

PROJECT 2001: CONCLUSIONS AND RECOMMENDATIONS OF THE  
WORKING GROUP ON TELECOMMUNICATION\*

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Abstract

While in the early times of space activities the sole actors were States, the last decade saw a dramatic rise in private corporations getting involved. This is especially pertinent for the market of satellite communication, which has proved to be the most advanced area of space commercialization. The Working Group on Telecommunication of Project 2001: "Legal Framework for the Commercial Use of Outer Space", a research project jointly initiated by the Institute of Air and Space Law of the University of Cologne and the German Aerospace Center focused its work in particular on these current developments and the impact of privatization, paying attention to the needs and interests of the new emerging actors as well as to the protection of the public interest. The thematic fields Licensing Issues, Patent and IPR Issues, Frequency Management, International Satellite Service Providers and Globalization Issues were tackled. The Group examined the existing provisions and discussed whether these sufficiently reflect the requirements of the continuously developing telecommunication environment. Recommendations as to what kind of legal framework should be developed on what level and in which

forum were debated. This paper summarizes the final conclusions and recommendations the Working Group adopted.

I. Introduction

The Working Group on Telecommunication of Project 2001: "Legal Framework for the Commercial Use of Outer Space" was composed of around 30 leading experts in the field of space telecommunication and managed by *Ulrike Maria Bohlmann*, *Dr. Isabel Polley*, both Institute of Air and Space Law of the University of Cologne, and *Dr. Kai-Uwe Schrogl*, German Aerospace Center (DLR), Cologne. It aimed at the identification and examination of the structure of and the gaps in the existing national and international set of laws for this particular field of commercial use of outer space and at developing proposals for the improvement of present regulations.

1. Scope and Objective of the Working Group

The Working Group started from the definition of telecommunication in sec. 1012 of the Annex to the ITU Constitution.<sup>1</sup> There, telecommunication is defined as "any transmission, emission or

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reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems".

In order to render this far-reaching subject more manageable, the study of telecommunication provisions was subdivided into the thematic fields "Licensing Issues", "Frequency Management", "Trade Issues", "International Service Providers" and "Globalization Issues".

Parallel to the concentration on the research in these most relevant fields of space telecommunication law and policy, it was a declared target of the Working Group to react to recent developments within the scope of the application of telecommunication provisions. In this context for example the subject of a special legal regime for the status and utilization of Low Earth Orbits (LEOs) as recommended by the IISL Workshop at UNISPACE III (19-30 July 1999) was taken up.

In respect of the controversially discussed topic of frequency allocation, the Working Group decided to pay special attention to current problems of administration by the ITU and possible future improvements of licensing and registration as well as to the role of private entities within the ITU decision-making process. As to the licensing of telecommunication networks the Working Group investigated the possibilities for harmonization on a global scale, which seems crucial to global mobile communication providers.

## 2. Procedure

A first informal meeting of the Working Group took place at ESA Headquarters on 5 November 1998. There, the participating experts discussed the subdivision of the subject into thematic fields.

Beforehand the reactions to a questionnaire drafted by the Coordinator of Project 2001, *Susanne U. Reif*, Institute of Air and Space

Law of the University of Cologne, had been evaluated, identifying the topics the Group felt the need to concentrate on. During this process the thematic fields "Licensing Issues", "Frequency Issues", "Trade Issues" and "International Service Providers" emerged as the focal areas of the space telecommunication law and policy.

A first Draft Outline was sketched by the Working Group Coordinators, which formed the starting point of discussions at the Paris meeting. On that occasion it was recognized that the study should be extended to yet another thematic field, "Globalization Issues", tackling the legal requirements for globalization and commercialization with regard to telecommunication services. This subdivision of the substantive questions reflecting the diversity and plurality of legal problems in this specific area made it possible to proceed with a thorough and detailed study of the wide-spread overall topic.<sup>2</sup>

The experts participating in the Working Group were invited to choose the thematic field on which they preferred to focus. At a next informal meeting taking place alongside UNISPACE III in Vienna in July 1999 a first draft program of the formal Workshop of the Working Group which was to take place in Berlin in June 2000 was established. It was decided that the five thematic fields were to be discussed in a two-day workshop on 8/9 June 2000. Each area was to be covered by the presentation of a discussion paper, the reply of a discussant, and rounded up by an open debate.

