

**Committee on the Peaceful
Uses of Outer Space***Unedited transcript*588th Meeting

Monday, 16 June 2008, 10 a.m.

Vienna

Chairman: Mr. Ciro Arévalo-Yepes (Colombia)

The meeting was called to order at 10.19 a.m.

The CHAIRMAN (*interpretation from Spanish*): Good morning distinguished delegates, I hope that you have had an excellent weekend. I now declare open the 588th meeting of the Committee on the Peaceful Uses of Outer Space.

This morning we will first re-open agenda item 5, General Exchange of Views, as we have received a request for a statement by a member State and we will give them floor under agenda item 5.

Then we shall move on to agenda item 7, Implementation of Recommendations of UNISPACE III. You will remember that we suspended discussions on that on Friday afternoon. Following that, we shall continue our consideration of agenda items 8, Report of the Scientific and Technical Subcommittee on its Forty-Fifth Session, and item 9, Report of the Legal Subcommittee on its Forty-Seventh Session, and 10, Spin-Off Benefits of Space Technology: Review of Current Status.

Time permitting, we shall also begin our consideration of agenda item 11, Space and Society, and I do hope that we will have time for that.

Once we conclude the plenary, we will have three technical presentations. First by a representative of Japan on Disaster Management, that is the first. The second one by a representative of Germany entitled "Rapid Mapping Services and Applications for Emergency Response". And the third one will be presented by a representative of the Space Generation Advisory Council, "Youth Views on Capacity-Building

for Community-Based Disaster Management in the Context of Recent Disasters in the Asia-Pacific Region".

May I also ask delegations to be kind enough to provide the Secretariat with any corrections to the provisional list of participants. This is Conference Room Paper No. 2, so the Secretariat can finalize the list. Any corrections should be submitted by the deadline tomorrow afternoon.

Moreover, let me inform delegates that we have distributed to delegates' pigeonholes, the proposed Strategic Framework for the Programme on the Peaceful Uses of Outer Space for the period 2010-2011. This document will be discussed at a later stage, hopefully this afternoon, time permitting, or tomorrow morning.

Let me take this opportunity to wish a warm welcome to Franklin Chang- Díaz, an eminent scientist from the Latin American and Caribbean Region. Thank you for finding time Sir to be with us this morning.

General exchange of views (agenda item 5)

Distinguished delegates, we now will go into agenda item 5, General Exchange of Views.

I have received a request, actually two requests, for the floor. The first delegation on my list is the representative of Saudi Arabia, Mohamed Ahmed Tarabzouni. You have the floor Sir.

Mr. M. A. TARABZOUNI (Saudi Arabia) (*interpretation from Arabic*): In the name of God the

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

Corrections should be submitted to original speeches only. They should be incorporated in a copy of the record and be sent under the signature of a member of the delegation concerned, within one week of the date of publication, to the Chief, Conference Management Service, Room D0771, United Nations Office at Vienna, P.O. Box 500, A-1400, Vienna, Austria. Corrections will be issued in a consolidated corrigendum.



Merciful, the Compassionate, may the peace of God be upon you all.

Mr. Chairman, it is my pleasure on behalf of the Kingdom of Saudi Arabia's delegation to thank you for giving us the floor to speak to you as well as to the distinguished members of the delegations.

I would like to convey to you our congratulations on your chairmanship as well as the Vice-Chairman from Thailand and the other Vice-Chairman from Portugal. I am fully confident that with your experience and the smooth conduct of this Committee, we will reach positive results in this session.

I would like to assure you of my delegation's cooperation in that respect.

It is also my pleasure to thank Mrs. Mazlan Othman, as well as her team in the Office for Outer Space Affairs, for the efforts they have done in the preparation for this mission. I wish her every success.

I would like to appreciate the efforts by the former Chairman, as well as his colleagues, during the last session which brought us to a successful result.

I would like to welcome Switzerland and Bolivia and the return of the Iraq(?) Republic here in this Committee. I wish them all success and I hope that they will effectively cooperate in carrying out the work in this Committee.

On behalf of my delegation, I would like to convey sincere condolences to China and Myanmar, Sudan and Pakistan and all those who have lost their relatives in floods, earthquakes and cyclones. The Kingdom of Saudi Arabia is here to provide assistance and support to those who suffers and will provide material and financial support to these countries in order to overcome the problems that in implementation of the directions by His Majesty, the Kingdom of Saudi Arabia. Electrical generators, ambulances, foodstuff, tents, as well as other things, were lifted to these areas.

Mr. Chairman, the Kingdom has sought to boost its infrastructure with a view to making use of space sciences and its applications in various fields, the protection of the environment, navigation, remote sensing, GIS, etc. To that end, we sought membership in and cooperated with international regional organizations. We took part in the organizing of relevant conferences.

Finally, we have made a long-term plan in order to formulate strategies to transfer and develop and deepen space technologies. The Kingdom, the Prince Sultan Bin Abdulaziz Award, City for Science and Technology, carries out that afore-mentioned plan with participation of relevant government and private sectors as well as universities through the programmes and projects that support implementation of that strategy.

The City also, last April 2008, organized an International Conference on the Use of Space Technologies on the Management of Water, in cooperation with UNESCO as well as the award, the Prince Sultan Bin Abdulaziz Award, as well as UNESCO.

My delegation, based on the report of the Scientific and Technical Subcommittee last February, and based on the proposal of the Chairman, my delegation would like to appeal to provide the necessary support for the building of capacities in the developing countries and to give their views interested in space technology in order to put international cooperation, especially because of the implementation of UNISPACE III can be done through effective international cooperation between the member States, international organizations, as well as regional and national organizations.

Mr. Chairman, the paper, A/AC.105/2008/CRP.8, that paper was distributed on 12 June 2008, that relates to the granting of a status to the, the Prince Sultan Bin Abdulaziz Award on water resources. So I hope that this international organization will be getting a status as an observer in this Committee because this award is given to researchers and scientists who try to make this water available in desert and _____(?) areas and will be carrying out research and work in that respect.

That Award has, every year, organized four conferences on the use of rainwater in order to replenish subterranean water as well as to use surface water through the use of modern technology, especially space technology and it is stated in the application by that Organization. The presence of that Organization here as an observer will support the efforts of the Committee to apply space technology with a view to providing water and to use it effectively because this is a very important source, the absence of which will be of dangerous consequences.

Mr. Chairman, I would like to conclude by saying that the Kingdom of Saudi Arabia would support the use of space science and technology in the

field of sustainable development. Recently, we donated US\$500 million to the International Fund on Food, that in favour of the poor. We agreed to the funds that were raised in this by different delegations.

Mr. Chairman, I would like to thank you as well as the distinguished members of the Committee for your attention and I would like to thank you once again for everything that you have done for us.

The CHAIRMAN (*interpretation from Spanish*): Let me also thank the distinguished representative of Saudi Arabia for those kind words to the Chair, to the Board and to the entire Office.

It is now my pleasure to give the floor to the distinguished delegate from Algeria, Azzedine Oussedik.

Mr. A. OUSSÉDIK (Algeria) (*interpretation from French*): Chairman, I should like, at the outset, to associate the voice of the delegation of Algeria to that of previous speakers in extending my heartfelt condolences to the authorities and victims of the natural disasters which have plunged China and Myanmar into mourning and to assure them of our solidarity in these painful times.

It is my great pleasure Sir to congratulate you upon your election, your deserved election, to head COPUOS. I am convinced that your experience is a guarantee for the success of our work.

Allow me to convey my gratitude to the members of the Office for Outer Space Affairs for the excellent preparation of the work of this session in which Switzerland and Bolivia are participating, and we welcome them as new members of COPUOS.

This is also an opportunity for me to pay tribute to Mr. Gérard Brachet, for his enlightened chairmanship of the Committee during the biennium 2006-2007 and to reiterate our congratulations to Ms. Mazlan Othman upon her re-election to head the Office for Outer Space Affairs.

The Algerian delegation sees this opportunity to reiterate its attachment to COPUOS which offers on the one hand a legal multilateral framework for the promotion of space activities by adherence to international conventions and treaties on outer space, and on the other hand, provides a forum for discussion on the ways and means to strengthen national capacities of member States in the field of space activities for peace building and the acceleration of sustainable socio-economic development.

During 2007, Algeria's space activity was marked by progress in the implementation of the National Space Programme from 2006-2020, especially in the field of space applications, with pride of place given to projects for preventing and managing natural and industrial disasters.

Here in this field, space technology was used for activities in preventing managing(?) disasters. For example, the ongoing programme for assessing forest fires in the north of the territory by using images of the ALSAT-1 territory, in conjunction with the National General Forestry Office, since 2003. The development of a system for the prevention (protection?) and prevention(?) of forest fires which will use Earth observation data and other indicators in drawing up risk maps.

The ongoing and active participation of the Algerian Space Agency in the fight against locusts through the analysis of locust biotopes in the Sahel and the Magreb, to the monitoring of the environmental(?) _____(?) situation using ALSAT-1 imagery in locust reproduction areas.

Concerning the evaluation on natural resources and basic infrastructure, priority has been granted to the improvement of knowledge in the following fields, energy and mines through geological mapping of Algeria on a scale of 1:500,000, water resources with the implementation of a set-up action within the framework of a system for the prevention management of floods, the joining up of the Land Register on the Algerian Steppes(?) and Sahara through the implementation of a methodology based on high-resolution imagery in the field of space systems. One should note the ongoing setting up two satellite systems, the observation of the Earth within the framework of the Arab and African Cooperation. We have, for example, the Arab Earth Observation System Project and a project for a satellite array for the management of African environment and resources, jointly between South Africa, Algeria and Nigeria.

Here, I would like to inform the members of the Committee that on the margins of our work a signing ceremony of the document entitled "Declaration of Intent with the Governments of South Africa, Algeria and Nigeria", regarding establishing of cooperation within the framework of the satellite array project, will take place in the field of training and research.

The year 2007 was marked by the creation, in Algeria, of a Doctoral Institute for Space Technology

and Applications in which 50 post-graduate students enrolled in 2007-2008. This new university-level institution will mobilize the competences of five universities, those of Alger, Oran, Constantine City, and Klinsin(?) on international cooperation there.

