

**Committee on the Peaceful  
Uses of Outer Space  
Legal Subcommittee**

*Unedited transcript*

665<sup>th</sup> Meeting

Monday, 8 April 2002, 3 p.m.

Vienna

*Chairman:* Mr. Kopal (Czech Republic)

*The meeting was called to order at 3.20 p.m.*

**The CHAIRMAN:** Distinguished delegates, I declare open the 665<sup>th</sup> meeting of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space. The meeting is called to order. This kind request is addressed to all delegations.

My request to order is addressed to all delegations. Once again, I declare open the 665<sup>th</sup> meeting of Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space.

**Information on the Activities of International Organizations Relating to Space Law (Agenda Item 5)**

Distinguished delegates, we shall now continue our consideration of agenda item 5, Information on the Activities of International Organizations Relating to Space Law.

The first, and the only speaker for the time being, on my list of speakers for this afternoon is the distinguished representative of Ukraine, Ms. Malysheva.

**Ms. N. MALYSHEVA** (Ukraine) (*interpretation from Russian*): Thank you Mr. Chairman. Mr. Chairman, at the fortieth session of the Legal Subcommittee, we had the honour to present to you the International Centre for Space Law, an organization set up by an intergovernmental agreement of the Russian Federation and Ukraine, towards the end of 1998 in Kiev.

Here are the main objectives of the International Centre for Space Law, ICSL.

Performing and coordinating scientific research in the domain of international space law and domestic space legislation of the CIS countries.

Legal support of national space programmes and commercial outer space projects of the CIS countries, particularly Ukraine and Russia.

Developing draft national legal instruments in the sphere of outer space activities and in adjacent fields.

The promotion of outer space law, and for that purpose, the organization of seminars, roundtable meetings, symposia, publication of manuals and textbooks on outer space law, organizing training courses and upgrading courses, and some other activities.

In the first year of its existence, the ICSL has set up an effective working structure and now the Centre employs 15 permanent staff members. Considerable and far-reaching work has been carried out which has been highly evaluated in the course of the Bilateral Meeting of the Presidents of Ukraine and Russia and on their Joint Declaration on cooperation in the rocket space and aviation sphere.

With regard to the creation of legal standards and other legal instruments, in the past year, the Centre developed two legal instruments for Ukraine. The rules for preparing and agreeing external economic agreements, that is contracts, in outer space activities

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In its resolution 50/27 of 6 December 1995, the General Assembly endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that, beginning with its thirty-ninth session, the Committee would be provided with unedited transcripts in lieu of verbatim records. This record contains the texts of speeches delivered in English and interpretations of speeches delivered in the other languages as transcribed from taped recordings. The transcripts have not been edited or revised.

Corrections should be submitted to original speeches only. They should be incorporated in a copy of the record and be sent under the signature of a member of the delegation concerned, within one week of the date of publication, to the Chief, Translation and Editorial Service, Room D0708, United Nations Office at Vienna, P.O. Box 500, A-1400, Vienna, Austria. Corrections will be issued in a consolidated corrigendum.

and the rules for the protection of intellectual property rights with regard to outer space.

At present, the Centre is working on rules for obligatory insurance in outer space activities.

With regard to legal experts studies, following requests by participants in space activities throughout 2001, the Centre carried out 11 large-scale legal studies of that sort, most of which on matters relating to international commercial projects and programmes in outer space.

An important landmark in the scientific work of the Centre and an important step in the course of promoting domestic outer space law was the beginning of the publication by the Centre of a thematic collection of current national outer space law of various countries around the world. In 2001, the first volume of this collection was published. It covers legal instruments, domestic laws of 16 countries with regard to general outer space activities, State regulation of these activities, including licensing. The majority of these texts are published in both Russian and English.

The second volume has already been prepared and will be printed shortly. This second volume will mostly cover legal instruments covering cooperation among European States with regard to outer space activities. Specifically this refers to projects conducted under the auspices of ESA, the European Union and the Commonwealth of Independent States. All of the texts and the second volume will be presented in two languages, Russian and English.

Subsequent volumes, and the Centre plans to publish no less than five additional volumes, will deal with domestic legal instruments, regulating the protection of intellectual property, environmental aspects of space activities, rocket technologies, liability and insurance, customs regulation and possibly other issues.

Since life goes on and space activities evolve, the domestic space legal instruments evolve as well and each subsequent volume, therefore, contains addenda to the preceding volumes.

ICSL also publishes annual collections of Ukrainian legal instruments relating to outer space and that is in the Ukrainian language.

In terms of organizing and coordinating scientific research in the sphere of outer space activities, ICSL organized in September of 2001, the first CIS Conference on Topical Issues of Regional

Cooperation in the Sphere of Space Activities, that was held in Kiev.

Since April of this year, we have started work on the environmental aspects of outer space activities as a general subject for scientific research. The Centre also has a Graduate School attached to it where theses are prepared on outer space law. In the past year, three such theses have been completed and four more are being prepared at the moment.

The Centre's staff members are actively involved in international scientific cooperation. They present their reports at various conferences on space law organized by the International Institute for Space Law, the IAF, and other authoritative international and national organizations.

Another important part of the work of ICSL is providing methodological support and personnel for outer space curricula at some of the law schools in Ukraine.

In conclusion, I wanted to note that our Centre is interested in developing cooperation in the sphere of outer space law, not only within the Commonwealth of Independent States, but beyond it. We are open to cooperation in various shapes. This could be joint scientific research projects and publications, exchange of interns and professors in outer space law, developing international legal and domestic legal instruments on outer space and various other forms of cooperation. We invite all interested individuals and organizations regarding the regions of various other affiliations to cooperate with us. Thank you very much.

**The CHAIRMAN** (*interpretation from Russian*): Thank you distinguished representative of Ukraine for your statement on agenda item 5, Information on the Activities of International Organizations Relating to Space Law.

(*Continued in French*) I now give the floor to the distinguished representative of France. You have the floor.

