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**The IMO system as source for legal transplants for a STM regime**

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**Abstract**

Already in 1983, Czech astronomer Luboš Perek suggested to "study general ideas underlying existing traffic regulation with a view to apply them to traffic in [outer space]"<sup>2</sup>. As this proposition is still valid today<sup>3</sup>, the paper chooses to look for 'legal transplants' for a Space Traffic Management (STM) regime in the realm of maritime law. The paper's research turns to the International Maritime Organization (IMO), which is the UN specialized organization responsible for the development of global rules for shipping traffic. The IMO is recognized to be "one of the most successful organizations in developing international law for the conservation and protection of the marine environment"<sup>4</sup>. Under IMO, well-known treaties such as the SOLAS<sup>5</sup>, MARPOL<sup>6</sup> or COLREG<sup>7</sup> conventions were adopted and later ratified by a large number of governments. Further, in 2017, thus only recently, the IMO Polar Code was adopted due to an increase of shipping in the polar waters. In the quest to research what can potentially be borrowed from the IMO system for a STM regime, the paper's focus is not on individual substantive traffic rules, which are by their very nature technical and not legal in content. The paper rather explores IMO's relationship to the United Nations Convention on the Law of the Sea (UNCLOS or the so-called Constitution of the oceans) and IMO's law-making process. In particular, it tries to understand the 'tacit acceptance procedure', which allows IMO to respond rapidly to new requirements in the shipping industry. In order to be sustainable over the long term, it is crucial for a STM regime to provide for flexibility, too.

**Keywords:** space traffic management, maritime law, IMO, law-making techniques, framework convention-annex/protocol approach, tacit acceptance procedure

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<sup>2</sup> *Luboš Perek*, Traffic Rules For Outer Space, p. 37 - 43 (37), in: Proceedings of the Twenty-Fifth Colloquium on the Law of Outer Space, 1983.

<sup>3</sup> Cf., for example, International Academy of Astronautics (IAA) Cosmic Study on STM, C. Contant-Jorgenson / P. Lála / K.-U. Schrogl (eds.), Paris, 2006, p. 56 et seqq.

<sup>4</sup> *Md. S. Karim*, Prevention of Pollution of the Marine Environment from Vessels, Switzerland, 2015, p. 15.

<sup>5</sup> International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended.

<sup>6</sup> International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL).

<sup>7</sup> Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972.

## 1. Introduction

At present, no comprehensive international legal regime on Space Traffic Management (STM) exists, i.e. there is yet no single legal framework for the regulation of space traffic.<sup>8</sup> While since 2016, STM is a single-issue on the agenda of the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) Legal Subcommittee, this has, however, not led to a draft legal text on a STM treaty yet.<sup>9</sup> For now, the single-issue on STM within the UN COPUOS Legal Subcommittee's agenda only provides a forum for the exchange of views on the topic. There is no international political mandate yet for the establishment of a STM regime. Nevertheless, there are many reasons that speak in favor of regulating space traffic. As such, the need for a STM regime is also seen within the space industry.<sup>10</sup> Yet, there are not only reasons from scientific or technical perspective, but STM is also useful in the light of how space activities support sustainable development on Earth.<sup>11</sup> From legal perspective, one aim of a comprehensive STM system is to avoid fragmentation of the body of international space law.<sup>12</sup>

Therefore, against the background of the current situation, the question, how an international comprehensive STM regime should be drafted, continues.<sup>13</sup> Looking into other traffic environments can provide useful insights.<sup>14</sup>

The International Academy of Astronautics (IAA) Cosmic Study on STM lists as one of the essential points to study further regarding regulatory issues: "Latest trends in technical international organisations like ITU, ICAO or IMO regarding the adoption of technical regulations/standards and making them binding thus providing more flexibility than the traditional system of negotiation and ratification currently provides."<sup>15</sup>

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<sup>8</sup> IAA Cosmic Study on STM, C. Contant-Jorgenson / P. Lála / K.-U. Schrogl (eds.), Paris, 2006, p. 39. Currently, there is no uniform definition on STM. This paper follows the definition on STM established by the IAA Cosmic Study on STM, C. Contant-Jorgenson / P. Lála / K.-U. Schrogl (eds.), Paris, 2006, p. 10: "Space Traffic Management means the set of technical and regulatory provisions for promoting safe access into outer space, operations in outer space and return from outer space to Earth free from physical or radio-frequency interference". A different definition uses, for example, *Tüllmann et al.*, On the Implementation of a European Space Traffic Management System (White Paper 2017a), p. 1; downloadable from: [http://www.dlr.de/gfr/desktopdefault.aspx/tabid-12332/21544\\_read-49512/](http://www.dlr.de/gfr/desktopdefault.aspx/tabid-12332/21544_read-49512/); last visited 24 November 2017.

<sup>9</sup> Report of the Legal Subcommittee on its fifty-fifth session, held in Vienna from 4 to 15 April 2016, p. 30 et seqq.; downloadable from: <http://www.unoosa.org/oosa/en/ourwork/copuos/past-sessions.html>; last visited 24 November 2017.

<sup>10</sup> During the 2017 Space Tech Expo Europe conference in Bremen, Germany, 25 October 2017, within the Industry Forum panel on STM the audience and speakers were asked (author was present): "How urgently does the space industry need 'Space Traffic Control'". The answers were: Between now and 2 years: 43%; between 3 and 5 years: 43%; between 6 and 10 years: 14%; it will take longer than 10 years: 0%.

<sup>11</sup> Cf., <http://www.unoosa.org/oosa/en/benefits-of-space/sustainable-development.html>; last visited 29 November 2017.

