

# The Effects of the Fragmentation of International Law on Aerospace Regulation

*Charles Stotler\**

## Abstract

In 2006, the International Law Commission published a report entitled, “Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law.” The ILC Report addresses the functional differentiation of international law into specialized regimes, such as trade law, environmental law, and law of the sea. The ILC defined fragmentation as “the rise of specialized rules and rule-systems that have no clear relationship to each other,” and attributes to globalization the emergence of technically specialized regimes and specialized intergovernmental organizations.

The ILC notes that C. Wilfred Jenks – a legal pioneer who produced one of the earliest treatises on space law – sketched the background of fragmentation over a half century ago. For Jenks, the problem of conflicts between apparently autonomous treaty regimes can be likened to conflicts of laws arising between autonomous domestic legal regimes, typically resolved through the application of private international law principles. Working under this analogy, the ILC described principles of systematic integration that have developed for the resolution of apparent conflicts between treaty regimes.

Jurists have long commented on disparities between international air law and international space law as a source of potential conflict. Specific areas of discord include sovereignty, vehicle classifications, passenger and third party liability and registration of aircraft and space objects. Proposed suborbital activities, including tourism, launch of orbital payloads and point-to-point transportation, bring these disparities to the fore. They involve the use of aerospace planes employing rocket technology, traveling on a suborbital trajectory through airspace and outer space – hybrid air and space activities that evade the direct application of either legal regime.

While scholars have examined issues of fragmentation pertaining to other specialized regimes, there is a notable absence of analysis of air and space law under fragmentation rubric. This paper examines the extent to which these specialized regimes epitomize the fragmentation of international law. It will be illustrated how fragmentation at

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\* McGill University Institute of Air and Space Law (LL.M. Candidate), Montreal, Canada, charles.stotler@mail.mcgill.ca. This paper is a condensed version of a thesis submitted to McGill University in partial fulfilment of the requirement of the degree of Master of Laws (LL.M. in Air and Space Law).

the international level is necessitating the creation of hybrid regulatory regimes at the domestic level. These regulatory schemes will be analyzed in light of the ILC's principles of systematic integration in an effort to determine whether States are properly implementing these specialized regimes. The rise of global administrative law in the form of highly specialized technical bodies, such as ICAO and COPOUS, will also be considered in a discussion of institutional fragmentation.

## I. Introduction: Air and Space Law and the Fragmentation of International Law

During the Fifty-Eighth Session of the UN General Assembly in 2006, the International Law Commission (ILC) issued a report entitled, "Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law."<sup>1</sup> The ILC Report explained that, "It is a well-known paradox of globalization that while it has led to increasing uniformization of social life around the world, it has also led to its increasing fragmentation – that is, to the emergence of specialized and relatively autonomous spheres of social action and structure."<sup>2</sup> In the field of law, this has translated into the emergence of specialized, autonomous rule complexes and legal institutions, such as trade law, human rights law, environmental law or the law of the sea.<sup>3</sup> According to the ILC Report, lawyers have identified the problem with this phenomenon as "such specialized law-making and institution-building tends to take place with relative ignorance of legislative and institutional activities in adjoining fields [...]. The result is conflicts between rules or rule-systems [and] deviating institutional practices [...]."<sup>4</sup>

In a paper critiquing the ILC Report, Sean Murphy, a member of the ILC, noted that the Report has already been applied in studies and papers relating to conflicts between human rights and humanitarian law and between trade and environmental law, as well as to other subjects more generally, including international criminal law, international counter-terrorism law, cultural diversity, history and philosophy.<sup>5</sup> Murphy emphasized that the ILC Report may have practical value, particularly as "new issues arise that straddle different areas of international law, often driven by the emergence of new technologies."<sup>6</sup>

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1 International Law Commission, *Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law*, UNGA ILC, 58<sup>th</sup> Sess, A/CN.4/L.682 (2006) [hereinafter "ILC Report"].

2 *Ibid.* at 11.

3 *Ibid.*

4 *Ibid.*

5 Sean D. Murphy, "Deconstructing Fragmentation: Koskenniemi's 2006 ILC Project" (2013) 27 *Temp Int'l & Comp LJ* 293, 297-299 [hereinafter "Murphy"].

6 *Ibid.* at 299.

New and emerging technologies, developing mainly through commercial endeavors for the provision of suborbital flight, are operating in both airspace and outer space and exacerbating tensions over ever-blurring boundaries between the regimes of air and space law. In 1992, Tanja Masson-Zwaan described the aerospace plane as, “an object at the cross-roads between air and space law.”<sup>7</sup> She called for a hybrid approach of the two regimes based upon functionality of the vehicle.<sup>8</sup> Likewise, Stephan Hobe treated the subject of the applicability of air and/or space law to suborbital vehicles in a series of articles, indicating that both air and space law apply to different portions of the flights based upon functionality of the vehicle.<sup>9</sup> These emerging technologies render the ILC Report particularly relevant to actual and potential conflicts between air and space law, as well as to international and domestic institutions that administer to these regimes.

## II. The ILC Report on the Fragmentation of International Law

The ILC Report notes that C. Wilfred Jenks first sketched out the background of fragmentation over a half century ago.<sup>10</sup> Jenks did not use the term ‘fragmentation’ but described the phenomenon as “conflicts of law-making treaties”. For Jenks, conflicts are an unavoidable incident of international law.<sup>11</sup> He noted that, “law-making treaties are tending to develop in a number of historical, functional and regional groups which are separate from each other and whose mutual relationships are in some respects analogous to those of separate systems of municipal law.”<sup>12</sup>

Building upon this analogy, Jenks sought to identify the nature and scope of conflicts in law-making treaties, as well as to outline ways in which they can be either avoided or resolved in the vein of private international law.<sup>13</sup> The ILC Report begins with the conclusion that there is little to add to Jenks’

7 Tanja Masson-Zwaan, “The Aerospace Plane: An Object at the Cross-Roads between Air and Space Law” in T.L. Masson-Zwaan and P.M.J. Mendes de Leon (eds), *Air and Space Law: De Lege Ferenda*, 247-261 (The Netherlands: Kluwer Law International, 1992).

8 Tanja Masson-Zwaan & Rafel Moro-Aguilar, “Regulating private human suborbital flight at the international and European level: Tendencies and suggestions” (2013) 92 *Acta Astronautica* 243-254.

9 Stephan Hobe, “Aerospace Vehicles: Questions of Registration, Liability and Institutions – A European Perspective” (2004) XXIX *Annals of Air & Space L* 377; Stephan Hobe, “Legal Aspects of Space Tourism” (2007-8) 86 *Nebraska L R* 439; Stephen Hobe, “The legal regime for private space tourism activities – An overview” (2010) 66 *Acta Astronautica* 1593.

10 C. Wilfred Jenks, “The Conflict of Law-Making Treaties” (1953) 30 *Brit. Y.B. Int’l L.* 401 [hereinafter, “Jenks”].

11 Jenks at 402.

12 *Ibid.* at 403.

