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# A SLEEPING BEAUTY AWAKENS: THE 1968 RESCUE AGREEMENT AFTER FORTY YEARS

Frans G. von der Dunk\*

#### 1. THE RESCUE AGREEMENT: A SLEEPING BEAUTY...?

Forty years ago, the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, was put into place as the second treaty on outer space drafted in the bosom of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS). More precisely, on 19 December 1967 the text was officially adopted by means of U.N. General Assembly Resolution 2345 (XXII), it was opened for signature on 22 April 1968, and the agreement entered into force before the end of the year, on 3 December 1968.2 The Rescue Agreement followed on the heels of the Outer Space Treaty<sup>3</sup>, and in turn was followed by the Liability Convention<sup>4</sup>, the Registration Convention<sup>5</sup> and the Moon Agreement, before political developments made COPUOS weary to draft any further treaties on space. The Rescue Agreement is the shortest of them all, counting ten Articles as against the seventeen of the Outer Space Treaty, the twenty-

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Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, U.S.-Gr. Brit.-U.S.S.R., Apr. 22, 1968, 19 U.S.T. 7570 [hereinafter Rescue Agreement].

<sup>&</sup>lt;sup>2</sup> See United Nations Treaties & Principles on Outer Space & Other Related General Assembly Resolutions at v., U.N. Doc. ST/SPACE/11/Rev. 1, U.N. Sales No. 05.I.90 (2005) (detailing the chronology of the Rescue Agreement).

<sup>&</sup>lt;sup>3</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, U.S.-Gr. Brit.-U.S.S.R., Jan. 27, 1967, 18 U.S.T. 2410 [hereinafter Outer Space Treaty].

Convention on International Liability for Damage Caused by Space Objects, U.S.-Gr. Brit.-U.S.S.R., Mar. 29, 1972, 24 U.S.T. 2389 [hereinafter Liability Convention].

<sup>&</sup>lt;sup>5</sup> Convention on Registration of Objects Launched into Outer Space, Jan. 14, 1975, 28 U.S.T. 695 [hereinafter Registration Convention].

<sup>&</sup>lt;sup>6</sup> Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec.18 1979, 1363 U.N.T.S. 3 [hereinafter Moon Agreement].

eight of the Liability Convention, the twelve of the Registration Convention, and the twenty-one of the Moon Agreement.

Is it for that reason that the Rescue Agreement in international literature has always been largely neglected, or at least treated as a sleeping beauty? The Outer Space Treaty, though providing for at least as much provisions wide open to various interpretations as clear law, has with its grand scheme provided the foundations for all the rest of space law, and for that reason alone has always captured the imagination. The Liability Convention considered the possibility that something might go horribly wrong in space, and further considered the monetary retribution that might result. Though never formally invoked, for that sole reason it continues to be the subject of debate amongst space and other lawyers. The possible exception here, of the Cosmos 954 accident, is illustrative also for the fate of the Rescue Agreement in this regard. All the attention regarding legal consequences of the accident were on liability issues and the possible results of applying the Liability Convention in that area, rather then the Rescue Agreement as it actually had been invoked.7 The Registration Convention, in a sense is about blame, by working toward an ever-greater measure of identification of space objects for purposes of liabilities and for allocating

<sup>&</sup>lt;sup>1</sup> See, e.g., CARL Q. CHRISTOL, THE MODERN INTERNATIONAL LAW OF OUTER SPACE 178-80 (1982). In 1978, the Soviet nuclear-powered satellite Cosmos 954 re-entered the atmosphere over Canada, spreading small pieces of radioactive debris over a large part of essentially uninhabited parts of the latter country. The discussions between the two states on the liability of the Soviet Union, and in particular on the extent of compensation due, resulted in a bilateral settlement whereby the Soviet Union paid three million Canadian dollars in final settlement of the claim. Some experts claim that, since the Liability Convention was not referred to in the document of final settlement, nor was a Claims Commission set up as the judicial settlement system offered by the Convention. this claim was settled outside of the Convention. Others, by contrast, pointed to the fact that not only did the Canadian claim explicitly refer to the Liability Convention, but that in addition Articles IX and XIV of the Liability Convention refer to diplomatic negotiations, which need to be unsuccessful for a year before that judicial settlement system offered by Articles XIV through XX can actually be activated, therefore concluding that the Liability Convention to that extent was applied. For both the text of the Protocol Between the Government of Canada and the Government of the Union of Soviet Socialist Republics of 2 April 1981 and the Statement of Claim by Canada, see KARL-HEINZ BÖCKSTIEGEL, ET AL., SPACE LAW - BASIC LEGAL DOCUMENTS, A.IX.2.2. See further e.g. B.A. Hurwitz, Reflections on the Cosmos 954 Incident, in PROCEEDINGS OF THE THIRTY-SECOND COLLOQUIUM ON THE LAW OF OUTER SPACE 350-3 (1990).

state responsibility for the violation of international legal obligations. Even the Moon Agreement, which is essentially a failure, tends to attract a lot of attention from scholars.

From that perspective, the beauty of the Rescue Agreement would, or should have been to deal to a considerable extent with astronauts, latter-day heroes exploring the outer boundaries of human existence as "envoys of mankind," and in particular with events in which their lives would be at risk. In the limited number of cases where astronauts were in distress little effort was expended to "rescue" them, and certainly not by states other than those whose astronauts or cosmonauts were in danger – which is what the Rescue Agreement is largely about.

Whatever the reason, the Rescue Agreement has remained somewhat of a sleeping beauty, attracting much less attention than the other four UN-based treaties. Perhaps the Rescue Agreement's true relevance remains hidden. In any case, with its fortieth anniversary to celebrate, it's time to wake up and perhaps, after all, celebrate!

