

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

Script

900th Meeting

Tuesday, 14 April 2015, 3.00 p.m.

Vienna

Chairman: Mr. K-U Schrogl (Germany)

The meeting was called to order at 3.13 p.m.

The CHAIRMAN: Good afternoon distinguished delegates, I now declare open the 900th meeting of the Legal Subcommittee. I have been made aware by the Secretariat that due to austerity measures, champagne will only be served at the 1,000th meeting of the Legal Subcommittee so you have to keep on participating for a while until we reach the 1,000th meeting.

This afternoon, we will continue our consideration of agenda item 3, General Exchange of Views, agenda item 4, Information on the Activities of International Intergovernmental and Non-Governmental Organizations Relating to Space Law, and agenda item 5, Status and Application of the Five United Nations Treaties on Outer Space.

We will hear one technical presentation by a representative of the European Space Agency on Current Policy and Practice on the Registration of Space Objects.

We will then adjourn the plenary meeting so the Working Group on Matters Relating to the Definition and Delimitation of Outer Space can hold its first meeting.

Time permitting, the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space will also hold its second meeting this afternoon.

Are there any questions on this schedule?

I see none.

General exchange of views (agenda item 3)

So we can start with the general exchange of views, agenda item 3, and there I have one speaker on my list and now I am afraid that the representative might be surprised, it is Belgium. He is surprised.

Is there any other delegation wishing to speak on agenda item, General Exchange of views?

I see none.

Activities of international intergovernmental and non-governmental organizations relating to space law (agenda item 4)

So we will continue then with agenda item 4, Information on the Activities of International Intergovernmental and Non-Governmental Organizations Relating to Space Law.

And there I have three speakers from the observers part, and the first speaker on my list is Ms. Elisa González from the Ibero-American Institute. You have the floor.

Ms. E. GONZÁLEZ FERREIRO (Ibero-American Institute of Aeronautics and Space Law and Commercial Aviation) (*interpretation from Spanish*): Thank you Mr. Chairman, distinguished delegates. The Ibero-American Institute has been an observer within the COPUOS since 2012. We have been represented by two eminent members of our Institute, Madam Williams, who is a member of the Board of Directors, and Professor Moro Aguilar, another member of our Institute.

At this opportunity, what I would like to do, speaking in my capacity as the Director of the Ibero-American Institute, is to explain to you how we are further studying our guidance assessment of the application of space law in Spain, Portugal and in Latin America principally. We could say that the Ibero-American Institute comprises two sections, aeronautic law and commercial aviation, and space law.

As regards doctrine, for the past 50 years our Institute has convened the so-called Ibero-American Days or Seminars, almost on a regular annual basis studying space law for further discussion, both in terms

of panellist presentations that are made as well as in the issuance of subsequent communications.

At the last Symposium that was held in November 2014, the issue of space law that we focused on was the Moon Agreement. Agreement was reached that there was a need to deeply review the aforementioned agreement and, at the same time, to pave the way for the sustainable exploration and exploration of resources on other celestial bodies. The Institute has also encouraged that this item remain on the agenda of the Legal Subcommittee.

In November of this year, the fourth Seminar on Space Activities and Space Law is to be held. On that occasion, we shall be convening a multi-disciplinary seminar discussing space law, bringing together panellists as well as renowned experts and those who are experts in the scientific fields in order to establish a comprehensive overview so that lawyers are well-acquainted with the area under discussion.

Both these symposia and fora issue publications that are adopted by the Institute and which are distributed among the participants at these conferences.

In terms of assistance and guidance, our Institute has provided guidance in establishing the Paraguayan Space Agency and has also contributed to the development of space law on space activities. This draft law was submitted to the Spanish Ministry for Consolidation along with the various regulatory bodies in July 2014 by the Working Group bringing together the Spanish members of our Institute.

The Space Department of the Institute is striving to ensure the dissemination of space law by a number of options by reaching cooperation agreements with Ibero-American entities and space agencies, such as COMEXA(?), working together with other international and Spanish national entities, working together with the communicative media, such as setting up the National Radio Page and website for Spain for easy access of non-members of the Institute and ensuring thus cooperation with the field of research.

Thus, the Institute remains at COPUOS' disposal in order to further study matters pertaining to outer space that it deems to be of interest.

Moreover, we would also like to add that in consideration of Article IX of the 1967 Space Treaty, the English version of the text does not coincide with the Spanish version because the English version refers to protection of the space environment, whereas the

Spanish text does not use that phrasing. This might be worth correcting. Normally a comparative reading takes place, setting each Article side by side, and in order to avoid any errors or misinterpretation in those Spanish-speaking countries, we would suggest that these corrections be made to the text.

And that is all, thank you very much Chairman and distinguished delegates.