13 *Ibid.* at 405.

analysis, but adds that “present fragmentation contains many new features, and its intensity differs from analogous phenomena in the past.”<sup>14</sup> Thus, the ILC continues to examine the phenomenon, seeking to understand, “What is the nature of specialized rule-systems? How should their relations *inter se* be conceived? Which rules should govern their conflict?”<sup>15</sup>

Jenks defined a conflict as a direct incompatibility where a party to two treaties cannot simultaneously comply with its obligations under both instruments.<sup>16</sup> In addition, he identified the phenomenon of ‘divergence’ – a situation where two law-making treaties with a number of common parties deal with the same subject from different points of view; are applicable in different circumstances; or embody obligations more far-reaching than, but not inconsistent with, one another.<sup>17</sup> For Jenks, such divergences, although not leading to a direct incompatibility, can nevertheless defeat the object of one or both of the instruments and are as serious as direct conflicts.<sup>18</sup>

The ILC embraced Jenks’ approach by describing a spectrum of conflicts.<sup>19</sup> At one end of the spectrum, laws invalidate each other. At other times their priority is relative: one is set aside temporarily while often still influencing the interpretation and application of the other law. At other times, the laws act concurrently, supporting each other. Finally, at the other end of the spectrum, there is no conflict or divergence. The ILC Report notes that the question of ‘what is a conflict’ can be approached from the perspectives of the subject-matter of the relevant rules or the legal subjects bound by them.<sup>20</sup> The ILC identifies the employment of the subject-matter criterion as only an initial step, which is fulfilled where “two different rules or sets of rules are invoked in regard to the same matter or [...] seem to point to different directions in their application by a party.”<sup>21</sup> The ILC Report elaborates this concept of pointing in different directions by embracing Jenks’ distinction between direct conflicts and divergences. Of the former, the ILC notes that, “conflict exists if it is possible for a party to two treaties to comply with one rule only by failing to comply with another rule.”<sup>22</sup> Of the latter, the ILC Report states, “A treaty may sometimes frustrate the goals of another treaty without there being any strict incompatibility between their provisions.”<sup>23</sup> Thus, the ILC defines a conflict as “a situation where two rules or principles

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14 ILC Report at 15.

15 *Ibid.* at 245.

16 Jenks at 426.

17 *Ibid.* at 425-426.

18 *Ibid.* at 426.

19 ILC Report at 16.

20 *Ibid.* at 17.

21 *Ibid.*

22 *Ibid.* at 19.

23 *Ibid.*

suggest different ways of dealing with a problem,” effectively condensing Jenks differentiation into one broad definition.<sup>24</sup>

The foregoing pertains to conflict ascertainment – an initial assessment of applicable rules and principles – which the ILC describes as the first step in conflict resolution.<sup>25</sup> The next step builds on what Jenks described as a general presumption against conflict.<sup>26</sup> Jenks explained that this presumption is really an application the fundamental principles of treaty interpretation: the principle of reasonableness, the principle of good faith and the presumption of consistency with international law.<sup>27</sup> The ILC described this step as harmonization or the interpretation of apparent conflicts so as to render obligations as compatible.<sup>28</sup> Where harmonization is not plausible, conflict-solution techniques (e.g.: *lex specialis* principle or *lex posterior* principle) are employed to establish definitive relationships of priority between norms: the norm that is set aside remains in the background, “continuing to influence the interpretation and application of the norm to which priority has been given.”<sup>29</sup>

This process of resolution, however, is not as linear as described above. The ICL noted that, “Interpretation does not intervene only once it has already been ascertained that there is a conflict. Rules appear to be compatible or in conflict *as a result of interpretation*.”<sup>30</sup> Thus, even in ascertaining whether a conflict exists, classic conflict resolution tools are employed.<sup>31</sup> Where a definite priority needs to be established, then the principles of *lex specialis* and *lex posterior* come into play.<sup>32</sup> These are applied as guidelines, however, and not mechanically, in order to suggest “a pertinent relationship between the relevant rules in view of the need for consistency of the conclusion with the perceived purposes of functions of the legal system as a whole.”<sup>33</sup> This the ILC Report identifies as the ‘principle of systematic interpretation,’ which does not “merely restate the applicability of general international law in the operation of particular treaties. It points to the need to take into account the normative environment more widely.”<sup>34</sup>

Thus, the ICL Report set forth a method for conflict resolution and a process for systematic interpretation. The first step is conflict ascertainment, which entails examining two different rules or rule sets to determine whether they apply to the same subject-matter and, if so, whether they suggest different

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24 *Ibid.*

25 *Ibid.* at 24.

26 Jenks at 427.

27 *Ibid.* at 428.

28 ILC Report at 207.

29 *Ibid.* at 25, 207.

30 *Ibid.* at 207 (emphasis in the original).

31 *Ibid.* at 208.

32 *Ibid.*

33 *Ibid.* at 25, 208.

34 *Ibid.* at 208-209.

ways of dealing with a problem. Where provisions of specialized regimes cannot be brought into harmony, conflict resolution tools are applied to prioritize the conflicting norms. The norm that is off-set remains in the background, influencing the interpretation of the prioritized norm. An example of this process is illustrated through a hotly contested area of potential conflict between air and space law: the requirement of vehicle certification under the Chicago Convention and the requirement of a license under the Outer Space Treaty.<sup>35</sup> Article 31 of the Chicago Convention requires all aircraft engaged in international navigation to carry a certificate of air worthiness. Thus, the aircraft must go through a process of certification. Article VI of the Outer Space Treaty, on the other hand, requires authorization of activities in outer space. States have implemented this provision by requiring a license or permit for space-related activities. Because these rules indicate different ways to deal with a problem, they are in conflict according to the terms of the ILC Report.<sup>36</sup> This conflict can be harmonized: the rules are not mutually exclusive. A State could require a certificate of airworthiness for an aerospace plane, as well as a launch license. Nevertheless, it should be noted that these are fundamentally different processes: the former, the certification of a vehicle; the latter, the licensing of an activity. Thus, States have chosen different modes of regulation in two separate and distinct legal regimes. To apply one mode of regulation of one regime could frustrate the object and purpose of the other regime.

### **III. State Resolutions of Conflicting Norms in Air and Space Law**

Having identified the process for conflict ascertainment and conflict resolution, two legal regimes – one existent and the other proposed – will be examined to illustrate that States are at times following this process, and at other times making decisions based upon considerations other than rights and obligations arising out of international law.

#### **III.1. US Commercial Space Law**

Most of the progress in the development of commercial suborbital vehicles has occurred in the US over the last decade. To support this development, the US has put into place a comprehensive legal and regulatory framework for these activities, codified under its domestic, commercial space law.<sup>37</sup> As will

35 See, e.g.: George Nield, *et al.* “Certification Versus Licensing for Human Space Flight in Commercial Space Transportation” 63<sup>rd</sup> International Astronautical Congress (2012) IAC-12-D6.1.3, online: [www.faa.gov/about/office\\_org/headquarters\\_offices/ast/programs/international\\_affairs/media/Certification\\_vs\\_Licensing\\_Nield\\_FAA-IAC-Naples-Oct-2-2012.pdf](http://www.faa.gov/about/office_org/headquarters_offices/ast/programs/international_affairs/media/Certification_vs_Licensing_Nield_FAA-IAC-Naples-Oct-2-2012.pdf) [hereinafter, “Nield, ‘Certification’”].

36 ILC Report at 19.

37 Commercial Space Launch Act, Pub. L. No. 98-575, 98 Stat. 3055 (1984); Commercial Space Launch Act section 3, 98 Stat. 3055-56, Commercial Space Launch Act Amendments of 1988, Pub. L. No. 100-657, 102 Stat. 3900; Commercial Space

be illustrated below, it incorporates aspects of both air and space law, harmonizing the regimes and creating a hybrid air and space law system for the regulation of suborbital flight.

In regards to the launch and reentry of vehicles, the US has implemented the international space law treaties through its Commercial Space Launch Act (CSLA) and amendments thereto.<sup>38</sup> Under US law, launch means “to place or try to place a launch vehicle or reentry vehicle and any payload, crew or space flight participant from Earth – (A) in a suborbital trajectory; (B) in Earth orbit in outer space; or (C) otherwise in outer space.”<sup>39</sup> With these definitions, the US has embraced the meaning of launch as an attempted launch, in accordance with Article VII of the Outer Space Treaty and Liability Convention, as well as the meaning of launch as a successful launch, in accordance with Article VIII of the Outer Space Treaty and Registration Convention. Moreover, the geographic scope of the application of US space law is outer space, including Earth orbit and beyond, and includes suborbital trajectories. Thus, US domestic space law encompasses the activities and geographic scope of international space law.