**Mr. D. WIBAUX** (*interpretation from French*): Thank you Mr. Chairman. My statement will address this sub-item on ethics specifically. Quite a bit has been said already today on this matter.

The different activities carried out by France in space affairs have let us, for some years now, already to look at ethical questions and the matters at

stake linked to these. That is why my delegation would like to express some ideas in this regard.

First of all, the National Centre for Space Studies, CNES, in 1998, launched a study that was an analysis looking at prospects as to ethical questions related to space activities. That particular work initially sought to take stock of ethical questions and that in the various areas. Why and how, through which choice-making process, subject to which constraints, to which consequences and with what perspectives or prospects are the programmes now making up French space policy drawn up. There is one basic observation and that is in space affairs, ethics have been an issue for several years. Ethics has been present without it necessarily been known or said, as was said this morning by several delegations, the Belgian delegation in particular. Space law is inspired by a number of values which, quite clearly, are ethical values. The pioneers of space law, some present in this room, whom I greet, have indeed made powerful legal foundations and, I believe, any work on ethics can only follow up on that with that perspective, so that development of private and commercial activities in outer space can fit within that legal continuity.

Just briefly on the question of pollution. When you look at the question of ethics, you think, of course, of pollution in outer space. That question is the one that first caught the attention of space activity authorities. Study groups have been established by agencies, recommendations have been drafted and that, while for the moment, there are no legally binding instruments, whether at national or international level. On this question, our Subcommittee should arrive at agreement and that, so that proposals that should be put together by the Scientific and Technical Subcommittee, so that they can be comfortably implemented by States. What remains to be done is, we have to identify those minimal measures, which should be recognized by the international community as necessary for a significant reduction of production of debris in outer space. UNESCO's Ethics Commission indicated in the document given to us last year, the advisability for norms or standards to be defined in this area and that should allow States to find a better solution for problems of liability. I will not say any more on this question.

The French delegation will come back to this later. There are questions that have to be examined because of implications related to ethics. These are questions that should be given all due attention and that in the relevant fora, that being an important matter for the French delegation.

There are other ethical questions that remain open such as that related to the exploration of other planets and their possible contamination. Questions also related to possible contamination of the Earth, as in the case of a re-entry of samples.

The French delegation feels that it is important to indicate here that ethical questions related to life sciences as developed in outer space, basically are not that different from those encountered on Earth. In this area, the preparation of projects is subject to ethics rules that prevail in the laboratories. Special attention should most likely be given to the guinea pig experimenters, in other words, the astronauts. Their enlightened consent, of course, takes on a different meaning in connection with their personal commitments.

Agencies that develop technologies and applications for space technology should look at the possible consequences of the use of this technology for our society, with the agencies being the real experts in this matter. There are many questions. A right to image or reputation, individual freedom, copyrights and so forth.

The process of commercialization of activities can be linked to several sectors and that process quite often gives rise to the question as to who owns outer space. There are other questions that come up as well, some with a certain degree of urgency. What could an ethical view be of the development of tourism in outer space or the employment of astronauts in advertising companies? These are questions that can be seen as somewhat urgent.

The concern to set the ethical questions within national structures involved in space policy has inspired French policy, the study carried out by the CNES with creation of an Ethics Committee being envisaged. For now, going by experience in our country, we have been led to take it as preferable to allow ethics of questioning within the space agencies before this might be put in the hands of external advisers. It is this type of consideration that has led the French delegation to recall that the mission and the powers of our Legal Subcommittee belong to it and within the United Nations systems, that would be the natural framework for ethical questions to be considered in connection with space undertakings and their applications to the service of humanity. Thank you.

**The CHAIRMAN** (*interpretation from French*): I thank the distinguished representative of France. I thank you for making your statement on

behalf of the head of the French delegation on the question of ethics in relation to space activities.

*(Continued in English)* The next speaker on the list of speakers is the distinguished representative of Greece.

**Mr. V. CASSAPOGLOU** (Greece) *(interpretation from French)*: Thank you very much Mr. Chairman. First of all, through you, I would like to say how satisfied we were to hear this statement made by the distinguished representative of France. I believe it is the first official statement at the Subcommittee regarding the beginnings of a dialogue on ethics and, through you, I would like to congratulate the representative of France and also the CNES for the work that they have been doing for the last four years.

The views of our delegation have already been expressed in a solemn fashion when we were offered the first opportunity to hear the COMEST report. Professor Alain Pompidou and other COMEST members contributed in a great way. And I would like to make one remark on the side, if I may, and that is I would like to remind colleagues here that the Symposium on the Human Dimension in Space Science and Technology Applications last June, following the Greek initiative, as supported by France and others, was crowned with great success and that, because it was not just the five or six representatives from different cultures who took part, giving the views from all circles. There was a great contribution there because shortly afterwards, at the Symposium, it was a great pleasure to hear Professor Alain Pompidou, and just shortly afterwards, our Committee approved the proposal from Greece, Mexico, Nigeria and Spain and that to initiate, to set up a link between COPUOS and COMEST. So it is a great moment now to start discussing the matter. That means ridding ourselves of complexes and any psychological hang-ups that may withhold us from tackling that major problem for our society.

And in this connection, I would like to say something about the text that the Chairman of COMEST introduced to us this morning and just half an hour ago. This text, first of all, is not a legal text and, furthermore, this text uses customary language used in UNESCO. It is not a final text from what I know and it focuses on ethics that should guide the practices of activities related to space applications. It does not seek to change or affect existing legal order on space affairs nor does it seek to direct us towards any new approach regarding the interpretation of international space law. Thus, it is a text which is being formed and we, as COPUOS, should contribute

in this process so that ultimately the text can be presentable, if I can qualify it as such, without creating any problems of legal interpretation. It is a general text, after all, and it is addressed to everyone.

As we acknowledged last year, there might be some lacunae or errors in the actual wording of the text, especially in some cases of terminology. The authors of this text may not always have been fully familiar with the content of the treaties on outer space but it is, indeed, a text which pushes towards an interaction between the two great institutions in the family of the United Nations, in other words, UNESCO, with its ethical, moral and political weighting, as well as our Committee, specialized in this area.