The CHAIRMAN: I thank the representative from the Ibero-American Institute for her statement and also for the suggestion on which the Secretariat has taken note of. Thank you.

The next speaker on my list is the representative of the International Institute of Space Law, its President, Ms. Tanja Masson-Zwaan.

Ms. T. MASSON-ZWAAN (International Institute of Space Law): Thank you Mr. Chairman, distinguished delegates. The IISL is pleased to submit a report on its activities to the delegates of this Legal Subcommittee.

The Institute organized in December 2014 the ninth edition of its Eileen Galloway Symposium on Critical Issues in Space Law. It dealt with non-traditional commercial space activities, legal and policy challenges, opportunities and ways forward. The Symposium welcomed several distinguished keynote speakers.

In December 2015 this year, the tenth edition of this Symposium will be held in Washington as usual. These symposiums are held to honour one of our founding members, Mrs. Eileen Galloway.

In February this year, the Institute was a co-organizer of a conference in India, in Thiruvananthapuram, that dealt with climate change and disaster management. The Conference took place from 26-28 February and was co-organized, as I mentioned, by IAA, IISL and also with the Kerala State Council for Science, Technology and Environment.

The meeting addressed all aspects of the contribution of space activities to understanding and solving the problems of climate change and disaster management and dealt with technical, technological and policy and legal perspectives.

Two sessions were held during this Symposium dealing with legal issues and a report will

be published and the papers will be published in the proceedings of the IISL.

Yesterday, we were pleased to organize, together with ECSL, the Symposium for the delegates of this Subcommittee dealing with space traffic management and we were very pleased to receive positive feedback from the delegates. The IISL greatly values this opportunity to contribute to the work of the Legal Subcommittee.

In June, the IISL is a cooperating partner in a conference organized by the International Astronautical Federation, the Global Space Innovation Conference, that will be held from 23-25 June in Munich, Germany. In that Symposium, there will also be a panel addressing the policies and laws of entrepreneurship.

In October, there will be the International Astronautical Congress that will take place in Jerusalem, Israel, from 12-16 October, and IISL will organize at that opportunity its fifty-eighth Colloquium on the Law of Outer Space. We will have again several sessions and they will address several issues. We will have a keynote lecture named after Nandasiri Jasentuliyana, former Director of the Office for Outer Space Affairs and former President of the IISL, and also a special young scholars session which we organize for the seventh time in a row.

Furthermore, we will be addressing the topic of the relationship between international humanitarian law and territorial sovereignty with the legal regulation of outer space.

We will also have a session on the portrayal of space and space law in the media and movies.

Then we will, as was also announced yesterday, also have a special dedicated session on space traffic management.

And lastly, we always dedicated on our sessions to recent developments in space law.

We are also happy to organize in Jerusalem the thirtieth edition of the Scientific Legal Roundtable which is an event co-organized by the IAA and the IISL. The theme this year will be "Universities as Actors in Space".

The IISL will also organize another joint session with the IAF on the Legal Framework for Collaborative Space Endeavours and we have

submitted a proposal for a plenary session addressing small satellites.

We are also very pleased to contribute again to the United Nations/IAF Workshop by providing speakers on the legal topics of relevance for the Workshop participants.

A few words about the Manfred Lachs Space Law Moot Court Competition that was mentioned by several of the delegates already. The twenty-third competition took place in 2014 in Toronto, Canada. The National Law University of Delhi was the winner of this year's World Finals and the Runner-Up was Florida State University in the United States. Best memorials were won by the Florida State University and best oralist was a student from the National Law University of India. The semi-finalists were the University of Obafemi Awolowo from Ile-Ife in Nigeria and the University of Paris-Sud, in Paris, France. We were pleased to have three judges of the International Court of Justice to judge the Finals.

The case in 2014 addressed satellite-electromagnetic interference, raised issues concerning electromagnetic interference resulting in the loss of an unmanned aerial vehicle, damage to a military facility and death of military personnel. The problem also addressed actions to counteract such interference by disabling the satellite which, in turn, causes loss of altitude and satellite destruction.

The programme was written by Professor Mahulena Hofmann of Luxembourg with the assistance of James Randleman from the United States.

In Jerusalem, we will be celebrating the twenty-fourth edition of this Competition and we will again have three judges of the International Court of Justice who have already confirmed that they will judge the Finals and we will have between now and then the four regional competitions that will take place in North America, Europe, Asia-Pacific and Africa which will again unite some 60 universities worldwide. The problem this year will deal with planetary defence and presents issues relating to the response to a threat to the Earth posed by the risk of collision with a near-Earth object and it also addresses the utilization of natural resources of the celestial object and liability for damage occasioned by the NEO.