Algeria is working on strengthening scientific and technical cooperation in the field of space with numerous partners. Framework Agreements and Memorandum of Understanding have been signed with the space agencies.

Also draft agreements are being finalized with numerous partners.

Regarding support of the SPIDER Programme. The Programme of Work which will be entrusted to the Regional Support and Coordination Office for North Africa will be based in Algeria and is underway in collaboration with the Coordinator of the SPIDER Programme. Until then, and to facilitate the effective setting up this Regional Office for North Africa, the Algerian Space Agency is undertaking coordinating actions with national institutions and regional institutions and tasked with preventing and managing natural disasters.

By way of conclusion, I would like to address the new agenda item entitled "Long-Term Viability of Space Activities". The Algerian delegation backs the proposal of entrusting this general interest topic to a Working Group and charged with drawing up a mandate to optimize security of space activities for development and the welfare of all mankind. Thank you.

The CHAIRMAN (*interpretation from Spanish*): I should like to thank you for your kind words addressed to the chairmanship as well as to the Bureau and the members of the Secretariat. Thank you.

I now turn to the room. Does anyone wish to take part in the general debate.

It does not seem to be the case. We have thus concluded our consideration of agenda item 5, General Exchange of Views.

Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Use of Outer Space, UNISPACE III (agenda item 7)

Implementation of the Recommendations of UNISPACE III, this is agenda item 7. Let us now

continue and perhaps conclude our consideration of agenda item 7, Implementation of the Recommendations of the Third United Nations Conference on the Exploration and Peaceful Use of Outer Space, UNISPACE III, which we suspended on Friday, following our discussions on the proposal by Chile that a panel is to be held at the Fourth Committee of the General Assembly this year entitled "Space Applications and Food Security".

I should like now to give the floor to the Secretariat to inform the Committee on the organization of such a panel. And I will point out to you that when this proposal was presented, I convened an informal meeting during which the first consultations regarding this issue took place, but I would now like to give the floor to the Secretariat on this.

Mr. N. HEDMAN (Deputy Secretary, Office for Outer Space Affairs): Thank you Mr. Chairman. Yes, the Secretariat is ready to do that. As delegations recall, last year in the General Assembly, in the Fourth Committee, when the Fourth Committee was deliberating our agenda item of the peaceful uses of outer space, the Secretariat had organized a panel discussion, a panel comprising of four members, we had the Chairman of COPUOS, one representative from ITCC, one representative from CEOS and additionally one representative from the Office, on the theme of climate change.

The Secretariat would be ready to organize a panel discussion within the same format, which is the following.

A panel comprising of four to five speakers, that is to be determined, of course, together with the Secretariat of New York. That panel discussion should be held at the first day in the plenary of our agenda item in the Fourth Committee. And the Secretariat is ready to organize this and to look for good presenters, good presenter panel members, and it should be on the overall theme of food security, space applications for food security. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Very well. I should like to thank the Secretariat for this additional information that was shared with us and I would ask interested delegations to speak to us now.

Does any delegation wish to participate in this?

Yes, it is my pleasure to give the floor to the delegate of the Czech Republic.

Mr. V. KOPAL (Czech Republic): Thank you Mr. Chairman. Mr. Chairman, I believe that just the presentation made by the distinguished Deputy Secretary of this session has been very reasonable and we welcome that and since there is already a certain precedence from the last session of the Fourth Committee, I believe that it is quite feasible to accept this proposal as it was presented. Thank you very much.

The CHAIRMAN (*interpretation from Spanish*): Very well. I thank the distinguished representative of the Czech Republic.

Does any other delegation wish to take the floor on this item?

Very well. I, therefore, conclude that this panel could convene under the same conditions as happened last time. We will thus take into account this precedence and it is with great pleasure that the Chair will chair this group and if there is any input about what should be done and how it should be done, it would be our pleasure to hear about this. But what we will do for now is to note that the Committee agrees with it and during the session of the Fourth Committee of the General Assembly on Space Applications and Food Security, we will then be able to convene this meeting. It is thus so decided.

It is so decided.

We have thus concluded our consideration of agenda item 7, Implementation of the Recommendations of UNISPACE III.

Report of the Scientific and Technical Committee on its forty-fifth session (agenda item 8)

The report of the Scientific and Technical Subcommittee is agenda item 8. I would now like to continue our consideration of agenda item 8, Report of the Scientific and Technical Subcommittee on its Forty-Fifth Session.

I was informed that this morning the Secretariat will address the issues raised on Friday afternoon regarding the non-paper on Proposed Guidelines for Selecting and Setting Up UNSPIDER Regional Support Offices this afternoon.

And I should like to give the floor to the Director of the Office for Outer Space Affairs.

Ms. M. OTHMAN (Director, Office for Outer Space Affairs): Thank you Mr. Chairman for giving the Secretariat the opportunity to clarify further the non-paper on the Proposed Guidelines for Selecting and Setting Up UNSPIDER Regional Support Offices, which was circulated to the distinguished delegates last Friday.

Mr. Chairman, distinguished delegates, I would like to recall first paragraph 8 of the United Nations General Assembly resolution that established the United Nations Platform for Space-Based Information for Disaster Management and Emergency Response, UNSPIDER, in document A/RES/61/110, which endorsed the recommendations of this Committee that the Programme have an outlet in Beijing and an office in Bonn, Germany.

Similarly, the same resolution in paragraph 9 noted that due consideration would be given to the possibility that the Programme could have a Liaison Office in Geneva.

Last year, this Committee, during its fiftieth session, took note that the Liaison Office in Geneva is being set up, agreeing that the Work Plan for the period 2008-2009 should include specific target activities for the Liaison Office in Geneva.

The establishment of the Bonn and Beijing Offices, as well as the Liaison Office in Geneva, as United Nations offices, was agreed to by all member States of this Committee. The three new offices will be established United Nations Offices.

As for Regional Support Offices, they will be established within existing leading national institutions, preferably an institution with notable expertise in the use of space technology for disaster management. Each formally nominated by its government to the Office for Outer Space Affairs was the agreement of the respective regional groups. The establishment of such Support Offices but not lead to the creation of a United Nations office or, in fact, not even a new entity. In fact, the institutions providing the support will be designating one or more of its staff members to carry out UNSPIDER activities within the region, in coordination with the UNSPIDER Team, currently located in Vienna and Bonn, the future UNSPIDER Office in Beijing, and the future UNSPIDER Liaison in Geneva, as well as the other Regional Support Offices. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): I would like to thank the Director of the

Office for Outer Space Affairs for her contribution on this item and I submit this for your consideration. The floor is now yours if you wish to speak to this item.

United States.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. Mr. Chairman, my delegation appreciates the information provided by the Director of the Office for Outer Space Affairs, but I still have a question about the process of setting up these Regional Support Offices, and that is the necessity for coordinating this within a regional group. My concern is that we have added an extra layer of work in setting up the Regional Support Office by requiring that consultations and, I presume, consensus among the countries of that particular region in terms of a particular country setting up the Office. So I guess, what I am wondering is how is this process going to work? I mean, is the Office for Outer Space Affairs going to be mediating these discussions among the regional groups and what happens if one country objects to another country hosting this Regional Office, does that mean then that the Office is not set up? Or does COPUOS have to intervene in some way and make a decision? It is just not clear and I go back to my original question I had, why are we treating the Regional Support Offices differently than the offices in Beijing, Geneva and Bonn? They were not required to get approval from their regional groups to host these offices. They just said we want to host them so therefore we will. Now, we are asking the Regional Support Offices to go through a different process and I am wondering why is this process necessary? What happens if there is an impasse reached within the regional group? I mean we have had this happen with the Regional Space Science and Education Centres where the regional group was not able to reach consensus and either the activities did not move forward as was the case with the Network for Eastern Europe, or we had to come up with some other political accommodation that might not necessarily be in the best interest of everyone.

So I think before we agree to this process, we should have a fairly good understanding as to how it is going to play out. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): I thank the distinguished representative of the United States for this statement and will again give the floor to the Director of the Office for Outer Space Affairs.

Ms. M. OTHMAN (Director, Office for Outer Space Affairs): Thank you Mr. Chairman. Mr.

Chairman, I would like the meeting to recall that the Bonn, and Beijing Offices are not Regional Offices but they are Global Offices and they are chosen on the basis of the activities to be carried out at those offices and they were not geographically or regionally, they were not chosen on a geographical or regional basis.

Now, with regard to the Regional Office, yes, the Office is well aware of the difficulties in getting the regional groups to have a consensus on the Regional Office and this is all the more reason why the Office, by itself, cannot make the decision which nomination or which proposal would eventually become the Regional Office, especially as the one region we would be getting several, numerous offers for a Regional Office. And we would like to then get the assistance of the regional grouping itself to decide which of these, it may not be just one Regional Office, it could be two or three in one region, but we would like to get the assistance of the regional grouping itself to make such a position.

In the case where there is an impasse, the work of UNSPIDER will continue in the Global Offices and member States will also recall that we do have the National Support Offices. The National Support Offices will be not complicated. Each country will nominate one National Support Office and the work of UNSPIDER will go on on a national basis. If the Regional Support Office, that, I think, requires some thought as to which entities should finally be chosen and how many should be chosen as Regional Support Offices. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Yes, thank you for your explanations and I will ask the delegate of the United States whether the answer provided by the Director of the Office for Outer Space Affairs satisfies him.

You have the floor.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. Yes, I understand a bit more of the process and how that will work. I did have one other question and that concerning paragraph 4. In paragraph 4, it states that after an Regional Support Office is set up, they would report really to the Scientific and Technical Subcommittee and that after six years, I am sorry, not after six years, but in paragraph 4 it provides for an assessment to be made as to whether the Regional Support Office is performing satisfactorily and if it is not performing satisfactorily, then a new selection would be carried out following the steps outlined in paragraph 1 above. So my question is, who is going to

be doing the assessment as to whether the Regional Support Office is performing satisfactorily? Will that be the Scientific and Technical Subcommittee? Will it be SPIDER? I mean how will that work? A government makes a commitment to set up a Regional Support Office but someone then will decide whether they are performing satisfactorily and there is the possibility that their status as a Regional Support Office would be withdrawn. Now, that is a really significant step to take. I am wondering, who is going to make that assessment? Would it be the member States or the SPIDER Programme, and on what basis will we be making that assessment and what are going to be the specific objectives that the Regional Support Office is supposed to be meeting and how will we match those up with their performance? Thank you.