Suborbital vehicles are defined by the CSLA as ‘launch vehicles.’<sup>40</sup> For the following reasons, however, it is not clear whether US space law classifies suborbital vehicles as space objects subject to international space law. ‘Reentry’ is defined as “to return or attempt to return [...] a reentry vehicle [...] from Earth orbit or from outer space to Earth.”<sup>41</sup> Likewise, ‘reentry vehicle’ is defined as “a vehicle designed to return from Earth orbit or outer space to Earth [...]”<sup>42</sup> Through deduction, it could be concluded that, because suborbital trajectories are not included in these definitions, the US does not consider suborbital vehicles to be reentry vehicles. Thus, under US space law, suborbital vehicles are launch vehicles but not reentry vehicles. If suborbital vehicles are not considered to be reentering when they return following a launch, then it could also be concluded that US law does not consider them to have entered outer space. Thus, it could be that the US has implemented international space law in a manner that renders it inapplicable to suborbital vehicles, although domestic US space law still applies.

Supporting this conclusion is the US national register for object launched into outer space. SpaceShipOne flew for the first time on 17 December 2003. No

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Launch Amendments Act of 2004, Pub. L. No. 108-492, 118 Stat. 3900 [hereinafter “CSLA”]. The CSLA is codified in Title 51 of the United States Code (USC).

38 *Ibid.*

39 51 USC §50902 (4).

40 *Ibid.* at §50902 (8).

41 *Ibid.* at §50902 (13).

42 *Ibid.* at §50902 (16).

entry in the US national register appears on that date.<sup>43</sup> Likewise, the US did not communicate information regarding this launch to the international register. The nature of suborbital vehicles is such that they do not enter orbit. Therefore, it makes sense that this object would not appear on the international register, as it is not required under the Registration Convention. Because it does not appear on the US national register, it indicates several possible and non-mutually exclusive possibilities: the US does not consider that SpaceShipOne reached outer space (notwithstanding the fact that it achieved 100 km) thereby rendering Article VIII of the Outer Space Treaty inapplicable; the US does not consider suborbital vehicles to be space objects, likewise rendering Article VIII of the Outer Space Treaty inapplicable; or the US may interpret the provisions of the Registration Convention, requiring launch to Earth orbit or beyond, as a modification of the term ‘outer space’ in Article VIII of the Outer Space Treaty, thereby rendering national registration requirements inapplicable. All of these indicate the possibility that the US does not consider suborbital vehicles to be subject to international space law.

At times, SpaceShipTwo is treated like an aircraft. US domestic air law, requires a special airworthiness certificate,<sup>44</sup> and ‘N’ tail number,<sup>45</sup> which are consistent with Articles 31 and 20 of the Chicago Convention, respectively. Special airworthiness certificates are designated for experimental aircraft, however, so the analogy to Article 31 airworthiness certificates is not perfect. The FAA does not, however, use a certification regime for spacecraft as is required for aircraft.<sup>46</sup> Instead, it issues experimental permits and launch and reentry licenses.<sup>47</sup> The FAA claims that a certification regime is neither practical nor necessary and that it would be an expensive and overwhelming burden on the burgeoning commercial space transportation industry.<sup>48</sup> If air law applies to suborbital flight, then this is a curious conclusion. That the FAA is even considering an aircraft certification process – as opposed to believing it an obligation under the Chicago Convention or under US domestic air law – seems to indicate a policy choice: a weighing of costs and benefits as the rationale for choosing a licensing regime over a vehicle certification regime. Issuing a license for this activity, however, is consistent with the requirements of Article VI of the Outer Space Treaty. The fact that the US issues licenses

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43 US Registry of Object Launched in Outer Space, online: <https://usspaceobjectsregistry.state.gov/Pages/Browse-Decade.aspx>.

44 *Annual Compendium of Commercial Space Transportation: 2013*, US Federal Aviation Administration Office of Commercial Space Transportation, (Washington, D.C., February 2014) at 86.

45 Tail number N339SS. See: Airliners.net (Online: [www.airliners.net/search/photo.search?regsearch=N339SS&distinct\\_entry=true](http://www.airliners.net/search/photo.search?regsearch=N339SS&distinct_entry=true)).

46 Nield “Certification”.

47 51 USC §50904.

48 Nield “Certification” at 2, 4.



and permits for suborbital launches indicates that the US interprets the Outer Space Treaty as applicable to suborbital vehicles.

The US defines a ‘spaceflight participant’ as an “individual, who is not crew, carried within a launch vehicle of reentry vehicle.”<sup>49</sup> These participants are not passengers in the normal sense, and domestic and international passenger liability regimes are considered not to apply. The FAA requires spaceflight participants to execute a waiver of liability against the US government based upon informed consent.<sup>50</sup> It is curious that the US government would want spaceflight participants to waive liability claims *against the US government*. The US government is not liable for aviation accidents under either domestic or private international air laws. It is liable, however, for damages under the Outer Space Treaty and Liability Convention, at least when accidents occur outside of US territory or in outer space. The FAA claims that the waiver process gives the fledgling industry “room to grow and develop.”<sup>51</sup> Again, this expresses a policy choice rather than harmonization and prioritization of obligations.

The FAA has signed Memoranda of Cooperation (MOCs) with the UK CAA and UK Space Agency, as well as with Italy’s Ente Nazionale per l’Aviazione Civile (ENAC) for cooperative enhancement in the compiling of safety data, in the recovery of persons and vehicles involved in space transportation, and in the development of safety regulations for commercial space transportation.<sup>52</sup> The MOCs call for enhancement in the free movement of space transport vehicles between the respective countries, including commercial transatlantic space travel. This indicates a willingness to be flexible about the implementation and application of international missile technology control regimes. These MOC’s also indicate that the US is promoting its style of regu-

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49 51 USC §50902 (17).

50 See, George Nield, *et al.* “Informed Consent in Commercial Space Transportation Safety” 64<sup>th</sup> International Astronautical Congress (2013) IAC-13-D5.1.4, online: [www.faa.gov/about/office\\_org/headquarters\\_offices/ast/programs/international\\_affairs/media/Informed\\_Consent\\_paper\\_IAC\\_Sept\\_2013\\_FAAFinal.pdf](http://www.faa.gov/about/office_org/headquarters_offices/ast/programs/international_affairs/media/Informed_Consent_paper_IAC_Sept_2013_FAAFinal.pdf) at 1-2.

51 *Ibid.* at 5.

52 See: Memorandum of Cooperation in the Development of Commercial Space Transportation Between: the Federal Administration, Department of Transportation, USA; the Department of Transport, UK; the UK Space Agency; and the UK Civil Aviation Authority (2014, NAT-I-4012) online: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/344556/memorandum-of-cooperation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/344556/memorandum-of-cooperation.pdf); Memorandum of Cooperation in the Development of Commercial Space Transportation Between the Federal Administration, Department of Transportation, USA and the Ente Nazionale per l’Aviazione Civile, Italy (2014) (Online: [https://www.faa.gov/about/office\\_org/headquarters\\_offices/ast/programs/international\\_affairs/media/Memorandum\\_of\\_Cooperation\\_FAA\\_and\\_Italy\\_ENAC\\_signed\\_March-12-2014.pdf](https://www.faa.gov/about/office_org/headquarters_offices/ast/programs/international_affairs/media/Memorandum_of_Cooperation_FAA_and_Italy_ENAC_signed_March-12-2014.pdf)).

lation, which is to say, its manner of implementation of international space law obligations. Recently the US entered into a similar MOC with France.<sup>53</sup> This section serves to illustrate that the US has implemented a hybrid air and space law regime for vehicles traveling on suborbital trajectories. In doing so, it appears to have harmonized international obligations, as well as prioritized certain aspects of air law and space law over others. Such prioritization, particularly in regards to the issue of certification versus licensing, seems to be based not on legal analysis, but on economic concerns over the development of commercial space transport. The FAA is attempting to export this regulatory scheme through the execution of MOCs. As will be illustrated below, the UK is proposing a hybrid air and space law regime that in some ways incorporates FAA objectives while harmonizing and prioritizing international obligations in equally creative ways.