<sup>12</sup> *Peter Stubbe*, A gradual approach towards space traffic management The contributions of UNISPACE+50, p. 3, IAC-17-E.3.4, Paper ID 41641.

<sup>13</sup> Cf., *Stephan Hobe*, Space Traffic Management Some Conceptual Ideas, p. 5 et seqq., in: *Zeitschrift für Luft- und Weltraumrecht*, 65. Jg. 1/2016.

<sup>14</sup> In 1983 already suggested by Luboš Perek, see: *Luboš Perek*, Traffic Rules For Outer Space, p. 37 - 43, in: *Proceedings of the Twenty-Fifth Colloquium on the Law of Outer Space*, 1983.

<sup>15</sup> IAA Cosmic Study on STM, C. Contant-Jorgenson / P. Lála / K.-U. Schrogl (eds.), Paris, 2006, p. 91.

In light of the aforementioned, the paper focuses on the International Maritime Organization (IMO) and the mentioned aspect of flexibility. Starting point in this paper is the so-called framework convention-annex/protocol approach (in the following framework convention approach), which has been suggested, in contrast to the so-called traditional system, as a law-making technique to allow for more flexibility.

The treaty-making process under the traditional system in international law can be very time consuming, especially if treaties are multilateral. It can take many years, even decades, until a final agreement is reached. If an agreement is reached, it cannot be taken for granted that all states will sign and ratify the agreement. UNCLOS is a good example of this.<sup>16</sup>

The whole process threatens to repeat itself in case the agreement needs alteration. This approach, which can be summarized under the term traditional system, is not suitable when agreements are set out to be long-term arrangements in fast evolving environments.<sup>17</sup> This also includes, for example, the maritime industry or the space sector. On the other hand, the traditional system provides stability, which has also advantages. In the early days of international law, treaty stability provided the means for peaceful co-existence.<sup>18</sup> As such, treaties agreed under the traditional system were often not foreseen to be subject to change.<sup>19</sup> In case change was needed, unanimity was usually required as change could incur the alteration of international obligations.<sup>20</sup> Today, however, in particular in the light of scientific progress, international law is increasingly a law of co-operation and the question of 'flexibility' has become of paramount importance.

With regard to the question of how more flexibility can be achieved - from the perspective of modern law-making techniques in international treaty law - the framework convention approach is commonly pursued. This approach has also been frequently discussed in the realm of space law.<sup>21</sup> It is generally suggested that through the framework convention approach, in contrast to the traditional system, the process to update in particular technical standards is speeded up. This argument is grounded on the idea that the framework convention usually encompasses the basic principles, whereas the technical details are contained in easier-to-change annexes or later agreed protocols.

However, the framework convention approach does not guarantee for flexibility per se<sup>22</sup> - it can be a deadlock just as the traditional system. There will only be flexibility, if "flexibility

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<sup>16</sup> The third United Nations Conference on the Law of the Sea (also referred to as UNCLOS III) convened from 1973 until 1982. The 1982 UN Convention of the Law of the Sea was opened for signature and entered into force in 1994. The US has not ratified UNCLOS.

<sup>17</sup> *Jutta Brunnée*, Treaty Amendments, p. 347, in: Oxford Guide to Treaties, Duncan B. Hollis (Ed.), Oxford University Press, 2012.

<sup>18</sup> Cf., *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (443), in: GoJIL 1 (2009) 3.

<sup>19</sup> *Ibid.* For details on the historical background of the amendment and modification of treaties see: *K. Odendahl*, Article 39 Vienna Convention on the Law of Treaties, para. 4, in: Vienna Convention on the Law of Treaties, O. Dörr/K. Schmalenbach (eds), Berlin/Heidelberg, 2012.

<sup>20</sup> See *Anthony Aust*, Modern Treaty Law and Practice, Cambridge University Press, 2013, p. 231.

<sup>21</sup> See, for example, *Lotta Viikari*, The Environmental Element in Space Law, Leiden, 2007, p. 215 et seqq.

<sup>22</sup> Cf., *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (452), in: GoJIL 1 (2009) 3.

mechanisms"<sup>23</sup> are in place. The main tool that allows for flexibility, thus to change a treaty's core provisions or annexes/protocols, is the formal legal instrument of an amendment.<sup>24</sup> Thus, how easily change can be established depends primarily on the applicable amendment procedure.

Therefore, in the long run, not only the pursuance of the framework convention approach will decide over a treaty regime's adaptability and thus its long-term sustainability, but also the chosen amendment procedure, which lies in the discretion of the treaty parties 'to choose'.<sup>25</sup> The 'wrong choice' of the amending procedure cannot only hamper a treaty's changeability, but even can lead to more fragmentation of the law if some treaty members agree to an amendment whereas others abstain.<sup>26</sup> In legal literature, the leading example for such a predicament is the 1929 Warsaw Convention (today 1999 Montreal Convention).<sup>27</sup>

The link to IMO in this context is that, although IMO is also sometimes criticized for being slow in its law-making process, it is acknowledged for being rather successful in adopting amendments in a reasonable term of time.<sup>28</sup> This is essential, since in order for IMO to realize its mandate it often needs to act rather fast - otherwise, as a result of delay, serious consequences could occur for human safety, security or the marine environment.<sup>29</sup> Its success in adopting amendments is prescribed inter alia to IMO's use of the so-called tacit acceptance amendment procedure.<sup>30</sup> Yet, of course, IMO is also bound by the principles of UNCLOS.

Thus, the challenge is to meet the right balance between stability and flexibility.<sup>31</sup> In order to be sustainable over the long-term, a STM regime will have to master exactly this challenge, to provide for both, stability and flexibility.

