# VLADIMÍR MANDL: THE FOUNDING FATHER OF SPACE LAW

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In 1932 the first publication to suggest that space law should be seen as an independent branch of law appeared at Leipzig, Germany. Although not the first piece to address the subject of space law, this concise forty-eight page work went beyond the passing mentions with other branches of international law. The author was Vladimír Mandl (1899-1941), a Czech lawyer, whose monograph *Das Weltraum-Recht: Ein Problem der Raumfahrt*<sup>1</sup> [Outer Space Law: A Problem of Astronautics] was published at his own expense. No commercial publisher would print the monograph in Czechoslovakia at own risk.

Mandl's monograph was not well received and did not sell well during his lifetime. The renowned German legal scholar and professor of aviation law, Rüdiger Schleicher (1895-1945), remarked in his review of the monograph that if human interests are not yet visible to lawyers, then the lawyer should not deal with them.<sup>2</sup> This criticism dissipated when the world entered the space age; people in the field began to realize the significance of the monograph. Mandl has received less attention than he deserved. This Note casts more light upon Mandl's life, career, and enduring historical impact on the field of space law.

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<sup>&</sup>lt;sup>1</sup> Vladimir Mandl, *Das Weltraum-Recht: Ein Problem Der Raumfahrt* [Outer Space Law: A Problem of Astronautics] (Leipzig, 1932).

<sup>&</sup>lt;sup>2</sup> Rüdiger Schleicher, "Dr. jur. Vladimír Mandl, Rechtsanwalt in Pilsen, Das Weltraum-Recht, ein Problem der Raumfahrt (Buchbesprechung)", *Archiv für die civilistische Praxis*, CXXXVIII (1933), pp. 122-123.

### The Author

Vladimír Mandl (20 March 1899-8 January 1941) was born in the city of Pilsen, when it was part of the Austro-Hungarian Empire. He was the son of Dr. Matouš Mandl (1865-1948), an attorney, and Růžena Mandlová (1880-1920).<sup>3</sup> Vladimír was also a nephew of the painter Josef Mandl (1874-1933).<sup>4</sup> Mandl married Bohumila, née Charvátová (1907-19?), in 1930; two children, Petr<sup>5</sup> and Markéta,<sup>6</sup> were born of the marriage. Vladimír was an engineering enthusiast in his youth, but ultimately decided to follow his father's career path. Mandl attended the Czech Faculty of Law at Charles University in Prague, where he graduated on 21 November 1921. While a student, Vladimír developed a deep interest in legal theory,<sup>7</sup> especially as relevant to ordinary situations involving relations between individuals.<sup>8</sup>

After graduation, he first practiced for a short time at a district court in Prague and later at his father's law office. In 1925 Mandl submitted an interesting report on problems of evidence to the first

<sup>&</sup>lt;sup>3</sup> Růžena Mandlová would die after childbirth caesarean complications with the couple's third child. The child did not survive. See PhDr. Štěpánka Pflegerová, "Růžena Mandlová", *Encyklopedie Plzen* (available online).

<sup>&</sup>lt;sup>4</sup> See Pflegerová, "Matouš Mandl", Encyklopedie Plzen, ibid.

<sup>&</sup>lt;sup>5</sup> Vladimir's son was Professor Petr Mandl (1933-2012) who was a mathematician, statistician, and educator. He was a Doctor of Science and prominent figure in the field of actuarial mathematics and probability. In 2009 he was awarded the Czech Medal of Merit in the field of science. See Kateřina Fantová "Prof. RNDr. Petr Mandl, DrSc.", *Encyklopedie Plzen*, ibid.

<sup>&</sup>lt;sup>6</sup> PhDr. Jitka Janečková, "Lawyer With His Head in The Stars", in: *Welcome Guest in the Pilsen Region No. 3* (2019), pp. 18-19.

<sup>&</sup>lt;sup>7</sup> Mandl wrote on legal theory: Zivilistischer Aufbau des Schadenersatzrechtes: ein rechtstheoretischer Versuch [Civilian Structure of the Right to Damages: a Legal-Theoretical Attempt] (Breslau, 1932); Eine kausale Rechtstheorie [A Casual Legal Theory] (Berlin, 1936); Příčinná teorie právní: Skutečnost právní a skutečnost hospodářská [Causal Legal Theory: Legal Reality and Economic Reality] (Prague, 1938).