### III.2. The UK Proposal for Spaceplane Certification and Operation.

In 2014, the UK Space Agency, Department for Business Innovation & Skills and Department for Transport, published a report drafted by the UK Civil Aviation Authority (CAA), entitled, “UK Government Review of commercial spaceplane certification and operations.”<sup>54</sup> The CAA Report outlined how the UK could accommodate and support future spaceplane operations.

The CAA defined a spaceplane as a “[rocket-powered], winged vehicle that acts as an aircraft while in the atmosphere and as a spacecraft while in space.”<sup>55</sup> The report pertains mainly to horizontal take-off, horizontal landing vehicles, including those that take off from a runway and those that are ferried to a higher altitude by a carrier aircraft, but it also considers vertical take-off, vertical landing suborbital vehicles.<sup>56</sup>

Like the US, the UK has ratified all of the international space law treaties, save the Moon Agreement. It has implemented international space law through its Outer Space Act of 1986.<sup>57</sup> The CAA Report acknowledges UK obligations under international space law for ensuring that activities carried out by its nationals in outer space are consistent with those treaties and with

53 FAA, “US and France Sign Memorandum of Cooperation to Share Commercial Space Transportation Research and Development Activities” Press Release (16 June 2015) online: [www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=19075&omniRss=press\\_releasesAoc&cid=102\\_P\\_R](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=19075&omniRss=press_releasesAoc&cid=102_P_R).

54 UK Civil Aviation Authority, *UK Government Review of commercial spaceplane certification and operations*, (July 2014) online: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/329758/spaceplanes-tech.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/329758/spaceplanes-tech.pdf) [hereinafter, “CAA Report”].

55 *Ibid.* at 11.

56 *Ibid.* at 29.

57 *Ibid.* at 61; UK Outer Space Act of 1986, Chapter 38, online: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/295760/outer-space-act-1986.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/295760/outer-space-act-1986.pdf).

international law, generally.<sup>58</sup> Likewise, the CAA acknowledges that the UK is bound by the Chicago Convention and the definition of an aircraft under its Annexes.<sup>59</sup> In this regard, the Report states, “[S]paceplanes clearly meet this definition, and so the existing body of aviation safety regulation would apply to them.”<sup>60</sup>

The report states, “As they are vehicles that act as aircraft while in the atmosphere and as a spacecraft while in space, both space law and aviation law are applicable to spaceplane operators.”<sup>61</sup> Thus, the UK appears to treat sub-orbital vehicles as aircraft and space objects. The Report continues, however, stating that neither regime is wholly appropriate to the nature of spaceplane operations.<sup>62</sup> This is a curious statement. It could indicate a direct incompatibility between the regimes, in which case the rules of one would have to be prioritized while the other rule is off-set and placed in the background, influencing the interpretation of the prioritized regime.<sup>63</sup> Or it could mean a divergence, wherein the two regimes simply affect the same subject-matter and suggest different ways to deal with spaceplanes, thereby requiring an attempt to harmonize the rules before they are prioritized.<sup>64</sup> Finally, it could indicate a lacuna in both regimes in regards to spaceplanes, and thus, the necessity to revert to general international law and/or *lege ferenda*. It turns out to be none of these. As is illustrated below, the CAA Report seems to indicate that the applicable law is simply impracticable, and therefore decides that it should be set aside.

The UK has delegated many of its regulatory powers for aviation to the European Aviation Safety Agency (EASA), which now implements the provisions of the Chicago Convention and its Annexes through such delegation of authority.<sup>65</sup> This means that spaceplanes would have to comply with EASA standards for vehicle certification and air transport.<sup>66</sup> As with the FAA, the UK balances its priorities through a risk-based analysis, seeking regulation that provides “an acceptable level of safety without being so burdensome that it stifles the development of this emerging industry.”<sup>67</sup> For this reason, UK does not want to comply with EASA standards. The CAA Report proposes a “ring-fence” around commercial spaceplane operations to render them entirely separate from EASA regulations.<sup>68</sup>

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58 CAA Report at 60-61.

59 *Ibid.* at 63.

60 *Ibid.*

61 *Ibid.* at 59.

62 *Ibid.*

63 ILC Report at 25, 207.

64 *Ibid.*

65 CAA Report at 63.

66 *Ibid.*

67 *Ibid.* at 77.

68 *Ibid.* at 65.

The CAA Report identifies four ways to create this ring-fence.<sup>69</sup> First, the UK could assert that spaceplanes are not aircraft. The Report characterizes this as a difficult proposition, given ICAO's definition of aircraft. Second, the Report suggests that the UK could assert that sub-orbital transportation is not air transport. This understanding of air transport, the Report claims, is inconsistent with both suborbital tourism as well as proposed intercontinental, high-speed travel, as both are in fact air transport. Thus, this option is equally not viable. Third, the UK could classify spaceplanes as space objects, rendering them subject to international space law, as implemented through the Outer Space Act of 1986. The Report claims this option is not viable because the EU, although the EU has yet to exercise its competence to regulate the commercial space market, may do so and thereby create regulations that conflict with the space regulations that the UK would develop, thus disrupting operators.

This entire analysis is remarkable. The UK seems to treat its obligations arising under both international space law and international air law as options from which it can choose for the regulation of spaceplanes. The UK appears to skip an attempt at harmonization and to start by prioritizing regimes and the rules within the regimes according to its economic and political objectives. This is not unlike the FAA's stance on certification versus licensing, described above.

The UK ultimately endorses a fourth option: to classify the vehicles as experimental aircraft pursuant to Annex II of the EASA Basic Regulation, thereby removing them from the ambit of EASA jurisdiction and subjecting them to national regulation.<sup>70</sup> The CAA Report notes that experimental aircraft are not typically allowed to conduct public transport operations because the payment of money for transport triggers higher safety standards, and suggests waivers of liability based upon informed consent, similar to the FAA process.<sup>71</sup>

Thus the UK has proposed a system for regulation somewhat similar to US commercial space law. It differs in its classification of suborbital vehicles as aircraft and proposes to regulate these vehicles as experimental aircraft as opposed to launch vehicles. Nevertheless, it appears the UK is trying to harmonize and prioritize its international obligations, while at the same time, setting some aside based upon economic and policy interests. This approach is not unlike that of the US.

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69 *Ibid.*

70 *Ibid.*

71 *Ibid.* at 67-69.

#### IV. Institutional Fragmention and the Effects of Global Administrative Organizations

The ILC Report recognized a positive side to fragmentation, noting that, “New types of specialized law do not emerge accidentally but seek to respond to new technical and functional requirements.”<sup>72</sup> International space law is an excellent example of this phenomenon. In a speech before the 15<sup>th</sup> UN General Assembly in 1960, US President Dwight Eisenhower stated:

“The emergence of this new world poses a vital issue: will outer space be preserved for peaceful use and developed for the benefit of all mankind? Or will it become another focus for the arms race – and thus an area of dangerous and sterile competition? The choice is urgent. And it is ours to make.”<sup>73</sup>

When novel technologies opened up a new international space for national activities, the international community responded by recognizing the applicability of international law to outer space and by creating new norms to ensure its peaceful uses. These laws deviated significantly from older, general international law and from the law of other specialized branches, for instance by prohibiting the acquisition of new territory in outer space. In this way, “Each rule-complex or ‘regime’ comes with its own principles, its own form of expertise and its own ‘ethos’, not necessarily identical to the ethos of neighbouring specialties.”<sup>74</sup> Thus, differences between regimes cannot be trivialized, nor can provisions of one regime be set aside based upon whim or expediency, for to do so threatens the very purpose – the ethos – of the regime.