Against this backdrop, this paper explores two aspects regarding IMO:

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<sup>23</sup> See for an overview about 'flexibility mechanisms' in international agreements *Laurence R. Helfer*, Flexibility Mechanisms in International Agreements, p. 179, in: *International Relations: The State of the Art*, Jeffrey Dunoff/Mark A. Pollack (eds.), Cambridge University Press, 2012.

<sup>24</sup> Cf., *Jutta Brunnée*, Treaty Amendments, p. 347, in: *Oxford Guide to Treaties*, Duncan B. Hollis (Ed.), Oxford University Press, 2012; *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (453), in: *GoJIL 1 (2009) 3*. It must also be noted that in particular with regard to protocols, they are "not easier to negotiate than other treaties", *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (452), in: *GoJIL 1 (2009) 3*.

<sup>25</sup> Cf., *K. Odendahl*, Article 39 Vienna Convention on the Law of Treaties, para. 10, in: *Vienna Convention on the Law of Treaties*, O. Dörr/K. Schmalenbach (eds), Berlin/Heidelberg, 2012.

<sup>26</sup> Cf., *Başak Çalı*, *International Law for International Relations*, 2010. p. 115.

<sup>27</sup> See, for example, *Jutta Brunnée*, Treaty Amendments, p. 351, in: *Oxford Guide to Treaties*, Duncan B. Hollis (Ed.), Oxford University Press, 2012.

<sup>28</sup> *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (85), in: *International Maritime Organizations and their Contribution towards a Sustainable Development*, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>29</sup> *Ibid*, p. 78 - 103 (78).

<sup>30</sup> A critical assessment on IMO's ability to react quickly to new shipping requirements provides *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103, in: *International Maritime Organizations and their Contribution towards a Sustainable Development*, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>31</sup> "The main challenge for treaty makers when it comes to regulating change is somehow to strike the balance between flexibility and stability." *Jan Klabbers*, *Treaties, Amendment and Revision*, para. B. 2, in: *Max Planck Encyclopedia of Public International Law (2006)*.

- IMO's relationship to UNCLOS (section 3); the elaborations can shed light on the relationship between a future STM regime and the Outer Space Treaty (OST or the so-called 'Magna Charta' of space law), thus touch on the aspect of stability.
- IMO's tacit acceptance procedure (section 4); this regards the question of how flexibility can be achieved for a STM regime, thus the topic of law-making techniques and amendment procedures.

Before these questions will be explored, brief account will also be given on what is meant by IMO system in this paper (section 2).

## **2. IMO system in a nutshell**

As the title of this paper indicates, this contribution looks for legal transplants for a STM regime in the 'IMO system'. The expression 'IMO system' is, however, not a technical term. This section gives brief account of what this paper refers to as IMO system.

The following remarks will provide an overview over IMO's purpose and mandate (2.1), its organizational structure (2.2) and the structure of IMO conventions in the context of general international treaty law-making techniques (2.3).

### **2.1. IMO's purpose and mandate**

IMO's purpose, or the reason why it exists, is rather simple: Shipping is an international industry and therefore needs to be addressed on international level. Otherwise, to repeat only one of IMO's arguments here, there would be "a maze of differing, often conflicting national laws"<sup>32</sup>. The first international shipping code was agreed even before IMO convened for the first time in 1958. The sinking of the Titanic in 1912 led to the adoption of SOLAS in 1914<sup>33</sup>, which has become today, under IMO, one of the most important international shipping conventions regarding shipping safety. Since then, several incidents on sea, in particular tanker accidents, such as the 1967 Torrey Canyon or 1989 Exxon Valdez oil spill, have further enhanced the development of global environmental shipping standards, for example, MARPOL. As of today, IMO is the UN specialized agency responsible to adopt global shipping standards. IMO belongs within the UN system to the family of other UN specialized agencies, such as ICAO or ITU, which address topics that need global attention.<sup>34</sup> IMO's international mandate, which derives from Article 1 of its constituent convention, the IMO Convention of 1948, is "to provide machinery for co-operation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships."

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<sup>32</sup> <http://www.imo.org/en/About/Pages/FAQs.aspx>; last visited 24 November 2017.

<sup>33</sup> <http://www.imo.org/en/KnowledgeCentre/ReferencesAndArchives/HistoryofSOLAS/Pages/default.aspx>; last visited 29 November 2017.

<sup>34</sup> See list of UN specialized agencies under: <http://www.un.org/en/sections/about-un/funds-programmes-specialized-agencies-and-others/index.html>; last visited 24 November 2017.

In essence, IMO's slogan summarizes its objectives: "Safe, secure and efficient shipping on clean oceans"<sup>35</sup>.

In the light of the foregoing, IMO conventions fall primarily into one of the three categories: marine safety, marine pollution or liability and compensation, in particular with regard to damage caused by pollution.<sup>36</sup> Outside of these main categories, there are other conventions that deal, for example, with facilitation, tonnage measurement or unlawful acts against shipping and salvage.<sup>37</sup>

According to Article 2 IMO Convention of 1948, IMO exercises its mandate through the adoption of international treaties respectively conventions (in international law these expressions are synonymous terms<sup>38</sup>) or other instruments (i.e. soft law<sup>39</sup>). This means that it drafts maritime legal instruments and serves as forum for its Member States.<sup>40</sup> IMO itself does not become a party to its conventions. Further, the responsibility for the implementation of IMO conventions lies with national governments. At present, IMO has 172 Member States and three Associate Members.<sup>41</sup> IMO standards become binding law for signatory and ratifying states. Therefore, it is important to note that in the absence of a central authority in international law in general, IMO has no authority to enforce its conventions. IMO enforcement relies on the flag States but also increasingly on port State control, as 'flags of convenience' pose a problem.

