

# Regulation in Outer Space

## The Assignment of Rights to Orbit Positions and Frequency Usage by Telecommunications Satellites

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*Telecommunication by satellites is the most important commercial utilisation of outer space. In order to operate a satellite system, access to radio frequencies and access to the geostationary-satellite orbit positions are necessary, which both constitute scarce natural resources. Due to the transborder scope of satellite services and the importance of rational and efficient use of these natural resources, an international regulatory framework regarding the usage of orbit positions and frequencies by satellites has been established within the International Telecommunications Union (ITU). This article investigates the ITU allotment procedures and their implications for national (German) radio spectrum regulation. It thus shows how national frequency assignment procedures have to correspond with the international allotment framework, as national administrations merely assign ITU derived (allotted) usage rights to commercial applicants. However, national authorisations provide an exclusive effect for assigned usage rights in a strict regulatory sense, but not as property rights.*

### I. Introduction

In order to provide satellite communications services (e.g. satellite telecommunication, broadcasting or navigation) operators need to obtain rights to orbit(al) positions and frequency usage. Satellite operators require on the one hand certain orbit positions to “park” their communication satellites, and on the other hand frequencies to transfer signals uplink and downlink between ground stations (earth segment)

and the communication satellite (space segment).<sup>1</sup> Satellite operators are economically dependent on the assignment of specific geostationary orbit positions – for instance at the orbital position 28.5° East, along the equator – as they reduce the operational costs of the satellite and qualify technically for the efficient use of valuable frequency bands, e.g. 14.00 to 14.25 GHz (uplink) and 12.50 to 12.75 GHz (downlink). Thus, frequency spectrum and geostationary orbit positions are scarce natural resources.<sup>2</sup>

If two (or more) satellite services operate at the same geographical position or use the same (or adjacent) frequencies, they may cause harmful radio interferences. Furthermore, orbital positions of satellites have to be coordinated in order to reduce the risk of collisions and harmful radio interferences of other nearby satellites.<sup>3</sup> Due to the transborder scope of satellite networks, the allocation of rights to orbit positions and frequency usage by satellites has to be coordinated on an international level to avoid harmful interferences. This coordination is primarily conducted by the ITU.<sup>4</sup> The first section of this article thus investigates the ITU allotment procedures and their implications for national radio spectrum regulation. Additionally, strategic planning and coordination within the EU is necessary to ensure the

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1 B. Sörries, ‘§ 56 Orbitpositionen und Frequenznutzungen durch Satelliten’ in F. J. Säcker (ed.), *Berliner Kommentar zum Telekommunikationsgesetz* (3. Ed., Beck, 2013) p. 1867, para. 2-3. For further details on the functioning of satellite networks see I. Baumann, *Das internationale Recht der Satellitenkommunikation* (Peter Lang, 2004) pp. 34-37.

2 Art. 44(2) ITU Constitution.

3 Ch. Koenig and A. Neumann, ‘Rechtliches und organisatorisches Umfeld der Satellitenkommunikation’ [2000] *Multimedia und Recht* p. 152.

4 I. Baumann and M. Gerhard, ‘Neuregelung des Verfahrens zur Anmeldung von Satellitensystemen bei der ITU und zur Übertragung deutscher Orbit- und Frequenznutzungsrechte’ (2006) 55 *Zeitschrift für Luft- und Weltraumrecht* p. 87.

efficient use of the radio spectrum and maximise the benefits for the internal market.<sup>5</sup> The following section presents briefly the EU regulatory framework. Turning to the national level, the final section of the article focuses on Germany's regulatory framework, showing how, its frequency assignment procedures are designed to comply with ITU requirements and national authorisations provide an exclusive effect for assigned usage rights in a strict regulatory sense, but not as property rights.

## II. ITU's role in satellite communication

The ITU is a specialised United Nations' agency for information and communication technologies and is responsible for the management of global radio spectrum and satellite orbits. According to the preamble of the Radio Regulations,<sup>6</sup> ITU shall "facilitate equitable access to and rational use of the natural resources of the radio-frequency spectrum and the geostationary-satellite orbit".<sup>7</sup> ITU thus allocates certain frequency bands of the radio spectrum to the purpose of their use (allocation)<sup>8</sup> and distributes the frequency bands amongst the ITU Member States (allotment).<sup>9</sup> Furthermore, ITU registers the national frequency assignments to commercial applicants including the orbital positions (assignment)<sup>10</sup>.