The workshop as the core-element of the Working Group's contribution to the research project took place alongside the International Aerospace Exhibition (ILA) in Berlin on 8/9 June 2000. The discussions and presentations concentrated on the impact of privatization as well as the need for changes in the legal

framework to adapt to new issues and demands.

Session I of the workshop, entitled "Licensing issues on the national level / patent and IPR issues" started with the presentation of a discussion paper by *Maitre Stéphan Le Goueff*, who addressed the proposed reform of the European Telecom Licensing Regime concentrating on the EU Commissions' Authorization Working Paper<sup>3</sup>. As second speaker, *Mr. Bradford Lee Smith* addressed patent and IPR licensing issues. The Discussant of Session I was *Dr. Klaus-Jürgen Kraatz*.

In Session II "Frequency Management / ITU and economic / trade issues" *Prof. Ram Jakhu* concentrated his presentation on the changes in the ITU's mandate, functioning and structure as a result of the growing number of players in the telecommunication industry. *Mr. Alfons Noll* gave in his presentation a report on the implementation of the results of the ITU Plenipotentiary Conference (PP) held at Minneapolis in October/November 1998. Discussants of this Session were *Dr. Sa'id Mosteshar* and *Dr. Frans von der Dunk*.

The third session, "International service providers", started with *Dr. Sylvia Ospina* presenting a discussion paper on international satellite service providers putting an emphasis on the recent US law "ORBIT"<sup>4</sup>. Her presentation was followed by *Mr. David Sagar*, describing Inmarsat's experience during the first year after its privatization. Discussant of this session was *Dr. Isabel Polley*.

The next session covering "Globalization Issues" began with the presentation of a discussion paper by *Dr. Patrick Salin*, concentrating on the non-trade issues related to the globalization of communications. The discussant of this session was *Dr. Larry Martinez*.

An animated discussion on the various issues tackled during the two days completed the substantive work, which proved to have tackled the most up-to-date legal developments.

Consecutively, a report on the workshop was published in the German Journal of Air and Space Law<sup>5</sup> and the Proceedings of the workshop, containing copies of all the presentations as well as relevant legal material, were distributed to all the members of the Working Group.<sup>6</sup>

Based on these contributions, the authors of this paper, together with *Ms. Ilaria Zilioli*, drafted a report mirroring and summarizing the work of the group, giving further recommendations for the future development of the law in the specific field and also taking into account publications and papers on substantive issues that have been collected within the research work of Project 2001.

This draft report was then distributed to the Working Group members and speakers at the Workshop with the request for comments, additions or amendments. The respective reactions were integrated in the report, so that it was possible to present at the International Colloquium on Conclusions of Project 2001, that took place on 29-31 May 2001 in Cologne<sup>7</sup>, a consolidated version expressing the views not only of the present authors but of the whole Working Group.

The panel of the Working Group on Telecommunication on that occasion included additional presentations by the Working Group members *Alfons A. E. Noll* on the recent developments at the ITU with regard to satellite services, *Dr. Sylvia Ospina* on recent developments in international satellite communications and *Dr. Larry Martinez* on Weaving a Legal Web in Space: Factors for Globalizing Governance.<sup>8</sup>

## II. The Working Groups' Conclusions and Recommendations

Summarizing, the Working Group's discussions expressed the need for further harmonization in the field of space telecommunication regulation. The participants' own commitment to opening markets, promoting competition and preventing anti-competitive conduct was identified. The lack of political will to work towards full harmonization and liberalization of the corresponding markets, attributable to the many different and often diverging interests involved, was regretted. It became evident that steps should be taken to preserve the public service aspects of telecommunication within the ISOs and to prevent actions that solely aim at national protectionism at the expense of the global public interest.

