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3RD ITU INTER-REGIONAL WORKSHOP ON WRC-19 PREPARATION

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>> Hello Caption First, this is a quick test with Caption First.

>> Hello, good morning. Good morning, hello.

>> GRACE PETRIN: Good morning, ladies and gentlemen.

Please take your seats as the 3rd ITU Inter-regional Workshop on WRC-19 Preparation will begin in 5 minutes.

Thank you.

Good morning, ladies and gentlemen.

Welcome to the 3rd ITU Inter-regional Workshop on WRC-19 Preparation

and to the beautiful city of Geneva.

I will now like to introduce the persons we have in the podium today starting with:

Mr. Houlin Zhao, Secretary-General of the ITU

Mr. Mario Maniewicz, Director of the Radiocommunication Bureau,

Dr. Amr BADAWI, the former Executive President of NTRA, now

Professor at Cairo University and Proposed Chairman of WRC-19

Mrs. Joanne Wilson, Deputy Director of the Radiocommunication Bureau

Mr. Philippe Aubineau, BR Counselor for ITU-R Study Group 1 and the CPM, who will be the Secretary of the Workshop

I now have the pleasure of giving the floor to the ITU Secretary General.

Excellencies,
Ladies and Gentlemen,

Please welcome Mr. Houlin Zhao, Secretary-General of the ITU for an opening address.'

(Applause).

>> HOULIN ZHAO: They asked me to come here so I came here. It's a great pleasure to see all of you here. I'm pleased to see two former committee members up here. It's a great pleasure to have you all here. Welcome to our third and final ITU Inter-Regional Workshop on WRC-19 Preparation. I know you have a packed agenda for the next few days, so I will try to be very, very brief.

I want to thank the proposed Chairman for WRC-19 Dr. Amr Badawi, for being with us here today. And I know he's been here for a couple of days with a meeting with the Director and staff in the lead-up to the Conference. Please join appellee in congratulating him on this important new role.

(Applause).

Of course, everybody asks --

I am pleased to see our main regional groups and many of our Member States here today. It shows how important common and coordinated proposals are to the success of the conference.

Earlier this year, the CPM Report was approved and published in six of the official languages of the Union.

The informal group of representatives of the regional groups for the preparation of the WRC-19 also agreed to a draft structure for WRC-19.

As we now focus on the final stage of the WRC-19 preparation, I hope this spirit of the cooperation will continue to guide this workshop and your discussions.

Dear colleagues, new radiocommunication technologies such as IMT-2020 (5G), high-altitude platforms, new satellite systems and many others raise expectations and hope.

These technologies require the establishment of a stable, forward-looking, and harmonized international regulatory framework, one capable of providing certainty to investors, economies of scale and interoperability, a framework that enables

roaming and ensures interference-free operation with necessary performance and quality of services.

WRC-19 will provide frequency and orbit resources for new radiocommunication technologies, and the technical framework for the operation of services.

The Conference will play a critical role in helping to achieve many of the Sustainable Development Goals, such as addressing the accelerating climate crisis, reducing food shortages, improving safety in transportation systems in the air, on land, and on the sea, while providing improved connectivity for people worldwide.

Ladies and gentlemen, WRC-19 decisions will pave the way for future development of the radiocommunication ecosystem. This Inter-Regional Workshop is an opportunity to facilitate the clear understanding of the methods in the CPM Report, the advanced common positions and proposals to WRC-19 and the BR Director's Reports. It marks a key step in preparing for the World Radiocommunication Conference that will take place in Sharm El-Sheikh this fall in Egypt. We'll be confident the preparations for the WRC-19 will be completed, and we assure you that the government will make sure that from the logistic side, from security side, and from everything they can offer, we will have a success. Of course, whether there will be success or not is in your hands, so we count on you.

So in closing I wish you a very successful workshop and reaffirm the support of all ITU staff in the preparation of the WRC-19. Thank you very much.

(Applause).

>> Thank you. I now invite Mr. Mario Maniewicz to give his opening address.

Mr Secretary-General,
Dr Badawi, proposed Chairman for WRC-19,
Excellencies,
Distinguished Chairmen of the regional groups and
organizations,

Ladies and gentlemen,

Dear Participants

It is also my great honour and pleasure to welcome you to this final ITU

Inter-regional Workshop on WRC-19 Preparation.

>> MARIO MANIEWICZ:

From the Secretary General, I'm not surprised to see the two former directors here. We have the pleasure to have them here and for me it's not a surprise, and it shows that we are a big family and that the radiocommunication community is always together and the fact that they are not directors anymore doesn't mean that they don't care anymore, on the contrary, they follow very closely what we all are doing and they give their hands whenever necessary to ensure that we continue on the right path, so let's give them a round

of applause for their commitment and dedication.
(Applause).

We have now reached an important landmark towards the WRC-19 Preparation with the completion of the CPM Report and the final steps of the ITU-R studies for WRC-19.

I should here acknowledge all the efforts put into this process by you, our members, under the very high level and competent leadership of the Chairmen of all responsible groups, Study Groups and the CPM.

The importance and the volume of the work carried out can be easily measured by the valuable information included in the CPM Report, including different possible solutions to satisfy the WRC-19 agenda items and issues.

We noted with satisfaction the consensus reached already at CPM19-2 on a number of issues on the WRC-19 Agenda; dealing with some candidate bands around 32 GHz for IMT-2020, or around 5.3 and 5.9 GHz for WAS/RLAN, or for solutions to some satellite regulatory issues.

Conclusions and way forward have also been agreed on the results of several issues ITU-R studies regarding on board sub-orbital vehicles, the Wireless Power Transmission for Electric Vehicles or the spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures.

These ITU-R studies will continue without the need to change the Radio Regulations.

The CPM Report could have not been produced without the primary role of the ITU R Study Groups and responsible groups, which continued to meet even after CPM19-2 to finalize the ITU-R preparatory studies for WRC-19 with the approval of many ITU-R Recommendations and Reports.

In a few cases, additional works has still to be done, but I am confident that this could be achieved at RA-19; which will be still on time to facilitate the work of the conference.

Without all those efforts during the last 4 years, we would have not been able to carry out successfully the ITU-R preparatory studies for WRC-19 and provide the ITU Member States with the necessary information to well address the complex topics on the WRC-19 agenda and prepare their proposals and common proposals to

the Conference.

Dear Colleagues,

In parallel to those ITU-R events, several meetings of the Regional Groups were held and we can see how successful this regional preparation was when we look at the high number of common proposals to the work of the conference that have been received or are being submitted to the Bureau.

To facilitate the review, analysis and study of the thousands proposals expected prior to and during WRC-19, the Secretariat has developed and made available new tools on the web.

We encourage to continue the use of these tools such as the Conference Proposal Interface and the Proposal Management System for the preparation, submission, review and analysis of the WRC-19 proposals.

The recent developments at the regional group meetings are also promising towards reaching additional consensus before WRC-19, and some of them should be brought to our attention in the coming three days.

I should also mention that the Director's Report to WRC-19 in the next week and will contain valuable information for the Delegates, in particular on the difficulties or inconsistencies encountered in the application of the Radio Regulations.

The Report will be briefly presented in a few minutes and we hope that Member States will provide solutions to those issues in their proposals to the Conference.

Dear Friends,

It is obvious that the radiocommunication ecosystem will continue to play a key role in the development of ICTs.

To adequately satisfy the consumer demand, terrestrial and satellite radio technologies have evolved considerably over the past few decades and will continue to do so.

New applications have emerged for the benefit of all, and more will come, which we even have difficulties to imagine.

Advanced mobile broadband, IoT devices, high-altitude platforms, intelligent and safety transport systems; satellite broadband access on moving platforms like ships, planes or trains, use of small satellites or of mega constellations of non-geostationary satellite systems, are all present new technologies in demand of radio frequency spectrum.

Coexistence and spectral efficiency between these systems and applications are crucial. They facilitate the deployment of regional and global networks, enable economies of scale, and make radio equipment and devices more affordable for all countries

These new technologies and applications will have to co-exist with a number of science services that are using key parts of the frequency spectrum and are equally important to preserve our planet and our life.

All those issues and a few more are on the WRC-19 agenda, and I believe that it is only with a global cooperation toward the development of an appropriate international regulatory framework that one of the primary principle of the ITU Constitution will be achieved, that is to avoid harmful interference between radio stations of different countries.

Ladies and gentlemen,

I will close my remarks by wishing you "bon courage", As we say in French,

with an assurance that the staff of the Bureau present at this Workshop will be pleased to provide any information you might need about the different topics on the WRC-19 Agenda.

May I offer my very best wishes for an enjoyable stay in Geneva and a successful Workshop.

Thank you very much.

(Applause).

>> Thank you, Mr. Director. I now invite Director Amr Amr Badawi to give us an opening address.

>> AMR BADAWI: Good morning, ladies and gentlemen. I would like to thank you for the kind invitation to speak today at the Inter-Regional Workshop to prepare for the WRC-19. It's an honor to address you today as the Chair, as the Chairman designated for WRC-19.

First of all, I would like to take this opportunity to introduces myself. My name is Dr. Amr Badawi and Professor of electrics and communication at Cairo University and former executive President of the national telecom regulatory authority in Egypt where I held that position for almost eight years, and also my last position in the government was the First Deputy Minister for Institutional Development for the Ministry of Finance.

With my time, I was lucky enough to attend many ITU events, including a couple of WRCs, so I have an idea of how it works, about the flow of discussions and how difficult sometimes the debates can become.

I've seen my colleagues work around the clock, stay the whole

night in committees trying to reach decisions or conclusions for many important subjects. I've seen them also work towards best solutions that they can find to help advance the telecommunication sector in the world.

So, I know that we've got a great opportunity to help advance the telecommunication cause, whether it be fixed, mobile, satellite to help develop the global -- the globe into a much better world.

I see from my point of view that there is a big opportunity that is unfolding to help all sectors, whether it be satellite, mobile, even fixed through the new technologies that have been developed in the recent years. I can see that these technologies have expanded our real estate which is a spectrum and we're charting into new areas of the spectrum right now which gives us a lot of opportunities to introduce new services at much better quality and reduce the contention between the different users of the service.

So with your expertise, with your cooperation, and with having the goal of utilizing the current available resources that we have towards the betterment of this world, I'm sure we are going to have a win-win situation and a successful conference in Sharm El-Sheikh in WRC-19, so I'm really counting on your support, advice, and knowledge. I cannot do it alone; therefore, I promise you and everyone one of you and your colleagues that my door will be open during this conference any time between now and the start of the WRC and even during the WRC to hear you, to listen to you, to get your advice and wisdom in order to be able to help you reach the best decision that would be good for everyone.

So I'd like to take the chance to tell you that Egypt has taken all measures to make sure that all logistical arrangements and preparations for the conference are up to your standard, your high standard, and I know what I'm saying. We're looking forward to have a very smooth and successful conference in Sharm El-Sheikh, and in addition I would like to tell you the environment, the City of Sharm El-Sheikh is my favorite city in Egypt and it is a very nice place, so we're looking forward to a lot of hard work, but I hope this hard work can finish the issues so that you can even enjoy part of the city there. The city is very nice and please try to enjoy your time there.

So, we are working very closely with the ITU and the Radiocommunication Bureau for WRC-19 in order to make it successful, and the Bureau is doing everything they can in their capacity to achieve that. I've attended the last couple of days, I've attended a meeting workshop that was designed to help give some orientation to give some of the -- to provide me with all the information about the issues that are, you know, that we may have some problems and I'd like to thank Joanne Wilson for arranging a very, very informative session for a couple of days that were very, very helpful to me, and we're doing everything to make sure that we achieve the

success of the WRC.

With you today, my colleagues will make a presentation about the preparations of WRC-19. I believe it's the next session and that Egypt is currently undertaking which should guarantee that your stay in Sharm El-Sheikh should be pleasant and comfortable, and I hope this will make it easier for us to focus on the discussions at WRC.

As I said, I will be available throughout this Inter-Regional Workshop for further discussions, and I look forward to seeing you all in Sharm El-Sheikh. Thank you for listening, and I would love to see you soon.

(Applause).

>> Thank you Dr. Badawi. I now invite the Deputy Director of Radiocommunication Bureau, Ms. Joanne Wilson, to present the Director's Report.

>> JOANNE WILSON: I see the Secretariat has left so both recognizing the Secretary General and Director, our Proposed Chairman Dr. Amr Badawi, ladies and gentlemen, it is my pleasure to briefly introduce on behalf of the Director of -- the report on the activities of the radiocommunication Sector since the last World Radiocommunication Conference. This report is submitted to the WRC pursuant to the provisions of CV180 and item 9 of the agenda of the conference. This report will be posted on the website of the conference as Contribution Document had and we expect it to be able by the end of next week.

To facilitate the consideration of a variety of subjects dealt with in the report, it is structured in various parts, and each part is presented in a separate addendum as it is indicated in a summary table that you can see on the screen.

Part 1 informs the membership about the activities of the ITU-R Sector since the WRC-15. It covers the work of the BR that includes processing of filings, implementation of some WRC Resolutions, various publications, assistance to administrations, as well as the activities of the ITU-R Study Groups and the Radiocommunication Advisory Group. This part is mainly for noting.

Part 2 reports about areas, inconsistency, and outdated provisions in the radio regulations and also informs WRC-19 about the BR experience in the application of the radio regulations and difficulties met. This is the most important part of the Report, since here the BR presents the problems and potential solutions that require attention and decisions of the conference.

The issues raised in this part are usually allocated to relevant WRC Committees and Working Groups.

To give you some insights the terrestrial issues cover experience in the application agreement-seeking procedure of number 912, a proposal on changing the format of maritime identification digits in the radio regulation Article 19, the need to review of

RR articles and provisions related to aeronautical service since many of them became outdated, addition of new data items for broadcasting in RR Appendix 4 following the adoption of the relevant rules of procedure, and a proposal on the use of terrene data for examination of some categories of terrestrial notices subject to 921.

The main space issues contained in Part 2 address the application of RR 4.4 to satellite systems, including to inter-satellite links in amateur satellite or ISM bands. Issues of exceptionally large geostationary-satellite networks as mandated by counsel, the need to review and update Resolution 49, a number of difficulties arising from the difference between service and coverage areas in Appendix 30 (b).

As usual a number of inconsistency or clarifications in the current practices related to the space procedures.

It should be noted that the Preliminary Draft of this section of the Report was published previously in Contribution 17 to the CPM 19.2.

Part 3 informs the Conference about the activities of the radiocommunication Board and this surprises the review of Rules of Procedure, BR's decisions, example in 13.6, of harmful interference cases, as well as the matters brought to the RRB or brought by the RRB to the WRC-19.

Part 4 contains the statistics of the management of maritime mobile service identifiers. This is a number resource for maritime stations. Resolution 344, ref WRC-12 instructs the BR Director to report on the use and status of the MMSIs to each WRC and such reporting is needed to alert the WRC in case of rapid exhaustion of the resource for which the current situation is okay.

Part 5 provides information on changes in the allocation of call signs since the last conference. Any allocation of a call sign series between two WRCs is made on a provisional basis and subject to confirmation by the following conference. There has been no allocation since the WRC-15.

This was just a brief overview of the Director's Report to the WRC-19. As was the case in previous conferences, we are doublechecking the report to detect possible errors or omissions as well as collecting comments from our members. By delaying the publication, we hope to avoid the need to publish addendums and revisions to addendums to the Report. Again, we plan for the document to be posted by the end of next week.

As you had noticed in the workshop agenda, we don't have enough time to discuss the details of this report during the workshop itself, as most of the time available has been devoted to share the regional positions and various agenda items of the conference.

However, if you have questions regarding specific issues contained in the Report, you may wish to address the concern BR Chief

of Department online. They are all here with us today and I wanted to identify them so you are able to contact them.

We have Mr. Nocoli from the Terrestrial Services Department, Mr. Alexander from the Space Services Department, Mr. Sergio from the Study Group Department, and we all know Mr. Philippe Aubineau, and we're all here to provide support and clarify any doubts that you might have, and with that I conclude my presentation of the Director's Report to the WRC and I thank you for your attention.

(Applause).

>> Thank you, Ms. Deputy director. Ladies and gentlemen, we have now come to the end of the opening of the 3rd Inter-Regional Workshop of WRC-19 preparation. The next session will start in this room at 10:45. 10:45 confirmed. Thank you very much.

(Applause).

>> CHAIR: Ladies and gentlemen, if you could please take your seat, we will start the next session in two or three minutes. Thank you.

Okay, so ladies and gentlemen, good morning again and welcome to this 2nd session of the morning. I would like to invite the Representative Director of the radiocommunication Bureau and representatives of six regional groups as well as the representative of the host country to come and take a seat on the podium.

We welcome on the podium the Director of the Radiocommunication Bureau, Mr. Mario Maniewicz who will Chair this session. We also have with us Dr. We, the Chairman of the APT. We have also with us Mr. Tariq Awadhi Chairman of the ASMG. Mr. representing the ATU, Mr. Alexander Kuhn Chairman of the CEPT and Mr. caramel oa Rivera the Chairman of the Working Group of CITELE and Mr. Albert Nalbandian, the Chairman of the Workinggroup of RCC, and from the Host Country the representative of Country Egypt is Ahmed Raghy and so without further introduction, Mr. Director, I give you the floor for chairing of this session. Thank you very much.

>> CHAIR: Thank you very much, Philippe. Welcome back to all of you. So, this morning we will have this introductory part of the workshop and then this afternoon we will start with the agenda items that were selected to be in the agenda and it will be more interactive, let's say a mechanism with you in all of those sessions.

But before doing that, we thought it was important to hear from the various regions, the regional groups, about the work in terms of preparation of the conference and the priorities and views in general, and then we'll see the agenda as we mentioned as of this afternoon.

As you know in national preparations and regional preparations for the conference are key, and the work that has been done by the regional groups has been remarkable in terms of harmonizing regional positions towards the conference. But the

conference, it's not enough to have positions of those regional groups, but we have to arrive to normal position, so we have to harmonize positions among the regional groups and to come up with final agreeable positions that could be accepted by the conference.

So it's very important to see where we stand in this part and how close or far we are on various issues among the regions, so let's start by having each chair of the regional group tell us what they've been doing, what are the main results of their preparatory work and what are their main priorities for the conference.

Let's go from right to left just to make it easy for you, and let's start with APT.

>> KYU JIN WEE: Thank you Mr. Chairman, good morning, ladies and gentlemen, delegates, excellencies, accord, I'm very honored to be the first speaker on behalf of the Asia Pacific Regions, and as you see on the screen I will be brief with what we are thinking.

You see in the screen the APT in the plenary proposals or the plenary meetings are still our last meeting is under the plenary status. According to the -- the current result is in the preliminary status and it will be under adoption status among the 38 APT members, so once it is approved by more than 10 countries, more than 25% and not opposed by more than 50% of the members for support, which means 5 countries, so then it will be ACP and that will be available in the input area.

Our last meeting was the last month in Tokyo around 600 participants from 26 Member Countries and regional representatives and international organizations. We developed a PCP with consensus approaches and the consensus approach did not allow overriding the views, which was supporting by a smaller number of the members, but in such case we did not develop the PACP. However, we will continue to discuss during it through the APT coordination meetings. So APT as well will it be to coordinate with groups, and it is still a belief to find a possible way forward, which might not be exactly the same with the PACP report.

There may be some way forward to satisfy the agenda item without the PACP, as I said, and if I may the articles of drafting of meeting schedules, such as Tuesday of the third week, and would allow the plenary in normal working hours, particularly in the last week and also allow more time for the delegates to focus on preparing the future agenda item, and it might give us some chance to enjoy the beach as well.

On the presentations among the regional group coordination will also be at the conference, and now we have some analysis and issues so called under Agenda item 9.1 that you see -- there was a 939 agenda item under one, and matter 21 under the one and under 9.1 four issues, and in total we discussed 25 -- the issue has been increased up to 8, and together 18 plus 8 was 26, so as you know

we have 16 under agenda item 1 and then 9 issues under 9.1 which is a total of 25.

I'm wondering what -- how many agenda items in 1.n and how many issues under 1.1 and as you see, normally we have -- why we have to have issues under 1.1, still is quite challenging questions.

We have a view in 5.4.4.1 that was a hard issue and we realize there might be issues to discuss that for that 5.44.1B and that will be under discussion item 9.4 -- because the national -- requires some study on these issues and so I believe that 9.1 is the proper mechanism to request for that.

And also, we have a view that the current language in the 5.441B, the exact date on the application of the search identification is not so clear, so probably will make it more clear, and also we increase the ongoing discussions between the interested parties for fruitful discussion on these issues of 5.441B.

With that, I very briefly I introduced what we are doing up to now and the meetings until the Friday, our next will explain in detail on agenda items. Thank you.

>> CHAIR: Thank you very much. So let's continue with the ASMG, Tariq?

>> TARIQ AWADHI: Thank you. Thank you very much, Director, and first of all, good morning, everybody. First of all, on behalf of ASMG, we would like to thank ITU, our sector for arranging this ITU Inter-Regional Workshop for WRC-19 and thank you very much for all that you are doing on your team. Of course, ASMG had had the last meeting in the last week of July, 27 of July to the 31 of August and that was the last meeting for the preparation of WRC-19 and it was held in Cairo, Egypt. It was attended by 15 members of Arab and several from different regional globe and of course representatives from different organizations and suppliers all attended that meeting.

That meeting we consider our first meeting for the preparation of WRC-19 (fifth meeting) -- so we have five meeting for our group for WRC-19 and based on that and on the last meeting, we have concluded our final position for all agenda items for WRC-19 and 16 -- plus numbers 7 and 9, and of course 10 we have proposed number of future agenda items.

We have developed 37 common proposal for all agenda item, except maybe one or two agenda item still does not have an outcome proposal because we have already have procedures that have 50% of companies attending the meeting, the last meeting, supporting the position by 25 or 23 countries, question have Arab Common Proposal on agenda items. So we still have two agenda items no Arab Common Proposal, 1.5 and 1.16 and the rest we have, maybe the number is considered because we have divided the agenda item with 13, 7, and I think 9 also to several document and not to put all into one document so it will be easy also when distributed to conference and

different drafting group, it will be easy for our team to follow up.

So we have now Arab Common Proposal and we have also put out until 10 of September if there are any other country that would like to add or have some comments, so by 10 of September we will have all papers ready to be submitted to ITU for WRC-19.

Now, of course, the priority for us as ASMG, first of all, we want to have very successful conference because it's held in Egypt and we need all support to make very successful conference, and I'm sure that all of us, we have the same priority on this one and supporting that to have a very successful conference.

Of course, there are all of agenda items that are very important for us, but if we can pick up on 1.13 it has become one of the hot issues that we need to work on it all together, and of course agenda item 7.

But again, one of the other issues that we're still working on it, which is developing the future agenda item, and we had proposed number of new items to be included in the next future conference. Again, we are bringing the issues of IMT so there will be a number of items in the conference proposing to study more of IMT, and we have two or three agenda items and is it he will we're working on it. One is to be talking about the C band from 3.3 to 3.8 to be allocated as primary for Region 1, but still we're working on it because of our different views on it, so maybe we'll have split it from 3.3 to 3.4 or 3.6 to 3.8 because 3.4 or 3.6 is already primary Region 1.

So, this is one issue. Another item that we are proposing also for the UHF band, still we're working together with the Arab Group, not finalized, either we go for as new agenda item or still we continue with the existing proposed resolution, I think, I don't want to forget.

The third, of course, for IMT, that is to study for having -- for IMT between 6 GHz up to 24 GHz and of course we don't want to keep it as open because this is the important thing that we don't want to repeat the same as happened before in previous conferences, so we will select number of frequencies, frequency band so there can be focused areas on that between the 6 to 24.

So these three items that we are -- we had discussed in the last ASMG meeting and we created one working group working on that to finalize the issue, and of course, there are other proposals we are proposing for satellites for required for ASM also, and this is what has happen until now for ASMG since the last meeting, and, hopefully we can have a very successful conference for all of us, and detailing information of course in the committee information our expert here will give you for each one of them what is our final position on those agenda items and what we have put as a paper, and of course during these days, if any other questions are required,

we're available here all the time. Thank you very much.