According to Article 1 paragraph 2 subparagraph b) of its Constitution,<sup>11</sup> the ITU shall "effect allocation of bands of the radio-frequency spectrum, the allotment of radio frequencies and the registration of radio-frequency assignments and, for space services, of any associated orbital position in the geostationary-satellite orbit or of any associated characteristics of satellites in other orbits, in order to avoid harmful interference between radio stations of different countries". Furthermore ITU shall "improve the use made of the radio-frequency spectrum for radiocommunication services and of the geostationary-satellite and other satellite orbits" (subparagraph c). The wording of these regulations ("shall effect" and "shall improve") indicate that the ITU neither has powers to assign frequencies (*to commercial applicants*) nor any powers to control or enforce frequency assignments by the ITU Member States. The functioning of the system regarding the use of frequencies and orbit positions is based on international recognition in the context of the ITU registration and allotment procedures.<sup>12</sup> Accordingly, ITU allotted frequency assignments are defined as legal positions that "other

[States] shall take into account when making their own assignments, in order to avoid harmful interference".<sup>13</sup>

### 1. ITU allotment system regarding orbit positions and frequency use

There are different procedures regarding the allotment of orbit positions and frequency usage rights depending on the type of communications service<sup>14</sup> and the segment of the spectrum.<sup>15</sup> In the case of "unplanned" frequency bands, ITU procedures establish rights to use these bands based purely on a priority scheme, which is granted on a "first-come, first-served" basis.<sup>16</sup> The first national administration<sup>17</sup> proposing to use the spectrum in a defined technical way receives the usage right after completion of the registration procedure. The registration procedure is divided into three basic steps: (1) Advance Publica-

5 J. Oster and E. Wagner, 'Kommunikation und Medien' in M. A. Dausen (ed.), *EU-Wirtschaftsrecht* (31. supplement, Beck, 2012) para. 181.

6 The ITU Radio Regulations, 2012 Edition. The Administrative Regulations comprise the Radio Regulations and the International Telecommunication Regulations, which complement the Constitution and the Convention. <[www.itu.int/net/about/legal.aspx](http://www.itu.int/net/about/legal.aspx)> accessed 15 July 2013.

7 Preamble 0.6 Radio Regulations.

8 Art. 1.16 Radio Regulations.

9 Art. 1.17 Radio Regulations.

10 Art. 1.18 Radio Regulations. See also *Baumann* (n. 1) 273.

11 The Constitution and Convention of the International Telecommunication Union were signed on 22 December 1992 (Geneva) and entered into force on 1 July 1994. Since their adoption in 1992, the ITU Constitution and Convention have been amended by Plenipotentiary Conferences (Kyoto, 1994; Minneapolis, 1998 and Marrakesh, 2002). Those amendments entered into force on 1 January 1996, 1 January 2000 and 1 January 2004. The documents are available under <[www.itu.int/pub/S-CONF-PLN-2011/en](http://www.itu.int/pub/S-CONF-PLN-2011/en)> accessed 15 July 2013.

12 *Baumann* (n. 1) p. 285.

13 Art. 8(3) of the ITU Radio Regulations.

14 The various types of communications services are defined in Article 1 of the Radio Regulations.

15 For a detailed description see *Baumann* (n. 1) pp. 277-300.

16 I. Baumann, 'Die Novellierung des Telekommunikationsgesetzes – Auswirkungen auf die Satellitenkommunikation' (2003) 52 *Zeitschrift für Luft- und Weltraumrecht* p. 536.

17 According to Article 1(2) Radio Regulations, an "administration" is "any governmental department or service responsible for discharging the obligations undertaken in the Constitution of the International Telecommunication Union". The German ITU administration is the Bundesnetzagentur.

tion of Information (Article 9 Section I Radio Regulations) is necessary to inform all administrations of any planned satellite system. It enables other administrations to preliminarily assess the effect that a planned satellite network is likely to have on existing or planned satellite systems and their terrestrial stations and comment accordingly; (2) Coordination (Article 9 Section II Radio Regulations) is usually a bilateral process between an administration seeking to assign a frequency in its network and an administration whose existing or planned services may be affected by that assignment. The coordination is a formal regulatory obligation for both administrations. (3) Notification (Article 11 Radio Regulations) and registration of the satellite system in the Master International Frequency Register (MIFR).<sup>18</sup>

By contrast, in the case of "planned" frequency bands, the Appendices of the ITU Radio Regulations include Allotment Plans<sup>19</sup> which originally assigned each country its own orbital location, a defined national beam pattern and set of frequencies, which together are defined as "assignments" or "allotments". The Allotment Plans were set up as an instrument to ensure all ITU Member States equitable access to the

scarce radio resources (frequency spectrum and satellite orbit); especially in support of those countries which are not yet in a position to make use of these resources.<sup>20</sup> In order to allow modifications to the Allotment Plans, procedures were put in place to provide multi-national beam coverage, more frequencies, different orbital positions and other deviations from the Plans. The procedures follow a similar concept to the procedures for the unplanned bands (first-come, first-served basis).

