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Committee on the Peaceful Uses of Outer Space

Unedited transcript

624th Meeting
Thursday, 17 June 2010, 10 a.m.
Vienna

Chairman: Mr. Dumitru Dorin PRUNARIU (Romania)

The meeting was called to order at 10.13 a.m.

The CHAIRMAN: Good morning, distinguished delegates, I now declare open the 624th meeting of the Committee on the Peaceful Uses of Outer Space.

This morning we will continue and hopefully conclude our consideration of agenda item 14, Use of space technology in the United Nations system. We will continue our consideration of agenda item 15, Use of space-derived geospatial data for sustainable development, after informal consultations are accomplished, and we will continue our consideration of agenda item 16, Other matters.

There will be four technical presentations: the first one by the representative of China, entitled Global Lunar Conference; the second one by the representative of the Austrian International Institute for Applied Systems Analysis, entitled Global land cover validation tool, Geo-wiki.org; the third one by the Russian Federation, on Space geospatial data utilization for complex diagnosis of earthquake precursors; and the last one by India on Space education: international outreach activities of India.

I would like to inform delegates that today, at 2.55 p.m. in room M-1, the signature ceremony of the Host Country Agreement will take place to establish a UN-SPIDER office in Beijing, China. All interested delegates are invited to attend. This is in this room, where we have the Conference.

This evening all delegations are welcomed to the opening of the exhibition From Heaven to Space at the premises of European Space Institute Policy, starting at 7 p.m. Invitations have been distributed to all delegations. I will have a speech also there.

Are there any questions or comments on this proposed schedule? I see none.

I would like now to continue and hopefully conclude our consideration of agenda item 14, Use of space technology in the United Nations system.

Use of space technology in the United Nations system (agenda item 14) (continued)

The first speaker on my list is the distinguished representative of the United Arab Emirates.

Mr. AL MARRI (United Arab Emirates): Thank you, Mr. Chairman.

Mr. Chairman, as a member of the ICG and in its effort to promote the work of the ICG in the region, the UAE would like to inform the Committee that it has the intention to host a workshop on the applications of global navigation satellite systems, GNSS, which is co-organized by UNOOSA. The workshop will take place in January 2011.

Thank you, Mr. Chairman.

The CHAIRMAN: Thank you, distinguished representative of the United Arab Emirates.

Are there any other delegations wishing to speak under this agenda item at this morning's meeting? I see none.

We have therefore concluded our consideration of agenda item 14, Use of space technology in the United Nations system.

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Distinguished delegates, I would like now to continue our consideration of agenda item 15, Use of space-derived geospatial data for sustainable development, leaving it open until the informal consultations will finish and we could have the result of them.

Use of space-derived geospatial data for sustainable development (agenda item 15) (continued)

I would like to invite delegations that want to speak under this agenda item, and the first speaker on my list is the distinguished representative of Indonesia.

Mr. SANTOSO (Indonesia): Good morning, ladies and gentlemen, Mr. Chairman and distinguished delegates.

My delegation was ……..(?) in the importance of international cooperation in promoting the use of space-derived geospatial data for sustainable development. In this connection, Indonesia continues to develop the Indonesian geospatial data infrastructure with 14 national institutions as well with several provincial and local governments.

This network system also functions as the coordinating body for the national effort in making use and sharing of the space-derived geospatial data for sustainable development. The operation of the Indonesian tsunami early warning system has been launched under the coordination of the Indonesian Meteorology, Climatology and Geophysics Agency. The operational costs have been cleared by the Indonesian Parliament this year, which include as well the operational costs for continuous observation of …….(?) GPS station network.

The collection of spatial three-dimension seabed topographic data in the coastal area as input data for tsunami monitoring especially in the coastal water …..(?) areas, this data, combined with high resolution topographical data on the ……(?) areas in order to process the foundation map for the ……(?).

Furthermore, Indonesia, in cooperation with various countries, is also in the process of developing the monitoring system using the latest space technology, that is CBS, ……. communication, etc., to monitor and ……fishing and ecology as well as the monitoring of pollution in the sea. This is under the coordinating Institute for Sea Safety and Security.

Mr. Chairman, in connection with the many uses of geospatial data in contributing to the enhancement of sustainable development, my delegation fully supports the establishment of UN and national spatial data infrastructures, especially in essential training and technical capacity. My delegation believes that this cooperation will continue to bring forward all the benefits from space-derived geospatial data for the advancement of sustainable development, particularly in the developing countries. In that connection my delegation encourages transparency and clear ……(?) to guarantee access for developing countries to those geospatial data needed by the specific countries.

In conclusion, my delegation assures our commitment to cooperate further with other countries in promoting the use of space-derived geospatial data for national, regional and international spatial planning to help process sustainable development.

Thank you, Mr. Chairman.

The CHAIRMAN: I thank you, distinguished representative of Indonesia for your statement.

Are there any other delegations wishing to speak under this agenda item at this morning's session? I see none.

We will continue and hopefully conclude our consideration of agenda item 15, Use of space-derived geospatial data for sustainable development this afternoon.

I would like now to continue our consideration of agenda item 16, Other matters. We will today consider the sub-items in the following order: Composition of the Bureaus for 2012-2013, Membership of the Committee, Application by Tunisia, Organizational matters; Terminology for reflecting statements of regional groups we have postponed for this afternoon to finalize the informal consultations between Member States.

We now approach Observer status, firstly the application by the International Association on Advancement of Space Safety and the Association of Remote Sensing Centres in the Arab World, and secondly Review of Rules and Procedures for Granting Observer Status of the Committee. Then we will start with the Strategic Framework for 2012-2013, Preparations for the 2011 Event at our next session, General Assembly Panel and Provisional Agenda for the Forty-Fourth Session of the Committee.

Composition of the Bureaus for 2012-2013, Membership of the Committee

Distinguished delegates, in accordance with the measures relating to the future composition of the Bureaus of the Committee and its subsidiary parties, the Committee at its forty-third session should reach agreement on all the officers of the Bureaus, of the Committee and its subsidiary parties for the 2012-2013 term of office. For this purpose, the five regional groups should reach consensus and transmit the names and agreed candidates to the Committee. Delegates have received information on the nominations.

I give the floor to the Secretariat to make these announcements.

Mr. HEDMAN (Secretariat): Thank you, Mr. Chairman.

Yes, distinguished delegates, you should have before you four Conference room papers – Conference room paper 9, Conference room paper 10, Conference room paper 12 and Conference room paper 14.

Conference room paper 9: the Secretariat has received a note verbale from the Mission of the Republic of Korea in its capacity as Chair of the Asian Group nominating Dr. Yasushi Horikawa, former Executive Director of Japan Aerospace Exploration Agency, as the nomination for the post of Chair of the Committee on the Peaceful Uses of Outer Space for the term 2012-2013.

Conference room paper 10: the Secretariat has received a note verbale from the Embassy of Australia in its capacity as Chair of the Group of Western European and Other States Group with the nomination of Mr. Filipe Duarte Santos of Portugal for the position of First Vice-Chair of the Committee on the Peaceful Uses of Outer Space for the period 2012-2013.

Conference room paper 12: the Secretariat has received a note verbale from the Embassy of Lithuania in its capacity as Chair of the Eastern European Group with the nomination of Mr. Elöd Both of Hungary for the position of Second Vice-Chair and Rapporteur of the Committee on the Peaceful Uses of Outer Space for the period 2012-2013.

And lastly, Conference room paper 14: the Secretariat has received a note verbale from the Embassy of the Permanent Mission of Costa Rica in its capacity as Chair of the Latin American and Caribbean Group with the nomination of Mr. Félix Clementino Menicocci of Argentina for the position of Chair of the Scientific and Technical Subcommittee for the period 2012-2013.

Thank you, Mr. Chairman.

The CHAIRMAN: I thank the Secretariat for the announcement. Are there any objections to these nominations? The Secretariat informs me that they have not yet received the communication with the nomination of the candidate for the African Group, and they invite delegations to provide the Committee with information on the status of the nomination of the African candidate.

Are there objections to the candidates already nominated for the positions of the Bureaus for 2012-2013? If I see no objections I take it that the Committee agrees on the candidates' nominations for formal elections at the beginning of the respective sessions in 2012.

It is so decided.

Application by Tunisia

The Committee will now decide on the application of the Republic of Tunisia for membership with the Committee to be recommended for final decision by the General Assembly. The application is contained in document A/AC.105/2010/CRP.3.

Are there any objections on the application of Tunisia? If I see no objections I take it that the Committee agrees to recommend to the General Assembly the granting of membership in the Committee to the Republic of Tunisia.

It is so decided.

Let us congratulate Tunisia [Applause] for their future membership.

Organizational matters

Distinguished delegates, as agreed yesterday, I will now present to you my understanding of the consensus reached in our deliberations on measures to rationalize and optimize the work of the Committee, based on Non-paper 1 to this session, and the views expressed by delegations on organizational matters. The views expressed in our debate on this matter will be reflected in our draft Report. The paper with these elements is just now distributed to delegations. Please read it and if you have any comments, please address the Committee.

We have a comment from the delegation of the United States of America.

Mr. HIGGINS (United States): Thank you, Mr. Chairman.

Mr. Chairman, I apologize for taking the floor at this point. I just wanted to go back to the earlier point concerning the request by the delegation of Tunisia regarding their application to be a member of the Outer Space Committee. I just wanted to express my delegation's support for their candidacy. I understand that we have agreed to make them a full member, but I wanted to take the opportunity to express our appreciation for Tunisia's full participation in the work of the Committee and just note that they were quite active in the Scientific and Technical Subcommittee as well as this Committee, and we welcome their membership today.

Thank you.

The CHAIRMAN: Thank you, distinguished delegate of the United States. We fully agree with your comments.

I propose to read the proposed elements for the Report of the Committee at its 44th session, agenda item 16, Other matters, subsection Organizational matters.

1. The Committee endorses the recommendations of the Working Group of the Whole as endorsed by the Scientific and Technical Subcommittee at its 47th session contained in the report of the Subcommittee, A/AC.105/958/Annex I, paragraphs 17-~~[19]~~18.

2. The Committee agrees that the recommendations on organizational form as contained in paragraphs 17 and 18 of Annex I to A/AC.105/958 apply also to the Legal Subcommittee at its 50th session and the Committee at its fifty-fourth session in 2011.

3. The Committee agrees that the Secretariat, in implementing these recommendations, should take into account the need for maximum flexibility in scheduling the respective sessions in 2011 in order to rationalize and optimize the use of time.

4. The Committee agrees to continue at its fifty-fourth session in 2011 its consideration on organizational matters and to review the implementation of the recommendations agreed at the current session.

5. The Committee requests the Secretariat to present to the 50th session of the Legal Subcommittee and the fifty-fourth session of the Committee for their respective consideration a detailed proposal to discontinue the use of unedited transcripts. The use of digital recordings should be assessed.