And that is why we should be more understanding and possibly less rigid as to the language of the text. It should be improved and we should work on that.

And, if I may, I would like to say something as to the method for work for the group of experts. The Chairman said this morning that the group cannot be constituted as of now and that we have to await June for it to be established by COPUOS in the plenary. I would like to say that we do not agree and that because, first of all, it is a group of experts. These are government experts who would be acting in parallel with the current structure of the Legal Subcommittee. This would not be a group of experts of the Legal Subcommittee. So we could start as of now. This is clear if you look at paragraph 225 of the report from COPUOS to the General Assembly, A/7620 and in that paragraph, alongside that, you can look at paragraph 8 of the operational section of the resolution 56/51 that was approved, as you can see, on 10 September. The list distributed by the Office for Outer Space Affairs shows that there are only five countries that responded, appointing experts, and I was wondering, well everyone is quite aware of the initiative that was taken last June, there are still very few participants. I believe it is the United States with three representatives, France, Greece, Belgium. I do not remember exactly but there is very little compared with the interest that was expressed and I would ask if this has been publicized extensively, that is, the text of the resolution and the report.

So Mr. Chairman, those are the views of my delegation on this matter and, through you, if I may, I would like to appeal to delegations here. Please appoint people, if you have not yet done so. I am not, in spite of the language used in the General Assembly resolution, these are government experts but in the

broad sense of the term. We have legal experts. We do not have experts on space ethics. At present, there is no such specialization in philosophy. So I believe we should give this initiative as much airing as possible and make sure that developing countries are also represented. Thank you.

**The CHAIRMAN** (*interpretation from French*): Thank you esteemed representative of Greece for your statement.

(*Continued in English*) ... I wish to quote some English documents and to avoid translation that would not be quite precise, quite accurate. I will read it in the original English version that I have in front of me.

First of all, you referred to Article 225 of the Report of the Committee on the Peaceful Uses of Outer Space that was held last year. I would like to read this particular paragraph.

“Based on the agreement reached during the informal consultations, the Committee noted that the presentation by the representatives of COMEST of UNESCO at the fortieth session of the Legal Subcommittee and the ensuing discussion, had demonstrated an interest and desire to identify possible elements that needed further clarification.

The Committee agreed to invite interested Member States to designate experts to identify which aspects of the report of COMEST of UNESCO might need to be studied by the Committee and to draft a report in consultation with other international organizations and in close liaison with COMEST of UNESCO. That would be done with a view to a presentation to the Legal Subcommittee at its forty-second session in 2003 under the agenda item, Information on the Activities of International Organizations Relating to Space Law. The report should contain an analysis of the ethical principles relating to current and future human activities in outer space, within the framework of international space law. In that regard, it should focus on the need for such activities to be conducted for the benefit of all nations.”

That is all. There is nothing about inclusion of this point in the agenda of this session of the Legal Subcommittee. Neither is there anything about an establishment of a working group. This is simply the appointment of experts that should act on their own initiative and this has been enabled to you and to members of this group of experts. All Member States, as I have been informed and once again assured by the Secretariat, have been requested to make such

proposals, such appointments. A number of Member States of COPUOS have done so. Other Members have not replied. All those experts nominated by the Members of COPUOS that have replied have been included in a special document that has been distributed to the Subcommittee under the code number A/AC.105/C.2/2002/CRP.6 dated 4 April 2002.

And now allow me to repeat what I said this morning when informing you about a compromise that has been reached on the basis of consultations with the members of the group of experts, if you wish to call it like that, and some delegations that expressed their interest, and, to a certain extent, a certain concern relating to this particular question. I will not repeat what I have already said here from paragraph 225. This was the first part of my information and I will read now, word by word, the essential part. I am sensitive to the desire of certain interested Member States who already made some progress in their work for the session of the Legal Subcommittee next year. Therefore, unless there is any objection, I would propose that, as an exceptional measure, following the conclusion of the meeting of the Working Group on Item 6 this morning, it means that morning, this room and the associated interpretation facilities might be made available to those interested Member States for such informal consultations. And it has been done. This would be on the understanding that the interpretation facilities would only be available to the extent that they are remaining from this morning's meeting, from that morning's meeting. In other words, until 1.00 p.m. sharp. It would also be on the understanding that these informal consultations would not be regarded as having been constituted under the aegis of the Legal Subcommittee and, therefore, the deliberations would not be reflected in any way within the report of the Legal Subcommittee for this session. They will be certainly reported in the report of the meeting of the next session in 2003 because you will have to submit your report but not this year. They are simply a measure to accommodate the interested Member States concerned and this has been adopted. I explicitly requested the agreement about it and I saw no objections against it and it was adopted and we proceeded accordingly. So this is to complete your statement by the information on the exact facts that have occurred up to now.

Distinguished delegates, I have no other speaker on my list of speakers from among the delegations but I have an observer, the observer for the European Space Agency and I give him now the floor.

(*Interpretation from French*) You have got the floor Sir.

**Mr. G. LAFFERRANDERIE** (European Space Agency) (*interpretation from French*): Thank you Mr. Chairman for giving me the floor and a chance to present to you an evaluation of the upshot of the questionnaire disseminated by the European Centre for Space Law with regard to legal aspects of space debris. These results of the questionnaire will be found in document A/AC.105/C.2/2002/CRP.5 dated 27 March 2002, distributed in English and French. This report, as I said, presents the results of the questionnaire and the analysis of the responses received. Also you will find in it, the text of a resolution adopted by the European Space Agency on 20 December 2000 with regard to space debris.

As you are aware, the European Space Agency pays a lot of attention to both technical and legal aspects of the space debris issue. The Space Agency has, since 1989, conducted work in a special committee considering space debris, measures to be taken and resources to be allocated within the framework of the European Space Agency. Also, as you know, the European Space Agency was one of the bodies that has actively promoted, if I may say so, the formation of the Centre for Space Law, an organization that has grown and has become an important body in the scientific and technical research of the latter. I am referring to IADC.

