

# SPACE DEBRIS AND RELATED LEGAL ISSUES

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“We are now witnessing an extraordinary event, the first of the 21st century, the MIR space station's plunge to Earth, producing of course impressive fireworks, but also a massive amount of debris.”

The first launchings created the first space debris. Space debris is the immediate, logical consequence of the exploration and use of outer space (around the Earth) involving manmade objects. This situation will persist, making launching, exploration and use increasingly difficult and risky - unless we turn to the type of rocket dreamt up by Hergé for Tintin's trips to the Moon.

Worldwide concern has been expressed in particular in the Vienna Space Millennium Declaration adopted at the Unispace Conference in Vienna in July 1999, with the contributions of the Space Law Workshop organised by the International Institute of Space Law (session eight).

## **1 Questions to be examined**

### **1.1 What can international space lawyers contribute?**

They can analyse various legal texts (UN resolutions, treaties and conventions), proposing legal responses to the issues, such as amending or supplementing the texts or preparing new ones.

First of all, space lawyers must identify the real, concrete issues and propose appropriate mechanisms or options to arrive at the best solutions, based of course on their understanding of the technical framework. This is not an easy task.

Many lawyers have been working towards this objective for a number of years. I will not give a long list of them here, but simply mention the main legal forums in which contributions have been made: the International Institute of Space Law; the International Law Association (ILA), which, at its 66th Conference in Buenos Aires in 1994, drew up a draft ‘international instrument on the protection of the environment from damage caused by space debris’; the Colloquium organised by

K.H. Böckstiegel in May 1988 on ‘environmental aspects of activities in outer space’, not forgetting work by ECSL, particularly the joint IISL-ECSL Colloquium, or the International Bar Association and its Committee Z. At the European level, I should also mention the Resolution adopted by the ESA Council in December 2000, an initial Resolution having been adopted in 1988.

Despite worldwide recognition of the urgency and seriousness of the space debris threat, almost nothing has been undertaken in the legal, administrative domain, except by leading spacefaring nations, such as the USA.

### **1.2 What is the situation at the international level?**

What about the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS)?

- **COPUOS activities.** (Subsequent speakers will go on to develop this point.) The Scientific and Technical Subcommittee only started its analysis work in 1994, adopting a work plan for 1996-98. The Subcommittee relied to a broad extent on the expertise of the IADC<sup>1</sup> and produced an important technical report - the Rex Report - in May 1999 (A/AC-105/720).

On the legal side - Legal Subcommittee (LSC) - consensus has still not been reached, even on a very minor study proposed by the Czech Delegate to listen the relevant legal instruments. Placing of the item on the LSC agenda was opposed and is still opposed by a few delegations, arguing that legal work cannot start before finalisation of the scientific-technical study. It is true that lawyers cannot object to the technical domain to be regulated being described in technical terms first. Another old argument is to say that progress should not be halted by a regulation that is inappropriate or too rigid (see the question of the definition/delimitation of outer space, or

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<sup>1</sup> IADC : Inter-Agency Space Debris Coordination Committee

the definition of space objects). All these definitions mentioned in the first age of outer space law by certain lawyers as a prerequisite have still not been provided and yet space activities are growing. This argument is not fully relevant, even for a new domain and should not block preliminary discussions.

- The question is knowing whether the real legal questions have already been identified, taking into account the 'status' of the space concerned. In my view, scientific, technical examination has to go hand-in-hand with legal examination. It is becoming an accepted fact that flexible legal rules are required due to the constant evolution of the technical aspects; however in the end a solid, agreed, common basis is a must. Again, the definition of legal norms cannot be seen in isolation; we already have the principles of the Outer Space Treaty (OST), Registration and Liability Conventions, international law, environmental law, etc., not to mention national laws.

### 1.3 What do we expect from (or why are we afraid of) an unavoidable legal study?

I am quite sure the legal study will not prevent the conduct of space activities. It should be borne in mind that lawyers are often considered guilty of what happens accidentally and is not ruled by texts. Why are you, the lawyers, (the international community might say) unable to deal with the occurrence of accidents and catastrophic events? You, the lawyers, could be considered as the main guilty, negligent party (particularly in the field of risky, high-tech activities).

### 1.4 What are at present the main questions lawyers consider could be discussed at the LSC level?

- The definition of 'space debris'. No definition of the term is to be found in legal texts.

Space law does not provide a definition of a space object. It simply states that the term also covers its component parts, as an illustration. Do we really need a legal definition? For what purposes? Certainly to deal with claims for damages caused by space objects within the framework of the Liability Convention. Here, we already know we may encounter various types of space debris and in various parts of outer space, in airspace and on Earth (see the Rex Report).