>> CHAIR: Thank you very much, Tariq. So we consider in the order as we said with Africa in ATU, please go ahead.

>> Good morning and thank you for giving me the floor and I represent the Chairman of the African group Mr. Peter Zimmery from South Africa. Unfortunately, he could not join us here this morning at the workshop, and having said that when it comes to the African Group, it's our wish first and foremost to find the radio Radiocommunication Bureau for the information of the holding of this workshop this week and this provides us with the opportunity to share information regarding various approximations or concerns on various attitude when it comes to various questions and items on agenda for the upcoming WRC and now as for us, we're kicking off a discussion between various regions. This allows us to better understand the rationale behind our positions and see how we can further smooth the way for discussions that will be unfolding during the WRC, so it's important for us to be able to arrive at consensus-based decisions that take into account the requirement, needs, and also the wishes of the entire world radiocommunication community.

Now, when it comes to the African Region, I would like to say that every since the end of the second session, second CPM session being held in February -- that was held in February, we've been working very intensely since that time, since February, and these activities that unfolded at the different subregional levels and under the African Group, we have Central Africa, West Africa, East Africa, furthermore, Southern Africa and the countries that are in North Africa, so these are different subregional groups, and each of these subregional groups has held their meetings, consultation meetings to make it possible to harmonize their positions and also to work out a number of proposals, proposals for what could later on become a joint or shared African position during the conference.

Now, at the subregional level, following those various meetings, we had a meeting of the preparation working group set up by the African Group and that was held in June, and these working groups examined the various proposals emanating from the various subregions, making it possible to put forward recommendations for the final meeting of the African Group.

Now, that meeting was held last week, and I think -- well, there were a number of us here this morning that were there, and furthermore, during that meeting the African Group adopted a series of proposals, joint/shared African proposals to be put before the conference.

What I should say at this time, with regard to that event held last week, is that we had more than 40 countries of the African Group who took an active part therein. There were some 200 participants that made it possible for us to have a very rich and intense meeting.

Another advantage, also, that we were able to draw from that

meeting was the preparatory, the preparation process that was carried out at the various subregional subregions and the technical committee, as well, made it possible to smooth the way for making -- for the decision-making process and the focus also during our African Group meeting.

There are a number of shared positions on -- well, virtually all of the items on the agenda. There are two or three items, however, for which we don't have a shared Africa position because to is that shared African position, that means there have to be at least 15, a majority of 15, or consensus of 15 and no more than 18 countries that are against or opposed to the question being a joint or shared African position, so 15 to 8, so we're able to arrive at joint African positions all throughout the discussions that we had over that three-day meeting.

Now, here, here as well, the experts will be sharing with you the positions that we were able to arrive at. I should point out also, furthermore, when it comes to the African Group, on some of the agenda item, well it so happens that our proposals are not in total conformity in what is being put forward in the text to the CPM, there were other elements also added to adjust or bring about some adjustment for the choice of the method, the choice of methodology, and you'll see that when it comes to the chapter on scientific services, because there were some concerns that were voiced there that say there should be protection of the existing services, terrestrial fixed and mobile, below 1giga, and we identified a number of priorities furthermore when it comes to future development, transport systems, be it terrestrial transport or when it comes to rail transport, railway, or maritime transport as well.

Now, this provided us a number of items where we were able to hammer out priorities, another subject which was also a major concern for the African Group, which was a matter of management of non-authorized stations. There was a country in the African Group that raised that issue during a CPM and it was shared by a number of African groups and it is our hope that during the conference we'll be able to have an approach to make it possible to better deal with that matter.

And now another high-priority item for the African Group will be the items on the agenda for the upcoming conference, the next conference now for this aspect, and there was a discussion embarked upon in the African Group regarding what approach should be adopted in order to identify subjects to put on the agenda for the conference, because as we saw it, if right from the beginning of the conference we could have a certain number of guiding principles, that could help us identify subjects for the upcoming 2023 and then beyond that as well.

Now, the goal defined by my predecessors is we ought not to

have too many subject, should not have a plethora of subjects and during the corresponding study cycle, we should at least be able to properly examine the matters in depth so as to be able to arrive at a sound result during the conference, and so we will have -- we will hopefully have the possibility to express our viewpoint regarding the methodology that could be adopted in order to identify the items we put on the agenda.

Now, when it comes to the agenda items, our expert will present them in a more detailed way, and also all embracing as well, for example IMT, EMT, and like ISG and the spectrum between 4 and 20 GHz as well, we have some requirements that will correspond to the scientific community, and this when it comes to satellites as well.

That in short, that in a nutshell was a snapshot of the situation of the Africa group. Thank you for your kind attention.

Thank you, sir. I'd like to thank you for that presentation but I'd like to thank you for also speaking on behalf of the chair that couldn't am could, I express my support, express what you said when it comes to the items on the agenda item 10, the agenda items for the upcoming conference, yes, 2023. Now, there is a tendency to have too many items -- and we'll have to be careful as I see it because our capacity is limited, finite, when it comes to our ability to examine the various items and so I think we have to perhaps rank priorities. What's the most important for the Member Countries, we'll have to provide focus on that. Otherwise, we run the risk of there being perhaps one upping or might be hard to arrive at very conclusive results on these items.

>> CHAIR: Let's continue in our order with the CEPT, so Alexander, you also had your meeting, the last meeting last week as the African Group did, so please let us know what was the result of your work. Thank you.

>> ALEXANDER KUHN: Good morning to everybody. And thank you very much to the ITU for this 3rd Regional Workshop. We started the overall preparatory cycle with our work from the national basis, so all the different nations got their own ideas regarding the agenda items and their own ideas on how to solve the agenda items, and this has been done also in Europe and we tried to accommodate as much as possible towards European common proposals throughout the whole study period.

This rev up now in the 3rd regional workshop should really bring us together and show where we are in the different region, where we have regional proposal, and where we can further accommodate to come to, as Mario pointed out in his introductory speech, to global perspective at the conference.

I guess there is the overall task which we have to have in mind all the time when we are going to the conference and discussing the subjects at stake.

When we look to our structure that's easy, I think it's not

only my face you should recognize there but also my vice-chairmen who are definitely my support throughout the cycle and also during the conference, so if you then would like to approach CEPT, you have, of course, the coordinators and leading team of the CEPT there as well, and you know definitely my Secretariat is always capable of taking some pictures as well, not this guy right now, but definitely someone else as well.

So what we've done so far is we've structured a little bit of our work and we've done that in a similar way like the former group did for WRC, so we tried to put together those subjects which are, by nature, together and also which we will put by the CPM in one of the Study Groups, and that's one of the lessons learned from our perspective which we should take into account when we discuss then agenda item 10 for the next conference.

From our understanding, it's not only the sheer number of proposals which is going forward, it's the number for the amount of workload which will be brought to the different study groups and be managed by them.

You've seen from the statistics from the APT that we had conferences with much higher numbers than maybe this conference or maybe the one before, but still we use the time there efficiently and we walked forward on the number of agenda items, so don't be simplistic on that one, to just say maybe each group can provide a certain amount of number of proposals to the conference and then we come up with something where someone is just looking for some new agenda items because they have not so much priority on them. Just keep that in mind.

Coming to the CPG deliverables for WRC and RA-19 and I would like to go there a little bit in our work proceeding, we have European common proposals already agreed at the last meeting. There we got the indications by at least 29 Member States for one of the ECPs that was the lowest number and up to 36 Member States from Europe agreeing to the European Common Proposals and they're certainly now out for co-signature so then you will be provided with a complete list and abstaining who is opposing and supporting the European Common Proposals.

We have additional information in the CEPT briefs, very transparent, and so you see some background information on our thoughts from the different agenda items as well and they're available on the website of CEPT, and we're, of course, looking forward to coordinate our views during all the ITU meeting, before the conference, definitely at the conference, but we would like to also take the time at this workshop to discuss intensively with you in dialogue where are the details. What we've learned from the cycle already and that was obvious also during our considerations last week, there were always one or two proposals where we do not have at least a complete alignment between all the administration,

and we've seen that already when combining or looking at the other proposals from the other regions that those points are also the critical points from the other regional groups as well, so we definitely, we need to work further to combine and come to common perspective.

We have taken some majority decisions moving forward for the conference, so you see them. But, of course, we are not bound by the CPM Report and we're not bound by the ECPs completely and we've tried to do our best in order to move forward with the good revision of the Radio Regulations.

That is what I call it, a dialogue orientation, and the main objective on many of the subjects is global harmonization. What we've done so far, we had nine meetings, and that's much more than the other regional groups, that's the opportunity to help. But of course, this number of meetings ensured also that we have some really diverging views discussed in all of these meetings. We are the contact group for the other regional organizations and we were very happy that many of you took the opportunity to attend our meetings by one or two or maybe more representatives to discuss with us the way forward.

We, of course, work by consensus, but as stated already, we took also some majority decisions. That's maybe something for some of you that you knew, maybe not everybody, but we had also then project team which are for the detailed discussions, and so for the tiny little pieces where you can really work on a consensual basis and that's the point that was made already at the beginning, that we need to have the drafting groups at the conference to take this one forward and then take a decision afterwards.

So what's the status? We have 71 European Common Proposals adapted, 24 of them were already adopted at an earlier stage. The highlighted, the bold ones are the ones we worked on last week, and so you saw we had a very intensive week. We discussed several issues and it was completely happy that even on an issue where we had intensive debates at the study group level, at the regional level, at the CPM and that is agenda item 1.6, we've come to a conclusion and I hope that we have the possibility to discuss further with you on that subject as well, and in particular also on agenda item, regarding the IMT issue, we mad our life not very easy on this one but discussed all the matters at stake there as well and you can see we tried to move forward also maybe with some simpler solutions maybe at the beginning but we closed the issue with ECPs on nearly all addressed by the resolution.

Finally, another point is agenda item 9.2, I would like to highlight here as well. We took into account the draft report of the director on several issues there as well, and we've come to a conclusion on that one as well to bring it to the attention of the conference, our perspective in that regard, and we hope that we can

clarify those points really easily.

One of the subjects under 9.2 that may not be agreed by everybody in the room, but from our understanding the 5441b is belonging to agenda item 9.2 and may create a inconsistency if you leave a review of a certain technical value in the Radio Regs beyond the WRC. However, from our understanding, this value should not be touched so therefore our position is clear. But we are open for further consideration and we definitely would like to see it in one group and we have appointed a coordinator in that regard as well.

What I need to highlight as well for agenda item 10, you may see only in the CPR that we have one proposal and that's the new resolution, but this contains then the number of 20 different agenda items which were brought to our attention and made our life not very easy to go through it and try to find a way forward.

We had much more proposals on many more different issues, but we took an approach in that direction that these ones are the final ones from our understanding which definitely need changes of the Radio Regulations to be capable of adopting the Radio Regs to further step at WRC-23.

For the RA, we had also four ECPs with regards to intelligent transport systems for radio wave communication systems and also for resolution 1 and resolution 2, noting there that there is still an ongoing correspondence activity of the Radiocommunication Advisory Group and we're prepared to adapt to this further consideration also during or at the beginning of the RA, so that's just the invitation also to those who are taking part of the discussion which took place yesterday.

We are, of course, reviewing all the ITU-R Resolutions and we're open to further resolutions from ITU-R Study Groups and I heard from Study Group 5 there was a conceptual approach in some of the positions and we are very grateful in that regard.

You will find all the information on our web page, so if you have a look at them you're definitely invited to do so. What I would like to say regarding the organization of the WRC, I'm very happy that we have the opportunity of this third Inter-Regional Workshop to get together with my regional colleagues in order to find maybe some ways and some means forward also for providing some recommended help to the Conference and maybe also to the Chairman in that regard, and we are -- and I think at least for myself, I am happy and always open to any assistance to Dr. Badawi at the conference to help him in each case where we have difficulties with European Common Proposals and we are definitely working in that direction. And I hope that we can find a good consensus at the Conference and also avoid very lengthy debates at the end.

The last comment is, we all have to look ahead as well. CPM23-1 is not far away and maybe we're not able to provide contributions on a very high level during the last week of the

conference, so therefore better be prepared and that's the plea to all of you, I said it already at other regional groups and my own one as well, that we move forward in that direction. Thank you very much for your attention and I hope we'll have a very successful 3rd Inter-Regional Workshop.

>> CHAIR: Thank you very much, Alexander. So just elaborating a bit on what he said regarding what Alexander offered for the conference. These gentlemen that are with me in the panel and, I guess we are not very gender balanced here, their role has been great as I mentioned in terms of leading the preparatory process for the conference for each regional group, but their role will not be ending there. I mean, it will be during the conference as well and we will always rely on them as focal points for the various issues that are contentious or that we have to address as small groups in order to convey the rules of the region and in order to go back to the region with proposals during the negotiating mechanisms that we have during the conference.

So, they are key players for the conference and we thank them very much for the dedication and hard work because it will be really a full-time job during the conference.

Regarding the RR 5441B as you mentioned, just advance notice that you know this already, most of you, this is going to be in the Director's Report on the 9.1, so this is a way we found to be fair and to put it there as the resolution calls for status on this issue for the Radio Study Group and so we're reporting back on these studies, and so whatever the conference wants to do with this aspect during the conference, it's another issue. But as regarding the Director's Report it will be in Part 1 of the Director Report and not in Part 2.

So having said that, let's continue and let's hear from CITELE about your work toward preparation of this conference. Carmelo, you have the floor.

>> CARMELO RIVERA: Good morning. Good morning, everyone. First of all, I want to thank the ITU and the Director of the Radiocommunication Bureau for giving us this opportunity for this information exchange.

CITELE, we had our last meeting a couple of weeks ago, and I want to go through a little bit like some of our structure. Myself, Mr. Victor Martinez and Carla, so we have a little more gender balance there, and so as vice-chair, and we also split the working group structure a little bit along with the CPM, as you can see the chairs and vice-chairs for each one of our sub-working groups.

We also have a list of each one of the coordinators for all of the agenda items. I did a quick count of all of these people in leadership roles for agenda items, chapter chairs and so on, and I came up with about 70 people.

Thinking about how, pretty much all the other regions have

similar structures, that's quite a few people just in the leadership roles for these agenda items for this WRC, so quite a bit of work and I know every single one of them have worked very hard so far.

In our structure, we have a drafting proposal, that is a proposal by a Member State supported by at least one other Member State and after the last meeting, the only Draft American Proposals that continue with some kind of status are those for future agenda items. Those are the only ones that are circulated after the last meeting. I can say now that every future agenda item Draft inter-american proposal that was circulated after the last meeting have all reached inter-american proposal status and so they have the support of enough CITELE Member States to become an inter-american proposal and be forwarded to the ITU for consideration by the WRC.

As I said, our last meeting, our final meeting was in August, 12 through 16th. We will have one final meeting the day before the conference begins just to verify attendance to make sure we have spokespersons for every single one of the agenda items during the conference.

As I said, eight meetings to date discussed all 24 agenda items and 30 sub-issues. We have IPs on virtually all agenda items. I think there is maybe one or two that we don't, considering all of the adds, mods, sups we have a total of 276 proposals that are being forwarded to the WRC, a considerable amount of work for all of us to consider.

As far as the future agenda items, I believe we left Ottawa with about 13 and I think we're up to about 18, so I'm also glad to see that CEPT has more than we do.

As you'll see our experts during the week will discuss all of our work or most of the work that we've done so far, and I look forward to this information exchange because I think it's going to be very lively this week. Thank you very much.

>> CHAIR: Thanks very much, Carmelo, and yes, I see that it's going to be challenging in terms of number of proposals and from all, but it's always been the case, and I'm sure that we'll be able to manage them and at the global level as we said.

We'll discuss as Carmelo mentioned and Alexander mentioned, everybody mentioned as of the expert level this afternoon, as you have noticed in the agenda, differently from previous workshops of this type, we are not doing all the agenda items in the program. We are doing only those that look like more, let's say, problematic or more debatable, so we take advantage of the gathering, the wealth of knowledge in the room in order to exchange ideas on those agenda items that are the most difficult ones for the conference, so that's why as of this afternoon, the exchange is in this way and not just, you know, in the panel or within the panel itself.

So, let's continue with the last but not least regional group

which is the RCC, so Albert, I give you the floor.

>> ALBERT NALBANDIAN: Distinguished Chair, Distinguished Colleagues, good morning. First and foremost, I would like to thank the Radio ITU-R for preparing this organization which is a very important step towards the WRC-19. This is a structure that is excellent, and I'd also like to thank Feti Babino for the preparations for the WRC-19.

I would also like to thank the leadership of the ITU for updating the ITU News Bulletins on a timely basis on covering WRC-19. I think there is lots of detailed information about the problems and solutions to them in that bulletin. These are things that we'll be talking about at WRC-19.

We've had quite a few meetings and workshops, and these have allowed us to prepare for the WRC-19. We've been able to get information, exchange information on what has been going on on the various items of the agenda of the WRC-19, and this also includes the report of the Director of the Radiocommunication Bureau.

Here, I would like to note in particular, that in our preparations, that they will have proposals on all items of the WRC-19 agenda based on the CPM Report and I think we're all aware of what that is. In February we adopted the Report, it's fairly volumous, but this is what we have today and it seems to me that if the future we should try to resolve issues at the CPM rather than kicking them down the road to the WRC-19 because that makes the work of the conference even more difficult and the work of delegations even harder.

We believe that the WRC is a process -- an accommodating process of dividing up the sector, and this is part of the mission of the ITU-R. This is -- it aims to divide up the spectrum for all Members of the ITU.

Commissions are given issues and this includes the RCC and our working groups are divided up into various members. The chair, we have the vice-chair which is Mr. Vassiteu from the Russian Delegation and we had eight meetings in in fact, and the ninth one -- we will I think we'll have the ninth session later I think in September.

We proposed common proposals, and my evaluation is that I think we've had more than 150 proposals and I think this is quite similar to the number of proposals provided by CITELE.

Next thing, the next issue that I would like to point out. The RCC representatives also work in informal working groups that work on the structure of the conference, including the Bureau, and this is an informal group that plays an important role, and they played a very important role over the past few conferences.

Thanks to them, when we come to the conference, we already have a good idea of what the structure of the conference will be and the various committees that will be formed. This is not a formal

group, it's an informal group that allows us to successfully prepare for the conference, and we hope to see a final version for the WRC quite soon.

There are three issues at hand at WRC that are important that we're going to consider. Now, I don't want to go into details, but let me just go into a few general items of the agenda items that I can talk about the position in our proposals. and at the last session we'll get into more details on this.

There are three groups of issues that I believe that we can highlight out of the agenda first. The development of IMT networks, this is 5G and developing technologies, satellite services, satellite systems, and various orbits and frequency bands. There are groups working on these very important issues, and these are very complicated and difficult issues, and the solutions will be quite difficult to find. But despite the decisions of the WRC-19, I'm not going through the detail because I think everyone here understands what the difficulties are at hand and the things that are we have to resolve and what we have to agree on. Despite the decisions of the WRC-19 on these issues, the development of these systems will continue, they will go on, so we have to pay particular attention to them.

Then we'll have to look at these issues in the past few days in the past few months, we've seen all sorts of articles in the press about the possibility of negative impact of magnetic resonance electron being radiation, but this should not be a break for the work of the ITU-R in this particular field.

There are all sorts of -- the digital economy will move forward no matter what.

And the second issue that I wanted to highlight in particular, which was very, very important in my mind and it has to do with the fact that we don't have enough competent staff, and without which you cannot move forward on these issues. This, obviously, is the subject of discussion of the WRC-19, but it's also much broader than that.

I think this is very important as we move towards introducing new technologies. And a third group of issues, which are so important to my mind, has to do with the agenda for the WRC23. I think that this will depend on the Member States of the ITU-R via their regional groups and the proposals that these regional groups come up with, and this may be based on the WRC-19 agenda items, and some of them obviously will have to be transferred to WRC-23. Here we have to be very careful. We have a fairly stable number of items on our agenda, but having said that, it's been noted several times that we have to take care because it's possible, like administrations are having a limited number of resources and therefore we have to be careful about the number of agenda items.

Now, the last thing I want to point out and highlight has to

do with the agenda items for WRC-23 and WRC-19 agendas. We, for the first time, have been confronted with a problem of overlapping, and this means frequency bands are overlapping for various services, and not just one or two, but many, many services. So this was highlighted at the first CPM session, and obviously, we've addressed this issue and we know that this makes the work of the conference much more difficult, so to the maximum extent possible, we don't want to limit this absolute, but we want to minimize the cases of overlapping where possible.

Now, given the number of agenda items, all the ITU members have formal and informal positions and been expressed in bilateral meetings and workshops about a number of items on the agenda, there is agreement, there is an understanding of what has to be done.

On this basis, it seems to me a good idea to -- on these items, we look at these items where there is agreement at the first plenary session and send on the corresponding documents to the various committees so that they are just added to the outcome document so that all of the time of the conference for the majority of the time anyway be concentrated to discussing those issues where there is disagreement.

Unfortunately, any item of the agenda, even when there is 100% agreement, may give rise to some technological processes that for discussions that will require time. You know, you have to -- committees have to meet, working groups have to meet, there is also the first and second readings of the text, all of this formally takes quite a bit of time.

And the last thing I want to say is this -- the decisions of the conference and the Assembly really impacts a great deal of users of radio and other services, so information to the outcome document and other documents has to be accessible. All of the decisions that we have to take -- well, what we have to keep in mind is for whom we're taking the decisions.

The success of the conference depends on organization and preparation and we have been working very hard on this.

(Applause).

>> CHAIR: Thank you very much, Albert. I think you mentioned many things that are beyond the preparation of the regional group but that are very true and very interesting. It is true that it is the first time that we have -- we have always had in WRC, let's say, new services that are looking for bands that are already assigned to existing services, but this is the first time that we have new services assigned to a band with other new services in the same band, so these are an additional challenge.

It's incredible how this process that is more than 100 years old, still has some new things that are coming all the time and new challenges, and we have to adapt to them and we have to be dynamic. In the last RA, we have made a major change of resolution in ITU-R

1 and in this we're looking to ranging ITU-R resolution 2 part of CPM and this is part of the where we have to adapt to the new situations and changing environment, and into more and more demanding requirements on the spectrum and satellite orbits that we have and that we'll continue to have, so this is one of the challenges that we have to respond to all together in order to be always responsive to those needs.

So having heard from the regional groups, we have also, as Philippe mentioned, our Host Country representative, Ahmed Raghy our focal point for all the preparation of the conference, so he is in our view the overall coordinator for the preparation of the conference and we have him here for the three days, and so you can consult with him and ask all the questions you have and doubts that you may have and addressing all the complaints you might have, and although I hope there are no complaints so far, and he was kind enough to accept to provide some information, logistic information and organizational information regarding Sharm El-Sheikh and the convention center, so please, you have the floor.

>> AHMED RAGHY: It's a great opportunity to share with you some logistical information and some information that will be valuable for planning your trip to Sharm El-Sheikh.

Simply, as you all know that Egypt has to host not only the WRC but also it's a cluster of meetings that are RA and the WRC and then we will have the CPM, and so all information I will share with you for today, it will be feasible for all participants in each of those events to enjoy this sort of services and facilities.

First of all, I would like to give you a few tips about our venue, it's International Sharm El-Sheikh International Convention Center and this convention center is one of the biggest and largest in the Middle East. Last November, in 2018 it hosted the biodiversity UN conference, one of the biggest UN conferences, about 4,000 participants, I could claim some sort of WRC-like conference, and the convention center itself went flew a very comprehensive renovation in the last two years, almost double the size and had a complete renovation for all IS and all audio visual services to facilitate the international conferences with lots of state of the art technologies.

Simply to get all the facility and the information you would like to have for your participation in the coming cluster of meetings for the WRC and RA and CPM, we invite you all to visit the host country website. It's very easy, WRC.egypt and on this website you will find a lot of information, a lot of issues that could help you to plan your trip and to get all required information about the city and the venue itself.