The CHAIRMAN (*interpretation from Spanish*): Yes, thank you to the distinguished delegate of the United States. I give you the floor Director.

Ms. M. OTHMAN (Director, Office for Outer Space Affairs): Thank you Mr. Chairman. If delegates would like to look at paragraph 2, it says there that the Regional Support Office will be carrying out relevant activities to support the agreed UNSPIDER-related activities. So the Regional Support Office will have agreed activities that would be carried out at agreed upon within the regional group. And every year, as paragraph 4 states, the Office will make a yearly report, an annual report within the UNSPIDER Annual Report. So in the annual report, the annual report will report what has been carried out by the Regional Support Office, and through that process, it would be clear whether or not the Regional Support Office has met its obligations in terms of the UNSPIDER activities. And because it would be regional groups that had made the decision which of the offices will eventually be made the Regional Support Office, it is the regional group that would also have to make a decision, based on the annual report provided by these Regional Support Offices, whether or not they have been performing as they should, and make the appropriate recommendation or decision as necessary. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Yes, thank you very much Madam Director for these explanations.

The delegate of the United States, you have the floor.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman and I appreciate

the clarification and this may have to be clear then in the paper. What I think I understand now is that the regional group is going to be asked to make the assessment as to whether the Regional Support Office has performed satisfactorily and that we are leaving it to the regional group to somehow make that determine and then if they conclude that they are not performing satisfactorily, then their designation as a Regional Support Office is withdrawn.

I guess one of the problems is that we have added another layer of decision-making to SPIDER. I thought the Committee, through the Scientific and Technical Subcommittee, was going to be overseeing the Programme. Now how does the regional group relate to that path? I mean it would seem to me that if we do decide then that the regional groups are going to start having a decision-making in the case of the Regional Support Office, then that should be clear. And that is another thing that we will probably have to discuss because I am again concerned about the possibility of the activities of the Regional Support Office coming to a screeching halt because we have added another body that is going to be taking part in the ongoing management of SPIDER, and that is the regional groups.

So that is my general concern and I would appreciate hearing from other delegations on their views concerning this and perhaps we just have to have another draft of the paper to be clear as to the decision-making process here. Thank you.

The CHAIRMAN (*interpretation from Spanish*): Thank you the delegate of the United States for his comments.

I will make a comment, if I may. Very often the regional groups are not in a position to give a professional opinion on such an issue but the Scientific and Technical Subcommittee can provide specialized information which enables these groups to make a decision. I think this is something that the Secretariat will take into account.

And I now give the floor to Japan.

Mr. K. MIYAZAKI (Japan): Thank you Mr. Chairperson. I would like to express our comment on the document. In the non-paper, in the second paragraph, on the end of the second line, it is mentioned that the entity should provide at least one competent(?) expert. Our delegation thinks that it is not necessary to define the, about that. I think in our understanding, the activities of the Regional Support Office will be defined by the Regional Support Office

itself. So regarding the staff of the Regional Support Office, it is not necessary to be full time staff in this moment. It depends on the amount of activities of such kind of activities. So our comment is why do you not delete the words "full time" _____ (*not clear*).

The CHAIRMAN (*interpretation from Spanish*): Thank you very much to the distinguished delegate from Japan. His proposal then is that we delete the words "full time" in the English version. I think that we do not really need to define the timeline at this time in this case. I submit this for the consideration of the house. You make a decision on this.

I see no objections. I think we can consider this to be accepted and let me ask the Secretariat if they believe that this is acceptable. Fine.

I would suggest, as the Chair, that on the basis of the observations made, in particular on paragraph 4 and the capacity that regional groups might eventually have to judge the expertise from the office that we, with your permission, put this off, Madam Director, that we later try to look at a text to cover that proposal and then we will come back to that, submit it to the house.

Are there no objections to that manner of proceeding?

We shall do so. Thank you.

Saudi Arabia has the floor.

Mr. M. A. TARABZOUNI (Saudi Arabia): Mr. Chairman, as far as we look into this, we have too many considerations, one is actually as you know, we second what the Japanese delegation has said. And the other thing is actually after we establish the Regional Support Office, there is, however, a period of three years to work and then six years and after that the _____ (?) is going to be out. What are we going to do in establishing the office, because an office to be established is proving to be a _____ (?). The governments, we need the support from the governments in all respect. So I think there is so many procedures of checking in and out but it really does not take the realities in a kind of work like this because this is a humanitarian aspect and we really have to look into from that point of view and not from a point that actually, it is an office, it is to be regulated by somebody else and it is actually supervised by somebody else, not just only regulated, it is supervised. At the end, you know, it is exactly, we are not going to

do what we really should do to human beings, relief and aspects. Thank you.

The CHAIRMAN (*interpretation from Spanish*): Let me thank the distinguished representative of Saudi Arabia for those observations. We will also take those into account in the new proposal that the Secretariat is going to produce.

Let us continue along, and before I give the floor to the upcoming speakers, I would like to go back to a pending decision for us. I am talking about the Inter-Agency Meeting. It was very simple. A request by the Inter-Agency Meeting on Outer Space Activities to report directly to the Committee. This request was also presented to the Committee by the Chair of the IAM in his statement last Friday.

Let me also in this regard point out to delegates that the Scientific and Technical Subcommittee in its forty-fifth session observed that Inter-Institutional _____ (?) Agency felt that it was timely to report to the Committee on a regular basis and that it would hold its meetings closer in time to the meetings of the Committee. That is the proposal which I now submit to you.

Do I take it that we agree?

The United States.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. My delegation has no objection to the proposal. I just wanted to make two points.

The first one is the timing of the IAM, I do not believe, is all that important, at least to our purposes so if they decide that January when they had typically met still works for the IAM and they should probably stay with that. Having it closer to COPUOS would be fine with my delegation but I do not think as member States we should insist on that. It should really be what is the best dates that work for the agencies and the IAM.

And the second point I wanted to make or to recall that my delegation, under agenda item 6, I think it was, had suggested that we might consider having an agenda item on the COPUOS agenda dealing with the use of space in the United Nations system. And my delegation would just like to reiterate that, that proposal, a note which would be a good vehicle through which the IAM could then makes it report and we could also use that agenda item for the specialized agencies themselves to come and report to the

Committee on their activities. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Thank you very much for those very pertinent remarks. It is indeed in that sense that I think the proposal was made. It was not so much the idea, the dates in them of themselves, but the possibility of directly reporting to the Subcommittee and taking advantage of the opportunity that have other agencies are also part to come and report their respective points of view to the delegates. So I thank you very much for that statement. We agree on that.

I now go on to the list of speakers, Report of the Scientific and Technical Subcommittee, agenda item 8, this is China, Mr. Yansong Xu is the first speaker. You have the floor Sir.

Mr. Y. XU (China) (*interpretation from Chinese*): Thank you Mr. Chairman. First of all, I would like to thank delegations of other countries for their sympathy expressed to China on its earthquake.

During the forty-fifth session of the Scientific and Technical Subcommittee, held last February, my delegation noted the following and I would like to inform you, Mr. Chairman, and as well as other delegations, on the disaster which occurred in China and the international relief aid.

On 12 May, a _____(?) magnitude earthquake hit the Chinese Sichuan Province, leaving nearly 100 people dead or missing, over 10 million required a resettlement or a relocation and according huge losses of life and property in China.

However, noteworthy is the fact that space technology was effectively used in this earthquake by using the International Charter on Major Disasters mechanism as well as other mechanisms. China's Civil Affairs Department received about 1,200 images from a total of about 20 satellites. The United States, Japan, Italy, France, Germany, Israel, India, as well as other countries provided satellite data. And Germany even sent an expert to China for outside guidance. To all those countries we express our thanks once again and hope that remote sensing by satellite communications as well as navigation and positioning will be used even more widely in future in disaster reduction efforts.

The Chinese Government has carried out multiple space activities. On 27 May, China launched a new generation heliosynchronous meteorological satellite to provide services for our meteorological

departments. China also plans to launch a disaster reduction constellation in the second half of this year to provide relevant services for disaster reduction.

We have also noted the multiple natural disasters which occurred recently including floods in Southern China and the State of Iowa in the United States and an earthquake in Japan. We hope to use all our space assets which can be used to minimize the losses caused by natural disasters.

China is also working to advance work on UNSPIDER. The Chinese Government attaches great importance to work on UNSPIDER and is consulting with the United Nations COPUOS on host country agreements and is implementing work on UNSPIDER in 2008.

The Chinese Government attaches great importance to the relevant COPUOS resolutions on the implementation of UNISPACE III resolutions and is coordinating and implementing the relevant agreements.

As a provider of a global navigation system, China has joined the ICG and taken an active part in its relevant work. The COMPASS Navigation System under construction in China has completed Phase I work and started to work on the construction of a global system. Last year, we launched the first navigation system experimental satellite and will commune the efforts in the near future to complete the construction of that system. China hopes to exchange information extensively with other countries under the ICG platform.

The Chinese Government attaches great importance to space debris mitigation and has developed relevant domestic regulations with regulations on the de-orbiting of end-of-life satellites and passivation of orbital stages in an effort to reduce the generation of space debris. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Let me thank the distinguished representative of China, Mr. Xu.

And I now give the floor to the distinguished representative of Japan. You have the floor Sir.

Mr. K. MIYAZAKI (Japan): Thank you Mr. Chairman. Mr. Chairman and distinguished delegates, on behalf of the Japanese delegation, I am honoured to have the opportunity to address the fifty-first session of COPUOS.

Japan is pleased to announce its views(?) for the report adopted by the forty-fifth of the Scientific and Technical Subcommittee.

I would like to express our heartfelt appreciation and respect for the excellent work of Dr. Mazlan Othman and her staff of the Office for Outer Space Affairs.