We could benefit from the work already performed by the ILA and its draft legal instrument, containing an adequate explanation (for the time being) of 'space debris'.

- The questions related to legal status, registration and ownership (the capture, salvaging or ownership transfer of space debris in outer space, etc.). These matters are certainly of great interest, but humankind expects considerably more, for instance more concrete rules on the mitigation or prevention of space debris, if we are to achieve a valuable international legal tool. There are the matters linked to certain provisions of some conventions not having the same number of States Parties and dealing also with other aspects.

## 2 Proposal to be explored

We cannot repeat every year that the situation is becoming critical. We have to start legal studies urgently in an agreed forum. We cannot propose any new legal instrument or review existing ones. What can we do?

- To repeat what I have already emphasised, we must cooperate more closely, in a reciprocal manner, with engineers and scientists (meaning with IADC), so that each side learns from the other. Joint reports/studies or a joint presentation could even be envisaged. A joint effort is the essential condition.
- All types of space activity should be addressed, such as the growth of private activities. All types of risk, irrespective of the status of the producer, should be covered, to ensure the continuous, harmonious development of activities in space (in accordance with the terms of Article I of OST).
- The responsibility and liability of States (Articles VI and VII of the OST) should not be forgotten, nor should the basic principle of international cooperation and mutual assistance (Art. IX of OST).
- What is needed to give more assurances to the world community (in the absence of Tintin rockets) is the implementation of basic traffic provisions by every player involved (governments, international organisations, the private sector, manufacturers, operators, etc.).

- What does that mean? Basic technical provisions would be drawn up using the Scientific and Technical Subcommittee work, the IADC contributions, and contributions from others too (US Handbook, the ESA Handbook, etc.).
- The draft of these provisions would be passed on to the UN General Assembly by COPUOS and would receive some recognition through a Resolution to be adopted by the General Assembly, recommending it to the space players, starting with governments, which would be invited to include the provisions in their national space legislation, as appropriate.
- Regarding space law aspects of 'space debris', many studies and proposals already exist. However an in-depth study should be conducted by an informal working group, composed of lawyers and 'non-lawyers', to start up the necessary dialogue. This group could, for instance, provide the list of relevant legal instruments, that of potential questions, together with that of proposals concerning definitions, the liability regime, the settlement of disputes mechanism, and insurance schemes. It could even refer to the formulas to be found in other fields of international law and also list existing national provisions.
- The suggestions put forward by this group (clearly, experts from spacefaring nations and others, from IADC and from IAA should contribute) would be presented to COPUOS and its Subcommittees.
- If the broad lines of the report were welcomed, the group could try to set them out in a Declaration type text (a Resolution, in legal terms) to be sent ultimately to COPUOS and the UN General Assembly.
- Similarly, without setting up a new body, a continuous monitored role could be entrusted to COPUOS. Parts of this Declaration would be incorporated in national legislation, as necessary. Later on, the general guidelines given in the Declaration could be supplemented, as required and in accordance with the evolution of space activities, in the form of 'traffic rules and standards'.
- Concerning the legal dispute mechanisms in connection with space debris liability, I suggest compiling a list of experts/arbitrators under COPUOS. Arbitrators and/or experts could be selected

from the list. The idea of setting up a compensation fund would have to be carefully studied.

You have probably noticed that I am not proposing a new Convention on this to review existing texts. It is more urgent to adopt simple, concrete provisions that can be further developed later and give them, for the time being, international recognition (UN) - see the 1963 Declaration procedures.

### 3 Are we on that path?

Yes, assuredly. In December 2000, delegations of States parties to the international space station, the IGA, met in Berlin to participate in the ISS review. They took the opportunity to hold informal consultations on preparation of the forthcoming sessions of the two COPUOS Subcommittees. Among the items discussed was one concerning space debris, based on the proposal made by France with the support of other countries. (Working paper presented to the Scientific and Technical Subcommittee in Vienna, 7-18 February 2000.)

- At this informal meeting, the US delegation put forward interesting ideas, in particular that IADC should speed up its work to allow the Scientific and Technical Subcommittee to finalise its work by 2002-2005. The French delegation proposed that a legal study be conducted by ECSL, an idea that was very well received.
- The same proposals were made officially at the last Scientific and Technical Subcommittee meeting (February 2001) and the Subcommittee agreed on a schedule and plan of action. Concerning the legal study by ECSL, arrangements have to be thought about and agreed. We can then expect a 'technical' presentation of the group report at the LSC in 2002. ECSL is of course prepared to play the role envisaged and indeed will be particularly proud to do so.