

# AUSTRIAN FEDERAL LAW ON THE AUTHORISATION OF SPACE ACTIVITIES AND THE ESTABLISHMENT OF A NATIONAL REGISTRY (AUSTRIAN OUTER SPACE ACT)

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## I. INTRODUCTION

It was an unforeseen coincidence that the day of the 6<sup>th</sup> Eilene M. Galloway Symposium on 'A Comparative Look at National Space Laws and Their International Implications' in Washington, D.C., the Austrian Parliamentary Committee for Research, Technology and Innovation (FTI-Ausschuss) endorsed the Austrian Federal Law on the Authorisation of Space Activities and the Establishment of a National Registry (Austrian Outer Space Act). A few days later, on 6 December 2011, the Austrian National Council adopted the act unanimously. The decision of the Federal Council followed on 15 December 2011. After its publication in the Federal Law Gazette I No 132 of 27 December 2011,<sup>1</sup> the new Austrian Outer Space Act entered into force on 28 December 2012.

This could be regarded as a victory in the 'space race' in Austria between the constructors of the first Austrian satellite, TUGSAT1/Brite Austria, and the administration which had decided that a law was needed to regulate this first independent Austrian space activity. The present article intends to give an insight into the background of the elaboration of the law in Austria, to

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<sup>1</sup> See the website of the Austrian parliament, [http://www.parlament.gv.at/PAKT/VHG/XXIV/I/I\\_01466/index.shtml](http://www.parlament.gv.at/PAKT/VHG/XXIV/I/I_01466/index.shtml). The official English version of the act is published by the Austrian Chancellerie at <http://www.ris.bka.gv.at/RisInfo/LawList.pdf>.

provide a short overview over the issues regulated, and to include a few comments on some of the most important provisions of the new law.

## II. BACKGROUND OF THE LAW

Austria has ratified all of the five UN treaties on outer space<sup>2</sup> and has been actively involved in the formulation and negotiation of the different instruments on the law of outer space.<sup>3</sup> Since 1987, Austria has been a member of the European Space Agency (ESA) and has participated primarily in space

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<sup>2</sup> It has ratified the Outer Space Treaty on 23 October 1968 (Austrian Federal Law Gazette No. 103/1968), the Rescue and Return Agreement on 1 May 1970 (Austrian Federal Law Gazette No. No. 110/1970), the Liability Convention on 10 January 1980 (Austrian Federal Law Gazette No. 162/1980), the Registration Convention on 6 March 1980 (Austrian Federal Law Gazette No 163/1980) and the Moon Agreement on 11 June 1984 (Austrian Federal Law Gazette No. 286/1984). See United Nations Treaty Collection, <http://treaties.un.org>.

<sup>3</sup> Austrian diplomats and professors have been actively involved in the formulation of the space treaties. See Bruno Besser, *Austria's History in Space* (ESA Publications Division 2004), available at: [http://www.esa.int/esapub/hsr/HSR\\_34.pdf](http://www.esa.int/esapub/hsr/HSR_34.pdf), 14; Konrad Ginther, Gerhard Hafner, Winfried Lang, Hanspeter Neuhold, Lilly Sucharipa-Behrmann (eds.), *Völkerrecht zwischen normativem Anspruch und politischer Realität. Festschrift für Karl Zemanek zum 65. Geburtstag* (Berlin 1994) 504 p.; Karl Zemanek, *The United Nations and the Law of Outer Space*, in: 19 *Yearbook of World Affairs* (1965) 199.

activities.<sup>4</sup> As ESA on its own behalf had accepted the obligations contained in the Rescue and Return Agreement, the Liability Convention and the Registration Convention, there had not been a need for national space legislation from the Austrian perspective.<sup>5</sup>

The initiative of the Technical University of Graz to start a project for the development of the first Austrian satellite changed this situation. The Institute for Communication Networks and Satellite Communication initiated the TUGSAT1/Brite Austria project whose mission was the investigation of the brightness oscillations of massive luminous stars by differential photometry.<sup>6</sup> The project was financed by the Austrian Agency for Aeronautics and Astronautics (Agentur für Luft- und Raumfahrt - ALR) of the Austrian Research