This part explores tensions between the necessity for cooperation between global administrative organizations in order to avoid or minimize the effects of fragmentation and the dangers inherent in such cooperation. The ILC Report did not address problems of institutional fragmentation, which it defined as having to do with, “[...] the competence of various institutions applying international legal rules and their hierarchical relations *inter se*.”<sup>75</sup> The notion of institutional fragmentation calls into question the nature and structures of the institutions that are called upon to administer to specialized branches of international law.

In a 2005 article, Benedict Kingsbury, Nico Krish and Richard B. Stewart addressed, “The Emergence of Global Administrative Law,” by building up-

72 ILC Report at 14.

73 US State Department, “Address by President Dwight Eisenhower to the UN General Assembly” (22 September 1960) online: [www.state.gov/p/io/potusunga/207330.htm](http://www.state.gov/p/io/potusunga/207330.htm)

74 ILC Report at 14.

75 *Ibid.* at 13.

on the efforts of the Global Administrative Law Project of New York University School of Law.<sup>76</sup> The authors recognized that:

“[...] many of the international institutions and regimes that engage in ‘global governance’ perform functions that most national public lawyers would regard as having a genuinely administrative character: they operate below the level of highly publicized diplomatic conferences and treaty-making, but in aggregate they regulate and manage vast sectors of economic and social life through specific decisions and rulemaking”.<sup>77</sup>

These activities include “rulemaking, not in the form of treaties negotiated by states, but of standards and rules of general applicability adopted by subsidiary bodies.”<sup>78</sup> In this regard, the authors identify several types of global administration, some of which are described as follows.

The first type of global administration is ‘international administration’, entailing formal inter-governmental organizations established by treaty or executive agreement.<sup>79</sup> The authors cite as an example of this type of arrangement, “the UN Security Council and its committees, which adopt subsidiary legislation [and] take binding decisions related to particular countries [...]”.<sup>80</sup> The International Civil Aviation Organization (ICAO), established by the Chicago Convention, appears to fit this description. Unlike the Security Council, however, it has only quasi-legislative and quasi-judicial powers. The Committee on the Peaceful Uses of Outer Space (COPUOS), however, was not established by treaty, but by UNGA Resolution and, as a committee under the General Assembly, has no legislative powers. As discussed below, this distinction is crucial when examining the effects of global administration on the progressive development of air and space law.

The second and third types of global administration identified by the authors appear to be somewhat related. They are ‘transnational networks and coordination arrangements’, on the one hand, and ‘distributed administration’ on the other. The former are “characterized by the absence of binding, formal decision-making structure and the dominance of informal cooperation among state regulators.”<sup>81</sup> The authors describe this arrangement as a “horizontal form of administration [that] can, but need not, take place in a treaty framework.” ‘Distributed administration’, on the other hand, occurs where

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76 Benedict Kingsbury, Nico Krisch & Richard B. Stewart, “The Emergence of Global Administrative Law” (2005) 68(3&4) *L & Contemporary Problems* 15 [hereinafter “Kingsbury”].

77 *Ibid.* at 17.

78 *Ibid.*

79 *Ibid.* at 21.

80 *Ibid.*

81 *Ibid.*

“domestic regulatory agencies act as part of the global administrative space: they take decisions on issues of foreign or global concern.”<sup>82</sup>

As an example of ‘transnational networks and coordination arrangements,’ the authors offer bilateral arrangements for the mutual recognition of national regulatory standards or conformity of procedures, executed by national regulatory authorities.<sup>83</sup> The space-related MOCs executed between the US FAA-AST and civil aviation regulatory agencies of the UK, Italy and France are examples of this type of administrative organization. It is in this regard that the second and third types of global administration appear to overlap, for both the second category (transnational networks and coordination arrangements) and the third category (distributed administration), seem to describe the current status of the participation of domestic regulatory agencies in the administration of, and thereby, the progressive development of, space law.

These categorizations are not absolute and merely represent ways to conceive the entities that administer to the regimes of air and space law. Their utility stems from the differentiation of the various types of global administration. From these categorizations, it can be seen that States have embraced different types of administrative organization for air law and space law. For air law, States have created a formal, treaty-based type of global administration, embodied for the most part by a single international administrative organization: ICAO. On the other hand, States have embraced more fluid and disembodied types of global administration for space law. Although the fragmentation of air and space law into separate and distinct regimes may have been an historical accident, the types of administrative organization that grew up around these specialized regimes were not accidental and, at least in regards to space law, they resulted out of debates over the nature of public international law itself. These debates and their outcome are described in the next section.

#### **IV.1. A Critique of the Evolution of Space Law: *Jenks v. McDougal***

According to S.G. Sreejith, Jenks was instrumental in laying the foundation for space law, framing it within positivist notions that international law should develop into a ‘common-law of mankind’ and thereby charting a course for space law’s progressive development.<sup>84</sup> In order to illustrate this, Sreejith contrasts Jenks’ approach with that of American jurist Myers McDougal.<sup>85</sup> The contrast is explained as follows.

82 *Ibid.*

83 *Ibid.*

84 S.G. Sreejith, “Wither International Law, Thither Space Law: A Discipline in Transition” (2007-8) 38 Cal. W. Int’l L.J. 331 [hereinafter, Sreejith].

85 *Ibid.* at 348.

In an address to the International Institute of Space Law (IISL), Jenks stated, “Space law, like air law, is not a substantive branch of the law [...]. It consists of an angle of preoccupation with a wide range of diverse problems rather than a well-defined area demarcated by the substance of the problems which it embraces.”<sup>86</sup> For Jenks, “[S]pace law had to be integrated into the development of the common law of mankind.”<sup>87</sup> He advocated, “a holistic approach toward space law, asserting that space law is not a self-sufficient discipline distinct from international law.”<sup>88</sup> This approach involved the formulation of a robust, international legal framework of comprehensive treaties and principles.<sup>89</sup> Thus, Jenks sought “to develop rules of universal applicability through comparative study and synthesis of various legal systems.”<sup>90</sup> Implicit in this approach, however, is a classical, State-centric view of the international legal order.

McDougal, on the other hand, advocated a ‘policy-oriented jurisprudence’ of an individual-centred world.<sup>91</sup> In order to bring about what he referred to as a ‘space commonwealth,’ McDougal sought to shift the focus from the sovereignty of nation-States to a ‘world social process’ in which individuals participated directly.<sup>92</sup> Based upon his realization that officials of nation-States “will manipulate doctrines and principles for the realization of preferred values,” McDougal found objectionable Jenks’ faith in legal doctrines and “eschews [Jenks’] traditional positivist approach of laws as rules and rules as binding.”<sup>93</sup> He linked law with the “‘patterns of effective and authoritarian decisions concerning the distribution of values in [a] social system’ and thereby provided a social spectrum for evaluating legal relationships.”<sup>94</sup>

Sreejith concisely summarizes the difference between these two approaches:

“Whereas Victorian positivists like Jenks stood for a legal order based on doctrines, rules, and equity and compromising treaties, international custom, and general principles of law, American scholars held an instrumentalist view that law is an apparatus to balance societal interests and that any further action should be directed in terms of this conception of law.”<sup>95</sup>

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86 *Ibid.* at 349 (quoting: C. Wilfred Jenks, “Seven Stages in the Development of Space Law” (1968) 11 Proc. Colloq. Outer Space 246, 262-263).