Do I take it that the above measures reflect consensus?

Italy has the floor.

Ms PASTORELLI (Italy): Thank you very much, Mr. Chairman, and thanks to the Secretariat for this extract from the report, I guess, to be included in the new report.

My delegation would kindly like to reiterate the proposal to have a group of like-minded countries which could sit during the Scientific and Technical Subcommittee and the Legal Subcommittee sessions next year in order to present a more extensive proposal on how to make the work of both subcommittees and the Committee of COPUOS more effective.

I think these proposals are suitable for us so we could completely agree on having them in the report, but I think it is time to take the opportunity now when all delegations or many delegations have expressed the will to work towards more effective work in the Committee, to take advantage of this momentum to set up a group of countries, of Member States, who could draft a proposal to submit to next year's COPUOS.

I appreciate your effort in helping my delegation with its proposals, Mr. Chairman. Thank you very much.

The CHAIRMAN: Thank you, distinguished delegate of Italy, for your proposal.

Are there any comments on the proposal made by Italy?

Are there any proposals for a delegation to organize the informal meetings to keep the leadership of the group for the next period of time?

Do you understand that this informal group will work only during the sessions, or do you propose to have intersessional consultations also?

Ms PASTORELLI (Italy): Thank you very much.

I would propose to have an informal working group which could be in the margin of the subcommittees, so not implying any costs, additional costs. We would work only on the basis of a non-paper, and so on and so forth. It would help the Secretariat how to deal with the rules and things like that. Of course I would like to hear also from other delegations if they agree.

The CHAIRMAN: Thank you, distinguished representative of Italy.

So, the proposal is to organize an informal group that will meet in the margins of the committees, and to make specific more concrete proposals to the Committee at the forty-fourth session.

Do I clearly understand your proposal? Are there any objections to the proposal made by Italy? I see none.

Italy – are you ready to lead such a group, because the proposal came from you?

Ms PASTORELLI (Italy): Thank you very much. I would prefer not to lead the group but to leave it to the Bureaus and the Secretariat to lead the group, actually.

We do not have in the Italian delegation a set of proposals. It is just a blank paper where we can collect and harmonize several proposals and several opinions which were expressed yesterday afternoon. I found it very useful and I find it useful to have the diplomatic work on these different proposals, which are very diverse and not compatible, in my opinion, to be harmonized.

So I ask the cooperation of someone from the Secretariat, maybe, and the chairmen of the respective groups to encourage this work. I do not think it should be led by one particular State, because the aim of the group is not to have one view imposed, or I do not know if I get the perception. It is a work that everybody wants for a better COPUOS, so it is in the interests of everyone, but in particular it should be the bureaus, even of each subcommittee, to help in the chairmanship.

Thank you.

The CHAIRMAN: For sure, we agree with the organization of the group, but somebody should organize administratively the meetings, call members to meet in this conference room or in another conference room, at this hour, at this hour. Somebody should take the responsibility of doing so, and when you have some specific proposals, you propose them to the Chair of the Committee and we submit them for the approval of the whole Committee.

For sure, somebody from the Secretariat could assist you, but can not take the responsibility of organizing everything. We support the organization of the working group but one Member State should take the responsibility of administratively organizing the people when they want to meet – when and how.

I give the floor to the Second Vice-Chairman, Ambassador Raimundo González.

Mr. GONZÁLEZ (Second Vice-Chairman) (Chile): Thank you, Mr. Chairman.

You have given us a very clear-cut summing up and a well-considered one, covering the whole situation. It did not come out of the blue and it came from a country that is highly respectable and has a long-standing tradition in this Committee.

So, as a Vice-Chairman, and in order to expedite the work as far as possible and also in the interest of the work done by the Bureaus, I would like to explicitly support you in terms of your summing up.

Thank you.

The CHAIRMAN: Thank you, Ambassador González.

Spain has the floor.

Ms ZABALA UTRILLAS (Spain): Thank you, Mr. Chairman.

I was just wondering whether in the Non-paper No. 3 that you have just distributed, in the first paragraph it should say when citing the report, paragraphs 17 to 18, instead of 19.

Thank you.

The CHAIRMAN: One minute – we will check exactly with the Secretariat.

So, in paragraphs 17 to 19 are the recommendations of the Working Group of the Whole with regard to the problem, and also with the problems connected with the documentation of Member States. Specifically, the organization of work is in paragraphs 17 and 18, so 19 reflects the Working Group of the Whole's position of organizing the work.

I give the floor to the Secretariat who has the document before him.

Mr. HEDMAN (Secretariat): Thank you, Mr. Chairman. Well, it is apparent that the Secretary of the Committee has made a slight error here. In fact, the delegation of Spain is correct, there are only two paragraphs in the Working Group of the Whole report that reflect the organizational matters, paragraph 17 on the organizational work and paragraph 18 on documentation, so the Secretariat will of course align paragraphs 1 and 2 of Non-paper 3 so it is clear that in paragraph 1 we talk about paragraphs 17 to 18, and in paragraph 2 it is paragraph 17.

So, I give my sincere apologies to you, Mr. Chairman, and to the delegations of the Committee.

The CHAIRMAN: Thank you, so now it is clear, I give the floor to the United States of America.

Mr. HIGGINS (United States): Thank you, Mr. Chairman.

Mr. Chairman, my delegation can support Non-Paper 3 prepared by the Secretariat with the change just suggested by the Secretariat in paragraph 1. I think this is a good basis for organizing future meetings of the Committee and the subcommittees.

I would also like to express support for the proposal by the delegation of Italy. I think perhaps having a more informal setting to think about ways of improving our work is appropriate, but I take the point at this stage that no one is really prepared to step forward to organize that, so perhaps in the Report of the Committee you can make note that there was agreement that an informal group could meet on the margins of the subcommittees and the Committee as appropriate, and then we can let the Bureaus decide on how to proceed.

And then thirdly, in our discussions yesterday, in my delegation's line, there are two categories of actions to be taken concerning the work of the Committee and subcommittees. The first are actions that the Secretariat has been authorized to engage in, and that is what this Non-Paper 3 basically reflects, these are things that are under the control of the Secretariat. Then there is another set of proposals made yesterday of which only Member States are in control, that is the length of their statements, the number of times delegations intervene. I do not expect that to be reflected at this session, but if we do have another discussion on organizational matters, whether it is informal or formal, the actions by Member States really need to be more developed because I think at this stage that the Secretariat can only do so much. If we really want it to be more efficient, Member States are going to have to take a certain amount of responsibility.

Thank you.

The CHAIRMAN: Thank you for your proposal, distinguished representative of the United States.

Are there any other comments on the proposal made?

Mexico has the floor.

Mr. CAMACHO LARA (Mexico): Thank you, Mr. Chairman.

This delegation is likewise in a position to support Non-Paper 3, but we would like to clarify the following under item 3.

I think that what we mean in item 3 is to give a maximum of flexibility to the Secretariat in terms of implementing the work programme of each and every session of the subcommittees and of the Committee, but what it says is "maximum flexibility in scheduling the respective sessions". This would imply dates for the sessions, and not the dates when we would be considering items in each of the sessions. So, if this is correct, perhaps we should insert, where we read "flexibility", add the words "in preparing the schedule of work" and then we would continue with the text as it stands in respective sessions in 2011, and so on and so forth.

Thank you.

The CHAIRMAN: I thank the distinguished representative of Mexico. Yes, here it is a misunderstanding. We should write "maximum flexibility in organizing the work of the sessions in 2011". If you agree, we will change to this new text.

First, Sudan has the floor.

Mr. RAIS (Sudan): Thank you, Mr. Chairman.

With reference to the proposal by Italy and bearing in mind the experience we have just had with the informal consultations led by Brazil this morning, I

see the proposal is quite viable and good, because here we can realize things we were trying to implement. And we have two ways of implementing it. First, we can schedule informal consultations within the programme of meetings, and then to be decided who will lead them it the next session, not now. The second way of implementing it is it can be informal consultations for the regional groups.

So what we need, if we adopt the proposal now, is we put it in the organizational mattress to help slots for informal consultations within the next meeting schedule.

The CHAIRMAN: Thank you, distinguished representative of Sudan.

Do I understand that you want to reflect in the report the organization of consultations for regional groups, because we speak about organizational matters that concern all COPUOS Member States, and we could reflect that in the report. How do you organize the consultations with the regional groups, then we meet together, or you send a representative? I think these are details for the main problem we solve now. I do not think it should be really reflected that we propose the organization of the formal meetings between regional groups, because it is the problem of the regional groups to meet, to have consultations at any time and to come with solutions on behalf of a regional group, or on behalf of different specific countries of the regional group, in my opinion.

Are there any other suggestions, please? I am open to listen to you.

Iran has the floor.

Mr. SHIRAZI (Islamic Republic of Iran): Thank you, Mr. Chairman.

Coming back to the suggestion made by our dear colleague from Italy: first, my delegation supports such an idea of having a consultative process either in the margin of the session or as an intersessional consultative process.

As a point of clarification I would like to know if the proposal is about an intersessional consultative process or just a consultative process in the margin of things.

The CHAIRMAN: The proposal is made to have consultations in the margins of the subcommittees and Committee, because it is difficult to meet or to have very fair and free communications in between the sessions, but during the sessions everybody who is here could take part directly in the consultations. The proposal is to have consultations in the margins of the Committee and subcommittees.

I call the distinguished representative of the Czech Republic. Professor Kopal, you have the floor.

Mr. KOPAL (Czech Republic): Thank you very much, Mr. Chairman.

Mr. Chairman, we have read the paper, Non-Paper 3, and in principle we agree with the ideas that are included here. I only have a little doubt about paragraph 3, which emphasizes the need for maximum flexibility in scheduling the respective sessions in 2011.

I do not see what more could be done for ensuring the flexibility, because I believe that this is a principle that has been approved for the work of the Committee and also for its subcommittees, and I do not really see how we should still infringe this flexibility. I believe that the present flexibility is already maximal and in this respect both the Chair and the Secretariat are very helpful.

I would rather say that it depends more on the willingness and readiness of the delegations to discuss in the first place in the formal sessions of the Committee and to really help to reach a consensus. This is my conviction.

If you wish to have a working group as proposed, I think by the distinguished representative of Italy, I believe it is a good idea and it should be an open and informal working group to which any delegation could have access, but it should work indeed during the session of the respective bodies, during the session of the Committee as you already suggested.

The intersessional work is very difficult and usually does not lead to the expected conclusions.

Thank you very much.

The CHAIRMAN: Thank you, distinguished representative of the Czech Republic. I remind you that we just changed the text here: “maximum flexibility in

organizing the work of the sessions", not scheduling the respective sessions, in organizing the work.

If there are any comments or any other suggestions concerning paragraph 3, we are open to take them into account.

Spain has the floor.

Ms ZABALA UTRILLAS (Spain): Thank you, Sir.