For the adoption of conventions, the consensus procedure is usually applied. This means that instruments are adopted unanimously without a formal vote.<sup>42</sup> At present, however, IMO's emphasis has moved away from adopting of new conventions to keeping its conventions up to date and ensuring their proper implementation by those states, which have signed and ratified them.<sup>43</sup> With regard to the latter for example, there are mandatory audits under the IMO Member State Audit Scheme. However, this must not be mistaken as IMO having a 'police function'. According to IMO's own account, the scheme will provide Member States with an "overview of how well they are carrying out their duties as flag, coastal and port States, under the relevant IMO treaties."<sup>44</sup>

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<sup>35</sup> <http://www.imo.org/en/About/Pages/FAQs.aspx>; last visited 24 November 2017.

<sup>36</sup> <http://www.imo.org/en/About/Conventions/Pages/Home.aspx>; last visited 24 November 2017.

<sup>37</sup> <http://www.imo.org/en/About/Conventions/Pages/Home.aspx>; last visited 24 November 2017.

<sup>38</sup> See *Başak Çalı*, International Law for International Relations, 2010, p. 101: "The title that an agreement has is not important for determining whether the agreement is a treaty. Agreements under international law can be called conventions, covenants, protocols, declarations, joint statement, or may carry no particular designation at all."

<sup>39</sup> *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (79), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>40</sup> For details on the law-making procedure of IMO see: *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (78), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>41</sup> <http://www.imo.org/en/About/Membership/Pages/Default.aspx>; last visited 24 November 2017.

<sup>42</sup> *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (80), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>43</sup> <http://www.imo.org/en/About/Pages/FAQs.aspx>; last visited 24 November 2017.

<sup>44</sup> <http://www.imo.org/en/About/Pages/FAQs.aspx>; last visited 24 November 2017.

## 2.2. IMO's organizational structure

In order to give a more complete picture of IMO and to allow to draw parallels to UN COPUOS, IMO's structure shall be briefly outlined:<sup>45</sup> IMO's structure is organized around an Assembly, a Council and five main Committees, which are the Maritime Safety Committee (MSC), the Marine Environment Committee (MEPC), the Legal Committee (LEG), the Technical Co-operation Committee (TC), and the Facilitation Committee (FAL). Further, seven Subcommittees support the work of the main Committees.<sup>46</sup> IMO even has two educational institutions: the IMO International Marine Law Institute (IMLI) in Malta and the World Maritime University (WMU) in Sweden. IMO's headquarters are based in London.

## 2.3. Structure of IMO conventions in the light of international treaty law

The framework convention approach is a rather "recent phenomenon"<sup>47, 48</sup>. Although not explicitly named as framework conventions, it can be said that, with hindsight, IMO conventions, such as MARPOL, SOLAS or COLREGs follow the same structure as modern conventions, which are explicitly drafted according to the framework convention approach.<sup>49</sup> In recent times, the framework convention approach has grown to become very popular in particular in the field of international environmental law.<sup>50</sup> The term framework convention approach is, however, not a technical term in public international treaty law.<sup>51</sup> The name alone does not incur direct legal consequences and is not an institution found in the Vienna Convention on the Law of Treaties (VCLT).<sup>52</sup> There may also be hybrid forms.<sup>53</sup> Therefore, it can be left open here, if IMO follows the 'true teaching' of today's framework convention approach, since the expression is a functional expression, which points to common features of a certain law-making technique. On a general level, these common features are that basic principles being agreed in a framework convention whereas special topics are addressed in annexes or later protocols. Today, conventions would be explicitly named 'framework conventions' to stress their nature as such. A contemporary example is the UN Framework Convention on Climate Change. The so-called 'piecemeal approach' is often opposed to the framework convention approach.<sup>54</sup>

In conclusion, it can be seen from the above that IMO, regarding its mandate and organizational structure, is not comparable to UN COPUOS, especially since UN COPUOS is not an UN specialized agency. At present, there is no international institution that is mandated to adopt 'rules of the road' for safe, secure and efficient space traffic in a clean Earth orbital environment.

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<sup>45</sup> A detailed description of IMO's structure provides, for example, *Md. S. Karim*, *Prevention of Pollution of the Marine Environment from Vessels*, Switzerland, 2015, p. 21 et seqq.

<sup>46</sup> <http://www.imo.org/en/About/Pages/FAQs.aspx>; last visited 24 November 2017.

<sup>47</sup> Cf., *Nele Matz-Lück*, *Framework Conventions as a Regulatory Tool*, p. 439 - 459 (440), in: *GoJIL* 1 (2009) 3.

<sup>48</sup> *Ibid.*, p. 439 - 459 (440).

<sup>49</sup> *Ibid.*, p. 439 - 459 (441); *Catherine Redgwell*, *Multilateral Environmental Treaty-Making*, p. 93, in: *Multilateral Treaty-Making*, Vera Gowlland-Debbas (Ed.), Kluwer Law International, 2000.

<sup>50</sup> Cf., *Nele Matz-Lück*, *Framework Conventions as a Regulatory Tool*, p. 439 - 459 (440), in: *GoJIL* 1 (2009) 3.

<sup>51</sup> *Ibid.*, p. 439 - 459 (441).

<sup>52</sup> *Ibid.*, p. 439 - 459 (442, 451).

<sup>52</sup> *Ibid.*, p. 439 - 459 (441).

<sup>53</sup> *Ibid.*, p. 439 - 459 (449).

<sup>54</sup> *Ibid.*, p. 439 - 459 (447).