Mr. Chairman, first I would like to express my heartfelt condolences to the families of the victims of the recent cyclone in Myanmar and earthquake in China. I would also like to extend my deepest sympathy to the affected nations and all the victims.

Japan has made disaster management a top priority of its space programmes. We promote the objectives and collaboration with the Asia-Pacific Regional Space Agency Forum, APRSAF, and the International Charter on Space and Major Disasters.

Japan is promoting the APRSAF initiative Sentinel-Asia Project which utilizes satellite data to support disaster management in the Asia-Pacific region.

Japan carried out emergency observations on the cyclone in Myanmar and the huge earthquake in Sichuan, China, using our advanced Land Observing Satellite, SICHIC(?). The resultant satellite data was then published on the Sentinel-Asia website. Sentinel-Asia will be explained in greater detail during our technical presentation later.

As you can see, Japan has recognized the effectiveness and importance of a space system-based disaster management and also Japan would like to express appreciation for the efforts of the United Nations _____(?) Space Systems-Based Disaster Management, like UNSPIDER. And Japan would like to promote exchange of views and information in order to _____(?) virtually the _____(?) an official relationship and possible collaboration between Sentinel-Asia and the UNSPIDER.

On the other hand, we have two concerns about UNSPIDER. First, being increased to the total regular budget of the United Nations, the sixty-second United Nations General Assembly adopted the UNSPIDER platform for the period 2008-2009 which contains Programme Budget Implications, PBI.

Our second concern is the duplication between UNSPIDER and other existing institutions and initiatives.

Regarding the former concern, Japan expresses regret for the increase of the total regular budget and encourages the Office for Outer Space Affairs to manage UNSPIDER appropriately with the need to long-term view.

Regarding the latter concern, at the forty-fifth session of the Scientific and Technical Subcommittee, it was agreed that SPIDER will work to ensure no duplication exists between SPIDER and the other institutions and initiatives.

Japan looks forward to hearing the Office for Outer Space Affairs' progress report at the next Scientific and Technical Subcommittee.

In December, the fifteenth session of the APRSAF, the body that implemented Sentinel-Asia, will be held, in Viet Nam, under the auspices of the Vietnamese Ministry of Science and Technology and the Vietnamese Academy on Science and Technology, co-organized by Japan. We hope that many participants will attend this Forum.

And India, Viet Nam and Japan, the hosts of APRSAF-14 and APRSAF-15, will hold a Reception in the Vienna International Centre Mozart Room at 6.00 p.m. today. We welcome all COPUOS delegates and participants to the Reception.

Japan would like to express its deepest respect for the COPUOS Space Debris Mitigation Guidelines which have been endorsed in the paragraph 26 of the sixty-second United Nations General Assembly resolution 62/217.

Japan will continue to make efforts to mitigate space debris. We hope other nations will implement the COPUOS Guidelines steadily.

Japan is promoting to GNSS, the _____(?) Satellite Systems, 2BSS(?), and MPSAT Satellite-Based Augmentation System, ENSAS, both of which are augmenting systems of the Global Positioning System, GPS.

Japan has actively participated as a member country in the International Committee on Global Navigation Satellite Systems, ICG, in which cooperation on the utilization of the GNSS and the compatibility and inter-operability among the GNSS are discussed.

Mr. Chairman, we think it is very important that these international activities have a long-term

vision in order to contribute to securing a more prosperous society. From this point of view, we would like to express our respect for the efforts of the United Nations system in these areas.

Japan intends to promote international cooperation with the members and observers of the UNCOUOS so that all humankind may enjoy the benefits derived from space activities. Thank you for your kind attention.

The CHAIRMAN (*interpretation from Spanish*): I thank the distinguished representative of Japan for that statement.

It is now my pleasure to give the floor to the distinguished representative of Germany, Joachim Marschall von Bieberstein. You have the floor Sir.

Mr. J. MARSCHALL VON BIEBERSTEIN (Germany): Thank you. Mr. Chairman, distinguished delegates, my delegation would like to express our satisfaction about the achievements of the forty-fifth session of the Scientific and Technical Subcommittee. We would like to commend the able leadership of the newly-elected Chairman, Mr. Aboubekr-Seddik Kedjar from Algeria, on his excellent work, for the United Nations Office for Outer Space Affairs staff.

Mr. Chairman, the Scientific and Technical Subcommittee has a significant role to play to help link technological insights and progress of space technology, to the application in the interest of mankind and of the Earth's preservation, at the same time seeking to find ways and means to avert possible risks to the sound operation of spacecrafts in their orbit.

The former Chairman of this Committee, through the Working Paper submitted by him in May of last year, had provided valuable impulses which, no doubt, will continue to serve as a very useful base of the deliberations of the Scientific and Technical Subcommittee.

Mr. Chairman, the German delegation noted with appreciation that in paragraph 26 of its resolution 62/217, the General Assembly endorsed the Space Debris Mitigation Guidelines of the Committee on the Peaceful Use of Outer Space. But we must not stop there. Preventing space debris is just one of the very important aspects of preserving the unhampered use of outer space. Further measures need to be considered by the Scientific and Technical Subcommittee.

The German delegation is looking forward to proposals being made for the future work of the Scientific and Technical Subcommittee within the scope of this Committee's mandate and continues to offer its support, know-how and collaboration in this endeavour.

As presented to you in the forty-fifth session of the Scientific and Technical Subcommittee, Germany implements space debris mitigation measures which comply with both the Space Debris Mitigation Guidelines of the Committee on the Peaceful Use of Outer Space, and the Inter-Agency Space Debris Coordination Committee Guidelines, through its National Space Agency, DLR.

Our delegation pays great attention to the discussion on different national mechanisms related to the implementation of space debris mitigation measures. We, therefore, appreciate the new agenda item at next year's Legal Subcommittee entitled "General Exchange of Information on National Mechanisms Relating to Space Debris Mitigation Measures" which informs the Committee about different national approaches of implementing the United Nations Space Debris Mitigation Guidelines and could advise other States who are trying to undertake first steps in this direction.

Mr. Chairman, much has been said in the past days about the important role the UNSPIDER Programme is playing and will play in the future. I need not, therefore, go into depth much further. I would rather wish to once again thank all those delegations which support the Programme and to solicit additional support to that existing purpose(?) programme will be guaranteed beyond the present two-year period.

Mr. Chairman, notable progress could be achieved during the last Scientific and Technical Subcommittee in several other areas, namely in the NPS safety discussion, the IAEA, the constructive work in Action Team 6 on Tele-Health, as well as in the Working Group on Near-Earth Objects.

Let me conclude, my delegation fully endorses the report of the forty-fifth session of the Scientific and Technical Subcommittee and we are looking forward to the next Scientific and Technical Subcommittee in February 2009. Thank you.

The CHAIRMAN (*interpretation from Spanish*): I thank the distinguished delegate from Germany, Mr. Marschall.

Let me give the floor to the delegate from Indonesia at this time. Mr. Widarto, you have the floor.

Mr. S. B. WIDARTO (Indonesia): Thank you Mr. Chairman. My delegation would like to express its appreciation to the delegation of the Russian Federation for an interesting presentation on the matter related to the presentation presented last Friday. My delegation is of the view that it is very timely for us now to discuss and define space to deal with the issue of space debris and any unexpected impacts from our outer space activities to our nature and to humankind.

Mr. Chairman, as you may have already known, Indonesia articulated _____(?) 118(?) circumferences of our Earth is located on 6(?), 11(?) and 96(?) and 141 East. In connection with the Station(?) _____ (*not clear*) location. The growing number of active satellites planted in the orbit in the last decade has created more space debris and puts more challenge and higher risks to our territory. We think this situation and occurrence(?) as well as my delegation would like to express our views as follows.

First, my delegation notes with great satisfaction the adoption of the Space Debris Mitigation Guidelines by the General Assembly last year. _____ (*not clear*) and the Guidelines would not be sufficient to deal with the complexity of space debris mitigation issues, particularly for the practical purposes that my delegation views that it could be considered as a milestone that will pave the way for a more comprehensive multilateral instrument in the future.

At this step, and this my delegation viewed that our country should take any necessary measures to bring the Guidelines into practice in the future and the substance of the _____(?) based on practical experience.

My delegation is of the view that transparency among member States in the interests of debris mitigation is a matter of principle and our cooperation. In this connection, my delegation, our country is raising the capacity to undertake outer space activities to share our important information with prospective or concerned countries and potential debris resulted from their activities, particularly information related to the contents or substance importance here than for location of debris.

In this regard, my delegation encourages the Agency to facilitate identification of ways and means

to _____(?) information effectively among member States. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Let me thank the distinguished delegate from Indonesia, Mr. Widarto, for that statement.

Distinguished delegates, if there are no other delegations asking for the floor, we will attempt to conclude agenda item 8 on the Scientific and Technical Subcommittee this afternoon, unless there are delegations who wish to speak on this tomorrow morning.

I now come to agenda item 9, Report of the Legal Subcommittee on its Forty-Seventh Session. The first speaker on my list is the distinguished representative of the United States of America, Kenneth Hodgkins, you have the floor Sir.

Mr. K. HODGKINS (United States of America): Thank you Mr. Chairman. My delegation has noted previously the positive developments in revitalizing the agendas and mandates of work of COPUOS and its Subcommittees. The last session of the Legal Subcommittee demonstrated once again the encouraging results that have emerged from our efforts.

Under the able leadership of its newly-elected Chairman, Professor Vladimir Kopal of the Czech Republic, the Subcommittee produced a number of highly useful results.

As noted in our statement under the general exchange of views, this year marked the forty-fifth anniversary of the United Nations General Assembly resolution 1962, the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, and the fortieth anniversary of the entry into force of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space.

So it is only fitting to note that COPUOS and its Legal Subcommittee have a distinguished history of working through consensus to develop space law in a manner that promotes space exploration.

The Legal Subcommittee played a key role in establishing the primary outer space treaties. Under the legal framework of these treaties, space exploration by nations, international organizations and now private entities has flourished.

As a result, space technology and services contribute immeasurably to economic growth and improvement in the quality of life around the world.