87 Sreejith at 350.

88 *Ibid.* at 354.

89 *Ibid.*

90 *Ibid.*

91 *Ibid.* at 350-351.

92 *Ibid.* at 351.

93 *Ibid.* at 355.

94 *Ibid.* at 356 (citing: Oran R. Young, “International Law and Social Science: The Contributions of Myers S. McDougal” (1972) 66 Am. J. Int’l L 60, 63).

95 Sreejith at 356.



He points to the divide between American instrumentalists and Victorian positivists as the real source of impasse in the progressive development of international space law, rather than the divide between two superpowers locked in a bi-polar battle over capitalist and communist ideologies.<sup>96</sup> Nevertheless, at the international level, Jenks' view was embraced, for "[...] space law scholars vigorously pursued the positivist strategy by regulating state conduct through treaties and rules; most of the time they ignored the societal dimension of space activities."<sup>97</sup>

Ironically, rather than brining about Jenks' common law of mankind, the Victorian-positivist sensibilities of space law jurists contributed to the creation of a fragmented, specialized regime, somewhat disassociated from other branches of international law. Moreover, States' sensitivities to national security concerns, implicit in outer space affairs, appear to have frozen international space law within Jenks' positivist scheme – the progressive development of space law is dominated by formalistic State-to-State diplomacy within COPUOS, the Conference on Disarmament or ad hoc meetings of States.<sup>98</sup> In a further twist of irony, the inability of States to come to any kind of agreement over binding norms within these frameworks has led to only minor breakthroughs in the progressive development of space law in the form of 'soft law' – guiding principles, recommendations and non-binding codes of conduct that are not unlike public policy at the domestic level and, arguably, similar to the policy-oriented jurisprudence of McDougal.

The US is somewhat responsible for this phenomenon, as today it generally opposes the formulation of binding international norms for outer space.<sup>99</sup> US domestic policies have followed suit: in terms of export controls, the notion of static, formulaic laws has given way to authoritarian, ad hoc decision-making, much in line with the description of McDougal's policy-oriented jurisprudence.<sup>100</sup> Witness further in this regard, the rise of the George Washington Space Policy Institute as the focal-point of US academic endeavors for the

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96 *Ibid.*

97 *Ibid.*

98 See, e.g.: "Multilateral Negotiations on International Code of Conduct for Outer Space Activities" EU Delegation to the UN – New York (27-31 July 2015) online: [http://eu-un.europa.eu/articles/en/article\\_16615\\_en.htm](http://eu-un.europa.eu/articles/en/article_16615_en.htm).

99 See, e.g.: Bill Gertz, "US Opposes New Draft Treaty from China and Russia Banning Space Weapons" The Washington Free Beacon (19 June 2014) online: <http://freebeacon.com/national-security/u-s-opposes-new-draft-treaty-from-china-and-russia-banning-space-weapons/>.

100 See, e.g.: Mike Gold, "Lost in Space: A Practitioner's First-Hand Perspective on Reforming the U.S.'s Obsolete, Arrogant, and Counterproductive Export Control Regime for Space-Related Systems and Technologies" (2008) 34(1) J Space L 163, 168, fn. 17; Mike N. Gold, "Thomas Jefferson, We Have a Problem: The Unconstitutional Nature of the U.S.'s Aerospace Export Control Regime as Supported by Bernstein v. U.S. Department of Justice" (2009) 57 Clev. St. L. Rev. 629.

progressive development of space law,<sup>101</sup> or the launch of *The Journal of Astrosociology*, with its inaugural edition published in 2015.<sup>102</sup> Thus, McDougal's policy-oriented jurisprudence, particularly in the US, may have won out in the long-run.

The globalization of space is prompting States to seek a relaxation of export controls in order to allow the operation of US-developed suborbital vehicles within foreign territories. These developments are coming by the way of ad hoc executive agreements. Moreover, concerns over safety, driven largely by the increase in commercial suborbital launch providers, has hastened the involvement of ICAO – a global administrative body that is breaking down the inherent character of international space law as a largely State-centric diplomatic process and replacing this process with bureaucracy driven largely by technical experts balancing interests. Thus is the landscape of the global administration of space law evolving.

#### **IV.2. Koskenniemi on the Fate of Public International Law**

In an article published subsequent to the ILC Report, Martti Koskenniemi again addressed the subject of fragmentation.<sup>103</sup> Although the article does not expressly address institutional fragmentation, it casts problems with institutional fragmentation within larger debates over constitutionalism and legal pluralism in international law, as well as within discourse regarding the relationship of international law to the substantive field of international relations. Koskenniemi wrote, "Some 60 to 80 years ago, a small group of cosmopolitan-minded lawyers translated the diplomacy of States into the administration of legal rules and institutions."<sup>104</sup> He identifies the work of Oppenheim and Lauterpacht as leading the way toward a "political realist reading of statehood with a strong anti-sovereignty ethos [...]."<sup>105</sup> He explained that this 'cosmopolitan ethos' found a home in the UN, prompting scholars such as Jenks and Friedmann to identify it as "the transformation of international

101 See, "About the Space Policy Institute" George Washington University, online: <https://www.gwu.edu/~spi/about.cfm>; See also, Benjamin Soloway, "Lawyers in Space" Foreign Policy (15 April 2015) online: <http://foreignpolicy.com/2015/04/15/lawyers-in-space-legal-international-space-station/> (Explaining that Henry R. Herzfeld, a space policy expert at George Washington University Space Policy Institute, was a private sector advisor to the US delegation at the 2015 meeting of the UN COPUOS Legal Subcommittee).

102 Astrosociology Research Institute, *Journal of Astrosociology*, volume 1(2015), online: [www.astrosociology.org/Library/PDF/Journal/JOA-Final/JournalOfAstrosociology-Vol1.pdf](http://www.astrosociology.org/Library/PDF/Journal/JOA-Final/JournalOfAstrosociology-Vol1.pdf).

103 Martti Koskenniemi, "The Fate of Public International Law: Between Technique and Politics" (2007) 70 (1) *Modern LR* 1, 2-3 [hereinafter, "Koskenniemi"].

104 *Ibid.* at 2.

105 *Ibid.*

law from a law of co-ordination to a law of world-wide co-operation to further shared ends.”<sup>106</sup>

Rather than a common law of mankind, however, a fragmented international law began to emerge. Koskenniemi explained:

“Specialization [...] started to *reverse* established legal hierarchies in favour of the structural bias in the relevant functional expertise. Even though this process was often organised through intergovernmental organizations, the governmental delegations were composed of technical [...] experts in a way that transposed the functional differentiation at the national level onto the international plane.”<sup>107</sup>

It may be that the success of highly technical international intergovernmental organizations such as the International Telecommunications Union (ITU) and ICAO, both of which preceded the creation of the UN, lead the way toward this transposition, as they routinely employ functional experts and create highly specialized and technical rules for the global governance of particular functionally-organized activities.

Returning to Koskenniemi’s article, he explained that “The point of the emergence of [a specialized regime] is precisely to institutionalise the new priorities carried within such fields. As a result, political conflict will often take the form of conflict of jurisdiction,” wherein jurisdictional competence will be determined by how a matter is described.<sup>108</sup> He cites the 1998 *Beef Hormones* case as an example of a legal principle of one regime being determined as inapplicable by an administrative institution – in this case, a quasi-judicial body – of another regime.<sup>109</sup> He explained that the Appellate Body of the World Trade Organization determined that the Precautionary Principle of international environmental law was not binding on the WTO.<sup>110</sup> Naturally, this example raises the questions as to whether there are principles of international space law that may be determined to be inapplicable by ICAO in its regulation of space-related activities.