If possible, I would like to draw the attention of the delegations present here to the documents of the last session of the Scientific and Technical Subcommittee of COPUOS where the observer on behalf of ESA presented a report mentioning these activities and in the current session as well. A number of delegations have expressed an interest in the matter of the legal aspects and the studies carried out up to the present within the framework of this Legal Subcommittee on the matter of space debris.

In my introduction, I also wanted to thank a number of delegations present here, specifically the delegation of Austria, which, in the course of the general discussion, made a very gracious comment with regard to the study launched by the European Centre and also other delegations present here and delegations that took part in the Scientific and Technical Subcommittee's session of COPUOS who approved and commended this initiative. This initiative is, of course, referenced in the report on the activities of international organizations, that the Legal Subcommittee is going to hear. And this Legal Subcommittee will hear a presentation of views regarding ...(*no microphone*)

(*interpreter*) The Greek delegate is saying that he has difficulty listening to the French language channel. Microphone please.

**Mr. V. CASSAPOGLOU** (Greece) (*interpretation from French*): All the colleagues who are listening to the French directly, the Francophone colleagues have a problem following the speaker. I really apologize for bringing this up and this is the third time that I am raising the problem. It is a problem and it has to be addressed by the technicians. It has to do with a bad connection or something like that. I am not sure what but there is a lot of noise and we have trouble listening. Thank you very much Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*): Thank you distinguished representative of Greece for your comment. I am going to ask you to ask for the floor on a point of order if you want to speak. It is a matter of procedure, a point of order, you have to ask for the floor and not to interrupt the speaker. Yes?

**Mr. V. CASSAPOGLOU** (*interpretation from French*): I do apologize but, first of all, I did raise my hand, maybe not the flag, but my hand. I did ask for the floor and specifically I want the speaker not to be interrupted because he has been interrupted by technical difficulties. I had to intervene. I did not leave my sign here but at least I raised my hand and I did not want to interfere too much with the speaker but I did want to restore technical order to these proceedings. Thank you Mr. Chairman and I am going to apologize to my colleague and friend, of course, for interrupting. I really only asked to speak to protect his right to speak and be heard. Thank you.

**The CHAIRMAN** (*interpretation from French*): Yes. Everything is true except for the fact that I did not give you the floor.

Mr. Lafferranderie has the floor again.

**Mr. G. LAFFERRANDERIE** (European Space Agency) (*interpretation from French*): Thank you Mr. Chairman. I do not want to start from the beginning. I was at the point, in my presentation, where I mentioned the fact that the Legal Subcommittee is going to hear a report on the activities of international organizations and, thus, will hear a presentation of views regarding the matter of space debris. Mr. Chairman, we were invited to address this meeting by a large number of delegations and we have prepared this study, this questionnaire with a view to responding to the requests of delegations. You will

find a model questionnaire in the appendix to this document, CRP.5. And, of course, to distribute this questionnaire, we established contact with legal experts, engineering experts and scientists. The questionnaire was distributed very widely, not only among Member States of the European Centre for Space Law, but a number of individuals and organizations in Europe and around the world. And some time later, Mr. Chairman, after the questionnaire was distributed, we did receive many responses but we also heard that many of the addressees did not receive the questionnaire. So the distribution had not happened the way we had wanted it to and not been as successful as we had hoped. Still, it was distributed and, even though I cannot be assured it has been interested by all interested parties, we do have certain results to report and primarily I need to emphasize the fact that not a single person that was asked to respond to this questionnaire was regarded as a representative of any body or organization. We asked people to respond in an individual capacity. So these are individual responses. That is what we wanted and that is what we received.

I have to say, and with regret, that, in spite of all these efforts, we received only a small proportion of responses, compared to the number of questionnaires distributed. This kind of study, this kind of questionnaire, of course, is always a bold undertaking and we never expect 80 per cent response. Thirty per cent is considered to be good. We did have some responses, as I said, and in these responses, a number of individuals questioned said "we are happy to respond question by question to every item". Others responded by making references to certain articles that they had published or statements that they had made elsewhere. So not all of the responses were in the same format.

I have also to take into account that the various publications, statements, expressions of opinion, legal texts, treaties that were already available and were referenced by respondents, could help in the comprehension of all these issues but they were not responses properly speaking. Still, I decided to take a broad view, an open mind and consider all responses in whatever shape or format we received them in my analysis. And, as you can imagine, Mr. Chairman, what we get as a result is a veritable mountain of documentation, information, papers of all kinds, multiple studies that have been published previously and this study, this survey is not the only one, it is not unique and it is not exhaustive. Still, it adds something to the body of knowledge that already exists.

And also we referred to a number of publications which broadened the scope. The Symposium held in May 2001 already considered legal aspects of space debris and all of the proceedings of that event were taken into account, also, of course, the work of the Scientific and Technical Subcommittee, the 2001 Report of the National Astronautical Academy and also the various opinions expressed in the meeting here, the Legal Subcommittee was taken into account.

We also studied the results of the Colloquium convened by the International Institute for Space Law. And I cannot forget UNISPACE III held in 1999 and the Colloquium within UNISPACE III on Legal Aspects of Outer Space Activities. Also I cannot forget the Association on International Law and the various proposals that we have heard, specifically the suggestion that a legal instrument be adopted. That was raised in Buenos Aires. I also need to mention COSPAR, the International Bar Association and its Committee-Z. So many sources. It is not sources that are lacking, Mr. Chairman, and legal literature is enormous. There is a very abundant body of work but all of these studies and all of these international meetings address often the same questions and often leave them unresolved.

I am going to go beyond all of this legwork and all of this study of the various legal instruments and legal texts that already exist, that goes without saying, and we will leave that in parentheses. What I am going to focus on is specific questions that seem to be more specific and more amenable to interest you, members of the Legal Subcommittee of COPUOS. And that is what this document is about.