On the Italian proposal to set up an open-ended working group to meet during the sessions, my delegation is in favour of that. As for paragraph 3 of Non-Paper 3, yesterday the representative of Germany made a suggestion, i.e. bringing together the agenda items week by week so as to have better planning, avoid unnecessary expense for Members coming to join COPUOS from capitals, and furthermore, as you yourself appropriately said, we already had an indicative work plan, and that all we had to do was to go by that work plan or schedule and that this was in fact done.

Since there was no greater consensus yesterday on the basis of the proposal made by our German colleague, which was supported by the European Union as you probably know, it occurs to me that I might come forward with a suggestion to combine these two ideas, which would be to add a sentence under (3) that might say that we should be in compliance with the indicative schedule or work plan, but that in this indicative plan we should bring in the technical items on a weekly basis.

If, for example, we have ten items on the agenda, it should be known that between 1 and 5 they will be dealt with in the first week, from 6 to 10 in the second week of our deliberations and that not, as was the case this year, on Friday we for example have 8, 9 and 10 considered but it is open ended, and that on Monday we continue our consideration of 8, 9 and 10. So we could continue to have an indicative schedule, but to organize it in such a fashion that some agenda items that are agreed are taken in the first week.

Of course I do not know whether other delegations will go along with this – it is merely a suggestion.

Thank you.

The CHAIRMAN: Thank you for your suggestion, distinguished delegate of Spain. We already have an indicative agenda of the work, but let us see what other delegations wish to express.

The United Kingdom, you have the floor.

Ms KAYTE (United Kingdom): Thank you, Mr. Chairman.

Along with other delegations, I would very much like to welcome this paper by the Secretariat summarizing some of the items that we have agreed upon in this session. I would also like to welcome the constructive dialogue that has begun, and I hope that we will continue to discuss ways to make COPUOS as effective as possible to ensure that we continue doing the good work that we have been doing for many, many years.

I also support the suggestion of Italy for an informal working group which can take place in the margins of meetings next year and, of course, the idea by my US colleague that we may have to wait a little time for someone to come forward to lead these meetings. We have had several suggestions about how to work with the agenda, possibly clustering items, possibly opening items differently or rearranging the agenda, and I think we can expect a varied and constructive debate next year as we go into this.

One additional idea that was raised earlier in the week, I think by our German colleague, was the possibility of putting statements on line on the UNOOSA website. I see already that the presentations that Member States make are available on line, and this is an incredibly useful tool for us to use, both because we are sometimes not able to be in all meetings here, but also because it is good to review the information we have received and check that our notes are indeed correct.

I would again like to put forward the possibility of Member States providing national statements to the Secretariat for them to be put on line, whether this is something the Secretariat could already do if provided with the statements, or whether this is something that the Committee here needs to request of the Secretariat I am not sure, but I would like to put this idea to colleagues, that encouraging Member States to put statements on lines would help us very much in sharing the useful information that we provide in these sessions and would help us to study the interesting information received more carefully.

Thank you.

The PRESIDENT: Thank you, distinguished delegate of the United Kingdom. You propose to have statements in the language of the delegate, or that delegations propose the statements with translation, because it would be very difficult to translate the statements.

Ms KAYTE (United Kingdom): Thank you, Mr. Chairman.

Indeed, I do not propose to suggest any measures that would cost more money. Just following on from what other organizations do in Vienna, Member States offer to provide the statement in one of the official UN languages that they deliver the statement in. If they are of course able to provide translations, then that is always welcome, but it would not be up to the Secretariat to translate the items if the statement is in a language that unfortunately I or others may not understand, then that is just life.

Thank you.

The PRESIDENT: Thank you very much, distinguished delegate of the United Kingdom. I fully sustain the possibility to use as much as possible the new technologies we already have at our disposal and to let people have as much access as possible to all information in an electronic form.

The distinguished representative of China has the floor.

Mr. Yu XU (China): Thank you, Mr. Chairman for giving me the floor.

We do have a suggestion on paragraph 3 of Non-Paper 3. Before saying that, I would like to congratulate the Secretariat on making efforts to make progress on this very important issue.

Under paragraph 3, we would suggest that before "take into account" should be added ", in close consultation with the chairmen of the COPUOS subcommittees," because it seems clear to me that the Secretariat should work closely with the chairmanship of those committees as their subsidiaries, although at the same time they will have maximum flexibility in managing the work, but we should consult with the chairmanship.

After that, I would have a very simple suggestion. Although we have a cross-reference to A/AC.105/958, if we can, I would like to see a clear-cut and concrete recommendation to the information in this document, rather than have a cross-reference to paragraph 3 as 17, because I looked at paragraph 17 and the wording is quite weak(?), although sometimes the constructive way should be weak, but we do have to have a clear idea of what is the recommendation because the Secretariat helped to implement. We have had many suggestions on how to organize the work, but we should have a clear idea of what is the recommendation for the Secretariat to implement in the next year. So perhaps we should instead have a cross-reference to a document rather than have a clear wording of the recommendation in this document.

Thank you, Mr. Chairman.

The PRESIDENT: Thank you, distinguished representative of China. I will ask the Secretariat to redraft … The Secretariat ask if you propose exactly to put the paragraphs as they are in the document A/AC.105/958 here in the Non-paper 3, with the wording from the document 958, or do you propose to change the paragraphs here in the document and edit some wording reflecting more or less paragraphs 17 and 18?

Mr. Yu XU (China): Thank you, Mr. Chairman.

My reading of paragraph 17 is that there are many ideas mentioned in this paragraph, and my suggestion is that you to have a streamlined idea of what is the recommendation plus the one concerning the symposium. I am not sure whether it also applies to the full Committee, but there is also the regiment of items, whether they should be opened in a timely and balanced manner. My feeling is that that those will become quite weak, it is not practical. So it is hard for the Secretariat to implement. I am not sure whether there will be any changes into next year, although you have very good recommendations.

My suggestion is when we have clear-cut recommendations, whether we should open all items in the first day, whether the symposium will be in the next week, the second week, although whether we should have a five, seven or six-slot statement under one item, rather than limiting the number of slots, because that is too weak, whether the recommendation has been implemented or not.

So I think we all agree and support the suggestion by the Italian delegation to have an informal working group on the organization of the work.

Thank you, Mr. Chairman.

The PRESIDENT: Thank you, distinguished delegate of China.

So, I give the floor to the Secretariat to read the paragraph and to be more specific with what the Chinese delegation asked them.

Mr. HEDMAN (Secretariat): Thank you, Mr. Chairman.

What could be done if I understand the points raised by the distinguished delegate of China – what would be needed in regard to paragraph 17 of the Scientific and Technical Subcommittee report? It would of course have to be …….(?) so that when the issue on the symposium is applicable to the Scientific and Technical Subcommittee and Legal Subcommittee, so that has to be inserted then. I would say include the possible scheduling of the symposium during the second week as appropriate, use the time with the Scientific and Technical Subcommittee and Legal Subcommittee in that regard.

Then to the next element, to enable the Committee and its subcommittees to commence its consideration of all the items of the provisional agenda in a timely and balanced manner, and then the Committee agreed that the possibility of scheduling the item entitled "General exchange of views" over a longer period during the session and of limiting the number of slots for statements during the meeting should be explored. And that should relate both to the Committee and to the two subcommittees. So paragraph 17 should be inbuilt into our report of the Committee, but it should be clear that in certain cases it only applies to the subcommittees and in other cases both to the Committee and the subcommittees. But the substantive message of paragraph 17 is the one that we have.

The CHAIRMAN: It is correct what you wanted to express, distinguished representative of China?

Mr. Yu XU (China): Thank you, Mr. Chairman for the information given from the Secretariat, although it is not as full and as constructive as I had asked, as we want it more clear because how many statements you will allow the Secretariat to arrange for next year's session for each meeting, but since we can not agree on that, then we can agree you just incorporate those items from this paragraph 17 into the Non-Paper.

That is half of …….(?), because the ……..(?) should be explored or in a timely and balanced manner. For us, I do know what you can do it in a timely and balanced manner if we want to have a clear idea, because during the session we heard many suggestions, and some suggested that all items should be opened on the first day and then you can have all the ideas for debate using your time more wisely. And there is also some suggestion that you should limit those items within the first two days and then you close it, you start a new item. So these are quite conflicting suggestions.

So I can not agree with the text, but I think the Secretariat has to do a lot of work to think about how to implement this recommendation, because it is quite weak. It can work this way, but it also can work that way. So I so hope that we can make progress in the next year's session, but with such a weak recommendation I think we still have work to do on that.

Thank you, Mr. Chairman. We can not agree with the text.

The CHAIRMAN: Thank you, I think this would be the role of the informal consultation group, working group, on the organizational matters to start during the next Scientific and Technical Subcommittee to analyse and decide together with all Member States interested in optimizing their time. I think everyone is interested in optimizing their time and the resources of the Committee and of the sessions. I think this would be the duty of this informal working group that we all have agreed to organize starting with the next session of the Scientific and Technical Subcommittee.

Thank you, distinguished delegate of China.

The distinguished delegate of Ecuador has the floor.

Mr. ROSENBERG (Ecuador): Thank you very much, Mr Chairman. I will be very brief.

I just wanted to support a proposal that had been made by my colleague from the United Kingdom. I do think it is important what she said. She proposed that the statements should be made available to the Secretariat electronically so that we could have them shared.

I wanted to stress this because I think it is a very useful idea, and I would not want that to remain dead letter, or get lost, and it would be good if the Secretariat could help us in this way. As the United Kingdom said, we do have certain statements already in an electronic form. It is very useful to have them that

way because we can transmit this information to our capital. It is sometimes very difficult for delegations to have all the statements in due time, and I think that this would be very valuable in facilitating the work of delegations, so please do this to the extent possible.

The CHAIRMAN: Thank you, distinguished delegate of Ecuador. Surely we could include in the reports the opinions of some Member States to have in an electronic form given to the Secretariat the statements and to be posted on the website of OOSA. Thank you.

Are there any other comments, proposals?

The distinguished representative of Switzerland, please.

Ms ARCHINARD (Switzerland): Thank you very much, Mr. Chairman.

Here I am referring to Non-Paper 3, which has been tabled by the Secretariat. I would like to thank them certainly for their efforts and the work they have put into these very important issues which are relevant to the improvement of our work methodology.

The two first paragraphs of Non-Paper 3 refer to paragraph 17 of document A/AC.105/958 and Annex I thereof in particular. This is a paragraph which has already been flagged by the distinguished representative of China, and we would like to make a comment in support of what he said.

The last two proposals in paragraph 17: "… the Working Group agreed that the possibility of scheduling the item entitled 'General exchange of views' over a longer period of time during the session," – the first statement; the second is as follows: "and of limiting the number of slots for statements per meeting, should be explored."