Regarding most of you will have -- maybe have transit from your trip from your country to Sharm El-Sheikh, Cairo airport, I report that Cairo airport there will be information desk, in all

terminal, and this sort of information will help you to get any information if you feel that you are lost in the airport and you'd like to know where you can go for the national terminal, they can help you in that.

Also, in Sharm El-Sheikh International Airport will be 24-hour information desk to help arrange for transfer to hotel, so don't worry completely about your trip from your airport to hotel, it will be arranged.

For the visa and as in many other regional groups, we urge you to apply for your visa as soon as possible. In this presentation, or on the website you'll find a link to present you all Egyptian embassies worldwide so you can apply your visa there and for information about the required documents.

Some countries have -- some countries have the facility to apply for upon arrival visa and visa system so they can arrange for the visa online. And also, it's very valuable to know for the visa system and for the upon-arrival visa, it's only for 30 days and so if you would like for 30 day plus or more than 30 day visa for this event, I know the full event is sort of about 40 days or something like, that so if you would like for 30-day plus visa, you should go to the embassy to apply directly for the visa.

And in the case that you don't have any Egyptian representation in your country, please contact us so that we can arrange the visa for your case, but please apply that 30 days before you arrive to give us some time to arrange for that.

For the transportation, a shuttling service will be available for the airport to the hotel and for sure from the hotels to the convention center, and Sharm El-Sheikh is very -- there is very light traffic there, so don't worry about the trip, some sort of 10 minute or 20 minute maximum, depending on location of your hotel, so it will be -- there is no heavy traffic in Sharm El-Sheikh, and also for your arrival at the airport, the link, so you may help us to provide us of your arrival time and flight number so we can arrange the shuttling service in the airport.

Also, if you would like to get your private car and sort of limo, in all official hotels, there will be a desk to arrange for renting car or getting a private car, and also if you would like to arrange before your arrival, can you communicate with us in transportation to arrange the service for you before you arrive.

For the accommodation, also on the website, you will find 27 official hotels, and there is a link so you can arrange for your booking and for any information you would like to ask about the -- any information about this sort of hotels, you can communicate with the email for that.

Also, in the convention center, you can get your national SIM card so don't worry about that. You will find there in the venue of Sharm El-Sheikh, also there is sort of information desk for Egypt

Air especially for the national flight, your flight between Sharm El-Sheikh and Cairo, if you don't have a direct flight, we can change your ticket or anything through this booth. A reservation authority will also have information desk there for any visa inquiry and also sort of activity that you would like to plan for any touristic activities in Sharm El-Sheikh, can you do that also in the venue.

In the exhibition area in the convention center, we have a huge exhibition area in the convention center. All information about the exhibition manual will be available on the website, and can you go through it and find all information you would like to know about the prices and available spaces and the facilities in this exhibition area.

This is a photo for the -- for this space. It's much larger than the one here available in Geneva. It's about 3,000 square -- and inside the exhibition area, there is public and also private meeting room so you can get your meeting room to arrange for a meeting, and also there is reception area so you can arrange for social event and activity in this space.

Finally, all information available in the host country website, we hope you all will go there and get all the information, and as Mr. Maniewicz mentioned, we will be available until the end of the interregional group meeting, so any question please come and visit us in Egyptian delegation and we can help with that.

And finally for the WRC event and city in Geneva, you have to get your heavy coat, but I recommend you don't get your heavy coat in Sharm El-Sheikh, you don't need it, so you can save some space in your luggage, and instead of that you can get your swimming suit because it would be a good replacement for that. Thank you, and I wish you all a very successful meeting, Mr. Chairman. Thank you.

(Applause).

>> CHAIR: Thank you very much, Akmed, so just to reiterate we're working hard with the host country in order to make everything ready for the conference and to be logistic for organizational aspects to run smoothly for you so please don't hesitate to contact the BR or the Egyptian Delegation if you have any doubts or any suggestions or things that you think that can be improved. There is no limit in the, let's say, effort that we are ready to make, both the host country and the ITU in order to make this conference good for everyone.

As I mentioned, Akmed is staying here throughout the week so you can approach him if you deem necessary.

So to finalize this introductory session, I will give the floor to Philippe to give us some additional information on the status of the preparation of both the Assembly and the Conference and then to have a preview of the program for the coming three days.

Philippe?

>> PHILIPPE AUBINEAU: Thank you, Mr. Director and thank you for the information provided so far. I'm going to try to be brief. I know we are just before lunch break so I have prepared in this document 19 of the workshop, a number of informations which most of you know already, but I think it's important also for those participants that are following for the first time this sharing of information, which as you know, is open to the public here this time contrary to what we do in the study groups or in the CPM, so I think it's important that everyone knows the background information as well.

So, just to briefly summarize what we are aiming to and the different sources of information we have at the WRC. Of course, everything is based on proposals, as you well understood from the regional groups, proposals from the regional groups, as well as proposals from directly Member States either adds directly or inter-country proposals.

We also have a number of reports to the WRC. You heard already this morning of the Director's Report which will be issued by the end of next week.

We have already available, that is very important source of information, CPM Report which is Document 3 of the conference, and we have availability of the report to the conference.

And also, we have already a number of documents containing some proposals from regional groups, and in particular from CEPT, CITELE, or RCC. We have also received a number of individual proposals from individual countries and all of this is available on the WRC web page.

To conclude on this slide, I would like to emphasize on the type of outcomes we have from WRC. Of course, we have the final acts of the conference which are containing elements to updates of Radio Regulation, but equally important are the minutes of the conference which are containing decisions taken by the conference, which are not necessarily a modification of the Radio Regulation, and all of this is to pave the way for the future development of the Radio Communication Ecosystem.

I have a few slides on the second session of the CPM and I will skip them quickly and just insist on the availability of the CPM Report in six languages. This is available to the public also, so everyone can consult what we've been able to propose as methods to satisfy the agenda items so far.

These methods are, somehow, summarized in the sort of view of what we can find on the CPM report, and you can see in screen that it was indicated by the Director this morning, we have a number of consensus already on several agenda items or topics, but a lot remains to be done.

And I would like to add that this CPM Report contains a list

of all the reporting material in the form of ITU-R recommendation or reports that have been developed during the cycle by the ITU-R study groups and which contain a large amount of very valuable information. And we will be updating this list as a result of the RA-19 to provide the WRC-19 with the latest information available.

Mr. Chairman, this slide is also to briefly remind the provisions from the constitution of the conventions with the duty of the RA in order to I assist for preparation of WRC-19 and as you know, the RA-19 will alleges have to elect a chairman and vice-chairman for different study groups, the RAGSSs, CP and CPM and this is indicated in a circular letter on the website, and all the other duty of the RA can be found in the Resolution ITR1.7.

And Mr. Chairman, it was also mentioned this morning that we have a corresponding group to work on the revision of the resolution ITU-R 2.7 that includes working methods of the CPM and we had a very successful meeting yesterday afternoon and we should be able to provide the RA as a result of these correspondence groups to the Chairman with good solution to improve the text in that resolution 2.

The other important amendment that I would ask you to provide regarding preparation is a deadline for the submission of contributions which is the 30th of September, 2019.

Here you have a picture of the RA website where you could find all the information I just presented, as well as a link to the host country website that has been introduced by Ahmed in presenting Egypt here.

As well as the WRC is concerned, this number 89 of the Constitution of the ITU, remind us that the WRC, one of the main roles is to revise the Radio Regulation and partly according to the WRC agenda and only in exceptional cases that would be the complete revision, but this time we have a part revision of the Radio Regulation and WRC may also deem any question of the character within competence and related to its agenda, and this is important information to remind when we prepare the agenda for the subsequent conference. This is also part of the principle that we can see in WRC Resolution 824.

This is the WRC website and we have included, as you can see, a counter to remind us how close we are to WRC and how efficient we should be in our preparation now, as well as all the other information that I introduced already. I would like to stress also the need to provide credentials to WRC so that every delegation has to provide credentials, and I will come to that in a moment, and we have also some particular information.

Also, important is a registration to the WRC as well as to RA and CPM, and while it's important to register in advance, it's also to facilitate the attention of the visa that was presented by Ahmed.

So for the registration, we have a new system in place, which means that every delegate has to initiate herself or himself the registration process and that will be subsequently confirmed by the focal point of the delegation. But it's a new system. Initially it was a focal point that was the process, but now it's every delegate that has to initiate this process.

For the credentials, you could see on this slide what has been circulated in the circular letter dated 2, April 2019 which invites the competent authorities to send to the ITU the original credential document either before the opening of the WRC, this has to be sent to here in Geneva to the ITU Secretary General and can you read from the slide, and 25 of October, 2019, this can also be deposited with the Secretariat in Sharm El-Sheikh.

The credential -- well lack of credential, I would say, would cause us some problems if we come to a voting phase or even to sign the final act at the end of the WRC, so this is why credentials are very important to be in order when we come to the WRC.

As every possibility for transfer of power or to get proxy, and this is also well explained until the relevant provisions of the Convention as you can note on this slide.

Mr. Chairman, we have also on our web page, a very long document providing practical information on all the topics that you can see on this slide. I will not do this one by one, of course, but I would like to say that this information answers a lot of the questions that you may have and provide necessary links to the information that has been presented by the host country a few minutes ago.

Mr. Chairman, when we go to the WRC, it's to provide proposal to the conference to be discussed and we're providing a tool which we call Conference Interface to help in preparing the proposals, and what is important for you to remember here is the deadline for the submission of proposals, which is on the 7 of October, 2019. After we have been processing a large number of proposals, it is equally important to be able to have an efficient tool to assess what has been sent by other entities as Member State, and to that end, we have another tool which is called the preparation management interface, and so I have put a few slides here explaining how to use this tool, and I will not go into detail, Mr. Chairman, at this stage. I would simply like to stress that the tools, conference proposal interface or the proposal management system, enable also to access the information that has been included in the CPM Report in the form of example of regulatory solutions.

Mr. Chairman, we have also a web page accessible from the WRC-19 web page which provides information on the main six regional groups that we have with us this morning. It's not only about the meetings, but also providing links to the web page that they may have and facilitate access to the information available at the

regional level, and we also have an informal group ongoing, which is in charge of preparing the draft structure of WRC-19 as well as trying to identify the chairman and vice-chairman of different positions and as you heard from the Secretary General, the draft structure is already quite stable so we hope that this group will be also able to provide some chairman and vice-chairman for the different positions.

Mr. Chairman, today is the 3rd workshop which we started in 2017, and during the in next three days, we will focus on the regional and draft group resolutions or common proposals and we recognize that it is not very efficient to look at each and every agenda item or issues, so what we have done and we have in consultation with the regional groups, identified only a few items which we believe would require for the discussions.

So before coming to the program, I would like to present to you the web page of this workshop and in addition to the link to the program, you have another link to input documents to tell you that all the information that has been presented already this morning and all the documents are available also in this document folder as well as all the subsequent presentations that will be presented during the next three days.

In this input folder, we also have a number of also information documents from other UN agencies or from other entities interested in providing us with a position for the work of the WRC.

Now, coming to the outline of the program, so we are closing the end of the first morning, and this afternoon, we will resume at 2:00 with two sessions on IMT-related issues, no doubt looking at Agenda item 113 and but if we have time we might also be looking at some other issues where IMT is involved.

Tomorrow, we will have a session on HAPS-related issues, typically agenda item 114, followed by another discussion on the access system or regulatory network typically agenda item 116 and as well as a few issues related to this aspect, and if time permits, we will also have some brief information on the other agenda items related to mobile terrestrial services.

In the afternoon, we will be focusing more on the maritime-related issues first, during which if time permit, we may also have some information on the, not only agenda item 1.8, but also 1.9.1 and 1.9.2 if time permits.

And also again, if time permits agenda item 1.10 and 9.1.4.

And last session we have services typically agenda 1.2 and 1.73 and 1.7.

Finally on Friday looking at to start with allocation issues for ASEAN for systems and then we will be looking at the regulatory aspect of the satellite services, typically agenda item 7, and of course we will not focus on all the element issues we have in agenda item., but we have put some more focus on the issue A and issue I

of this agenda item 7.

And in the afternoon before closing, we will have a roundtable on the future agenda items, during which we should be able to come back on some information and views that were already shared with us this morning.

With that, Mr. Chairman, this closes my presentation. Thank you.

>> CHAIR: Thank you very much, Philippe. So we have there on the screen the overview of the coming sessions for the workshop, so this afternoon we start with an easy one, which is the IMT-related issues, and then we take it from there.

So as I mentioned, these sessions are supposed to be more getting into the substance of the discussion and the differences and the approaches, and then the interaction between the panelists and the participants regarding all of them.

I would like to close this session by thanking to all the panelists for their presentations, for being here, and for the willingness to support this process, which is very important.

As I mentioned, it doesn't end now. It continues through -- throughout the conference. So I would ask all of you to give a round of applause to our panelists for their performance.

(Applause).

So, have a nice lunch and see you back at 2:00 here.

(session completed at 5:13 a.m. CST)

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ITU-R 3RD INTERREGIONAL WORKSHOP ON WRC-19 PREP

SESSION 1 AND 2
IMT RELATED ISSUES
GENEVA, SWITZERLAND
04 SEPTEMBER 2019
1400 CET

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>> CHAIR: Good afternoon, ladies and gentlemen. If you
could please take your seats, we will start in one minute.

(Pause.)

>> ITU COUNSELOR: We would like to invite the last
panelists to join us on the podium, the representative from ATU.
Then we can start this Session.

Good afternoon, ladies and gentlemen. Welcome back to this
Session of the workshop which will be addressing IMT related
issues. We have prepared the programme in order to start by
looking at the band around 26 gigahertz and without being sure
this should have one hour 15 minutes we have before we break, we
may also start considering the second part of the programme,
which is the other supported bands, as well as the other issues
related to IMT.

So without further delay we will introduce to you the
panelists and the moderator that we have with us this afternoon.
So we start with the moderator, Mr. Michael Krämer whom you know
very well. He has been heavily involved in the preparation of
the CPM text. And in TT51 and the second Session of the CPM.
Michael, can you accept to moderate this Session this afternoon?

We have the representatives from the six Regional Groups. I start with APT. We have Dr. Hiroyuki Atarashi. From ASMG we have Mr. Mohammed Moghazi and ATU, Mr. Alfred Bogere from CEPT, Mr. Robert Cooper and from CITELE, Ms. Luciana Camargos and RCC, Mr. Sergey Pastukh.

Mr. Krämer, the microphone is yours.

>> MODERATOR: Thank you, Philippe. Welcome, everyone, to this Session. Just to recall the words from the Director of the BR before we took our break for lunch. He said we will continue this afternoon with an easy topic.

So let's keep that in mind. IMT is an easy topic. We will cruise right through it and look at the positions of the Regional Groups and discussion about possible ways to consolidate this into a group of positions we can develop at the WRC.

So the setup of this Session is a little different from the morning Session and also the previous workshops. We will not so much turn to the regional representatives to present their positions. We will have a brief overview on the screen that I will present for all the regional organisations, band by band. Then we will turn to the regional representatives to comment on why they have taken this position, how they see possibilities to harmonise with the other regions now seeing this overview. So we will be more discussing ways of how to move the issue forward to the conference and not so much just presenting the positions that we see.

I would also turn to questions from the room then and hopefully have a more interactive Session to talk about how we can solve those issues that we have in front of us.

With those good ideas, then go back home for the next six or seven weeks and come back to Sharm el-Sheikh and implement those solutions, hopefully.

That is the plan for this afternoon. As Philippe said we will hope get to a little more than 20 gigahertz in this Session and look at other bands as well. We will take a break for coffee around the normal time and finish with the remaining bands of 113 afterwards in the second slot and also briefly look at 9.1.1, 9.1.2 and 9.1.8.

Just to introduce the topic, I think you all are very familiar with the Agenda Item itself by now, to look at identifications to IMT and also possibly related mobile applications that will be needed under Resolution 238 which has two primary study tasks, the spectrum needs between 24.25 and 86 gigahertz and we have a list of specific bands listed for the sharing studies.

Moving to the first band and we will not go through this in detail. It is just background and for your reference because we

will be looking at the various conditions and the positions that the Regional Groups have taken on those conditions. Here is a summary of the conditions for the 26 gigahertz band, the first three conditions that we have in this band. It is continued then on the next slide. The different options we have for conditions A2D and E and continued on the next slide, the different options we have in the CPM report for conditions A2F and G. This is a very high level summary for reference when we look at the positions of the Regional Groups in a minute. For the full details, of course, please look at the CPM report as published on the ITU website.

So looking at 26 gigahertz, first on the method. It seems that we have good news here. All the regional organisations support identification of this for IMT. The RCC supports Alternative two -- sorry, Alternative one. Which is IMT in the LAN mobile service and the other Regional Groups support Alternative two with IMT. With the note that will they support Alternative two but it is subject to appropriate regulatory provisions being defined for A2E, the footnote you see at the bottom.

In terms of the method it looks quite -- when we look at the conditions, the first one is the protection of ESS in the 23.6 to 24 gigahertz band. We have -- band. We have option 3 proposed by the ASMG which is an ITU-R recommendation. The other groups support option 1 to address this in table 1-1 of resolution 750.

What exact numbers we should put in there, that is a bit more diverse. Two groups have not finally decided yet. Based on the contributions to this meeting and based on the outputs from the recent regional representatives meetings, that may change until the conference, of course, but this is the current proposals we have in the documentation to this workshop.

Similar to the active service band, different views on what that should be. Moving to condition A2B, the second Harmonics of the IMT in 26 and protection of ESS in the 50 range, 50 gigahertz range. Different views expressed here. Some think it should be in resolution 750, something that is not required, some others think we can do this by referencing recommendation ITU-R S329. We need to converge a little more on the final approach to be taken on this one.

Same question on the limits. What limits we want to put in place if we want to address this second among the issues. We still need to see what issues that would be.

On the next slide you will see the remaining conditions and those are first the SIS, ESS in band where we have also a range of views. From one side that this condition is not required based on the sarge study conclusions SG5-one covering this in an

ITU recommendation, over to addressing this by deactivating the footnotes 5.3A, B, and C to multiply to IMT stations.

There is also for CEPT an additional proposal that they are modifying, they do want to address this in an ITU recommendation but they want to propose a modification to the footnote and that's what you see there at the bottom with the double asterisk note.

Next one, FSS transmission stations, we have some split views between this being not required or this being addressed in an ITU-R recommendation. And then similar for the next one, the ISS FSS receiving station. Not receiving station, receiving space base. We have some groups that suggest this might not be required as a condition because of the sharing study conclusions from the Task Group. And we have other groups that are suggesting that it has to be addressed by either putting some text into the resolution or by introducing TRP limits and ERP mask.

Next A2F, the radio astronomy. Here we have two different thoughts. It may not be required at all to say something about this particular case. Some views were expressed outside in the CPM second Session that this might be a national issue. That can be addressed in national regulation. The other view is to address this in an ITU-R recommendation as per option 1 under this condition.

Final one, multiple services. We have the CEPT proposal to cover this by some text in the rest solution to talk to r about the regular review that the ITU could carry out on the characteristics and see what that would mean in terms of sharing study conclusions. We also have the other group suggesting that this might not be needed.

That is the situation for all the different conditions that we have for the 26 gigahertz band.

I note it is really condensed and it is a lot of information on only two slides, but it is either those two slides or about 75 pages of CPM report. You can read either/or.

Now, with this initial presentation on the situation for this band, let's turn to the regional representatives and have us provided more background for why they have taken those positions and also how they see possible ways to align for WRC and what we can do to harmonise the solution. We would also turn to the room for comments and observations and questions after that.

But before we go to the first regional representatives, I see Iran is asking importance the floor. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Mr. Krämer. Good afternoon to you and all Distinguished Colleagues.

Is it possible for you to explain for someone like me in ITU what is the resolutions effectiveness and what is the recommendation? If you protect the service with the resolution. What is the impact? If you protect the service by recommendations, what is the situation? In particular, when recommendation does not exist and also take into account any recommendation takes our times and also could be opposed by one single Member State and does not go forward.

Can you explain, please? Thank you.

>> MODERATOR: Thank you for that question. Maybe I can turn this over to the regional representatives that have the position for whatever condition that it is suitable to cover this in a recommendation or resolution. If that is part of your positions, maybe you could explain to us why you think this is an appropriate way to and handle this. It is not really my creation. It is just a compilation of the regional positions that they have submitted to this meeting. Iran?

>> ISLAMIC REPUBLIC OF IRAN: With all due respect, if you reply, refer the question back to the ITU to the Director or the BR Director to reply to that. What is the effect of the resolution? And what is the effect of the recommendations? They should reply.

I don't want to interfere with the business of the regional organisations, but to the part, what is the position of WRC, what is the ITU recommendation and what is the WRC position? This is very important, everybody agree with the positions are important. So could Mr. Balai or somebody else reply to this question. If it is not replied now, maybe in the next part of your resolutions.

>> MICHAEL KRÄMER: Thank you. We will certainly do that. Let's first here from the APT on comments regarding their positions. We have seen the positions. Any background for why they were chosen, any possibilities for aligning and harmonising. Please, APT.

>> HIROYUKI ATARASHI: Thank you very much, Michael, and thank you very much for preparing this excellent table.

I think I don't have any further substantial additional remarks for this table, but first of all, I would like to say that this table is based on our preliminary APT proposal, common proposals. And this preliminary APT common proposals are now circulated to the APT members. We are now boarding process. Maybe early in September our final common proposal will be available.

But at the last meeting of this preparatory meeting, we had consensus-based approach. That means that APT members presented at this meeting agreed this proposal as a consensus. So I hope this proposal will go to WRC for further considerations here.

Regarding other remarks is as you can see in the APT column, most of the boxes are TBD. This is because at the last meeting of APT, we have received a number of different proposals from APT members. And we had around three days Drafting Group Session to reconcile the different views. However, it was not sufficient to reconcile our views at that meeting. So in that sense, we agreed to further investigate the details of these conditions.

Among these conditions, most difficult part was condition A2A. We agreed to adopt option 1 of the protection of the ESS, but for the concrete barriers to be included in the additional Draft Resolution 750, we could not reach consensus which number should go into that resolution. This is one point.

Another point is condition A2E, which is related to the protection of the FSS ISS base stations receivers. And for this conditions we have received a number of different proposals. So in that sense, APT members need to further discuss to reconcile our views to our WRC-19.

We don't have any chance to meet before WRC-19. So maybe APT members have some extensive discussions during WRC-19 to reconcile our views for this Agenda Item. Thank you very much.

>> MODERATOR: Thank you, APT. Let's turn to the ASMG. Mohammed, please.

>> MOHAMMED MOGHAZI: Thank you so much, Michael. Just at the beginning some few things. I think we should be all very grateful to Cindy Cook from the administration of Canada who has done a very good job on the Agenda Item during the last three years. Also Mr. Jose Arias from the administration of Mexico. We wouldn't be here without his efforts. And of course, for you, Michael, just as usual you do all the work that we have nothing to say anymore. Thank you so much for this effort.

With regard to the ASMG position, when it comes to a recommendation, we are not concerned about having the values to protection of outer band emission for ESS in the resolution, but we are concerned that until now we cannot agree on a single value. So this is why we propose for the time being to have a recommendation from the WRC. However, during the conference if we agree on a single value, and I'm sure that we will agree on a single value. This is what we always do. We work for a couple of weeks and then we agree on something.

If we agree on a single value for all the countries, then we may have it at the resolution 750. So just to clarify, this issue of the recommendation, for the value itself I think you made it clear it is similar to some of the other Regional Groups, it is 34 for the base station and minus 28 for the mobile station.

Also if you look at the options for the protection of other services, I think you have clarified enough in the table. But I think it is 1.13 is about having this balance between the mobile service and the other services. We at ASMG recognize how it is important to protect the current services, especially the passive one. We recognize that.

But we want to reach a win-win situation, a right balance between all the services, including the mobile. Thank you, Michael.

>> MODERATOR: Thank you. After ASMG, let's turn to ATU. Thank you.