These different procedures are meant to guarantee that outer space "shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality" according to Article 1 (2) of the Outer Space Treaty.<sup>21</sup>

## 2. ITU rules establish international recognition

The coordination and allotment procedures are conducted by the ITU Member State's administrations and completed by an entry of the frequency assignment of the satellite network into the ITU's MIFR.<sup>22</sup> Hereby a frequency assignment achieves protected priority status in the MIFR. According to the ITU allotment system, orbit position and frequency usage rights for satellites are exclusively allotted to ITU Member States and not to commercial applicants.<sup>23</sup> Satellite operators who wish to use frequencies and orbital positions need to obtain these rights from an ITU Member State's administration to whom ITU has allotted these rights or – otherwise – must apply for these through the filing procedures or Allotment Plans (derivative usage rights).<sup>24</sup> More precisely, ITU does not confer usage *rights*; ITU rules establish *international recognition* to orbital positions and frequency usage by satellites exclusively to its Member States taking into account Article 2 of the Outer Space Treaty:<sup>25</sup> Common assets, such as frequencies and orbital positions,<sup>26</sup> cannot be appropriated by States or any other entity.<sup>27</sup> In keeping with the international recognition granted by the ITU, the commercial applicants' rights to use orbit positions and frequency bands are solely assigned by virtue of domestic law of the ITU Member States covered by their respective filings registered at the ITU. Consequently, national authorisations and transfer approvals granted under national regulatory regimes establish the crucial rules which govern relations between competing satellite operators.

18 For a detailed description see *ITU Radio Regulatory Framework for Space Services* available under <[www.itu.int/en/ITU-R/space/snl/Documents/ITU-Space\\_reg.pdf](http://www.itu.int/en/ITU-R/space/snl/Documents/ITU-Space_reg.pdf)> accessed 15 July 2013.

19 Appendices 30 and 30A to the Radio Regulations contain downlink Plans for the broadcasting-satellite service (BSS) in the 12 GHz band and the associated feeder-link Plans in the fixed-satellite service (FSS) in the 14 and 17 GHz bands.

20 *ITU Radio Regulatory Framework for Space Services* available under <[www.itu.int/en/ITU-R/space/snl/Documents/ITU-Space\\_reg.pdf](http://www.itu.int/en/ITU-R/space/snl/Documents/ITU-Space_reg.pdf)> accessed 15 July 2013.

21 *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies*, 10 October 1967, available under <[http://disarmament.un.org/treaties/t/outer\\_space/text](http://disarmament.un.org/treaties/t/outer_space/text)> accessed 15 July 2013.

22 *Baumann and Gerhard* (n. 4) p. 87.

23 *Sörries* (n. 1) p. 1867, para. 1; A. Tegge, *Die Internationale Telekommunikations-Union* (Nomos, 1994) p. 244.

24 *Baumann and Gerhard* (n. 4) p. 92.

25 "Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."

26 Geostationary orbital positions are items, which fall under the scope of Article 2 of the Outer Space Treaty. See M. Schwab, *Sachenrechtliche Grundlagen der kommerziellen Weltraumnutzung* (Carl Heymanns Verlag, 2008) pp. 86-90.

27 S. Freeland and R. Jakhu, 'Article II' in S. Hobe / B. Schmidt-Tedd / K.-U. Schroggl (ed.), *Cologne Commentary on Space Law* (Volume 1, Carl Heymanns Verlag, 2009) p. 61, para. 71.

### III. European Spectrum Regulation

On the European level, the European Conference of Postal and Telecommunications Administrations (CEPT<sup>28</sup>) is responsible for the technical harmonization and standardization of frequency usage. CEPT was established in 1959 and is based on an intergovernmental agreement of 48 States including all EU and EEA<sup>29</sup> Member States.<sup>30</sup> The CEPT expert group "Electronic Communications Committee" (ECC) develops common policies and regulations regarding electronic communications. Its primary objective is to "harmonize the efficient use of the radio spectrum, satellite orbits and numbering resources across Europe".<sup>31</sup>

In recent years, the EU strived to enhance its influence in the field of spectrum regulation. The EU emphasizes that spectrum management remains within the competence of the EU Member States; nevertheless "strategic planning, coordination and, where appropriate, harmonisation at Community level can help ensure that spectrum users derive the full benefits of the internal market and that EU interests can be effectively defended globally".<sup>32</sup> First steps were taken with the Green Paper on Radio Spectrum Policy in 1998<sup>33</sup> and the Radio Spectrum Decision in 2002,<sup>34</sup> which included the strategic planning of spectrum usage and the harmonization of allocation and assignment procedures. The European Framework Directive 2002/21/EC<sup>35</sup> and Authorisation Di-

rective 2002/20/EC<sup>36</sup> amended by the Better Regulation Directive 2009/140/EC<sup>37</sup> are concerned with the harmonization of frequency plans and assignment procedures.<sup>38</sup> One of the objectives is to increase the flexibility in spectrum management and access to spectrum, in order to safeguard the efficient use of spectrum.<sup>39</sup> In particular, Article 9b of the Framework Directive 2002/21/EC, which was inserted in 2009, obliges the EU Member States to ensure that undertakings may transfer or lease to other undertakings the rights of use of radio frequencies.