It seems to me that the discussions that took place yesterday and are on work organization demonstrated that there was a lack of consensus on these two proposals, and for that reason I really wonder whether it is appropriate to refer in our report, in the COPUOS Plenary Report, to the entirety of this paragraph 17, since there is no consensus.

I hope that I have been clear. If not, I will be ready to explain the gist of what I have just said.

Thank you.

The CHAIRMAN: Thank you, distinguished delegate of Switzerland, for your comment.

I give the floor to the distinguished representative of Venezuela.

Mr. BECERRA (Venezuela): Thank you, Sir.

Of course we would like to join in with the representative of Switzerland – unless I am mistaken, that was the statement made just now – and we support the various views as described by China. But we need to seek solutions because criticism is one thing, but a solution is another.

There was no consensus in terms of confining and limiting the number of delegations, but what we can say is that we can restrict the time, so instead of restricting how many delegations may speak, we could start by timing the statements, and that could expedite matters. And then the working group could then of course analyse clearer conditions, but we focus on the time issue, and if we were able to comply with the time limit, ten minutes for example, we could gain in terms of efficiency. That is something that we might say in order to make headway and not to place any restrictions on our discussions here.

Thank you.

The CHAIRMAN: I thank the distinguished representative of Venezuela.

What I propose is to reflect in our report of the Committee views concerning paragraph 17 of the Subcommittee and to reflect of course Non-Paper 3 with the amendments that were already proposed.

I am giving the floor to the Secretariat to explain the meaning of paragraph 17 that we had in view during the Scientific and Technical Subcommittee.

Mr. HEDMAN (Secretariat): Thank you, Mr. Chairman. Yes, certainly I will do that.

The background to paragraph 17 was a discussion held between the Secretariat, the members of the bureau, the so-called G-15 group, and the Chairman called the Working Group of the Whole. As many of the delegations here in the room will also have had an experience of, is that during the subcommittee, particularly the Scientific and Technical Subcommittee, this year we were not able to start the

substantive items until late in the first week, because we had such a long list of General exchange of views, and the Secretariat was of course approached by certain delegations with criticism that we were not able to start the substantive debate under the substantive items. The Secretariat is not in a position to reject any delegate to speak under any of the items. I want to make that crystal clear.

This experience that we faced in the Scientific and Technical Subcommittee led to this last element of paragraph 17, so that a way of scheduling the General exchange of views over a longer period of time could be explored. We have seen now during this particular session of COPUOS it is scheduled for two days, but we had to reopen it all the way up to the second week because there were requests from delegations to speak later than it was scheduled, and this is fine. And we can also see that in this COPUOS, during the session we have had a couple of or five statements under the General exchange of views or only three statements all the way up to the second week. That is also fine, but to have 15 statements in two days each morning and afternoon session means that we are not able to start the substantive discussions.

So this was the reason to give the flexibility to the Secretariat in close consultation with the respective Chairs of the sessions to see if there would be any possibility of scheduling General exchange of views over a longer period of time to allow the two subcommittees and the Committee to start with the substantive items earlier. This was just the way that was actually the background to this proposal.

I am now going to ask the Deputy Secretary to deliver her report.

Ms RODRIGUES (Secretariat): The other experience that the Secretariat notices from the General exchange of views is delegations have in recent years had a tendency to put the bulk of their views, even on the substantive items, under the General exchange of views, which for the Secretariat is not a problem per se, but then you will find that the General exchange of views is very heavy in the number of statements. We had over 50 statements at S&T just on the General exchange of views. But then you find that when we get into the substantive items, those delegations who have already expressed their views very clearly in the conduct of the General exchange of views do not then come back under the substantive items and repeat those views, because they have already presented those views.

So you have a very heavy General exchange of views and as you work through the rest of the agenda you will find that on some agenda items you might have two delegations speaking. So we battle with that balance. At the beginning we want to get to the substantive items, but we can not because of the General exchange of views, and then as you get deep into the session you find that delegations actually do not re-bring up the statements, and then of course the pace of the work does slow down, and we get into a more acceptable pattern of having to deal with time-management issues.

So that is the background as to why we thought, well, if we spread it out a little bit – and when we mean by limiting statements we do not intend to say "No" to anyone, we are just trying to say "Let us do a few every day" which means that we can bring other items up and allow delegations who do have the experts here for that particular day to then address those issues and we spread it out, it means that we will have to maybe discuss with delegations and say "Look, we are already filled up for today. Do you want to go tomorrow, tomorrow afternoon?" But at least you would know that we have more or less scheduled it for a particular day and you could also do your planning accordingly.

This is the background to our experience, and now I suppose we are in your hands.

The CHAIRMAN: So is that clear with the explanation of the Secretariat?

I have on my list Mexico first, Switzerland and then Spain.

Mexico has the floor.

Mr. CAMACHO LARA (Mexico): Thank you, Mr. Chairman.

This delegation thought that the clarification we received from the Secretariat was extremely useful, so all we need to clarify now, because apparently there was a misunderstanding, is that we heard some delegations make reference to limits placed on the number of countries making statements, and that would be the last sentence.

With the clarification provided by the Secretariat that is not the case, we see. Rather that in a particular meeting the Secretariat might point out to delegations we are now considering a new item, your

statement will be taken this afternoon. That was my understanding. Is that my correct interpretation of what the Secretariat was conveying?

The CHAIRMAN: Please, distinguished representative of Mexico, repeat your question to the Secretariat to understand exactly what you wanted to say.

Mr. CAMACHO LARA (Mexico): First, what I was saying is that the Secretariat's explanations are much appreciated by this delegation, because now it appears clear how we should interpret the last line of paragraph 17 as it appears in Non-Paper 3. And I merely was asking for confirmation from the Secretariat as to that this means that rather "We do not wish to restrict statements made by delegations" but rather that the Secretariat might tell a given Member "We are now going on to a new agenda item and your statement will be delivered this afternoon", because I get the impression from some statements that – and we have not said this, my delegation has not said this – but from other statements I get the impression that "We will be placing restrictions on how many delegations may speak".

I was merely asking the Secretariat for clarification and confirmation of the fact that it is just the scheduling, the arrangement in terms of the meeting of statements made.

The CHAIRMAN: Thank you, distinguished representative of Mexico. That is exactly what the Secretariat just said before. If you want, the Secretariat could repeat.

Mr. HEDMAN (Secretariat): Thank you, Mr. Chairman. Yes, by all means. That is a correct understanding of what the Secretariat said. It is the scheduling we are talking about. The Secretariat cannot restrict any statement or restrict the right to any delegate to speak during the session. It is only a matter of scheduling the statements, and this is what we are talking about.

Thank you, Mr. Chairman.

The CHAIRMAN: I thank the Secretariat for this information.

I give the floor now to the distinguished representative of Switzerland.

Ms ARCHINARD (Switzerland): Thank you, Mr. Chairman.

I would like to thank the Secretariat for its very clear explanation on this, and we would like to fully support this proposal.

We are totally in favour of imparting more flexibility to the Secretariat to enable better organization of our work, and the measures mentioned in paragraph 17 are among those lines.

We have noted that Non-Paper 1 has been issued to us by the Secretariat way in advance of the meeting and item 16 I think was opened before item 15 was, and the Swiss delegation is perfectly in favour of this sort of procedure when it is a matter of discussing a subject which we all know ahead of time is going to be headed for heavy discussion. We just like to indeed encourage flexibility on the part of the Secretariat and may they continue to exercise this flexibility, certainly.

Now to get back to the proposal made by the distinguished delegate of Venezuela on this matter of the time allowed for statements, the length of statements, we would encourage the Secretariat as well as the Chair to be stricter in applying the rules in force. This concerns the general exchanges certainly. I believe that the general rule says it should not take longer than ten minutes for a statement. I think that delegations should seek to abide by this rule, but it is also up to the Secretariat as well as the Chair who are guiding us in our work, through our sessions, to make sure that this rule is complied with.

Thank you very much.

The CHAIRMAN: I thank the distinguished representative of Switzerland for her comments.

We could reflect in our report the proposals made by at least two delegations to recommend to Member States to limit the time to ten minutes.

I give the floor now to the distinguished representative of Spain.

Ms ZABALA UTRILLAS (Spain): Thank you, Sir.

My delegation supports the suggestion to have the General exchange of views organized in keeping with paragraph 17, because of the imbalance that the Secretariat was referring to in the exchange of views on the one hand and the time it takes then on the technical items on the other hand. Perhaps the Secretariat could prepare some recommendations for the consideration of delegations as to how they should

best structure their statements so that in the General exchange of views we could only briefly mention the items that would then be considered in greater detail when we take the individual technical items.

Thank you.

The CHAIRMAN: I thank the distinguished delegate of Spain for her proposals. It means you ask the Secretariat to teach the Member States how to organize their statements to last only ten minutes.

Ms ZABALA UTRILLAS (Spain): In fact, this is a proposal I am merely echoing. I think I heard it from someone in the Secretariat.

The CHAIRMAN: Thank you, distinguished representative of Spain.

The distinguished representative of the Czech Republic has the floor.

Mr. KOPAL (Czech Republic): Thank you very much, Mr. Chairman.

I have read once again paragraph 17 of Annex I of the report of the Scientific and Technical Subcommittee, and I would like to refer also to the end of this particular paragraph. I could support the idea of extending the possibility of scheduling the item General exchange of views over a longer period of time during the session.

In our actual practice we limit the General exchange of views to two days only, but it is not practical, because it is never honoured completely. We then allow further general contributions to the discussion the next day or even next week, and this practice should be stopped. We should have more time for the General exchange of views, perhaps three days or three and a half days if you wish, but then we should stick to the fact that the General exchange of views is over. If somebody is not ready to do it during this scheduled time, he will have no other possibility and then simply omit their contributions to the General exchange of views.

This is one point that I would like to suggest. The other point is that we should make an appeal to delegations and include it in the report that the General exchange of views in addition to a summary of information should deal only with general problems of the session, not with detailed questions of the agenda. And at the same time make an appeal that the delegations then explain their particular views on the individual items of the agenda during the discussion on these items, and not to bring it in the beginning and then simply remain silent during the particular discussions.

This is my second point, and my third point is that I still do not understand completely what is meant by limiting the number of slots for statements per meeting. I do not know if it is wise to make such a limitation.

So this is what I wanted to say. Thank you very much. And of course as to the General exchange of views I fully agree with the limitation of ten minutes. This is a very good measure which we should indeed use in practice.

Thank you.

The CHAIRMAN: Thank you, distinguished representative of the Czech Republic.

We will include all these views in the final record of our Committee with the recommendations made by the Member States.

Distinguished delegates, all opinions expressed this morning here will be accordingly reflected in the Report of the Committee.

Now we start the technical presentations.

We have a request from Tunisia that they want to address the Committee with some words of thanks for their acceptance as a full Member of the Committee.

Tunisia, you have the floor.

Mr. CHAOCH (Tunisia): Mr. Chairman, thank you.