<sup>4</sup> In addition, in 1991, a major Austrian space activity was the project „AustroMir“ which brought the first Austrian astronaut, Franz Viehböck, to the Russian space station Mir. See Bruno Besser, *Austria's History in Space* (ESA Publications Division 2004) 39 *et seq.* (available at: [http://www.esa.int/esapub/hsr/HSR\\_34.pdf](http://www.esa.int/esapub/hsr/HSR_34.pdf)).

<sup>5</sup> Art. 6 of the Rescue and Return Agreement, Art. VII of the Registration Convention and Art XXII Liability Convention stipulate the possibility of international organisations to declare their acceptance of the rights and obligations provided in those treaties. In that case, references to States shall be deemed to apply to it. The ESA made the respective declarations. See Office of Outer Space Affairs, *Status of international agreements relating to activities in outer space as at 1 January 2010*, available at: [http://www.unoosa.org/pdf/publications/ST\\_SPACE\\_11\\_Rev2\\_Add3E.pdf](http://www.unoosa.org/pdf/publications/ST_SPACE_11_Rev2_Add3E.pdf), 15. The position of the Austrian institutions in this respect is evidenced in the ‘Materials’ which accompany the text of the new Austrian law, see [http://www.parlament.gv.at/PAKT/VHG/XXIV/II/II\\_014\\_66/fname\\_232781.pdf](http://www.parlament.gv.at/PAKT/VHG/XXIV/II/II_014_66/fname_232781.pdf). This position is, however, not shared by all other States. Belgium is an example of a different view. See Michael Gerhard, Article VI, in: Hobe/Schmidt-Tedd/Schrogl (ed.), *Cologne Commentary on Space Law* (Cologne 2009), 122-123. One might also ask, if the project AustroMir of 1991, *supra*, note 4, had not also already required national space legislation.

<sup>6</sup> See the website of the TUGSAT-1/Brite Austria-project, <http://www.tugsat.at>.

Promotion Agency (Österreichische Forschungsförderungsgesellschaft - FFG) under the framework of the Austrian Space Application Programme (ASAP) of the Austrian Federal Ministry for Transportation, Innovation and Technology. TUGSAT1/Brite Austria has been developed and built in close cooperation with the Technical University of Vienna, the University of Vienna, and the Institute for Aerospace Studies (UTIAS) at the University of Toronto.<sup>7</sup>

In addition, the University of Vienna bought another satellite ‘in orbit’ from the University of Toronto in 2005.<sup>8</sup> The difference to the Graz project was that the Vienna Institute was mainly interested in the data – and not in the construction of the satellite as such –, and that the satellite had been initiated and financed by the University of Vienna under its ordinary budget and not by the Austrian Space Application Programme. For a number of years, the Austrian ministries, the ALR and the FFG had not even been aware of the project.

The two satellites are so-called nano satellites (20x20x20cm in size, approximately 8 kg in weight) and more or less identical as regards their construction. Their instruments cover, however, a different optical spectrum which improves the quality of the expected pictures.<sup>9</sup> The two satellites shall be launched by the same launcher by a PSLV – a Polar Satellite Launch Vehicle from India and be put into the Low-Earth Orbit (600-900 km) in mid-2012.<sup>10</sup> They are part of an interdisciplinary and inter-university research

<sup>7</sup> See <http://www.tugsat.tugraz.at/projekt/partner>.

<sup>8</sup> See the ‘General Part’ of the ‘Materials’ to the Austrian Space Act, *supra*, note 5.

<sup>9</sup> See Boris Levchev, *Brite Austria Mission TUGSAT-1 and Uni BRITE*, in: Sigmar Stadlmeier (Hg.), *Von Lissabon zum Raumfahrzeug: Aktuelle Herausforderungen im Völkerrecht* (Vienna 2011) 52.