You have to take into account, Mr. Chairman, that there are technical and legal aspects to the matter of space debris and the Scientific and Technical Subcommittee of COPUOS has given a lot of thought to the technical aspects. We have to state that the growing number of launches affects the number of accidents that occur but not in a direct manner, I quoted a few collisions, a few manoeuvres, narrowly avoided accidents, and everyone is aware of that, but there is no direct correlation here. Of course, there are some notorious collisions, specifically the collision between the ARIANE unit and CERISE, a French satellite. Anyway, none of these accidents unfortunately have been more frightening or more destructive than in the past, the growth in the number of accidents has not been significant but this is not a justification for doing nothing. Even though there has been no growth in the number of accidents and the production of debris that results, prevention needs to be

our focus and preventing truly catastrophic accidents of the future is what this is all about, and, of course, the risk is always there.

I would like to reference a statement recently made by Professor Pirreau in a colloquium specifically dealing with the matter of the risk of collisions and the Centre to which these can be predicted or forecast. The situation being what it is, and, of course, we will keep our fingers crossed, there are a few accidents here and there, no significant growth of accidents. Things seem to be under control but we do not know what will happen tomorrow. The number of launches continues to increase. Space activities evolve. I just recently heard a television report that the various phases of space objects increasingly come into the proximity of meteorites and comets and, of course, people ask themselves "will it be long before a major collision occurs and what will happen to the debris, will they fall on our heads". People in the street wonder. They just do not know what the result of such a major collision could be.

Mr. Chairman, this is more or less the background of the questionnaire, the origin of this initiative. In preparing this report, I have attempted to avoid the discussion of matters that are still in progress, that are still in flux that have not been properly studied or resolved. When we talk about space debris currently identified, while they do pose danger for astronauts and for space objects, they do not pose any danger for people on Earth and, therefore, they were not the focus of this study. Of course, it could be deadly for astronauts, especially when they go out into outer space to perform this or that function in the course of their flight programme.

We are talking about micro debris or micro meteorites, whatever their origin. They too pose a problem and what do lawyers, legal experts do about that? That we do not know but we are talking about matters that have been established as real problems and also projections for the future and having heard the opinion of legal experts, we proceed to the development of remedies, and that, of course, is more a matter for specialists in the technical aspect of space debris. The National Space Agency has followed like everybody else, of course, the return of the Mir Station to Earth. Fortunately, that passed without major incident but it was one of those situations where we had to be prepared for debris-caused problems and a large number of space debris have been made to fall in a certain area of the South Pacific which is turning into a kind of a trashcan for space debris and that is another issue that needs to be studied, what that means for that area, and in a broader context.

And various solutions have been proposed by the Space Agency and I would like to thank, through you, the United States delegation who transmitted to me a few days ago, a very interesting document on approaches to a legal instrument in the United States that would control, regulate the prevention of debris-caused damage and will attempt to mitigate the risk involved.

There is an acceptance by the launching State at present of the fact that something needs to be done, that the risks are there, they need to be addressed, they need to be mitigated and the damage needs to be predicted to the extent possible.

Now for the role of the legal experts and that is what this questionnaire was about. What needs to be done by legal experts such as all of you present here? Mr. Chairman, you were one of the first to raise the questions that are mentioned in our questionnaire and that are analyzed in the summary of the report presented to you.

The first question that a number of colloquia, seminars, statements and articles pose, is there a legal definition of space debris? What is space debris from the legal point of view? In legal terms, do we need today, now, at present, to come up with such a definition or is that perhaps premature? Of course, various opinions have been expressed and I have been able to draw the following conclusion from the responses received. It is preferable to talk about the description rather than definition and the legal sense of the word of space debris. All you have to do is look at the report of the Scientific and Technical Subcommittee of the IACD report. There is a list today of technical events that lead to the formation of the space debris explosion so forth. You are more familiar with all that than I am even. What purpose would a definition serve? What it could do is, it would fix a momentary photograph and no more, whereas what we need is an approach that takes into account the changes in space activities. If it were a question of a definition, it would have to be an open definition to take into account developments in space technology, new launching means and methods and so forth. And since the very first launch, there have been and will be space debris.

Terminology is important and legal experts must be particularly attentive to the terminology used. Province of mankind and property and all that has been referred to. If you look at the different language versions, it does not always correspond and here you are looking at technical definitions and you can see

quite often that, in some countries, the terms used are different, and to take into account existing regulations that recently developed in the United States. In the United States a difference is made between orbital debris and space debris, habitat debris. Orbital debris is manmade objects in land orbit. Space debris has a broader scope. That term also covers meteorites. That does have its significance, that is the need to agree definitions if you want to have a jurist's approach. I looked at the scope of legal instruments of the International Law Association of 1994 which today is the only text as proposed by legal experts. And there is a definition but I see it more as a description than a true, legal definition and others who have been corresponding with me also feel that it would be better for the moment to refer to a description, to use the technical content attributed to the expression and that through the IADC, or International Academy of Astronauts, reports. A legal definition may not be absolutely necessary today, even if later on, it might be advisable to envisage how the results can be integrated legally.

The various replies that contain very interesting commentary. The question on space debris or orbital debris does not take all of its interest unless you have the distinction between active satellites, in other words, those with economic value, and others. Those who no longer have any economic value. A satellite in space that has no economic value is not of great interest after all, except in specific cases. This, of course, is something that is of concern to private undertakings and the first case would be the recovery of a space object in orbit. Such recovery has already been carried out, as you know. Recovery in orbit does give rise to certain questions for legal experts.

And then the other question for legal experts would be the question of transfer of property in orbit. That you already have in a text that will probably be discussed later or tomorrow, and that is the draft UNIDROIT Protocol on Space Assets where the question is raised as to transfer of property in orbit from one private entity to another, whereas there will have been registration under the Registration Convention. So there could ultimately be a difference between space law treatment under the Registration Convention and treatment under private law instruments because a satellite that may have value in orbit might be transferred. That will be discussed and it is a question that cannot be overlooked.