### IV. German regulatory system

The underlying basic legal structures of the German regulatory framework regarding the assignment of rights to orbital positions and frequency usage by satellites can be found in Sections 55 and 56 German Telecommunications Act ("TKG").<sup>40</sup> Under the German regulatory system, the assignment of orbital positions is inextricably linked in law with the domestic assignment of frequency bands.<sup>41</sup> Specifically, a domestic frequency assignment and an assignment of the orbital position rights from the Bundesnetzagentur (Federal Network Agency) are required (via administrative acts) before the orbital and frequency rights allotted to Germany can be used.<sup>42</sup> Under the TKG, orbital positions and frequency usage rights are assigned for a limited period of time according to the

28 Conférence Européenne des Administrations des Postes et des Télécommunications.

29 European Economic Area.

30 M. Busch and A. Neumann, 'Internationales Telekommunikationsrecht' in M. Schwarz and A. Peschel-Mehner (eds.), *Recht im Internet* (33. supplement, Verlag Recht und Wirtschaft, 2012) para. 21.

31 <[www.cept.org/ecc/who-we-are/what-we-do](http://www.cept.org/ecc/who-we-are/what-we-do)> accessed 15 July 2013.

32 Recital 28, Directive 2009/140/EC, OJ 2009 L 337/37.

33 COM(1998)596 final.

34 Decision No. 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community, OJ 2002 L 108/1.

35 Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, OJ 2002 L 108/33.

36 Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services, OJ 2002 L 108/21.

37 Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services, OJ 2009 L 337/37.

38 B. Sörries, '§ 52 Aufgaben' in F. J. Säcker (ed.), *Berliner Kommentar zum Telekommunikationsgesetz* (3. Ed., Beck, 2013) pp. 1813-1815, para. 18 and 25.

39 Recital 34, Directive 2009/140/EC, OJ 2009 L 337/37.

40 Telekommunikationsgesetz, 22 June 2004 (German Federal Law Gazette 2004 I S. 1190), last Amendment through Article 1 of the law of 20 June 2013 (German Federal Law Gazette 2013 I S. 1602).

41 Sec. 56(2) sentence 1 (orbital positions) in conjunction with Sec. 55 (frequencies) TKG.

42 The German regulatory framework differentiates between the earth segment (Sec. 55 TKG) and the outer space segment (Sec. 56 TKG).

anticipated lifespan of the satellite system with an option for extension.

## 1. Regulatory assignment procedure

The ITU allotment system has been implemented into German law via a two-step national assignment procedure:<sup>43</sup> (a) the ITU recognition and registration process between the ITU and the Bundesnetzagentur (upon application of the operator), including Advance Publication of Information, Coordination and Notification (according to Article 9 Sections I and II and Article 11 Radio Regulations); and (b) the national assignment administered and issued by the Bundesnetzagentur by virtue of an administrative act (Verwaltungsakt). Upon request by a satellite operator, the Bundesnetzagentur has to initiate the ITU registration process. The satellite operator has to provide the necessary information for the Advance Publication of Information, Coordination and Notification. Once international recognition to orbital positions and frequency usage by satellites has been established by the ITU through a filing in the MIFR in favour of Germany, the Bundesnetzagentur has to assign the rights to use the orbital positions and

frequency bands to the applicant.<sup>44</sup> The Bundesnetzagentur does not cede the rights, but assigns the ITU recognitions to the applicant for exercise by virtue of an authorisation to use (derived authorisation).<sup>45</sup> International recognition via registration is thus a precondition for the national assignment.<sup>46</sup>

The assignment of orbital positions and frequency usage rights to the satellite operator according to Section 56 TKG solely captures the usage rights for which international recognition has been established by the ITU.<sup>47</sup> No international recognition and respective authorisation is required to use frequencies for earth stations within the national territory (earth segment). For this purpose, the national provisions of the country in which the earth station is operated have to be applied. In Germany, each frequency usage (of earth stations) needs a prior assignment according to Section 55 TKG.<sup>48</sup> Under the German regulatory system, the assignment of orbital positions and frequency usage rights is inextricably linked in law with the domestic assignment of frequency bands,<sup>49</sup> requiring a national frequency assignment and an assignment of the orbital position rights from the Bundesnetzagentur before its use.<sup>50</sup>

Prior to the frequency assignment (Section 55 TKG) and the assignment of orbital positions and frequency usage rights (Section 56 TKG), the Bundesnetzagentur has to make sure that all preconditions set forth by the TKG have been met within an administrative procedure according to the German Administrative Procedure Act.<sup>51</sup> Within the administrative procedure the Bundesnetzagentur has to guarantee, as a matter of fact and law, the availability of frequencies and orbit positions, compatibility with other frequency usages and other satellite system notifications and that there is no detriment to public interest.<sup>52</sup> Furthermore, the ITU-derived assignment must correspond precisely with Germany's filing to the ITU.<sup>53</sup> Satellite operators are only allowed to use those frequencies and orbital positions which have been subject to an ITU registration.<sup>54</sup>