### 1. Licensing Issues

A progressive harmonization of licensing conditions is desirable on the global as well as on a regional scale. In the absence of a pan-European license or a system of mutual recognition of licenses throughout the European Union, a primary reform could be the harmonization of current or present requirements, and of the widely differing charges and fees, and should take into account that charges should only reflect the administrative costs actually incurred. Fees should be set at a level that, on the one hand reasonably represents the economic value of a license, and on the other hand, ensures the optimal use of scarce resources. In addition, the explicit spelling out of licensing conditions by the EU or the adoption of guidelines for the interpretation of the conditions would further the cause of harmonization.<sup>9</sup> The European harmonization process could be promoted by a cooperation between the European Commission and the European Conference of Postal and Telecommunications Administrations (CEPT). A global approach is conceivable under the auspices of the WTO.

### 2. Patent and IPR Issues

With regard to patent and IPR issues, the Working Group recommends the promotion of the development of a single unified (international) patent law applicable to outer space activities. The creation of a special international enforcement body, such as an international board of arbitration, would contribute to more efficient dispute settlement mechanisms. This regime should be established in a cooperative effort of all the nations that are or will be concerned by involved in the applications of space technologies. The appropriate forum for studying these questions seems to be the Legal Subcommittee of UNCOPUOS, assisted by the WIPO. At UNCOPUOS the question whether the WTO agreements, endowed with dispute settlement mechanisms, should be entrusted with dealing with space-related patent matters or whether the WIPO, that currently lacks power to impose sanctions, should be charged with these issues.

### 3. Frequency Management

The ITU has been and still is the ideal international forum for national regulatory authorities and other relevant actors from around the world to discuss the key issues of telecommunication policy. The continuous process of structural reform inside the ITU<sup>10</sup> is a necessary step in order to adapt its constituent instruments as well as organs and bodies to further accommodate the legitimate exigencies of private entities. It should be further developed carefully but not hastily. The ITU, which is capable of safeguarding valuable resources for the benefit of the international community, is still the appropriate body for regulating the frequency spectrum. As to the issue of settlement of disputes, the ITU is still the most impartial body of all the conceivable institutions suitable for this task, and should be vested with larger dispute settlement and enforcement powers.

The problem of recovery of costs incurred due to the filing of "paper-satellites" should be solved by the implementation of a system of charges and fees applicable to every satellite filing received by the ITU.<sup>11</sup> On the international level, the auctioning of frequencies is not appropriate, as it would further aggravate the imbalances of access to and use of space resources between developed and developing countries.

#### 4. International Satellite Service Providers

Both the GMPCS MOU<sup>12</sup> and the WTO Agreement on Basic Telecommunication annexed to the GATS<sup>13</sup> can be regarded as products of the significant increase in influence of private entities in the space telecommunication sector. They are also examples of how global telecommunications are more and more shaped by market forces. In this respect, the role international organizations still have to play in this sector has to be noted.

In particular, steps should be taken to preserve the public service aspects of telecommunication services within the ISOs and to prevent actions that solely aim at national protectionism at the expense of the global public interest.<sup>14</sup> The successful privatization process of Inmarsat<sup>15</sup>, especially with regard to the performance of public service obligations under the Public Service Agreement, may serve as an example to the other International Satellite Organizations in their own privatization processes.

#### 5. Globalization Issues

Especially in regard to the foreseeable intensified use of LEO telecommunication and multimedia broadband satellites, the establishment of an authority with worldwide competence to ensure the efficient and equitable use of orbits and frequencies, and endowed with real decision-making

and enforcement powers, is recommended. This kind of World Communication Commission (WCC) could evolve from the present ITU, which - by these means, - would make a quantum-leap, compared to its evolution as depicted above.

Such a WCC would also contribute to regulating the "traffic" of communication satellites in outer space. This, however, would be an anticipation of a comprehensive "traffic control" in a certain sector, which would make it even more difficult for such a comprehensive approach to be implemented through a different forum (likely UNCOPUOS) and in a different organizational format (maybe something like a World Space Organization).

The conservative influence of the Nation States in an environment where national borders are losing their significance calls for creativity and ingenuity in the process of law- and policy-making. The opportunities offered by the new telecommunication and space technologies as well as by the globalization process should be taken up. An uncontrolled striving for dominant positions should be discouraged and a joint effort in the direction of an evolved type of international legal order suitable to outer space, that consciously watches over the genuine public interest and disposes of national protectionistic attitudes should be undertaken.