#### 2. HISTORY AND BACKGROUND OF THE RESCUE AGREEMENT

The history of the Rescue Agreement started shortly after the beginning of the Space Age, when a 1959 Report of the Committee on the Peaceful Uses of Outer Space made reference

<sup>&</sup>lt;sup>8</sup> With only thirteen ratifications (none by major space-faring nations) and four signatories (including France and India, though both have for many years refrained from any visible steps to move from signature to proper ratification) as of 1 January 2008, the Moon Agreement has by a wide mark missed its ambition to establish a viable framework regime for exploitation of the moon. U.N. Office of Outer Space Affairs, U.N. Treaties & Principles on Space Law, http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html (last visited Nov. 10, 2008). Efforts to revive it are being discussed, but might not have much chance of success if the Agreement is not to be overhauled fundamentally. See Frans G. Von der Dunk, The Moon Agreement and the Prospect of Commercial Exploitation of Lunar Resources, 32 Annals AIR & Space L. 91, 91-113 (2007).

Outer Space Treaty, supra note 3, at art. V.

Notable examples include Apollo 1 (blew up on the launch pad), Soyuz 1 (plummeted back to earth and smashed into the ground), Apollo 13 (sustained damage during flight which almost prevented its return to earth), Soyuz 11 (lost all oxygen on board during flight), Challenger and Columbia (both shuttles blew up, one during ascent, the other during re-entry). For a comprehensive list of space accidents, see Janes.com, A Brief History of Space Accidents, http://www.janes.com/aerospace/civil/news/jsd/jsd030203\_3\_n.shtml (last visited Oct. 26, 2008).

to the issues that would provide the major rationale for establishing the Rescue Agreement. Paragraph 21 of the Report states:

Problems of re-entry and landing of space vehicles will exist both with respect to unmanned space vehicles and later with respect to manned vehicles of exploration. Recognizing that landing may occur through accident, mistake or distress, members of the committee called attention to the desirability of the conclusion of multilateral agreements concerning re-entry and landing. Among the subjects that might be covered by such agreements would be the return to the launching state of the vehicle itself and — in the case of a manned vehicle — provision for the speedy return of personnel.

Furthermore, paragraph 74 of the same Report provides:

Where space vehicles re-enter the earth's atmosphere either through design or misadventure and any equipment or instrumentation is recovered by countries other than the launching country, arrangements are needed for restoring such instrumentation and equipment to the launching country.

Thus, when in 1962 the superpowers agreed on the need to take these issues further down the road to legal codification at the international level by means of an exchange of letters, the scene was set for developing a proper regime dealing with the rescue and return of astronauts and the return of space objects. For example, the ITU's 1963 Extraordinary Administrative Radio Conference, held in Geneva, adopted Resolution No. 2A, describing how to handle radio communications in the event of space vehicle distress or an emergency situation. 18

<sup>&</sup>lt;sup>11</sup> At its inception, COPUOS was an *ad hoc* committee within the UN. It has since become a significant permanent committee. See CHRISTOL, supra note 7 at 152-53; K. Hodgkins, Procedures for Return of Space Objects Under the Agreement on the Rescue of Astronauts, the Return of Astronauts & the Return of Objects Launched into Outer Space, in PROCEEDINGS UNITED NATIONS/INTERNATIONAL INSTITUTE OF AIR AND SPACE LAW WORKSHOP ON CAPACITY BUILDING IN SPACE LAW 59 (2003).

<sup>&</sup>lt;sup>12</sup> See Christol, supra note 7, at 152-70. See also GYULA GAL, SPACE LAW 211-13 (1969); MANFRED LACHS, THE LAW OF OUTER SPACE, 87-88, n.1 (1972); Hodgkins, supra note 11, at 59.

<sup>&</sup>lt;sup>18</sup> See LACHS, supra note 12 at n.40.

The negotiations undertaken in follow-up to the political US-Soviet agreement led to its first tangible results by way of one particular provision of the 1963 Declaration of Principles. <sup>14</sup> Further to the inspiration of the UN General Assembly "by the great prospects opening up before mankind as a result of man's entry into outer space," the recognition of "the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes," and the belief "that the exploration and use of outer space should be carried on for the betterment of mankind and for the benefit of States irrespective of their degree of economic or scientific development," <sup>15</sup> Principle 9 provides:

States shall regard astronauts as envoys of mankind in outer space, and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of a foreign State or on the high seas. Astronauts who make such a landing shall be safely and promptly returned to the State of registry of their space vehicle. 16

The Declaration of Principles would soon come to be recognized as binding customary international law, though that question is now essentially theoretical in view of the fact that the Outer Space Treaty, whose binding character is undisputed, includes an almost identical obligation and has been ratified by all relevant space-faring nations. <sup>17</sup> Article V of the Outer Space Treaty provides in full:

States Parties to the Treaty shall regard astronauts as envoys of mankind in outer space and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of another State Party or on the high

<sup>&</sup>quot; See Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, G.A. Res. 1962 (XVIII), para. 2, UN Doc. A/AC.105/572/Rev.1, at 37 (Dec. 13, 1963) [hereinafter Declaration of Principles].

<sup>&</sup>lt;sup>16</sup> Declaration of Principles, supra note 14, paras. 1-3.

<sup>16</sup> Id. at para. 9.

<sup>&</sup>lt;sup>17</sup> Currently, the tally of adherence to the Outer Space Treaty stands at 98 parties and 27 signatories. See U.N. Office of Outer Space Affairs, U.N. Treaties & Principles on Space Law, http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html (last visited Nov. 10, 2008).

seas. When astronauts make such a landing, they shall be safely and promptly returned to the State of registry of their space vehicle.

In carrying on activities in outer space and on celestial bodies, the astronauts of one State Party shall render all possible assistance to the astronauts of other States Parties.

States Parties to the Treaty shall immediately inform the other States Parties to the Treaty or the Secretary-General of the United Nations of any phenomena they discover in outer space, including the Moon and other celestial bodies, which could constitute a danger to the life or health of astronauts.

Thus, the three key elements for an international agreement on the issue of astronauts, as foreseen in the 1962 U.S.-U.S.S.R. exchange of letters, were effectively established. Under the not yet defined concept that astronauts serve as envoys of mankind in outer space, (1) astronauts in distress on earth should be assisted as much as possible, (2) astronauts in outer space should be equally assisted as much as possible, <sup>18</sup> and (3) states are generally obligated to provide information that will aid in such assistance.

