make more than 100 students
receive onboard training through international voyages (Axelsson
et al., 2017).

The second feature is concerned with the navigational scope of training ships. As the most significant characteristic, training ships are usually engaged on international voyages with more than 100 students onboard, even though they are non-commercial government ships. Training ships are generally classified as non-commercial ships owned by the government of a flag state (Lim and Lee, 2020). Given government ships engaged on international voyages are quite rare, training ships have operational characteristics that need special attention to ensure navigational safety because training ships have similar features with types of international passenger ships (Lee and Choi, 2016). Since training ships are international seagoing vessels with many students and instructors onboard, it is essential that training ships have a high level of safety supervision and apply strict regulations in respect of safe navigation and the prevention of vessel-source marine pollution at the global and domestic level. In adopting a wide range of treaties, resolutions and codes over commercial ships, the IMO is focussed on both the enhancement of maritime safety and the protection of the marine environment (Schröder-Hinrichs et al., 2013). Nevertheless, a question remains as to whether training ships are included in the scope of such IMO instruments, and this ambiguity may result in a degradation of navigational safety.

#### 2.1.3. Current state of training ships in South Korea

According to the Review of Maritime Transport 2020, South Korea remains in seventh place globally in terms of its ships' cargocarrying capacity, with a total of 1615 ships that account for 3.93% of the world's tonnage (UNCTAD, 2020). As of November 29, 2012, the Ministry of Foreign Affairs and the Ministry of Oceans and Fisheries, announced that South Korea has been elected as a category A member of the IMO council for over 10 years in a row since 2001. South Korean ships regularly carry up to 99.7% of international goods (Ha et al., 2016). As both a seafaring and major ship-owning country, the shipping industry has been long played a core role in South Korea (Kim, 2020). South Korea therefore has a considerable impact on the global shipping industry (Kim, 2020). As a significant seafaring country, seven different maritime institutions exist to train ships' officers in South Korea (see Table 1). South Korea operates 10 training ships capable of fulfilling the mandatory requirements of the STCW Code for onboard training and cultivating competent ships' officers. According to annual Korea seafarers' statistics conducted by Ministry of Ocean and Fisheries, their training ships are owned by South Korean government agencies such as the Ministry of Education and the Ministry of Ocean and Fisheries and are operated by individual maritime institutions. Up to 1403 ships' officers are cultivated by these institutions per annum.

#### 2.2. International law

# 2.2.1. United Nations convention on the law of the sea

As a legal framework for the oceans, the United Nations Convention on the Law of the Sea (UNCLOS) presents the general rights and duties of foreign vessels. Although UNCLOS does not use

<sup>&</sup>lt;sup>2</sup> Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (PAL Convention) provides that "passenger" means any person carried in a ship, (a) under a contract of carriage, or (b) who, with the consent of the carrier, is accompanying a vehicle or live animals which are covered by a contract for the carriage of goods not governed by this Convention."

<sup>3</sup> Section A II/1 and A III/1 of the STCW Code.

Table 1

Operator	Owner	Vessel Name	<b>Gross Tonnage</b>	Year Built	Maximum Embarked Persons	Voyage Areas
Gyeongsang National University	Ministry of Education	T/S Saebada	666	2001	108	Coastal Sea Vessel
Pukyong National University	Ministry of Education	T/S Gaya	1737	1993	152	Coastal Sea and Seagoing Vessel
Kunsan National University	Ministry of Education	T/S Saehaerim	2999	2019	110	Coastal Sea and Seagoing Vessel
Jeju National University	Ministry of Education	T/S Ara	2999	2019	110	Coastal Sea and Seagoing Vessel
Korean Institute of Maritime and Fisheries Technology	Ministry of Ocean and Fisheries	T/S Hanbando	5255	2016	201	Coastal Sea and Seagoing Vessel
		T/S Hanwoori	1848	1989	101	Coastal Sea and Seagoing Vessel
Korea Maritime and Ocean University	Ministry of Education	T/S Hanbada	9899	2005	204	Coastal Sea and Seagoing Vessel
		T/S Hannara	9196	2019	206	Coastal Sea and Seagoing Vessel
Mokpo National Maritime University	Ministry of Education	T/S Segaero	9196	2019	239	Coastal Sea and Seagoing Vessel
		T/S Senuri	4701	2003	209	Coastal Sea and Seagoing Vessel

Source: (Lim and Lee, 2020), (Lee and Choi, 2016).

the term 'training ship', a training ship can be inferred from the provisions relevant to the meaning of 'other government ships operated for non-commercial purposes' referred to in UNCLOS. First, Article 32 of UNCLOS regulates the sovereign immunities of warships and other government ships operated for non-commercial purposes in territorial seas or the contiguous zone of another state (Kovats, 2020). Regarding the term 'other government ships operated for non-commercial purposes', while the drafting committee proposed using the term 'a warship or other government ship operated for non-commercial purposes' at the Third United Nations Conference on the Law of the Sea, this language was not accepted (UN Doc, 1980). In fact, because UNCLOS does not provide a specific definition of 'other government ships operated for non-commercial purposes,' UNCLOS still allows for varying definitions of this term.