Ladies and gentlemen, distinguished Members of the Committee, I am pleased and indeed honoured to address you at the end of your session to express our appreciation for having accepted the candidature of Tunisia. I would like to thank all Member States that supported our application. Furthermore, we really appreciate the efforts deployed by Ms Mazlan Othman and Mr. Hedman in the interest of facilitating our task.

Having adhered and acceded to this Committee, Tunisia is in a position to say that we will spare no effort to promote space technology, to put it at the very service of development that is sustainable and to bring about better living conditions. We will do our utmost to keep outer space an area of peace where

there is tolerance for the generations to come and prosperity for mankind in future.

Thank you, Sir.

The CHAIRMAN: Thank you very much, Your Excellency, for your words of thanks. We congratulate Tunisia for being proposed to the General Assembly to be approved as a full Member of COPUOS.

Global Lunar Conference: Presentation by Mr. Lipeng Zhou (China)

Now, distinguished delegates, I would like to give the floor to Mr. Lipeng Zhou of China, who will give a presentation entitled "Global Lunar Conference".

Mr. Lipeng Zhou (China): Thank you, Mr. Chairman.

Mr. Chairman, distinguished delegates, it is a great honour for me on behalf of the Chinese delegation to address the distinguished delegates on the Global Lunar Conference. It is timely and important to hold the conference for three reasons. As Professor Berndt Feuerbacher, the President of the International Astronautical Federation, IAF has said at the conference.

First of all, the moon is scientifically an extremely interesting body. With no weathering or plate tectonics it presents an open history book of our planetary system, recording and preserving 4.5 billion years of development and innovation, particularly important in the present time of economic uncertainties.

Thirdly, space exploration is an exciting challenge for nations to work together with a common goal and thus stimulate global cooperation and peace, and China's rapidly evolving space programme and their achievements in the Lunar Conference were the reasons to choose Beijing as the venue. As Mr. Bernard Foing said in the meeting "Welcome to Beijing, this is the capital of the moon during the Conference".

As we all know, space technology plays a more and more important role in human daily life and lunar exploration is the focus of the world. Space exploration is a global undertaking, international cooperation in space exploration including for the moon is extremely important, so it is very necessary to have a platform for exchanges and cooperation in the lunar field, and with the principle of the peaceful utilization of space, China has successfully implemented the first lunar exploration of Chandrayaan-1, fulfilling the dream of the Chinese people for thousands of years. At this moment with Chandrayaan-2 setting up, China is advancing at full speed in lunar exploration.

So here is the best information for the GLUC. The co-organizers: the International Astronautical Federation, IAF and the Chinese Society of Astronautics, CSA. The time and the venue: the conference was held from 31 May to 3 June 2010 at Beijing Friendship Hotel. The conference aims were: first to strengthen international academic exchanges on lunar exploration; second, to boost the development of lunar science and technology; and third, enhanced related cooperation. After the meeting many recommendations were made and based on these recommendations we can have the different area space sectors and different stakeholders to be viewed at a global village in the world in the cooperation of international lunar exploration.

The topics of the conference were as follows: including the lunar exploration for science aspects and lunar exploration for technology and robotic aspects, human missions in life sciences, lunar habitants and architecture, economic and social impact, culture and education, and the legal issues and Moon Treaty, and lastly international cooperation.

It was a truly global conference with about 450 participants from 26 countries and regions, including an important delegation of key decision makers from space agencies, including CNSA, ESA, NASA, RFSA, CSA, DLR and JAXA and also representatives of industry, scientists and experts and young professionals, students and the press.

The programme from 31 May to 3 June: there were opening ceremonies, a Beijing technical visit and a plenary event. On 4 to 5 June there were technical sessions and the Shanghai technical visit. Of course, we also had other activities including a welcome reception, youth events and a gala dinner.

The pictures here show the opening ceremony on 31 May and the welcome address in the opening ceremony by Mr. Chen Qiufa, Vice Minister for Industry and Information Technology. He said that the Chinese Government has always strived for peaceful utilization of outer space and said that may go to serve economical society and benefit mankind by using space technology. China will continue to support the activity of the peaceful utilization of outer space in future on the basis of equality, mutual benefits as well

as common development. China hopes to join other countries and spare no efforts to promoting human peaceful development and technological progress.

Presentations also were made by Mr. Berndt Feuerbacher, President of the IAF, and Mr. Ma Xingrui, President of the Chinese Society of Astronautics, Mr. Bernard Foing, Executive Director of the International Lunar Exploration Working Group, and Jean-Jacques Dordain, Director General of ESA.

Here we have the plenary event. Plenary 1: What are the plans? Space agencies presented their programmes and their ongoing activities and collaborations. The next decade at the Moon will include orbiters, landers and rovers from various sources. The question of how we coordinate the construction of such a global lunar village is very important.

Plenary 2: Results from Recent Missions. Space agencies made the highlights from SMART-1, Chandrayaan-1 and other programmes. New data has helped us to unveil a new view of the Moon, bringing some surprises on the lunar crust, impact basins and hydrated materials. The scientific results and discoveries for future explorations will bring great impact.

Plenary 3: From Space Stations and Robotic Precursors to Lunar Bases. The following questions were discussed under the plenary. How can we use space stations and lunar robotic precursors to prepare the technical challenge and collaborative framework for future exploration? What technologies and critical elements are needed for lunar outposts and sustainable habitats? How can human-robotic partnerships be used to develop and build a long-term presence on the Moon?

Plenary 4: Moon for Society, Public and Youth. The Moon is a challenge that expands human knowledge, technical development, utilization and opportunities. It is highly necessary to inspire and engage the public, especially youth, in lunar exploration.

There were about 335 papers on 32 technical sessions in the conference. You can get them at the website www.gluc2010.org. There was a special session about using them.

IAF and the Chinese Society of Astronautics, CSA, attach great importance to the youth social activity, hoping that the communication of the global young students and scientific and technological workers in the field of aerospace can be strengthened, and more youth are inspired to go in for an aerospace career. The youth social activity is composed of two parts, which are subject reports and academic communication. About 400 international students and youth professionals attended the youth event.

So this is the host city, Beijing, this is the Olympic stadium, this is the national theatre, and this is the Great Wall, that is the Forbidden City and the summer palace. This is the venue, Beijing Friendship Hotel.

Thank you, Mr. Chairman.

The CHAIRMAN: I thank the distinguished delegate of China for his presentation.

Are there questions or comments? I see none.

The second presentation that will be held this morning will be by Mr. Steffen Fritz of Austria, IIASA, who will give a presentation entitled Global land cover validation tool, Geo-wiki.org.

Global land cover validation, Geo-wiki.org: Presentation by Mr. Steffan Fritz, Austria, IIASA

Mr. FRITZ (IIASA, Austria): Good morning, Ladies and Gentlemen, dear Chairman and dear distinguished Members of the Committee. As already said by the Chairman my name is Steffen Fritz, I am from the International Institute for Applied Systems Analysis, which is just based 20 kilometres outside Vienna in a town called Laxenburg, very close to here actually.

My topic seems maybe to be a bit different from what the other technical speeches are all about, but the big plea I want to make is to focus also on monitoring the Earth. As we have heard, monitoring the Moon and getting information about the Moon is very important, but to better know our Earth and the land cover specifically of our Earth can be very interesting as well and challenging, and there is still a lot of work which needs to be done.

This is especially the case looking at the current biofuel debate. This has been going on now for quite a while and has been very controversial, and the bottom line of this debate is that if we really want to grow biofuels, we need to grow those biofuels not so much on the currently very productive land. If we do not want to have an influence on food security we want to keep the prices of food crops relatively stable.

So what we need to do is we need to identify places and lands which are marginal where currently

maybe there is nothing or not much grown and we need to better explore our Earth, especially in developing countries where resources are not available to produce very high resolution land cover maps.

So our motivation at IIASA was to really look at the current land cover products and the current uncertainty we faced when we ran global economic land use models, where we tried to predict the future prices of crops due to those developments with respect to certain policies we can have in terms of climate change mitigation. REDD, for example, or a certain biofuel policy, but in order to run those models well and to make appropriate predictions for the future we really need to know the land base better.

That was our motivation – why we started this whole exercise on Geo-wiki.org, where we visualize primarily the current available global land cover products and where we also give people the facility to zoom into areas and to explore those places themselves on top of Google Earth and to validate those places. This can be especially appealing also in the wider framework of capacity building and making the general public aware of the importance of global land cover and involving the public in land cover validation.

I want to show you and to demonstrate to you now – although before I demonstrate to you how the tool actually works, I would like to give you a little bit of background information on what IIASA actually is, because you might just want to know what IIASA is all about.

IIASA was founded in 1972 and it is an international organization that conducts policy-oriented research into problems that are too large or too complex to be solved by a single country or academic discipline. Problems like climate change that have a global reach and can be resolved only by international cooperation, action or problems of common concern to many countries that need to be addressed at the national level such as energy sufficiency, population aging and sustainable development. Currently IIASA has 16 member States and nearly all continents are represented.

I want to go now into the actual land cover validation tool and show you a little bit how it works. As I already mentioned, it is on top of Google Earth but it allows you to explore land cover yourself, it allows you to visualize the current highest areas of uncertainty and it allows anybody to give their vote to validate a specific pixel. It goes down to the pixel level and it can request expertise from the general wider public interested to some land cover global validation and remote-sensing experts.

Of course the big issue is the harmonization and the definition of those land cover products which currently exist and it is not always so easy to find a common and harmonized framework to classify land cover, but if we just look at the current available most recent land cover products which are MODIS, GLC and Globcover – Globcover the most recent one, I think there will be a new release of Globcover in 2010 of the 2009 Globcover product coming out quite soon – the challenge is to really get pixels right at the national and subnational level. This is of course a big challenge and the resources are simply not sufficient and it is also not the main objective of those global products to be really correct at the local level. However, if we really want to better understand the land base, if we want to know the additional extra land somewhere available and where the yield gaps are, we need more detailed local information.

But if we look at the current products like GLC, Globcover or MODIS you will discover that there are quite some significant discrepancies and uncertainties. This can be visualized on this Geo-wiki.org platform and they are specifically highlighting disagreements in the cropland as well as the forest domain and there is a legend always attached to it. Unfortunately from this distance I am looking at you can not really see now the legend, but the general concept should still be clear.

We can also go to the country level and visualize the different area statistics for cropland and forest, comparing it also to the FAO figures. I want to just give you an example, you can for instance click on Sudan and you will get the statistics for FAO cropland and forest areas as well as what the different global land cover products report, taking into account also different legend definitions. For example, GLC says cropland means 50 per cent cover of the pixel to up to 100 per cent. So taking all these ranges into account, you will still find that there is still some quite high inconsistency and just picking on one country like Sudan, which does not mean that this is a – you know, I am not blaming Sudan, but if you look just at the FAO figure you will see that nearly all global land cover products actually report or will find less forest cover and that is probably an issue – the core question is of course the definition and there is a lot of harmonization and agreement needed.