<sup>10</sup> This was the result of a multi-annual decision making process during which also Russian launch vehicles, such as Dnepr, Sojus, Rockot or Cosmos, and the Ariane V have been considered. See Levchev, *supra*, note 9, 49, 54.

and educational project named Brite (BRight Target Explorer).<sup>11</sup> The long term goal is to develop a generic satellite platform which can be used for future low-cost space missions for which interest by the scientific community and industry exists.<sup>12</sup>

This pioneer project raised the question whether the existing legal framework in Austria was sufficient to deal with the specificities of space activities. The Austrian entities involved felt that there was a need to accompany the project with all its legal aspects. For this purpose, they approached the Austrian National Point of Contact for Space Law (NPOC) of the European Centre for Space Law (ECSL) which had been founded in 2001 by Prof. Christian Brünner at the University of Graz.<sup>13</sup> In early 2009, the author of the present article as the then director of the NPOC Space Law Austria was entrusted by the Federal Ministry for Transport, Innovation and Technology<sup>14</sup> to write a first draft of an Austrian space law. After two and a half years of negotiations which involved a considerable

number of ministries, the draft was accepted by the Council of Ministers on 11 October 2011 as a proposal for consideration by the Austrian parliament.

### III. ISSUES REGULATED

The Austrian Outer Space Act with its only 17 articles is a relatively short law but it is meant to be a comprehensive act which deals with all the legal aspects connected to space activities, such as authorisation, supervision, registration, liability, insurance, transfer of the space object as well as enforcement and sanctions.<sup>15</sup> The relatively short length corresponds to the hitherto modest independent Austrian space activities, primarily dedicated to science, research and education. Nevertheless, the act is also designed for commercial space activities which might become more important in the future and, this is rather unusual, also for governmental space activities. In the drafting and negotiation process, under the lead of the Federal Ministry there was a general desire among the different ministries involved to establish a transparent system and a guaranteed flow of information between the different federal and territorial entities as far as prospective space activities are concerned. Furthermore, building up of the relevant knowhow as regards, in particular, authorisation and supervision was regarded as a challenge that could best be met by covering all kinds of Austrian space activities in the future.

### IV. COMMENTS ON SELECTED PROVISIONS

#### Scope of Application

<sup>15</sup> Michael Listner, A first look at Austria's new domestic space law, in: *The Space Review*, 12 December 2011, <http://www.thespacereview.com/article/1988/1>.

<sup>11</sup> See the website of the brite project, <http://www.brite-constellation.at/>.

<sup>12</sup> See <http://www.tugsat.at>.

<sup>13</sup> See Besser, *supra*, note 3, 15.

<sup>14</sup> The competence of the Federal Ministry for Transport, Innovation and Technology derives from the competence to regulate 'the traffic system relating to the railways, aviation and shipping' according to Article 10, para. 1, letter 9 of the Austrian Federal-Constitutional Law. See Sigmar Stadlmeier, Ein österreichisches Weltraumgesetz, in: Sigmar Stadlmeier (Hg.), *Von Lissabon zum Raumfahrzeug: Aktuelle Herausforderungen im Völkerrecht* (Vienna 2011) 33, 35; Sigmar Stadlmeier, What's in a Register: Austria (not) Doing Her Homework? in: Christian Brünner and Edith Walter (eds.) *Nationales Weltraumrecht. National Space Law. Development in Europe – Challenges for Small Countries* (Vienna 2008) 148, 149-150; Edith Walter, The Constitutional Basis for an Austrian Space Law, in: *ibid*, 157, 162; Franz Koppensteiner, Ein kleiner Schritt für die Menschheit, ein großer für Österreich? in: Georg Lienbacher and Gerhart Wielinger (eds.), *Öffentliches Recht. Jahrbuch 2011* (Vienna 2011) 11.