>> ALFRED JOSEPH BOGERE: Thank you, Mr. Moderator. ATU's position on 25 gigahertz if you look at our position carefully, we took this proceedings because we wanted to protect existing services. That is why we are choosing, we choose method A2, alternative two, condition 2 here, but that specific option of introducing one-two gigahertz within the table.

(Captioner apologizes, fuzzy audio.)

>> ALFRED JOSEPH BOGERE: And any protection for existing services. Thus, that was our inner thinking. That's why we chose that position. Thank you.

>> MODERATOR: Thank you, ATU. Let's turn to CEPT.

>> ROBERT COOPER: Good afternoon, to everybody. First of all I would like to welcome all regions on discussing the IMT. It is a very good starting point. Looking at the conditions, the most important one is the protection of passive services in band 23.6 to 24 gigahertz. We all know this is a very important band for passive services. It is a three-40 band. Emissions are prohibited. We have done studies in CEPT and submitted those to the Task Group. There's been lots of discussions in the Task Group. The internal view view of crept is that we need the value of 42 from base station 138 for the mobile station. And this should apply to the whole band that IMT is transmitting. So the 24.25 to 27.5. So we think this is an extremely important issue and it should be a mandatory limit in resolution 750 in table one-one. We don't think we need a recommendation. This will not protect passive services. This is the number one issue for CEPT in this band. Thank you.

>> MODERATOR: Thank you, CEPT. Let's turn to CITEL.

>> LUCIANA CAMARGOS: Thank you very much, Michael. Good afternoon, everyone. For CITEL we met in August and we have very support for the 26 gigahertz plan. It is good to see it gaining in all regions. For condition A2A there were extensive discussions. The point of our proposal that had not been agreed in the prior meeting. CITEL want to see the only open issue for the condition limits for condition A2A. There are three proposals on the table and what was decided in the end was minus

28 for both base station and mobile. That was the CITELE outcome for that. Active service, it's 500-megahertz, in the lower part of the band, that is what was agreed. Thank you.

>> MODERATOR: Thank you. Then the RCC, please.

>> SERGEY PASTUKH: Many thanks. Thank you, Michael. Good afternoon, everyone. The RCC currently has not wrapped up fully its preparations for the conference. Next week we will have our final meeting before the WRC-19. So on item 1.13, I am showing you a draft position and the position will be laid out more clearly after our meeting in September and the RCC will be able to take a final decision after that meeting. Saying that, I can still talk about the method because if we look at the table Michael has presented -- it's an excellent table, by the way -- the RSS, RCC region, rather, prefers option 1 and not Alternative two.

The thing is, our decision is based on what? Well, the studies that were conducted to date. These studies were conducted based on the IMT system and will be used for LAN mobile systems, LMS.

So alternative 1 or option 1 seems to deal with the issue we had at hand from the beginning when we looked at the technical characteristics of IMT. Now, if we look at Alternative two, what is the difference then? Well, Alternative two, you can put IMT base stations in the air at an elevation of say 100 meters, 1 kilometer, 10,000 meters. And you can also put IMT stations at sea, on ships, for example.

So in Alternative two, you are using IMT in the aeronautical maritime services, the maritime services and the LAN mobile services, that is aeronautical services, LAN mobile services and maritime mobile services. And we were looking at the interference that will be used if this happens in the AMS.

The answer is negative because we didn't, we looked at the height of the antennas 6 meters above ground.

This means that we didn't carry out any studies if the antennas, say, were at a height of say a kilometer, a kilometer and a half, so on and so forth. The interference situation will be significantly different if we have different antenna heights.

So in order to avoid the risk of creating interference if IMT is used in the air, well, propose to limit ourselves to Alternative one. Michael asked a question. Well, what sort of decisions could be taken at the conference? In my opinion, what we have here is a great deal of risk for interference if we use the IMT stations in the air. So if we exclude that case, that is the use of IMT in the air, well, then, we will be using mobile services with the exclusion of aeronautical mobile services. This will be likely the general decision of the

conference given since that's earlier investigations, we actually quite frequently use this approach to the RRs.

Now, as to the options or rather the conditions that our region has chosen and we seem to differ from other regions in some cases. First and foremost, this is for the protection of passive services. Specific figures for unwanted interference is not something that we have agreed to as of yet. And here we just note that there seems to be quite a wide range of figures subsequent to the studies and we see that already in the table. We see actually the table we are seeing now, we see quite a somewhat limited range of figures. We saw much wider ranges before.

So we think that our region should be able to adopt something within this range. Obviously, within the discussions with the RCC, we have noted that the level will depend on the protection of the frequency bands.

If we look at 24, 25-megahertz, then we need to have quite strict limits. If we are talking about additional protection bands, then we might be able to reduce things.

As for the next condition, it has to do with the second Harmonics. In this case we've noted that an understanding has been reached that the level of recommendation 329 of category B minus 600-decibel -- 60-decibels. Everyone seems to agree that this level will ensure protection.

The only thing is that putting this as a recommended recommendation or setting it out as a mandatory condition is the question at hand. We would prefer to see it as a mandatory limit. The main idea why we are asking this, the main thing is that in this frequency band we are protecting satellite reception. And what does that mean? Well, it means that if all the countries in the world do not fulfill the requirements as to the limit, well, then we won't be able to protect the reception from satellites or satellite reception.

And based on that consideration, we consider that this has to be a mandatory limit. Because the level or currently in the recommendation it is only applicable to European countries. They are not used by all other countries around the world.

And the next condition, if we consider this item, the protection of passive -- this is protection inside, this is A2C within the bands, not in neighboring bands but within the band.

Here what we are proposing is that the footnote 5536 be deactivated with regard to IMT stations. And the main reason for this in our opinion is that based on resolutions that under which we are conducting these studies, all services have to be protected. This is in the resolution that has been adopted by the conference.

Now, this particular footnote, this gives a priority for mobile services with regard to passive services. When in mobile services we introduce new IMT recommendations, the resolution has to protect and support the protection of these services. And this footnote if we leave it without any amendments, well, it gives a priority to IMT relative to other services, some specific satellite services for earth exploration or fixed satellite services.

So this is the main reason why we are proposing to deactivate this footnote with regard to IMT stations, thinking that it is -- that we want to ensure the protection of existing services.

As to all other conditions, well, they are pretty much, our position is pretty much the same with other regions with the exception of condition A2E, echo. This once again has to do with the protection of satellite reception between intersatellite services and fixed satellite services.

Under this study, we see that the administrations of many regions consider that there is significant margin to protection of interference. So any additional limitations for IMT is not necessary. That is their position.

Our position is different. Once again here we would like to note on this particular matter that this margin was achieved thanks to IMT stations provided the antennas of the stations was not higher than 6 meters.

It seems to be that many regions now are conducting other tests, and test IMT studies, and are well aware that in practice what sort of height of antennas are really going to be used for IMT within this frequency band. In Russia, for example, we are getting requests from operators up to 25 meters. Say from 20 to 25 meters. So it is clear that the parameters we were working with prior to this in practice will be quite different from reality.

So when we are proposing option 1 to provide a limit for TRP and to you an EIRP mask, well, we are doing this because we understand that we have to protect ourselves from all practical, possible situations to avoid any interference.

Thus, this is the rationale for using limitations.

At the same time, these limitations should nevertheless lead to a situation whereby they limit the IMT system itself.

In this connection when we look at proposals from other regions, when we see the word "normally" for these limitations of the will angle of the base station, we understand that in reality that the implementation of normally is not likely to occur.

Some add manages might consider that normally is mandatory and that they should not have antennas higher than the horizon. Others may consider that this limitation is, allows them to.

Emissions that are higher than the horizon. So as a result, taking into account the fact that we are dealing with interference to satellite reception, then this limitation will not allow us to ensure compatibility. And this all the more I would say that using a mask for the upper hemisphere, that is to -- to allow this kind of emission, but reducing the power might be a more subtle way of resolving the issue for introducing IMT rather than simply limiting, limiting things with the word "normally".

So I think that is pretty much all of the difference that the RCC has with regard to the overall approach and thank you for letting me provide this information. Many thanks.

>> MODERATOR: Thank you to the RCC. So we have heard from the regional organisations for why they have taken these positions and also a little bit on the thoughts for what we could do to try to align them. Before we open up the floor for questions and further comments, I think we are probably not too far away from finding alignment on the method itself. We will still have to work on the mobile service element as RCC mentioned, but I'm sure we'll find something there.

Also for the ESS passive protection in the 23.6 to 24 gigahertz band, it looks like there is quite a bit of support to put this into resolution 750 if we manage to agree the right number. That is maybe the more difficult part. We still need to come up with a good number that we can all agree on. Once we've done that, I would expect that the discussion on active service band will be easy. And placing all of this in res 750 will be easy. The difficult task is still, why do we have all those different numbers? Why did the regions come up with the different numbers? How can we try to align them to achieve harmonisation? That is clearly a big, open task.

For the second harmonic, second question, how do we best do this? Is there a way to find middle ground based on A29? We don't know yet. When I look at the other can conditions, A2D, F and G are not far apart. It is not even needed to say anything at all about this, and some others think we should highlight this as an issue for administrations to take into account. Those are not mutually exclusive, in my view. Even if you think it is not needed to say it, highlighting it as something for the administrations to consider back home is not really conflicting that much. So we might be able to find solutions for those conditions fairly soon.

Obviously for A2C and A2F -- sorry, A2C and A2E we have to work a little bit and see how to converge here.

With those ideas for how to find common ground, let's turn to the room and see if there's any further comments or questions on these regional positions. Further ideas of how to consolidate and align these positions. Maybe questions. Any comments from the room?

No? Okay.

Yes, Switzerland, please.

>> SWITZERLAND: Thank you, Mr. Chairman. Thank you, Michael, first of all, for the very good overview of the different regional positions. So nice to have everything on one page.

Also thank you to all regional representatives to have the opportunity to hear how they arrived at their position and especially for the out of bound emission towards the passive band. This is appreciated very much and welcome the confidence of Mr. Moghazi that the conference has converged to a single value. That is certainly the goal of the will conference. Michael, you asked the room, but I would like to put the question back to the representatives from the regional organisations how they see the conference will converge to a single value? How will we align all different values because of the difference of up to 14-megahertz if I take the regional views.

How the conference will go towards the alignment of these values? Thank you, Michael. Thank you.

>> MODERATOR: Thank you, Switzerland. Let's turn to the representatives and see if they want to respond to that. Any ideas for how to align those numbers? I'm sure there's different ways but we have to recollect that the RCC preliminaries are -- positions of preliminary and there is the final meeting of the RCC group next week. We may have further updates on that side.

Any views on the question from Switzerland? Yes, Mohammed, please, ASMG.

>> MOHAMMED MOGHAZI: Thank you so much, Michael. Thank you to Mr. (Tschannen?) from Switzerland. First of all, as the host of WRC we are doing our best to meet the high standards of Switzerland and we will take care of you guys. So this is one of the reasons I'm confident that we shall reach a single value, but not only because of the good weather and the sea, but I think 1.13 is a different Agenda Item. Today in the morning the Bureau Director mentioned that it is an easy Agenda Item. For me, even just I don't consider it as a difficult one. First of all, people who have been working on this Agenda Item are the same people who have been working in WRC, 12, WRC, you name it. When I look at the panel, I see friends. I semen tores.

So again, it is not the first time that we have faced such situation to reach a single number or a single value. I think at the beginning of the Study Groups, I know for people who have been attending them, things are tense, things are difficult. But upon my experience during the last conferences, I'm sure you are in safe hands. We will get together and reach a consensus and reach a value.

And the good things that I've noticed that all representatives of the regional organisations acknowledge the importance of protecting the ESS service, passive services. This is a concern for all of us. How to reach the right balance. We have four weeks to do -- four ways to do it. We can reach it the first week or second week, I cannot tell. My guess is the third week. Again I'm very confident that we shall reach a consensus. Thank you.

>> MODERATOR: Thank you, Mohammed, for this encouraging words for all of us.

Further comments on 26 gigahertz and the conditions and how to possibly consolidate them across the regions?

Some of them will be easy. Some of them maybe not so easy. Iran first and then France.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Michael. To reply to our colleague with the questions, how we reach agreement. I will give an example. When we discuss in Task Group and before that the Working Party 5B about the characteristics, there are various (indiscernible).

(Apologize, fuzzy audio.) four dB, six dB, ten dB. We look at the mountain to see what is the value that we could use with that.

We will not look for perfection. We are looking for something that people could leave with that. So to reply to that and to, firstly as was mentioned, the conference speaker, in particular the design service, seated around a round table and we discuss and they just explain a that what are the values that they can live with it. Working Party 5D ... (indiscernible).

4DB, perfect planning. So we need to put our thoughts together, look into the success of the conference on the one and look at the conferences in Africa, another one and also look at the ITU would like to promote this very important issue of IMT for the entire community of the world is behind them. We should give the party the signal that extra ITU are in a position to have some agreement in fact in a sense of consensus. That they could lead with that -- live with that and that will end the business. If in the future they choose to improve that, that will be done and it is the position of Iran to come to that in the future.

We should put our thought together. I don't go along with the third week. We should do more quickly. Not the first day but not the third week. We have other issues to discuss, but I think that is possible.

Michael, I don't remember after six WRC and I have seen we get out of the conference without any consensus. We always reach consensus and there is only one example in the ITU and that is 12, we did not have of course and that is a (indiscernible) for ITU. We should avoid that. ITU should put our thoughts together and have something and I'm sure that we will arrive at some values that, but we will come to the question raised. I am not like some of the questions, I have answer to one question, I don't believe that you can protect the service by WRC recommendation. Which is just a recommendation. Limitation, thank you very much, I can do that.

Or ITU-R recommendation, they mentioned it will take years. We have (indiscernible) in 2012 we leave for the recommendation for the band up to (indiscernible) to be established.

Or you could be opposed by one member Delegation. If you want to protect something you should put it in the resolution of the WRC, which is to be found in the footnote which would be binding as a TD for the signal discern SDN and they identify that within two years or if you don't ratify, in the fact that it will be considered as ratified. So resolutions, if you want to have a value, hopefully that value should be put in a WRC resolution. With a capital R, and cross reference that in the footnote.

Let's look for that as an objective and try to see to what extent and how how quickly you can have an agreement. Thank you very much.

>> MODERATOR: Thank you, Iran, for those I think very wise comments. We also need to look at the issues one by one in terms of timing. We should try and address many of them early in the conference. If we have to leave the difficult ones until the third week we will do that. But if we solve all of this even before that, we can all remember the words, very kind words from the host country presentation this morning that there are many nice things to explore and to do in Sharm el-Sheikh outside of the conference center. The more quickly we come up with an agreement, the quicker we can take advantage of the warm welcome from Egypt to look at the surroundings.

We do need to reach consensus and it is encouraging to hear that everybody is of the view that we need to do this and is committed to doing that. Let's just sit down and do it.

France, next speaker, please.

>> FRANCE: Thank you, Mr. Chairman. First of all, the question I would like to put out to all of the speakers, the

participants in this round, I listened to them. I think that each and every one of them has expressed the same objective really. They want to protection, they want protection to make sure that the meteorological forecasts will not be upset, disturbed. It concern all of the will regions, all of the countries. But to be deployed in 26 gigahertz to be able to deploy this for 5G.

The question is just why is it that the proposals of the various regional organisations would all be so different? Because they are tending towards the same objectives and yet we have proposals that are very different, very divergent. I'm wondering what is the reason for that, why CITELE is saying minus 28-decibel watts and others minus 42. I'm wondering, are there different engineers? Different regions of the world? It's a major question.

The objectives are the self same ones. In this regard I also have a concern regarding the various interventions with this idea that in any event we will arrive at a consensus. Well, quickly, I hope. I agree with Mohammed stating that we have friendly relations with all of you. We all know each other very well. That's true.

But at the same time we bear a responsibility in this conference a little bit more than finding a value between 28 and 42. The responsibility we carry is to let's say ten or 15 years down the road we do not find ourselves in the situation where we see observation satellites have been polluted to the level of disturbance that is 10-decibels below the threshold. It could be catastrophic. We will have to change all the antenna that are used by 5G to solve this problem. That would give rise to a lot of complexity and take a lot of time as well. We need to clarify the situation an then solve the problem. It is not simply, we can't look at this question of consensus for everybody. Everybody wants to arrive at consensus, but we have collective responsibility because we have the same interests, a shared responsibility in WRC-19 to arrive at a point where we can find a solution. Because this is essential. I mean, it's a collective shared responsibility to whereby at the end we have a decision on the part of the conference to make sure that ten, 15, 20 years down the road we will not be facing a situation wherein 5G could give rise to a loss of our capacity to forecast weather, meteorology. This is absolutely essential, as I see it.

>> MODERATOR: Thank you, France, for these additional comments. Yes, we certainly all agree that we must make sure, we need to ensure that this conference is a success in finding the right value in this particular case is critical to make the conference successful.

And this is an obligation for all of us. So we will need to see why those values are different and we need to maybe go into a more detailed debate in Sharm el-Sheikh as to why they are different and see how we can move them towards some common solution. Certainly a technical debate that is more than what we can do today.

But we also need to keep in mind what I think Mr. Arasteh stayed. We need to see what we can live with. We need a solution in the end that everybody can live with. It may not be the perfect solution that we wanted going into the conference, but it needs to be something we can live with. That is our obligation, to make the conference successful.

So similar question, I think, to what I commented earlier. Why are those values so different? I don't know if we have immediate comments from the panelists here. And then also more comments from the room. We still have a few more minutes on this topic. Please, CITELE.

>> LUCIANA CAMARGOS: Thank you, Michael. I heard CITELE's name mentioned a few times. I understand we are only one range of the values. We have actually quite, I do have quite high expectations for the WRC. We started CITELE with one of the values was minus 20. We had another value of minus 37. And a value in the middle.

On the first day we had five days to reach agreement. On the first day we reached consensus on minus 28. If we take a lesson from CITELE we might finalize a difference for the WRC. That's my expectation.

>> MODERATOR: Thank you. Certainly a very positive suggestion for time here. I keep that in mind for possibly visiting the beach in Sharm el-Sheikh.

Further comments on this and also other issues around 26 before we wrap it up and move to the next band? USA, please.

>> UNITED STATES: Thank you, Mr. Chairman and respected regional experts.

I think the underlying issue for this critical issue of protecting the passive services at 24 gigahertz is the realization that a number of governments and intergovernmental organisations are making decisions before WRC. We are making the spectrum available for I haveh 5G, ensuring protection of each of the different incumbent services which somewhat ties our hands.

That makes compromise a bit more difficult. I think our CITELE representative just said that in order to find this compromise by week three or week two we need to take one step towards compromise.

I would like to hear from the different regional representatives if they are all willing to come off their

position and find a compromise. If we are all willing to take that step forward. And then the second question is, the first panel on 13 is solely on 26 gigahertz. Why is that? Why is that a priority for the region? And why are aren't we talking about the multiple other gigahertzes under study in this Agenda Item? Thank you Mr. Chairman.

>> MODERATOR: First, we are about to move to the other bands. We are pretty much done with 26, but it was suggested in the organisation after the Working Group shop that we might want to look at this one in particular because we have a very diverse set of conditions and options for those conditions.

So further comments on 26 before we try to move to some other bands before the coffee break? CEPT and we also had UAE.

>> ROBERT COOPER: Yes. Regarding 26 gigahertz band helps you reach a solution, I think we need to look at everyone's studies in the first week, and look at the studies by the other regional bodies to see if the need for protect passive. We need to look at everyone's assumptions in the studies and make sure that the passive are protected. The first job in the first week of the WRC to make sure that the passive services are protected. That's my view going forward.

>> MODERATOR: Thank you. Burundi, then UAE?

>> UNITED ARAB EMIRATES:

>> BURUNDI: Thank you, Mr. Moderator. Actually, I'm from Burundi.

My concern or my question is, a request that try to come up with similar positions because the positions seem to be fairly different. And yet we need to find some convergence. So as to come up with a solution.

Perhaps we should look at the interests of the user community. A concern for me is that, as if the platform or the regions seem to be organised in groups. Where the strongest dominate the others.

At the WRC we should have a platform where we find consensus acceptable for all regions and all users. I'm sure that there are ways to do this. I think this is the scenic unknown condition for preparing the WRC. Representatives of regions should get around the table and look for solutions and central positions. That even before they arrive at the conference. Why? Because we are running quite a large risk. The regions may be in a position of strength or weakness. The strongest amongst them will try to force their positions. I think the representative might get together and perhaps look already for a consensus so that we arrive at the WRC with already consensual positions.

>> MODERATOR: Thank you very much, Burundi. Yes, indeed that is exactly the purpose of presenting the overview of the

different positions so that people can see it, think about ways to converge and talk to each other during the breaks and during the next two days to see if there's ways to converge already before we go to Sharm el-Sheikh.

UAE you wanted to comment? UAE, please.

>> UNITED ARAB EMIRATES: Good afternoon, colleagues. Thank you, Chairman. First, I think I formed clearly the he position. (Fuzzy audio.)

I would like to add guidance that would be helpful. The emission limits reflect the difference in sometimes the protection. I think everyone here would agree that ESS is a universal service that we have to protect. It is not an option. The question is, what is really important to really think about at this time, at this late time before the conference, what is the value for that. And interestingly, over protection sometimes is something ... service. It made add some burdens in other services. We need to think about something which is good for protection and for important services.

The other point is why we need to ... when you think about ESS as a universal service, it is something that is around the whole countries and it will be some sort of difficulty to have such service experiencing different type of emissions in different countries. As far as a solution, there can be a solution but I don't think this is an available solution. Probably we need to think about convergence and a value to probably have a type of service for this ... services.

Third, with regard to the location. I think a lot of the location, with the resolution, recognizing it is clear what is the position. However, just to adhere a recommendation used to be a tool to reflect some protection of quality. There are a number of bands where we use the -- to protect them. It is something that has been experienced in the area. So definitely this will depend on the type of service but as you mentioned, we have a number of examples where recommendations are being developed to achieve the protection for these services. Just comments and definitely we will be happy, it is our pleasure to work with all colleagues from all regions to get convergence on these positions, yes.

>> MODERATOR: Thank you, UAE, for these additional comments. We know where we are on this band and we know where we have to go and hopefully also how to do it.

Let's move to the next band. And now for a change, maybe a bit of a shorter debate, if anything at all. The next one in numerical order is the 32 gigahertz band. Here you can see that all the regional organisations have agreed on a position of no change. There is probably not much if anything that we need to discuss in terms of conditions. I think the positions are

clear. No change from all organisations and so is there anything that we need to say about this band?

(There is no response.)

>> MODERATOR: That's what I was hoping, thank you.

The next is 71 to 76 gigahertz, not identical, but similar situation. For five organisations, we have a clear no change position and the APT is still developing their position on this and considering this further until the conference.

And then the same situation for 81-86. Can we take those bands, 70 and 80 together, see if there is anything we need to discuss at this point? I think the picture is quite clear. Of course, we welcome the updated position that the APT might bring to the conference. We will take a look at this as it comes in. For the moment this is what we have. ASMG, please. Mohammed?

>> MOHAMMED MOGHAZI: Thank you, Michael. Just with regard to the two bands, 71 and 81, just during the conference itself and upon the discussion among the participants, we consider studying or restudying the two bands for WRC 23. It is not confirmed yet. It is upon the discussion at the conference itself, but we may consider that.

Thank you, Michael.

>> MODERATOR: Thank you very much, ASMG. If there are no further comments on these three bands then, let's move to the next one. And that would be 37 to 40.5 gigahertz. Again, just for referencing, itch listed all the conditions and the different options in the CPM report here. And that continues in the following slides. This is the entire set of possibilities that we have currently in the CPM report.

Looking at the country positions, we have not as clear a picture as for the other bands. We do have support for identification from three organisations and then we have a no change from two others, although the no change from the RCC is only for region 1 and they would be -- if region C and one are identified as the band, the RCC would have views on conditions that would have to be applied.