ITU-provided priority on a non-interference policy basis excludes conflicting usage, thus requiring exclusive assignments in a strict regulatory sense under the Member States' domestic laws. In order to achieve regulatory exclusivity and to comply with the administrative procedures set forth by the German Administrative Procedure Act, the Bundesnetzagentur has to issue all public law authorisations by administrative acts<sup>55</sup> as public law titles. The assignments as administrative acts have constitutive and

43 Sec. 56(3) sentence 2 TKG.

44 R. Hahn and A. M. Hartel, '§ 56 Orbitpositionen und Frequenznutzungen durch Satelliten' in K.-D. Scheuerle and T. Mayen (eds.), *Telekommunikationsgesetz* (2nd ed., Beck, 2008) p. 594, para. 4-8.

45 RegTP, Administrative order 8/2005 of 24 June 2005 – Satellite Communications, p. 1.

46 Art. 8 para. 1 of the ITU Radio Regulations.

47 G. Göddel, '§ 56 Orbitpositionen und Frequenznutzungen durch Satelliten' in M. Geppert and R. Schütz (eds.), *Beck'scher TKG-Kommentar* (4th ed., Beck, 2013) pp. 1664-1665, para. 5.

48 RegTP, Administrative order 8/2005 of 24 June 2005 – Satellite Communications, p. 8.

49 Sec. 56(2) sentence 1 (orbital positions) in conjunction with Sec. 55 (frequencies) TKG.

50 Sec. 55(1) sentence 1 TKG.

51 *Verwaltungsverfahrensgesetz*, "VwVfG", German Federal Law Gazette 1976 I S. 1253.

52 Sec. 56 para. 2 sentence 3 numbers 1-3 TKG.

53 For details see RegTP, Administrative order 8/2005 of 24 June 2005 – Satellite Communications.

54 Sec. 56 para. 1 TKG; *Göddel* (n. 47) p. 1666, para. 10.

55 "Verwaltungsakte". According to Sec. 35 sentence 1 VwVfG an administrative act is any sovereign measure issued by an authority in the sphere of public law to regulate an individual case with intended external legal effect.

direct external legal effects establishing the usage rights of the satellite operators.<sup>56</sup>

## 2. Permanent transfer of usage rights

The assignment regime regarding orbital positions and frequency usage rights must be distinguished from the rules concerning the transfer of usage rights to third parties granted by the assignment holder. The management of the derived usage rights registered at the ITU's MIFR is the sovereign privilege of each ITU Member State. Therefore, the legitimacy and jurisdiction of transfers of orbital positions and frequency usage rights is subject to the respective national laws of ITU Member States. Additionally, ITU-derived usage rights can only be held by sovereign States and not be assigned directly to private entities;<sup>57</sup> therefore, the national administrations have to be involved in the transfer procedure. The transfer of usage rights to a third party is not regulated by Section 56 TKG. Due to the fact that under the German regulatory framework,<sup>58</sup> the assignment of orbital positions is inextricably linked in law with the domestic assignment of frequency bands, the provisions dealing with the transfer of domestic frequency usage rights (Sec. 55 para. 8 TKG) also apply to the transfer of rights to orbit positions and frequency usage (Sec. 56 TKG). On the other hand, Sec. 62 TKG<sup>59</sup> regarding the possibility of radio spectrum trading<sup>60</sup> can currently not be applied to ITU derived rights to orbital positions and frequency usage, because the Bundesnetzagentur must grant an approval via an administrative act before a certain frequency range can be subject to spectrum trading.<sup>61</sup> Furthermore, due to the fact that satellite services are internationally coordinated and allotted under an ITU procedure, more flexibility via spectrum trading is (to a large extent) not possible,<sup>62</sup> because spectrum trading under Section 62 TKG allows for modifications of conditions and purposes of the frequency usage.

The 2004 TKG introduced a new provision regulating the transfer of frequency usage rights. The new Section 55(7) TKG 2004 (now Section 55(8) TKG) partially replaced the old licence regime under the Sections 6–16 TKG 1996, which allowed a transfer of the licence itself (Section 9 TKG 1996), but not the frequency assignment.<sup>63</sup> Under the old regime of 1996, a mere “permission to use the licence” (without the transfer of a frequency assignment) was subject only to a notification requirement.<sup>64</sup> By contrast,

the TKG 2004 introduced a statutory reservation of approval by the Bundesnetzagentur, providing for a new administrative approval mechanism subject to a distinct examination procedure (and material factual and legal preconditions), as established by the Bundesnetzagentur.<sup>65</sup>

According to the current TKG, the holder of a frequency usage right may transfer this right to a third party via a private law contract under the statutory reservation that the Bundesnetzagentur approves the transfer by virtue of an administrative act. It is not possible to use frequencies and rights to orbital positions allocated to Germany by the ITU without prior authorisation issued by the Bundesnetzagentur.<sup>66</sup> The transfer becomes effective on the date on which the Bundesnetzagentur grants the approval.<sup>67</sup>

As regards any administrative approval procedure, an application for approval of the transfer of frequency usage rights has to be submitted to the Bundesnetzagentur.<sup>68</sup> Thereafter, the Bundesnetzagentur examines the subjective and objective material preconditions of the transfer.<sup>69</sup> The Bundesnetz-

56 *Sörries* (n. 1) p. 1869, para. 9.