According to Article 1, para. 1, the Austrian Outer Space Act is applicable to space activities carried out on Austrian territory, on board of vessels or airplanes, registered in Austria or by a natural person with Austrian citizenship or legal persons seated in Austria. It thus defines the territorial, material and personal scope of application of the law. The definition follows the general principle of public international law that a State may only be made responsible for such activities over which it can exercise territorial and personal jurisdiction.<sup>16</sup>

The application of the law to activities on Austrian territory corresponds to the territorial jurisdiction of Austria. As regards vessels or airplanes, the provision clarifies that space activities which are carried out on the High Seas (such as those of the enterprise ‘Sea Launch’ between 1999 and 2009) or from an airplane (such as the launch of a space object from an airplane in the course of flight) will also be covered by the scope of application of the law, if the vessels or airplanes are registered in Austria.

Space activities of Austrian citizens are covered if they are involved as ‘operators’, that is, not if they only collaborate in space activities and do not act on their own account.<sup>17</sup> Juridical persons with a seat in Austria are juridical persons under private law as well as under public law, including territorial entities. Therefore, activities which are carried out by a Federal Ministry are also covered. Subsidiaries of foreign (commercial) legal entities are covered if they are registered within the commercial register.

Some States limit the personal scope of application of the space acts to areas that are not subject to the sovereignty of any State

<sup>16</sup> Michael Gerhard, Article VI, in: Hobe/Schmidt-Tedd/Schrogl (ed.), *Cologne Commentary on Space Law* (2009) 113-114.

<sup>17</sup> See also Article 2 of the Act which contains definitions, including of the term ‘space operator’. See also the explanations in the ‘Materials’ to the Austrian Outer Space Act, *supra*, note 5, 2-4.

(Norway), or make it subject to international agreements (Belgium) or to respective secondary legislation (the Netherlands). Austria, however, opted for an unrestricted personal scope of application which it found preferable, as otherwise control deficits could arise which prejudice the universal application of the law of outer space as possible.<sup>18</sup> A potential overlap of several national laws due to competing territorial and personal ties does not represent a fundamental problem. As the case may be, several authorisations must be obtained. Private international law aspects have to be clarified under the rules of private international law.<sup>19</sup>

### Authorisation

According to Article 3, space activities falling under the scope of application of the Act require authorisation by the Federal Minister for Transport, Innovation and Technology. A mere notification would not be sufficient. Both State and non-State space activities are subject to authorisation. Article 3 therefore exceeds the obligation contained in the Outer Space Treaty of 1967 (hereinafter OST). According to sentence 2 of Art. VI OST, the obligation to authorise only relates to non-governmental space activities.<sup>20</sup> However, the inclusion of governmental space activities seemed to be desirable and meaningful for the

<sup>18</sup> Also many other States, such as Sweden, South Africa, Australia, France, England, and the USA have included a broader personal scope of application of their respective space laws. See Michael Gerhard, Article VI, in: Hobe/Schmidt-Tedd/Schrogl (ed.), *Cologne Commentary on Space Law* (2009) 114.

<sup>19</sup> See also Article 1, para. 2 which reads: ‘Entitlements under private law are covered by this Federal Law only if Austrian law is applicable according to the rules of private international law.’

<sup>20</sup> Article VI, sentence 2 of the Outer Space Treaty reads: ‘The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.’

development of a transparent and uniform handling of the authorisation practice, for ensuring the flow of information between the territorial entities as well as for the development and use of pertinent know-how within the Federal Ministry for Transport, Innovation and Technology.<sup>21</sup>

The conditions of authorisation shall ensure that Austria can assume its international responsibility under Article VI OST. On the basis of certain criteria concerning the safety and the purpose of the space activity, the Austrian administration is put in the position to verify if prospective space activities comply with international norms.