Second, Article 96 of UNCLOS grants complete sovereign immunity on the high sea from the jurisdiction of any state other than the flag state to ships owned or operated by a state and used only on non-commercial governmental service.<sup>5</sup> Jurisdiction over such noncommercial government ships is only held by a flag state (Kovats, 2020). Regarding the protection of the marine environment, training ships have an 'exemption from the application of conventions' approach', not a 'complete exemption approach' (Oxman, 1983). This principle was based on Article 33 of the 1956 International Law Commission. It provided that 'for all purposes connected with the exercise of powers on the high seas by States other than the flag State, ships owned or operated by a State and used only on government service, whether commercial or non-commercial, shall be assimilated to and shall have the same immunity as warships' (UN Doc, 1991). However, Article 9 of the 1958 Convention on the High Seas took a restrictive stand on the state immunity right over government ships by stating only '...used only on government noncommercial services.'6 This provision was accepted by Article 96 of UNCLOS. Indeed, such a principle is well defined in Article 236 of UNCLOS. It explicitly stipulates that Part XII of UNCLOS does not apply to any warship, naval auxiliary, other vessels, or aircraft owned or operated by a state and used, for the time being, only on government non-commercial service (Oxman, 1983). However, it must be noted that each flag state must ensure, by the adoption of appropriate measures not impairing the operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this convention. Moreover, a flag state has a responsibility for a ship flying its flag to ensure the safety at sea in administrative, technical and social matters (Kovats, 2020).<sup>7</sup>

# 2.2.2. United Nations convention on jurisdictional immunities of states and their property

Article 16 of the convention prescribes that warships, or naval auxiliaries, or other vessels owned or operated by a State and used, for the time being, only on government non-commercial services enjoys jurisdictional immunities.<sup>8</sup> In particular, the International Law Commission on the work of its forty-third session indicated that police patrol boats, customs inspection boats, hospital ships, oceanographic survey ships, training vessels and dredgers owned or operated by a State and used or intended for use in government non-commercial service, share the legal status of other government ships, having immunity (UN Doc, 1991a). Government ships

<sup>&</sup>lt;sup>4</sup> Art 94 of UNCLOS (Duties of the flag State) "1. Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag."

<sup>&</sup>lt;sup>5</sup> Art 96 of UNCLOS.

<sup>&</sup>lt;sup>6</sup> Art 9 of Convention on the High Seas 1958.

<sup>&</sup>lt;sup>7</sup> Art 94 of UNCLOS.

 $<sup>^{8}\,</sup>$  Art 16 of United Nations Convention on Jurisdictional Immunities of States and Their Property.

operated for non-commercial services is an amorphous and broad concept, and not one limited to the fixed scope of the ships. In other words, government ships operated for non-commercial service can be defined according to the characteristics and operational purposes of ships including but not limited to police patrol boats, customs inspection boats, hospital ships, oceanographic survey ships, training vessels and dredgers, owned or operated by a state (Yang, 2006).

# 2.2.3. International convention for the unification of certain rules concerning the immunity of state-owned ships

Paragraph 1, Article 3 states that 'the provisions of the two preceding Articles shall not apply to ships of war, State owned yachts, patrol vessels, hospital ships, fleet auxiliaries, supply ships and other vessels owned or operated by a State and employed exclusively at the time when the cause of action arises on Government and noncommercial service, and such ships shall not be subject to seizure, arrest or detention by any legal process, nor to any proceedings *in rem*'. While this convention has been not ratified, it has had a considerable impact on other international treaties concerning state immunity over non-commercial government ships. This convention has significant implications in that it was the first step to approaching state immunity over government ships. Based on this convention, the distinction between commercial and non-commercial ships was reaffirmed in the 1958 Convention on the High Seas. 10

#### 2.2.4. IMO conventions

As the 'competent organisation' referred in UNCLOS, the IMO has been playing a vital role in enhancing maritime safety and protecting the marine environment from shipping activities by creating the global standards(Basaran, 2016). First, the SOLAS is the most important international treaty addressing maritime safety, playing a significant role in enhancing the safety of both merchant ships and the shipping industry (Li and Wonham, 2001). The SOLAS sets minimum international standards concerning construction, ship operation, equipment, safety, and security management systems (Lorenzo, 2014). The SOLAS is applied to all ships that are entitled to fly the flag of states which are contracting parties. 11 The SOLAS consists of 14 chapters, each chapter providing different applications of its scope (Özçayir, 2018). Chapter 1 of the SOLAS provides the regulation applying to ships engaged in international voyages.<sup>12</sup> Regulation 3 of Chapter 1 stipulates that ships of war and troopships, cargo ships of less than 500 gross tonnage, ships not propelled by mechanical means, wooden ships of primitive build, pleasure yachts not engaged in trade and fishing vessels are not included.<sup>13</sup> Under SOLAS, even though training ships can be regarded as non-commercial government ships, they should follow technical standards for the safety of ships.(Özçayir, 2013) However, the mandatory requirements concerning the safety management system of the ships (ISM Code, Chapter IX of SOLAS) and the enhancement of maritime security do not apply to training ships.(Chen, 2000; Özçayir, 2018) This chapter explicitly mentions that government-operated ships used for non-commercial purposes are not included.<sup>14</sup>

Regarding the protection of the marine environment, the 1973 International Convention for the Prevention of Pollution from Ships, modified by the Protocol of 1978 (MARPOL 73/78), does not apply to any warship, naval auxiliary or other ship owned or operated by a state and used only on government non-commercial service.

