

## IISL/ECSL Space Law Symposium 2005: “Recent developments in remote sensing and the desirability of reviewing the 1986 United Nations Principles Relating to Remote Sensing of the Earth from Outer Space”

Report by Tanja Masson-Zwaan

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The annual IISL/ECSL space law symposium was held on the occasion of the 44th Session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space on Monday, 4 April 2005 in Vienna, Austria. **Ambassador Peter Jankowitsch**, Chairman of the Supervisory Board of the Austrian Space Agency and Past Chair of COPUOS, had again agreed to chair the Symposium. **Sergei Negoda** of the UN Office of Outer Space Affairs served as rapporteur, and IISL Secretary **Tanja Masson-Zwaan** had coordinated the programme.

During the 43rd session of the Legal Subcommittee, informal consultations had taken place among interested member States with regard to the proposal to include a new item entitled “Analysis of current remote sensing practices within the framework of the Principles Relating to Remote Sensing of the Earth from Outer Space” on the agenda of the Legal Subcommittee at its 2005 session as a single issue item for discussion. The member States that participated in the informal consultations had agreed that it would be desirable to invite the IISL and the ECSL to consider having the next IISL/ECSL Symposium to address the current remote sensing practices within the framework of the Principles. The organisers welcomed that suggestion, and put together a programme aiming to avoid repeating past theories and be as concrete as possible, compare the Principles with current practices, check whether they are transposed in legal acts, and of course what are the topics not referred to, or not enough, in the Principles.

An introduction, entitled “*The International Legal Framework of Remote Sensing in the Year 2005: Changed Conditions and Changed Needs?*” was given by **Dr. Mahulena Hofmann** of the Max Planck Institute for Comparative Public Law and International Law in Heidelberg, Germany. Referring to the title of the symposium, she noted that it was clear that the

*conditions* have changed, but that the question whether the *needs* have also changed was harder to answer.

As for *changed conditions*, Dr. Hofmann mentioned the following:

- The general political climate has changed from a cold-war era in 1986 to an era of cooperation and coordination;
- The number of states active as remote sensing actors has increased, so that data are no longer a rare product and former customers have now become providers, thus altering the market;
- Commercial entities and a hybrid public-private environment have made their appearance;
- National space legislation is emerging;
- International non-state actors emerge as users of remote sensing data, for instance GSDI;
- Civil and military programmes are converging;
- The technical potential of remote sensing has greatly increased, as has its capacity to be applied as a national means of verification;
- There is a strong tendency towards a development of global space-based systems for the monitoring of the earth, such as GEOSS and the International Charter on Space and Major Disasters;

Regarding *changed needs*, the speaker noted that:

- The interest of states to protect data concerning their own territory is decreasing;
- The interest in having only states as actors in remote sensing activities is decreasing;
- There is a growing consensus on the need for a coordinated international system of earth data, active primarily in the area of disaster management and environment protection.

However, she argued that only a thorough examination of state practice of and by the

actors of remote sensing can allow a conclusion on whether or not this activity needs to be further regulated and how.

Then, **Prof. Joanne Gabrynowicz** of the National Remote Sensing and Space Law Center of the University of Mississippi, USA spoke about “*The 1986 UN Principles and current state practice in North America*”. She gave a thorough overview of Bills, Statutes, Regulations, Policies and bilateral agreements in force or coming into force in the USA and Canada.

For *Canada*, she focused on the *Bill C-25*, an Act governing the operation of remote sensing space systems, currently in the process of becoming law. In summary, this Act would, when passed:

- Establish a *licensing regime* for remote sensing space systems (including the obligation to make raw data and remote sensing products about the territory of any country –not including enhanced or value-added data – available to that state within a reasonable time, on reasonable terms and for so long as they have not been disposed of);
- Provide restrictions on the *distribution* of data gathered by them; and
- Give special powers to the Government concerning *priority access* (whenever desirable to fulfill its responsibilities), and *interruption of service* (for instance when continued operation would harm international relations, be inconsistent with international obligations, or be injurious to the defense of Canada or the safety of Canadian forces).

For the *USA*, Prof. Gabrynowicz distinguished between public, non-commercial systems on the one hand, such as Landsat, and private, commercial systems on the other, such as DigitalGlobe. After recalling the 1992 Land Remote Sensing Policy Act and its stipulations regarding non-discriminatory access, she focused on the so-called *Interim Final Rule*. She explained that while entirely *tax-funded* programs would require full non-discriminatory access, completely *privately-funded* systems would only require access for sensed states, with a hybrid area in the middle of public/private systems where a case-by-case determination would be required.

She noted that new and advanced technologies may emerge which may have a two-tiered license, where the licensee operates the system at one level, available to all users, and where full operational capability is reserved for the US Government or its approved customers.

**Dr. Rajeev Lochan** of the Indian Space Research Organisation, then gave a colourful presentation of “*The 1986 UN Principles: on the necessity of a revisit*”. In a first part, he gave an extensive overview of the Indian space endeavour and its achievements in the past four decades, focusing also on the many applications for which remote sensing technology has proved useful, such as:

- Agriculture and soil;
- Forest, environment and biodiversity;
- Water management and provision;
- Disaster support;
- Land use including mapping;
- Weather and climate forecasting; and
- Ocean management including fishing zones and coastal mapping

Then turning to the 1986 UN Principles, Dr. Lochan recalled its objectives, and reminded participants that the Principles had taken more than a decade of intensive negotiations and fierce debate to be adopted unanimously, with the issues of national sovereignty, prior consent, prior consultation and the equal access policy proving to be the main stumbling blocks. He also recalled that the Principles are not a treaty and hence not strictly enforceable, but do have a certain legal status and “cannot be wished away”.