And then we also have a new position from CEPT. Similar for the conditions, the question is what limits we would have to put into the regulation for ESS in the 36 to 37 gigahertz band. And we have some views that this might not be required or might be required in the IMT resolution.

The numbers will also then be debated at the conference to see what numbers we want to see in there.

For the FSS space SRS C2B, again we have different views from it is not required up to reflecting it in the IMT resolution with possible constraints on the IMT deployment to reflect the FSS usage. That I think is linked to the HD FSS footnote 516B.

For the SRS space SRS C2C, again we have some views it should be covered in an ITU-R recommendation as items that need to be addressed and views that it might not be required at all.

C2D, the SRS, ESS earth to space direction, this time again we have the mainly two differing views whether to address this in the IMT resolution or it is not even needed to address it based on the sharing study results.

Finally, the multiservice conditions C2E, we have some views that it is not required and then some reference to the higher band positions for credit CPT.

That is the overview we have for this band. Let's quickly turn to the will regional representatives for some comments on why this is their position and what they see as a possible way to move forward. We will also fairly soon take our coffee break. Let's try to make some position on the positions. APT?

>> HIROYUKI ATARASHI: Thank you very much, Michael. Before discussing this frequency band, I would like to say that from the the APT proposal we consider this frequency band together with two consecutive frequency bands. We considered our proposals from 37 to 43.5 gigahertz frequency range as a package.

And in our developed proposal, we used language that such a language that we support IMT identification for the frequency band from 37 to 43.5 gigahertz or portions thereof.

As you may know, existing IMT identification footnote uses such language. And for this particular frequency range we use the same approach because different APT members, different preference for the frequency band portion of this frequency band. So in that sense, we agree to use such language for IMT identification in this frequency range.

Regarding the conditions, as you can see all the conditions are TBDs. This is the same situation as in the 26 gigahertz because the different proposals were provided by different APT members and we didn't have enough time to reconcile our views. In this sense we need to further discuss what is required conditions and options to be applied under these conditions to protect incup bent services. Thank you very much.

>> MODERATOR: Thank you, APT. Yes, indeed, for all the will regional positions we need to recognize that this is part of a larger discussion on the tuning range covering this band and also the next two bands coming up on the list. Keep that in than mind and turn to ASMG.

>> MOHAMMED MOGHAZI: Thank you, Michael. As clarified in the table the current and formal position of ASMG is no change. However, I should mention that according to the last ASMG meeting that was held in cire row, it was -- Cairo, it was died

that we may change our position at the conference itself upon consultation with other Regional Groups within region 1.

So again we are open for discussion. I think it may be also related to the higher band 40.5 to 43.5. Thank you.

>> MODERATOR: Thank you, ASMG. And next is ATU.

>> ALFRED JOSEPH BOGERE: Thank you, Michael. We are agreed in the other meeting that this band should be identified for IMT and our position is that all the three regions also consider identification of the band for the same.

We also believe that we need to require additional conditions necessary for other services in the band based on the results of the ITU shared studies at the moment. Thank you very much.

>> MODERATOR: Thank you, ATU. CEPT?

>> ROBERT COOPER: Yes, for CEPT our priority is the under band, 40.5 to 43.5. We developed a view at CEPT. This contains the condition, if this band is identified to IMT. We do not oppose this band to IMT provided the incumbent services are provided.

We looked at the studies going into the Task Group and came up with some figures for the protection of the passive service. These are 33 for the base station and one is 32 for the mobile station. And we have looked to the other conditions and provided those in our proposal for the WRC. Thank you.

>> MODERATOR: Thank you, CEPT. Let's move to CITELE.

>> LUCIANA CAMARGOS: Thank you very much, Michael. For these bands, CITELE we considered this in conjunction with the other bands. The proposal is to identify 37 to 45.5 in all three regions. Because of the identification to the HDFS in parts of this band in different parts, in different regions, we have applied a condition which is option 4 which brings in the footnote of recognizes the identification to HD FSS and it brings constraints to IMT as applicable.

So this is one of the conditions we have applied.

Further condition C2A, we believe it is not required. Resolution 752 is there, is in force and should take care of the distance for the passive services for 35 to 37 gigahertz.

We have also look into option 1 for ITU recommendation for the SRS space ... and that is all for our conditions. Thank you.

>> MODERATOR: Thank you. And RCC, please.

>> SERGEY PASTUKH: Many thanks, Michael. On this frequency band the RCC has the draft proposal that is reflected in your table. For this draft, despite the fact that we have put no change in many cases, the main idea is that in our region this frequency band is being used for fixed services quite actively and using IMT in this frequency band will be quite difficult.

So from this point of view, the RCC countries have quite a lot of difficulty putting IMT in the fixed services within this frequency band.

Having said that and at the same time we are not against using this frequency band for, or in other regions or other countries for IMT. But if it is used in other regions and countries, we have at least one aspect that we would insist on. Family, this is the protection of our satellite services, earth exploration satellite services.

So we are discussing internally how to present our views at the conference in the form of a view and in this connection we have not yet determined all of the contours of the issues related to the frequency band mission, the mission limits we want to look at with others at the conference. Given the RCC situation where we will continue next week our discussions, where we will determine the method and will determine the figures that we will present, the station limits that we will present at the conference.

>> MODERATOR: Thank you very much, RCC. We have heard from all the regional representatives on these positions. And we have now reached time for coffee break. Before we do that we would turn to the Director of the BR. Please.

>> DIRECTOR BR: Yes, thank you, Michael. So before we finish your Session, I want to provide a response to the question from the Delegate of Iran. The position is clear. If it resolution is referred to in the Radio Regs which we normally refer to as incorporated by reference to this Article, then the resolution and the values in this resolution will be part of the Radio Regs and then will be part of the international treaty.

If there is no such reference, then the resolution is not part of the international treaty. The same thing happens for an ITU-R recommendation. If this recommendation is incorporated by reference in the Radio Regs by mentioned in an Article or in a resolution which details is incorporated in an Article, then the recommendation and its values will be considered as part of the treaty.

If the recommendation is not incorporated by reference, then it will simply be an international standard and Member States may choose to apply it or not.

I hope this clarifies. Thank you.

>> MODERATOR: Thank you very much, Director, for this information in responding to the question that we had earlier. It is a useful clarification for us to mind as we look at the recommendations and it is not only with whether we put a into a recommendation or a resolution but how that document is referenced. Keep that in mind.

I see Iran would like to respond to that and then somebody in the back.

>> ISLAMIC REPUBLIC OF IRAN: The response is very much thank you, Distinguished Director. I wanted to hear from a totally neutral body, that means the Director and the Bureau. Otherwise we have the results before. Chairman, I have another quick thing. Somebody said that no condition is required, it should be accompanied by technical rationale. It is not a wish that no condition is required because then ... it should be supported by rationally technical acceptable and agreed, perhaps sometimes as a result of sharing a study. Even though, allow me to say that all sharing studies are assumption. An assumption or assumptions. They are not in fact reflecting reality.

So but blank, no condition without technical argument or balance or any rationale for that, I don't think it is a good way to proceed. Thank you.

>> MODERATOR: Thank you, Iran. GSNA.

>> GSNA: Good afternoon, everybody. Just before you go for coffee. I have an announcement from me. I hope you all received an invitation from us by mail. In case you haven't, the GSNA along with sisters and brothers in the GSA would like to invite you to a reception at 7:00 p.m. If you don't know where the room is, please contact myself or my colleague. We will be happy to be point you in that direction. The only invitation you need is presence in this WRC. That's 7 p.m. Thank you.

>> MODERATOR: Thank you. We will take our break for coffee and after coffee break we will start at 3:45 and we will consider with the 30.5 bands. We heard from the regional representatives but we will see if there are any questions from the room. Have a good coffee and come back at 3:45, please.

(A break was taken.)

>> MODERATOR: Could you please take your seats and we will continue our discussions on 113?

Okay. We left off before the coffee break on 37 to 40.5 gigahertz. And we've heard from the regional representatives about their explanation for their positions. You still see them on the screen.

And the question is now, do we have any comments, observations from the room? On the situation 37 to 40.5 gigahertz? Any comments? Any questions on this band?

We will note no, that's good.

Well, then, I think the only conclusion for us is that we need to still look at the areas where we have a bit of diverging views. Clearly on the identification side. We still need to see how to reflect that and keep in mind that it is part of a larger range in some of the proposals where the proposal is to

identify this range or portions thereof. For the conditions again, quite a few of them are similar in nature where you can either not say anything at all on this condition or you can highlight this as an issue for administrations in the resolution. Or maybe even recommendation, as long as we as the Director explained before the break make sure that this is appropriately referenced as a provision. So I think there's quite some room for aligning the different ideas on the conditions. We do need to see how to implement this range in the identification of all or parts in the various regions.

So that is something to work on towards the conference. If there are no comments further on this band, let's move to the next one.

This is then 40.5 to 42.5 gigahertz. For reference I have listed all the conditions and the different options for the conditions in the CPM report. And then on the following side you see the regional positions, which are, I would say very nicely aligned this time. We have support to identify from all Regional Groups. We do have the IMT LAN mobile service alternative from the RCC and the other alternative from the other groups. I'm sure we will find some way to combine those ideas at the WRC.

The conditions, there is still some different views in terms of them not being required versus reflecting them in a recommendation or in the resolution. And possibly also mentioning some things in the footnote itself as suggested by CITEL.

So that is the picture for 40.5 to 42.5. Let's briefly turn to regional representatives to explain to us why this is and what they see as still open issues to be addressed so that we can move this band forward at the WRC. First is APT.

>> HIROYUKI ATARASHI: Thank you very much for this introduction, Michael.

I think this band is similar to the previous one. As you can see in this table, APT are three conditions TBD. We are still looking at APT different views for these position. We need to reconcile our positions for the WRC. Thank you.

>> MODERATOR: Thank you, ASMG, just to welcome Abdul Hadi Abulmal, welcome. And please, the ASMG views on this band.

>> ABDUL HADI ABULMAL: Welcome, colleagues, thank you, Michael. Thank you for organising this workshop for looking at the different views that converge.

On 40.5 to 42.5 and the coming frequency bands, the position from ASMG as you can see is no additional condition. There is something in here, when you talk about no additional condition or no condition required it means exactly that no additional condition is required. Similarly speaking, this since this band

has mobile location in the IRR, some of them definitely have a secondary location that have to be up great graded to primary location. Already there are some conditions in many of these bands already reflected in the RR and other references. We see no conditions here, means no additional conditions required for protection of these services on IMT. Thank you.

>> MODERATOR: Thank you. ASMG. And to ATU.

>> ABDUL HADI ABULMAL: Thank you, Michael. ATU position is now going, not going to differ much from ASMG. We support upgrade of the band. For (indiscernible) and other identifying the same for IMT. That is the further footnote 40.5 to 42.5 gigahertz. Now, the ATU study outcomes, we also believe that there is no additional condition that will be required. Thank you.

>> MODERATOR: Thank you, ATU. CEPT?

>> ROBERT COOPER: Yes, thank you, Michael. It is good to see the strong alignment with the Regional Groups. Showing this band is easier, it is not so many conditions and I think this should be an easier band to manage in WRC. We hope for some text in there CEPT supports the resolution, but this is a quite straightforward band. Thank you.

>> MODERATOR: Thank you and CITELE, please.

>> LUCIANA CAMARGOS: Yes, for CITELE as I was saying before the break, this is part of the wider range of 37 to 40.5 gigahertz. We do have a footnote that recognizes the identification to HD FSS which brings this possible constraints to IMT as applicable. We also use, we also apply an ITU-R recommendation solution for the radio astronomy in both bands. Thank you.

>> MODERATOR: Thank you and the RCC, please.

>> SERGEY PASTUKH: Many thanks, Michael. On this frequency band the RCC countries have quite a lot of agreement. We don't really have any specific problems for this recollectsy band. At the same time, if you look at the method that we are proposing to be used, this is once again Alternative one. That is to limit IMT to LMS, but this is a general principle that the RCC has discussed. And once again I repeat, this is to the fact that the IMT parameters that we studied and for which we have received results of studies.

All of the other conditions correspond to the CEPT, the Europeans. And I don't know what else I could add to that. It seems for our region this might be the simplest of all of the bands in this particular range.

>> MODERATOR: Thank you, RCC. Good to see that RCC and CEPT are quite well aligned here. So it looks like we have quite a bit of alignment here and commonality. Can if, the general issue that we will solve at the WRC is the

identification Alternative one, 2, that is something that we need to solve in general to all the bands. Otherwise it looks like the only open item really is to address the HD FSS balance, together with the tuning range or the other frequency range ideas that we have seen in the proposal.

So together with the proposal for the full range of 37 to 43.5, how do we recognize the HD FSS situation? How do we ensure balance? That is the one critical question that we have to focus on.

The other issues seem to be fairly straightforward.

Any comments? Questions? Ideas? Suggestions from the room for this band? For further improving this band? Yes, Korea.

>> REPUBLIC OF KOREA: Thank you, Chairman. With respect the views of RCC, in the FSS band and this band as well, alternative 1 is what -- are considering. And.

(Microphone very distorted.)

Stations of the mobile. So considering population characteristics to friction and ... bands, we believe that there are some serious problems as to the how the stations ... will be possible. What will be ... would you explain, thank you?

>> MODERATOR: Thank you, maybe we can go to Iran as the next speaker and come back to the panel to respond. Thank you. Iran.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Michael. I don't have any questions. I have some suggestions. You say the only point is HD FSS. Then you have to look at that and see what is the potential use of the HD FSS. To what extent it has been used? To what extent it is planned to be used? That means that the people behind this get together with the to find a solution. I still believe it is not a difficult one to find a middle ground how to protect that. This coming from the 2003 conference and up to now, there has not been a lot of activity. There is, but you have to see to what extent. Find the balance. There is some of the suggestions that we have to make.

I have another suggestion to make at the end of your meeting, but since I have the floor now I will. Michael, I think it is up to the conference to establish an agreement for IMT. Try to have a table. The table categorizes the solutions first. There is no change, so on and so forth. Then the middle or medium complex, and then the difficult one.

When I was a student my Professor told me that: Listen, first treat the simple one because you may be stuck on the difficult one and you have no time to provide the simple one. It is our possibility which one perhaps you can clear as soon as possible and it will be debated but at least you will assist the needs of the people behind this, who will see the potential use

of that and how they use the situation and what are the middle ground that there could be. Thank you.

>> MODERATOR: Thank you very much for thoar comments. Let's turn to the RCC representative to respond to Korea.

>> SERGEY PASTUKH: Thank you very much, Korea, for that question. If I understand, the issue has to do with what might be the worst situation if IMT is used in the air. Well, if we look at the proposal to identify IMT and use them for mobile services, we think that it could be used for aeronautical or aerial mobile services.

Aeronautical mobile services it is. And in this case, all possible and elevations could be used for drones, for airplanes. So the situation changes quite a bit as far as interference is concerned. The studies, we looked at collateral loss which came up to 30-decibels. What does that mean? It means that if we bring the antenna up to Qatar, all of the studies have to be corrected to conform to be in line with these 30-decibels.

Now, as to what might be the worst situation? I might answer in this way. We didn't really study that in particular. So the philosophy here is this: Let's not allow what we didn't study to occur. Based on this philosophical approach we need to look at what needs to be considered for the LMS to avoid interference.

>> MODERATOR: Let's keep that in mine, the background on why alternative one was proposed. We do still need to find a solution to combine until it is one and two at the WRC. We need to keep that in mine. I am fairly confidentiality we will find a solution, we have to find the right words to combine alternatives 1 and 2 to address those points. Iran, please,.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. You have found a

...

(Difficulty with audio.) also the Chair of the issue, 113.

Could you kindly bring to mind Mwanza we developed the current characteristics in LMT based on what you have carried out here, have we done any correction for ITU error or ... or we consulted IMT on one? But not suggested that we exclude totally, but I am saying that as far as I remember, and I participated in all meetings of 5B, I don't remember any of those characteristics in reality are represented in IMT on the air and IMT on the sea. They are on the land. Because I have not seen that, whether it is the ocean, you talk about IMT, what do you want to do about that? There are many other things. You have the land user, GSA, you have busing, you have all of those things. The problem is that we should speak something which have done the study in IMT. The sharing has been done to reflect the IMT air and IMT maritime. That doesn't mean you exclude that, but the situation, what you have done. If you

want to know the conditions, we will seek to see where are those conditions. I don't recall that in the document 5.136, coming to task five.one, any characteristics for ITU error ... but I was wrong, as usual. So please speak to me, thank you.

>> MODERATOR: Thank you. I have to confirm that you are not wrong. You are quite correct. The assumptions for the IMT deployments in the Task Group provided from Working Party 5D were deployments on land, on the earth, in urban and dense urban areas. We did not specifically study IMT base stations on the airplanes or on ships. We did not do that in the Task Group, to the best of my memory.

So let's see if we have further comments on this band before we move to the next one, which is the last of this entire range up to 43.5 gigahertz.

No questions? Then let's quickly move to the next one.

Again, the conditions and options are listed on the next slide just for reference for the 42.5 to 43.5 gigahertz band. And that continues on the next slide as well. And we can then go into the positions of the will regional organisations as provided to this workshop.

And you will see again a fairly large commonality. But we also do have a no change proposal from the RCC.

On the conditions, we have some views that they are not required. We also have some views that those should be covered in the IMT resolution or in than ITU-R recommendation, again with the very useful explanation from the Director before the coffee break. I think we can certainly find a way to combine those approaches and find a good solution for how to phrase that condition text that would be acceptable to all.

That is the situation as I see it in the input contributions to this meeting. And let's now again turn to the regional representatives and hear additional comments for why those positions are so nicely aligned, I would say. And what we can do to further align. APT, please.

>> HIROYUKI ATARASHI: Thank you very much, Michael. As I mentioned this frequency band is considered together with other two frequency bands. And further conditions, such situation is similar. Although the target of the condition is different in this frequency band. We received a different proposal from APT members. So we still need to further investigate which option should be applied to each condition for this frequency band. Thank you.

>> MODERATOR: Thank you, APT. On to the ASMG.

>> ABDUL HADI ABULMAL: Thank you, Michael. Similarly actually this band goes with the previous ban as well. And as one to one range and probably the issue of not required again, it means no additional conditions are required for protection of

these services from IMT. And definitely support this band for identification of the conference. Thank you.

>> MODERATOR: Thank you, very good. ATU, please.

>> BARA MBAYE: Thank you, Michael. Similarly to the previous speakers, ATU wishes to support the identification of the band for IMT. And based on the ITU-R studies, we believe there are no additional conditions necessary for this band. Thank you.

>> MODERATOR: Thank you and then CEPT.

>> ROBERT COOPER: Yes, thank you, Michael. Again we consider this band together with the previous band 40.5 to 42.5, and again we think this band is fairly an easy band. The show of studies have all been positive in the Task Group. We provided some text for the resolution and for the recommendations. Thank you.

>> MODERATOR: Thank you. And on to CITELE, please.

>> LUCIANA CAMARGOS: Thank you, Michael. For this band this is the final band in the range that I was saying earlier, from 37 to 43.5 gigahertz. Our proposal includes identification of all these three ranges, these three bands within this range. It does include option 5 for the condition related to the FSS earth to space on the, previously opinioning condition. We provide a recommends for range of astronomy to 42.5 and 43.5 and invite the recommendation. That's all we have in this part of the proposal.

>> MODERATOR: Thank you, CITELE. And the RCC, please.

>> SERGEY PASTUKH: Thank you, Michael. Our position is different from all the other regions. So perhaps I should give some detailed explanations as to why.

First and foremost, in this frequency band we actively used the fixed satellite service from earth to space. So that means we have a situation where it is necessary to ensure the protection of the satellite reception. That is one thing. The second aspect has to do with the effect, colleagues have already mentioned this, this frequency band is considered one of the bands of tuning range. In this situation, that adjacent bands are defined very differently where there's a lack of fixed satellite service and satellite reception. Therefore, if we look at the tuning range, what we have is conditions for IMT for the entire range. This means that we will have very strong limitations given the situation in this or that frequency range.

What do I mean? Well in, in the lower range, say 40.5, 42.5, we don't necessarily need to put any limitations to ensure the protection of satellite reception. Having said that, on other ranges of the tuning range, let's say, reception means that we will have to take the necessary actions or measures to ensure that there's some limitations. When we build devices,

this means that there will be difficulties in one of the tuning range will have this or that characteristic an another part of the tuning range will have other characteristics. That's why building these devices will be difficult.

So I've mentioned two aspects that explains why we consider that we should use no change. Now, at the same time if you look at how we can resolve the issues at the conference, well, it's likely if we take the appropriate measures for ensuring the protection of satellite reception, then for the RS region we don't really see any other difficulties within that for the RSS. As to all of the conditions that are necessary to adopt for this frequency range, they have to do with the satellite reception as well.

As to compatibility studies, I have this to say. Although it was talked about positive results. Well, I note that for this frequency range out of the 26 gigahertz range, the situation is what more difficult. The margin is much less than in the, around the 26 gigahertz range. So once again I note the characteristics of IMT in practice will be different than the situations that we studied.

So this margin that we theoretically have will quite quickly be reduced as we start to use IMT in reality, when we talk about the power of the antennas being used or the elevation of the antenna and so on and so forth. Many thanks.

>> MODERATOR: Thank you, RCC. I think that was a useful clarification for why the recommendation is no change and why the satellite services and FSS in that situation. So if we manage to find a solution for the protection of the FSS, that is acceptable for the RG, then I understand at least that you would not be opposed to this band being identified if we can ensure protection. So that should be our focus at the WRC to work on the conditions and the language for the conditions to align that across the different views that we have here and make sure that whatever we develop in terms of protection is then suitable to address the concerns from the RCC. Then we might be able to move this band forward.

So with this summary of the comments from the regional representatives, do we have any comments from the room? Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. The representative of CITELE mentioned for the protection of Radio Assembly they have a recommendation. If I understand correctly, the ITU R recommendation is in the category that the Director mentioned, are they by standards or are they by reference? However, if this is a WRC recommendation, it is simply an invitation. And the Radio Assembly is a very sensitive service. So one should be very careful how WRC recommendation which is

really and simply an invitation which may be accepted or not accepted, totally voluntarily could protect a sensitive service that someone could consider a amount of money and so forth. This is just technical questions.

The second issues the FSS that our distinguished from RCC mentioned. FSS has relation with other FSS and Article 9 of the relationship of ... so on and so forth. Whenever something else comes, then it depends on the interference of all those other stations towards the space -- base station receiving and without the aggregations of the interference from other fixed service. So we have to find a solution for that to see what are those values that protect the base station receiving. This is something. Once you come to the end of the Session and have other questions, but I wait until you finish all the bands and then that question comes. Thank you.

>> MODERATOR: Thank you very much for thois comments. Just on your first point, I think, let me see confirm that but it is not a WRC recommendation when you look at the option here on the screen. That is E2B. It is an ITU-R recommendation. It does fall under the situation that the Director explained to us. I think that's okay.

CITEL, anything to add?

>> LUCIANA CAMARGOS: Yes, thank you, Michael. For that, in accordance with the CITEL proposal, the situation is that the TG has done extensive studies, sharing between IMT and radio astronomy an the CITEL administrations were happy with the results of these studies that are in the Chairman's report of the Task Group. With that, the CITEL administration believes that in the resolution invites to IT, watch and develop an ITU-R recommendation as Michael pointed out. Taking into account the results of these studies would be enough to protect the sites on the radio astronomy award pave that is the proposal that has been agreed by the CITEL group. Thank you.

>> MODERATOR: Thank you for that clarification. So it looks like we have a good overview now and know which parts we need to work on still and focus on to move this forward.

If there are no further questions or comments, then I suggest we move to the next band and we have looked at a lot of green color over the last two or three slides. We will now change that a little bit. And see a bit more red.

We will come back to more green later. The 45.5 to 47 gigahertz band. I did not list all the conditions and options for this band and also the next one, 47 to 47.2. As the, I would say predominant view from the regional organisations is for no change, recognizing that ATU and CEPT are still developing their final position on the first of the two bands,

but it is I think at the moment a fairly clear indication on where we might be heading with this.