57 *Baumann* (n. 1) pp. 309-314.

58 Sec. 56 para. 2 sentence 1 TKG.

59 For the distinction between the scope of Sec. 55 para. 8 TKG and Sec. 62 TKG see: G. Göddel, ‘§ 55 Frequenzzuteilung’ in M. Geppert and R. Schütz (eds.), *Beck'scher TKG-Kommentar* (4th ed., Beck, 2013) p. 1661, para. 48.

60 Sec. 62 TKG serves the implementation of Art. 9b of the Authorisation Directive 2002/21/EC.

61 G. Göddel and M. Geppert, ‘§ 62 Flexibilisierung’ in M. Geppert and R. Schütz (eds.), *Beck'scher TKG-Kommentar* (4th ed., Beck, 2013) p. 1706, para. 6.

62 J.S. Marcus / L. Nett / M. Scanlan et al., *Flexibilisierung der Frequenzregulierung* (wik-Consult Studie 2005) p. 52 <[http://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen\\_Institutionen/Frequenzen/Studien/StudieFlexibilisierungFrequenzregulierung.pdf?\\_\\_blob=publicationFile&v=2](http://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Frequenzen/Studien/StudieFlexibilisierungFrequenzregulierung.pdf?__blob=publicationFile&v=2)> accessed 15 July 2013.

63 R. Hahn and A.M. Hartel, ‘§ 55 Frequenzzuteilung’ in K.-D. Scheuerle and T. Mayen (eds.), *Telekommunikationsgesetz* (2nd ed., Beck, 2008) p. 590, para. 52.

64 Sec. 9(2) TKG 1996.

65 Sec. 55(7) TKG.

66 Even in the case of spectrum trading under Sec. 62 TKG, a transfer only becomes effective through an act of public authorisation. B. Sörries, ‘§ 62 Flexibilisierung’ in F.J. Säcker (ed.), *Berliner Kommentar zum Telekommunikationsgesetz* (3. Ed., Beck, 2013) p. 1918 para. 23.

67 *Hahn and Hartel* (n. 63) p. 590, para. 59.

68 Sec. 55(8) sentence 1 TKG.

69 Sec. 55(8) sentence 2 and 3 in conjunction with Sec. 55(4) TKG.

agentur shall grant the application for approval<sup>70</sup> if: (a) the subjective requirements<sup>71</sup> for an assignment of frequency usage rights are met, (b) a distortion of competition in the relevant market is unlikely, and (c) the efficient and interference-free use of frequencies is secured. If these requirements are met, the Bundesnetzagentur must approve the transfer by virtue of an administrative act assigning the usage to the third party. Due to the pure derivative nature of the transfer, the Bundesnetzagentur must not change the terms of usage or technical properties regarding the usage rights; the act of approval does not constitute a new assignment.<sup>72</sup> Compliance with this procedure is strictly necessary, *inter alia*, because any assignment of frequency usage rights is a personalised administrative act<sup>73</sup> which excludes a transfer unless otherwise, and under exceptional terms allowed.

### 3. Temporary transfer

In contrast to a permanent transfer of frequency usage rights, it is also possible to temporarily grant the right of use to a third party on the basis of a private law agreement. Although Section 55(8) TKG does not specifically address such temporary transfers, the Bundesnetzagentur construes this provision to allow for temporary transfers of the right of use (subject, however, to the Bundesnetzagentur's approval). In 2005 the Bundesnetzagentur's predecessor, the RegTP, published an official notice<sup>74</sup> and hereby issued an administrative regulation delineating the temporary transfer procedure. The administrative regulation can still be used as guidance for the in-

terpretation of the current TKG.<sup>75</sup> The RegTP argues that according to general principles of law, temporary transfers must be possible due to the fact that Section 55(8) TKG allows for permanent transfers (*argumentum a maiore ad minus*).<sup>76</sup> This argument is not convincing as it ignores the fact that there are reasons for a legal exclusion of temporary transfers, e.g. regulatory reasons concerning frequency usage, need for stability of usage, reliability of satellite operators, etc. However, temporary transfers evolved into a common practice.