Vladimír Kopal, "Vladimir Mandl, Founding Writer on Space Law", in Frederick C. Durant III and George S. James (eds.), First Steps Toward Space (1974), pp. 87-90

Congress of Czechoslovak Lawyers.<sup>9</sup> In the following year, he wrote a monograph on Czechoslovak civil law regarding marriage and in 1927 opened his own office in Pilsen.<sup>10</sup> In 1931 Mandl completed his specialization in civil procedure by attending post graduate courses at the University of Erlangen in Germany, which is where he obtained a doctorate for his dissertation on the law of damages.

Mandl's early legal writings focused on legal problems created by technological developments of the 1920s and 1930s.<sup>11</sup> He published a series of essays on the legal aspects of motor vehicles.<sup>12</sup> These he subsequently complied into a monograph on the subject in 1929.<sup>13</sup> Mandl also studied legal problems of aviation which had

<sup>&</sup>lt;sup>9</sup> Vladimir Mandl, *Jakým způsobem bylo by upraviti předpisy o důkazu slyšením stran, zejména se zřetelem k odchylným předpisům rakouského i uherského soudního řádu?* [How Would the Rules of Evidence Regulate a Hearing of the Parties, in Particular with regard to the Rules of the Austrian and Hungarian Judicial Regulations] (Brno, 1925).

<sup>10</sup> Kopal, note 8 above.

Mandl was interested in a myriad of subjects inside and outside of the legal field, producing the following works on these diverse topics during the 1930s: Kterak dlužno jezditi motorovými vozidly podle nařízení ze dne 28. dubna 1910, č. 81 ř. z., ze dne 30. června 1932, č. 107 Sb. z. a n., jakož i podle rozhodnutí nejvyššího soudu [How to Drive Motor Vehicles under the Regulation of 28 April 1910, no. 81 r. z., of 30 June 1932, no. 107 Sb. z. a n., as well as the Decisions of the Supreme Court (Prague, 1932); Zivilistischer Aufbau des Schadensersatzrechtes [Civilian Structure of the Right to Damages] (Breslau, 1932); Pravovárečná měšťanstva v Čechách [Brewing Privileges of Citizens of Bohemia] (Brno, 1933); Les aérodromes [Airfields] (Paris, 1933); Technokracie, hospodářský systém budoucnosti? [Technocracy: the Economic System of the Future?] (Prague, 1934); Essays of a European Technocrat (Los Angeles, 1936); Chvála krajinstvi : Úvaha o regionalism [Praise of Landscaping: A Reflection on Regionalism] (Prague, 1936); Přírodovědní národohspodářská teorie [Natural Science Economic Theory] (Prague, 1936); Stát a vědecká organisace práce [State and Scientific Organization of Work] (Pilsen, 1937); Teorie a prakse řízeného hospodářství v Československu : Stav. kritika a výhledy [Theory and Practice of a Controlled Economy in Czechoslovakia: Status, Criticism, and Prospects] (Pilsen, 1937); Jak podporovati soukromé podnikání v malé a střední výrobě [How to Support Private Enterprise in Small and Medium Production (Pilsen, 1939).

<sup>&</sup>lt;sup>12</sup> Kopal, note 8 above.

<sup>&</sup>lt;sup>13</sup> Mandl, *Automobilovy zákon z 9 srpna 1908, č. 162 ř. z., a jeho reforma* ...[Automobile Act of 9 August 1908, no. 162 r. z., and its Reform ...]

developed rapidly in the years following World War I. He qualified as a pilot.

The result of Mandl's intensive work was the first systematic treatise on air law in Czechoslovakia. He first considered Czechoslovak air regulations and then turned to general problems of air law: the liability arising from international air transport contracts; conflicts of law concerning aviation; customs; and insurance against damage caused by aircraft. The final chapter assessed air warfare. Although Mandl was appointed to teach a unrelated legal course at the Czech Technical University, air law remained his main interest. This is reflected in his study of the Paris Convention on the Regulation of Aerial Navigation and by a substantial article on parachutes which he published in French in 1935.