(Özçayir, 2018) However, the convention requires states to ensure that such ships act in a manner consistent with MARPOL 73/78. Other IMO Conventions for the protection of the marine environment have the same application principles as MARPOL73/78. Based on this regulation, South Korea requires a ship that flies the South Korean flag to comply with the Marine Environment Management Act into which MARPOL73/78 has been incorporated.

Furthermore, the International Convention on Civil Liability for Bunker Oil Pollution Damage (the Bunker Convention) specifies that a ship is any seagoing vessel and seaborne craft of any type whatsoever. In Under Article 7 of the Bunker Convention, training ships must have insurance or other financial security, such as the guarantee of a bank or similar financial institution, to cover the liability of the registered owner for pollution damage of an amount equal to the limits of liability under the applicable national or international limitation regime. Is

#### 2.2.5. Remarks

As a result of the examination of the legal status of training ships in international law, training ships that are owned and operated by its flag state may have the right of sovereign immunities. As the constitutional law of the ocean, UNCLOS provides provisions relevant to sovereign immunities over government ships although they do not use the term 'training ships'. (Koh, 1982) Under Article 94 of UNCLOS, a flag state has duties and responsibilities over ships that fly its flag to ensure seaworthiness. 19 As global framework in shipping industry, the IMO adopted various Conventions, regulations and instruments to enhance maritime safety and prevent vessel-source pollution. SOLAS and MARPOL, as key IMO Conventions, require a flag State to follow technical requirements and discharge standards over seagoing vessels. However, training ships are exempted from the application the ISM and ISPS code. There still exists regulatory gap between existing commercial ships and training ships although they have same operational features that they are engaging on international voyage.

#### 2.3. Domestic laws of South Korea and the United States

# 2.3.1. South Korea

Through implementing the legislation of SOLAS nationally, South Korea's Ship Safety Act is intended to protect the lives and properties of the nation by prescribing the matters necessary for the maintenance of seaworthiness and the safe navigation of ships.<sup>20</sup> This act applies to each ship owned by a South Korean national or the government of South Korea.<sup>21</sup> Like SOLAS, there is no exemption provision for government ships and non-commercial ships. Since this act clearly stipulates it applies to any ship owned by a South Korean national, training ships are subject to minimum standards of construction, equipment and inspection.

The Maritime Safety Act aims at promoting maritime safety and the efficient traffic of vessels by establishing a safety management system for their safe navigation and by removing all hazards and obstructions to such navigation. While training ships are subject to the Maritime Safety Act, these are exempt from the application of Chapter V (Safety Management System), which is domestic regulation in accordance with the ISM Code. Article 46 of the Maritime Safety Act applies to the following ships: 1) a vessel that engages in

 $<sup>^{9}</sup>$  Para 1, Art 3 of International Convention for the Unification of Certain Rules concerning the Immunity of State-Owned Ships.

<sup>&</sup>lt;sup>10</sup> Art 9 of the 1958 Convention on the High Seas.

<sup>11</sup> Art 2 of SOLAS.

<sup>12</sup> Reg.1 of Chapter I, SOLAS.

<sup>13</sup> Reg 3 of Chapter I, SOLAS.

<sup>14</sup> Chapter IX of SOLAS, Chapter XI-2 of SOLAS.

<sup>&</sup>lt;sup>15</sup> Para 3, Art 3 of MARPOL73/78.

<sup>&</sup>lt;sup>16</sup> Art 3 of BWM; Art 3 of international Convention on the control of harmful antifouling systems on ships.

Art 1 of Bunker Convention.

<sup>&</sup>lt;sup>18</sup> Art 7 of Bunker Convention.

<sup>&</sup>lt;sup>19</sup> Art 94 UNCLOS.

<sup>&</sup>lt;sup>20</sup> Art 1 of the Ship Safety Act.

<sup>&</sup>lt;sup>21</sup> Art 3 of the Ship Safety Act.

marine passenger transportation services; 2) a vessel of 500 gross tonnage and upwards which engages in marine cargo transportation services; 3) a vessel of 500 gross tonnage and upwards which engages in international navigation for transporting catches of fish or a mobile offshore drilling unit for such a purpose; 4) a WIG(Wing-in-Ground) craft.<sup>22</sup> There is no specific reference regarding the applicability of safety management systems to training ships in Chapter V of the Maritime Safety Act.

As domestic legislation in accord with the ISPS Code, South Korea adopted the International Ship and Port Facility Security Act to protect vessels and port facilities from piracy and terrorism. This act applies to ships on international voyages passing through real or potential risk areas. However, cargo ships of less than 500 gross tonnage, fixed offshore structures, and ships owned by the state or local governments are excluded from its application.<sup>23</sup> Thus, training ships, as government ships, are not subject to this act.

The Marine Environment Management Act provides for matters necessary for prevention, improvement, response, and recovery with regard to marine pollution. It does so by managing sources that generate pollutants, such as ships, marine facilities, and marine spaces. It also regulates the discharge of marine pollutants such as oil and noxious liquid substances. With respect to the prevention of pollution from shipping activities, this act applies to all ships that are used or can be used for navigation on or under the water.<sup>24</sup> Since exemption provisions from this act do not exist, training ships must comply with the relevant regulations of the Marine Environment Management Act.