Although the absence of reference to "the event of accident, distress, or emergency" may shed doubts on the scope of application here, one may suggest such absence, as compared to the first paragraph of Article V, broadens the obligation to assist astronauts in outer space to any case where such an astronaut would like to be assisted, and perhaps even to any case where assistance could be rendered, whether solicited or not. This interpretation is probably too broad. Any obligation to render assistance for the sake of international cooperation only, that is without such a prerequisite being invoked, would be rather emptied of all meaning, considering other international documents clearly leave it to the discretion of individual parties to decide whether, and on what terms, they would cooperate in outer space and space activities. See, e.g., Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries, G.A. Res. 51/122, ¶ 2, U.N. Doc. A/RES/51/122 (Feb. 4, 1997); XXII-I ANNALS OF AIR AND SPACE L. 556 (1997); 46 ZLW 236 (1997). Additionally, any activity in outer space departing from prearranged procedures in the context of human space flight. as this is still a rather hazardous activity, brings certain risks with it - not to mention costs which might not be justified by a request for assistance for whatever reason without a clear emergency situation arising. Furthermore, that last evaluation is to some extent confirmed by the de facto situation in extreme adventure sports like mountaineering, where it is principally accepted that each participant can only be legally obliged to help another in case the risk to his own life that might arise from such rescue activity is not substantial.

"Astronaut" is an English-language term synonymous with the Soviet term "cosmonaut". The distinction, indeed, is largely a matter of words:

The term astronauts . . . literally . . . means persons who sail among the stars, and the term cosmonauts favoured by the Soviet Union those who navigate the universe. In practice, both terms are used simply to describe those who venture extra terrestrially to outer space, including the moon and other celestial bodies, whether or not beyond interplanetary space. <sup>19</sup>

This expert evaluation was confirmed by the fact that the Russian version of the Outer Space Treaty, equally authentic to the English one, 20 does refer to the term cosmonaut. 21 In the remainder of this article, the term astronaut(s) will therefore be used, expressly encompassing anyone flying under the title of cosmonaut, and, given the entry of the first Chinese in outer space, taikonaut.

The second aspect of the Rescue Agreement, space objects, is also addressed in the Outer Space Treaty. Article VIII provides in relevant part: "[O]bjects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return." Immediately after the Outer Space Treaty's completion, however, the United States and the Soviet Union, as well as some other member states of COPUOS, realized their interests in protecting astronauts and recovering space objects demanded

<sup>&</sup>lt;sup>19</sup> Bin Cheng, "Space Objects", "Astronauts" & "Related Expressions," PROCEEDINGS OF THE THIRTY-FOURTH COLLOQUIUM ON THE LAW OF OUTER SPACE 17, 25 (1991).

<sup>&</sup>lt;sup>20</sup> Cf. Outer Space Treaty, supra note 3 at Art. XVII.

<sup>&</sup>lt;sup>21</sup> Cf. U.N. Office of Outer Space Affairs, U.N. Treaties & Principles on Space Law, http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html (last visited Sep. 29, 2008) (offering, inter alia, English and Russian language versions of the treaties). See also E. Kamenetskaya, "Cosmonaut" ("Astronaut"): An Attempt of International Legal Definition, in PROCEEDINGS OF THE THIRTY-FIRST COLLOQUIUM ON THE LAW OF OUTER SPACE 177, 177-78 (1988); Vladimír Kopal, Some Remarks on Issues Relating to Legal Definitions of "Space Object", "Space Debris" and "Astronaut", in PROCEEDINGS OF THE THIRTY-SEVENTH COLLOQUIUM ON THE LAW OF OUTER SPACE 99, 105, n. 20 (1994).

Outer Space Treaty, supra note 3, at art. VIII.

further elaboration and refinement, and took further steps to achieve them.<sup>23</sup> Thus, they gave birth to the Rescue Agreement.

#### 3. THE RESCUE AGREEMENT

#### 3.1. General remarks

The Rescue Agreement may have predominantly reflected the interests of the two superpowers at the time, being the only states able to bring man into space, and thus the only two concerned with the welfare of astronauts. But, by incorporating the handling of space objects upon their return to earth, it assumed the interests of a handful of other states that had already developed their own launch capabilities. At the same time, it was part of a package deal, since the establishment of the Agreement would have made much less sense if only the handful of space-faring states were to adhere to it. Adherence of a considerable number of non-space-faring nations to the Agreement would hinge upon the necessity to heed the worries of such states that other states' space objects, manned or unmanned. might upon re-entry land up on their territory, and possibly create considerable, exceptionally even catastrophic, damage. Thus, the states pushing for the Rescue Agreement also expressed their serious intention to arrive at an elaborated liability regime, resulting in the Liability Convention. Identification of relevant space objects and the states "behind" them for the purposes of such liability allocation followed shortly thereafter, by way of the Registration Convention.24 Not even the Preamble of the Rescue Agreement, however - let alone the operative parts thereof - makes any reference to this. It is rather succinct. containing a mere four considerations, as compared to the Outer Space Treaty (nine), the Liability Convention (five), the Registration Convention (eight), and the Moon Agreement (seven). Its main purpose is establishing beyond any doubt the relationship between the Rescue Agreement and the relevant clauses of the Outer Space Treaty (Articles V and VIII), which it seeks to

<sup>&</sup>lt;sup>25</sup> Cf. CHRISTOL, supra note 7, at 167-68.

<sup>&</sup>lt;sup>24</sup> See, e.g., CHRISTOL, supra note 7, at 170-71.

elaborate, "develop and give further concrete expression to." In addition, the key concept of "international cooperation in the peaceful exploration and use of outer space" is reaffirmed, as are the specific "sentiments of humanity" that underpin the regime especially for astronauts in distress. 26

In line with its rapid realization and similar to the Outer Space Treaty, the Rescue Agreement carries widespread acceptance. Currently it has 90 states parties, and a further 24 states as signatories;<sup>27</sup> the signature of a treaty pending ratification by that same state, under the law of treaties, already requires the state concerned not to defeat the object and purpose of the treaty.<sup>28</sup> This constituency, moreover, encompassed almost all of the space-faring nations, whether Western, (formerly) Communist, or developing, so as to refute any claim that it serves only a distinct section of the world community when it comes to space activities, astronauts, and space objects. Furthermore, in accordance with Article 6 of the Rescue Agreement,<sup>29</sup> two intergovernmental organisations, the European Space Agency (ESA)<sup>30</sup> and the European Organization for the Exploitation of Meteoro-

Rescue Agreement, supra note 1, paras. 2-3.