Notwithstanding the continued relevance of the space law instruments, many States have not accepted key treaties, including some members of COPUOS. The United States has encouraged the Subcommittee to invite States to consider ratifying and implementing the four main space law instruments cited above. In addition, the Subcommittee should encourage States that have accepted the core instruments to examine their legislative frameworks to ensure compliance.

We were pleased to learn at the most recent session of the Legal Subcommittee that some additional States had acceded to several of the outer space treaties and that others intend to do so in the near future.

At the most recent session of the Legal Subcommittee, some States called for the negotiation of a new comprehensive convention on outer space. It is my delegation's view that such an approach would be counter-productive. The principles contained in the space law instrument establish a framework that has encouraged the exploration of outer space and benefited both space-faring and non-space-faring nations.

It is important that we not lose sight of how much has been and continues to be achieved for humanity's common benefit within this framework.

Articles 1 and 2 of the Outer Space Treaty established that the exploration and use of outer space is to be carried out for the benefit and in the interests of all peoples that outer space exploration and use are open on a non-discriminatory basis, that there is freedom of scientific investigation in outer space and that outer space is not subject to national appropriation.

The United States fully supports these principles and believes that the Subcommittee should undertake activities that support the continued vitality of these principles.

The United States remains convinced in particular that to entertain the possibility of a negotiation of a new and comprehensive space law instrument might undermine these principles and the existing space law regime.

At its most recent session, the Legal Subcommittee began work on two new items. Under

the new item on national legislation relevant to the peaceful exploration and use of outer space, delegations engaged in an informative exchange of information that would provide insights as to how States oversee their governmental and non-governmental activities in space. We were pleased with the level of participation and the high quality of the information presented.

Equally encouraging was the Subcommittee's consideration of the new item on capacity-building in space law. Member States and observers had the opportunity to exchange views on efforts underway at the national and international levels to promote a wider appreciation of space law.

Finally, Mr. Chairman, we welcome the recommendation of the Subcommittee to add to its agenda for next year a new single issue item on the general exchange of information on national mechanisms relating to space debris mitigation measures. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Let me thank the distinguished representative of the United States.

I give the floor now to the delegate from Indonesia, Sus Bambang Widarto. You have the floor Sir.

Mr. S. B. WIDARTO (Indonesia): Thank you Mr. Chairman. It is a great honour for my delegation to contribute again to the deliberations of this Committee and that to my delegation's view that this Committee is a unique and important forum to discuss outer space issues and to find a way we can contribute to the better prosperity of our work through our scientific and _____(?) resources are finally within our capacity and mandate.

Therefore, my delegation has confidence that under your able leadership, we will achieve our common goals soon.

My delegation notes with satisfaction the deliberations undertaken by the Legal Subcommittee in April this year.

My delegation also appreciates countries views on the question of the definition and delimitation of outer space during the meeting. In this context, my delegation strongly urges that we urgently need to address _____ definition and delimitation of outer space and formulate an internationally accepted and comprehensive multilateral legal instrument

accordingly in order to provide more _____(?) in our outer space activities.

_____ (?) legal _____ (?) in outer space as we are facing now would _____ (?) accomplish _____ (not clear) and _____ (?) of jurisdiction or supremacy in the future, bearing in mind the _____ (?) increased in the use of outer space in the last decade.

However, my delegation actually were of the fact that legal aspects(?) is not standing alone and interconnected with other aspects in our _____ (?) particularly scientific and technical aspects.

Taking this interconnected nature of our affairs into consideration, my delegation is of the view that this Committee facilitates through or another way the deliberation of matters related to the definition and delimitation of outer space issues in a more comprehensive planner(?) while ensuring that the relevant aspect is, I have mentioned previously, and related international legal instrument among the Liability(?) Convention 1944, Article 1, and the other space treaty 1967, Article 2, were taken into account. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Thank you very much Mr. Widarto.

I give the floor to Kazuhiro Miyazuki from the Japanese delegation. You have the floor Sir

Mr. K. MIYAZUKI (Japan): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, on behalf of the Japanese delegation, I am honoured to have the opportunity to address the fifty-first session of the Committee on the Peaceful Uses of Outer Space.

Japan is pleased to announce its support for the report adopted by the forty-seventh session of the Legal Subcommittee. I would like to express our sincere appreciation and respect for the excellent work of Mr. Vladimir Kopal, Chairman of the forty-seventh session of the Legal Subcommittee, and Dr. Mazlan Othman, Director of the Office for Outer Space Affairs and her staff.

Mr. Chairman, I would like to now take note of several important topics discussed in the Legal Subcommittee.

Japan is a party to four space treaties, the Outer Space Treaty, the Rescue and Return Agreement, the Liability Convention, and the Registration

Convention. Japan promotes its space activities steadily in accordance with these treaties. Japan will continue to contribute to in such activities regarding the legal aspects of the legal programmes.

These treaties are indispensable in the sense that they provide ever-increasing space activities with a necessary legal framework. We consider it highly desirable as many countries commit to these treaties as possible in order to strengthen the legal framework for global space activities. Japan will support initiatives led by COPUOS to this end.

Mr. Chairman, Japan is of the view that the general exchange of information on national legislation with regards to the peaceful exploration and the use of outer space should be one of the most important items on the agenda in the current Subcommittee discussions so that we can well understand complexities in governmental and non-governmental organizations.

Through the exchange of information with other COPUOS members, Japan will continue to make the necessary measures to fulfil its obligations on the space-related treaties by _____ (?) also our basic space law which passed now in Japan.

Mr. Chairman, the COPUOS Legal Subcommittee is mandated with the important role to discuss legal aspects in order to ensure the space activities conducted in a free and fair manner. Japan, as one of the leading space countries, continue to contribute to the Legal Subcommittee so that it should achieve its efficient and productive goals. Thank you for your attention.

The CHAIRMAN (*interpretation from Spanish*): Thank you very much distinguished delegate from Japan for that statement.

Let me turn to the house and ask if there any other speakers since Japan was the last on the list.

We will return to this item in the afternoon.

Spin-off benefits of space technology: review of current status (agenda item 10)

Now distinguished delegates, I would like to continue and move to item 10, Spin-Off Benefits of Space Technology: Review of Current Status.

The first speaker on my list is the United States, James Higgins. You have the floor Mr. Higgins.

Mr. J. HIGGINS (United States of America):
Mr. Chairman, the United States takes great pride in sharing the fruits of its aerospace research and development efforts bringing the benefits of technologies borne in space and in the skies back down to Earth.

Often understated, these innovations have been successfully spun-off to private industry and made available to people around the world.

The United States is once again pleased to share a few recent examples with the Committee.

Conducted to improve medical care for astronauts as they readjust to the gravitational environment of Earth, after spending days in the weightlessness of space, NASA research included studies on cardiovascular responses and fluid shifts in the body. Subsequent collaboration with a private company in Eden Prairie, Minnesota, resulted in the development of the Rescue Pod Circulatory Enhancer, an impedance threshold device that substantially improves the standard of care provided to patients with low blood flow, including those in need of CPR and similar clinical conditions.

Developed to interpret refined images returned by deep space explorations, like the Voyager 1 and 2 spacecraft, NASA's video image communications and retrievable software, laid the groundwork for advanced analysis of soft tissue X-ray images.

The same technology applied to ultrasound imagery, resulted in a non-invasive diagnostic system with the ability to accurately project the health of the heart. This technology has been developed and commercialized by a company in Palm Desert, California.

Designed to improve astronauts living environments for extended space flight, NASA air and water quality research has been continued and made publicly available by a company in Picayune, Mississippi. Working with Syracuse University in New York to tie plant-based filters into heating, ventilation and air conditioning systems to improve indoor air quality and clean waste water, the company is also assessing the ability of its eco-planter product to remove formaldehyde from interior environments.

Employed the fast-fine(?) material types on the Earth surface in fine detail such as rock-forming minerals, soil, vegetation and water, hyper-spectral imaging technologies driving NASA's understanding

of the natural and man-made influences that can contribute to our ever-changing Earth.

A Reno, Nevada, company used a NASA Small Business Technology Transfer Contract to integrate hyper-spectral data with lidar(?) systems and other commercial technologies to enhance air-borne hyper-spectral sensing and ground-trooping means for crop inspection.

Applications include precision-farming and irrigation, oil, gas and mineral exploration, pollution and contamination monitoring, wetland and forestry characterization, water quality assessment, and submerged aquatic vegetation mapping.

Founded by the Stanford University School of Medicine's Department of Surgery, in the NASA Ames(?) Research Centre, to develop advanced technologies for medicine, the National Bio-Computation Center serves as a test bed for tele-medicine research, applies 3D imaging and visualization technologies to bio-medicine and education.

Seeking to better understand links between people and the environment, monitoring natural resources, predict and adapt to environmental changes, provide for sustainable development, and mitigate the effects of natural disasters, researchers at the Center formed a Honolulu, Hawaii-based company to apply tele-medicine sensors to integrated global monitoring systems. Current projects are tracking emerging infectious diseases such as Avian Influenza.

Promoted by the NASA Innovative Partnerships Programme, a NASA-developed process for creating nano-tubes was licensed by a Boise, Idaho company, the main infactor(?) single-walled carbon nano-tubes. The company commercialized its products and the inexpensive robust nano-tubes are now being used to create the next generation of composite polymers, metals and ceramics.

Researchers are now examining ways to use these materials in transistors, fuel cells, televisions, super-capacitors, catalysts and advanced composite materials.

Space research continues to improve and revolutionize our lives as NASA research has spun-off in the tangible and remarkable benefits for all. Our resolve to improve the quality of life on Earth and benefit humankind provides the impetus to develop and disseminate these technologies.

The handful of examples I have highlighted are the direct result of the United States Government's vibrant Civil Space Programme, dedicated to active and productive collaboration with private industry and academia. Additional information about these and many other interesting spin-offs is provided in a brochure on NASA's spin-off efforts and a copy of NASA's publication "Spin-Off 2007" in both hard copy and compact disc, which have been distributed to each delegation's mailbox and to the documents table in the back of our meeting room. Thank you Mr. Chairman.

The CHAIRMAN (*interpretation from Spanish*): Let me thank the distinguished representative of the United States, James Higgins, for that statement.