#### 2.3.2. The United States

There are a few countries that have training ships. Except for South Korea, the United States can be typical example to understand the legal status of training ships in the US Code. According to Shipping and maritime intelligence (Lloyd's List Intelligence, 2021), the United States have total 6 training ships in different maritime institutions until now. These are owned by the United States Maritime Administration. The United States provide status of training ships in 46 CFR Part 169.<sup>25</sup> Under 46 U.S.C. 11101, training ships at maritime institutions is not considered as a merchant ship or a ship engaged in trade or commerce.<sup>26</sup> Training ships can be defined as a public vessel. 46 CFR Part 169 stipulates requirement for inspection, certification, procedure, machinery installations in consideration of the particular characteristics and specialized operations of sailing school vessels. However, there is no specific regulation for the application of ISM Code in 46 CFR Part 169. With regard to ISM Code, the United States require an owner of vessel to establish safety management systems in 46 U.S. Code Chapter 32. It provides that a public vessel is not subject to the application of this chapter.

#### 2.3.3. Remarks

Although South Korea have total 10 training ships that are seagoing vessels and are government ships owned by Ministry of Education and Ministry of Ocean and Fisheries, there are no specific provisions dealing with the management and operation of training ships. Moreover, South Korea has incorporated the ISM Code in Chapter V of the Maritime Safety Act. Like IMO Conventions, training ships are subject to provisions for technical requirements and antipollution at domestic level. However, South Korea do not refer to the application of the ISM Code under the Maritime Safety Act.

As typical example of other countries, the United States provide special requirements of training ships through 46 CFR Part169. It seems that there is no specific application regulation of the safety management. Merely, 46 U.S. Code Chapter 32 stipulates that this chapter does not apply to a public vessel that 'is owned, or demise chartered, and operated by the United States government or a government of a foreign country; and is not engaged in commercial service.<sup>27</sup>

#### 3. Current regulatory issues concerning training ships

3.1. Ambiguity in the application the code of safety for special purpose ships

The IMO adopted the Code of Safety for Special Purpose Ships (SPS Code) to provide international standards regarding the new construction, design, and equipment of special purpose ships through IMO Resolution A.534(13) on 17 November 1987.<sup>27</sup> Its code was revised by IMO Resolution MSC.266(84) on 13 May 2008, extending the voluntary application of the revised code to include training ships.<sup>28</sup> The SPS Code defined special personnel as all persons who 'are not passengers or members of the crew or children of under one year of age and who are carried on board in connection with the special purpose of that ship or because of special work being carried out aboard that ship'. 29 The meaning of 'a special purpose ship' is a mechanically self-propelled ship which by reason of its function carries on board more than 12 special personnel.<sup>30</sup> In this light, training ships should comply with minimum international technical requirements for physical matters concerning the safety of ships under SOLAS and the SPS Code (Lee et al., 2021).

Ships that are deemed as a special purpose ship must comply with SOLAS unless the SPS code is explicitly stated. The standards of the SPS Code for construction, appliances and equipment are divided into three categories: 1) a ship carrying 240 persons, 2) a ship carrying not more than 60 persons; 3) a ship carrying more than 60 (but not more than 240) persons.<sup>31</sup> For example, the SPS Code requires special purpose ships to fulfil the minimum standards of steering gear for passenger ships or cargo ships (Lee et al., 2021). Regarding life-saving appliances and arrangements, SPS carrying more than 60 special personnel should be in accordance with requirements for passenger ships that are engaged on international voyages referred to in Chapter III of SOLAS, and SPS carrying less than 60 special personnel should comply with regulations for cargo ships.<sup>32</sup> All type of SPS ships should follow standards for cargo ships referred to in Chapter IV (Radio Communications) and Chapter V (Safety of Navigation) of SOLAS. Ships carrying more than 240 persons should particularly satisfy the requirements for fire protection referred to in Regulations 21 and 22 of Chapter II-2 of SOLAS. These regulations are called as 'Safe Return to Port Regulations'. The SPS code stipulates that every special purpose ship should carry a Special Purpose Ship Safety Certificate issued by the administration of a flag state.<sup>33</sup>

However, while training ships are subject to the SPS code, it seems to not be a legal compulsion. Training ships must comply with international standards for design, fitting, equipment and machinery under SOLAS and the SPS code also applies to those ships. The purpose of the SPS code is to facilitate safety regulations by supplementing SOLAS. A question remains, however, regarding whether the SPS Code plays a role as compulsory regulation of training ships.

<sup>&</sup>lt;sup>22</sup> Art 6 of Maritime Safety Act.

<sup>&</sup>lt;sup>23</sup> Art 3 of International Ship and Port Facility Security Act.

<sup>&</sup>lt;sup>24</sup> Para 3, Art 3 of Marine Environment Management Act.

<sup>&</sup>lt;sup>25</sup> 46 CFR Part 169- SAILING SCHOOL VESSELS

<sup>&</sup>lt;sup>26</sup> 46 U.S.C. § 11101.

 $<sup>^{27}\,</sup>$  IMO Resolution A.534(13). 1983. Code of Safety for Special Purpose Ships.

<sup>&</sup>lt;sup>28</sup> IMO Resolution MSC.266(84). 2008. Code of Safety for Special Purpose Ships 2008.

<sup>&</sup>lt;sup>29</sup> Para 1.3.11 of SPS Code.

<sup>&</sup>lt;sup>30</sup> Para 1.3.12 of SPS Code.

<sup>&</sup>lt;sup>31</sup> Para 2.2 of SPS Code.

<sup>&</sup>lt;sup>32</sup> Para 8.2 of SPS Code.