The IISL is grateful as always to its sponsors in the regional rounds and in the Finals and to its Moot Court Committee for organizing the Competition and next year we will be proud to organize the twenty-fifth edition of this Competition.

The IISL has published its proceedings of 2013 and is currently finalizing the edition of the proceedings of 2014 and these proceedings can be purchased, both in book form and as an e-book, and furthermore, the content of the proceedings is available via an annual online subscription that is fully searchable on key works, authors name and so on, via our publisher Eleven Publishing International. Volumes that are older than three years old are available, free of charge, via a subscription online.

The IISL has appointed two new co-Editors-in-Chief of the proceedings and they are Rafael Moro Aguilar and P. J. Blount.

In 2014, the IISL has given several awards. We have given a Lifetime Achievement Award to Professor Paul Larson of the United States. We have given a Distinguished Service Award to Professor José Monserrat Filho from Brazil, and we have given an Award of Appreciation to Mr. Dennis Burnett of the United States. We have also given our Award for the Best Paper by a Young Author, named after our former President Isabella Diederiks-Verschoor and this was won by Miss Joyeeta Chatterjee from India for a paper on "Legal Issues Relating to Unauthorized Space Debris Remediation".

The IISL would like to close by expressing a warm welcome to the delegates of this Subcommittee to join the IISL as a member. Nomination forms are available on our website and individual membership fees are 60 Euros per year. Nomination has to be given by three members or one Director of the Institute and evaluation of applications takes place twice per year with deadlines for submissions on 1 February and 1 August.

I thank the Committee for its attention for giving me the opportunity to give this report and we look forward to continue our fruitful cooperation with this Committee.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the President of the IISL for her statement.

Are there any other delegations wishing to speak under this agenda item, Information on the Activities of International Intergovernmental and Non-Governmental Organizations Relating to Space Law?

I see none.

Status and application of the five United Nations treaties on outer space (agenda item 5)

So we turn to agenda item 5, Status and Application of the Five United Nations Treaties on Outer Space.

And on my list is the distinguished representative of the United States, Mr. Israel.

Mr. B. ISRAEL (United States of America): Thank you Mr. Chairman for the opportunity to provide the views of the United States on this agenda item.

The four core treaties governing the use of outer space, the Outer Space Treaty, the Agreement on the Rescue and Return of Astronauts, the Liability Convention, and the Registration Convention, have served the States Parties well over many decades. The United States is honoured to serve as one of the depositaries for three of these treaties, the Outer Space Treaty, the Rescue and Return Agreement, and the Liability Convention. I have consulted with the State Department's Treaty Office regarding actions taken in Washington with respect to these treaties, since the Legal Subcommittee's last meeting in March 2014, and can report that Colombia deposited an instrument of ratification to the Liability Convention on 16 July 2014. We would welcome any further information from other depositaries on any relevant treaty actions since this Subcommittee's last meeting. We also would welcome further adherence to these treaties and hope that those States and eligible international organizations, including some members of COPUOS and some organizations that participate as observers to this Subcommittee, that have not yet joined these treaties will carefully consider the merits of becoming Party to these important treaties in the coming year.

Thank you, Mr. Chairman.

The CHAIRMAN: I thank the distinguished delegate of the United States for his statement.

I do not have any other speakers on my list.

Spain has asked for the floor. The distinguished delegate from Spain has the floor.

Mr. R. MORO AGUILAR (Spain) (*interpretation from Spanish*): Thank you very much Chairman. A very brief statement to commend the Ibero-American Institute for all of the activities it has carried out and to declare that we attach the utmost importance to the statement that it presented as regards

the divergence between the English and Spanish versions of the text of Article IX of the Space Treaty and that we fully support and endorse what was said, namely the need to carry out a correction of the translation of Article IX of the Space Treaty in its Spanish version.

Thank you very much Chairman.

The CHAIRMAN: I thank the distinguished delegate from Spain for his statement. The Secretariat has taken note.

Is there any other delegation wishing to speak?

I see the Netherlands.

Mr. H. VAN DEN OOSTERKAMP (Netherlands): Thank you Chairman. First, I would like to thank you for your excellent leadership of the Legal Subcommittee and I would also like to thank Ms. Di Pippo and her team for well preparing this meeting of the Legal Subcommittee.

Concerning this agenda point, we can agree with other member States who have already taken the floor, like Germany, France and Chile, about effects that the well functioning of the space treaties is determined by the participating of the States who are involved in activities in space. It could become, or is apparent that legal uncertainties or irregularities can be found in the space treaties, we can make use of non-binding instruments which could resolve this problem.