Because of his interest in air travel, Mandl saw the legal problems of space emerge long in advance of other jurists. He began to think of space transport as a new field of navigation. He applied his broad knowledge of the law to the domain of space and wrote *Problem* 

(Brno, 1929).

<sup>&</sup>lt;sup>14</sup> Mandl, Letecke pravo [Air Law] (Pilsen, 1928).

<sup>&</sup>lt;sup>15</sup> Mandl expanded on this section the following year in: *Das tschechoslowakische Luftverkehrs-Gesetz...:* (Gesetz vom 8. Juli 1925, Slg. Nr. 172, betr. den Luftverkehr) [The Czechoslovak Air Transport Act...: (Act of 8 July 1925, Coll. No. 172, on Air Transport)] (Stiepel, 1929).

Mandl, *Mezinarodni umluva o uprave letectvi ze dne 13.rijna 1919* [International Aviation Convention of 13 October 1919] (Praha, 1932).

Mandl, "Le Parachute", *La Revue générale de droit aerien*, nos. 2, 3, 4 (1935; offprint: Paris: Les Editions Internationales, 1935).

<sup>&</sup>quot;Le Parachute" is a showcase of Mandl's brilliance, for he is able to convey the overlooked role of the parachute in Air Law. He seamlessly described the Spanish, French, Italian, Swedish, Canadian, German, English, Indian, and Portuguese air laws and regulations. He believed that a parachute, although obviously not a "flying machine", nonetheless belongs to the same legal domain as an aircraft. Other works that accentuate Mandl's knowledge and grasp of comparative law include: Manželské procesní právo československé: Studie [Czechoslovak Procedural Law: A Study] (Pilsen, 1926); Chvála krajinství: Úvaha o regionalism [Praise of Landscaping: A Reflection on Regionalism] (Prague, 1936); Válka a mír [War and Peace] (Pilsen, 1938); Právní soustava Německé říše: (vyběr) [Legal System of the German Empire: (Selected Works)] (Prague, 1939).

Mezihvézdné Dopravy [Problem of Interstellar Transport]<sup>19</sup> in order to address a wider circle of readers within Czechoslovakia. The first section briefly surveyed developments in astronautics. The second section explained the basic principles of rocketry. The book contained Mandl's own design of a high-altitude rocket.<sup>20</sup> Mandl believed so highly in the design that he applied for and was granted a Czechoslovak patent.<sup>21</sup>

In 1933-1934, the course taught by Professor Vladimír Mandl on industrial law<sup>22</sup> appeared in the university curriculum<sup>23</sup>, and again in 1938-1939.<sup>24</sup> Mandl attended aviation exhibitions in Paris and Munich and visited the Aviation Museum at Moscow in 1937.<sup>25</sup> Following the USSR trip, he traveled to the Aviation Collection at the Smithsonian Institution in Washington D. C. in 1938.<sup>26</sup> Mandl had already begun to support the establishment of an aviation department at the National Technical Museum in Prague. His travels to aviation exhibits were in search of documents and potential exhibits.<sup>27</sup> Mandl ceased teaching in 1939 with the German occupation of Czechoslovakia. Shortly after, his health deteriorated and Vladimír Mandl died at the age of 41 from tuberculosis at a

<sup>&</sup>lt;sup>19</sup> Vladmir Mandl, *Problem Mezihvézdné Dopravy (Problem of Interstellar Transport)* (Prague, 1932).

Mandl published a brief description of this rocket design later under the title: *Die rakete zur höhenforschung ein beitrag zum raumfahrtproblem,* [The Rocket for Altitude Research: A Contribution to the Space Problem] (Leipzig, 1934).

Mandl, Vladmir. 1933. High Altitude Rocket. CZ Patent 52236, Class 46d, issued 25 September 1933.

<sup>&</sup>lt;sup>22</sup> Industrial law, sometimes economic law, is a catch-all term that covers a wide array of laws governing industrial enterprises. These range from contracts, employment laws, industrial relations, and worker safety regulations.