### 3. IMO's relationship to UNCLOS

It is beyond this paper's scope to discuss the complex relationship between IMO and UNCLOS in-depth.<sup>55</sup> Also, this is not what this paper aims for. The aim of this article rather is to focus on those aspects of the relationship between IMO and UNCLOS, which may contribute to better a understanding the relationship between a future international STM regime and the OST. This is an important question because in public international law there is no hierarchy of legal sources. Therefore, every new international treaty regime needs to clarify its relationship to already existing treaties.<sup>56</sup> Hence, a STM regime would need to clarify its relationship with regard to the already existing *corpus iuris spatialis*. At present, the general idea is that a future STM regime should be based on the principles of the existing space treaties, in particular on the principles the OST.<sup>57</sup> IMO's relationship to UNCLOS can shed light on this matter as UNCLOS and OST both are 'constitutional treaties' - UNCLOS the so called 'Constitution of the oceans' and the OST the so-called 'Magna Charta' of space law.

The following exploration is narrowed down to three points: first, it is often referred to UNCLOS as 'umbrella treaty' or 'framework treaty'. Yet, this can be confusing within the context of IMO conventions. (3.1) Second, what is the nexus between UNCLOS and IMO? (3.2) Third, IMO was already mandated before UNCLOS entered into force in 1994. Yet, IMO works under the 'umbrella' of UNCLOS. The issue therefore is, how conflict was and is avoided (3.3).

#### 3.1. UNCLOS as umbrella treaty in the context of IMO

UNCLOS, as Constitution of the oceans, is often referred to as 'umbrella treaty', as it does not contain many specific obligations, but needs substantiating by other instruments.<sup>58</sup> Yet, this must not be mistaken for that UNCLOS is the 'framework convention' in the context of IMO conventions or within the framework convention approach.<sup>59</sup> Of course, IMO must strictly adhere to the 'framework', i.e. the principles, which UNCLOS reflects. IMO was, however, neither established nor mandated under UNCLOS. IMO is an independent UN specialized agency, with its own treaty system, members, organs and budget.<sup>60</sup>

Further, from the perspective of branches of law, UNCLOS and IMO are located in different fields. IMO is located in maritime law and UNCLOS in the law of the sea.<sup>61</sup> However, both fields of law are "intimately interdependent, particularly through the emergence and influence

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<sup>55</sup> For an in-depth analysis, from the perspective of IMO, see: Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization, LEG/MISC.8, 2014 (latest version).

<sup>56</sup> Cf., *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (456), in: *GoJIL 1 (2009) 3*.

<sup>57</sup> Cf., *IAA Cosmic Study on STM*, C. Contant-Jorgenson / P. Lála / K.-U. Schrogl (eds.), Paris, 2006, p. 91.

<sup>58</sup> Cf., *Christopher C. Joyner*, International Law in the 21th Century, Oxford, 2015, p. 235.

<sup>59</sup> *Nele Matz-Lück*, Framework Conventions as a Regulatory Tool, p. 439 - 459 (444), in: *GoJIL 1 (2009) 3*: "Despite the conclusion of two implementing agreements, the Convention on the Law of the Sea is not perceived as a framework convention."

<sup>60</sup> UN specialized agencies in the UN system: [www.unsceb.org/members/specialized-agencies](http://www.unsceb.org/members/specialized-agencies); last visited 24 November 2017.

<sup>61</sup> Maritime law "deals with the private aspect of the shipping industry and commerce (...), while [the law of the sea] refers to the public and international aspect of the sea, like maritime boundaries (...)." *Ignacio Arroyo*, Chapter 1, p. 2., in: *The IMLI Manual on International Maritime Law, Volume II, Shipping Law*, Fitzmaurice / Gutiérrez / Arroyo / Belja (eds.), 2015.

of international maritime treaties, such as those adopted by the International Maritime Organization (..)" <sup>62</sup>

In this context, a further delimitation shall be mentioned here. IMO conventions must also not be confused with 'implementation agreements' to UNCLOS such as the 1994 Agreement Relating to the Implementation of Part XI of UNCLOS or the 1995 UN Fish Stock Agreement - or, the presently discussed new implementing agreement on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.<sup>63</sup>

### 3.2. Nexus between UNCLOS and IMO

As mentioned above, IMO's global mandate as an UN specialized agency derives not from UNCLOS but from its constituent convention, the IMO Convention of 1948. IMO plays, however, a vital role in the operations of UNCLOS. Yet, IMO is not the only international organization doing so.<sup>64</sup> The cooperation between states under UNCLOS is conducted in different fields through different organizations. For example, the Fisheries and Aquaculture Organization (FAO) is responsible for fisheries, or the International Hydrographic Organization (IHO) sets standards for hydrographic services. In this respect, however, UNCLOS does not usually refer to these organizations explicitly by their name but only refers in general to the "competent international organizations" or "generally accepted rules and standards" or other. For example, UNCLOS refers only in one article to IMO explicitly, which is Article 2 of Annex VIII. Other than that, UNCLOS only contains generic references to IMO and IMO conventions in different fields (safety, navigation or pollution). Yet, it is commonly accepted that the expression "general competent organisation", if used in the singular, only refers to IMO.

Indirect reference to IMO is, for example, found in Article 211 (1) UNCLOS: "States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels (...)." In this Article the "competent international organization" is IMO and the norms refer to MARPOL. Further, Articles 21 (2) and 39 (2) UNCLOS speak of "generally accepted rules or standards" and "generally accepted international regulations, procedures and practices". These Articles refer to SOLAS. With regard to the prevention of collisions at sea, Article 21 (4) UNCLOS references to "generally accepted international regulations relating to the prevention of collisions at sea". This reference means IMO's COLREGs.