And I would also like to repeat what we have said last year at the Legal Subcommittee concerning registration. I would like to state, and it is well said in the report in number 59 of the Legal Subcommittee of last year that we are of the view that while a State has responsibility under Article VI of the Outer Space Treaty, it does not mean that the State is liable under Article VII of that State or under the Liability Convention for Damage Caused by a Space Object owned or operated by an enterprise registered in that State where the enterprise has requested that a launch should take place from a State other than the enterprise State.

We are also of the view that liability in such an instance could be appropriately allocated in a bilateral agreement between the enterprise State and the State which has launched the space object.

Thank you.

The CHAIRMAN: I thank the distinguished delegate from the Netherlands for his statement.

Any other delegation wishing to speak on item 5.

Yes, I see Canada.

Mr. C. SCHMEICHEL (Canada): Thank you Mr. Chairman. I just wanted to express Canada's view that we strongly support the core United Nations treaties on outer space, the Outer Space Treaty, the Rescue Agreement, the Liability Convention, and the Registration. These treaties form the legal foundation governing outer space activities and have enabled States and their nationals to enjoy tremendous benefits from such activities.

To continue to enjoy such benefits, though, it is essential for all States to adhere to and implement the core treaties that make up this legal foundation.

In order to supplement these treaties, Canada has been enthusiastically participating in ongoing discussions on non-binding mechanisms and initiatives, such as the International Code of Conduct, and the efforts within the Scientific and Technical Subcommittee of the Working Group on the Long-Term Sustainability of Outer Space. These initiatives can yield practical benefits today and in the future. As an example, I am sure that most people here are aware that it was United Nations General Assembly resolution 1962 of 1963 that elucidated most of the principles that we then found in the 1967 Outer Space Treaty. It is a good example of how non-binding instruments, while not treaties in and of themselves, can influence the creation of treaties down the road by creating normative behaviour of the members.

Therefore, Canada strongly encourages member States of this Committee and all States to make positive contributions to these worthwhile efforts.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished delegate from Canada for his statement.

Any other delegations wishing to speak?

General exchange of views (agenda item 3)

If this is not the case, with your permission, I return to agenda item 3, General Exchange of Views, where we have a request for the floor from the

distinguished delegate from Belgium, Ambassador Willem Van De Voorde, to give a statement on this item.

I would like to call the distinguished delegate from Belgium.

Mr. W. VAN DE VOORDE (Belgium) (*interpretation from French*): Thank you very much Chairman. Thank you very much for your patience and for your understanding.

My delegation is very pleased that this fifty-fourth session of the Legal Subcommittee of the United Nations COPUOS is placed under your chairmanship.

There are three messages I wish to convey.

Belgium, firstly, remains strongly committed to upholding the optimal efficacy of work carried out here within this Committee and its Subcommittees. We continue to support a more coherent and systematic discussion of the questions and issues on our agenda. We wish to avoid any redundancy and any rivalry between the United Nations COPUOS entities that bring together the very same member States and same observers.

The issue of the long-term sustainability shows the strong need to ensure intelligent and flexible coordination of our work, consideration and discussions held among delegations in the various fora of COPUOS. Scientific analysis and legal analysis are not a variance, rather they are undoubtedly complementary. We hope that the ongoing discussions regarding the organization of work here within the United Nations COPUOS will lead to tangible results.

Chairman, secondly, we would also like to make use of the opportunity posed by this meeting of the Legal Subcommittee in order to formally restate Belgium's commitment to ensuring that the provisions of international outer space treaties are implemented and applied fully in keeping with the spirit and letter of the text. We recognize that some of the provisions may be problematic in particular as regards the remarkable development in terms of space technology and activities since the adoption of these legal instruments.

Nevertheless, it seems to us that the fundamental principles enshrined in the 1967 Space Treaty provide the bedrock that the international community depends on in order to guarantee that the exploration and use of outer space is for the benefit of all nations and all peoples in order to promote the

peace and sustainable and equitable development of humankind.

Article II of the 1967 Space Treaty prohibits any national appropriation by declaration of sovereignty or through the use or occupation or by any other means of all or part of outer space, including the Moon and other celestial bodies. This principle is the cornerstone of space law. It is indeed the indispensable premise for the exercise by each State of the freedom of exploration and use enshrined in the 1967 Treaty. This principle does not stand in the way, however, of the exploitation of natural resources in outer space. The Belgian delegation is of the view that only international law can provide a legal basis for each undertaking, be it governmental or non-governmental, aiming to exploit these resources. Only an international legal mechanism that enjoys the consensus of nations can ensure a respect for the varied interests in compliance with existing treaties.

As a State Party to the 1979 Agreement on the Moon and Other Celestial Bodies, Belgium is of the view that the solution provided by this Agreement is the most developed in legal terms. Article XI of the Moon Agreement enables the States Parties to establish a mechanism to frame the exploitation, including by non-governmental entities, of natural resources in keeping with the guidelines derived from the concept of the common heritage of humankind.