<sup>&</sup>lt;sup>23</sup> Mandl, *Podnikatelská zodpovědnost za škody : přednáška z práva průmyslového* [Business Liability for Damages: Lecture on Industrial Law] (Prague, 1932).

<sup>&</sup>lt;sup>24</sup> See note 8 above, p. 90, note 3.

Mandl, "Aero-muzej im. M. V. Frunze v Moskve" [M. V. Frunze Aviation Museum in Moscow], *Letectvi* [Aviation] (1937), p. 365.

Mandl, "Aircraft Building ve Washingtone, U.S.A.", *Letec* [Aviator] (1938), p. 165.

See note 8 above, p. 90, note 5 (in a series of letters Mandl offered original suggestions concerning the organization of the collection).

sanatorium in Pilsen the following year. Up until his death, and during his "involuntary holidays" as he called them, Mandl focused on the aeronautical collection in Prague.<sup>28</sup> His death came seventeen years before the Space Age became a reality.

# Das Weltraum-Recht: Ein Problem der Raumfahrt : Background

Mandl's monograph *Das Weltraum-Recht: Ein Problem der Raumfahrt* [Outer Space Law: A Problem of Astronautics] was the first publication that presented space law as an independent branch of law based on specific means of space flights. He claimed that this branch of law was governed by principles different from those of the law of the sea or air law. Mandl emphasized the need for specific regulation of legal problems of astronautics in the future.

During Mandl's time, Hugo Grotius' concept of freedom of the seas propounded in his book *Mare Liberum*<sup>29</sup> was universally recognized. National rights and jurisdiction over the seas were normally limited to three nautical miles, adapting to Cornelius van Bynkershoek's cannon shot rule.<sup>30</sup> All waters beyond national boundaries were considered international waters, free and open to all nations. However, some nations expressed their desire to extend national maritime claims in order to exploit mineral resources, protect fish stocks, and enforce pollution controls. In 1930, the League of Nations convened a conference at The Hague, but no agreements were reached.<sup>31</sup> As a lawyer sensitive to issues of sovereignty, Mandl would have been familiar with and influenced by this growing desire to codify maritime claims.

<sup>&</sup>lt;sup>28</sup> Vladimír Kopal, "The Life and Work of Professor Vladimír Mandl – A Pioneer of Space Law in New Perspectives on Space Law," in Mark J. Sundahl and V. Gopalakrishnan (eds.), *The Proceedings of the 53<sup>rd</sup> IISL Colloquium on The Law of Outer Space Young Scholar Session 29* (2011), pp. 25-29.

<sup>&</sup>lt;sup>29</sup> Hugo Grotius, *The Free Sea*, transl. Richard Hakluyt (2004).

<sup>&</sup>lt;sup>30</sup> H. S. K. Kent, "The Historical Origins of the Three-Mile Limit", *American Journal of International Law*, XLVIII (1954), pp. 537-553.

The Fletcher School of Law and Diplomacy at Tufts University, "Chapter 1: International Law, Adoption of the Law of the Sea Convention," Law of the Sea (available online).

Aviation law went through many changes during Mandl's lifetime. After the First World War, the laws on aviation were regulated by the 1919 Paris Convention.<sup>32</sup> This Convention dealt with the sovereignty over the airspace of nations: that each State has absolute sovereignty over the airspace superjacent to its land territory and waters. Sovereign States were at liberty to deny entry to aircraft and to regulate flights over its territory. The Convention required airspace laws of all States-parties to be uniform with regard to foreign and domestic flights.

Mandl also would have been aware of the 1926 Spanish American Air Agreement and the 1928 Pan American Air Agreement, both of which conformed to Article 1 of the Paris Convention.<sup>33</sup> Mandl published a study of the Paris Convention on the Regulation of Aerial Navigation in 1932.<sup>34</sup>

### Das Weltraum-Recht: Ein Problem der Raumfahrt: Structure

Mandl's monograph *Das Weltraum-Recht: Ein Problem der Raumfahrt*<sup>35</sup> is divided into two sections. The first discusses the contemporary world. Within this section Mandl examined selected problems of civil, criminal, and international law as they would apply to developments in space law. His view was that operators and owners of space objects should be fully liable for any personal injury and property damage caused by the operation of these objects.<sup>36</sup> Mandl based this view on French, Italian, and English civil law treatises. Mandl transferred these principles to space law, where he considered them to be applicable. He also wrote that space vehicles may disturb people and that certain laws would need to be put in place to limit such instances.<sup>37</sup>

Article 1, 1919 Convention Relating to the Regulation of Aerial Navigation, 11 LNTS 173 (entered into force 11 July 1922).