### 3.3. Conflict between UNCLOS and IMO

How was and is conflict avoided between UNCLOS and IMO Conventions? As mentioned above, IMO was not established by UNCLOS.<sup>65</sup> Before UNCLOS entered into force, IMO

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<sup>62</sup> *David Josep Attard*, Preface, p. ix, in: *The IMLI Manual on International Maritime Law, Volume II, Shipping Law*, Fitzmaurice / Gutiérrez / Arroyo / Belja (eds.), 2015.

<sup>63</sup> See <http://www.un.org/depts/los/biodiversity/prepcom.htm#69/292>; last visited 24 November 2017.

<sup>64</sup> For further details see *Markus J. Kachel*, *Competencies of International Maritime Organisations to establish Rules and Standards*, p. 22 - 51, in: *International Maritime Organisations and their Contribution towards a Sustainable Marine Development*, Peter Ehlers/Rainer Lagoni (Eds.), Hamburg, 2006.

<sup>65</sup> Under 1982 UNCLOS three institutions were established: International Sea-Bed Authority (ISA), International Tribunal for the Law of the Sea (ITLOS), Commission on the Limits of the Continental Shelf (CLCS).

had already existed for several years. Also, most of the well known IMO Conventions had already been in place before UNCLOS entered into force.<sup>66</sup> IMO, nevertheless, works under the fundamental principles, which UNCLOS reflects. UNCLOS sets the legal framework, under which activities in the oceans are conducted. It therefore had to be ensured, when UNCLOS entered into force that IMO conventions did not conflict with UNCLOS principles. The question has been addressed in a comprehensive study by IMO, which was first conducted in 1987 and which has been updated up to the present day, the last time in 2014.<sup>67</sup> One argument mentioned is that 'overlapping or potential conflict' was avoided through the inclusion of specific provisions in IMO Conventions which state that their text does not "prejudice the codification and development of the law of the sea and the nature and extent of coastal and flag State jurisdiction."<sup>68</sup>

From the above, it can be seen that stability with regard to UNCLOS principles is ensured in many ways. This brings the paper to its next question: Which legal mechanism allows for 'flexibility' in the IMO system?

#### **4. IMO's tacit acceptance procedure**

The basic idea behind a tacit amendment procedure is as follows: amendments will enter into force (silently, that is to say tacitly) after an agreed period of time unless a certain number of states actively reject the change by a specific date. In the case of no objections up to this point in time, the consent of the contracting parties to the change shall be deemed given (acceptance period). If an IMO convention provides for the tacit acceptance procedure, the details of it will vary; sometimes, conventions even foresee the use of both, the explicit as well the tacit amendment procedure. Therefore, the exact (tacit) amendment procedure differs slightly from convention to convention.

In the following, the paper places the tacit acceptance procedure in the bigger picture of general international law (4.1) and explores IMO's use of it in the context of SOLAS (4.2). Further, the main arguments on its legality under international law are outlined (4.3) followed by its pros and cons (4.4).

##### **4.1. The tacit acceptance procedure in the context of general international law**

In the bigger picture of international law-making mechanisms, the tacit acceptance procedure addresses the question of how treaties can be amended. Hence, its location can be found in the greater topic of treaty amendment procedures. In light of Article 39 VCLT, an amendment

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<sup>66</sup> *Koji Sekimizu*, Secretary General of the IMO, Speech on 18 March 2014, Main courtroom of the International Tribunal for the Law of the Sea; downloadable from [https://www.itlos.org/fileadmin/itlos/documents/calendar\\_of\\_events/IMO\\_SG\\_180314\\_01.pdf](https://www.itlos.org/fileadmin/itlos/documents/calendar_of_events/IMO_SG_180314_01.pdf); last visited 24 November 2017.

<sup>67</sup> Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization, LEG/MISC.8, 2014 (latest version).

<sup>68</sup> *Koji Sekimizu*, Secretary General of the IMO, Speech on 18 March 2014, Main courtroom of the International Tribunal for the Law of the Sea; downloadable from [https://www.itlos.org/fileadmin/itlos/documents/calendar\\_of\\_events/IMO\\_SG\\_180314\\_01.pdf](https://www.itlos.org/fileadmin/itlos/documents/calendar_of_events/IMO_SG_180314_01.pdf); last visited 24 November 2017.

means an agreement between states to alter the provisions of a treaty (in contrast to a modification where the change only applies to certain treaty parties, Article 41 VCLT).<sup>69</sup>

The general rule regarding the amendment process of multilateral treaties is found in Article 39 and Article 40 VCLT.<sup>70</sup> Article 39 VCLT provides for an explicit, i.e. consent based, amendment process.<sup>71</sup> Today, most treaties have their own built-in amendment clause. If treaties have their own built-in amendment clause, then this procedure is *lex specialis* and prevails. In general, for built-in treaty amendment clauses, the drafting possibilities are manifold.<sup>72</sup> *Brunnée* lists, for instance, six different options.<sup>73</sup> It may be that an amendment procedure foresees the convening of a revision conference (then an international organization may only be the forum for a diplomatic conference) or it may be agreed upon a more simplified procedure.<sup>74</sup> One such simplified procedure is the 'tacit consent procedure', in IMO's case named 'tacit acceptance procedure'.