The conditions for authorisation include technical, legal and political aspects. More precisely, the Federal Ministry for Transport, Innovation and Technology has to verify if (1) the operator possesses the necessary reliability, capability and expertise to carry out the space activity, (2) the space activity does not pose any immediate threat to the public order, to the safety of persons and property and to public health, (3) the space activity does not run counter to national security, Austria's obligations under international law or Austrian foreign policy interests, (4) appropriate provision has been made for the mitigation of space debris according to Article 5, (5) the space activity does not cause harmful contamination of outer space or celestial bodies or adverse changes in the environment, (6) the operator fulfils the requirements of the ITU concerning orbital positions and frequency assignments, (7) the operator has taken out an insurance according to subparagraph 4, and (8) the operator has made provision for the orderly termination of the space activity.

With regard to some of the conditions mentioned above, agreement with other Federal Ministries, such as the Ministry for European and International Affairs, the

Ministry of Finance or the Ministry of Defence and Sports, has to be found.<sup>22</sup> An ordinance to be issued by the Federal Ministry for Transport, Innovation and Technology shall further specify the conditions for authorisation.<sup>23</sup> According to Article 8 of the Act, a change of the operator also requires the authorisation of the Minister for Transport, Innovation and Technology under the same conditions.

According to Article 6, the operator is under the obligation to notify immediately all incidents which delay or render impossible the carrying out of the space activity authorised under Article 4 or which may require the modification or revocation of the authorisation. The authorisation can be withdrawn whenever the conditions of authorisation are no longer complied with (Article 7). In case of withdrawal of the authorisation, measures for the temporary continuation or the safe termination of the activity may be prescribed to the operator. If the operator does not comply with these instructions, control over the space activity shall be conferred to another operator by administrative decision of the Federal Minister for Transport, Innovation and Technology.

### Mitigation of Space Debris

The avoidance of space debris has been an important concern of the Austrian Federal Ministry for Transport, Innovation and Technology from the outset. The obligation to mitigate space debris is therefore contained in

<sup>22</sup> The obligation to find an agreement with other ministries is specified in Article 17 of the Act.

<sup>23</sup> The ordinance is specifically mentioned in Article 12 of the Act and shall also include details about the documents and technical specifications that have to be attached to the request for authorisation, fees covering the cost of the proceeding to be carried out under the present law, a lump sum to compensate the costs caused to the Federal Government as a consequence of the verification of the operator's reliability and information necessary for registration according to Article 10 (1) and (3).

<sup>21</sup> See the explanations in the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 4.



two articles of the act: first, it appears as a condition for authorisation in Article 1, para. 1, letter 4, and, secondly, it is specifically outlined in Article 5 which provides that '[t]he operator has to make provision for the mitigation of space debris in accordance with the state of the art and in due consideration of the internationally recognised guidelines for the mitigation of space debris. Especially measures limiting debris released during normal operations have to be taken.'

The condition of Article 1, para. 1, letter 4 has to be read and applied in combination with Article 5.<sup>24</sup> The 'internationally recognised guidelines for the mitigation of space debris' mentioned in Article 5 are first and foremost the Space Debris Mitigation Guidelines 2002 of the Inter-Agency Space Debris Coordination Committee (IADC)<sup>25</sup> which constitutes the most important international forum for the global coordination of activities in connection with artificial and natural space debris.<sup>26</sup> The UNCOPUOS Space Debris Mitigation Guidelines of 2007<sup>27</sup> should also be used as a point of reference.<sup>28</sup> This means that the obligation to mitigate space debris encompasses, in particular, to limit debris released during normal operations, to minimise the potential for on-orbit break-ups, to provide for post mission disposal and to prevent on-orbit collisions.

### Liability, recourse, and insurance

<sup>24</sup> See the explanations in the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 8.

<sup>25</sup> See [http://www.iadc-online.org/Documents/Docu/IADC\\_Mitigation\\_Guidelines\\_Rev1\\_Sep07.pdf](http://www.iadc-online.org/Documents/Docu/IADC_Mitigation_Guidelines_Rev1_Sep07.pdf).

<sup>26</sup> See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 8.