Koskenniemi echoes some of the statements in the ILC Report on the importance, or lack thereof, of the subject-matter criterion. He wrote, “If legal principles that emerge in certain fields may be inapplicable in others, the crucial question will be to determine under which regime they should be decided.”<sup>111</sup> And further, “A standard way to go about this would be to try to find

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106 *Ibid.* at 3 (citing, W. Jenks, *The Common Law of Mankind* (London: Stevens, 1958); W. Friedmann, *the Changing Structure of International Law* (London: Stevens, 1964).

107 Koskenniemi at 4.

108 *Ibid.* at 5.

109 *Ibid.* (citing: European Communities – Measures Concerning Meat and Meat Products (Hormones) 13 February 1998, WT/DS26/AB/R, WT/DS48/AB/R at 123-125).

110 Koskenniemi at 5.

111 *Ibid.*

the regime that is most relevant, or specific, to a matter.”<sup>112</sup> He points out the weakness of this approach, stating:

“The choice of one among several applicable legal regimes refers back to what is understood as significant in a problem. And the question of significance refers back to what the relevant institution understands as its mission, its structural bias.”<sup>113</sup>

Thus, the choice of the relevant institution tends to predetermine the choice of regime, and thereby, predetermine which principles will be applicable. Koskenniemi points out a further difficulty: even where an institution is called upon to apply another legal regime – for example, the case of ICAO applying principles of space law to regulate suborbital vehicles – the institution would apply the principles of the other legal regime according to that institution’s object and purpose.<sup>114</sup> It stands to reason that this phenomenon – somewhat akin to an institutional bias – could undermine the object and purpose of the regime being applied. Koskenniemi postulates that the danger of a world of plural regimes (i.e.: a fragmented international order) is that, “political conflict is waged on the description and re-description of aspects of the world so as to make them fall under the jurisdiction of particular institutions.”<sup>115</sup> Thus, “fragmentation becomes struggle for institutional hegemony.”<sup>116</sup> The problem, he noted, is that, “If there are no regime-independent ways of describing an issue, the door is open to the unilateral assumption of jurisdiction by experts who feel themselves powerful enough to have the last word.”<sup>117</sup> Rather than conceiving themselves as part of the Lauterpacht tradition of global federalism, these experts “may work for private or public-private institutions, national administrations, interest groups or technical bodies, developing best practices and standardized solutions [...] as part of the management of particular regimes.”<sup>118</sup> By “recasting problems of politics as problems of expert knowledge [...] traditional international law is pushed aside by a mosaic of particular rules and institutions, each following its embedded preferences.”<sup>119</sup> This phenomenon seems to describe current trends in the regulation of suborbital vehicles, as is explored in more detail in the following section.

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112 *Ibid.*

113 *Ibid.* at 6.

114 *Ibid.* at 7.

115 *Ibid.*

116 *Ibid.* at 8.

117 *Ibid.*

118 *Ibid.*

119 *Ibid.* at 8-9.

### IV.3. The Fate of Public International Air and Space Law

The divergent mandates and processes of ICAO and COPUOS offer an interesting example of the phenomena described above. For instance, COPUOS works under State-to-State dialogue and consensus decision-making. Although experts contribute to the development of new guidance materials in working groups and expert groups under the Subcommittees of COPUOS,<sup>120</sup> State-to-State consultations are the norm whereby these materials are developed and adoption of principles and guidelines takes place via consensus decision-making in the plenary sessions of the Committee and its Subcommittees.<sup>121</sup> Moreover, in order to amend the UN treaties on space law, a diplomatic conference with State-to-State negotiations would have to be convened. Thus, notwithstanding its characterization as a specialized regime that typifies the phenomenon of fragmentation, by functioning under consensus decision-making and employing State-to-State dialogue, the legal regime for outer space, as well as the Committee responsible for the progressive development of space law, exhibits many of the political decision-making processes of traditional international law – the Victorian-positivist sensibilities advocated by Jenks and described by Sreejith, above. ICAO, on the other hand, does not employ consensus decision-making and its constitutive instrument, the Chicago Convention, can be amended much more easily. The ICAO General Assembly, which is composed of all Contracting States to the Chicago Convention, takes decisions and adopts resolutions by majority vote and can amend the Chicago Convention by decisions taken by a qualified majority.<sup>122</sup> New Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) are formulated with input from technical experts – often representatives of industry stakeholders – in Working Groups and Panels formed under the ICAO Air Navigation Commission (ANC).<sup>123</sup> The ANC is composed of 19 members, who are appointed by the ICAO Council on the basis of professional expertise.<sup>124</sup> According to Diederiks-Verschoor, “The members of the [ANC] carry out their task in accordance with personal technical and professional expertise rather than by virtue of a mandate of a State.”<sup>125</sup> Proposed SARPs and PANS are presented for adoption to the ICAO Council, which is composed of 36 States elected by the ICAO General

120 See, e.g.: UNOOSA, “Long-term Sustainability of Outer Space Activities” online: [www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html](http://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html).

121 Nandasiri Jasentuliyana, *International Space Law and the United Nations* (The Hague: Kluwer Law International, 1999) 23-29 [hereinafter, “Jasentuliyana”].

122 I. H. Ph. Diederiks-Verschoor, *An Introduction to Air Law*, 9th revised ed by Pablo Mendes de Leon (Alphen aan den Rijn, The Netherlands: Kluwer Law International, 2012) 33 [hereinafter, “Diederiks-Verschoor”].

123 *Ibid.* at 34.

124 *Ibid.* at 35.

125 *Ibid.*

Assembly based upon geographic and professional qualification criteria.<sup>126</sup> Generally, ICAO Council decisions are taken by majority vote.<sup>127</sup> Thus, in ICAO, State-to-State dialogue and consensus-based decision-making are not employed. Instead, new measures are developed by technical experts and adopted by majority voting. Jansentuliyana identifies the separation of technical and political aspects civil aviation as the source of ICAO's success in law-making.<sup>128</sup>

ICAO's involvement in the regulation of space-related activities is being spear-headed by a space learning group. ICAO is compiling regulatory materials relative to the commercial space sector and plans to outline a work program for consideration by the ANC.<sup>129</sup> The ICAO secretariat administering to the learning group has recognized the legal short-comings of ICAO's mandate for the regulation of space-related activities, but nevertheless has recommended moving forward by addressing technical aspects of the regulation of such activities – a presumption that the law will follow. In this vein, the ICAO secretariat has recommended the formulation of language pertaining to suborbital flights to be included in future iterations of ICAO's Global Air Navigation Plan (GANP) and Global Aviation Safety Plan (GASP).<sup>130</sup> The GANP and GASP are essentially long-term policy statements approved by the ICAO General Assembly and updated periodically to take account of evolving circumstances in global aviation.

Thus, ICAO is attempting to lay to the side issues of conflicts between air law and space law and to address technical considerations presented by suborbital flight, related to global air navigation and global aviation safety. It is unclear whether this process is positive or negative for the progressive development of space law. On the one hand, Jenks noted the importance of conflict avoidance and recommended procedural safeguards for avoiding the creation of conflicts when creating new norms.<sup>131</sup> One of the safeguards he recommended was inter-agency cooperation in the formulation of new norms by intergovernmental bodies.<sup>132</sup> In this regard, the participation of UN Office of Outer Space Affairs (UNOOSA) – the secretariat to COPUOS – in the ICAO space learning group offers some promise, as inputs from UNOOSA could avoid the creation of new conflicts or could lead to the harmonization of

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126 *Ibid.* at 34.