#### 4.2. IMO's use of the tacit acceptance procedure

IMO's very first task, when it convened for the first time, was the adoption of a new version of SOLAS 1960, which was agreed even before IMO was established (see above). For SOLAS 1960, it was necessary to adopt amendments on a regular basis: in 1966, 1967, 1968, 1969, 1971 and 1973. However, although these amendments were adopted, none entered into force. It was soon identified that this fail was due to the procedure, which was foreseen for amendments.<sup>75</sup> IMO (then still named IMCO) saw itself confronted with a challenge that *Adede* describes as "lengthy delays (...) between the adoption of amendments to a treaty and their entry into force"<sup>76</sup>. As consequence, IMO undertook a comprehensive study of the law-making procedures of other UN specialized agencies with the aim to develop a faster procedure that would "accelerate the entry into force of amendments"<sup>77 78</sup>.

<sup>69</sup> Cf., *K. Odendahl*, Article 39 Vienna Convention on the Law of Treaties, para. 1, in: Vienna Convention on the Law of Treaties, O. Dörr/K. Schmalenbach (eds), Berlin/Heidelberg, 2012.

<sup>70</sup> It is argued if Article 40 VCLT has the status of customary law although, in general, it is assumed that the rules in the VCLT have the status of customary law, see, for example: *K. Odendahl*, Article 40 Vienna Convention on the Law of Treaties, para. 8, in: Vienna Convention on the Law of Treaties, O. Dörr/K. Schmalenbach (eds), Berlin/Heidelberg, 2012.

<sup>71</sup> Cf., *Jutta Brunnée*, Treaty Amendments, p. 352, in: Oxford Guide to Treaties, Duncan B. Hollis (Ed.), Oxford University Press, 2012.

<sup>72</sup> *Ibid*, p. 352.

<sup>73</sup> *Ibid*, p. 347.

<sup>74</sup> *Jan Klabbers*, Treaties, Amendment and Revision, para. B. 4, in: Max Planck Encyclopedia of Public International Law (2006).

<sup>75</sup> Details provides *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (84), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>76</sup> *A. O. Adede*, Amendment Procedures for Conventions with Technical Annexes: The IMO Experience, in: 17 Va. J. Int'l L., 1977, p. 201 - 216 (202).

<sup>77</sup> *Ibid*, p. 201 - 216 (203).

<sup>78</sup> "Amendment Procedures for Conventions for which IMCO is the Depositary", IMCO Res. A.293 (VIII), in: IMCO Assembly Resolutions and other decisions (8th Sess.) 231 (1973), cited according to: *A. O. Adede*, Amendment Procedures for Conventions with Technical Annexes: The IMO Experience, in: 17 Va. J. Int'l L., 1977, p. 201 - 216 (202).

As a result, in 1974, a new version of SOLAS, SOLAS 1974, was adopted and this version was drafted to include the tacit acceptance procedure.<sup>79</sup>

On 20 November 1981, the first amendment to SOLAS 1974 subsequently to this change was adopted; on 1 September 1984 it entered into force under the tacit acceptance procedure.<sup>80</sup> This confirmed the success of the inclusion of the tacit acceptance procedure.

However, SOLAS does not only foresee the tacit acceptance procedure.<sup>81</sup> This can be seen, for example, from the adoption of the International Code for Ships Operating in Polar Waters (Polar Code) under MARPOL and SOLAS. In 2017, thus only recently, IMO adopted the Polar Code as response to increasing shipping in the water of the Arctic and Antarctic Oceans (polar waters). Due to climate change, there are new ship lanes for cargo transport and also increasing tourism with large cruise ships. The Polar Code is not a single IMO convention (as one might think from the wording) but is divided in two parts: Part I concerns safety matters and Part II environmental aspects.<sup>82</sup> The Polar Code was made mandatory under MARPOL and SOLAS. Part II was adopted under amendment of MARPOL through tacit acceptance procedure. Part I of the Polar Code was incorporated into SOLAS as a new Chapter.<sup>83</sup> So, the devil is clearly in the details, as *Roach* notices.<sup>84</sup>

#### 4.3. The 'legality' of the tacit acceptance procedure under international law

The elephant in the room with the tacit acceptance procedure obviously is state sovereignty in conjunction with the basic consent principle (see above). The latter stipulates that a treaty only binds a state if it has given its consent. And indeed, in the beginning, when the tacit acceptance procedure was first introduced, its legality under international law was challenged.<sup>85</sup> Issues were evolving around arguments concerning the legality of assigning quasi-legislative power<sup>86</sup> to an international organization and legality of the tacit acceptance procedure under customary international law. Regarding the last point, one opinion argued that explicit consent is always necessary because otherwise a state's sovereign rights to decide

<sup>79</sup> Cf., *Lei Shi*, Successful use of the tacit acceptance procedure to effectuate progress in international maritime law, in: 11 U.S.F. Mar. L. J. 299, 332 (1999), p. 304.

<sup>80</sup> *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (86), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>81</sup> Cf., *J. Ashley Roach*, Arctic Navigation: Recent Developments, p. 216, in: Challenges of the Changing Arctic, Nordquist/Moore/Long (eds.), 2016. *Roach* points out, SOLAS Chapter I cannot be amended by the tacit acceptance procedure, only Chapter II.

<sup>82</sup> According to IMO, the Polar Code "covers the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in waters surrounding the two poles." [http://www.imo.org/en/mediacentre/pressbriefings/pages/38-nm5c94polar.aspx#.Wh8cO4rFb\\_Q](http://www.imo.org/en/mediacentre/pressbriefings/pages/38-nm5c94polar.aspx#.Wh8cO4rFb_Q); last visited 29 November 2017.

<sup>83</sup> For details see *J. Ashley Roach*, Arctic Navigation: Recent Developments, p. 217 et seq., in: Challenges of the Changing Arctic, Nordquist/Moore/Long (eds.), 2016.

<sup>84</sup> *Ibid*, p. 216.