<sup>&</sup>lt;sup>26</sup> Id. at paras, 4-5.

<sup>&</sup>lt;sup>27</sup> Status as of 1 January 2008. See U.N. Office of Outer Space Affairs, U.N. Treaties & Principles on Space Law, http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html (last visited Nov. 10, 2008).

<sup>&</sup>lt;sup>28</sup> See Vienna Convention on the Law of Treaties, art. 18(a), May 23, 1969, 1155 U.N.T.S. 331 (commonly recognised as customary international law also for non-party states). The relevant part reads: "A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when . . . it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty." Id.

See also infra, ¶ 3.2. Article 6 thus took the references in the Outer Space Treaty, including Art. VI ("When activities are carried on in outer space, including the Moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.") and Art. XIII (applying the Treaty's provisions "whether . . . activities are carried on by a single State Party to the Treaty or jointly with other States, including cases where they are carried on within the framework of international intergovernmental organizations.") a fundamental step further.

<sup>&</sup>lt;sup>30</sup> ESA was established by means of the Convention for the Establishment of a European Space Agency, May 30,1975, 14 I.L.M. 864.

logical Satellites (EUMETSAT)<sup>81</sup> have deposited Declarations indicating acceptance of the substantive rights and obligations provided by the Agreement. Thus, sleeping or not, the Rescue Agreement is second only to the Outer Space Treaty in terms of number of ratifications.<sup>82</sup> Its originally limited relevance (in terms of number of states involved in space activities) has grown concurrently with the entry of many new states into the area of outer space, whether in manned or unmanned fashion, and therefore certainly is worthy of attention and reexamination of its main provisions.

## 3.2. The Rescue Agreement: definitional issues

The Rescue Agreement contains one key clause on definitions, illustrating its intent to move beyond general principles into the realm of clear-cut legal obligations. Article 6 reads in full:

For the purposes of this Agreement, the term "launching authority" shall refer to the State responsible for launching, or, where an international intergovernmental organization is responsible for launching, that organization, provided that that organization declares its acceptance of the rights and obligations provided for in this Agreement and a majority of the States members of that organization are Contracting Parties to this Agreement and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

This definition of "launching authority," through the inclusion of intergovernmental organizations, is broader than the concept of the "launching State" which rules the application of both the

<sup>&</sup>lt;sup>31</sup> EUMETSAT was established by means of the Convention for the Establishment of a European Organisation for the Exploitation of Meteorological Satellites "EUMETSAT", (1983) 1990 U.K.T.S. 32. See also BÖCKSTIEGEL, supra note 7, at C.III.1.

<sup>&</sup>lt;sup>32</sup> Compare supra text accompanying note 29, with Liability Convention (86 ratifications, 24 signatures and 3 declarations), and Registration Convention, (51 ratifications, 4 signatures and 2 declarations). U.N. Office of Outer Space Affairs, U.N. Treaties & Principles on Space Law, http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html (last visited Nov. 10, 2008).

Liability Convention and the Registration Convention.<sup>33</sup> However, that difference in scope is largely negated by the possibility for intergovernmental organizations to be equated to states under their respective regimes.<sup>34</sup> In this respect, the Rescue Agreement was the first of its kind, not only in space law, but also from a broader perspective.<sup>35</sup> Opening up partisanship to treaties to an intergovernmental organisation on a formal (and more or less equal) level indeed remained confined initially to the space arena. Outside of space law, only the advent of the European Union in the last decade of the twentieth century as a supranational power<sup>36</sup> caused partisanship of the individual EU member states to certain treaties to be partly emptied of meaning.<sup>37</sup> This unique trait of space law testified to the special role intergovernmental organisations were destined to play in the human adventure in outer space.

In hindsight, the Rescue Agreement should have contained at least two other crucial definitions: "personnel of a spacecraft" and "space object". The Rescue Agreement, when referring to "personnel of a spacecraft," avoids the term "astronauts" (or "cosmonauts" for that matter) as used in Article V of the Outer Space Treaty. However, the full title of the Rescue Agreement

Both conventions contain identical definitions of the concept of "launching State." Liability Convention, supra note 4, at art. I(c), and Registration Convention, supra note 5, at art. I(b). However, when the "launching authority" requests the return of its astronaut, under the Outer Space Treaty, such return is due rather to the state of registry. See LACHS, supra note 12, at 85-86.

<sup>&</sup>lt;sup>54</sup> Cf. Liability Convention, supra note 4, at art. XXII, with Registration Convention, supra note 5, at art. VII.

<sup>&</sup>lt;sup>36</sup> After the Rescue Agreement, apart from the Liability Convention and the Registration Convention, the Moon Agreement (by means of Art. 16) would come to offer similar opportunities to intergovernmental organizations to become "parties" to the respective treaties for all practical purposes. See GAL, supra note 12, at 219; CHRISTOL, supra note 7. at 200-02.

The European Union as such came into existence in 1993, transforming the old European Economic Community into the European Community as well as establishing the broader European Union-construct. Treaty on European Union, Feb. 7, 1992, 31 I.L.M. 247. This represented a cornerstone of finalising the European Community's Internal Market, resulting in a considerable transfer of competency in international trade issues to the EU level.

<sup>&</sup>lt;sup>87</sup> Under the treaties developed within the framework of the World Trade Organisation, international trade policies having been partially moved from the level of the individual member states to the EU-level. See, e.g., General Agreement on Trade in Services, Apr. 15,1994, 1869 U.N.T.S. 183.

and its Preamble refer to "astronauts" as this term was used in the Outer Space Treaty. Thus, arguments sometimes heard on whether the two terms are identical or not, are largely semantic in nature. The change in terminology may perhaps have had to do with a desire to express more clearly what categories of man would be concerned, but does so essentially by equating the newer term to the older one. And while "space objects" is also undefined by the Rescue Agreement, the Liability Convention and the Registration Convention provide at least a partial definition as including "component parts of a space object as well as its launch vehicle and parts thereof. For practical purposes, this definition — as later refined by various authors equating a space object to any man-made object launched into outer space, or alternatively into a space orbit — applies also to the concept of "space object" as it is used in the Rescue Agreement.