And also when looking at recovery, there is recovery on land as well and any ensuing damage to material or equipment.

In the Principles on Nuclear Power Sources in outer space and on land, there might be interest in examining or debating recovery on land of an object carrying a nuclear power source on board. Perhaps there should be greater clarity on the matter that recovery, even of an harmless object without any economic value, that that still should remain an obligation upon the launching State unless, and these are very important legal questions, there is a declaration of abandonment by the State concerned, with the State in question, which is liability at international level, declares itself no longer liable for the satellite officially declared abandoned because it is no longer serving a purpose or may be deemed dead or other. And there is a major question there regarding liability for damage.

What is the procedure? What would be the criteria for harmfulness? What would the consequences be as to cost? There are all sorts of questions that come up that are of legal interest for the implementation of existing treaties on outer space.

And there is a question that must be raised. It has been mentioned in several replies that came in and that is, what about so-called military space objects? Should they be excluded from any definition being considered, as they can be as dangerous as others? These could be a source of collision in outer space. And the purpose of a legal definition should not necessarily mean military debris, it has a category of itself. This would have to be very carefully and thoroughly examined and we would have to see how the question can be tackled, but it means that there should be comprehensive treatment possibly for all space objects as launched.

And for the moment, Mr. Chairman, as you have seen, I have left out the initial question. Is this space debris to be considered as space objects in itself? The Outer Space Treaty lacuna pointed to quite easily on that. It is said that they are not considered whereas space debris has existed since the very first launch. There is no space object definition as such. Components are mentioned. There is no definition of outer space and so on. These are all answers that are given.

And my conclusion here is to propose to start off with the broadest notation possible for the concept of space object. There is not a unanimous view on the matter but it is felt that space debris is not a legal category which is different from space objects. In other words, it should not be a question of setting a definition in all the treaties and agreements dealing with space objects hold in the case of space debris.

Space debris are not excluded from any text in outer space law. So space debris, by the very nature are space objects and, thus, space law, as a whole, applies to them. It does not cover all questions but I think it might be useful for the international community to start off with that notion as opposed to venturing into another type of definition, not knowing where it might lead. So a space object which is complete may become inactive and debris from various space objects, in my view, should be seen as the very same.

With that being said, the immediate point that comes up afterwards is, can all the consequences of this approach be covered by what we have, along with the questions that I raised earlier. I will not repeat the conclusion mentioned earlier. There is no legal reason to open a new category. It remains within the purpose of space law in Article I, paragraph 1, as defined in the Treaty. But considering questions that I mentioned earlier, should there not be some additional clarification and, if so, how should these be considered? In what legal form should these be considered?

And for that, there are several possibilities. Somewhere in the paper I am introducing on Page 19, but first, there are a number of questions I would like to clarify that might or might not be integrated into current space law. These are questions that were raised in the various remarks that I received. It would seem evident that it is not necessary to have a specific registry, under the Secretary-General of the United Nations, containing the list of space debris. That does not seem to gain support. And there were discussions under a different item of the agenda regarding any possible improvements to be brought into the implementation of the Convention on Registration. The international community does not seem to be informed sufficiently or in a timely fashion, so notification measures should be taken. This was raised in the case of re-entry of the Mir Station and other space objects. There have to be some kind of gradual alert measures that are recognized and accepted by all those involved in the international community. This would be in the case of all objects, not only massive or harmful objects. And for this, it would also be necessary to improve international cooperation and technical assistance measures and that through facilitation of access to national monitoring and control data on space debris, that to the benefit of all countries, and with as complete a view of possible of means available for this purpose. And there should be certainty of coordination with all the ways and means made available to the international community, including possible measures for recovery in space and on land.

Now I know that this all might occur *de facto* or occurs every now and then, but these measures which are recommended should be given greater thrust. It is not a question of placing these within a treaty. That may not be necessary but I think States would be favourably disposed towards using such measures at national level.

Which then brings me to the big, big, big problem discussed in the Scientific and Technical Subcommittee regarding technical standards for mitigation prevention reduction. Those standards are making progress in the Scientific and Technical Subcommittee. There are standards in some places already in the United States and in the Agency as well. We are developing standards. National space agencies are developing such standards. The National Centre for Space Studies, CNES. There are technical standards that are being developed. They should be known better and that by all. And this could be improved in an area on national space law, for example. If there could be an additional section when examining cases on development of proposals for space projects. The technical projects as submitted could systematically include a section on what has been planned in the proposal, what has been planned as a response to the potential case of debris. This is something that can be done on a voluntary basis. Today, some do this already in some countries. The Agency, the CNES, have measures that are already taken envisaging passivation, de-orbiting, re-orbiting. These questions could all be considered in an additional section. You could call it almost obligatory in the formal proposals as submitted to the different governments when proposals are submitted for programmes.

And then that brings me to areas that are under specific contracts or laws. These are questions that are related to insurance policy, transfers in orbit, as I mentioned earlier, in the case of UNIDROIT, for example. There are examples there which would fit in the context of national law that could involve a licensing system for the launching of space objects, as exist already under certain national laws.

I believe that this could be seen as technical measures, voluntary measures to be considered by all launching States and that to improve the risk factor, so the sky does not fall on our heads, and that without creating excess costs with definite or positive results. I do not know if this should go any further. On Page 19 of my text, I do refer to a number of proposals that I have found in existing law or in laws being elaborated, questions that came out in commentary or that are

applied in areas, or indeed the very specific area I am focusing on.

In any case, Mr. Chairman, I think we should be a little more practical and realistic and the solution I am proposing here, at the end, is less ambitious but more specific. What I am proposing is that there be recognition at higher political level, in other words, the General Assembly of the United Nations, which has not happened hitherto, there should be recognition of what exists at present so that it will not be thought that space law is void and says nothing on these matters, by space law, I mean in the broad sense not just the five treaties, but also national laws and everything that is done, recommendations, everything in the practices of the States. The international community, I believe, should be truly aware of everything that has been done today, that is being done today, for protection, all specific measures so that this can all be given due recognition, thus the international community can feel itself reassured. It can feel that these matters are being dealt with, from the scientific and technical point of view but also from the legal point of view. That would be a first aspect to be covered by the resolution.