The reasoning behind these various conferences in addition to the 1919 Paris Conference was that many countries were not members of the League of Nations – primarily the United States and other countries across the Caribbean and South America.

Mandl, note 14 above.

Mandl, note 1 above.

<sup>&</sup>lt;sup>36</sup> Ibid, p. 12.

<sup>&</sup>lt;sup>37</sup> Ibid, p. 14.

The second part of this historic monograph addressed the future of space law. Mandl rejected the dominant worldview of sovereignty. He believed that outer space is infinite. Mandl contended that the sovereignty of States was only applicable to the atmospheric space above their territory. Mandl then turned his attention to the potential development of space militarization. In this discussion of armament in space, he predicted the creation and use of space stations. Mandl ended this section by asserting what is possibly his most interesting idea on the subject of nationality in space.

# Das Weltraum-Recht: Ein Problem der Raumfahrt: Sovereignty in Space

Mandl began his discussion of the future of space law by addressing the legal ramifications of State sovereignty in space:

[It] is not related at all to our Earth and neither therefore to individual parts of the Earth's surface, having no longer any appurtenance to the Earth and therefore free from any earthly territorial power, *coelum liberum*: in this region the spacecraft travel is totally free.<sup>38</sup>

This section is clearly inspired by Hugo Grotius' *Mare Liberum*. However, the idea of sovereignty in outer space was not a new one. In 1910, a Belgian lawyer, Emile Laude (1878-19?)<sup>39</sup>, when writing on air law, claimed that "the problems of the ownership and the use of the Hertzian waves<sup>40</sup> will be posed one day".<sup>41</sup> Then in 1926, a Russian senior official of the USSR People's Commissariat of Aviation, V. A. Zarza (1899-1933), in passing mentioned a legal

<sup>&</sup>lt;sup>38</sup> Ibid, p. 33.

<sup>&</sup>lt;sup>39</sup> Emile Laude is best known as the first individual to write anything on the subject of space law.

<sup>&</sup>lt;sup>40</sup> Hertzian waves are airborne electronic waves better known today as radio waves.

Emile Laude, "Questions Pratiques", *Revue juridque internationale de locomotion arienne*, I (1910), pp. 16-18. The comment was translated into English as NASA Technical Memorandum NASA TM 77513, Washington DC, August 1984. For comment on the text in English and more detail, see S. E. Doyle, "Origins of International Space Law and the International Institute of Space Law of the International Astronautical Federation" (2002), p. 1.

proposal regarding the degree of sovereignty in a State's airspace: <sup>42</sup> "We propose that in the future, along with the principle of unlimited sovereignty over air space, there will also be a viable principle, found as the basis for the "theory of zones". <sup>43</sup>

In 1953, the world's first known doctoral dissertation on legal aspects of space flight was defended in Göttingen, Germany, by Welf Heinrich Prinz von Hannover (1923-1997). Under the title *Air Law and Space*, the dissertation presented a thesis that "the entire area beyond the atmosphere would have to be considered free territory both on technical grounds founded on the law of nature and for reasons of legal construction and policy". <sup>44</sup> Prince Heinrich cited Mandl's 1932 historic monograph along with Alex Meyer's work. <sup>45</sup>

In contrast to these arguments, the Soviet international lawyer, Evgenii Aleksandrovich Korovin (1892-1964), argued in 1932 for State sovereignty even over outer space:<sup>46</sup>

<sup>&</sup>lt;sup>42</sup> In his tragically short life, Valentin Ananievich Zarzar was the Chief Inspector of Civil Aviation of the USSR and a member of the Presidium of the State Planning Committee of the USSR for planning the aviation and automotive industry. He was one of the first in the USSR to deal with issues of air law, which led him into exploring the legal aspects of space. Zarzar might have beaten Mandl to becoming the father of space law had he not tragically died in a plane crash in 1933.