<sup>27</sup> [http://www.oosa.unvienna.org/pdf/publications/st\\_space49E.pdf](http://www.oosa.unvienna.org/pdf/publications/st_space49E.pdf).

<sup>28</sup> See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 8.

As Austria is liable for damage caused by a space object of which it is considered the 'launching State' under international law,<sup>29</sup> the Austrian Outer Space Act provides for a right of recourse of the government against the operator.<sup>30</sup> Article 11, para. 2 specifies that '[f]or damage caused on the surface of the Earth or to aircraft in flight, the right of recourse comprises an amount up to the sum of the insured risk, but no less than the minimum amount of insurance set out [under Article 4].' This limitation does not apply if the damage is due to fault by the operator or his agents or if the operator has carried out the space activity without authorisation (Article 11, para. 2, last sentence).

The insurance referred to in Article 11 is one of the conditions for authorisation of the space activity. Article 4, para. 4 provides in this respect that '[i]n order to cover liability for damages caused to persons and property, the operator is under the obligation to take out an insurance covering a minimum amount of € 60 000 000 per insurance claim.' This amount is taken from the French example and has to be adjusted from time to time. Due to Article 18 of the Austrian Federal Constitution Law,<sup>31</sup> it would not have been possible to

<sup>29</sup> See Art. VII OST, and Articles II and III of the Liability Convention of 1972.

<sup>30</sup> The right of recourse of the State against the operator needs to be laid down by law. See Michael Gerhard, Nationale Weltraumgesetzgebung. Völkerrechtliche Voraussetzungen und Handlungserfordernisse (2002) 147; Irmgard Marboe, 'Österreich als "Startstaat" – rechtliche Konsequenzen', in: Sigmar Stadlmeier (ed.), Von Lissabon zum Raumfahrzeug: Aktuelle Herausforderungen im Völkerrecht (2011) 11, 26.

<sup>31</sup> Article 18 of the Federal Constitutional Law (B-VG) stipulates in its para. 1: 'The entire public administration shall be based on law.' This provision is generally interpreted as providing for the legality of the actions of the administration and the prevention of arbitrariness. The Constitutional Court interprets this provision rather strictly paying due regard to the intentions and the legal theory of the drafter of the Austrian Constitution, Hans Kelsen. See also Irmgard Marboe, 'The New Austrian Outer Space Act' in: Zeitschrift für Luft- und Weltraumrecht (2012),

provide for an unspecified amount, such as 'the maximum probable loss' as it is contained in other national space laws.<sup>32</sup>

Furthermore, it has to be pointed out that, as regards the liability of the operator, the provisions of the General Civil Code (Allgemeines Bürgerliches Gesetzbuch, ABGB) and pertinent rules under other federal laws are applicable.<sup>33</sup> With regard to the hazardous nature of space activities, the principles on liability for hazardous activities as developed by jurisprudence have also to be taken into account. Insurance therefore serves the potentially injured as well as the operator.

However, the insurance requirement is mainly applicable to commercial space activities. If the space activity is in the public interest, the Federal Minister for Transport, Innovation and Technology may determine a lower sum or release the operator from the insurance requirement, taking into account the risks connected to the activity and the operator's financial capacity (Article 4, para. 4, third sentence). Space activities are in the public interest if they serve science, research or education. Taking out an insurance is, furthermore, not necessary if the Federal State itself is the operator (Article 4, para. 4, last sentence).

### Registration

With regard to Austria's obligation to register a space object<sup>34</sup>, Article 9 of the

forthcoming.

<sup>32</sup> This is, for example, the case in Australia and in the United States. See the ESPI report on national space legislation which includes a table on the different insurance obligations. Matxalen Sánchez Aranzamendi, Economic and Policy Aspects of Space Regulations in Europe. Part 1: The Case of National Space Legislation – Finding the Way Between Common and Coordinated Action (September 2009), 11-15, available at: <http://www.espi.or.at/images/stories/dokumente/studies/espi%20report%2021.pdf>.

