# **DISCUSSION SESSION IISL COLLOQUIUM RIO DE JANEIRO 2000**

The Chairmen and Rapporteurs of the four sessions first gave a short overview of points raised in the various papers that were interesting for further discussion. Below is a reflection of some of the discussion. The notes do not claim to represent official views by any of the participants in the discussion. Apologies for any remarks not properly recorded.

#### On space debris:

Dr. Frankle noted that we should not mix up "liability for what" and "liability to whom"; and that a regime for space debris is premature. He recommended not to address this issue until really necessary. We should not start drafting new treaties at this time.

Dr. Perek noted that the US has carried out 3 launches for Celestis and asked Dr. Frankle whether NASA's four "standard practices" would also apply to commercial launches, to which Dr. Frankle replied that yes, via their launch agency they would be bound, the rules apply to both commercial and government launches. Dr. Perek strongly recommended such strict application for Celestis. Regarding Dr. Frankle's distinction between "orbital debris" (manmade) and "space debris" (natural), he noted that the IAA in its position paper on debris had decided that only artificial or manmade objects qualify as space debris, but that this included de-orbiting objects. In his view, it is not necessary to include natural objects in the definition of space debris. Dr. Frankle replied that NASA is mainly worried about "being hit", irrespective of whether it is by something manmade or something natural, and that NASA's definition of debris should be regarded merely as an internal working definition.

Dr. Ospina noted that although Dr. Frankle believed a treaty on space debris is premature, the issue might indeed become pressing sooner than later if the 77 Iridium satellites would de-orbit, or when the Celestis capsules with human remains would disintegrate and somehow cause harm to the space environment. She suggested that Iridium might be requested to study the environmental effect of its de-orbiting satellites, but realized that no-one could oblige them to do that. Dr. Frankle replied that NASA is providing technical support to the government on this matter, but that it would take about 150-200 years for all satellites to de-orbit and that about 200 pieces of debris might re-enter each year which would not greatly change the average per year.

Dr. Gantt called for attention to economic considerations in the discussions on space debris (optical fiber for instance is becoming an important competitor for satellites), and warned that legal uncertainty would harm commercial involvement.

### On IISL's role in COPUOS work:

Ms. Uchitomi reflected on the possibility of IISL contributing to the COPUOS work and was strongly in favour of IISL submitting working papers with its views to the Legal Subcommittee. This was supported by many others and the President mentioned that IISL has created a task force to look at ways for the IISL to contribute to COPUOS' work.

## On the Registration Convention:

Regarding Dr. Ospina's paper on the Registration Convention, Dr. Perek agreed that the Convention deserves more attention as it is a very weak instrument but has great potential. We

must know when an object is not active anymore and in general he called for more attention to the possibilities of the Convention.

## On Treaty updates/amendments:

Prof. Beckman noted that the space treaties do not have any mechanism to keep them up-to-date, contrary to e.g. the new environmental law convention. The mechanism provided by this convention, or the UN Convention on the Law of the Sea (UNCLOS), might be adapted for use in the space treaties. Also their ways of dealing with "flags of convenience" to avoid liability may serve as an example. Thus, space law should look at other, similar regimes for examples.

Dr. Jasentuliyana mentioned that both these issues are now on COPUOS' agenda: to check what other organizations are doing, and to study the connections between the UNCLOS and the Outer Space treaty. He also noted that some "bad" parts of the UNCLOS had been integrated into the Moon Agreement, so some caution should be applied in "copying" other regimes.

Hereafter, the 43rd Colloquium was closed. The President thanked all those who contributed to it and invited all to the 44th Colloquium in Toulouse, France;

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