<sup>&</sup>lt;sup>33</sup> Para 7 of Preamble, SPS Code.

If a state has not implemented the SPS code in domestic law, it may be unable to inspect whether training ships are properly satisfying the technical requirements of the SPS code. The administration of a flag state has an overall responsibility for the supervision of and authority over training ships. The IMO should consider encouraging a state that has or wishes to construct training ships to enact national legislation and prepare an institutional system to inspect whether training ships follow regulations relevant to the SPS Code. This should clarify the application of the SPS Code over training ships by rendering it compulsory.

#### 3.2. Exclusions from the application of the ISM and ISPS code

The most important regulatory issue concerning the safe operation of a training ship is its exclusion from the application of the ISM code. The IMO developed and adopted the ISM code to provide international standards for safety management and the operation of ships, making it mandatory (Chen, 2000). The SOLAS introduced its code in a new chapter, IX, through the amendment on 24 May1994 (Chen, 2000).

The human element is known to be a common factor in maritime accidents. Indeed, 'the Human Element in Shipping Casualties 1991' report found that 90% of collisions and groundings and 75% of fires/ explosions were caused by the human element. (Anderson, 1998). To minimise and prevent human-based accidents, the ISM code requires shipowners or managers to establish the Safety Management System (SMS). The shipping company must have a Document of Compliance (DoC) and a Safety Management Certificate (SMC) issued by the administration of a flag state (Aleka, 2013). Furthermore, the ship must carry this SMC, which signifies that the company and its shipboard management operate in accordance with the approved SMS (Özcayir, 2018). Therefore, the ISM code plays a vital role in reducing human error and systematising the safe operation of ships in areas including competence, training, documentation, and communication by cultivating a safety culture ranging from the shipping company to the ships themselves (Baughen, 2015).

Training ships need a high level of safety management and operational expertise as they have more than 100 special personnel onboard and engage in international voyages. The fact that the ISM Code does not apply to training ships is directly related to safety operation. For instance, even though some maritime institutions in South Korea have safety management protocols for the safe operation of training ships, these procedures do not match the systematic and comprehensive safety management provided by the ISM Code. The ships that have applied the ISM Code must comply with international standards for safety management and carry an SMS and a DoC (Özçayir, 2018). The IMO provides an inspection regime to verify whether the ships are in compliance with the ISM Code through port state control, and internal and external audits. First, the shipowners or managers must establish an SMS. Based on that, the administration of a flag state must issue and authorise the relevant certifications and documentations pertaining to the ISM Code (Chen, 2000). To periodically confirm whether the ships are in accordance with the ISM Code, the ships falling under its provisions are subject to port state control (Özçayir, 2018; Chen 2020; Knapp and Franses, 2007). The ISM Code contributes to improving the safe operation and management of ships through these structures (Teperi et al., 2019). Since there is no applicable regulation at the international level, there is little call for the application of ISM Code domestically. While South Korean society learned a lesson regarding the importance of the ISM Code through the M/V Sewol accident, not applying the ISM Code over training ships may result in further tragic accidents of a similar nature (Kim, 2015). Training ships therefore represent potential maritime accidents as those ships are not subject to inspection and audit under existing international maritime conventions.

In addition to the ISM Code, training ships are also excluded from the application of the ISPS code. While ships that engage in international voyages have a comprehensive maritime security regime against piracy and terrorism, training ships do not, despite sharing similar vulnerabilities. Moreover, the STCW Code requires a student to be familiar with international maritime regulations, safety management systems, and maritime security procedures. Such familiarity must be recorded in an onboard training record book (ITF, 2017). On that basis, students can fulfil the requirements for seafarers' certification under the STCW Code. Not applying the ISPS Code may lead to the weakening of the ships' security system and onboard training education (ITF, 2017). In other words, applying the ISM and the ISPS Codes over training ships engaged in international voyages as non-commercial government ships is necessary at the international and domestic level.

### 3.3. Is a training ship subject to port state control?

As stated above, UNCLOS specifies the principle of state immunity in 'Subsection C applicable to warships and other government ships operated for non-commercial purposes' of Part II Territorial sea and contiguous zone. Article 32 of UNCLOS prescribes that 'with such exceptions as are contained in subsection A and in article 30 and 31, nothing in this Convention affects the immunities of warships and other government ships operated for non-commercial purposes.<sup>34</sup> In an exceptional case, the flag state has responsibility if one of its warships or non-commercial government ships causes any loss or damage to a coastal state resulting from non-compliance with domestic laws and resolutions concerning the passage regime in the territorial sea of a coastal state referred to in Article 19 of UNCLOS (Churchill and Alan, 1999). The principle of state immunity over warships and other government ships operated for non-commercial purposes was reaffirmed in Article 16 of the United Nations Convention on Jurisdictional Immunities of States and Their Property. 35

Article 236 of UNCLOS affirms that Part XII of UNCLOS, which addresses the provisions regarding the protection and preservation of the marine environment, does not apply to any warship, naval auxiliary, or other vessels or aircraft owned or operated by a state and used only on government non-commercial service.<sup>36</sup> Given warships and non-commercial government ships are generally considered property of a state, they can therefore enjoy state immunities. They are excluded from enforcement protocols that include boarding, inspection, arrest and judicial proceedings, criminal jurisdiction on board a foreign ship, and civil jurisdiction such as seizure, attachment or execution ( Delupis, 1984; Bardin, 2002; Garner, 1926). Non-commercial government ship has a state responsibility for a loss or serious damage to the marine environment of a coastal state in territorial sea by reason of the violation of antipollution laws and regulations. A coastal state is not easy to investigate non-commercial government ships that have violated the coastal states' laws and regulations. It is not common that noncommercial government ships are navigating territorial sea of a coastal sate in international law. However, training ships are engaging on international voyage and are navigating territorial sea of a coast of state and berthing at port as non-commercial government ships. The fundamental question as to whether a training ship is

<sup>34</sup> Art 32 of UNCLOS.