In the case of a temporary transfer, the Bundesnetzagentur will not address a new personalised administrative act of approval to the third party assigning the usage rights. Instead, the Bundesnetzagentur addresses the original assignment holder. By virtue of this practice, the Bundesnetzagentur emphasises that the addressed holder of the original assignment continues to be responsible under administrative law for the exercise of the transferred usage rights by the third party. Thereunder, the assignment holder can be held responsible for the fulfilment of all terms of usage, of frequency efficiency and interference-free usage by the third party. The Bundesnetzagentur requires the addressed assignment holder to retain contractual breakthrough rights<sup>77</sup> (*inter alia* withdrawal options) vis-à-vis the third party to retain "functional control" over the assigned rights. These terms and conditions attached to the approval allow the Bundesnetzagentur to enforce the fulfilment of all transfer requirements and original assignment duties. This approach avoids any circumvention of regulatory obligations through the transfer.<sup>78</sup>

### 4. Legal implications resulting from the administrative transfer procedures

The national authorisation procedures concerning permanent and temporary transfers of rights to orbital positions and frequency usage, which are completed by public acts of approval, establish, in their very nature, a binding public statement of facts<sup>79</sup> declaring that all prerequisites<sup>80</sup> of a transfer have been fulfilled.

In particular, this binding public statement of facts establishes the "compatibility with other frequency usages and other satellite system notifications", i.e. the most fundamental precondition of any original assignment or derived transfer of usage rights under German telecommunications law.<sup>81</sup> Due to the

70 According to Sec. 55(8) TKG.

71 Under Sec. 55(4) TKG.

72 *Hahn and Hartel* (n. 63) p. 590, para. 61; *Göddel* (n. 59) pp. 1659-1660, para. 45. For another opinion, see B. Sörries, '§ 55 Frequenzuteilung' in F.J. Säcker (ed.), *Berliner Kommentar zum Telekommunikationsgesetz* (3. Ed., Beck, 2013) p. 1859, para. 57.

73 Sörries (n. 72) para. 33; W. Wegmann, 'Nutzungsrechte an Funkfrequenzen und Rufnummern' [2003] *Kommunikation & Recht* p. 449.

74 Official Notice 152/2005, OJ RegTP 12/2005, p. 1023.

75 *Göddel and Geppert* (n. 61) p. 1706, para. 5.

76 Official Notice 152/2005, OJ RegTP 12/2005, p. 1023.

77 "Durchgriffsrechte".

78 Official Notice 152/2005, OJ RegTP 12/2005, p. 1023.

79 "Tatbestandswirkung".

80 Sec. 55(5), (8) and Sec. 56(2) sentences 1-3 TKG.

81 Sec. 56(2) sentence 3 no. 2 TKG.

integration of the German assignment and the transfer procedure under the TKG in the ITU allotment "international recognition" system, the Bundesnetzagentur must strictly observe the ITU's coordinated "efforts to eliminate harmful interference between radio stations of different countries and to improve the use made of the radio-frequency spectrum for radiocommunication services and of the geostationary-satellite and other satellite orbits."<sup>82</sup> In order to safeguard compliance with the ITU system, Section 56(2) sentence 3 TKG obliges the Bundesnetzagentur to consider: (a) the availability of frequencies and orbital positions; (b) the compatibility with other frequency usages and other satellite system notifications; and (c) whether there will be any detriment to the public interest.

Therefore, the Bundesnetzagentur has to pay special attention to those ITU frequencies (which have been allotted to other States) defined by the ITU Radio Regulations as legal positions that "other [States] shall take into account when making their own assignments, in order to avoid harmful interference."<sup>83</sup> Excluding any form of appropriation of space frequencies and orbital positions by any State or satellite operator, the ITU allots international recognition of priority usage which must be implemented through national authorisations. These national authorisations must strictly comply with the terms of the ITU allotment.<sup>84</sup> The binding public statement of facts under the act of approval establishes the ITU compatibility of the legal transfer status within ITU's international recognition and registration system. Therefore, the act of approval must be reliable *erga omnes*, i. e. stable, transparent and in that strict regulatory sense exclusive, with regard to the person entitled to exercise the transferred usage title.

In contrast to public acts of approval, private law agreements have an inherent relative nature (*pacta tertiis nec prosunt nec nocent*) affecting their legal standing. According to the TKG, the existence of a private law agreement on the succession of usage rights is only a precondition for a legally constitutive approval by the Bundesnetzagentur of the transfer of rights to orbit positions and frequency usage to third parties under public law terms. As an administrative act, the approval's *erga omnes*<sup>85</sup> existence is thereby effected under the legal mechanism of the German Administrative Procedure Act.<sup>86</sup>

Although the ITU-registered national assignments and derived transfers of usage rights are not considered exclusive property rights, national safeguards to

avoid interferences (as implemented under the public approval procedure) must involve an exclusive effect in a strict regulatory sense. Likewise, the regulatory transfer principle of functional control retained by the holder over the assigned usage rights requires such an exclusive effect to ensure a reliable and "good" regulation (as stressed under the Official Notice 152/2005<sup>87</sup>). According to the Official Notice, the Bundesnetzagentur requires the assignment holder to retain functional control over the assigned (and then transferred) usage rights, necessitating an act of approval as a reliable administrative anchor which entitles a third party to exercise the transferred usage rights on a stable, transparent and exclusive basis. Otherwise, the exercise of functional control through contractual rights alone would be a highly inefficient monitoring mechanism from the regulatory perspective.