<sup>33</sup> See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 12.

<sup>34</sup> See Article II of the Registration Convention 1975.

Austrian Outer Space Act establishes a registry for space objects which shall be maintained by the Federal Minister for Transport, Innovation and Technology. All space objects for which Austria is considered to be the launching State according to Article I of the Registration Convention 1975 shall be entered into this registry. If other States also qualify as launching States aside from Austria, the agreement according to Art II (2) of the said Convention shall be relevant for the registration in Austria (Article 9, para 3.).

As regards the information to be submitted to the Austrian registry, Article 10 requires the information which needs to be submitted to the UN Secretary General in accordance with Article IV of the Registration Convention. In addition, an appropriate designation of the space object, its registration number and the ITU frequency allocation number, the manufacturer of the space object, the owner and operator of the space object and further information, which the Minister for Transport, Innovation and Technology may determine in an ordinance in light of the technological state of the art, the international legal obligations or relevant decisions of international organisations has to be submitted.

The need of more specific information can arise as a consequence of changes in the technological state of art, on the one hand, and from obligations resulting from international law, European Union law and relevant decisions of international organisations, on the other hand.<sup>35</sup> 'Decisions of international organisations' include also those that do not entail legal obligations but only have the status of recommendations. An example is the Resolution on Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects adopted by the UN General

See also Marboe, *supra*, note 30, 15 *et seq.*; Stadlmeier, What's in a Register: Austria (not) Doing Her Homework? *supra*, note 14, 148.

<sup>35</sup> See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 11.

Assembly in December 2007<sup>36</sup> which contains recommendations for further information equally relevant for space activities and the international community of States. In implementation of these recommendations, the UN Office for Outer Space Affairs that maintains the UN Registry of Objects Launched into Outer Space on behalf of the Secretary General, has already elaborated a particular form.<sup>37</sup> The Austrian authorities may use this form for the registration of the mandatory and additional information.<sup>38</sup>

### Sanctions

In order to ensure that the new Austrian Outer Space Act is observed by prospective space operators, Article 14 provides for monetary sanctions. It stipulates that everyone who infringes provisions of the Act or the respective ordinances, commits an administrative offence and will be fined up to € 100 000. If an action or omission by the space operator represents a criminal offence falling within the competence of the courts, additional and more serious sanctions, including imprisonment, are possible. A minimum penalty of € 20 000 is stipulated for a particular serious violation of the Act, namely carrying out a space activity without

authorisation. The determination of a general upper limit and a minimum penalty for the carrying out of a space activity without authorisation is modelled on the Austrian Aviation Act.<sup>39</sup>

### Conclusion

The new Austrian Outer Space Act covers a variety of issues connected to both international obligations of Austria in accordance with the five UN space treaties but also takes into account the particular needs of space activities being carried out by Austrian operators. These currently encompass mainly educational and research purposes. The Austrian Act has therefore chosen a rather modest and simple approach and tried not to overregulate the emerging Austrian space sector. However, particular emphasis has been put on the mitigation of space debris. Small satellites are a very attractive option for newcomers as they are becoming technically more accessible and cheaper. Nevertheless, the responsibility of the States in this respect is more pertinent than ever before. States have the duty to avoid that small satellite projects, as laudable and welcome they are, do not harm large and expensive space activities which are of vital interest to the world population at large. Austria has made an effort to comply with this duty by enacting the present Outer Space Act.

<sup>36</sup> UN General Assembly Resolution No 62/101 of 17 December 2007, UN Doc. A/RES/62/101.

<sup>37</sup> See [http://www.unoosa.org/pdf/limited/c2/AC105\\_C2\\_2010\\_CRP07E.pdf](http://www.unoosa.org/pdf/limited/c2/AC105_C2_2010_CRP07E.pdf).

<sup>38</sup> See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 11.

<sup>39</sup> Article 169 of the Austrian Aviation Act. See the 'Materials' to the Austrian Outer Space Act, *supra*, note 5, 13.