He demonstrated that today’s world is characterised by increased cooperation and capacity-building, like Dr. Hofmann did earlier, and mentioned that numerous bilateral agreements, also in the field of remote sensing, have been concluded by India, in which capacity building is an integral part of the arrangements.

In concluding, the speaker noted that there are several global initiatives towards the protection of the environment and the protection of humanity against disasters, and that many data are available at no cost for these applications, as well as in research areas. He also noted that remote sensing is not yet a matured and self-sustaining industry. As regards the Principles, he held the view that although they are not flawless, they do contain most of the novel features. In

view of the fragile equilibrium in international space law, he warned against shattering that equilibrium by attempts to re-open the discussions, and advised that seeking enhanced compliance is a more pragmatic solution. He also stated that massive competence building is the real need of the hour for optimum exploitation of existing opportunities.

Lastly, **Mr. Marco Ferrazzani** of the European Space Agency spoke about "*The 1986 UN Principles and current state practice in Europe*". Remote sensing has great importance because it is a tool for the development of the economy and for the protection of the environment; however at the same time it is the source of potentially conflicting issues because of the implications for the military and economic security of the sensed state. As for the legal and policy framework for remote sensing, one has to look at the 1986 UN Principles, but also at national data policies and at international state practice. Mr. Ferrazzani noted that the UN Principles only refer to the sensing of the *Earth's* surface, and this may be a shortcoming in view of current realities. After summarising the main goals and provisions of the Principles, the speaker turned to the question of their legal force; although they are not a Treaty, it may be argued that some provisions embody customary rules of international law and thus are binding upon all States.

Regarding the policy evolution in Europe, Mr. Ferrazzani noted that Europe has developed experience in building and operating all types of satellites and information, and is now moving towards a policy of coherence and long-term strategy via GMES, a joint ESA/EU initiative to build a complete system by 2010. Regarding ESA's data policy, ESA uses the UN Principles as guidelines in programmes such as ERS and Envisat.

Lastly, he focused on other international state practice, such as the CEOS and the International Charter on Space and Major Disasters, which were also mentioned by other speakers. These examples provide useful models for international cooperation, because:

- They provide a flexible method of law creation;
- Their standards are strongly followed by their members; and
- "Soft law" is in his view the most

suitable form of law.

In conclusion, the speaker raised the question of the conversion of the Principles into a legally binding agreement, and argued that with the current tendency toward commercialisation of space activities, it may become difficult for governments to guarantee non-discriminatory access for sensed states at reasonable cost. Also, national restrictions in terms of commercial or military considerations play an increasingly important role. It is essential that national data policies converge as much as possible, even though this is not easy because each state has its own economic, commercial and military objectives. Nevertheless, an integrated international data policy framework for earth observation should be aimed at.

Many delegates raised questions and took part in the debate that followed the talks, after which **Prof. Sergio Marchisio**, Chairman of the Legal Subcommittee, gave some concluding remarks. He thanked the IISL and ECSL for the outstanding level of the Symposium, Ambassador Jankowitsch for having chaired it and the speakers for their interesting contributions. He observed that the practice of States and international organizations shows that the tenets of the UN Principles have maintained their importance, even in an emerging commercialized remote sensing system of services. Indeed, they appear relevant to the expansion of those very services, and have been consistently reaffirmed. The basic international regime of remote sensing is recognized and must be preserved, promoting the broadest possible use of data. On the other hand, he argued, some of the most prominent issues connected to recent and ongoing developments in remote sensing are not fully regulated by the Principles. They do not provide clear and specific regulations for new issues, such as the focus on global systems, the access to data by the sensing States and the legal protection of data, which is increasingly necessary to justify costly investments required by remote sensing activities and the expansion of the market. Nor do they provide an adequate discipline as regards the production, use and treatment of sophisticated and detailed imagery, especially in relation to their potential implications for national security and individual privacy.

Prof. Marchisio argued that the compromise

enshrined in the principles was intended by the drafters to serve as a first step in a law-making process that would eventually conclude in a formal treaty. One can argue that the practice of States seems to have confirmed the general and main aspects of the legal regime set forth in 1986 by the Principles, and that some of them seem more firmly established in international customary law, while others seem to be less consolidated.

Apart from that, he saw two main reasons why the transposition of the Principles on remote sensing into a binding treaty has never materialised. First, the LSC is not in a law-making phase: that era of its activity ended at the beginning of the 1980s, and there currently is no political will to engage into new agreements. Rather the current goal is to broaden the acceptance of the treaties in force or to better define issues relating to them. Secondly, although the Principles were adopted by consensus, the agreement reached stemmed from several compromises, and not from a uniformity of views. Therefore, there are risks in starting discussions about incorporating the Principles into a new treaty, as this can re-open the debate on the agreed issues that permitted the adoption of Resolution 41/65.

Another option would be to re-open a debate on a more limited issue, namely the desirability of *reviewing* the 1986 Principles. This option has the merit of not questioning the soft-law character of the Principles. In fact, this character is exactly what makes them a broad and flexible legal framework, and, as such, able to accommodate the ongoing evolution in the field of remote sensing technology and landscape.

A third option could be to analyse the current practices of sensing and sensed States in a more limited perspective, with a view to assess how the key statements contained in the 1986 UN Principles have been implemented and the obstacles that hamper their full application. Prof. Marchisio concluded that the Symposium helped the Committee very much in reflecting again on what its contribution should be in this important field.

**Ambassador Jankowitsch** then closed the symposium, and invited all Delegates to a reception hosted by IISL and ECSL.