That was my last speaker on the list. At least ask if there any other delegations that wish to take the floor under this agenda item?

I see none.

We shall continue this item this afternoon as well, Spin-Off Benefits of Space Technology.

Space and society (agenda item 11)

Now, distinguished delegates, we turn to agenda item 11, Space and Society.

Let me remind delegates that in paragraph 51 of resolution 62/217, the General Assembly requested the Committee to continue to consider at its fifty-first session, under its agenda item entitled "Space and Society", the special theme for the focus of discussions "Space and Education".

I have no speakers on my list. So we shall return to this item this afternoon and tomorrow.

We now come to our technical presentations and I give the floor to the Japanese delegation, Makoto Kajii, who will be talking about Sentinel-Asia. You have the floor Sir.

Mr. M. KAJII (Japan): Thank you very much for giving me an opportunity to present our regional space cooperation.

Let me begin my presentation by showing a short movie on the Sentinel-Asia.

The movie please.

Video

Thank you for your kind attention.

So I would like to move my presentation. But prior to my presentation, I would like to express my deepest sympathy for the victims and their families of the recent disasters in Myanmar and China.

As you see in the video, Sentinel-Asia is a disaster support system which supports disaster management agencies through providing relevant information of the disaster-hit areas obtained from the images taken by satellites.

Let me try to describe Sentinel-Asia in other words. Firstly, Sentinel-Asia is _____(?) cooperative framework who work on the best effort basis in which space agencies and disaster management agencies work together.

Secondary, Sentinel-Asia is an Internet-based network through which disaster-related information is provided quickly and practically.

Thirdly, Sentinel-Asia is a series of activities of planning, development and operation of its own systems and it also have activities to help the disaster management agencies to develop their own capacities to utilize satellite data.

The concept of Sentinel-Asia was pre-_____ (?) after the Asia-Pacific Regional Space Agency Forum, often abbreviated as APRSAF, and this concept has been materialized through efforts of the Joint Project Team which was organized under APRSAF.

Sentinel-Asia has been successfully operational fro two years and currently it is now recognized as a common asset of the region.

The first phase of Sentinel-Asia, Step 1, was completed last year and the start of the next phase, Step 2, was agreed at the APRSAF-14. Let me describe the objectives of the Step 2. First, it aims to increase the number of the satellites which provide image data. Second, it aims to improve the accessibility in the _____ (?) area. It will include also the utilization of a communications satellite. Third, it aims to provide value-added data by _____ (?) are provided in the first phase. Fourth, it aims to expand

its scope of disaster while it was focusing on flood and ground threat and the _____(?) in the first phase. And fifth, it aims to expand its users and its human network.

The First Joint Project Team Meeting of Step 2 was held in Kobe, Japan, this June, under the representatives of the participating agencies, have agreed these objectives.

Mr. Chairman, now I would like to touch upon the Asia-Pacific Regional Space Agency Forum, or APRSAF, which served as an incubator of Sentinel-Asia.

The First APRSAF Annual Session was convened in 1993. Until now, Japan, as well as Mongolia, Malaysia, Korea, Thailand, Australia, Indonesia and India hosted annual session of APRSAF.

APRSAF has been serving as a springboard for space cooperation through lively and constructive discussions.

Presently, APRSAF has four working groups. The first one is the Earth Observation Working Group which initiated the idea of Sentinel-Asia and now it is focusing and looking at such global issues as climate change and global warming.

The second is the Communications Satellite Applications Working Group which works applications of satellite communications _____(?) Asia-Pacific region.

The third is the Space Environment Utilization Working Group. APRSAF is not only working on space utilization on the ground, but it is also discussing with such collaboration on space experiments using the International Space Station.

The fourth and the last Working Group is the Space Education and Awareness Working Group which has been discussing with members from the education sector how to provide the children with dreams and hopes for the future through space education.

This year's APRSAF-15 will be jointly hosted by the Ministry of Science and Technology of Viet Nam and the Academy of Science of Technology, in Hanoi and Halumbai(?), Viet Nam, this December.

Mr. Chairman, after the end of my presentation, I would appreciate this opportunity to present Sentinel-Asia and APRSAF, that is to say in

developed(?) of the Asia-Pacific region to outer space cooperation with society as of its _____(?) of COPUOS on behalf of the members of Sentinel-Asia and APRSAF.

And, Mr. Chairman, lastly, allow me to give a detailed announcement that there will be a Reception this evening, jointly hosted by India, Viet Nam and Japan. We look forward to seeing all of you there this evening. And thank you very much for your kind attention.

The CHAIRMAN (*interpretation from Spanish*): Let me thank Mr. Kajii from Japan for that very interesting technical presentation on Sentinel-Asia.

Now, let me ask delegates if they have any questions for Mr. Kajii at this time.

I see none. Let me again thank him very specially for this regional initiative. We are very pleased in COPUOS to have news of the kind of initiatives, especially when you mentioned the common heritage of different countries. Sentinel-Asia is a very high-quality undertaken, not just for Asia-Pacific, it is also a direct result of an effort from a platform of joint efforts, APRSAF, which we are all so very pleased to see that its structures are well functioning. It is a regional forum as we have in other regions, obviously in Latin America and Africa there are other efforts being made. Again, our thanks and gratitude on behalf of everyone present here.

Now the second presentation distinguished delegates, will be presented by Dr. Harald Mehl from the German Remote Sensing Data Centre, DLR contributions to any activities, "Rapid Mapping Services and Applications for Emergency Response". Mr. Mehl, you have the floor.

Mr. H. MEHL (Germany): Thank you Mr. Chairman, ladies and gentlemen. I would like to give you a short overview about DLR's contributions to United Nations activities especially in the context of disaster management. DLR is the German Aerospace Centre and, let us say, it is executed of _____(?) for space activities and disaster management.

I prepared my presentation in the way that I focused the German aerospace activities in the United Nations context and the United Nations organizations mainly we are working together in the context of disaster management, civil security, environmental monitoring, which I also see as a topic in disaster

management, I will come later to that, but also education and capacity-building as a topic of disaster management.

At the beginning, and I think we have a general understanding there is a need for more Earth observation-based information and _____(?) of Sentinel-Asia that is exactly what we need, more satellite systems, more efficient satellite systems, more information.

But I also see as a development of the last years is that we have a progress of solutions for emergency relief, here in the context of rapid mapping, a lot of organizations were quite successful. What I would say we need similar engagement, similar activities, similar solutions for alertness, preparation, prevention, risk analyses, or nobility studies and so on.

Here also DLR developed solutions for these topics to cover the whole disaster management cycle. For that reason, the German Aerospace Centre who realized technical expertise by data reception, data archiving, data management by the German Remote Sensing Data Centre. And the same Centre also received a lot of application competences within the last years but to come together with the disaster management community. We established our own centre which we called Centre for Satellite-Based Private Information, which is close or to the wording(?) of the disaster management community to understand the necessities, the requests these communities need so that we finally can cover the products, the information products for information solutions, for political decision-makers, the situation centres, relief organizations, but also of the public, is needed.

This Centre for Satellite-Based Private Information has actioned to rapid mapping, basic map production of 24/7 days solutions. It is an established contact point in Germany but it acts all within a network of organizations for Europe and it is all the key partners in development and implementation for the European GMES core service which is called emergency response which will be covered in _____(?) here.

Here you see a flowchart for rapid mapping. That means once we have acquired this information, it is necessary, so we have to trigger processes, that means we have to be in contact with space organizations, for example, the Sentinel-Asia. We have to ask them to triggering satellite data. Once satellite data are available, pre-processing as necessary, analyses map production and delivery.

Just as one example, how we do it in ZK in the Centre of Satellite-Based Private Information, for example, the flooding situation in Mexico last year, at the beginning we have the acquisition, the acquisition of satellite data from all satellites which are available. Then we have the pre-processing, we have the data analyses, map creation, and finally, the dissemination.

If you ask where we have necessary research activities within the next 10 years, then I would say, in data analyses there is a lot more to do to be more proficient, to be more concrete, to a semi-automatic or automatic solutions. Map creation, I would say we have already quite good solutions in all organizations. And in dissemination, let us say the last mile that we really reach the rescue teams that we really reach the situation centres. Here also communication solutions are necessary and all _____(?) based solutions have to be developed.

Very important in this context is the International Charter on Space and Major Disasters. I think this initiative is very important because due to this initiative, we receive satellite data free of charge for disaster management. And here also the DLR acts in the form of a project management since 2002 and hopefully within this year also the DLR will answer as a full member of the Charter.

There are, since a couple of years, as you can see here, in disaster management, as a project manager, and be assured that I will not go through the list, but we act in Europe, in the Mediterranean but we also act internationally if it is in Africa, in South-East Asia, but also in America. Just an example, Mexico, the flooding situations last year in the area of Viamosa(?) in November, we worked together with the Civil Protection Agency of Mexico, SENABRET(?), we worked together with them, we produced for them map, we got feedback from them and improved our map. This was also in cooperation with UNOCHA(?) in the exchange of geobases data and _____(?).

Bangladesh, here due to the triggering of the disaster by the World Food Programme, we worked here also together with WFP, we developed projects, we did the project management for this call, for this Charter call, and we could provide satellite images and we provided maps of the area for the World Food Programme, who was in contact in the Bangladesh area.

In Namibia, the same situation. We used mainly in that case TERRASAT data from the German satellites. We produced maps as well to call by the

European Space Agency and together with UNOSAT, we worked with them, but also we worked with national contact points. We have had already in Namibia, especially the National Department of Water Affairs and developed for them value-added products. We get also here a very important field, data which we could include it in our product. And finally this cooperation still is going on, that means if we are talking about a cooperation.

Myanmar. Although here there was Charter activity by the World Food Programme and by UNOCHA(?), also here we worked together with these United Nations organizations. Again, we developed from these areas products, we exchanged with these United Nations different sources for the final solution.