So do we need to have further comments for the remarks on those two bands? Anything that the representatives would like to say before I turn to the room?

No? Situation is quite clear for right now.

Anything from the room on those two bands and the current situation in the regions?

Yes, sorry, ASMG.

>> ABDUL HADI ABULMAL: Thank you, Chairman. Probably just comment here, our position has not changed in the RR with regard to this band as of today. However, in ASMG there was a discussion which we can follow up closely with other colleagues from concerned regions on these bands during the conference. And there have been discussions further updates might be considered.

>> MODERATOR: Thank you for that clarification. So there are no comments on those two bands. Let's move to the next band. We will have a bit more colorful picture there again. It fills 47.2 to 50.2 gigahertz. First on this slide and also the next one I'm listing for reference are the options we have for the different conditions, according to the CPM report.

And then on the next slide we see the current situation based on the inputs from the regional organisations. APT is still developing their position. We do have no change from a number of groups. We have an IMT identification proposal from ATU. And we have the split proposal from CITELE with an IMT identification of 47.2 to 48.2 gigahertz and then no change for the rest of that band.

For the conditions, we have I think large alignment for if we were to identify the band, what is required or not required. The only open issue really is the limb on ESS in the 50.2 to 50.4 gigahertz band just above this band we are looking at here. What numbers that should be and how they should be implemented.

That is the only open question. And so with that overview, let's quickly turn to the regional representatives for any further explanation, suggestion how to move this forward. APT, please.

>> HIROYUKI ATARASHI: Thank you very much, Michael. Regarding the situation in APT for this particular frequency band, some APT members support no change. But on the other hand, some other APT members support IMT identification for this frequency band or portions thereof.

In that sense there is no reconciled views for this particular frequency band at this point in time, but APT members agree to further investigate whether this frequency band could

be considered for IMT identification at WRC-19. Thank you very much.

>> MODERATOR: Thank you, APT. Next is ASMG, please.

>> ABDUL HADI ABULMAL: Thank you, Michael. Similarly to the previous band as well from 45 to 47, also our position is no change. However, we can follow up closely the discussions in WRC and based on the discussion there might be further updates.

>> MODERATOR: Thank you. On to the ATU, please.

>> BARA MBAYE: Thank you, Michael. ATU agreed as a block to support the identification of the band fortress terrestrial component of IMT, but was mindful of protection of ES in 50.0 and 52-point to the 54 gigahertz band.

For emission, we chose option 2 for the limits, 200-megahertz and negative DPM or ...

(Fuzzy audio.)

For UE. We believe there are no additional conditions necessary based on the ITU studies put out so far. Thank you.

>> MODERATOR: Thank you, ATU. Let's move to creptd.

>> ROBERT COOPER: Thank you, Michael. CEPT will be focusing on the 40 and CEPT has been limited in interest for IMT in this range. So we support no change to this band. Thank you. RFA.

>> MODERATOR: Thank you, crept. Let's move to CITELE.

>> LUCIANA CAMARGOS: Thank you, Michael. For this band CITELE has agreed to support an identification in the first one gigahertz of the band. 47.2 to 48.2 gigahertz with no change from 50 to 52 gigahertz. Because if they split in the one and two gigahertz we believe in other conditions are required and we are satisfied with the identification this way. Thank you.

>> MODERATOR: Thank you, CITELE. And the RCC, please.

>> SERGEY PASTUKH: Many thanks. For this frequency band the RCC has adopted the no position as expressed in the table. The reason for this is as follows: There are two of them, in fact. The first is that this frequency band is very close to the passive beamed, 50.2 to 50.4 gigahertz, which is used. And the levels of EMT that exist that could be used by users really don't allow anyone to use a greater part of this 40.7 to 47.2.

So the proposal that you have from CITELE in my view expresses the fact that or reflects the fact that these emissions from IMT, that we can only use part of the frequency band which is closer to 47 gigahertz.

That's the first reason.

The second reason is this: The spectrum required for the development of im2020 means that it can be achieved by a lower frequency band. In particular, in the 26 range or this 42 gigahertz range.

For this reason we took this under advisement and considered that the development of IMT in this frequency range, 3GPP and -- it is not possible. These are basically the two reasons why the RCC has adopted a no change position for this frequency band.

>> MODERATOR: Thank you, RCC, for this clarification on your position. So it looks like we have a more diverse picture here and need to see what we can possibly do to align things going into the WRC. If we fail in the end we might have to fall back to country footnotes.

Looking at the situation, it seems that we have some proposals for identifying the band. We have some proposals for not identifying it. We have some open positions still to be developed. Then there is a proposal to split the band and maybe if we cannot take the full band, then maybe take only part of it for IMT and do no change in the other remaining part.

With that split, you would then also alleviate the situation with the ESS protection that may not be required anymore, specifically with a provision if the part of the band that you identify is very far away from the ESS edge.

So I think this is what we need to further think about and see if we can develop a solution in that direction. If there is no consensus on identifying the full band versus no change to the full band, maybe splitting it could help us move forward. We still need to think about this further and see what we can do at the WRC with this.

So with those remarks, any comments from the room? Any further ideas on how to move this forward?

Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Michael, for your I would say advanced solutions, to put part thereof.

But just simply to reply to the Distinguished Representative of crept. They say they have nobody interest. It could be interpreted, no interest, but they don't object to the identification. This is accompanied with objections, those are two different things. Sometimes if somebody is neutral, that means it may change the situation to the other direction that is of interest or they just say no, not at all. So Nyet.

This is a simple question. I don't ask them to reply now. They may not be in a position, it is perhaps something we have to consider. Thank you very much for your advanced solution that we need part of ... those things that requires petition, but you cannot, you remain to be available.

>> MODERATOR: Thank you very much. CEPT, you want to respond?

>> ROBERT COOPER: It is a simple proposal for CEPT. Our position is no change. Our position is no change.

>> MODERATOR: I think the point was more, maybe in respect to the discussion we had earlier before the break, about are there things that we could live with? We are not encouraging them, but we are not having any opposition either. We have a situation that we might be able to live with. Is that something that we could work towards? Today we don't have it, I fully recognize that, but we might be able to develop a solution during the conference that in the end, even if we had proposals from regional organisations that say no change, those organisations would then be able to live with those solutions. We have to see if we can do that.

Okay. So further comments from the room? If not, we would move to the next band so that we have a bit of time at the end of the Session for 9.1.1, 9.1.2, and 9.1.8.

The next band is 50.4 to 50.2 gigahertz, just a buffer. I have listed on this slide and also the following slide the conditions that we have in the CPM report. And the various options that we have identified or developed during the Task Group.

Looking at the regional positions we have also a mixed picture here with some proposing no change. ATU proposing the identification. And then APT and CITELE still with no position, still maybe developing their position into the conference.

Then further conditions, it is largely dependent on if you identify it, the current proposal from ATU is no conditions required except for the passive protection limits. So somewhat a similar situation as for the previous band.

But of course, that will largely depend on the solution that we would be able to develop to align these views. If not, we might have to fall back to country footnote solutions.

Let's briefly turn to the regional representatives, if there is anything else to add. I think the positions are quite clear when you look at the screen. Anything additional? APT?

>> HIROYUKI ATARASHI: Thank you very much, Michael. The situation with this frequency band is the same as the previous frequency band. Some APT members support no change for this frequency band while some other APT members support IMT identification. We don't have preliminary APT common proposal for this region of bands at this time and we are sometime investigating this frequency band.

>> MODERATOR: Thank you, APT.

Thank you, we recommend no change for this band and as mentioned earlier, all bands from 45 to 52, we also consider carefully the discussion with the WRC and probably things can be updated according to the discussion. Thank you.

>> MODERATOR: Thank you, ASMG and ATU, please.

>> BARA MBAYE: Thank you, Michael. Our argument there is that ATU does not actually differ much from the previous band. We agreed to identify the band for IMT component, but we were considering protection of -- 50.2 gigahertz to 50.4 and 50.6 to (indiscernible) gigahertz and we propose some emission limits. Just similar to the previous participant, the dB works for 52 -- for BS and negative 28 for UE.

(Fuzzy audio.)

From the studies put out so far we see we don't need additional conditions necessary at this point. Thank you.

>> MODERATOR: Thank you, ATU. And CEPT, please.

>> STEVE GREEN: Thank you, Michael. This band is different from the previous band, surrounded by passive bands on either side. Looking at the studies and protecting criteria for the passive service, we think this band is not that useful for IMT. So we are proposing no change. To this band. Thank you.

>> MODERATOR: Thank you, CEPT. CITELE, please.

>> LUCIANA CAMARGOS: Thank you, for this band in CITELE there wasn't much interest. We had a preliminary proposal from one country supporting identifying this band for IMT, but there was no support from any other country in will region. There is also no opposition from any other country in the region. If this band is further discussed at the WRC, I think all the countries have to have a further look at that. But at this stage we don't have a position.

>> MODERATOR: Thank you, CITELE. RCC, please?

>> SERGEY PASTUKH: Many thanks on this frequency band. As for the previous frequency band we have adopted the no change position. And the arguments and reasons for this are quite similar. For both bands, in this band compared to the previous band, the reasons are even stronger than for the previous frequency band. Several colleagues already mentioned that this range is surrounded by passive services that use these closed bands, bands that have to be protected. And this we have to be very careful about emissions levels for these bands.

Unwanted emissions levels.

And this band, compared to the previous band, there is just a two-gigahertz range. So moving one way or the other and leaving some room for IMT is not possible. So this frequency range for IMT is not suitable for IMT if we have to ensure the protection of the passive services from wanted emissions.

Now, the requirements for IMT can be achieved in the 26-megahertz range and the 41-megahertz range. So the need for using this range is not something we see as necessary.

>> MODERATOR: Thank you, RCC, for those comments. The positions I think are quite clear when you look at the screen. The question is what we can do to develop this into a regulatory

solution. Maybe through country footnotes based on the proposals that we receive at the WRC. And we can address concerns from the other regions and reflect that. But that is really still an open question. We need to see what proposals we receive at the WRC.

Any comments or questions from the room on this band and the situation as you see it right now?

No? Very good. Then let's move to the next one -- actually, since we took 71 and 81 gigahertz earlier today before the break, this is now our final band to discuss. On the 113.

Sixty-six to 71 gigahertz. We don't really have many technical conditions to protect other services in the CPM report for this band. That's why I did not list all the conditions and all the options. It is really just different ideas how to identify the band and how to reflect the company existence with multi gigahertz wireless systems in in band.

What we see in the intercountry regions to this meeting here from the will regional organisations is APT in principle would be open to identify, would support identifying the band but the conditions are still to be discussed and decided on. That's why it is not completely green. I hope that is a good way of indicating the situation from what I saw in the input.

And then we have some regional organisations that are supporting IMT identification. And we just have to see how to address the MGWS situation, either in the resolution or recommendation or maybe not at all. All the other conditions, the other services and multiservice conditions, there seems to be broad agreement those are not needed.

Then, of course, we also have no change from CITELE and the RCC. So it is fairly clear, the situation when you look at it on this summary table. Anything else that we need to be aware of from the regional representatives on this band? APT.

>> HIROYUKI ATARASHI: Thank you very much, Michael. And thank you very much for presenting our idea in a nice way. So as you mentioned in principle APT members support identification of this frequency band for IMT. However, APT members are still investigating the method and conditions to be applied for this frequency band. So this is a situation of APT. Thank you.

>> MODERATOR: Thank you, APT. ASMG, please.

>> ABDUL HADI ABULMAL: This is an interesting band. We definitely also support this band to be identified for IMT in the conference. However, the issue here is a bit interesting. The discussion about the other systems within the same service is something that we believe is more of an international issue. From the national perspective it will be completely within the mandate of every country to decide whether they will implement one system or two systems, both of them together. There is one

condition that should be considered internationally or regionally.

It is not an issue for WRC to exist. We don't look into the company existence of IMT and other systems that can be considered in the same service. However, we are looking also for some sort of convergence in this issue in the conference with other colleagues. We understand the concern by other colleagues regarding the company existence of these systems within -- coexistence of these within the same service. We believe this is a national issue and should not take any further conditions in addition to the identification to the IMT in this WRC.

>> MODERATOR: Thank you, ASMG and on to the ATU, please.

>> BARA MBAYE: Thank you. ATU supports identification of the band, mindful of the coexistence with MGWS and other WS. Thank you.

>> MODERATOR: Thank you and CEPT, please.

>> ROBERT COOPER: Thank you, Michael. This is important for the create and we support the identification of the band for IMT. We have put together text for the resolution for this band which clarifies the balance between MGWS and IMT. That needs to be made clear in the resolutions. When we get to the resolution text, the WRC, I think it will be working through the details of the resolution. Thank you.

>> MODERATOR: Thank you. CITELE, please.

>> LUCIANA CAMARGOS: Thank you. For CITELE this is a no change band. CITELE does not support identification of this band for IMT and we will be going with a no change position. Thank you.

>> MODERATOR: Thank you, RCC.

>> SERGEY PASTUKH: Yes, thank you, Michael. For this frequency band we have a no change position. Let me explain why. At the RCC we have this position. First and foremost I would note that this frequency band is already used for the mobile service on a primary basis. However, there are footnotes that to the effect that mobile stations should not create interference and should be protected against the satellite services and since this is why these are allocated on a primary basis. When we, how frequency band could be used for IMT. We consider that there should not be any limitations or constraints with regard to the development of satellite systems. We don't want any serious constraints to be used by MT station -- IMT stations. In essence this frequency is really for mobile service applications without licensing.

So to identify these frequencies for IMT and live these limitations, we think that we would have to conduct an entire range of compatibility studies with the satellite service.

So we would be able to lift these constraints and limitations so that the protections would, ensure that the protections are needed. ITU-R has not been able to conduct these studies for various reasons. We haven't set out the characteristics for satellite services for this frequency band. And for this reason or these reasons taking a decision about the identification of this frequency band for IMT is at the conference of the WRC-19 is not something we can do. We don't have enough information to do so. We don't have enough information about the possibility of using this frequency band for the mobile service, for the satellite service on an equal basis.

That is one thing.

Obviously the second reason is related to the fact that this frequency band is also being planned for use for MGWS. Obviously this is a question that requires consideration, how we are going to be able to resolve this. When we talk about whether this is a national issue, well, we don't tend to agree with that. Why? Because both services have the global or international nature and the users will tend to move from one country to another and will tend to want to use the service in another country. These are services for which the applications are global in nature. We have seen wifi, IMT, we are going to be using these types of services in a global way. So the solutions we come up with will also have to address global issue.

So the main reason for the RCC position is the fact that we haven't conducted the necessary studies and taking the decision on this frequency band or identifying IMT for this particular band we think is just too early. We need more information.

>> MODERATOR: Thank you, RCC, for this background for why the position is as you see it here.

It looks like for this band we do need to work out the exact text in the resolution on how to address the MGWS coexistence issue. If we want to address it in the resolution, we need to see how to phrase it and see if it is acceptable to everybody and recognizing that some regional groups are recommending no change for this band. We also need to reflect that situation in whatever regulatory solution we are developing.

But the focus of our work at the WRC, I think, is fairly clear for this band. Any comments or further remarks from the room? Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. Thanks to all panelists. I wish to supplement or complement what the member of RCC mentioned, taking a national issue here. National issue is not applicable. The land mass contiguous, national issue. We have impact on your neighbor unless you are

totally living in the ocean and isolated, one flight from one country to another, there is a national issue. Whenever contiguous, you have many, many neighbors and some borders are not a national issue. Mobile not in the study, it could not be a national issue. No study has been done. No issue. We should continue to care (?). Thank you.

>> MODERATOR: Thank you, Iran. Brazil, please.

>> BRAZIL: Thank you, Michael. CITELE has a strong proposal. As we say in the Americas, we have many demonstrations of support and on situation. However, Brazil has a different view and we are aligned with the CEPT in two positions. So we agree in the WRC we are going to have a different position comparing with what CITELE will present. Thank you.

>> MODERATOR: Thank you for this additional information and making us aware of the situation.

I think the ASMG representative wanted to comment on some of this. Thank you, .

>> ABDUL HADI ABULMAL: Thank you, Mr. Chairman. There are two issues here. I agree with the RCC when we talk about cross-border aspects on services. This is an international service. I need to clarify, for the condition G2E for coexistence for MGWS, this is a national issue. These are two systems within the same service this is a system that every ... another comment here. I have seen as you are aware -- there is a resolution an probably a recommendation. Maybe a question to other colleagues whether they have any strong view on one of them or both of them or any of them. So frankly, one of them would be there at least for ... thank you very much for the others. Just to clarify, if we have one of this or like they want to have both recommendations and resolution for MGWS coexistence?

>> MODERATOR: Thank you. I'll turn to CEPT since I think this is their proposal. The way I see it in the IMT resolution you invite the IMT to develop that regulation. That is work in the Study Group cycle in this matter. The matter of MGWS versus IMT may not be a wrk issue. It may be a Study Group issue. We are pointing to that as a piece of work that should be done in the Study Group psych I will after the conference by inviting that in the resolution, that such a recommendation would later on be built.

But CEPT to clarify.

>> ROBERT COOPER: Yes, I think you answered the question. We proposed text for the WRC statement to invite ITU-R to develop a resolution on this text. As I said, we need to go through the text very carefully at the WRC. Thank you.

>> MODERATOR: Thank you, yes. I'm sure we will do that. We have a bit of time here and we will make sure that the text is acceptable to all.

Anything else on this particular band? We do need to wrap up 113 very soon.

If not, then before we close the discussion on 113, I think Iran, Mr. Arasteh, you had one comment you wanted to make overall on 113? Please.

>> ISLAMIC REPUBLIC OF IRAN: Yes, Chairman. That is in the radio regulation for the use of the frequency bands. Suppose and imagine that you are successful with everything and you have all the band, part of the band, part of the particular band for IMT. And respecting other services which I have a -- ITU-R recommendation. There is no guarantee recommendation 1 will be developed. Second will be preventable because it is optional.

Having said that, once you are there, then what will happen for the subsequent situation from other services when they come? Do you expect that they the protection or it is free, that they can come with any issue that they want? This is something you don't need to reply now but this is something we would like to have. There is no clear-cut provision in the regulations, so on and so forth, but ... do on that one. If you have IMT frequency band, is really every dollar of investment, so on and so forth. You don't want to put the development and the operation of those systems on the list of any subsequent arrival (?) not to protect that. There will be difficulty, so on and so forth. These are the things that we need to have reflected at the appropriate time to see what we can do. That is just a point to make. Thank you.

>> MODERATOR: Thank you very much for that additional comment. Yes, we will definitely keep that in mind as we move to the conference.

Before we turn over to the other issues, one administrative remark. Document 20 on the website of this workshop that you see on the screen had some last minute updates. And if we get to it, I think it will be updated tonight. What you see on the screen is already updated. ASMG position on this particular band. The version on the website does not have that yet. It will be updated tonight and issue downloaded tonight either tonight or tomorrow, then you have the very latest version. The slides you have seen today in the Session are completely up to date. If you download the document 20 this morning, you would not have the latest version.

We will continue with 9/11 and the regional representatives will change. Before they leave, thank me in thanking them for all the information they have given us. Thank you very much.

(Applause.)

>> MODERATOR: Okay. As you see on the screen we will now very briefly turn to these other three issues. The first one is -- yes, maybe we'll ask that first. The interpreters are here with us until 5:00 o'clock. It looks like we might need another ten to maximum 15 minutes after 5. So the first question would be is that acceptable to the interpreters?

>> INTERPRETER: Yes, it is, sir. We can remain with you.

>> MODERATOR: Thank you very much for that. Question to the room then. Instead of stopping in three minutes, is it okay for the room with interpretation to continue until latest quarter past? Latest, quarter past. Is that okay?

Thank you very much.

So then let's turn to 9.1.1 first. Very briefly, the issue itself and what the resolution invites us to study on the first slide.

And then on the next slide you will see the very short summary of what the studies have identified for us for consideration. For different scenarios studied and they are summarized in section 4 of the CPM text on this particular issue.

And there are essentially two views on the resulting regulatory actions that could be taken in response to this. And then in the table you will see the regional positions as they were submitted to this workshop. So let's briefly turn to the regional representatives to -- I'll see if there are further remarks on this. The text is clear it is taken from the inputs. Anything else to say on 9.1.1? APT, please?

>> HIROYUKI ATARASHI: Thank you very much, Michael, for this issue. The APT coordinator is Dr. Fahd from Iran. On behalf of him I would like to explain the situation. Regarding this issue as indicated in this table, while there was more support for 2 as contained in the CPM report according to the input document to the APT meeting, however, no consensus was reached on either of these two views.

Therefore, no agreement on the action to be taken in regard to this issue at WRC-19 and at this stage there is no preliminary APT common proposal. So APT members need to further discuss how to deal with this issue. Thank you very much.

>> MODERATOR: Thank you, APT. Let's move to ASMG, please.

>> ASMG: Thank you, we believe there is no change required in the RR or there is no regulatory measures even to be covered in the scope of 9.1.1. We believe that the 9.1.1 issue is more technical in the technical as exects of the coexistence between IMT and trees terrestrial and -- component. We have already now studies covered by resolution 212 that will ensure the sufficient coexistence between the two components. However, as a way forward and as a matter of compromise solution we also

believe that the bilateral, multilateral mechanism will be always a tool to ensure the sort of operational across different countries and different neighboring countries.

Indeed, no additional regulatory measures need to be taken in this regard. Thank you.

>> MODERATOR: Thank you, ASMG. Let's welcome ATU, the new representative from the ATU. Please.

>> ATU: Thank you, Mr. Moderator. On 9.1.1, the ATU doesn't have a common position. The subRegional Groups that compose the ATU have not been able to harmonise their positions entirely to date. So ATU does not have a common position on this item. Obviously, the discussions will continue so that we can have an African common position on 9.1.1 when it comes to it.

>> MODERATOR: Thank you, ATU. Let's turn to CEPT and welcome Steve Green for these issues speaking on behalf of CEPT. Steve, please.

>> STEVE GREEN: Yes, thank you, Michael. For 9.1.1, CEPT is looking at limiting the maximum ARP of LAN stations in the 1980 to 2010-megahertz band with the exception for 1982, 1990 in either in region 2 or in countries listed in 5.389B.

The reason is that we want to provide a global solution that would ensure the protection of of the satellite systems that are operating in that band, including for example in Europe we have some satellite systems there. And one of the issues is for those satellite issues that they can see interference from other regions. That he's why we think, that's why we are proposing a global approach for that. But we, with as I say an exception that recognizes that there is already some extensive use in region 2 of the PCS band in part of the spectrum. We recognize that can't be, it is unreasonable for that to be shot down or to be frozen in time. So we think the way forward we are proposing is one that could work as a global solution. Thank you.

>> MODERATOR: Thank you, CEPT and CITELE, please.

>> LUCIANA CAMARGOS: Thank you very much, Michael. For issue 9.1.1, CITELE administrations consider that the issue calls for technical and operational measures. It does not call for regulatory considerations into the issues, the resolution. So it provides, supports no change to Articles and appendixes. Modification to the resolution as well should address the conference studies, but it does not include any power limits of any form. Region 2 is very strong on the fact that they will not be closing power limits into region 2 countries on the basis that there are several operational networks in the region. So we support view 2 in that from the CPM text. Thank you.

>> MODERATOR: Thank you, CITELE. RCC, please.

>> SERGEY PASTUKH: Thank you, Chair. On this issue 9.1.1, the position of the RCC is clear. It is very close to view 1. I am not sure shah everyone is aware of what view 1 is. Let me give you a little bit of background. The most important issue that we consider is that the results of the study showed that interference from the terrestrial segment to the satellite component is possible and this requires measures or actions to exclude it. If we look at the results of the studies, we see that to ensure compatibility of satellites and terrestrial exoants in this frequency band for terrestrial can be used for the base station, so in this approach and for this use, almost automatically the limitations will be required for base stations, subscription stations for 31 gels and this is how -- 31-decibels and this is how we will protect the Session.