But this is just to highlight that these inconsistencies can be visualized also with the tool we have developed. You can zoom into areas of high disagreement like Malawi and you can also explore pictures which have been taken on the ground, and we have collaborated with the IIASA-funded project

global monitoring for food security, where more than 1,000 geo-reference geotech pictures have been systematically collected and you can then, you know, look on those places where the disagreement is highest. You can zoom in yourself, you can go to the pixel arrow of each of the GLC, the Globcover as well as the MODIS product, you can read out directly the land cover information, and you can judge yourself what is correct and what you see and what the dominant class in those pixels is or if it is a moss site. In this case it would not be so well visible here, a cropland, and you can then start correcting at specific points.

The overall aim of this is to really come up with an improved product by combining all this information and to produce a hybrid map where we use those validated points. You can visualize those pictures, you can really see that there is maize grown at this specific location and this is clearly cropland, so in that case the land cover which reports cropland would be correct at this specific pixel.

We also visualize the contributions and how many pixels and where have been validated and we would wish to have more a broad community involved in this, so if you have colleagues interested in land cover, land cover mapping which produce land cover maps also on a local or regional level, we would be very happy to collaborate. IIASA is going to most likely host a workshop next year in January where these issues are going to be discussed and where we try to really collect more of these land cover validation points. We are also of course working together with the GEO Group on Earth Observation, as well as the CalVal validation team of CEOS.

The conclusion is that the community remote sensing can help to gather important information on land cover and there is a big potential for the future, especially if we manage to really involve the wider public. Social networks are really picking up very powerfully at the moment and you know, nearly every young person is registered on Facebook. This can be a big potential for spreading the importance of land cover mapping and remote sensing, but also there are some potentials to develop some games which, you know, show when someone has validated the highest number of areas correctly. Then we can give them a prize or we can establish and build some competitive games where we can actually collect important information.

Of course, there is the issue of quality: how can we make sure that this data which is provided has a certain standard and a certain quality? But we have some ideas, especially with frequency distributions, to tackle those issues and of course also we are at the moment more looking at static maps and the changes over hima(?) is also a big issue which needs to be addressed, and we will hopefully tackle that in the future.

Thank you everybody for the attention.

The CHAIRMAN: Thank you, Mr. Fritz, for your presentation.

Are there any questions or comments on the presentation made by Mr. Fritz? I see none.

The third presentation that we will hear this morning will be by Mr. Alexander Romanov of the Russian Federation, who will give a presentation entitled Space geospatial data utilization for complex diagnosis of earthquake precursors.

Space geospatial data utilization for complex diagnosis of earthquake precursors. Presentation by Mr. Alexander Romanov, Russian Federation

Mr. Chairman, distinguished delegates, thank you.

I am representing the Russian Corporation for Outer Space Design Development of Space Technological Systems. My name is Alexander Romanov and I wanted to speak to you about the work going on in our country with regard to using space geospatial data utilizing such means for diagnosing earthquake precursors.

Usually in doing this sort of work, just one single parameter is focused on and others are disregarded. We believe that this is not a quite proper approach to this sort of study and this is why we believe it is necessary to have a comprehensive study comprising as many characteristics as possible in order to determine the anomalies which may be connected to seismic events and to analyse these events with a complex model, and in this fashion probably diagnose earthquake precursors.

In the course of our study, we worked the so-called lithosphere atmosphere of the ionosphere interaction model, that is the LAIC acronym that we have here, which indeed seeks to explain the nature of anomalous events in the parameters considered. As a result of the deformation of the Earth surface in the area where an earthquake is going to be taking place, there is radioactive gas emitted, radon, which ionizes the atmosphere right above the surface of the Earth and this has various effects which disturb the ionosphere

and also make for various anomalies in the cloud cover around this area, and of course, these processes can be registered with the use of spatial data.

Now this approach was successfully made use of in experiments run in the far east of the Russian Federation. Here on this slide you have presentation of the experiment. Special stations were set up in three places, in three parts of this area and there was also a collection of extra information on anomaly structures on helio-physical points as well as on the Earth surface temperatures which were recorded. At subsequent stages of the project we are also going to be working on data from the Dmetr, for example, the Dmetr spacecraft as well as SAR interferometry.

During the experiment, a fairly heavy seismic event with an 8 magnitude took place. The main event was 8 and that took place on 2 August 2007. A posteriori analysis of the information supplied showed the fact that there is disturbance in the LAIC system, there were three parameters in the space of one week that showed anomalies and indeed two or three days before the seismic event took place all of these anomalies were to be observed.

Here on this slide you have the anomalous cloud structure which appeared from the Terra and Aqua satellite imagery. These were noted on the ellipses and here you have a red ellipse which shows you exactly where this was observed.

On the basis of the meteorological information, the METDATA, we have anomalies in the temperature's humidity right over the pre-seismic area, precisely in the time period that I have referred to, and indeed the pent-up heat is being actively released probably as the radon ionizes the air right close to the Earth surface. We have an anomaly in the trail of the radiation.

On the basis of the analysis of the signal systems produced by the GLONASS GPS system we were able to compute an index of ionospheric changes in the region under study and indeed there were other precursors noted because of the geomagnetic index disturbances.

Here you have the spatial geophysical and ionosphere electron concentration distribution. You see these ellipsoid structures which are roughly 200 kilometres in size and we have electron concentration to be noted, which is roughly twofold the usual background concentration.

Now, some brief remarks on the prospects of this sort of study in the future. Given the fact that the precursors are transboundary phenomena, of course it is important to have international cooperation in studying these precursors. If supplementary stations were to be set up in Japan, this would allow us not just to expand the area of study to yet another very seismically-prone area, but would also limit the errors made in calculating electron concentration and would improve the accuracy of the distribution of concentration measurements.

The next logical step in this work would be to set aside the land-based segment for the measuring methods used and to rather mount the equipment, the sensor equipment, on board spacecraft. A prototype of this sort of spacecraft could be indeed the line of small nano-satellites developed by our Corporation. Here on this slide you have the TNS-0 and 02 satellites; the TNS-0 was launched in 2004 already. A very interesting experiment was actually run on guiding it with the Globalstar system used. On the right you have the control centre for this sort of satellite. There is a telephone and a laptop with the Globalstar system incorporated.

Since the receivers used are more power intensive, you need a slightly bigger platform. As a prototype we could use a satellite which we have also developed by our Corporation which is called the TNS-1. This is what you see here on this slide. The basic conclusions now are presented on the slide.

I would like to point out that the comprehensive approach in doing work on earthquake precursors presented in this report has been actually used in a joint Russian-European project on-going. This has already been approved of by the European Commission and it will be implemented in the framework of the FP No. 7.

Thank you very much for your attention,

The CHAIRMAN: Thank you, Mr Romanov.

Are there any comments on the presentation made by Mr. Romanov? I see none.

The fourth presentation that we will hear this morning will be by Mr. Gowrisankar of India, who will give a presentation entitled Space education: international outreach activities of India.

Space education: international outreach activities of India: Presentation by Mr. Gowrisankar, India

Thank you, Mr. Chairman.

Through this presentation, the Indian delegation would like to give an overview on the outreach activities pursued by India in the field of space education with the international community.

India, through the Department of Space, Government of India has created two institutions for capacity-building and human resource development. The Indian Institute of Remote Sensing at Dehradun and the Indian Institute of Space Science and Technology at Thiruvananthapuram are helping not only in wider acceptation of space technology but also in shaping the future generation to take up careers in space technology.

In addition, India is proud to host one of the regional centres affiliated to the United Nations, the CSSTEAP. The activeness of these three centres in general and the international collaborative aspects in particular will be presented here.

To start with, the regional centre of the United Nations. The regional centres for space science technology and education are established by the efforts of UN-OOSA to translate the UN General Assembly resolution 43/72 of 1992, Inter-operational programme. The centre is set up to offer the best possible education research application programmes, opportunities and experience to the participants.

The first such centre was established for the Asia and Pacific Region with India as the host country in November 1995. As of today, 15 countries have signed the agreement on being a member of the Governing Board.

The centre is meant to cater the needs of 55 countries of East Asia, South-East Asia, South Asia, Central Asia and the Pacific. CSSTEAP takes advantage of technical manpower in its three major centres of the Indian Space Research Organization located in Dehradun, Ahmedabad and apart from the fixed assets like the building, equipment and living infrastructures, more than 93 per cent of the operational cost of this centre is funded by the host country.

The activities are coordinated by a governing board which consists of representatives from the member countries and observers from UNOOSA and the ITC of the Netherlands. It meets every year. It has its headquarters at Dehradun and the two centres are supported from Ahmedabad. It offers nine-month postgraduate diploma courses in four major fields: the Remote Sensing and Geographic Information System is a highly popular course which is offered very year; whereas the other three courses on satellite communications, satellite meteorology and space themes are offered once in two years.

The successful completion of this nine-month course enables the candidate to get a postgraduate diploma offered by CSSTEAP and further they have the option to pursue getting a Master's degree which is given by one of the major universities in India, Andhra university or a one-year follow-up project in their home country or in India with a Fellowship. In addition, there are many short-term courses and workshops on specific themes conducted by this regional centre. As of now, 33 postgraduate diploma courses are being conducted, as you can 14 are in remote sensing and geographic information, seven in satellite communications, six in satellite metrology and six in space science. Additionally there are 22 short courses for the benefit of 374 scholars being conducted.

Currently, the 15th postgraduate course on remote sensing and geographic information systems is going on, will be concluding shortly in a month's time, and the 16th course will be starting from July. The 8th course on satellite communications is starting in August and also a short course on remote sensing and GIS will be held. In total, 928 professionals from 48 countries which includes 28 from 17 countries outside the Asia and Pacific region have benefited, and it worth noting that an average of 65 professionals per year are in instruction or getting training in this institute.

Coming to the international linkage – this centre has evolved over the years, it has well-developed linkages with Indian and also with international bodies. The faculty is drawn from well-known institutions including Indian……(?) technology apart from the ISRO, the Indian Space Research Organization unit, and also gets a lot of travel support from many Indian government organizations. As I mentioned earlier, Andhra University recognizes the curriculum of the CSSTEAP and provides partial support for the M.Tech programme. Coming to the international indicators, it takes the benefits through support in cash for fellowships and travel from many UN agencies and an important international interest is with ITC of the Netherlands where the academic and faculty support are provided and also, like Andhra University, it recognizes the curriculum of the partial M.Tech programme.

There are many other bodies which support the student exchange(?) programme and also offer scholarships and guest faculty.