<sup>&</sup>lt;sup>35</sup> Article 16 of the United Nations Convention on Jurisdictional Immunities of States and Their Property "1. Unless otherwise agreed between the States concerned, a State which owns or operates a ship cannot invoke immunity from jurisdiction before a court of another State which is otherwise competent in a proceeding which relates to the operation of that ship if, at the time the cause of action arose, the ship was used for other than government non-commercial purposes."

Art 27, Art 28 of UNCLOS.

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Fig. 1. Report for Port State Control Inspection of T/S HANBADA: Report of Inspection on 8 June 2018 at Hakata port, Japan (Left), Report of Inspection on 12 October 2013 at Natrang port, Vietnam.

subject to port state control is raised in modern maritime law. In principle, it can be said that training ships are not subject to port state control if they have the legal status of government ships used for non-commercial services.

For example, training ships flying a South Korean flag used to accept port state control inspections when berthing at the ports of other states (See Fig. 1). Despite these ships being able to apply the principle of state immunity in international law, a question remains regarding the legal basis under which a port state has exercised administrative measures. Although the IMO provides specific guidelines concerning port state control inspections, there is no reference to port state control inspections over training ships (IMO Resolution, 2017). The purpose of port state control is 'to verify that the condition of the ship and its equipment comply with the requirements of international regulations and that the ship is manned and operated in compliance with these rules' (Warner and Stuart, 2015). This legal basis stems from Articles 218 and 219 of UNCLOS, the control provisions of IMO conventions such as SOLAS, MARPOL73/78, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 1978), the International Regulations for Preventing Collisions at Sea (COLREG), BUNKER, and the domestic laws of a port state (John, 1997). Bevan (2014) stated that port state control is the most visible example of port state jurisdiction in action. Training ships have more than 100 people onboard and are international seagoing vessels. Therefore, considering that these ships must be in accordance with IMO conventions concerning maritime safety and the protection of the marine environment, international debate regarding specific guidance on the conduct of port state control inspections over training ships is necessary.

# 3.4. The legal status of a student on training ships

In addition to the safety issues of training ships, there may be an issue concerning the ambiguous status of students undergoing training aboard them. The legal status under existing international maritime conventions of a student aboard a training ship can be described as follows.

Above all, the SOLAS prescribes that a passenger is every person other than: the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and a child under one year of age.<sup>37</sup> According to the SOLAS, a student can be defined as 'other persons employed or engaged in any capacity on board a ship'. They do not become the members of the crew. Next, the SPS Code defines 'crew' as all persons carried aboard the ship to provide the navigation and maintenance of the ship, its machinery, systems and arrangements essential for propulsion and safe navigation or to provide services for other persons on board.<sup>38</sup> As mentioned in 3.1, the SPS Code introduced the term 'special personnel', which means 'all persons who are not passengers or members of the crew ...'.39 A student is included in the category of 'special personnel'. Therefore, training ships should follow regulations relevant to the SPS Code. The STCW Code provides minimum mandatory international requirements for the certification of officers in charge of a navigational watch.<sup>40</sup> Under the STCW Code, a student is defined as a candidate who wishes to be

Reg 2 (e), Chapter 1 of SOLAS.

<sup>&</sup>lt;sup>38</sup> Para.1.3.3 of SPS Code.

<sup>&</sup>lt;sup>39</sup> Para.1.3.11 of SPS Code.

<sup>40</sup> Section A-II/1, Chapter II of STCW Code.

an officer after satisfying the minimum requirements for the approved training programmes. They therefore have a different status to existing seafarers, who have certifications. The Maritime Labour Convention, 2006 (MLC 2006), that addresses international minimum standards for the working and living conditions of seafarers, states that 'seafarer' means any person who is employed or engaged or works in any capacity aboard a ship. A student cannot be defined as a seafarer under the 2006 MLC. Similarly, the South Korean Seafarers' Act clearly defines a seafarer as a person who is employed to provide labour on a ship. A Article 2 of the enforcement decree of the Seafarers' Act specifies that a person who boards a ship for practical training to become a seafarer is not regarded as a seafarer. Thus, a student who is undergoing an onboard training programme on training ships does not have the status of a seafarer under the provisions relevant to IMO instruments and conventions.