#### 3.3. The Rescue Agreement and astronauts

Articles 1 through 4 of the Agreement, in other words the bulk of its substantive operative provisions, are dedicated to the obligations of states to assist personnel of a spacecraft in relevant cases. The first thing to be noted here is that the reference to assistance by astronauts of one state to astronauts of other states in outer space under the second paragraph of Article V of the Outer Space Treaty does not reappear in the Rescue Agree-

See Rescue Agreement, supra note 1, at para.1, ¶1. See also Ryszard Hara, Legal Status of Astronauts and Other Personnel on the Moon, in Proceedings of the Twenty-Sixth Colloquium on the Law of Outer Space 165 (1983); Stephen Gorove, Major Definitional Issues in the Space Agreements, in Proceedings of the Thirty-Fifth Colloquium on the Law of Outer Space 76, 77-78, n.15 (1992); Kopal, supra note 21, at 105-06.

 $<sup>^{\</sup>rm 38}$  See, e.g., LACHS, supra note 12, at 79, 88-89, at n.4; cf. Kopal, supra note 21, at 105.

<sup>&</sup>lt;sup>40</sup> Liability Convention, supra note 4, at art. I(d); Registration Convention, supra note 5, at art. I(b). See also Gorove, supra note 38, at 76-77.

<sup>&</sup>quot;See, e.g., Stephen Gorove, Definitional Issues Pertaining to "Space Object,", in Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space 87, at 88, 90-91 (1994). See also Kopal, supra note 21, at 101; GAL, supra note 12, at 207-09; Gyula Gal, Space Objects – "While in Outer Space", in Proceedings of the Thirty-Seventh Colloquium on the Law of Outer Space 84, at 85 (1994).

ment. Articles 1 through 4 of the Rescue Agreement exclusively concern terrestrial events. 42

Upon closer inspection, we can further subdivide the terrestrial areas described in these articles. Where Articles 1 and 4 impose obligations of global scope on signatories, Articles 2 and 3 impose obligations on signatories that are limited by geographical area, and mutually exclusive in their application. Specifically, Article 1 obligates any state who becomes aware that personnel of a spacecraft have suffered serious difficulties<sup>43</sup> to notify the launching authority and the UN Secretary General4. Similarly, Article 4 obligates any state that recovers an astronaut to return them "safely and promptly" to the launching authority. On the other hand, Article 2 focuses on events occurring within the national territory of a given state 45, and thus the evident territorial sovereignty of that state determines the relevant obligations. 46 That sovereignty both means that the Agreement can call upon it to "immediately take all possible steps" for the purpose of the astronaut's rescue and "render them all necessary assistance" as it (normally) has full powers to do so, and that it has to recognise the ultimate control of that state over the conduct of any relevant operations vis-à-vis the launching authority. In contrast, Article 3 deals with events occurring "on the high seas or in any place not under the jurisdiction" of a given state, where the resulting obligations are not derived from territorial sovereignty. As a consequence of the absence of territorial sovereignty and the accompanying de facto possibilities for a state to do that, the obligation is phrased here much more conditionally - it applies only to states "in a position to do so" and then only "if necessary." An illustrative example here would be the scenario where a number of states might be in a

See Rescue Agreement, supra note 1.

<sup>&</sup>lt;sup>48</sup> Art. 1 of the Rescue Agreement refers to an "accident," "conditions of distress," and an "emergency or unintended landing" in this context. See id. at art. 1.

<sup>&</sup>quot; See id. at art. 1(a)-(b).

<sup>&</sup>quot;Art. 2 of the Rescue Agreement uses "territory under the jurisdiction of a Contracting Party" for this purpose. See id. at art. 2.

See LACHS, supra note 12, at 80-81; CHRISTOL, supra note 7, at 174-75, 185-88; GAL, supra note 12, at 223-34.

<sup>&</sup>lt;sup>47</sup> See, e.g., LACHS, supra note 12, at 81-82; CHRISTOL, supra note 7, at 174-75, 189-92; GAL, supra note 12, at 224.

position to come to the rescue but where, if all would actually do so, they would be more likely to compound the rescue operation than benefit it. Moreover, while in the context of Article 2 it is more or less taken for granted that the "rescuing" state is aware of the event as it takes place on its own territory, under Article 3 the obligation is explicitly made contingent upon the awareness of the "rescuing" state.

### 3.4. The Rescue Agreement and space objects

In the Rescue Agreement, only Article 5 deals with the issue of space objects that have suffered an unfortunate and unintended accident, and as a consequence have landed, either in whole or in parts, somewhere on earth. Article 5 still makes the same distinction as Articles 1 through 4 regarding categories of terrestrial areas. 48 The obligation to notify the launching authority as well as the UN Secretary-General applies regardless of where the space object or component parts thereof have landed. as long as the state concerned has become aware thereof. 49 But. the obligation of recovery only applies where it concerns national territory - and then only upon the request of the launching authority and with its assistance - whilst its sovereign discretion to act furthermore finds its expression in the phrase that action is only obliged "as it finds practicable."50 A further obligation concerns the return to the launching authority of "objects launched into outer space." Though this represents a slight, formal deviation from the terminology employed elsewhere in the Agreement, it should not be paid too much attention. Rather, it should for all purposes be equated to "space objects." 51 This obligation pertains regardless of whether the object concerned turned up specifically within the territory of the 'recovering state' or merely anywhere outside the launching authority's territory. Paragraph 4 touches upon a somewhat different issue:

<sup>48</sup> Rescue Agreement, supra note 1, See also LACHS, supra note 12, at 82-83; CHRISTOL, supra note 7, at 176-78; 196-97.

See Rescue Agreement, supra note 1, at art. 5(1),
 Here again, the reference is to territory under the jurisdiction of the "recovering" state". Id. at art. 5(2).