127 *Ibid.* at 33.

128 Jansentuliyana at 379.

129 *Survey on Commercial Space Transportation and Airspace Integration*, ICAO State Letter (6 June 2014) AN1/64-1441, online: <http://www4.icao.int/space/Documents/041e.pdf>.

130 Respectively: ICAO Global Air Navigation Plan, online: [www.icao.int/sustainability/pages/GANP.aspx](http://www.icao.int/sustainability/pages/GANP.aspx); ICAO Global Aviation Safety Plan, online: [www.icao.int/safety/safetymanagement/pages/gasp.aspx](http://www.icao.int/safety/safetymanagement/pages/gasp.aspx).

131 Jenks at 429-433.

132 *Ibid.* at 429.

apparent conflicts between air and space law. UNOOSA, however, does not have a mandate to formulate policy on behalf of COPUOS member States. Thus, the extent of its participation in the ICAO space learning group may be limited.

On the other hand, by including suborbital flights in the GANP and GASP, ICAO is applying its own norms – its own ethos – to suborbital flights without first determining the extent to which air law or space law is the applicable regime. Furthermore, by focusing on technical aspects only, ICAO is doing this without attempting to harmonize the legal regimes. This process bypasses the first steps in conflict resolution – conflict ascertainment and harmonization – and moves directly to a prioritization of norms. Because of the autonomous operation principle, which indicates that ICAO should apply its constitutional framework – its procedures and rules – there exists a danger that ICAO will prioritize air law over space law.<sup>133</sup> Or similarly, as described by Koskenniemi and discussed above, ICAO may grant priority to norms of space law, but it will do so according to its own administrative objectives and purposes, thus risking the subjugation of the object and purpose of the space law regime to ICAO's ethos.

In regard to the autonomous operation principle, Jenks is careful to note that, “[...] organizations governed by or responsible for the administration of conflicting instruments must [...] operate provisionally on the basis of their own instruments until the conflict can be dealt with by negotiations [...]”<sup>134</sup> Given ICAO's internal process for the development of SARPs and PANS by technical experts, it is unclear when such negotiations would take place. For space law, States have retained the Victorian-positivist sensibilities of traditional international law. This was made abundantly clear during the EU Multilateral Negotiations on an International Code of Conduct (ICOC) for Outer Space Activities, wherein much of the State-to-State dialogue was spent in advocating for the appropriate forum for the development of an ICOC. States vied for COPUOS, the Conference on Disarmament or the UN General Assembly, with their choice of forum dependent upon their prioritization of space law and disarmament law norms.<sup>135</sup> This debate is not happening in regards to ICAO's involvement in the regulation of space-related activities. Indeed, ICAO appears to be acting *sua sponte*. If nothing more, by including language pertaining to suborbital flights in the GANP and GASP, ICAO undermines the political processes of State-to-State dialogue and consensus-based decision-making employed by the member States of COPUOS and replaces these with its own rule-making preferences.

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133 *Ibid.* at 448.

134 *Ibid.*

135 *Ibid.* See also, Summary of the Chair, Multilateral Negotiations on an ICOC for Outer Space Activities (31 July 2015) online: <http://papersmart.unmeetings.org/media2/7650931/chairs-summary-corrected-1-.pdf>.

As described above, COPUOS is not a global administrative body in the same sense as ICAO: it has no quasi-legislative powers. Global administration of space law is done largely by domestic regulators functioning on the international plane. Koskenniemi also recognized that national administrations can be a hegemonic force in the determination of the application of a regime and in its interpretation.<sup>136</sup> Eyal Benvenisti and George W. Downs have characterized this, as well as the use of informal government-to-government coordination – such as the MOCs executed by the FAA – as stronger States exploiting fragmentation to maximize their own gains at the expense of weaker States.<sup>137</sup> Although this seems nefarious, it may simply be that the US prefers not to have to remake the wheel by further conforming its already existent regulations to a new aviation regime for space promulgated at the international level by ICAO. It must be considered, however, that it is domestic regulators via bilateral intergovernmental agreements, that are jockeying with an international administrative organ for institutional hegemony in the regulation of suborbital vehicles. The self-perpetuating nature of a specialized regime that is administered by a global body with quasi-legislative powers could present serious problems for domestic regulators in their efforts to shape international space governance according to their domestic space law regimes.<sup>138</sup>

Thus, the choice of organization for the administration of air and space law *vis-à-vis* suborbital flight seems to fall to the poles of the types of global administration: an international administrative organ (ICAO) on the one hand; domestic regulators (US FAA, UK CAA, Italy's ENAC, *etc.*) on the other. There is, however, a third alternative: the creation of global administrative body dedicated to space-related activities and endowed with quasi-legislative authority. Jansentuliyana recommended the establishment of such an entity, empowered with the quasi-legislative powers to promulgate SARPs for outer space.<sup>139</sup> This option seems to be the best, as it avoids the potential that ICAO will apply air law to suborbital flights, or apply space law but under ICAO rules and procedures. It also avoids the potential institutional hegemony of administration by domestic regulatory agencies. A global regulatory body dedicated to space-related activities could apply which ever regime States choose for the regulation of suborbital flight, or even a hybrid of air and space law, but in a manner that avoids the sacrifice of the object and purpose of one regime for that of another.

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136 Koskenniemi at 8-9.

137 Eyal Benvenisti and George W. Downs, "The Empire's New Clothes: Political Economy and the Fragmentation of International Law" (2007) 60(2) Stanford L R 595, 618.

138 Alexandra Khrebtukova, "A Call to Freedom: Towards a Philosophy of International Law in an Era of Fragmentation" (2008) 4(1) J Int'l L & Int'l Rel 51, 63.64.

139 Jansentuliyana at 381.



It should be recognized, however, that the creation of such organization would not eliminate the problem of fragmentation itself or its effects on the regimes of air and space law, but would actually be a step toward further calcification of space law as a specialized regime, separate and distinct from other branches of international law. Thus, the process to avoid the effects of fragmentation – such effects being, in this case, the potential sacrifice of the object and purpose of one regime for those of another regime – further enhances derisive forces – in this case, specialization and managerialism implicit in the dominance of technical expertise – thereby further exacerbating the problems of fragmentation, which have been visited upon the regimes of air and space law by globalization and the advancement of norm-cross-cutting technologies.

## **V. Conclusions**

Global administrative organization has expanded at pace with globalization and fragmentation, and it appears that these trends are linked. The entities administering to international law can take various forms, each with a genuinely administrative character regulating and managing increasingly greater areas of economic and social life. The types of organizations administering to air and space law have grown out of the innately unique characteristics of those substantive fields of law, thus endowing these administrative organizations with the ethos of their respective substantive regime.

Where globalization and advancements in technology cause specialized regimes of international law to overlap and conflict, their administrative organizations also can have overlapping competencies. In the case of air and space law, this has resulted not only in ICAO moving toward the regulation of space-related activities, but also in domestic regulators making hegemonic overtures to secure the success of their type of organization and their domestic substantive regimes. The danger is that one administrative organization may, by its structure and/or influence, be more powerful and, through its bureaucracy and level of technical expertise, come to impose its ethos within the sphere of another specialized regime, thereby undermining that regime's object and purpose.

This phenomenon can be avoided by the establishment of an appropriate organization for the administration of the most relevant international regime, in particular for suborbital flight, but also for space-related activities generally. A hybrid of two or more regimes could also be employed, where the organization is specifically tailored to administer to such hybrid regime. In the case of the application of air and space law to suborbital vehicles, it is not yet clear which regime is most appropriate, but both appear to apply. Likely, the most appropriate administrative organization for the regulation of space-related activities would be a new entity endowed with the quasi-legislative authority for such regulation.