<sup>&</sup>lt;sup>43</sup> V. A. Zarzar, «Международное публичное воздушное право» [Public International Air Law], in: Вопросы воздушного права: Сборник трудов секции воздушного права Союза Авиахим (Союз обществ друзей авиационной и химической обороны и промышленности) [Problems of Air Law: Collection of Works of the Air Law Section of the Aviakhim Union (Union of Societies of Friends of Aviation and Chemical Defense and Industry], I (1926), pp. 90-103.

Welf Heinrich Prinz von Hannover., "Air Law and Space", translated and reproduced in the *Saint Louis University Law Journal*, pp. 11-69 (Spring 1958); reproduced in U. S. Congress, "Space Law: A Symposium", prepared at the request of Lyndon B. Johnson, Chairman, Senate Special Committee on Space and Astronautics, 85th Cong., 2nd Sess., Committee Print, GPO, Washington DC, pp. 18-76 (31 December 1958).

<sup>45</sup> Ibid.

<sup>&</sup>lt;sup>46</sup> A prominent early scholar of space law, Korovin is regarded the founder of the Russian science of space law. His work was later considered by the Hugo Grotius International Foundation in Germany as "a great contribution to the creation of international space law", and he received

It suffices, from the point of view of international law, to recognize in the State whose territorial or aerial frontier has been violated the undeniable right to take all the necessary measures for protection from the seizure of the crew of the airship (in case of a landing) to reprisals of all kinds.<sup>47</sup>

However, Korovin's view did not become the dominant principle of international space law. Mandl's principle of *coelum liberum* was unanimously declared in Resolution 1721 A/XVI of 20 December 1961 of the United Nations General Assembly.<sup>48</sup> Furthermore, it was made binding in Articles I-III of the 1967 Outer Space Treaty: "Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation".<sup>49</sup>

# Das Weltraum-Recht: Ein Problem der Raumfahrt: Military Operations in Space

Mandl believed that space could become a theater of military operations, but he did not view States as actively in combat against each other: "[W]e will not be arriving at a battle between spacecraft, they will rather be used only experimentally and extremely seldom to achieve the strongest strike effect as a result of the fearful speed of descent or to threaten the most remote region". 50 Mandl foresaw the military in space as "subject to the regulations of warfare on land, sea or air," 51 but never highlights why such regulations would apply. Mandl also foresaw that because outer space is free from sovereign control, it could become a theater of war for anyone.

the Hugo Grotius Medal for his efforts. Gennady P. Zhukov, et al., " Evgeny Aleksandrovich Korovin (12.10.1892–3.11.1964)", in Stephan Hobe (ed.), *Pioneers of Space Law* (2013), pp. 49-56.

Korovin, "La Conquête de la stratosphère et le droit international", *Revue générale de droit international public*, XLI (1934), pp. 675-686.

<sup>&</sup>lt;sup>48</sup> United Nations General Assembly Resolution 1721 (A/XVI), 20 December 1961.

<sup>&</sup>lt;sup>49</sup> 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 34 UNTS 243.

<sup>&</sup>lt;sup>50</sup> Note 1 above, p. 38.

<sup>&</sup>lt;sup>51</sup> Ibid, p. 39.

# Das Weltraum-Recht: Ein Problem der Raumfahrt: Nationality

Mandl finished his section on the future of space law by pondering the status of nationality for astronauts and settlers in space. He wondered if citizens would lose their nationality or citizenship when they would inhabit outer space and establish settlements. Indeed, Mandl questioned if one would need to terminate their citizenship altogether before traveling to space. Mandl concluded that citizens travelling by spaceships through outer space would continue to carry with them the citizenship of their home State. In other words, people would not lose their citizenship merely by traveling to space. However, Mandl found it only logical that it would not be possible to continue with the same notion of State and law when new spaces beyond sovereignty would be opened for colonization. He also emphasized that any citizen would be free to escape from State sovereignty on Earth by settling and inhabiting in outer space. By creating a new colony in outer space, the former "State" would see its citizens become stateless.52