<sup>&</sup>lt;sup>61</sup> Id. at art. 5(3). See also LACHS, supra note 12, at 79, 82-85.

imposing an obligation upon the launching authority to effectively mitigate "possible danger of harm" in the event a recovered space object is "of a hazardous or deleterious nature." Paragraph 5 finally provides for the obligation of the launching authority to bear the costs for recovery and return operations of a space object, the most surprising aspect here being perhaps that such a clause is missing in Articles 1 through 4 as dealing with the rescue and return of personnel of a spacecraft.<sup>52</sup>

#### 4. IMPLEMENTATION OF THE RESCUE AGREEMENT

The relevance of any international treaty is not only measured by the rationality, coherence and scope of its terms, but by the extent to which it is actually implemented. Implementation in the context of international treaties refers to both implementation in law, that is by national states in their domestic jurisdictions, and implementation in fact, that is being invoked with respect to actual events, situations or disputes.

As to implementation in law, the Rescue Agreement has remained a sleeping beauty, which is not surprising given its subject matter. The rights and obligations are not only *de lege* addressed to states, but *de facto* only concern states. When the Rescue Agreement was drafted, foreseeable rescue, recovery and return operations were expected to be undertaken almost exclusively by state-actors. Mirror-wise, state actors were almost exclusively the parties conducting the activities that might give rise to such rescue, recovery, and return operations by other states. Thus, there was little sense in addressing the (then) small role of private companies and individuals by means of na-

The closest these Articles come to such an obligation, is the clause stating that "[i]f assistance by the launching authority would help to effect a prompt rescue or would contribute substantially to the effectiveness of search and rescue operations", where it could of course be argued that payment by the launching authority of relevant expenses would help and contribute substantially to achieve the main aims of those Articles and indeed the Rescue Agreement as a whole. Rescue Agreement, supra note 1, at art. 2 (emphasis added). Generally, authors seem to dismiss such an obligation explicitly or implicitly by stressing strongly the obligation to take care of the astronauts. See, e.g., LACHS, supra note 12, at 85; GAL, supra note 12, at 224. However, others note a U.S. proposal of 1962, which did include expenses incurred for assistance to and/or return of personnel of spacecraft. E.g., CHRISTOL, supra note 7, at 157, 200.

tional space law beyond general existing duties of assistance to others in danger, or even to specify the particular application of any 'Good Samaritan' doctrine to such rare occasions.

Implementation in fact harks back to the international level. Invocations of the Rescue Agreements have been relatively infrequent, and so far have not concerned the category of astronauts in distress. There was one case of relevance occurring prior to the establishment of the Rescue Agreement and even the Outer Space Treaty, when a component part of a Soviet Sputnik 4 having landed in Wisconsin in the United States in September 1962 was returned to the Soviet embassy in May 1963. Another interesting case occurred where the launching authority could not be identified, and consequently only the UN Secretary-General was notified:

By a letter of 16 July 1968 the Deputy Prime Minister of Nepal informed the Secretary-General that "certain metallic pieces were discovered in Nepalese territory" and that they were believed to be parts of a space object, but that the Government of Nepal had been unable to identify the launching authority. Though the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space had, at the time, not yet come into force, the Government of Nepal, acting "in the spirit" of that Agreement had "decided to open them for examination by interested States and return them to the launching authority on receipt of identifying data."

Even recently however there have been some interesting cases to be shown to the Agreement's credit. US representative Ken Hodgkins, in his contribution to the first-ever UN Workshop in space law capacity building in 2002, lists four of those.<sup>55</sup>

<sup>&</sup>lt;sup>53</sup> See GAL, supra note 12, at 216.

LACHS, supra note 12, at 91-92 & n.20 (quoting, inter alia, from a UN press release of Jul. 17, 1968).

See Hodgkins, supra note 11, at 61-66.

## 4.1. Japan and a US space object (1999-2000)

When Japan discovered component parts of a space object on Yoron Island, it rapidly came to the conclusion that these were remainders of a *Pegasus* first stage launch vehicle, used for a launch in April 1993. It then sent a *note verbale* to the UN Secretary General on 20 January 2000, with the following text:

In accordance with article 5, paragraph 1 of the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, the Permanent Representative of Japan hereby wishes to notify the Secretary-General that component parts of a space object have been discovered on Japanese territory. The object was found on the beach on Yoron Island in the Kagoshima Prefecture by inhabitants of the island on 8 November 1999. It is a cylinder-shaped object, which is 6m in length and 1.25m in diameter. It is believed to be a component part of a United States launch vehicle. An investigation concluded that the object poses no risk of hazards to people and property, and it is temporarily being kept at the village office on the island. At present, and in cooperation with the Government of the United States, efforts to identify the object are underway. In accordance with article 5(1) of the 1968 Agreement cited above, the Government of Japan is also notifying the Government of the United States. The Permanent Mission of Japan further has the honour to request that this communication be circulated to Member States as an official document of the United Nations Committee on the Peaceful Uses of Outer Space. 56

In other words, following the provisions of Article 5(1) of the Rescue Agreement as well as explicitly referring to them, Japan notified the UN Secretary-General as well as the perceived launching authority, the United States, while awaiting definite identification. Furthermore, with a view to Article 5(4) Japan checked whether the objects might be "of a hazardous or deleterious nature," the result of that check being negative, and in conformity with Article 5(2) recovered said objects, albeit without "the request of the launching authority" to do so, which that

<sup>56</sup> See id. at 62.

paragraph formally required. Furthermore, Japan temporarily stored the objects awaiting US action under Article 5(3), such as a formal request to return them upon final identification.

## 4.2. The United States and a French space object (2000)

Following discovery and identification of an object on a Texas beach, the United States on 13 March 2000 gave notice, as follows, to the UN Secretary-General:

[I]n accordance with article 5, paragraph 1, of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Space Objects Launched into Outer Space (the 'Agreement'), that component parts of a space object have been discovered on territory of the United States of America. The object found had washed ashore near Corpus Christi, Texas, and appears to be part of the nose cone of a French Ariane rocket. It bears the following identifying lettering on a circular plate at the interior apex of the cone: "AEROSPATIALE, IE/AX, FLUXMETRE NO. SER.966-332, REF. DE DEF. A5-IK871-A-000 BLOCK CONTROLE: 25-.11.96". An investigation concluded that the object poses no hazard to people and property. It is being held temporarily by local authorities in Corpus Christi.