The vague status of a student may be related to an issue of liability for compensation in the event of death or personal injury. Even though they are not under the contract of carriage, a student is similar to passenger ships. More than 100 people are aboard conducting practical training and studying theoretical knowledge delivered by instructors or professors, and they can enjoy shore leave anytime when berthing at the port of another state without being employed. It seems that the status of a student is that of a passenger rather than a seafarer or a trainee employed by a private shipping company. The IMO has instituted an international liability and compensation regime for damage suffered by passengers on a seagoing vessel under the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (Athens Convention). This convention establishes a strict liability system for death and personal injury to passengers involved in shipping incidents (Aleka, 2013). It provides compensation for the death of and personal injury to passengers of up to 250,000 SDR per passenger. 44 In addition, the Athens Convention requires carriers to maintain compulsory insurance or other financial security to cover the limits of the strictest liability concerning the death of and personal injury to passengers. 45 Passenger ships must be issued with a certificate of compulsory insurance or financial security.<sup>46</sup> While this leaves room for legal disputes relating to liability for the personal injury or death of a student aboard training ships, there is no global liability and compensation regime for any damage suffered by students on a seagoing training ship. Protection and indemnity insurance(P&I) Clubs only cover personal injury, illness, and death claims from the crews of cargo ships (Ronneberg Jr, 1990). While enormous costs for compensation may be incurred in the case of a student's injury or death in a shipping incident, there is no global regulation covering a compulsory insurance system or the possession of financial security. Therefore, a global compensation and liability regime must be established that is applicable to training ships.

#### 3.5. Domestic legal issues in South Korea

South Korea maintains a dualist system in international law. International treaties, conventions and international regulations must be translated into national law. Regarding maritime law, South Korea has incorporated IMO conventions that have been adopted and ratified in domestic law. Although South Korea adopted the Maritime Safety Act, which is the domestic legislation related to SOLAS and the ISM Code, and the International Ship and Port Facility

Security Act as the national level of the ISPS Code, training ships are excluded from the application of those acts. While training ships are subject to the SPS Code, South Korea has not yet enacted the SPS Code at the domestic level. Only the Ships' Safety Act deals with safety certificates for SPS without provisions of evidence.

There are 10 training ships in South Korea. These ships are government ships operated for non-commercial purposes and are owned by the Ministry of Education and the Ministry of Ocean and Fisheries. Nevertheless, a comprehensive safety and operations' management system at the central government level does not exist. Training ships are operated according to the procedures of each maritime institution, without a unified system. The responsibility for the safe operation of the ships and for the personal injury or death of students falls wholly upon each maritime institution. The institutions operating training ships accept all risks while those vessels are engaged on international voyages. Because training ships are national property, they must be systematically controlled by central government so as to enhance safety and prevent students from risks.

#### 4. The way forward: improving the safety of training ships

#### 4.1. Clarification of the legal status of training ships

To resolve the current legal issues over training ships, their legal status should be clarified. If training ships are government ships only operated for non-commercial services, they can enjoy the principle of states' immunity in international law. While training ships must comply with the technical requirements referred to in international conventions such SOLAS, the International Convention on Load Lines (LL), COLREG and MARPOL73/78 and IMO instruments, the ISM and ISPS Codes do not apply to training ships because they are government-owned ships. Considering their navigational characteristics, training ships should apply key IMO conventions and instruments that provide for the safety of ships and the prevention of vesselsourced marine pollution. Training ships should have the legal status of government-owned ships. Those ships that have more than 100 students aboard have a status similar to passenger ships in maritime law. The IMO needs to provide specific guidance on the clarification of the legal status of training ships. More specifically, the IMO should take into consideration laying down ground regulations ensuring that the major IMO conventions and instruments apply to training ships through the SOLAS Convention. This is to facilitate the adoption of international standards concerning maritime safety based on the purpose of the IMO referred to in Article 1 of Convention on International Maritime Organisation.<sup>47</sup>

The IMO should encourage a flag state to grant training ships the legal status of commercial ships, not non-commercial government ships. A flag state needs to provide a special status equivalent to that of passenger ships. Even if training ships are national property, the vessel are registered and managed by maritime institutions. Considering that there are no government ships with a crew of more than 100 people that engage on international voyages and berth at the ports of another state, the IMO should require a state to enact international minimum standards concerning maritime safety and security in national law applicable to training ships regardless of their status as government-owned ships. Based on this, the IMO must adopt basic guidance on port state control inspections over training ships when they are berthing at the ports of foreign countries

Moreover, an international compensation and liability regime is needed for students aboard training ships equivalent to the compensation systems under the Athens Convention. To engage in international sea travel, it should be compulsory for training ships to

<sup>&</sup>lt;sup>41</sup> Art II/1 (f) of 2006 MLC.

<sup>&</sup>lt;sup>42</sup> Art 2 of South Korean Seafarers' Act.

<sup>&</sup>lt;sup>43</sup> Art 2 of Enforcement Decree of the Seafarers' Act.

<sup>44</sup> Art 3 of Athens Convention.

<sup>&</sup>lt;sup>45</sup> Art 4bis(1) of Athens Convention.

<sup>46</sup> Art 4bis(2)of Athens Convention.

<sup>&</sup>lt;sup>47</sup> Art 1 of Convention on international maritime organization.

have insurance or financial security. A flag state needs to change the legal status of training ships so that those ships do not enjoy a state's immunity as government-owned ships. It goes without saying that the international community must pay special attention to enhancing the safety of internationally seagoing training ships in order to protect the lives and property of students.

#### 4.2. Development of a training ships' code

The IMO recognised the need for safety regulations over Non-SOLAS vessels such as domestic passenger ships and fishing vessels after the international community experienced several tragic maritime accidents related to domestic passenger ships. As recommendary documents, the IMO adopted 'GlobalReg documents' to enable a member state to directly enact national regulations in 21st session of FSI (Sub-committee on Flag State Implementation) on 4 March 2013. (IMO FSI, 2013). This document was composed of 12 documents, including a general introduction and each safety regulation for non-SOLAS-Convention ships. The IMO is focussed on enhancing maritime safety over the ships that are excluded from the application of key IMO conventions or instruments.