### Mandl's Legacy

Mandl's monograph may have been known by European legal writers, but it was not referred to by anyone before 1950. Many non-European lawyers remain unaware of its existence today. Most are unable to acquire a copy of the original work because of its limited print run.<sup>53</sup> As the world entered the Space Age, Mandl's work was rediscovered. For example, Alex Meyer (1879-1978) agreed with the majority of Mandl's ideas in his paper titled *Weltraumrecht* (Space Law) presented at The Third International Astronautical Congress held in West Germany in 1952.<sup>54</sup>

The paper showed substantial agreement with Mandl's thoughts in many subject areas, with the exception of Meyer's insistence that outer space should not be allowed to become a theater of military

<sup>&</sup>lt;sup>52</sup> Ibid, p. 49.

It is believed that two hundred copies of Mandl's monograph were originally printed. Today the WorldCat locates seventeen.

Andrew Meyer, "Weltraumrecht", *Zeitschrift für Luftrecht*, I (1952), Pp. 234-236.

operations. Meyer's paper was designed to be an introduction into the field, but it received little attention when initially introduced. However, it gradually became a widely distributed document.

In 1953, Welf Heinrich Prinz von Hannover, in his doctoral dissertation, called Mandl "the first" among the early authors of space law. The dissertation found its way to Andrew G. Haley (1904-1966), an American known as the world's first practitioner of space law. Haley was instrumental in the creation of the International Academy of Astronautics and the International Institute of Space Law. In 1957, Haley invited Prince von Hannover to the United States to speak about space law, and the two men toured the United States during the following year.<sup>55</sup> In a speech given at a conference in 1965, the Honorary Director of the International Institute of Space Law (IISL), Ernst Leo Albin Fasan (1926-2021), described Mandl as the "father of space law". 56 The Library of Congress sent a copy of Mandl's work to Haley in early 1966.<sup>57</sup> Mandl's accomplishments were recognized at the International Astronautical Congress in 1968. At this conference, Vladimír Kopal (1928-2014) reported on the life and work of Vladimír Mandl.<sup>58</sup>

A paper entitled "Law of the Space Age" was presented during the tour in two parts: Part 1 by Heinrich and Part 2 by Haley. See the brief notice about this trip in *Astronautics*, LXXXVIII (1957). See also W. Heinrich, "Eine Reise in Sachen 'Weltraumrecht,' Eindrücke und Erlebnisse einer Vortragsreise Staaten von Amerika im Jahre 1957", in

Beiträge zum Luft- und Weltraumrecht; Festschrift zu Ehren von Alex Meyer (1975), pp. 385-395. This dissertation tour mentioned Mandl's 1932 monograph, causing it to be the introduction of the father of space law to North America

<sup>&</sup>lt;sup>56</sup> Ernst Fasan was a world renowned authority on space law. His work was notable for exposing potential problems of space law, including metalaw and the scientific search for extraterrestrial intelligence.

<sup>&</sup>lt;sup>57</sup> In correspondence between Haley and William S. Strauss, the Assistant General Counsel of the Library of Congress, Haley seemed eager to read Mandl's monograph. It is unknown if Haley read the work though because he passed away only two months after receiving a copy of it.

<sup>&</sup>lt;sup>58</sup> In a letter to the Chairman of the Second History of Astronautics Symposium at the National Air and Space Muesum, Vladimír Kopal expressed his desire to share information on Mandl that he recently discovered. Kopal had found a file of documents hidden away in the National Technical Museum in Prague on the life and work on Mandl. His goal was to make Mandl's life and work more well known to the

#### Conclusion

For the first time in decades, the history of the beginnings of space law are attracting more contemporary interest. Vladimír Mandl's life and work are being rediscovered as the revolutionary foundations of modern space law. Mandl was the first author to approach the future legal problems of space flight as a lawyer. His monograph attempted to establish legal principles and ideas in a novel field, to proposes principles that could govern future space activities. Mandl's fingerprints are present in the most significant international treaties in the field. His influence and legal ideas will continue to be a part of the debate of space law in the years to come.

participants of this Symposium. Kopal continued to research and write about Mandl for the rest of his life.