... In accordance with article 5 of the Agreement, the Government of the United States of America has also notified the Government of France and invited it to identify the object.<sup>57</sup>

Furthermore, as did the Japanese government in the previous case, the United States of America requested "that this communication be circulated to Member States as an official document of the Committee on the Peaceful Uses of Outer Space." Once more, the essential elements of Article 5 were duly respected: notification of the UN Secretary-General and the launching authority, in this case France; inviting it in the process to identify the space object, although the detailed description on the nose cone as quoted leaves little doubt that the provisional identification by the United States could hardly be faulted; and an inves-

<sup>57</sup> See id. at 63.

tigation for potential hazardous or deleterious substances revealed no such risks. Furthermore, as Hodgkins added in his presentation at the 2002 UN Workshop, the cone was turned over to the French authorities, which furthermore honoured their obligation under Article 5(5) to cover expenses incurred by the US authorities to such an extent as to include reimbursement of the 100 dollars (U.S.) which a US policeman apparently had to pay to the farmer who actually found it and did not want to let go of it too easily.

#### 4.3. South Africa and a US space object (2000)

A few months after several objects had been found in a remote part of the country, on 3 July 2000 the government of South Africa took the steps it was supposed to take under the Rescue Agreement. Explicitly referring to Article 5(1) of the Rescue Agreement, South Africa notified the UN Secretary-General:

[T]hat three space objects have been discovered on South African territory. The objects were found in Durbanville, Worcester and Robertson, respectively, in the Western Cape Province of South Africa, on 27 April 2000 . . .

The first object is a cylindrical steel vessel 2.7 metres long and 1.5 metres in diameter weighing 260 kilograms. The second object is a spherical metal object 60 centimetres in diameter and weighs approximately 33 kilograms. The third is a tapered, cylindrical and pipe-like object made from non-metallic, probably composite materials. It is approximately 60 centimetres long. 30 centimetres in diameter at "base" and 20 centimetres at "apex" and weighs approximately 30 kilograms. Preliminary investigations, in conjunction with Nicholas L. Johnston, Chief Scientist and Program Manager of the Orbital Debris Program Office at the Johnson Space Center of the National Aeronautics and Space Administration of the United States of America, revealed that the objects were believed to be component parts of a DELTA II second stage rocket used to launch a United States Global Positioning System (GPS) satellite on 28 March 1996. An investigation concluded that the objects posed no risk of hazards to people and property, and were being kept by the South African Astronomical Observatory in Cape Town.<sup>58</sup>

Once more the relevant authorities made sure there was no risk or hazard emanating from the found objects. Both the UN Secretary-General and the launching authority were duly informed of the discovery and the latter was included in the process of identification. Ken Hodgkins, in presenting this case to the UN Workshop on space law capacity building, added that the United States, in honouring its obligations under Article 5(5), also reimbursed the local community where the objects were found, which had built a small museum around them, for the damages incurred by their removal, since the largest object would not fit through the museum door and the adjacent walls had to be taken down in part as a consequence.

### 4.4. Saudi Arabia and a US space object (2001)

As a final example, by way of *note verbale* of 8 March 2001, Saudi Arabia informed the UN Secretary-General:

[T]hat a piece of space debris was discovered on 12 January 2001 on the territory of Saudi Arabia, at a location about 240 kilometres (km) west of Riyadh, the Saudi Arabian capital, about 1 km from the highway linking the capital with the city of Taef. [Saudi Arabia] wishes to report the following: (a) The object is a metallic cylinder, 140 centimetres (cm) long, 120 cm in diameter and weighing about 70 kilograms. Technical examination carried out by the Space Research Institute at King Abdulaziz City for Science and Technology using space debris monitoring programmes suggested that the object was the titanium cover of a solid-fuel motor used on board a GPS2 satellite, launched in 1993, which had been expected to fall in northern Brazil. Thiokol, the American manufacturer of this type of motor, was contacted and provided with the serial number on the object. Thiokol confirmed that the debris was in fact the cover of a Star 48-type motor used on board a GPS2 satellite launched in 1993; (b) The Government of Saudi Arabia will notify the Government of the United States of America

<sup>58</sup> See id. at 64-65.

in this regard, in compliance with article 5, paragraph 1, of the Rescue Agreement. $^{59}$ 

The most interesting point of this example is that Saudi Arabia, in spite of its reference to the Rescue Agreement, and specifically Article 5, was not a party to the Rescue Agreement itself – a situation that persists to this day. Hodgkins, consequently, concluded that the legal basis for this action on the part of the Saudi government could only be Article VIII of the Outer Space Treaty – to which Saudi Arabia was, and still is, a party. 60

#### 5. LATEST DEVELOPMENTS: SPACE TOURISM AND THE RESCUE AGREEMENT

The previous examples of the Rescue Agreement's implementation within a short period of time illustrate the Agreement is more relevant than is sometimes thought. The question is then: will it remain relevant or is its relevance threatened, precisely now that upon closer view it does not seem to be as much asleep as perceived by many? Some, after all, might actually consider it a rude awakening, now that the last years humans in outer space have returned as an issue for the Rescue Agreement, as this did not concern in any meaningful sense of the word the "envoys of mankind" that Article V of the Outer Space Treaty was contemplating, or even, perhaps, "astronauts" as they were enjoying special legal attention, even treatment, under the Rescue Agreement.

'Space tourism' is a term to be used with caution, however.<sup>61</sup> It has been defined as "any commercial activity offering customers direct or indirect experience with space travel."<sup>62</sup> More generally, the 'official' definition of tourism was offered at the 1991 UNWTO Ottawa Conference on Travel and Tourism Statistics, as follows: "[t]he activities of persons travelling to and staying

<sup>50</sup> See id. at 66.

<sup>&</sup>lt;sup>80</sup> Id. at 61.