While training ships are generally subject to the relevant minimum standards of SOLAS, they are excluded from the provisions of important IMO instruments such as the ISM and ISPS Codes. The IMO is also silent on issues of compensation and the liability regimes pertaining to training ships. There is a need to develop a special code at the IMO level applicable only to training ships that provides international guidelines for enhancing the safety of ships. It is also necessary to establish compensation and liability regimes, IMO conventions and instruments, and to harmonise with existing IMO conventions and relevant IMO instruments.

Generally, the IMO have adopted resolutions, codes or guidelines to provide minimum requirements for specific technical matters concerning maritime safety and security, and the protection of the marine environment. The IMO Codes, however, are merely recommendations that are not legally binding in maritime law. However, there are mandatory codes such as the International Bulk and Chemical Code, the International Gas Carrier Code, the ISM Code, the ISPS Code, the High-Speed Craft Code, and the International Code for Ships Operating in Polar Waters (Polar Code). (Kim, 2019) The typical method of making a code mandatory is to have ground rules in the parent of IMO Conventions. The ground rule specifies that it follows the provision of the parent conventions used for making a code mandatory through the amendment of relevant provisions to the parent conventions. (IMO Resolution, 2001) The IMO should start to analyse the need for developing a special code for training ships through a regulatory scoping gap exercise. The code must harmonise with existing IMO conventions and instruments concerning the safety of ships and compensation and liability regimes. The code must also become mandatory by granting legal authority to the SOLAS Convention.

#### 4.3. Domestic responses in South Korea

Along with IMO responses to resolve the legal issues of training ships, South Korea must, above all, revise the Maritime Safety Act and the ISPS Act to ensure they apply to training ships without exception. Moreover, the central government should establish comprehensive management procedures to control and supervise training ships effectively and systematically. Given that South Korea operates 10 training ships, a system of compulsory insurance or financial security is necessary to protect the lives of students while they are on international voyages.

#### 5. Conclusion

This research has analysed current regulatory issues and future recommendations to ensure the safety and security of training ships. First of all, this research has examined the legal status of training ships in international law. As a special ship providing onboard training for students, training ships are regarded as non-commercial government ships. UNCLOS, a Constitution for the Oceans, specifies that those ships possess state immunity from the laws and regulations of a coastal state concerning passage through territorial seas and the protection of the marine environment referred to in Part XII of UNCLOS.<sup>48</sup>

This research has recognized the application limits of the IMO regulatory instruments over training ships. While training ships are basically in compliance with key IMO conventions such as SOLAS, COLREG and MARPOL 73/78, they are excluded from the ISM and ISPS Codes because of the legal status of non-commercial government ships in international law. Moreover, there is a question as to whether training ships are subject to port state control despite training ships enjoying state immunity under UNCLOS. The IMO, that has responsibility for the safety of ships, has been silent on these issues. A legal vacuum exists regarding training ships. Even though training ships are considered government ships operated for noncommercial purposes, they have a considerable similarity to passenger ships in their functional and navigational aspects. Generally, more than 100 people are aboard training ships, which are internationally seagoing vessels. If training ships have accidents while on international voyages, this can lead to mass casualties such as with the M/V Sewol and M/V Concordia incidents. For this reason, there is no doubt that training ships need a high level of safety management.

In addition, there is no international compensation regime for death or personal injury on training ships, vessels that frequently undertake international voyages without compulsory insurance for students. This issue may bring about legal disputes for liability and compensation in case of the death of or personal injury to students during international seagoing. Current legal issues concerning training ships are essentially due to training ships being legally regarded as non-commercial government ships. Due to this legal status, training ships are excluded from the ISM Code.

This research has recommended future improvement to ensure the safety of training ships to the IMO and flag states. At the IMO level, the IMO must amend the ISM and ISPS Codes to apply to training ships, even though they are recognised as non-commercial government ships. The IMO needs to develop a special code applicable to training ships given that the amendment of IMO Conventions takes time due to the complexity of the interests of member states and the difficulty of multilateral negotiation. This code should establish an SMS, the legal statuses of training ships and students, international compensation regimes and port state control inspection procedures. This code should become mandatory by granting legal authority based on the parent conventions. The IMO should encourage flag states to strengthen safety management systems over training ships. At the domestic level, a flag state must enhance the safety of training ships by carrying out internal and external audits concerning whether the ship complies with the rules and regulations of the ISM Code. A flag state that has training ships should institute comprehensive safety management at the central government level. For example, South Korea does not have systematic and effective safety management since each maritime

<sup>&</sup>lt;sup>48</sup> There are exceptional cases in which the passage of training ships are considered to be prejudicial to the peace, good order or security of the coastal state in accordance with Article 19 (2) of UNCLOS, or they result in any loss or damage to the coastal state stemming from non-compliance with the laws and regulations of a coastal state.

institution has individual responsibility. Instead of this, the systematic and comprehensive governance of training ships' safety is required.

The international community should not overlook the fact that the IMO and each flag state should continue to pay special attention to maintaining a high level of safety, even if training ships are considered as government ships. The IMO should therefore immediately conduct a regulatory gap analysis for training ships so as to develop a special code.

#### **Conflict of Interest**

There is no conflict of Interest.

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