As I said at the beginning, emergency mapping or rapid mapping is important but in my mind, what is even more important is that we should focus more research activities in the next years is early warning. Early warning comes before it and if we would have better solutions to early warnings, we would have more progress also in other activities. In that context, Germany is contributing together with the Indonesian colleagues in developing the Indian Ocean Tsunami Early Warning System, which includes also a dissemination module. At the moment, in the Indian Ocean, there will be developed different early warning systems. The Indian colleagues already launched their system at the beginning of the year. Also the Australians acquired access there and we hopefully will launch the Indonesian Early Warning System in November of that year.

What is important in the context of such a Tsunami Early Warning System is to bring together seismic information, information of type _____(?), of the ocean bottom unit, of the GPS system, to bring them together to develop a higher-level decision to _____(?) system, which can do rift(?) modelling during an ability assessment which gives you hints which areas will be affected by a tropical tsunami. And then for sure you have to develop communication systems that you can disseminate your information and that you can reach finally the last mile area. That means rift(?) vulnerability(?) modelling within early warning systems is a major topic which means how to bring together the geodatabase, statistical data to vulnerability assessments, to keep in mind that _____(?) hydraulic modelling finally votes it wants to have this product, a product about hazard maps, as a first step, risk zoning map, as a second step, evacuation planning as a third step, and finally, as a whole model, a decision to _____(?) for early warnings.

The point is, and in my mind also, a critical point, who are decision-makers to finally make the alert? If you see this viewgraph at the bottom level, _____(?) spaceline geodata, data ingestion processing modelling. That will be done by technicians and that is already more or less solved.

If we are talking about situation awareness and about decision support, we have not only technicians, we have here also politicians, political decision-makers, that means lawyers, economists and they need graphical solutions that they understand about what they have to decide. But if we have to look for solutions but the decision-makers see exactly what we have to decide. Here also, a lot of research here has to be done within the next 10 to 15 years.

All these tsunami early warning activities are under the umbrella of the UNESCO IOC Working Group and will be managed by UNESCO.

Coming to the next point, which is environmental monitoring, and in mind it is similarly important than disaster management for human beings. Also there is not so much support, also not by the press media.

If you think about the loss of biodiversity, for example, in African, the people who have been last for two weeks in Bonn, for the COP(?) Meetings, there we did discuss quite intensively the biodiversity concentration and the loss of the biodiversity concentration. So it is obvious out of here we have to do a lot of emphasis concerning the monitoring of the biodiversity.

The DLR is participating in a lot of projects in this topic. For example, here how can we do the easiest habitat mapping? On one side we would like to know more about the easiest distribution, on the other side, we have climatic data, we have remote sensing data. Now it is necessarily being analyzed the modelling to understand more about is their correlation between the space distribution and can we delegate information by remote sensing data?

Also economic and ecological restructuring of land and water uses is an important topic. Germany, in general, is pushing that topic very much, especially for the area of Central Asia. And here we have also acquired some activities to improve solutions for natural resource management, agricultural production, together with UNESCO as an international partner. Here, one example, irrigation management, that means water validity(?) is here a major topic and by more

_____ (?), for example, we can derive information concerning the NDBI, or the least area in that includes the modelling aspects these information for final _____ (?).

Decision-support on sustainable development of the _____ (?) in Viet Nam is another major topic we have continuously flooding situations in the Viet Nam area so it is helpful to have information systems by what we can understand how the flooding situation but also how is drought situation.

What is important is that data management, the data flow between information systems. My experiences in Viet Nam just in the _____ (?) there are yet around five to 10 information systems, if you are talking about the whole _____ (?) and water _____ (?) management, then I would say that we have around 50 information systems. So there is no need for information systems. What is important to combine to make available an exchange of information of all these information systems and this system is dedicating to exactly that topic. For sure then, data collection modelling prediction, analyzes the flood monitoring and policy support on minor topics of that.

World Cultural Heritage Mapping is another topic we are working together with UNESCO for the mapping of archaeological sites in Europe (?) and in Iraq. It is a topic and a global programme of UNESCO monitoring of world heritage sites. Here, the high-resolution data we try to protect illegal (?) _____ (?) and better maps to the extent of the known excavations there.

Coming back to education and capacity-building, disaster management is a major topic but where we have to do all the more is to train people who still not have sufficient health and how to use remote sensing data, how to use information systems. For that reason, the German Aerospace Centre works quite closely together with the United Nations University and the Institute for Environment and Human Security in Bonn.

We managed to get a PhD but we also work together in research activities in vulnerability and risk assessment. But also to decide a PhD programme in capacity-building, we work together to giving training courses, doing joint simulations and real-time exercises with interested agencies, but also doing technical hands-on training for interested organizations.

Here are components of capacity-building training modules, _____ (?) that were given exercises that really _____, taking documentation

examples through evaluation sheets of the trainers and finally certificates. Also training material will be developed here in the case for training courses to be given in the ocean area for in concerning the tsunami early warning system.

That means also workshops have to be realized and here also this year we will realize a second SPIDER in Bonn, together with the United Nations Office for Outer Space Affairs, with UNHDS and for sure with our activities.

Exercises in my mind, there will have to be done more. Here an example of one working in a real-time exercise on applying satellite imagery for supporting international crisis responses.

Still we do not understand sufficiently how the rescue teams really work, what are their real serious demands. In this case, we did a coordination work with 18 European research institutes and more than 60 scientists to understand more clearly what are the serious demands of them.

This week and last week we had similar exercises in Cyprus where we also work for the European Commission, a jointly organized Workshop together also with the THW, and the United Nations (?) International Assistance also to work to collect (?) the rescue tubes, to understand which type of communication they need for their demands, how we can include remote sensing data and how we can use GPS information for a balanced space solution system.

Let me give you some final remarks. The German Aerospace Centre is actively involved in a research project in support of civil security, environmental monitoring and sustainable development. The DLR provides through Sector A, the German contribution for European and international civil protection and humanitarian relief using also the Earth observation.

Capacity-building is an integrated part of the DLR activities in environmental and disaster management needs available for supporting and for sure, also important the fourth point, the DLR supporting the United Nations Programme on Space-Based Information for Disaster Management and Emergency Response, SPIDER, and we sent two secondments to the SPIDER office in Bonn. Thank you very much for your attention.

The CHAIRMAN (*interpretation from Spanish*): I would like to thank Mr. Mehl from the German Space Research Centre for his outstanding

presentation and turn to the room. Does anyone wish to take the floor? It does not seem to be the case but I believe that I can speak on behalf of all of us when I thank Mr. Mehl for having touched upon a question which is a priority in today's world. We all know and where a number of statements at the beginning of our session regarding the disasters in China and Myanmar and the mapping and response to emergency situations. Emergency response is something which is extremely important when it comes to decision-making. You have explained this full well. Links have to be established between the political, scientific and economic dimensions and I believe that this type of information is very important. It is important to ensure that this information be disseminated, how to respond, what needs to be managed and you have told us that systems exist, very important systems. And there is a light motif which can bring all these systems together and it is up to us to see how we can respond in a flexible and rapid way.

Another issue was environmental monitoring, something which is extremely timely and topical. The loss of biodiversity, another important topic, irrigation and a great many other issues.

And I believe that capacity-building in developing States is very important because often these States which are affected by these disasters. This is also very important when it comes to SPIDER role in disaster management. This is something which we should address and I, therefore, thank you for your presentation. Thank you. You have provided us with a great deal of food for thought.

We now move on to the last of the presentations this morning. Ms. Bijal Thakore will present this. He is the Regional Coordinator for the Asia-Pacific region and she will tell us about capacity-building for community-based disaster management in the context of recent disasters in the Asia-Pacific. Thank you. And this is a most topical issue, a priority for all of us.

Ms. B. THAKORE (Space Generation Advisory Council): Thank you Mr. Chairman and distinguished delegates, on behalf of the Global Youth Community represented by the Space Generation Advisory Council, in support of the United Nations Programme on Space Applications, I am honoured to address this distinguished meeting on the topic of Youth Views on Capacity-Building for Community-Based Disaster Management, particularly in context of the recent disasters in the Asia and Pacific region.

My name is Bija Thakore and I serve as the Regional Coordinator for the Youth Activities within the Asia-Pacific region for SGAC.

With our recent activities, several of you are well aware of our logo, as shown here. The SGAC logo has three people floating in space with United Nations-like wreaths of wheat around it. A lot of thought went into this logo and the meaning and symbolization behind it. If you look at it, you see three people floating in space and a blue-green Earth-like planet, amongst others, there is a star and a crescent moon, two companies who had since the time of civilization which have intrigued about the heavens and inspired us to understand our Universe. Most of all, personally for me, the three people represent the community and that we share this Universe with all our humanity.

Please allow me to give a brief description of the experiences of our members and concerns with the disasters and this briefly where we can help.

This region represents several hundred members as active youth space enthusiasts of all ages between 18 to 30 years old. It is important to consider, Asia-Pacific in particular, when discussing technological and natural disasters and their effect on youth, as nearly 60 per cent of the world's youth lives in Asia.

By 1990 figures, there are 234 million young people in South Asia and 269 million in East Asia alone. Hence, the young people given the right tools and education can help a significant force towards helping the region to cope with such disasters.

In terms of the focus of the Asia and Pacific in the activities of our global organization, we have an active membership of 14 countries with national points of contact.

Whilst in the recent times, economic development has increased unemployment and living conditions as well as future prospects of youth in several countries in the region, this advancement has not been completely inclusive or uniform. Prominent youth issues still remain open including youth education, welfare, health and vulnerability.

Increased frequency of intense disasters has made the situation whereby hampering progress, economical and food security.

Among the United Nations-defined least developing countries, 14 countries are from the Asia-

Pacific region, of this SGAC is proud to have found dedicated individuals that are investing their time and to build better educational, promotional and inspirational activities and projects with the aid of local as well as national authorities, especially Afghanistan, Bangladesh, Myanmar and have those good relations with volunteers in Nepal.

Their activities also extend to policy input in national, regional and global levels. We take great pride in having these individuals and youth groups that partner with amongst our network as many as are available and they are able to significantly enhance the way in which our local communities look at space technologies and their use.

These members have actively voiced opinions on the matter of disaster management and response and activities relating to space at a number of occasions when opportunity is presented. Please allow me to illustrate with some examples.

