REPORT OF THE DISCUSSIONS HELD AFTER THE SESSIONS OF THE 39TH COLLOQUIUM ON THE LAW OF OUTER SPACE

On the last morning of the IISL Colloquium, the Chairmen and Rapporteurs of each session gave a short summary of the papers presented and highlighted the issues that in their view merited further discussion. The IISL President, Mr. Jasentulivana chaired the discussions. Below, an attempt is made to reflect the points that were raised. but it is of course impossible to give a complete overview of everything that was said. It is also possible that some comments are omitted, or do not entirely reflect the speaker's intention. Nevertheless this short overview may give an indication of current concerns within the International Institute of Space Law.

Property rights on the moon and other celestial bodies

The discussions focused on the need of clear regulation before private enterprise would start acting and on the finding that we have to know what to regulate before clear regulations are possible.

Dr. E. Galloway was of the opinion that too much emphasis was placed on the regulation of the natural resources of the moon without defining what those natural resources really are. She noted that it is not clear how to make profit on the moon. Although such inventions as solar power satellites may be used to make profit, this is an expensive and risky business. Before we start regulating we have to know the scientific and technical facts. Prof. J. Galloway replied that profit can be made from resources brought back from the moon, such as Helium 3. He suggested that first clarification of present science and technology for space development should be sought, before the discussion on rights and obligations regarding the moon and other celestial bodies. On the contrary, Mr. R. Oosterlinck held that regulation should come first, before exploitation is possible.

Prof. M. Andem emphasized the importance of international law and treaties for regulating states as well as the private sector. He stated that clear rules are needed,

and that the elaboration of existing treaties would be the best solution. He held the view that space law should not be seen as a separate area of law, but together with all other areas of law, bearing in mind the common heritage of mankind principle. He added that cooperation with scientists is necessary in order to know what to regulate.

Dr. W. Wirin noted that although there has been irresponsible exploitation of natural resources on Earth, under space law states remain responsible, and hence must control the activity of private enterprises. On the other hand, some formulation or maximum charge for entrepreneurs is needed so that they can assess the risks of the endeavour; otherwise they will not engage in it. On the other hand, taking risk is inherent to commercial enterprise! He also agreed with Mr. Oosterlinck that waiting to know what we can find in outer space before regulating the exploitation simply denies the fact that we can find something in space. Mr. Jasentuliyana agreed on the need to take into account the interests of the private sector.

Dr. E. Galloway concluded these discussions by reminding that only 9 states have ratified the Moon Agreement because of the "common heritage of mankind" principle, and that this principle is NOT included in the Outer Space Treaty, as so many authors wrongly assert. She recommended that action be taken on the issue of the Moon Agreement.

Dispute settlement

Dr. Veschunov recalled that international satellite operators are subjects of public international law. The Brussels Convention of 1974 is important for this issue; it provides that a satellite operator as a provider does not bear responsibility for the possible violation of copyrights. There are mainly three entities involved in the process providing a programme: (1) the manufacturer of the programme software, (2) the technical satellite operator, dealing only with the technical transfer of the signal from point to point, and (3) the distributor of the programme. Dr. Veschunov held that only the entities mentioned under (1) and (3) could be held liable. He also recalled that it is not impossible for an international organisation to be sued.

Sharing of benefits from space activities

Prof. F. Lyall recalled that the ITU system of "first come, first served" has been abused because people found out that they can make money out of it. Mr. M. Nilsen of Tongasat answered that in 1987, motivation was that INTELSAT had not properly planned the repartition, and had not considered future needs. The positive impacts after the request of Tonga were transformed in negative ones from 1990 on. He stated that Tongasat was an adequate business solution in that area. Prof. Lyall held that among the more than 150 members of the ITU, not all have real needs for orbital positions, and Mr. R. Oosterlinck added that a good commercial success is not necessarily a good example of respect for the principle of sharing of benefits! Regarding the idea of a filing fee, Mr. N. Jasentuliyana believed that it might be useful, and added that if the fee is returnable, its amount is irrelevant.

Regarding Intelsat, *Prof. J. Galloway* stressed once more that public actors such as Intelsat must be price conscious. If Intelsat is privatized, it would result in an oligopoly. Thus, the Intelsat spin-off should be broken up. Mr. N. Jasentuliyana added that small nations will sell their shares in the Intelsat affiliate; this will result in privatization of the satellite market.

Space debris

Mr. A. Golrounia stated that in his view, the only way to realize protection of the environment in outer space is the introduction of fees. Those who launch a satellite could be required to pay a fee for the contamination they generate. The only way to realize this is to have an international forum which could adequately deal with the questions of private enterprises.

Dr. L. Perek added that concerning the prevention of pollution, two points must be stressed. The first concerns the participation of launching entities taking measures to limit the pollution. The scientific community is now in a position to check the pollution in outer space, and can thus verify whether regulations have been complied with or not. The adoption of a Code of Conduct between the UN and launching authorities may be an idea. The second point concerns the removal of actual debris from outer space (cleaning). At present, we do not know how to do that. The economic implications of the problem must be taken into account. In conclusion, Dr. Perek said that he was confident that cooperation will lead to limitation of debris. Mr. N. Jasentuliyana mentioned that technical standards rather than legal standards or SARPs are required to limit debris. Mr. D. Burnett proposed that insurance companies could give certificates in order to make sure there is money to clear up. The model already in force for the sea could be applied to outer pace. Dr. Perek replied that we would first have to determine how much the cleaning of outer space would cost!

Remote sensing

Dr. M. Vivod (Slovenia) proposed that some form of institutionalization of remote sensing is required.

Mr. D. Burnett (USA) expressed his concern that private space enterprises would not particularly welcome competition from a new public international organization. Mr. N. Jasentuliyana (UN/Sri Lanka) added that SPOT-Image and other private providers are already developing a world-wide market for space data.

Mr Vivod said that he did not specifically urge for a new organization, but only for the need for legislation in this field.

Legal framework for commercial space activities

Prof. H.A. Wassenbergh (The Netherlands) pointed out that a new approach to international space law is necessary. He illustrated his idea by referring to the Moot Court Competition on space law held the day before; it was striking that three judges of the International Court of Justice could find no solution to the problem (although that was of course not the purpose of the competition). In the case, we saw how the distinction between

tort and contract law can be blurred. If absolute liability under the Liability Convention follows a satellite, current space law is inadequate to deal with reality. Therefore, we need new international space *T*. law. Ms. Masson-Zwaan Netherlands) reacted by agreeing that space activities are nowadays more commercially oriented, and it would be a good idea to complement existing law, but disagreed that current public international space law should be put aside. Bilateral contracts can supplement and clarify space law. Prof. Wassenbergh said that a distinction between governmental tasks and the commercial aspects is required. We can find the same distinction in the aviation field: ICAO adopts SARPs, and the economic problems are regulated through bilateral or open sky agreements. Dr W. Wirin (USA) was of the opinion that some restrictions on commercial activity are necessary, but agreed that governmental responsibility and regulation can stifle the emerging space industry.

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