The second part would be to take up what I mentioned earlier and that is, a number of measures to be recommended to States for better implementation of the Convention on Registration and national laws could incorporate measures, control measures, licensing measures, for example, and there could be proposals to States to facilitate access to scientific information, technical information, anything that might be needed when it is a question of having to do with any dangerous effects of space objects. That there should be coordination in a practical, specific way so that it can be set up in a rapid manner with the proper technical response to any dangerous situation. These recommendations could be addressed to certain States.

And then there are a number of other aspects that might call for thorough legal examination that I referred to earlier. There are questions such as a satellite being abandoned in space and everything related to that. Anything related to a transfer of a satellite in outer space, including a transfer between private law companies. What happens especially if the necessary insurance is not there for coverage and that it would be ultimately the initial launching State that might be liable? Should there be an insurance fund created for such exceptional circumstances?

All these questions that I mentioned earlier concern basic questions on space debris with legal aspects and the basis for international liability in the cause of damage incurred in outer space by debris.

Today, if you look at the Convention on Liability, I do not believe the international community would necessarily give the responses expected but it is not a question of stepping out and saying we have to change the Liability Convention, the legal basis for liability as established in the Convention itself. Now it might be a question of envisaging other procedures to see if there is agreement to apply to any damage caused by debris, that it should be the Liability Convention that should apply or that that may not be the best approach to be applied to victims. I would suggest that a study be initiated on these questions here, that would be my proposal. It is not a question of placing on the agenda of the Legal Subcommittee a specific item called Legal Aspects of Space Debris. I do not think that would be the right approach. I think it would be much more reasonable to try to identify specific practical aspects, things that happen in space activity with space debris. It is not a question of rewriting the treaties. It might be a question of examining their implementation, their application and that with acknowledgement of what is done, what is being done and that with possible proposals to States for recommended measures and the Legal Subcommittee could possibly be asked to examine specific legal aspects related to these matters.

I thank you Mr. Chairman and I thank all delegations for being so kind as to listen to me. I hope I did not say too much nonsense and I do hope that this will be helpful for the development and promotion of space law but I also hope that this will help you in your reflections for work in the Legal Subcommittee in the years to come. Thank you very much.

**The CHAIRMAN** (*interpretation from French*): I thank the distinguished observer from the European Space Agency. I thank you for that contribution where you introduced to us the results of the analyses of the questions put on space debris. There are many questions that you raised here and this will be of great interest to all delegations.

(*Continued in English*) Ladies and gentlemen, I do not have any other speaker from among the delegations or the observers to this Subcommittee on item 5 of our agenda, Information on the Activities of International Organizations Relating to Space Law. Is there any other delegation or any other observer wishing to speak on this particular item? Yes, I recognize the distinguished representative of Italy.

**Mr. S. MARCHISIO** (Italy): Thank you Mr. Chairman. The Italian delegation wishes to thank the European Centre for Space Law for the effort made and the excellent report, Analysis of Legal Aspects of Space Debris, contained in document in CRP.5. It is a

very complete study that brings our attention towards this sensitive issue. Particularly our delegation believes that it would be important to develop, as it is suggested, not only in the technical but also in the legal field, recommended measures, technical standards aimed at the reduction and reduction of space debris. However, the Legal Subcommittee seems unlikely to play a decisive role in this context. The idea of entrusting the COPUOS Legal Subcommittee on a [inaudible] functional basis of the drafting of technical recommendations and standards, was put forward, as you surely will remember, by Dr. Jasentuliyana during the last period of his Office. In fact, the specialized agencies have truly contributed and continue to do so to the evolution of law by means of regulatory standards and recommended practices.

This is an open issue, Mr. Chairman, and different alternatives have been put forward by the distinguished delegate of ESA, that I thank once again on behalf of my delegation. Thank you.

**The CHAIRMAN:** Thank you distinguished representative of Italy for your statement. I do not have any other speaker on this item on my list of speakers. Is there any other delegation or observer wishing to speak? I recognize the distinguished representative of Belgium.

**Mr. J.F. MAYENCE** (Belgium) (*interpretation from French*): Thank you Mr. Chairman. Very briefly. I also want to thank the ESA representative for his statement. I think it is a little frustrating that such a wonderful basis for discussion cannot be further made use of. It is an exposé and a discussion that falls under item 5 of our agenda and I do not want to start here a specific discussion on space debris. However, a number of issues raised by Mr. Lafferranderie seem very interesting and very pertinent at all levels. I think we need to find one way or another to benefit from all of this information, not within any specific agenda item, I realize that it would be difficult, but to follow up on the work conducted by the European Centre for Space Law and to have a discussion within a more appropriate framework. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*): Thank you distinguished representative of Belgium for your comment. I think all delegations should give it some thought as to the right way of following up on this and present their views to the Chair.

(*Continued in English*) The next speaker on my list is the distinguished representative of Greece.

**Mr. V. CASSAPOGLOU** (Greece) (*interpretation from French*): Thank you Mr. Chairman. First of all, I wanted to thank Mr. Lafferranderie and the European Centre for Space Law for the statement we just heard and I would like to associate myself with what you have just said in responding to my distinguished colleague from Belgium regarding a follow-up to this effort of the European Centre for Space Law.

I could also refer to our common proposal, joint proposal of the Czech Republic and Greece on this very item. Maybe we could discuss these things within the framework of a working group. Of course, this is at the discretion of the delegates, our colleagues, they will need to decide where and how within the framework of which agenda item we could address these really important matters. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*): Thank you distinguished representative of Greece. I would like to add something to this. As to under which agenda item of this session we can discuss these matters. That was the question you raised. That is agenda item 5 obviously, Information on the Activities of International Organizations Relating to Space Law. It is under this agenda item that the matter was introduced and obviously this is the agenda item under which all thoughts on this matter should be presented.