<sup>85</sup> See for details *Lei Shi*, Successful use of the tacit acceptance procedure to effectuate progress in international maritime law, in: 11 U.S.F. Mar. L. J. 299, 332 (1999), p. 307 et seqq.

<sup>86</sup> Quasi-legislative power is "(...) a hybrid between legislation and treaty-making", *Markus J. Kachel*, Competencies of International Maritime Organisations to establish Rules and Standards, p. 22 - 51 (27), in: International Maritime Organisations and their Contribution towards a Sustainable Marine Development, Peter Ehlers/Rainer Lagoni (Eds.), Hamburg, 2006.

whether to be bound or not would be infringed. This argument is reflected in Article 39 of the VCLT, which provides the general rule for treaty amendments (explicit amendment process). Article 40 of the VCLT, however, expresses that a different procedure prevails if agreed. Today, the main opinion among scholars is that it is in line with international customary law if built-in amendment procedures foresee a simplified procedure, such as the tacit acceptance procedure.<sup>87</sup>

Furthermore, tacit amendment procedures regularly provide 'opting-out' possibilities to ensure that states are not bound by amendments accidentally against their will.<sup>88</sup>

Thus, it can be summarized that according to the prevailing opinion in international law the tacit acceptance procedure is legal under international law.

#### **4.4. The pros and cons of the tacit acceptance procedure**

At this point, it has become clear that the tacit acceptance procedure has its advantages. In particular with regard to IMO, the use of the tacit acceptance procedure for the adoption of amendments proved to be an efficient and effective tool to respond to fast changes in the shipping industry. After all, if it was not possible for IMO to act, its whole mandate would be questioned. Nevertheless, it must be acknowledged that the use of the tacit acceptance procedure causes also challenges in practice. For example, challenges can occur if amendments contain rules, which are technically complicated or if the frequency of amendments is high. In the latter case, the revision process could become obsolete if progress overtakes. Further, even if a state successfully opts-out, it may still be subject to strict compliance when other countries (or not enough countries) do not opt-out. This could lead to conflicts with domestic legislation or financial challenges if amendments incur costly implementations. Sometimes states may simply not have the know-how to properly implement new measures and hence require assistance.<sup>89</sup> So, there are clearly also limitations to its use.<sup>90</sup>

#### **5. Conclusion and suggestions for further research**

What can be transplanted from the IMO system for the set-up of a STM regime? There is a lot that can serve as model of the IMO system for a STM regime. From a technical and scientific point of view, there are substantive 'rules of the road' on safety (SOLAS), collision avoidance (COLREGs) or environmental protection (MARPOL). What fits for space traffic from here, must be identified in technical and scientific forums, as of course, outer space is a very special traffic environment. From a legal point of view, IMO's norm-making or amendment techniques are of interest. In general, norm-making or amendment techniques can build a real

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<sup>87</sup> Cf., *Lei Shi*, Successful use of the tacit acceptance procedure to effectuate progress in international maritime law, p. 307, in: 11 U.S.F. Mar. L. J. 299, 332 (1999).

<sup>88</sup> Cf., *Doris König*, Tacit Consent/Opting Out Procedure, in: Max Planck Encyclopedia of Public International Law (2013).

<sup>89</sup> *Ekatarina Anianova*, The International Maritime Organization - Tanker or Speedboat, p. 78 - 103 (98), in: International Maritime Organizations and their Contribution towards a Sustainable Development, Peter Ehlers/Rainer Lagoni (Eds.), 2006.

<sup>90</sup> A detailed discussion on the pros and cons of the tacit acceptance procedure provides *Lei Shi*, Successful use of the tacit acceptance procedure to effectuate progress in international maritime law, 11 U.S.F. Mar. L. J. 299, 332 (1999), p. 309 et seq.

bridge between the different disciplines involved in the set-up of a STM regime. This is because form and substance of (international) agreements go hand in hand.<sup>91</sup>

Regarding the aspect of rapid changing technical or scientific requirements, it can be seen from IMO's example that the framework convention approach is only the first step for achieving more flexibility compared to the traditional treaty-making system. What allows for flexibility, are tailor-made amendment procedures, which are built-into treaties. The tacit acceptance procedure, in contrast to the explicit amendment procedure, has proven to be a useful tool in IMO's case. However, it is not possible at this point to make a statement about which procedure should be used when and how for a STM regime.

For a start, only the basic rationale to distinguish between basic principles of a STM regime and more technical rules can be further adopted. In this regard, the basic principles should 'be subject to 'strict amendment' (consent principle). For the amendment of technical provisions, however, a 'simplified procedure' should be evaluated (tacit acceptance amendment).

The 'choice' really depends on the regulatory subject and object and must be explored on a case-by-case basis. As such, further (interdisciplinary) research is necessary.

In essence, it is suggested in this paper to focus within the discussion about STM more on norm-setting strategies, including - already today - the discussion on flexibility mechanisms as for example amendment procedures.

It can be argued that this is at present still premature, as no legal draft on a STM regime exists yet. However, if the question of how to change a STM regime is spared, it can be argued in return that there are no serious intentions to discuss a STM regime at all and more important no interests in its maintenance afterwards, i.e. its sustainability. Flexibility mechanisms have been described as "insurance policies" in international agreements.<sup>92</sup> As such, a STM regime should have insurance.

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<sup>91</sup> Cf., *Laurence R. Helfer*, Flexibility Mechanisms in International Agreements, p. 179, in: *International Relations: The State of the Art*, Jeffrey Dunoff / Mark A. Pollack (eds.), Cambridge University Press, 2012.

<sup>92</sup> *Ibid.*