The RCC countries believe that these measures should be adopted. But as was noted, as is necessary to take into account the fact that mainly from countries in region 2 there are already, other frequency tables being used for the IMT terrestrial component, where base stations work within the reception range of satellite components. So the proposal from the RCC is not entirely completely finished in September. We will consider our draft once again and we will harmonise our views.

On that basis I can say that these proposals will be based on the results of the studies that were conducted. Studies that show that measures are required to guarantee the compatibility of the satellite and terrestrial components.

>> MODERATOR: Thank you, RCC. Let's see if we have any comments from the room. We do not have much time for debate unfortunately, but just very brief comments. Iran, USA and Korea.

>> ISLAMIC REPUBLIC OF IRAN: We should consider whether this is a international issue or limited to a few countries and find a shrugs for that. MCM, land coordination ... Maybe one solutions. So whether you have to extend it to a big issue or whether it should be limited. Apart from that the problem is what the ... (indiscernible) this is an issue on the Agenda Items. We have to have make prigs provision of that and only technical, operational. How you take the actions, I simply find the situation now, but we come back to that later on. Thank you.

>> MODERATOR: Thank you, Iran. USA, please.

>> UNITED STATES: Thank you, Michael. With with regard to the comments I heard from Steve Green on the CEPT position, I think there is some concern here that this position or proposal is trying to imply that regions 2 and 3 should also do this. It is not the situation, the sale situation as what Mr.

(indiscernible) say. We have to figure out where this is really an issue, whether it is an issue for a few administrations or whether this is an issue that is a global issue.

From our perspective, CITELE, it is not a dwhroabl issue. Don't prescribe for us what we should be doing in region 2. Thanks.

>> MODERATOR: Thank you and Korea, please.

>> REPUBLIC OF KOREA: Thank you, Mr. Chairman. I have similar concerns with CEPT, that CEPT imposes on other regions what the other region has to do. So our region as indicated in, we have a view two, we have support for view 2 and the regions shouldn't be kind of the hostage of region 1. Thank you.

>> MODERATOR: Thank you. Okay. We need to move on to the next topic. Looks like 9.1.1 is still quite a bit of diversity of views. We have a bit of work ahead of us to try to align this and find a solution. Let's keep that in mind as we move to the conference.

A bit out of order, I would first move to 9.1.8. We will not have time to talk about this. On this slide you see what 9.1.8 is. On the following slide, the last one in this document you see very nice alignment. We all think there is no change needed to the radio waves for this issue. That is for reference. As I said we will not be discussing it and there is no need to discuss it.

Last item and we have five minutes is 9.1.2. The resolution and what it invites ITU-R to study is shown here just to reference. The studies have developed nine possible regulatory actions that one could take if the conference wanted to take them on this Agenda Item. Listed here for reference. Then regional positions are listed on this slide. Let's very briefly go to the regional representatives and we need to wrap up this Session.

>> HIROYUKI ATARASHI: Thank you, Michael. On this issue, there are nine possible outcomes and as you indicated in your table, APT members agreed not to support some of the regulatory actions. However, we still have three actions under consideration. With the APT members. Therefore, we have not yet developed our common proposal for these issues. We still need to investigate this issue further. And for this issue, Dr. (indiscernible) from Korea is the APT coordinator. He will handle the issue at the WRC-19. Thank you very much.

>> MODERATOR: Thank you, APT. Move to smog.

>> SASMG: Thank you, Michael. We support no change to the RR with regard to the protection of this sound. We believe that the RR number nine with.19 in force is already enough. Wrrl to IMT protection, we support adding the limit for IMT pro effects

region one and three. We support alternative two in this regard which covers the limits from different it (indiscernible).

I think I would like to conclude here and probably if there will be more discussion, we can address why we support the limit on BSS ... thank you.

>> MODERATOR: Thank you, move to ATU, please. ATU: Thanks. ATU has a common position on 9.1.2. We are in favor of action 3, Alternative two.

>> MODERATOR: Thank you than and thank you for being brief. We are reaching the end of our extra time. CEPT?

>> STEVE GREEN: Thank you, Michael. Similar to previous two speakers, we supporting limits on the satellite in order to protect IMT. Thank you.

>> MODERATOR: Thank you, CITELE, please.

>> LUCIANA CAMARGOS: Thank you. This issue is an issue that reads to region 2 only. CITELE's is similar to region 2, whatever decision the regions take that should not affect the regulatory position in region 2ment thank you.

>> MODERATOR: Thank you and RCC, please.

>> SERGEY PASTUKH: Thank you. Our position is no change required. I think I have to explain why. Well, this frequency band for the mobile services and the the radio space service has existed for a long time and there never have been any problems with it. With the emergence of EMT are, r IMT, we seem to want to change the situation with this frequency band by adding PMD limits to it. We think that this frequency band, this is the only frequency band for broadcasting satellite service. And it seems to be between the mobile service and the broadcasting satellite service there's a coordinating mechanism that allows us to use both services. And to resolve all existing problems that might occur.

In this connection, what we see in the proposal to limit the broadcasting satellite service using PFD limits, this in essence will lead to the following situation. The service will not be able to develop further and ensure individual reception. Which I believe this is once again the only frequency for broadcast satellite services.

That's one thing. As to another, what is being proposed with regard to these limits, these hard limits, that means that the mobile service when we have a lot of stations, base stations for IMT in the network, that means in that case if administrations want to notify this large quantity of stations to the BR, to ensure their coordination with the broadcasting satellite service. As far as we understand, this is the only reason under which they are proposing to add these sort of limits to the broadcasting satellite service. We, I repeat considering the existing mechanism of coordination, is adequate

and allows us to develop both services and to resolve any issues. The on thing is if there are concerns by colleagues about notifying a great number of stations, well, perhaps we can find a solution to that somewhere else without fully challenging the regulatory framework and adding limitations to the broadcasting satellite service. Many thanks.

>> MODERATOR: Thank you, RCC. We are out of time. We cannot take any comments from the room. Unfortunately, I'm sorry for that. If you have questions, feel free to approach the representatives and discuss this maybe during the reception tonight, maybe during the next two days. We do need to wrap up. Iran, very briefly, please.

>> ISLAMIC REPUBLIC OF IRAN: Please, if you will allow me two minutes, I will comment. If not, I don't comment. Allow me two minutes.

>> INTERPRETER: I think we have to stop here with our apologies, thank you.

>> MODERATOR: Thank you. We did say quarter past and it is 17 past now. We need to stop. Maybe we can continue that offline.

One thing on the regional representatives for providing their views, thank you for the good debate. We have seen a clear over view for 113 and the issues. We see where we need to focus. Let's do this and try to get it done in Sharm el-Sheikh. Thank you very much. The Session closed.

(Applause.)

>> Just to remind you tomorrow we start at 9:00 o'clock. Thank you.

(The afternoon Session concluded at 1718 CET.)

(CART captioner signing off.)

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>> Good morning, ladies and gentlemen. We will start this morning's session in two minutes. If you could please take your seat.

I invite the other panelists to join us on the podium. I see we are almost complete. If the colleague from ATU could also come along. Yes? Thank you.

So, good morning, ladies and gentlemen. We are starting again our session this morning with the topic on HAPS related issues, which is included in the Agenda Item 1.14 of the conference.

To moderate this session we are lucky to have with us, Mr. Hugues, DeBailliencourt. He developed the CPM text on 1.14 and worked very closely with the topic and thank you for being with us this morning.

We have representatives from the six main regional groups and six from the right we have there Dong Zhou representing APT, good morning and thank you for coming. And then from ASMG, we have Mr. Haluadi is a CPM chair that kindly accepted to be part of this panel. Thank you. Then we have representative of ATU Mr. Kilyobas Binga, I hope I pronounced right your first name. Thank you for being with us. And from CEPT, Mr. Nasarat Ali. Good morning. Representing CITEL we have Juan Pablo, so good morning and thank you for being with us also. And then from RCC, Alex (?), good morning and thank you for being with us. Thank you.

>> HUGUES DE BAILLIENCOURT: Yes. Thank you for that. Good morning one and all. So we have an hour and a half to talk about HAPS and we'll organize ourselves in the following manner.

There will be a short presentation of the agenda item itself, as well as the methods defined during the CPM Session. There will also be a high-level overview of the positions of various regions, and following that, we will look at each frequency band that is studied under this agenda item. I'll give the floor to each and every representative of the regional organizations so they can explain and provide more detail as to their positions.

Finally, the floor can ask for the mic so that we can debate the issues surrounding each and every frequency band. The idea is to identify possible alignment or convergence. Obviously, there are some difficulties before us and we would like to resolve these prior to the holding of the conference itself and this is due to divergence of positions. The idea is to see if we can come up with any ideas or ways to arrive at a greater consensus on the issue surrounding HAPS.

So, item 1.14 calls upon us to consider appropriate regulatory actions for HAPS within existing fixed service allocations, and this while taking into account the ITU-R studies that have been conducted in accordance with Resolution 160.

The resolution itself calls upon us to facilitate access to broadband applications that will be delivered by high-altitude platform stations, HAPS.

Over the study cycle, Working Group 5C conducted numerous studies, and this led to 8 reports. 3 reports already have their official number, and as for the 5 remaining reports, they have just been approved by Study Group 5 on Monday and Tuesday of this week, and so for the most they don't have an official number, but that should be forthcoming.

So, we have the first report which talks about the characteristics of High Altitude Platform Stations and this is labeled F for foxtrot 24.39. Then there is the spectrum requirement reports for HAPS, still under agenda item 1.14, and you'll find that under Report ITU-R F for 2438.

I also wanted to mention that in this report, various HAPS applications are described and that fall under this agenda item. Essentially, there are two of them. The first application has to do with the PDR application, they are government-type applications.

The second type of application under this agenda item has to do with the connectivity or broadband connectivity applications. That's essentially for access to Internet or access to other networks in areas where there is not normally connectivity or the connectivity is rather poor, remote areas, for example.

Now, we're just talking about links from HAPS to ground to fixed stations on the ground and not mobile stations.

Following on, we have a series of studies that cover sharing issues within the bands, mostly sharing studies with ground-based services or terrestrial services, rather, fixed services, obviously, and also mobile services.

The studies call for PFD masks. Having said that, there are several proposals on the table for the PFD masks themselves, and so obviously, we will likely have discussions at the WRC about the various masks that are going to be used and see if we can converge on one type of mask per frequency band for each and every service.

For fixed service, for example, and also for protection of the mobile service.

We also conducted sharing studies for scientific services, looking at the impact of non-essential emissions outside the band and we're looking at what's going on in the scientific service to do so, for example earth exploration satellite systems, radio astronomy services are two of the main ones.

We've also provided studies to look into the relationship with fixed satellite services, and also inter-satellite services.

So we've got six reports here and each and every one deals with a specific frequency band, so you've got F at 2437 for the 6 megahertz band. We've just approved at Study Group 5 a report for the 22 gigahertz band, and this is Document labeled 5/163 for the moment.

Also, in Study Group 5 we also recently approved a report on the 26 gigahertz band, and actually to be more precise that's 24.25, 27.5 gigahertz and Document 5/161.

We have a report on the 28 and 31 gigahertz bands, and this is document 5/164. Yet another report recently approved which covers the 38 to 39 gigahertz range approximately this is Document 5/160.

And finally, we have a report on the 47 gigahertz range. Also, recently approved by Study Group 5, and this is labeled 5/162.

Just one thing concerning the 65, 62, 66, 40 megahertz band this is under agenda item 4 but Study Group 5 does not carry out any sharing studies for this band within the framework of agenda item 1.14. Why? Well, because no administration had proposed this frequency band for HAPS under this item of the agenda.

At this point I don't know if there are any questions from the room or members of the panel as to the sharing studies that have been conducted. I think we can obviously come back to this in greater detail when we look at each and every frequency band.

I see none.

So, we can look at the various methods in play. The CPM identified, basically, three methods. The first method is, A, no change. The second method is, B, which calls for the identification of bands all within certain portions of a band under Agenda Item 1.14.

This method has three sub-methods, B1, 2, and 3, why? Because there are three different cases possible under this agenda item. The first covers bands under study that are already attributed to the fixed service with a primary status, and they are also already identified for HAPS. This could be limited identifications, they could be limited, say, to a certain number of countries. This is the case for the 6 gigahertz band, for example, and also for the 38 and the 31 gigahertz bands.

Moving on, we have a second figure. This is, as I said, Method B2. This has to do with frequency bands which are also attributed to the fixed service with primary status, but have not yet been identified for HAPS. This has to do with, essentially, the 21 gigahertz band range, but the agenda item limits consideration of these bands for only Region 2.

And the 26 megahertz -- pardon me, gigahertz range, has also been proposed, once again just for Region 2, but within the 26 gigahertz range, there is a portion that has not been attributed yet to the fixed service and this will actually be part of the B3 method, so I will come back to method B3 in just a little while.

Now, the last band under B2 is the 47 gigahertz band, actually the bands because there are two of them. Now, these have been attributed to the fixed service on a primary status, but also have been identified for HAPS at the global level. This is really the only band that has been identified for HAPS at the global level.

Finally, we have sub-method B3, which concerns essentially, the band of 24.25-25.25 gigahertz and this can only concern Region 2. And this is a band for which there is no attribution currently to the fixed band in Region 2, so this method calls one attribution to the fixed service in Region 2 associated with an identification of the frequency bands for HAPS.

In addition to the the three sub-methods, B, 1, 2, and 3, there are options that have been identified in the text of the CPM. I haven't listed all of them here. The main difference between the options is this. Certain options propose identification for HAPS with, let's say, a primary status and inverted commas and other options, speaker methods, also an identification for HAPS but with inverted comments, a secondary status for the high-altitude platform stations and the typical sentences would be to not have to be protected from other services but should not interfere with other services.

And finally, going back to methods, we were talking about Method C, this is the suppression of existing HAPS identification. These are current HAPS identifications in the RRs. So the slide that you have up here is a review of the methods that can be used for the bands under study because not all the methods can be used for each band. I'm just going to give you an example without going over all of the bands.

The first band is 64.40-65.20 megahertz and only Method A and Methods B1 and B1 and C can be chosen. Methods B2 or 3 cannot be used. B2, why? Because it has to do with bands not already attributed to HAPS, whereas this band has already been attributed in part for HAPS in a certain limited number of countries.

And Method B3 only has to do with the 24.25 and 25.25 gigahertz band, and obviously this is a different band.

Now, let me move on to the various positions expressed by regional groups, and what I would propose is that we look at the bands where currently we have HAPS identification, be it in a limited number of countries or HAPS at the global level.

This has to do with the first band, 64.40, 65.20, 27.9 and 28.2 gigahertz and 31-31.3 gigahertz and finally the 47 gigahertz bands. For these bands, only A, B1 and C methods can be applied. Let me make a general comment right off the bat for these bands, and that is that Method C is not proposed by any region, not by any regional organization, at least not at this point in time. So only Methods A, B1 have been proposed for these bands.

Let's start with the first one, 64.40 to 65.20 megahertz. There is one group that proposes no change. APT, ASMG propose no change. ATU and CEPT propose Method B1, but ATU wants this to be worldwide and limited to downlink and that is from HAPS to the ground.

CEPT proposes exactly the same thing. CITELE does not have a proposal to date, nor does the RCC. They need to finalize their position, and this will likely occur next week during their last meeting.

Now, I'm going to give the floor to various members of the panel so that they can flush out their positions for you and provide additional details, and also perhaps explain why they have chosen this or that method. I'll start with APT and move on. Thank you. APT, go ahead.

>> Thank you, Mr. Chairman. Good morning to you and to everyone. For these two bands along the 6.5 gigahertz as you know there are HAPS identification in four countries so note 4.57 and the sharing and compatibility studies conducted in 6.44 to 6.52 gigahertz in working part 5C and in order to the contribution to the last APT meeting, only one other administration supported the method of B1 and the least contributions propose -- were expressed in two bands and so after discussion and coordination in the meeting, the position was formed as a preliminary APT common proposal for the two bands around 6.5 gigahertz so that's the situation. Thank you.

>> CHAIR: Thank you APT. Now we move on to the ASMG. You have the floor, sir.

>> Thank you very much. Good morning, ladies and gentlemen. For the ASMG, with regards to the frequency bands of 64.40 to 65.20

and 65.60 to 66.40, our position in the ASMG, generally was no change, since there is an existing identification for the HAPS in these frequency bands.

There were some views that these identifications are to be suppressed even because of the views of this frequency, or the historical use of this band and the use of the HAPS.

There were also some views which were in favor of B1 for the first frequency band, but after discussion in the group, it was decided that the ASMG position would be no change for this frequency, since there is an existing identification for the HAPS in this band.

>> CHAIR: Thank you ASMG. Now, I'll move on to ATU. ATU, you have the floor.

>> Thank you very much. Good morning to everyone. The African Group made in last week and most countries on the frequency band 64.40 to 65.20 megahertz supported the identification of this band for HAPS and also agreed to choose Method B as an option for the use of this band for HAPS applications. This is due to the fact that most of our countries have need for wider coverage and connectivity, and so we felt that it was good for us to use this band because it's already identified for HAPS applications, and so the fixed service is already there, which is being used for this service so we believe that HAPS will be good for us in this band, so we support Method B1. Thank you.

>> CHAIR: Many thanks, ATU. Now, let me give the floor to the CEPT. Go ahead, CEPT, you have the floor.

>> Thank you. Good morning. Can everybody hear me? Yeah. In terms of the CEPT, I'm pleased to say that last week, CEPT agreed on a common European proposal on this band. CEPT certainly is supporting a global downlink in this band 64.40 to 65.20 megahertz and CEPT is supporting Option 1 under Method B and we certainly believe that this band with all the studies have demonstrated that this band can work on a global basis, and also this band would be part of a package of services for the spectrum needs of the HAPS in this band, in particular from CEPT, this band, one of the applications we're looking at is the PPDR and type of applications, and so on that basis, CEPT is certainly supporting and sees that this band is feasible from global harmonization. Thank you.

>> CHAIR: I'd like to thank CEPT for their statement. And now let's move on to CITELE, you have the floor, CITELE.

>> Thank you. Good morning to all the colleagues. I'd just like to say, speaking on behalf of CITELE, and the reporter is the delegate of Lima -- and I'm here to explain the position of CITELE this morning, sitting in for them, and for these frequency bands we have located them together. Unfortunately, CITELE was not able to arrive at a position, a joint position. However, we have made some contributions in this regard and they were listened to, one for no change for the frequencies and one for identification for

64.4 to 65.20 and they were not necessarily interested to I arrive at the level of an inter-american proposal and that is the current state of play and the reason why we don't have any proposal for the first two frequency bands. Thank you.

>> CHAIR: Thank you, CITELE. At this juncture, I would like to give the floor to RCC. You have the floor, sir.

>> Many thanks, Chair. Good morning, Distinguished Colleagues. Many thanks for this excellent presentation and for the floor. As for RCC's position on Item 1.14, we don't really have any information to date, but that doesn't mean that the RCC is not working on the issue. On the contrary, since our last meeting, we've heard a lot of various ideas within our group. We have more or less come up with a position, but we haven't been able to come up with a common position. We really haven't clearly identify this in a document, but based on the overall view of the RCC countries, this item, we think the HAPS technology is something of the future with a lot of potential so we intend to support it. We will try to support it as much as possible. We want to have as much identification introduction as possible in all of the proposed frequency bands where that's possible, so this is pretty much our proposal.

So we would approve any modifications that will lead to the implementation of HAPS, but we do have some critical areas, and one of them is how is HAPS going to work in the future, what its role will be within the framework of fixed services because how will they work -- how will they be compatible with other services?

So, we have noted our common position and, generally, we're looking at all possibilities and all frequency bands under this agenda item. In general, I can say that our positions on this is quite similar to the CEPT approach and this is how -- and generally, like CEPT, we tend to prefer the B methods.

Now, we don't always agree with CEPT on everything, but we are still concerned about the future of HAPS technology and how it's going to evolve in the future. Right now we have a report on the characteristics of HAPS. Unfortunately, we had hoped that this report would really be a recommendation and this would have given administrations a little bit clearer idea of what sort of characteristics the HAPS systems would have in the future.

Right now, the studies, the M studies that are part of the Report, we consider this to be sort of insufficient. This doesn't give us a clear enough view of exactly what HAPS is going to be in the future, and so in principle in many of the frequency bands, we are looking at using HAPS, like you said, with secondary services.

That is when we propose or support the allocation identification for HAPS of frequency, then obviously in many cases, we will consider this to make sure that there is no sort of harmful interference with existing fixed service or any other services for

that matter. In particular, this fixed occurrence of the two bands, 66.40 to 66.-- right now there is allocation in these bands in a certain number of countries and we were looking at this and in pairs to ground-to-HAPS and HAPS-to-ground and so in these bands we're looking at the whole ball of wax.

If in the second band, we don't seem to have any studies proposing Method A, then Method A should be used for the first frequency bands. How are we going to use the first bands in the downlink? How are we going to do that?

And related to that, at our next meeting of the RCC, which will take place next week, we'll obviously look at these two bands very clearly, and right now we have a preference for the downlink from the primary service, but once again, 64.40 and 65.20 and we're looking at this at the worldwide and it looks like there are two options available, worldwide views with secondary status.

But if we look at the two bands together, then it could be the first method could be Method A and this would likely be the most effective, and this might be the best for the conference so as not to draw out the time too much. The first band has already been intensively used for terrestrial services and satellite services, and we see new applications for other services as well, so we need to carefully look at this and make a choice between methods A and B1.

I think that on that, I can complete my intervention. Thank you.

>> CHAIR: I would like to thank the RCC for their statement. I will endeavor to sum up and try to recap everything that's been stated by the various regional organizations with regard to these two bands and one C band.

Those who are proposing Method A, APT and ASMG seem to be proposing this method because during the most recent preparatory meeting at that time, there was no administration that was really all that interested in these two bands. However, this doesn't seem to be due to sharing studies, but more arising from a lack of proposal, a lack of interest, in fact, for these bands with regard to HAPS.

ATU and CEPT proposing the worldwide downlink, and for this we're going to need some more discussion. This will require discussion during the WRC-19 because they're talking about identification at the worldwide level. And.

Also APT and ASMG are CEPT, it looks like we'll have to arrive at convergence on this item during the World Radio Conference.

And then the last item that I was able to note, there seemed to be an agreement, so that the second band not be proposed for identification during the WRC. We have one initial convergence here but nothing really new there for that second band.

Now, I would like to turn to the open and open it up a bit

here and ask if there are any administrations that would like to take the floor at this time to let us know whether there are some ideas to converge for that first 64.4 to 65.2. I see Iran asked for the floor. You have the floor.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, colleagues. It's probably more global and regional and it's not really a big conference. We have other conferences on that, it's not really about that, it depends on other countries at the table and views and so on and so forth. What I want to say is it's spend 45 minutes for one band and we have so many other bands that are unique to consider the current management. If we are in 90 minutes you may run short of time for more important band than this one. Thank you.

>> CHAIR: Yes, indeed. I agree with you and I would like to once again ask if there are requests for the floor for these bands. United States of America, you have the floor.

>> UNITED STATES OF AMERICA: Thank you, Chairman, and good morning to all the colleagues. It's good to see that there are a number of opportunities potentially on a regional basis or global basis to create new opportunities for HAPS but never at the cost of the incumbent services, and it seems that each of the regions are considering how best to protect it's incumbent services.

I note that as you acknowledged that we've developed different masks or different regulatory solutions in the resolutions to ensure protection. We really didn't discuss the directionality of HAPS and so if you see in your methods here on the table, they clearly illustrated there are other downlink or uplink and downlink based on the results of sharing studies, if you could expand a little bit about why those directions were selected in order to protect the incumbent, I think that would be helpful.

And then one specific question to my friends at CEPT. I see here in the acknowledgment of the two stars that CEPT proposes additional revisions to HAPS that they can add claim protection from FSS earth stations and currently in 28 and 31 gigahertz HAPS are secondary and can't claim protection or cause interference to any incumbent services. And when I review the sharing studies separation differences between HAPS station and FSS is the smallest of any service, so why aren't we protecting fixed, mobile, radio astronomy to the same degree. Thank you, Mr. Chairman.