For several years now, Belgium has launched a discussion, along with other member States of the Committee and Parties to the 1979 Moon Agreement, on the modalities of the mechanism provided for under Article XI of the Agreement. The Belgian delegation remains open to any views that would lead to an optimization of the participation of States to the 1979 Agreement or which at least might help identify proposals likely to reach with consensus that are in keeping with international law and, in particular, with the principle of non-appropriation that I referred to previously.

It must be acknowledged that currently certain States have a most restrictive interpretation of this fundamental principle of international law. They seem to favour a basically unilateral approach that is based on national law allowing for the establishment of exclusive individual rights or *de facto* situations in favour of their nationals. This is a worrying phenomenon and in this context, we would like to reiterate our invitation to all to join in this effort in order to safeguard the interests of each and every nation and of their peoples, future and present generations, in the respect for international law.

Chairman, this brings me to my final point. The years 2017 and 2018 will serve to commemorate a number of events, the fortieth anniversary of the adoption of the Space Treaty, also of the first Global Conference on Space, UNISPACE, as well as the celebration of the International Geophysics Year, that will give rise to a remarkable upsurge in scientific, political and legal activity at the global level. Undoubtedly, this period might be deemed the origin of modern scientific cooperation between our nations, establishing a new legal framework for international space. My delegation is pleased to participate at these three events and we have no doubt whatsoever that this will give rise to shared consideration on the progress that has been achieved since these first events and will serve to provide encouragement for this common undertaking here in COPUOS to promote an equitable and sustainable distribution of space resources.

Thank you very much.

The CHAIRMAN: I thank the distinguished delegate from Belgium for his statement. Thank you Ambassador.

Any other delegation wishing to speak on items 3, 4 or 5?

I see none.

So we will, therefore, continue our consideration of these three items, items 3, 4 and 5, tomorrow morning.

Technical presentation

Distinguished delegates, I would now like to proceed with the technical presentation. As indicated, we have one technical presentation. This is a presentation by Mr. Alexander Soucek of the European Space Agency and it is entitled "Space Object Registration by the European Space Agency: Current Policy and Practice".

Mr. Soucek, you have the floor.

Mr. A. SOUCEK (European Space Agency): Thank you very much Mr. Chairman and good afternoon to all of you.

The content of the presentation that you will see in following 10 to 15 minutes, you will also find summarized in the Conference Room Paper that is submitted to you. It is Conference Room Paper 18. However, we will refrain from reading that Conference

Room Paper since you are perfectly able to do that yourself. We try to give you a concise summary of the main aspects.

The European Space Agency in 2013 has started with providing this distinguished Subcommittee with Conference Room Papers on certain aspects of its practical implementation of space law obligations and, based on recent developments, plus the anniversary that was quoted already several times yesterday and today, after signature of the Registration Convention, led us to suggest to you today a short overview, an insight into the current policy and practice of how the European Space Agency registers its space objects and notifies them to the United Nations Secretary-General.

First, what is good to recall that is in 1975, the Registration Convention, the short term for the Convention on Registration of Objects Launched into Outer Space, was opened for signature and it entered into force nine months later. And only two years after that, in December 1978, the Council of ESRO declared acceptance of the rights and obligations contained in the Registration Convention. Now, ESRO is, just to recall and remind you, the predecessor organization, it was the predecessor organization of the European Space Agency. So it was the Council of ESRO that declared this acceptance. At that time, the Convention for the Establishment of the European Space Agency, ESA, had already been signed but did not yet enter into force. That was only in 1980.

In any case, with the Declaration of Acceptance by the ESRO Council and later attributed to ESA, the European Space Agency became the first international intergovernmental organization to accept the rights and obligations provided for in the registration convention. And until today, two more intergovernmental organizations have followed in these footsteps, that is namely, EUMETSAT, the European Organization for the Exploitation of Meteorological Satellites, in 1977, and, very recently, EUTELSAT-IGO, last year, also a very positive step to further acceptance of the Registration Convention.

So this is just to set the frame and give you the historical context.

Now, because ESA has declared acceptance of the Registration Convention, it had to respond to the obligations contained in that Convention and you see here the list of what ESA did and is actually still doing in terms of responding to the Convention, that is the establishment of a National Space Object Registry. I say that only once but, of course, when we speak of national in terms of ESA, this is an inappropriate term

since we have an intergovernmental organization so practically we could speak of an internal Space Object Registry but what is meant the Registry required by Article II, paragraph 1 of the Convention.