Coming to the other centre, it is created by an Indian space programme under the Department of Space. The Indian Institute of Space Science and Technology is a relatively new institution created in 2007 as a centre of excellence in education by integrating research in the high technology areas of space science and technology. It is the first professional space university in India and the third of its kind in the world. It offers an under-graduate programme, a postgraduate programmes, doctoral and post-doctoral programmes in space science and space technology. Aerospace engineering, avionics and physical sciences are the areas of the under-graduate programme, whereas microwave systems, soft computing, applied and adaptive optics and chemical systems are the postgraduate courses.

As of now, 431 students in three batches are undergoing under-graduate courses and the postgraduate courses are starting from 2010 onwards, in the next two months. Currently 18 scholars are pursuing doctoral programmes in avionics, aerospace engineering, chemistry, physics and mathematics. IIST has plans to augment itself with a lot of specialized laboratories in virtual reality, nanosciences, a high-speed flow laboratory for advanced propulsion studies, etc. It earned the recognition of deemed to be university in April 2007, which is the recognition of the university community in India.

This institute actively pursues international cooperation with a lot of international education institutions of its parallel such as Ecole polytechnique, France, the Lunar and Planetary Institute of the Universities Space Research Association and Caltech, California, United States, and is also having a lot of discussions with EADS Astrium for exchange of faculties.

Coming to the last institute, the Indian Institute of Remote Sensing, it is one of the oldest institutes in India, initially known as the Indian Photo-Interpretation Institute set up in 1966 and renamed as the Indian Institute of Remote Sensing since 1983. Basically it is set up to create awareness and share expertise on geospatial technologies with different levels of officials like decision makers, middle-level managers, technicians and also working-level staff. It is one of the best in south-east Asia and it conducts several parallel training and educational programmes at a time. It is has very good infrastructure and it is hosting the UN centre and provides capacity building in all fields of geospatial technology and applications in the user community. It offers several courses – certificate course, PG diploma course and postgraduate courses of different duration, ranging from one week to 24 months, which are highly customized.

In addition to the education and training activities, it also carries out a lot of research activities and outreach programmes. One thing worth mentioning is that India's dedicated satellite, the EDUSAT, has been extensively used by this institute to offer training where the faculty of ……(?) is giving training to students in different parts of the country.

Coming to international cooperation and the areas it is pursuing, from the beginning of its inception it has been actively collaborating with the ITC, the International Institute of Geo-information Science and Earth Observation of the University of Twente in the Netherlands, mainly in helping create basic capability in training and education, upgrading the infrastructure and faculty improvement. The IIRS-ITC joint education programme was also started in 2005, where from 2006 to 2010 57 scholars have been awarded with degrees and diplomas, mainly in geo-informatics and geo-hazard management. These two institutes are also collaborating with other international bodies for capacity building in the disaster management field.

In addition to this cooperation with the ITC, this institute is strongly supporting two important international programmes. One is called Sharing of Experience in Space, SHARES, where training of four months' to ten months' duration is provided on space applications, primarily on remote sensing and communications, in which 35 candidates from 17 nations have benefited.

Another very important programme is the Indian Technical and Cooperation Programme set up by India as a bilateral programme in 1964. Countries in Asia, East Europe, Africa and Latin America are invited to share the Indian developmental experience. For this initiative, the IIRS has conducted two important short courses of two months' duration annually on digitally-based. processing and geo-informatics since 2007. About 250 professionals from 62 developing nations have benefited. This significantly contributes to the South-South cooperation work in the various activities pursued. With all these three international cooperative activities, 661 beneficiaries from 77 countries have benefited.

With this, we conclude our presentation and I would like to thank the Chairman for this opportunity

and also the delegates for their kind attention. Thank you, Sir.

The CHAIRMAN: Thank you, Mr. Gowrisankar, for your presentation.

Are there any questions or comments in the presentation made by Mr. Gowrisankar? I see none.

Distinguished delegates, I will shortly adjourn this meeting of the Committee, but before doing so I would like to inform delegates of our schedule for this afternoon. We will reconvene promptly at 3 p.m. At that time we will allow the delegations to have a statement under agenda item 14, at delegations' request. We will continue and hopefully conclude our consideration of agenda item 15, Use of space-derived geospatial data for sustainable development, and we will continue hopefully to conclude our consideration of agenda item 16, Other matters, and time permitting we will begin the Review of the report of the Committee to the General Assembly.

There will be three technical presentations this afternoon, the first one by the representative of the International Association for the Advancement of Space Safety, entitled International Association for the Advancement of Space Safety; the second one by the Russian Federation, ROSCOSMOS, on International Global Monitoring Aerospace System – New approach to the disaster management issue; and the third one by the representative of India on Societal applications of Indian Space Programme: an update.

I would like to inform delegates that today at 2.55 p.m. the signing ceremony of the host country agreement will take place in this room, M-1, to establish the UN-SPIDER Office in Beijing, China. All interested delegates are invited to attend.

Are there any comments or questions on this proposed schedule?

The United Kingdom, please, you have the floor.

Ms. KEYTE (United Kingdom): Thank you very much, Mr. Chairman.

In light of the very productive discussions we had earlier this morning on making COPUOS the most effective body that we can and using the time available to us, I note that in fact that we have about 27 minutes on the clock until this plenary session was due to finish.

I would therefore ask your indulgence whether any of the speakers who have asked to speak this afternoon on items 14 or 15, or indeed whether any of the presenters who are delivering technical presentations this afternoon, would be ready to deliver something in the time we have available now. This may help us to use the time available and ensure that we have enough time this afternoon to discuss the important issues that do still remain.

Thank you.

The CHAIRMAN: Thank you very much, distinguished delegate of the United Kingdom. It would be welcome if any technical presentation for this afternoon is ready to be presented now.

India has the floor.

Mr. SHIVAKUMAR (India): Thank you, Mr. Chairman. We are ready for the presentation scheduled for this afternoon. Now it is ready we can do that. Mr. Gowrisankar will make the presentation.

The CHAIRMAN: Distinguished delegate of India, you are welcome.

Societal applications of Indian Space Programme: an update. Presentation by Mr. Gowrisankar, India

Mr. GOWRISANKAR (India): Thank you again, Mr. Chairman for the continued opportunity.

Through this presentation, the Indian delegation would like to give an update on the application projects actively pursued by the Indian Space Organization to take the benefits of space technology to the society. The accompanying presentation on this topic was presented at the Scientific and Technology Subcommittee last February. We would like to briefly update the status on some of the important application projects through this presentation.

India successfully is utilizing the satellite communication community to address two important societal challenges, literacy and health care. Under the tele-education programme we have a dedicated subject called EDUSAT to reach virtual classrooms which are established by connecting schools in the cities to the schools in the villages and inaccessible areas. Through this, the services of every education community are harnessed to the right curriculum. Currently more than 55,000 classrooms are operated. These networks are being used for importing training to the teachers and

also for providing teaching to the students not only in primary and secondary classes, but also in arts and science colleges, polytechnics, management and professional institutions.

In yet another programme towards providing the expert medical consultancy available in the cities to the patients in remote and inaccessible areas, India has taken up a tele-medicine project. Presently, the tele-medicine network can assist 380 hospitals, of which 306 hospitals are in the rural areas and are connected with 60 specialty hospitals in major cities. There are 16 mobile vans with tele-medicine facilities which can be deployed in case of emergency. As of now, more than 650,000 patients are benefiting under this programme. This comes in very handy in disaster management activities.

Mr. Chairman, in India we have a single window delivery mechanism for a variety of space-based products and services like tele-medicine and education information on natural resources for planning at the local level, interactive advisories on agriculture, fisheries, land and water resource management, livestock management, which are being catered for by the mechanism called Village Resource Centre. Today more than 473 village resource centres, including 75 expert centres to provide advisories, are being established across the country and providing very valuable inputs to the local community. More than 6,000 programmes on ……(?)-scale development and educational programmes are being conducted through this network and benefit millions of people. We consider this concept of village resource centres is a quite appropriate application for other developing countries as well.

Considering the fact that more than 1.5 billion people globally are depending on groundwater, groundwater for drinking purpose, satellite aerial projects are being effectively used in India to locate prospective zones for groundwater exploitation and recharge. This is the case which I am highlighting here. The Rajiv Gandhi National Drinking Water Mission has been taken up by the Government of India under which as of now groundwater prospect mapping at 1:50,000 scale has been completed in 14 states, which is more than 50 per cent of the national geographic area, and it is also in progress in six states. More than 275,000 bore wells have been drilled with 90 per cent success rate and 9,000-plus recharge structures have been constructed at the ground based on the space inputs.

Another important programme, competency (?) assessment of wasteland, was taken up in the country using satellite images of the 1986 to 2000 time-frame. This information on wasteland was further updated by using satellite data from the years 2003 and 2006. The entire country was mapped on a 1:50,000 scale and the wasteland sub-categories include 28 categories in this exercise. The periodic mapping offered scope for change of direction. The direction in wasteland area to the tune of about 5 or 6 per cent of the geographical area of the country from the initial assessment is observed. This means that this project has been able to define about 70,000 million hectares of land to take up developmental projects under various schemes at national and local scales. Additionally, the project has offered employment opportunity for rural workers for their participation in the development activities.

About 30 per cent of India's population is living in urban areas. In addition to the metropolitan cities known to many people, there are more than 150 cities and towns in India with considerable population density. Satellite data is being effectively used in creating an urban information system to benefit this sector of the society, using data derived from the satellite and the aerial platform at multiple resolution, a computer(?) database is being generated on various lithospheric layers, including geomorphology, soil, urban values, at multiple error scales from 1:10,000 to 1:2,000. This database is created to enable efficient administration of cities in a scientific manner through urban planning, infrastructural development, site selection for various activities and E-governance. As of now, thematic mapping using satellite data has been created for 76 towns out of the 152 taken up and aerial flagging and imaging has been completed for 80 towns.

Drylands, otherwise known as……(?) rainfall areas are accounting for 83 per cent of global farmland and contribute to 60 per cent of the global food production. These are the highlights they need for conserving water resources in these drylands and marrying the water productivity with land use productivity to scientific and technological goals. In this context, over the years satellite data are being used in conjunction with other collateral data to generate thematic layers on soil, geology, land use, drainage, etc. and to further generate the land and water resources action plan by integrating them. This has been successfully demonstrated in a project called Integrated mission for sustainable development, wherein 84 million hectares of dryland in 175 districts are mapped. Subsequently, many such watershed development programmes are being taken up, including the recent Sujala watershed development project. This satellite information is normally used for tracing and characterizing the watershed, but also in

process monitoring and impact assessment. This innovative project has recently earned global recognition, namely Global Sustainability Research Award for the year 2010.

To encourage decentralized planning at local level, a project has recently been taken up which will enable the spatial prediction of land and water resources along with attributive information keeping the village maps at the base for the entire country. The resource information on 1:10,000 scale is planned to be created mainly using authoritative high resolution satellite data, ……(?) terrestrial map, use of department data, existing resources of GPS(?) layers and a database generated under various bodies. Space-based notes will be created for providing a centralized facility for auditing, organizing, updating and disseminating the information at grass-root level. Under this initiative, the IQD is taken up at 1:2000 scale for five states to begin with.