If the Bundesnetzagentur accepted, on the contrary, a supremacy of private law agreements on the exercise of assigned frequency usage titles, and thus followed their inherent contractual relativity, especially in legal successions, the authority would neglect its public law responsibilities to ensure ITU compatibility of the legal transfer status under the ITU's international recognition and registration system as well as under its domestic jurisdiction.

An administrative act comes into effect as a binding public statement of facts<sup>88</sup> as well as an authoritative pronouncement on the interpretation and application of the law in the specific case, upon notice brought to the addressee (i. e. the applicant for the approval). The existence (validity) of an administrative act can only be established *erga omnes* (by contrast to its direct legal effect conferring rights or obligations on the addressee, which depends *ratione temporis et personae* on the date the addressee is notified of the

82 Article 1(2)(b) ITU-Constitution.

83 Article 8(3) of the ITU Radio Regulations, 2012 Edition.

84 Hahn and Hartel (n. 44) p. 596, para. 9.

85 Even if the wording of Sec. 43 para. 1 VwVfG appears ambiguous, it must not be interpreted as providing for a relative existence of an administrative act, but merely for becoming effective *ratione temporis et personae* relative to the date the addressee is notified of the administrative act: "(1) An administrative act shall become effective vis-à-vis the person for whom it is intended or who is affected thereby at the moment he is notified thereof".

86 Sec. 43(1) and (2) VwVfG.

87 Official Notice 152/2005, OJ RegTP 12/2005, p. 1023.

88 "Tatbestandswirkung".



administrative act effectively<sup>89</sup>). The very nature of an administrative act excludes a mere relativity in its existence (*“die als solche nicht der Relativierung fähige Existenz des Verwaltungsaktes”*<sup>90</sup>).

On this basis, the act of approval triggers a negative exclusive effect under the compulsory statutory law of Sections 55 and 56 TKG against all conflicting contractual rights. To ensure that all prerequisites under German telecommunications law are observed during the entire usage transfer period, usage exclusivity must, under public law terms, overrule all conflicting contractual rights and obligations under the jurisdiction of the respective national (German) legal system.

The act of approval will remain valid by its very nature as a public law title until it is invalidated according to Section 43(2) VwVfG through (a) an official administrative withdrawal of the administrative act (by the Bundesnetzagentur) according to Sections 48 or 49 VwVfG, (b) an annulment within formal administrative objections proceedings (*“Widerspruchsverfahren”*) against the act of approval upon filing of a third party according to Section 68 of the German Administrative Courts Procedural Act<sup>91</sup> or (c)

an annulment judgment of the administrative court of final appeal overturning the administrative act.

## V. Conclusions

The ITU allotment system regarding the assignment of rights to orbit positions and frequency usage by telecommunications satellites has been implemented into German law via a two-step national administrative assignment procedure. Within this administrative procedure the Bundesnetzagentur ensures that the ITU-derived assignment corresponds precisely with Germany's filing to the ITU. The Bundesnetzagentur transfers the ITU recognitions to the applicant for exercise by virtue of an authorisation to use.

Under the TKG, the assignment of orbital positions is inextricably linked in law with the domestic assignment of frequency bands. Both are a precondition for using the orbital positions and frequency rights allotted to Germany. The regime of initial orbital positions and frequency rights assignments must be distinguished from the transfer of usage rights to third parties granted by the assignment holder. In this respect, an administrative approval procedure exists under the TKG. In the case of a temporary transfer, the Bundesnetzagentur will not address a new personalised administrative act of approval to the third party assigning the usage rights. Instead, the Bundesnetzagentur addresses the original assignment holder. The Bundesnetzagentur requires the assignment holder to retain functional control over the assigned (and then transferred) usage rights, necessitating an act of approval as a reliable administrative anchor, which entitles a third party to exercise the transferred usage rights on a stable, transparent and in that strict regulatory sense exclusive basis.

89 Sec. 43(1) VwVfG.

90 M. Sachs, '§ 43 Wirksamkeit des Verwaltungsaktes' in P. Stelkens / H. J. Bonk / M. Sachs (eds.), *Verwaltungsverfahrensgesetz* (7th ed., Beck, 2008) Sec. 43, para. 165: *“Die als solche nicht der Relativierung fähige Existenz des Verwaltungsaktes überhaupt tritt bereits ein, wenn der Verwaltungsakt auch nur einem Betroffenen gegenüber äußere Wirksamkeit erlangt; die äußere Wirksamkeit wiederum kann nach Maßgabe der jeweiligen Bekanntgabe für die verschiedenen Betroffenen zu unterschiedlichen Zeitpunkten eintreten”*.

91 *Verwaltungsgerichtsordnung* (“VwGO”), German Federal Law Gazette 1991 I S. 686.