Number two, information provision to the United Nations Secretary-General of the establishment of that Registry. These two obligations ESA fulfilled already in 1980, so briefly after the deposit of its Declaration of Acceptance, the obligations three, four and five are recurrent obligations, as you perfectly know, that is the continuous registration of space objects launched into Earth orbit or beyond. That is the notification to the United Nations Secretary-General of these space objects including basic information, especially regarding the orbit and the launch, and that is also the notification to the United Nations of space objects that are no longer in Earth orbit and we will see in a moment how ESA is implementing this.

The reason for ESA, as a permanent observer to COPUOS to address you today, is not to dwell on the past but to tell you what ESA has done very recently in terms of enhancing its registration practice.

In 2013, two years ago, the European Space Agency started a process to update its Space Debris Mitigation Policy. In the course of that process, it was deemed appropriate to also look in how the process of registration of space objects could be further improved and enhanced and this is why, in 2014, a new ESA Registration Policy entered into force. The goal of this Policy was, one, to guarantee at any time, up-to-date centralized information about all space objects of the European Space Agency, but also to give, and here I quote from the Policy itself, “to give a guiding example in space object registration”.

As I just said, this Policy entered into force in 2014 and I shall add what this Policy actually is from a legal or regulatory point of view, this is an ESA internal instruction, an administrative instruction of the Director-General of the European Space Agency. The ‘G’(?) is by the Convention, the executive organ of ESA, and in this capacity, he can issue administrative instructions that are binding for ESA staff. So this one of these administrative instructions.

Let us have a look now into the Policy itself. The Policy is publicly available, in theory and in practice, hopefully in a few weeks, on the ESA website under the “Law at ESA” page. So if you go there today, you will not find it yet but our colleagues are working to put it online because we want also to proliferate that information.

The ESA Registration Policy formulizes the elements of ESA’s space object registration process. Now, I shall underline that this is an internal Policy. It is not in any way altering anything that is said by the Registration Convention. It simply translates the obligations that ESA has on the public international law, into a hopefully effective and efficient internal process.

So here are the main cornerstones of the Policy. First, all ESA space objects shall be registered. This is nothing new. This has been done so far but now this is formally substantiated internally in ESA, registered in an ESA internal Register that is maintained by the ESA Department in charge of legal affairs.

Number two, all related information in order to register an ESA space object must be delivered to the Legal Department by the respective programme or project or mission manager in accordance with a very structured process. So the Policy outlines that six months before the launch, basic information shall be delivered, upon launch, a confirmation, etc. These internal steps allow the Legal Department to respond quickly and accurately to the international obligations ESA has.

Number three, ESA will continue to notify the United Nations Secretary-General of all its space objects in conformity with the Registration Convention and the Outer Space Treaty, and, and this is something new, you all know that the notification shall be furnished to the United Nations in reasonable time, that is the language used by the Registration Convention. In ESA, we found the term “reasonable time” not appropriate for a structured administrative process, so we interpreted this, for the purpose of ESA, as “not later than one month after the launch or a status change”. So we do this hoping that this accelerates the process in which ESA transmits information to the United Nations, notifies the United Nations and the international community, so we avoid cases as has happened in the past where object information was delivered significantly after the launch.

That is, however, not always from a very practical point possible, the reaction within four weeks after launch, because sometimes, as you might know, it takes space objects a longer time to reach the final orbit. Now, in implementing our Registration Policy, we had to review cases like this and the image you see here is a sketch, a picture of an ESA space mission called SWARM, a magnetic mission to observe the magnetic field of Earth. Why do I show this? Because

SWARM, the three satellites that make up the SWARM constellation needed several months to reach their final orbit. So in a very practical sense we were left with the question, do we now accurately respond to our own policy, to the requirements we put ourselves, on us, or not? And what we chose was the following text that was submitted to the United Nations. This is just as a practical example of how ESA is managing this.

We said the following: “The three SWARM satellites are expected to reach their final orbits in April 2014. The orbital parameters provided in the Registration Form of the United Nations Office for Outer Space Affairs are those of the expected final orbits and do, therefore, not correspond to the actual position of the satellites during the transit phase. ESA will confirm the final SWARM orbits upon arrival of the spacecraft and start off their scientific mission.”

So this is just a practical example of how solved the problem. We submitted this within one month after the launch but we sent another additional confirmation once the satellites were in their final orbits to be really clear and if the international community and the United Nations best visibility possible.

In the course of implementing our policy, we also had to decide on a couple of definitions. One of them was, what is an ESA space object? What do we actually register? And here, we went hand-in-hand with our Space Debris Mitigation Policy and it was an inter-disciplinary effort in ESA to come with a definition. And here, you see what is used internally. ESA space objects are ESA assets embarked on an ESA or non-ESA launch. Or also launches stages for launches under an ESA development programme, but also adapters, fairings and other elements associated to A or B, plus objects that are launched beyond Earth orbit.