(*Continued in English*) ... Is there any other speaker or observer wishing to speak on this item of our agenda at this stage?

I see none and, therefore, I will now suspend discussion on this item today and we will continue our consideration of item 5, Information on the Activities of International Organizations Relating to Space Law, tomorrow morning.

**Matters Relating To: (a) the Definition and Delimitation of outer space; (b) the Character and Utilization of the Geostationary Orbit, Including Consideration of Ways and Means to Ensure the Rational and Equitable Use of the Geostationary Orbit Without Prejudice to the Role of the International Telecommunication Union (Agenda Item 6)**

Distinguished delegates, we shall now continue our consideration of item 6, Matters Relating to the Definition and Delimitation of Outer Space and

the Character and Utilization of the Geostationary Orbit.

The first speaker on my list on this particular item is the distinguished representative of the United States of America. You have the floor Sir.

**Mr. S. MATHIAS** (United States of America): Thank you Mr. Chairman. Mr. Chairman, I am pleased to have this opportunity to present my Government's general views on agenda item 6, Matters Relating to the Definition and Delimitation of Outer Space and to the Character and Utilization of the Geostationary Orbit, Including Consideration of Ways and Means to Ensure the Rational and Equitable Use of the Geostationary Orbit Without Prejudice to the Role of the International Telecommunication Union.

On the question of the definition and delimitation of outer space, I would like to reiterate what I stated at last year's Legal Subcommittee meeting, namely, that the United States sees no need to seek a legal definition or delimitation for outer space. To date, the lack of such a definition has not caused any legal or practical problems and, in particular, it has not impeded the development of activities in either air space or outer space. On the contrary, the differing legal regimes applicable in respect of air space and outer space have operated well in their respective spheres.

As I noted last year, in the absence of legal or practical problems, the development of a definition would, in itself, risk creating future problems, as there would be no experience to call upon in agreeing upon any particular definition or delimitation. A definition or delimitation created to respond to purely theoretical rather than practical concerns could create an inflexible framework ill suited to emerging issue and advancing technology. We believe that it would be prudent to continue to operate within the current framework until practical or legal issues arise that demonstrate a need for a definition or delimitation and that could inform any exercise to formulate a definition or delimitation. The Legal Subcommittee should only take on this issue when and if the need for a legal definition or delimitation has become absolutely clear.

With respect to the issue of the geostationary orbit, or GSO, I would like to note at the outset the United States' commitment to equitable access to the GSO by all States, as well as the need to satisfy the real requirements of developing countries for GSO use and satellite telecommunications generally. We believe that the Legal Subcommittee's April 2000 Report on this issue constructively addressed the principles of

equitable access and the rational, efficient and economic use of the GSO and that this Report remains the appropriate way forward on this issue. Moreover, we believe the present ITU Constitution, Convention and Radio Regulations and the current procedures under those authorities for international cooperation among countries and groups of countries with respect to the geostationary and other orbits, fully take into account the interests of States in the use of the GSO and the radio frequency spectrum. We note that the Legal Subcommittee continues to have jurisdiction over this issue, should further issues arise that are appropriate for resolution in this body.

Some delegations have argued that the GSO is or can be subjected to the sovereignty of States or that States may have preferential rights to the use of such orbits. We firmly believe, however, that because this orbit, at approximately 36,000 kilometres above the Earth, is in outer space. Its use is governed by the 1967 Outer Space Treaty, and in particular Articles 1 and 2 of that Treaty. As you know, Article 1 of the Outer Space Treaty provides that "outer space shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law". Article 2 of the Treaty further states that outer space is not subject to national appropriation by claim of sovereignty or by any other means. From these articles it is clear that a party to the Outer Space Treaty cannot appropriate a position in the GSO either by claim of sovereignty or by means of use, or even repeated use, of such an orbital position.

Thank you for the opportunity to express our views on this important agenda item, Mr. Chairman.

**The CHAIRMAN:** Thank you distinguished representative of the United States of America for your statement on item 6 of our agenda, particularly on the question of the definition and delimitation of outer space and on the question of the status and nature of the geostationary orbit.

**Consideration of the Convention on International Interests in Mobile Equipment (Opened to Signature in Cape Town on 16 November 2001) and the Preliminary Draft Protocol on Matters Specific to Space Assets (Agenda Item 8)**

Distinguished delegates, in the morning I advised you that, time permitting, we would also open the next item on our agenda, it means consideration of the Convention on International Interests in Mobile Equipment, and the Preliminary Draft Protocol on Matters Specific to Space Assets. But it seems to me

that it will be more useful to start the discussion on this particular item tomorrow because there is not much time left and we expect also for tomorrow the representative of UNIDROIT which will certainly make an introduction to our discussion and inform us about the progress reached inside the international institute in Rome.

With your permission, we will start the discussion at the next meeting of the Subcommittee but I would like to use the presence of the Chairman of the Working Group on the question of definition and delimitation, the distinguished representative of Peru, and now invite him to start his Working Group immediately and to use the time that is still available for us.

Before adjourning the session of the Subcommittee, I would like to inform delegates of our schedule of work for tomorrow morning. Tomorrow morning, we shall continue our consideration of item 5, Information on the Activities of International Organizations Relating to Space Law, Item 6, Matters Relating to the Definition and Delimitation of Outer Space and the Character and Utilization of the Geostationary Orbit, and we will start also discussion on item 8, Consideration of the Convention on International Interests in Mobile Equipment and the Preliminary Draft Protocol on Matters Specific to Space Assets. Thereafter, the Working Group on Item 6 might convene its third meeting under the chairmanship of Mr. Manuel Alvarez of Peru.

Are there any questions or comments on this proposed schedule?

I see none. *It is so decided.*

Distinguished delegates, I will now adjourn the meeting of the Legal Subcommittee. Thank you very much.

*The meeting closed at 5.25 p.m.*