India is running a successful disaster management programme where space resources including the Earth observation and communication satellites are being used not only for the pre-disaster phase preparedness and mitigation, but also in the post-disaster phase like rehabilitation and relief. Satellite aerial and ground-based observation systems provide data to generate various thematic layers with query and destination tools. The observation support centre is established at a level to deliver services generated through this.

Using the communication satellite secure communication networks are established relieving national and regional control rooms and vulnerable villages. Also many tools are being developed for emergency communication. Using this infrastructure, operational services are provided for many disasters in the country, including floods, cyclones, droughts, earthquakes, forest fires, landslides, etc.

Using a recent example, I would like to conclude. The recent cyclonic storm Leila caused havoc in inundating scores of villages inflicting massive damage to infrastructure and claiming lives in the state of Andhra Pradesh and Tamil Nadu before heading towards the neighbouring state of Orissa. This cyclone was formed in the Bay of Bengal on 17 May 2010 and struck the coast of Andhra Pradesh on 20 May. The cyclone was effectively tracked using the image derived from the meteorological satellite called Kalpana-1. In addition, the information on inundation layers was delivered using optical and meteorological satellite data unloaded to the relief mechanism operating in this region to assist the rehabilitation process.

With this, we conclude this presentation and I would like to thank the Chairman for this opportunity, and thank the gathering for their kind attention. Thank you, Mr. Chairman.

The CHAIRMAN: Thank you, Mr. Gowrisankar, for your presentation.

Are there any comments on the presentation? I see none.

I propose to have one more presentation, Mr. Sergey Cherkas, from the Russian Federation. He is ready to make his presentation, International Global Monitoring Aerospace System – New Approach to the Disaster Management Issue. Please – Mr. Cherkas.

International Global Monitoring Aerospace System – New Approach to the Disaster Management Issue. Presentation by Mr. Sergey Cherkas, Russian Federation

Mr. CHERKAS (Russian Federation): Thank you, Mr. Chairman.

To start off with, let us get the screen set. We are going to show you a short five-minute film, and then I will make the presentation.

[Film]: Tornadoes, tsunamis, volcanic eruptions, earthquakes, avalanches, forest fires – all these and other disasters bring incalculable sufferings, Mankind still remains helpless in the face of challenges and dangers of nature in the Earth and the Universe. We, as human beings, have done terrible hurt to the planet and now the planet is paying us back, powerfully and relentlessly, by man-made and natural disasters.

According to the Economic and Social Council of the United Nations, natural disasters occur in the world four times more often than 30 years ago, and the economic damage caused by their destruction has grown sevenfold. Only since June 2008 the world experienced 350 disasters created by natural phenomena that have affected more than 42 million people, causing damage to the economy worth over $60 billion. In only 2010 the world once again grasped heavy disasters – earthquakes in Haiti, Chile and China, with total estimated damage of $20 billion.

At the same time, information involved in huge disasters would allow to recreate the …..(?) and some wealth from the danger zone. The time of prediction of negative events makes it possible to mitigate their effects and, most importantly, save

thousands of human lives. This can be done with the help of aerospace monitoring of the Earth.

There was significant progress in the development of proper technologies that could control global processes. However, currently existing programmes that provide monitoring of natural and technological disasters do not have an adequate international coverage and centralized management at the organizational, technical and information levels. Therefore, on the agenda is an urgent task of creating a single global system of factor forecasting and early warning of devastating natural and man-made disasters.

This is directly the objective of the project, of the creation of the International Global Aerospace Monitoring System, IGMASS. The idea has already received the wide support of scientists around the world, governments, public organizations, including the First International Symposium on Space and Global Security of Humanity, held under UN auspices in early November 2009 in the city of Limassol in Cyprus. Realization of this project requires the consolidated position of States and governments of the world, the integration of their joint political, scientific and technical efforts transforming inter-State policy.

Humanity more than ever should think about how to protect themselves and save their planet, to prevent deaths of millions of people and tremendous material losses that hinder social economic development of not only individual countries but also regions of the world. Disaster prediction, warning of their approach, early action to minimize the effects of disasters is an essential prerequisite for achieving the key objectives of the UN Millennium Information and ensuring sustainable, secure development on Earth.

Thank you. Spaseba.

The CHAIRMAN: Please, just have in mind that the translators have a limited time with us.

Mr. CHERKAS (Russian Federation): Thank you very much, Mr. Chairman.

Could we please have the screening of the slides now?

Mr. Chairman, distinguished delegates, Ladies and Gentlemen, to start off with on behalf of the Russian delegation and the Russian Chorkovsky Academy of Cosmonautics and the International Academy of Astronautics, I would like to congratulate you, Mr. Prunariu on your appointment to the position. We are sure that your outstanding experience in practical cosmonautics will enable you to master this difficult and multi-faceted job guiding us through problems before the UN-COPUOS.

The subject of my presentation is the project establishing IGMASS, the International Global Aerospace Monitoring System. This was already presented at the 47th session of the STSC of COPUOS this February. However, during the four months which have passed since that session, we have had unfortunately a whole series of major natural and anthropogenic disasters occurring which confirmed both the timeliness of this project as well as the promised launch of its ideas.

Most regrettably, once again, hundreds of thousands of people lost their lives in Haiti, Chile, Turkey, China and elsewhere and the volcano eruptions of last April paralysed air traffic over European airspace for some ten days throughout Europe, with hundreds of millions of euros' worth of economic damage, and the most recent man-made disaster in the Gulf of Mexico, with justification has been termed the Chernobyl of oil. Indeed this has resulted in irreplaceable environmental losses and continues to do so. And the tragic loss of hundreds of lives last May in Russia and China in the coalmines also has filled the tragic list of man-made disasters. Indeed, the asteroid, meteoroid risks upon us which have fortunately not yet wrought their disaster are also before us in COPUOS on the agenda.

It is necessary for us to indeed what we can do to study anomalous, physical phenomena which usually precede natural disaster events and their emergencies trailing upon them in order to try to ward off the disaster to the extent possible. To date, precursors indeed have been identified, both in the ionosphere of the atmosphere, the lithosphere, and these can be recorded by our equipment and used to foretell where, when and how these disasters will be taking place. We can not do without the use of these data and our equipment. For the time being, however, we can not ensure the organizational, technical administrative coverage for such joint work

Even during this session, for example, many delegates have spoken about accessing the data resulting from satellite systems. We have heard about the need to have early warning use made possible by such systems, so this just confirms the fact that it is necessary to have early warning in order to properly forecast and try to plan on how to cope with these disasters. It is necessary indeed for us to do this only on a completely comprehensive, well-coordinated and

rationally exploited scientific and technical basis, and this on a planetary basis.

One of these possible approaches is on the basis of IGMASS, which is a major organizational technical system integrating itself in designing, creating space constellations of small and micro satellites with on-board equipment to monitor, detect every sign of destructing emergencies, and existing advanced national and international air-borne and ground facilities, contact distance sensors, Earth observation facilities, meteorological space communications and navigation systems or especially allocated information or organizational systems. The system gives early warning to the world at large about risks and threats of natural disasters and man-made situations enabling, proper development and integration of planetary information on navigation telecommunication recourses in remedying these.

The main missions of IGMASS are being screened, the permanent continuous space monitoring of the Earth lithosphere, atmosphere, ionosphere, outer space for the purpose of revealing early signs of the risk of natural disasters and man-made emergencies. And this indeed, with time, will enable us to make use of these systems in seeking to identify planetary well-coordinated systems of early warning.

I would like to say that the IGMASS project is not an alternative to what the international community is doing in mustering its efforts to respond to planetary disasters. It just intends to better coordinate and organize the efforts of all of the ongoing organizations working on this: SPIDER, GEOSS, KOSPAS-SARSAT, GMES, Sentinel Asia, DMS, GCOS, Disaster Charter, as well as the Ukrainian natural disaster system, IONOSAT. This would enable both individual States as well as regions to do what is necessary as early on as possible.

And distance learning, which we have heard an awful lot about during this session, would also be expanded. We are going to be able to improve the training of specialists and distance learning which is dispensed in general institutions around the world. IGMASS will be harnessed also to the proper dispensing of distance medicine. The IGMASS orbital segment, on the basis of the equipment used, can involve platforms, use of satellites deployed with the mass and the orbits which we are presently screening. This is going to be coming out in the next couple of years.

International cooperation is starting to assemble around this IGMASS project. An American company has joined this project recently. We are screening here some of the results that were scored in this project, some of the forums that we have got in the United Nations, the participation of outstanding specialists sent from international organizations.

The main project was already initialized during the Cyprus meeting which you have already heard about, which was held last year. This was a significant stage in the advancement of the IGMASS project. The International Academy for Astronautics gave its full support to this project at the time, this has been supported by the Russian Academy of Astronautics as well, and this has been given proper promotion on the part of our agencies, this in order to support and facilitate international coordination of our work.

During the work to initialize the project we have been able to produce some practical results on IGMASS. Wide spectrum, non-material research on the project, including foreign expert participation was carried out. Indeed, there was a special expert group set up with representatives from 12 countries. There has also been active promotional work at international level. GEOSS has been involved; the European Space Agency has also addressed representatives of the second international special symposium on IGMASS and he flagged the special significance of this project. Also, agreements have been concluded with American-Canadian consortiums and with the Academy of Sciences of China as well.

We have started running our tests on small satellites for the orbital segments of IGMASS and we have started to work on the land-based infrastructure for IGMASS data processing.

So all of this produces conditions which are conducive to the implementation of this project to save lives, to save money and to save our environment.

To date, outstanding specialists from 30 countries have flagged their interest in participating in the International Committee implementing IGMASS and this is the line-up of the States involved. This proposed membership is going to be concluded during the second symposium, which is going to be held from 5 to 9 July in Riga, Latvia this year. This is the programme for the symposium that I have referred to; all the legislative, administrative and organizational fine-tuning of IGMASS is going to be taking place there in Riga, beginning in July.

So this project started as theoretical and it is getting more and more practical. It is crystallizing as time goes by month by month.

In concluding my statement on behalf of the leadership of this project, I would like to turn to you to give us support for our project. It would certainly be valuable if you were to do this. That would give us the possibility to ensure that IGMASS is going to be a sustainable, long-term international major project in responding to the major challenges of our day and time.

Thank you very much for your attention.

The PRESIDENT: Thank you, Mr. Cherkas, for your presentation. Of course, we congratulated you on your success at the start, the beginning of this project, and for sure with the support of Member delegates we hope that you reach new levels of development on this project.

Thank you very much once again.

Are there any questions or comments on the presentation of Mr. Cherkas? I see none.

Now I think we have made really very useful use of all the time of this morning's meeting.

This meeting is now adjourned until 3 p.m. this afternoon.

The meeting adjourned at 13.07 p.m.