### III. Outlook

The opportunities for economic and socio-political development offered by modern telecommunication applications and space technologies are unique and unprecedented. For the sake of global sustainable development, with regard to the living-conditions and in the interest of a betterment of the economic systems of all countries, efforts should be undertaken in order to draft a legal framework for the commercial use of space telecommunication technologies with laws that do not allow for national protectionism, but

instead focus on the benefits these applications can produce on a worldwide scale.

In order to realize their full potential by means of a reasonable approach, their current and future evolution have to be shaped by appropriate international institutions and organizations taking also into account factors such as democracy and the maintenance of equal opportunities.

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<sup>1</sup> Constitution of the International Telecommunication Union, Done at Geneva on 22 December 1992; See: C.IV.1.1.1 in: Karl-Heinz Böckstiegel / Marietta Benkö (eds.), *Space Law - Basic Legal Documents*, Status as of 1 November 1999.

<sup>2</sup> An intermediary report on the working group was presented at the 42nd Colloquium on the Law of Outer Space during the 50th International Astronautical Congress at Amsterdam, 4-8 October 1999. See *Isabel Polley/Kai-Uwe Schrogl*, Project 2001: Status Report on the Working Group on Telecommunication, IISL-99-IISL.2.01.

<sup>3</sup> Working Document on the Authorisation of Electronic Communications Networks and Services, issued on 27 April 2000.

<sup>4</sup> Public Law 108-180, 17 March 2000, the Open-market Reorganization for the Betterment of International Telecommunications Act.

<sup>5</sup> see *Ulrike M. Bohlmann*, ZLW 2000, pp. 517.

<sup>6</sup> The Proceedings, IISN 1616-6272, can be obtained from the Project 2001-Bureau, c/o DLR, Linder Höhe, 51447 Köln, Germany.

<sup>7</sup> See the overall report by *Susanne U. Reif*, Legal Framework for the Commercial Use of outer Space: International Colloquium on Conclusions of Project 2001 and presentation of *Liber Amicorum* Karl-Heinz Böckstiegel, Cologne, 29-31 May 2001, ZLW 2001 pp. 419.

<sup>8</sup> All these presentations as well as the additional paper "The International Telecommunication Union in the Twenty-First Century" by *Francis Lyall* are together with the Final Report of the Working Group also included in the Proceedings of that International Colloquium scheduled for publication in fall/ winter 2001.

<sup>9</sup> For more details see: *Stéphan Le Goueff*, The Reform of the European Telecom Licensing Regime: What Vision for the Future ?, Discussion Paper presented at the Project 2001 Workshop on Telecommunication in Berlin, published in the Proceedings of that Workshop pp. 9.

<sup>10</sup> See *Alfons A. E. Noll*, ITU Constitutional and Conventional Amendments, *Multimedia und Recht*

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2000, pp. 270; and The International Telecommunication Union (ITU) - Its Inception, Evolution and Innate, Constant Reform Process, *Multimedia und Recht* 2000, pp. 465.

<sup>11</sup> See *Ram Jakhu / Virginia Serrano*, International Regulation of Radio Frequencies for Space Services, Discussion Paper presented at the Project 2001 Workshop on Telecommunication in Berlin, published in the Proceedings of that Workshop, pp. 41.

<sup>12</sup> Global Mobile Personal Communications by Satellite Memorandum of Understanding, Geneva, 6-7 October 1997, included in the Proceedings of the Project 2001 Workshop on Telecommunications, 8/9 June 2000, pp. 407.

<sup>13</sup> General Agreement on Trade in Services, Annex on Telecommunications, included in the Proceedings of the Project 2001 Workshop on Telecommunications, 8/9 June 2000, pp. 421.

<sup>14</sup> See *Sylvia Ospina*, International Satellite Service Providers, Discussion Paper presented at the Project 2001 Workshop on Telecommunication in Berlin, published in the Proceedings of that Workshop, pp. 139.

<sup>15</sup> For details see *David Sagar*, Inmarsat Since Privatization, Discussion Paper presented at the Project 2001 Workshop on Telecommunication in Berlin, published in the Proceedings of that Workshop, pp. 163.