I come now to the second and final part of this short technical presentation because we would like to share with you that ESA did not only implement a new Space Object Registration Policy, but also a new Space Object Registry that we call the ESA Space Object Register. This Register is operational since a couple of days actually, early this week, and it is an essential element for implementing our own internal policy. It represents the National Registry required under Article II. You are well aware that the Registration Convention itself leaves room in order to determine the content of the National Registry, how it shall look like, what it shall exactly contain, and the conditions under which it is maintained. So, there was a certain leeway

in the implementation of the new ESA Register. It was developed last and, as I said in the last weeks it became operational formally since this week and it is an internal administrative tool.

The ESA Space Object Register presents the authoritative list of all ESA space objects that currently are, or ever have been, in Earth orbit or beyond.

I show you now the structure of this Register in a very high-level manner. What is interesting for you to note is that the ESA Register has one main section that contains all space objects registered and duly notified to the United Nations Secretary-General under the Registration Convention. So that formal registration process is under the main section.

There is also an annex section and this annex section contains a list of what we call additional objects, non-functional space objects, space debris, operational debris, and other elements. ESA was faced with the question what to do with certain objects where it was not clear exactly if, or how, the Registration Convention would apply, considering the open question of how a space object is defined in international space law. ESA solved this very practically by this split in the main section and an annex section for each of the ESA space objects. For each and every one we have an associated sub-section that we internally call the “business card” for each of our space objects and you will find there the space object, name, which type, is it a launcher, is it an adapter, is it a scientific satellite, an application satellite, and the international designator, the COSPAR number.

You will find also physical information like the weight, the dry mass, the wet mass, the cross-section, the geometrical properties. Then all launch-related information, or orbit-related information, plus, in addition also, legal information relevant to us internally in ESA, like, are there insurances, has the ownership been transferred, has the operator changed in the past, associated ESA documents to that mission, etc.

And the most important feature from a practical point of view is the link of this new Register to the so-called ESA DISCOS database. Some of you might not be familiar with what DISCOS is, and I quote here from our own website, DISCO is a single source database for information on a lot of different aspects for more than 38,000 space objects all around the world. This is one of the big databases that are maintained by space agencies, also in cooperation with international partners, in particular the United States,

with whom we have an International Agreement to that extent. DISCOS is a technical database that has nothing to do with the Registration Convention. It exists since many years in ESA but we found it a good idea and an opportunity to link both because now with the new Register, for each registered ESA space object, we can, by clicking on a button, retrieve the actual orbital status of that object, where it is, with a 24-hour delay plus/minus or maybe 48-hour delay and we can have re-entry predictions. So by linking those two, we receive both a comprehensive legal database plus an accurate technical traceability on the status and speed and orbit of the object.

You might ask if you can have access to all this information. The answer is yes. All the information in our Register is open to the public around the world via our notifications that we do according to our new enhanced practices to the United Nations Secretary-General. We also in the coming weeks will update all the information that might not be accurate any more and via the United Nations Online Index, you have then access to the most recent data on ESA space objects except the daily orbital parameters, of course, because that would be beyond what the Registration Index is and should be.

Last but not least, three short examples of how we implement on a daily basis in ESA the obligations under the Registration Convention. I mentioned beforehand Article IV, paragraph 3, that is the provision that information shall be provided to the United Nations on space objects that previously have been in space but not any longer are. ESA is doing that. You see here the process, again our project or mission managers have to notify the Legal Department roughly half a year before a foreseen re-entry of a spacecraft, whether it is controlled or uncontrolled, provide additional information that could be useful, like predicted re-entry time windows, object fragmentation, etc. And once the re-entry has taken place, ESA then notifies the United Nations Secretary-General that this specific object is not any longer in orbit.

Below you see two images of our two most recent satellites that re-entered. On the left hand side, you see an image of the GOCE spacecraft the re-entered in late 2013 in an uncontrolled way. That was also subject to an IADC campaign. And on the right side, you see the re-entry of the ATV-5 cargo spacecraft several weeks ago in February.

Number two, the Registration Convention on Article IV, paragraph 2, suggested that each State may, that is the language, may from time to time provide

additional information concerning a space object. ESA has taken this very serious because ESA finds it very useful, where appropriate, to provide such information, and here you see what the Registration Policy defines as such additional information, for example, significant and permanent changes of orbital parameters. So when a satellite significantly and permanently changes its orbit, say by 20 or 50 kilometres, then this is something certainly worth to be updated for the United Nations Index. The same if a space object is not any longer functional or the operator or the ownership has changed.