The Space Generation Forum convened as a part of the UNISPACE III Conference in 1999 recommended to include priority access to mobile satcom network for disaster emergency management in the Vienna Declaration on Space and Human Development. This event, which marked the birth of SGAC, represented the united opinion of 160 young people from 60 countries on the subject.

During our SGAC, 50 Years Vision, a highlight of 2007, young people around the world generated visions that made recommendations for the next five to 50 years and called upon an improvement of rapid response and disasters, Earth-based, space-based, etc. especially for developing or Third World countries which do not have an indigenous tool.

As featured in our Annual Report for the year 2007, we endorsed the most recent activities on youth preparedness for disaster management in a Workshop on Youth for Space: The Next 50 Years, held in Malaysia, and an educational portal on disaster phenomenon by the Pakistan Space Agency.

We also support the work of young professionals at the International Space University on recommendations for protecting and preventing of earthquakes by Team Project Tremor in 2007.

Let us look at the latest disasters in the Asia-Pacific and the experiences of SGAC members in the region.

The 2004 Boxing Day tsunami, a Sri Lankan and TOC(?), Ewan(?) Ferrera worked as a volunteer at a Disaster Relief Centre in Colombo following the December 2004 tsunami. It was an experience he will never forget. There were dozens of young people from all walks of life who turned up at the Centre to help relief work and donated dry rations, clothes, etc. Around 40,000 people were estimated to have died in Sri Lanka during the disaster. Almost four years on, there is still many displaced people living in temporary shelters awaiting permanent housing. We thank the Sri Lankan Government and international community who have done a great deal to help these communities recover from catastrophe, for which we are very grateful.

Following the tsunami, some young people have created Sahana, meaning relief in our Sahala(?) language. An international award-winning disaster management software that has been used following several disasters worldwide and you can read about it on www.sahana.lk.

Cyclone Sida(?) in Bangladesh, during the night from 15 to 16 November 2007, tropical cyclone Sida(?) swept over the southern west part of Bangladesh leaving behind a trail of destruction, with wind speeds of up to 240 kilometres per hour at the coast and up to 160 kilometres per hour at the capital Dakar. Sida(?) forced three million people to flee from their homes in 15 coastal districts of Bangladesh and more than 3,000 people were estimated dead.

On 2 May 2008, tropic cyclone Merkis(?) swept over Myanmar and left behind a path of destruction. Wind speeds of more than 200 kilometres per hour and a storm surge of up to three metres in height destroyed more than 90 per cent of the housing and large parts of the infrastructure in some regions. It is believed that more than 100,000 people could have been killed and more than a million have lost their homes with the disaster. In the affected regions, the people face a lack of food and drinking water. Large regions still remain at high risk of pandemic plagues like Cholera in the Evadi(?) Delta.

The earthquake in Sichuan, China, on 12 May, measuring 7.9 on the Richter Scale, with its epicentre in Sichuan, has affected 71,000 people. This region is currently still experiencing the devastating effect of aftershock.

These natural disasters leave the region with multiple effects, economic, social and emotional. They affect the economic prospects, livelihood and social structure of life for youth. It not only diminish their

future prospects of economic growth, but also reverses it in several cases. Included with this political instability and malpractice have left millions of youth stranded, homeless, injured, without adequate education, employment, and rehabilitation opportunities and a large-scale risk of pandemic outbreaks.

The SGAC fully supports and acknowledges the works of several hundred young relief workers and agencies who mobilize the aid the afore-mentioned disaster-stricken regions. SGAC strongly encourages and is inspired to follow-up on their experiences to match what the space community can provide in order to make the immediate disaster response more effective. Aid workers carrying out post-disaster medium- and long-term response work are key to the given information from the last event in order to create better preparedness in the communities they are serving.

On several occasions, we had requests from relief agencies who were not able to access tools and maps but are easy for local communities to understand without much language barrier. Here is my SGAC experience with young people and the Space Generation can help.

SGAC recognizes the strives that United Nations bodies have made in the recent establishment of multiple, global and regional mechanisms to help better management of disasters through the full cycle of prediction, early warning, dissemination of information, response and preparation. SGAC is eager to work with the International Charter of Space and Major Disasters which provides the unified system of space aid acquisition and delivery to emergency authorities affected by natural and man-made disasters.

A number of regional initiatives, including the GMES Programme in Europe, Sentinel-Asia's 18-Nation Operation System and SERVIV(?), a Meso(?)-American Visualization and Monitoring Portal and the United Nations Office for Outer Space Affairs and United Nations member States-defined United Nations Platform for Space-Based Information and Disaster Management and Emergency Response, UNSPIDER.

We endorse the establishment of these initiatives. To our part, the working of the UNSPIDER and help promote awareness by their activities by featuring recent and upcoming workshops, update and documentations and our monthly newsletter.

As a community of global citizens, we extend our help in disseminating information to this missing link.

Instead of the last _____(?) problem, this is one that can be solved in due time with creating a virtual representary of adequate information which will help communities and local parties, such as schools, _____(?), clubs, etc., to prepare for disasters. This is in support of UNSPIDER's activity treaty to become a gateway to relevant information and bridge the gap between disasters and space information by becoming more user-driven.

We are eager to work in conjunction with the afore-mentioned agencies and organizations in all ways we can. Please allow a couple of suggestions to serve as example.

As illustrated all through this presentation, a viewgraph, an online theme(?) of resource tools can be of useful needs. This user-driven data could be delivered more quickly via the Internet so as to easy to interpret disaster-related information for better preparedness. Use of Google maps and embedded data can only help to gather up-to-date information but also become a repository of information which can be referred back to and use for capacity-building in communities vulnerable to natural disasters.

We hope to prepare a database in such an easy to understand manner that can be used in different regions to help create additional ways to this large gateway.

Our aim is to target young people and youth both affected by disasters and those carrying out relief work, to help them in what we see collectively as a gap. Whilst their effort is currently only a first step in the right direction, we hope to work with established agencies, regional organizations and universities to partner and create a very(?) information and educational portal on how space technology and ICT tools can help.

We hope that much of this knowledge will be linked to the actual agencies so that repetition of unnecessary data is avoided, original content sufficiently credited and available to schoolchildren and emergency response agencies, including key partners.

I urge you distinguished members to include us as full and equal citizens as serious and reliable partners in the implementation of policies and programmes in their community and those specially

that affect the future of our youth. L This will encourage young people to be active and creating services they use rather than being passive consumers and be about drastic effects of natural and technological disasters and you go towards highlighting any such service would be an agent for youth in parliament and positive social change.

Thank you very much for your attention.

The CHAIRMAN (*interpretation from Spanish*): Thank you. I would like to thank Ms. Thakore, First Coordinator of the Regional Asia-Pacific region of the Consultative Board of the Space Generation Advisory Council.

Does any delegation wish to take the floor on this? It does not seem to be the case. So, again, thank you and congratulations on your sterling presentation. It is an outstanding way of paying tribute to all the work carried out by young people. They want to be considered full-fledge citizens, equal citizens, and this, I believe, is a feeling which is shared by all representatives here. We all have a great deal of respect for the work which you are carrying out and we, of course, will spare no effort in attempting to assist you and we do appreciate the way in which the members of the Space Generation Advisory Council are raising the awareness of the population at large and young people especially. So again, thank you.

So I will shortly adjourn this meeting of the Committee but before I do so I would like to give the floor to the delegate of Austria.

Ms. I. MARBOE (Austria): Thank you Mr. Chairman. I would just like to draw your attention, I was asked actually by the Head of our delegation, of the Austrian delegation, to draw your attention to the invitation by the Federal Ministry, by the Austrian Federal Ministry for European International Affairs, which has been distributed in the last days to the Head of delegations and to draw your attention to a Reception by the Secretary-General for Foreign Affairs, Ambassador Johannes Köller, who would like to invite you to the Reception, to the traditional Heurigen tomorrow in the evening at 7.00 p.m. And the organizers would need a list, or at least an approximate number, not the names, but the number of participants, and I would kindly like to ask you to tell us how many people per delegations would like to participate and I have started to draw up a list. So please approach me, I will be here. I have just started this list and I will be here until evening. We need this list until 6.00 p.m. or 6.15 p.m. I will be here and I would like to have the number of participants. Our

delegation would like to add something. OK, it would be a great pleasure to welcome as many as possible to our Reception tomorrow evening. Thank you very much.

The CHAIRMAN (*interpretation from Spanish*): Thank you. I thank the distinguished delegate of Austria. And I wanted to put a question to you, if I might? We are used to these wonderful Receptions. They are most pleasant but you have not told us, it is in a Heurigen but could you please explain us what is so interesting about a Heurigen?

Ms. I. MARBOE (Austria): An attractive thing about a Heurigen is that, if the weather allows, we can be outside and the tables will be outside in a wonderful garden. We hope that it will be possible once again and the tradition is that they will serve their own wine. So they are wine cultivators and they offer their own wine and, of course, food will be, yes, that is a very specific Austrian tradition, a Viennese tradition.

The CHAIRMAN (*interpretation from Spanish*): Thank you.

I would now like to inform delegates of our schedule of work for this afternoon. We will reconvene at 3.00 p.m. and I hope that we will conclude our consideration of agenda item 8, Report of the Scientific and Technical Subcommittee on its Forty-Fifth Session. If necessary, of course, we could continue consideration of this item tomorrow morning.

We will also then move on to continue our consideration of agenda items 9, Report of the Legal Subcommittee on its Forty-Seventh Session, and 10, Spin-Off Benefits of Space Technology: Review of Current Status.

Time permitting, we will also consider item 11, Space and Society.

Following the plenary, there will be three technical presentations. The first by a representative of the International Astronautical Federation on Space and Society. The second by a representative of the Association of Space Explorers on Near-Earth Objects, NEOs. And the third one by a representative of the Space Generation Advisory Council entitled "Introducing a New Framework for Space Traffic Management", that is TM.

And at the end of afternoon meeting, in the Mozart Room of the Vienna International Centre, there will be a Reception, hosted jointly by India, Japan and

Viet Nam. I believe that this was already announced this morning.

If any delegation has any questions or perhaps comments regarding our programme of work, no? The meeting is adjourned.

The meeting adjourned at 12.55 p.m.