See, e.g., Frans G. von der Dunk, Passing the Buck to Rogers: International Liability Issues in Private Spaceflight, 86 NEB. L. REV. 400, 402-03 (2007).

Stephen Hobe & Jürgen Cloppenburg, Towards a New Aerospace Convention? – Selected Legal Issues of "Space Tourism," in Proceedings of the Forty-Seventh Colloquium on the Law of Outer Space 377, 377 (2005).

in places outside their usual environment for not more than one consecutive year for leisure."63 The problem with 'space tourism' is that it essentially refers to the reason for private individuals to undertake activities, which is not altogether a legally decisive criterion. The term 'private spaceflight' is more precise and more helpful for the purpose of legal analysis. It is the level of private participation in these new types of space activities that requires analysis and - likely - adaptation of the current legal environment for undertaking space activities, whether national or international. This, however, is essentially important when looking further into the future. For example, defining private spaceflight will be critical when taking on the legal problems arising from Virgin Galactic's proposed plans to provide suborbital point-to-point transportation. In any event, a real-life "space tourist" was the impetus for such discussion. In 2001, Dennis Tito went to the International Space Station for a week's stay to fulfil his lifelong dream. The discussion about his presence on the Russian module, largely against the wishes of the other ISS-participants, quickly led to the formal establishment of a category of space traveller different from that of a professional astronaut - that of the "spaceflight participant." A 2002 special agreement on Principles Regarding Processes and Criteria for Selection, Assignment, Training and Certification of ISS (Expedition and Visiting) Crewmembers amongst the parties to the intergovernmental agreement underpinning the International Space Station (ISS)<sup>64</sup> defined "spaceflight participants" as

WORLD TOURISM ORGANIZATION, TECHNICAL MANUAL No. 2 - COLLECTION OF TOURISM EXPENDITURE STATISTICS (1995), available at http://pub.unwto.org.81/WebRoot/Store/Shops/Infoshop/Products/1034/1034-1.pdf. Actually, the definition adds "business, and other purposes" after "for leisure," but this is a strange, complicating and counter-intuitive addition ultimately to be rejected since it would effectively equate 'tourism' with all travel, which takes away any distinctive common-sense meaning of the former phrase. See also Roger D. Launius & Dennis R. Jenkins, Is it Finally Time for Space Tourism?, 4 ASTROPOLITICS 253, 255 (2006) (an extended historical expose, describing tourism as travel for purposes that everyone would agree constitutes tourism, and not all travel).

<sup>&</sup>quot;Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America Concerning Cooperation on the Civil International Space Station, Jan. 29, 1998, State Dep't No. 01-52, 2001

"individuals . . . sponsored by one or more partner(s)," and explicitly included tourists, thereby allowing them on board the *ISS* in conformity with the aforementioned agreement. <sup>65</sup> It was under this regime that the second and further space tourists would visit the *ISS*.

This distinction between professional astronauts and space-flight participants, even if formally applicable only in the *ISS*-context, may turn out to be trendsetting, if not an industry standard. The *ISS* is currently the most complicated space endeavour in international, operational, technical, and legal terms, and the only likely space tourism destination for the forthcoming years. In addition, it combines most of the first-rank space powers. This means that the legal arrangements for the *ISS* stand a good chance of being the point of departure for developing relevant international law ultimately applicable to the whole world.

Does the Rescue Agreement continue to apply to all space travellers, regardless of their status? Should it apply to spaceflight participants without further ado, or does it require authoritative re-interpretation? If neither, then what other inter-

WL 679938 (entered into force Mar. 27, 2001). See also BÖCKSTIEGEL, supra note 7, at D.H.4.

Framework for Commercial Utilisation of the European Columbus Laboratory Module of the ISS, in The International Space Station – Commercial Utilisation from a European Legal Perspective 47, 55 (F.G. von der Dunk & M.M.T.A. Brus eds., 2006) (explaining that a spaceflight participant is "an individual (e.g. . . . crewmembers of non-partner space agencies, engineers, scientists, teachers, journalists, filmmakers or tourists), sponsored by one or more partner(s); normally this is a temporary assignment that is covered under a short-term contract, they are eligible for assignment as visiting scientist, commercial user or tourist, but their task assignment cannot include ISS assembly, operations and maintenance activities."). See also Leslie Jane Smith & Kay-Uwe Hörl, Legal Parameters of Space Tourism, in Proceedings of the Fourty-Sixth Colloquium on the Law of Outer Space 37, 39 & 46 n.24 (2004) (making reference to Article III of the Principles Regarding Processes and Criteria for Selection, Assignment, Training and Certification of ISS (Expedition and Visiting) Crewmembers).

<sup>&</sup>lt;sup>86</sup> Of course, we may soon see Virgin Galactic fully operational with its Space-ShipTwo vehicle, but this will concern a brief dip into the edge of outer space and back, in total taking no more than a few hours – and so will other, similar plans. The plans by Bigelow Aeropace, foreseeing an actual orbital hotel, are well on track so far, but even the current planning is to have such a hotel in operation not before 2015 – and such timelines turn out to be too optimistic much more often than too pessimistic.

Only China and India qualify as first-rank "space powers" not on board.

national instrument (such as a Protocol to the Rescue Agreement or a stand-alone agreement) would be desirable or necessary to protect the newest category of human space travellers? This is not the place to discuss such issues at length. General humanitarian obligations to assist humans in distress, as is the case in the high mountains or on the high seas, may well be considered to cover what it is necessary and justified for spaceflight participants without resort to the 'entitlements' of the Rescue Agreement or the qualification as "envoys of mankind" found in Article V of the Outer Space Treaty.68 But whether the beauty (to the extent that she was ever sleeping in the first place) merely requires a facelift or a rival younger sister to take over some of her tasks and duties, is the subject of another debate. For better or worse, the space tourist prince has awakened the princess - and being awake is the first requirement for celebration, Happy Birthday to you!

<sup>&</sup>lt;sup>66</sup> Cf. GÁL, supra note 12, at 224; LACHS, supra note 12, at 79, 81; CHRISTOL, supra note 7, at 153, 155-56, 159.