Last but not least, I shall recall that the Registration Convention requests that only those objects are registered that are launched in Earth orbit or beyond. I shall inform this distinguished Subcommittee that recently ESA has also informed the United Nations Secretary-General of an object that was neither launched in Earth orbit nor beyond but about a sub-orbital object and that is the Intermediate Experimental Vehicle, IXV, of which you heard this morning during the general ESA statement. Here you see it during recovery in the Pacific Ocean. It is very well understood that ESA has provided the information to the IXV voluntarily and beyond the obligations and also beyond the scope of the Registration Convention but, based on the understanding that the responsible exploration and use of outer space for exclusively peaceful purposes can be further enhanced, where practicable, and where feasible, by providing additional information.

I conclude. ESA's enhanced registration practice can be summarized and characterized by, one, an internally binding policy to substantiate and develop further the various obligations under the Registration Convention, two, by a new multi-functional National Registry, according to Article II and actually going beyond because of this technical link to DISCO, and three, by an internal interpretation of various terms the Registration Convention uses, like the term "as soon as practicable" and like the term "what additional information is". I shall again underline that this has no prejudice to any other practices. This is purely an administrative internal policy and process that ESA uses to be able to respond accurately. And all this underlines, hopefully, ESA's ongoing commitment to respond to obligations rooted in international space law.

And with that, I thank you for your attention.

The CHAIRMAN: I thank the Mr. Soucek for this technical presentation.

Are there any questions delegations would like to ask?

Yes, I see Luxembourg.

Ms. M. HOFMANN (Luxembourg): Thank you very much for this excellent presentation and congratulations. It is really great progress.

I have two small questions. The first one, does the division of the Register to the main part and the annex section, does it have any consequences for the liability status?

And my second question is, how do you coordinate the registration of space objects with the registration or assignment of frequencies in the framework of the ITU?

Thank you.

The CHAIRMAN: Are there any further questions? Thank you Luxembourg.

I see none so I would like to ask Mr. Soucek to respond to the questions posed by Luxembourg.

Mr. A. SOUCEK (European Space Agency): Thank you very much and thank you Professor Hofmann for the questions.

Answer number one to the first question, the distinct internally in the ESA Register between the main section and the annex section was borne out of practical considerations purely. That has no effect and could not possibly have on ESA's launching State liability for its own space objects. This is simply a way of structuring the information internally and being able to quickly retrieve it and record it accurately.

Answer number two, ESA also, besides the Registration Policy and a Space Debris Mitigation Policy, it has also a Frequency Management Policy that, of course, duly a response to all the obligations under the ITU regime. This is actually all these ESA policies in that group that has also been updated several years ago, and all of these three policies are consistent. They all know of each other, if I may say so, and our Frequency Management Office, our Frequency Coordination Office, the Legal Office, the Space Debris Office, they are all in, if not daily then at least weekly contact to implement our missions consistently.

Thank you.

The CHAIRMAN: Thank you very much.

I see no further questions.

I do. Germany.

Mr. B. SCHMIDT-TEDD (Germany): Thank you Mr. Chairman. We would like to take this opportunity to thank ESA for this excellent presentation and the inside view of this new policy and practice and from a legal aspect, one point seems to be very interesting, the distinction between the legal instrument of a national registry and the space situational awareness or positioning control instrument as it is here, DISCOS in the case, of ESA. We would underline that this distinction between the legal registration in the meaning of the Registration Convention, on the one hand side, and the information of exact positioning with the perspective of collision avoidance and other practical questions of space traffic management in the future, is a very interesting approach and it shows that those two instruments can easily be combined.

Thank you very much.

The CHAIRMAN: Thank you Germany for this statement.

Any other remarks?

I see none.

So thank you very much again Mr. Soucek for this technical presentation and I will now adjourn this meeting of the Subcommittee so that the Working Group on Matters Relating to the Definition and Delimitation of Outer Space can hold its first meeting.

Time permitting, the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space could hold its second meeting.

Before doing so, I would like to inform delegates of our schedule of work for tomorrow morning.

We will meet promptly at 10.00 a.m. and at that time, we will continue our consideration of agenda item 3, General Exchange of Views, and also on agenda item 4, Information of the Activities of International Intergovernmental and Non-Governmental Organizations Relating to Space Law, and as well agenda item 5, Status and Application of the Five United Nations Treaties on Outer Space.

Tomorrow, we will hear one technical presentation. This will be by the Space Generation Advisory Council entitled “The Space Generation Advisory Council: A Focus on the Space Law and Policy Project Group”.

We will then adjourn the plenary meeting so that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space may hold its next, either second or third, meeting.

Are there any questions or comments on this proposed schedule?

I see none.

So I will now invite José Monserrat Filho, the Chair of the Working Group on Matters Relating to the Definition and Delimitation of Outer Space, to hold the first meeting of that Working Group.

The meeting of the Subcommittee is adjourned until 10.00 a.m. tomorrow.

The meeting adjourned at 4.15 p.m.