>> CHAIR: I'd like to thank the U.S. Regarding the first question that you raised, C band, I'd like to turn to CEPT and ATU and ask them why? What's the reason why they are proposing limiting this band for the downlink in the downlink direction.

And then the second question for 28 gigahertz that we'll be looking at just a little bit later on, and so I turn to the CEPT and ATU, could you indicate to us reasons why you wish to limit the downlink in the 6 gig -- CEPT first. Or ATU.

>> Thank you. Maybe I can try to answer the question. Yeah,

certainly, the question was around the why the CEPT and I guess other regions are proposing downlink. But suddenly in the 6 gigahertz the main consideration was the fixed satellite service. It is mainly -- and similarly in the 28 gigahertz band, it is to, as you know, if you have the same direction, it's obviously interference to space receivers and so that becomes much more complicated. And so now that was the key consideration for CEPT and why we in the 6.44 to 65.20 and 28 gigahertz band we proposed the downlink.

And in terms of the question regarding -- I'm sorry, now we're going into the 28 gigahertz band, and so for that, again, while I have the opportunity, I think CEPT certainly has a common position and proposal on this band. We are proposing a global downlink and as already been highlighted, this is Option 1 of the CPM Report, Method B1, Option 1, but CEPT has certainly made some additional considerations and we will be proposing some additional provisions and new Radio Regulations.

The first one is already highlighted. That is not the only one, and so HAPS cannot claim protection from earth stations in the 28 gigahertz band. We also have some provisions for the fixed and mobile service where a country deploying HAPS ground station receivers, this is downlink band, will have to seek consents from neighboring administration if the HAPS receivers are to be protected, and so we are certainly addressing the issue, not only for the fixed satellite service but also for fixed and mobile. So these are some of the new considerations that will be in the European Common Proposal at the conference which will be made available in due course. I hope that answers the question, so we are taking a kind of broader look and we do believe that the European Common Proposal has the necessary provisions which would share with the existing spectrums of these bands, and that has always been one of the key considerations for CEPT to make sure that the services are taken care of, not only in this band generally. So thank you.

>> CHAIR: I'd like to thank CEPT for that information. Now, regarding 28, we'll be moving on to this band in a little while and I would just like to ask if ATU would like to take the floor at this time to point out why they're proposing a downlink in the 6 gigahertz band. ATU, if you wish to take the floor, the floor is yours.

>> Okay. Thank you very much. From the methods that were provided, B1 actually has that limitation for only HAPS-to-ground links direction, and so that's why we considered that, and noted also to protect the existing services. We felt that it is good for us to limit this to the HAPS-to-ground downlink direction so that adequate provisions, regulatory provisions remain to take care of existing services. Thank you very much.

>> CHAIR: Thank you very much. I see the RCC would like to speak. You have the floor, sir.

>> Yes, thank you, Chair. I wanted to add something. We have the footnote on this, the downlink in the first and uplink in the second. Our studies in the cycle were concentrating on expanding the footnote and making it worldwide. And for uplink, there wasn't any studies conducted with other services, so it seems to me that any direction, 547, these haven't been confirmed by the studies.

>> CHAIR: Very well. Thank you. I see Korea has asked for the floor. Korea, you have the floor.

>> REPUBLIC OF KOREA: Good morning, Mr. Chairman. I have heard the answers from the CEPT and certainly such approach would facilitate the discussion of the HAPS regarding the band 27.9 to 28.2 gigahertz bands, which has intentions to protect their own existing service.

The question is, to the CEPT, whether this HAPS will protect the future development of the existing service because it's only limited to the current service or where they don't protect for future development of the existing service. Could I get some view of the CEPT? Thank you.

>> CHAIR: Thank you, Korea. Well then, we can move on to the 28 gigahertz band or 27.9 to 28.2 and I'll give the floor to the CEPT to answer Korea's queries. CEPT, you have the floor.

>> Yeah. Thank you. Certainly, there is clear in the CEPT proposals with respect to the satellite, the HAPS cannot constrain development of the fixed satellite service, and in terms of the other key services, fixed and mobile, as I said earlier, there is a region which would -- certainly in the CEPT proposal, these are new some of the proposals that you'll see in the European Common Proposal which takes care of these additional aspects of ensuring that the HAPS do take account of -- that this will be a discussion between the administration that is authorizing HAPS with the neighboring administration to make sure that the fixed and mobile services are dually taken into account. Yes, so there are some additional measures in the CEPT proposal which have not been discussed or are not in the CPM text or some of the options. So CEPT has modified Option 1, method B1, Option 1, which is as I said earlier, is modified to address the wider some of these questions, and so hopefully with those, I think we can get more comfort from the existing services point of view. Thank you.

>> CHAIR: Thank you, CEPT. Korea, again, you have the floor.

>> REPUBLIC OF KOREA: Thank you, Mr. Chairman. So I again ask for the floor. My question was that whether the HAPS protects the future development of the existing service? The HAPS (?) protect the existing service, and the question was, does it include the future development of the existing service as well? So if possible, I have the clear answers. Thank you.

>> CHAIR: Yes, I first give the floor to the CEPT to provide

a little more information to the answer and then I give the floor to Iran after that.

>> Yes. I think maybe I wasn't clear in my answer, but certainly, I think that is the intention. If you look at the HAPS cannot claim protection from fixed satellite earth stations, that is a generic requirement, so that is not existing and so for sure, yes, it would be a requirement that would take care of both existing and the future, so I hope that's clear. Thank you.

>> CHAIR: Thank you. Perhaps I could add a little bit here, a little bit of information. I think there are two things that we need to look at, the first of which is the impact of HAPS on Legacy systems, incumbent systems. This isn't already deployed, but also future systems as well.

Now, if I'm not mistaken, I think CEPT is proposing some limits of PFT, for example to fix mobile and fixed services both, and the issue here would be to protect not only the incumbent systems but the future ones as well, if I'm not mistaken.

Likewise, for it's protection of the fixed satellite services, the IRP limits are proposed in this band, but now people are actually discussing here is perhaps in the other direction, are the protection of HAPS with regard to emissions from other services. And there, CEPT is proposing -- well when it comes to FSS, I think the HAPS cannot request protection or request demand being protected, and I think that would concern -- well the existing systems and also future systems as well, so this would take into account the coming deployment of FSS, coming FSS deployment, and likewise for fixed and mobile services, if I'm not mistaken, if I've got that right.

Now, Iran, I see you've asked for the floor. You have the floor, Iran.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. The protection of other services, we have to divide it into two parts, protection of trusted services and protection of other services. And maybe age of some of us doesn't allow to go back to the history. In 1971 when we wanted to protect this service from the other services with HAPS it is not exactly terrestrial and not exactly other things. PFT was a concept, that not only protect if it is a mask and taking to come but not only protect those trusted service in operation, I didn't call them existing, but also if the mask is properly designed, could, could also protect the future development of this service.

This is not (?), you have PFC and this not only to the existing question but also this planned question. It could, but provided we have the proper mask taking into account the old condition and so on and so forth. If we speak to other services, then another question to need to reply that, HAPS coverage is 7,000 square kilometers. A country like us, we need 235 HAPS the cost of that

is -- but we do recommend that people invest through the known protection of that -- so we should be clever about the protections and shall not claim protection -- and I'm not suggesting anything but just saying that the issue is not as simple as we are discussing. You have to go into the detail of the situation, the concept of non-interference and so on and so forth, maybe have some other region, but these are very, very important. Thank you.

>> CHAIR: Thank you, Iran. This indeed is a topic we'll have to be debating, not only at the WRC, but also it's a serious discussion here because we have two widely differing proposals. Well ITU not proposing this type of text but also CEPT that is proposing this type of text in order to protect or to see to it that HAPS cannot claim protection with regard to other MS emphasis systems.

Any other questions regarding the same band here of 28giga band?

I have one this concerns the protection of the fixed and mobile services where the PFT masks are being proposed in sharing studies. As I indicated at the outset, we don't only have one single unitary PFT mask because there are two issues that have arisen during the discussions. The first one -- well, I have to see whether or not it will be taking into account assumptions for attenuation due to gas or loss of polarization or other assumptions when defining the PFT mass, and then after that we'll perhaps not need to take them into account but only take them into account when we are verifying compliance -- compliance with the aforementioned masks.

Or another option could be not to take into account these assumption when is defining the PFT mask, but then when we verify compliance there with the mask, we're going to have to let that time account for them, take them into account. So this is it a subject that we're going to have to discuss, delve into during the conference, but I'm certain that we'll be able to arrive at a solution for the subjects on these issues.

Now, the second one for the PFT masks is if this band is proposed, if it is indeed proposed, this is going to concern what happens in conditions of precipitation. Will these masks -- can these masks be exceeded or will be taken into account or not?

So I'd like to open -- I would like to entertain the discussion if the administrations have a viewpoint on this regarding the conditions that will have to be brought to bear for the HAPS when climatic conditions, precipitation, if there is rainfall. Any views on this? Any ideas that could perhaps lead to convergence at the WRC, that could lead us to convergence? Any ideas?

I don't see any requests for the floor at this time, but this is something that we're going to have to look into and discuss during the WRC.

Any other items to deal with concerning the 28 gigahertz band,

and I also turn to the panel if they want to add anything? Perhaps explain why they've adopted this or that position? I'm referring to the 28 giga. Let me see, the RCC first. Thank you, sir.

>> Since we have no method shown here, this might be time to explain our position with regard to 27.9 and 28.2 gigahertz. We also look at this band in relation to the next band of 31 to 31.3 gigahertz, we look at them in pairs.

So currently, we note that some of these bands can be used in the downlink and uplink modes. There are footnotes for this and these footnotes are paired with conditions for the use, and on this note, perhaps some of these conditions already demonstrate how these frequency bands can be used simultaneously with other services in certain countries.

I think some administrations have seen this and are looking at how the use of HAPS does not limit the development of other services in the future. Obviously, we can develop new PFT masks which protect not only current services, but also the future services. I think this, obviously, is quite a complex and technical problem and over the past few years, we have not looked at this entirely so it's quite difficult to say which masks will allow for the protection of future systems.

So to my mind, in this situation, obviously, if we agree with the worldwide allocation, we can use PFD but we also look at the regulatory aspects and I think the regulatory aspects will take the forefront so that we can assure the development of these and other services. This seems to me that we need a footnote that says that in the future, HAPS should not limit the other services, for example, earth services or terrestrial services. Obviously, we have to look at these frequency bands and there are a number of countries within the RCC that think that they can be allocated on the global level with the agreement of the Conference, so then every country in the world could use these frequency bands for HAPS if they wish to.

But the other provisions or the limitations have to be included in a regulatory footnote. Now, obviously, we'll look at -- we will obviously look at all the technical proposals at the conference, M limits, for example. So but for us, the priority for both of these, both of these frequency bands from 27.9 to 28.3 is likely B and likely a footnote and a downlink for 27 and upload for 31.3137 and I think this will be it's easiest and most practical way to deal with the issues and this is our opinion on how to deal with the two frequency bands. Thank you.

>> CHAIR: Yes. Thank you. Iran, you had asked for the floor as well. Go ahead.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. I think the issue of participation that you have discussed in detail in the working parties in detail. It is propagation from -- and possibility mitigation, but you see the consequence of litigations,

power control, and you increase the power then you increase interference and so I think this is an issue you can't have an answer here because distinguished RCC, putting provision that HAPS shall not limit the future development, how prevent that? It is unimplementable. Who is to put the around, how? Not implementable. So I always think that if we do something, it should be looking for the implementation. If it is not implementable, it doesn't serve any purpose at all. Thank you.

>> CHAIR: Many thanks, Iran. I'll turn back to the RCC and perhaps they can indicate if they have any ideas about how this could be implemented in practice.

>> Many thanks, Iran, for that comment. Well, first and foremost, this is already an existing provision. It's already in the RRs. Now, whether it's going to work well when HAPS is used in practice, that's another issue, clearly.

Right now there is no clear answer and there is no solution, at least the RCC sees no way of limiting things, unless we say well, we can use Method C for this frequency band and how can we move forward right now?

We're going to have a really conservative position and we say that this provision already existing in the RRs, it's already been discussed earlier, and it's already in place, and right now there is no better proposal. But, obviously, we're ready to discuss things at the WRC, but for us this is the basis of our work in this area, a starting point.

>> CHAIR: Thank you, RCC. I'll turn to the other members of the panel if they want to add something on the 28 gigahertz band? I see the ASMG followed by CITELE.

>> Thank you very much. Thank you, Mr. Chairman, for this. I think I'll just take the opportunity to summarize the ASMG position with regard to the agenda item as a whole because I don't think we have a lot of time and I don't think we have more time to discuss each and every frequency spectrum.

Generally, the ASMG's position is based on the efficient utilization of the frequency spectrum. We look at the table of frequency allocations and we see identification of HAPS and many frequency bands. Now, coming to the existing usage of the HAPS, we have not seen actual or practical deployment, or proper deployment around the world with regard to the HAPS that would really make the best utilization or the efficient utilization of the existing identifications of HAPS.

Now, we're not saying that -- we're not judging the new technologies and we understand that there are new technologies coming and we understand that there is a big potential for these systems. We're not against the systems. Of course, it's going to provide us with better connectivity, and these connectivities are going to be used even for the back of the existing networks and it's

going to be useful for everyone.

The point is that we do have existing frequency spectrum. Let them use the existing frequency bands and let us see how that goes on, and after that we could really look at the other additional frequency requirements.

The basis for this position is that we do have existing services, and the incumbent services really have to be protected, and the way we look at it, the sharing and comparability studies as we see, we believe that they need to go on. We believe that there are a lot of missing answers to some questions and we need to answer these questions before we make a judgment of having an identification for the HAPS, any new identification for the HAPS and so that is generally the basis for the ASMG position and generally we say that for the existing identifications of HAPS, let them be there, so we are proposing no change, and so they are there and let them be there. If there is a requirement for a worldwide identification, that is something that we might look at in the conference, and if there are some requirements for regulatory changes, we also might look at that but give than we need to make sure that we're not going to harm the existing incumbent services.

Later on for the new identifications, we believe that we should not take this position at this conference. Let us look at the presentation that will happen. The systems will be deployed. I don't think that will be running in full operation from the beginning. They will need some time, so let us see how the systems are going to deploy and then maybe we can take another position in the next conference. Thank you.

>> CHAIR: Many thanks, ASMG. I take note here and now of the small aperture with regard to bands that already have identifications. These are bands that you have up on the screen now so there seems to be a possibility to discuss if need be, to have worldwide identification or not. Many thanks for that.

Do any other members want to take the floor concerning the 28 gigahertz band? Because we have to move forward, we only have about 20 or so minutes left. CITEL?

>> Thank you very much. I'd just like to say that it looks as if the CITEL doesn't have a proposal and I would like to explain why, or the reason for this. It's not because we haven't worked on this, but I'd just like to say that the -- to look at the two bands together, 27.9 and 28.8 and 39.3, we do have proposals for the identification of this band for HAPS; however, there are two proposals for identification, and one of them was looking at things from the inclusion of protection, protection for other services, and HAPS could not claim or demand protection.

The other one, well the other one, the other proposal indicating the identification of HAPS and the resolution of both proposals indicating the characteristics for protection for other

services. Unfortunately, it wasn't possible for us to arrive at agreement at the CITELE level and that's the reason why we don't have a contribution, but it's actually at the administrations that embody or are embodied in CITELE will be very active during the discussions that will be entertained during the conference. Thank you.

>> CHAIR: Thank you for that clarification. APT?

>> Yes, thank you, Mr. Chairman. I have some information from APT side. So as for this band, 28 gigahertz, because this band had already been identified to HAPS in 23 countries, a footnote from (?) and associated resolutions, and so in the last APT meeting, it was supported by some administrations because APT members are considering to use this band for mobile services, and so we want to protect this mobile services, and some other administrations who are in favor of using this band for HAPS are considering method B1 because there is no consensus reached, and so that's why we have this current status. Thank you.

>> CHAIR: Many thanks for this clarification. Iran?

>> ISLAMIC REPUBLIC OF IRAN: I thank you, Chairman. There is -- there seems to be there is some misunderstanding. The HAPS, this is not from me, it's not Iran. The HAPS they're discussing is entirely different from the HAPS of 95, entirely different, connectivity, speed, capacity and so on and so forth, so we should first identify that this is the first issue.

Second, what was already mentioned is that existing the existing band for the new HAPS but not the old HAPS which is coming into operation, and then under what condition, the same status of allocation or not? Regional, subregional, global?

So at the conference, you or someone or the dealing with discussing in general the situations of what is the new HAPS, what is the old HAPS and so on and so forth, and what this provides and what that could provide, and then what is the existing band and under what condition, primary, secondary, and whether secondary applied to the example that I have mentioned and then any (?) in each HAPS of how many is the cost of 235 and so on and so forth, and then you see that whether you're going to the new band, and so these are the discussions that we should have at the beginning of the conference in the Committee before getting into the detail of which mask we use and which mask we not use and so on and so forth, and then protection of the exiting service or the operation, and then future development. These are the general terms that we have to discuss and we take it as conditions to bring the people on the level of understanding what we are talking about. Currently, we are not quite. Everybody thinking on own that we have to put all 12 together at the conference to have a better understanding, so this is one element that people need to take into account, the subcommittee or sub-group should take into account or have this general discussion before going through the text. Thank you.

>> CHAIR: Many thanks, Iran. I entirely agree with you that at the WRC, we will have to start with those debates before getting down to the nitty-gritty.

ASMG, you had asked for the floor? And then ATU?

>> Thank you very much, Mr. Chairman. Yes, I would like to actually support what was said by Iran. I actually, from the beginning of the cycle, we had some discussion about the HAPS systems from some potential vendors for the system, and we were really discussing the requirements, the frequency requirements for the systems. It is understood, of course, that these systems are totally new and they're totally different than the existing systems.

However, an identification is an identification. The matter -- the concern is actually with the the technical deployment. It requires that there are new requirements for the new systems, but the identification is there, so why are we requiring or why are we requesting for new frequency spectrum? The response at that time was that these new systems require much more frequency bands to provide the commercial services that they intend to provide, okay. They will require additional frequency, but first of all, look at the current identifications that are there and try to enhance regulatory-wise, and try to enhance the technical characteristics of these identifications. And I understand that this is what has been going on in the Working Party, but I do understand as well that they were difficulties. It was not a walk in the garden. Changing the status of these identifications was not really easy, and there are some challenges, and we understand that we need to clarify these challenges, we need to -- we need to set all things right before making the identification. This is what I wanted to say.

And then one more important, very important point is that, let's take them one by one. Usually, when there is a new system, everybody draws or everybody gets attracted to having more frequencies, having identifications, we are going to deploy the system, but I think, I suggest to let us take it step by step. Let's have the existing identifications being modified, probably, and then moving forward with the systems, if we find them feasible, if we find sufficient use of these utilization of these frequency bands, then we can look at the future requirements of the frequency spectrum. Thank you.

>> CHAIR: Thank you. Let me give the floor to ATU and then CEPT. I would ask you to be brief. Why? Because I would like to look at the other bands and we only have 10 minutes left. One band that's very important, in particular, is the 26 gigahertz band, so ATU, you have the floor.

>> Thank you very much. We opted for B1, that is option 1 for worldwide primary identification of this band for HAPS applications. If we look at the method currently, we know that there is this provision for the revision of the regulatory

provisions regarding this application, so because it's a new application, the HAPS is coming in in the fixed service, so there is a provision in the method -- in the methods, B1 Option 1 that we should incorporate all necessary provisions to protect the existing services.

So the existing services are surely going to be taken care of in -- to ensure that they are not harmful interference, and then we know from sharing studies, comparability studies, based on the results of the studies that have been given, there is this possibility of these services co-existing, at least for the HAPS application to be upgraded to co-primary basis. Thank you very much.

>> CHAIR: Thank you, ATU. CEPT?

>> Yeah. Thank you. I think on particularly 28 gigahertz band, I think I've already explained the CEPT, the method B1 Option 1 which is slightly modified. I think there was obviously a number of general comments and questions that are raised, and I would just like to respond and clearly as we can gather what we need to discuss more, and obviously we don't have the time and probably certainly not the place to have this wide group level to discuss it, to understand each other, and certainly there has been a lot of work going on and a lot of studies done in ITU, and so there are provisions that are developed to protect the existing services and we talked about the PFT level, they are also developed and obviously we can take into account, like in any other agenda item or conference issues, you develop the conditions which take care of the broader services usage, and so I guess this issue is no different.

I'd just like to add, just in terms of some of the discussion with respect to the existing identifications and why we need to modify or -- I think one of the key points here is that if you look at all the identifications, the existing ones, apart from 47 and 48, 628 and 31 gigahertz, they're already limited in geographical location as well as some of the technical conditions are quite challenging so that that has been the key consideration for certainly within CEPT to make them global and to sort of make sure or provide the environment where HAPS can be deployed, but in no way compromising the existing services. So it is important that the existing framework, apart from 47 and 48 is quite limited, so to -- so we need to understand and work together and just relying on what the current situation is, and I think it might be not answering a question that is that we have on the table, and so I'd just like to bring that to our colleague's attention and for sure people on the panel and across the room, we will continue to discuss and with respect to the 47 and 48, we know, yes, there are some challenges so that is the only global band that we have for HAPS at the moment and so I think that's -- those are the reasons why other bands are being looked at to make a more global and refine

some of the technical conditions. So I think just relying on the current situation as it stands, may not give us the answer but we certainly need to understand how can we work to fine tune some of the details which we have extensive ITU studies done. It just may be that we need to spend some time and understand the key differences. Thank you.

>> CHAIR: Thank you, CEPT. Since we just have 5 minutes left, what I would propose is this. Let's look at the bands where there is no identification currently, new bands, because the 31 and 47 bands are less of a problem, so if you agree, we'll try to move forward where and look at bands where there is proposals for new identifications.

There is a first range of bands that only concerns region 2 and this is 22 gigahertz and also the 26 gigahertz bands, so between 24.25 and 27.5, and for these bands that only concerns Region 2, we have CITELE that is proposing Method B2. The first question for the bands of 2 to 26 is the position of ASMG which is proposing no change, whereas these bands are only considered for Region 2.

So I'll start with ASMG to understand the reasons for their position for bands that really only concern Region 2. ASMG?

>> Thank you very much, Mr. Chairman. Of course, in my previous interventions, I or in my previous comments, I already explained the basis of our position of having this method for the frequency bands. Specifically, for these portions of the band, we do understand that there is another agenda item, which is agenda item 1.13 and the ASMG is very much in favor of having the IMT identification and that specific frequency band so we don't want to have any limitations on the global identification for the IMT and the frequency band. Thank you.

>> CHAIR: Many thanks. Now, I would ask for APT and the CEPT with a follow-up question. Now in APT and CEPT, it's mentioned that there is no proposal. And having said that, APT and CEPT would like to see something if there is identification in Region 2 and namely want to ensure that there is no constraints for global identification for IMT within the framework of agenda item 1.13. So my request questions to APT and CEPT is, do you think that the proposals made by CITELE take into account this sub-item? Do you think that CITELE's proposal interferes with the global harmonization or not under Agenda item 1.13?

In other words, does the CITELE proposal take into account this constraint for you? I'll start with CEPT and then move to the APT. CEPT, you have the floor.

>> Thank you. I think in terms of the CEPT, where we are on the 22 and the 26 gigahertz band, the CEPT, I think one of the views has just been expressed and CEPT focusing on the 26 gigahertz band is certainly for global harmonization and for 5 G and IMT and 1.13. And clearly, those bands are being considered with Region 2, so with

depending on the proposal from those regions, we would also like to see some additional consideration for the HAPS. We do have a number of international services, like the ISS, ESS, and SRS which the CEPT has some proposal which is in the Common European Proposal already and which we would like to see those included if there are any proposal for HAPS in those bands, and so in general, I think which would have to work towards the detail, but certainly as said, our focus on the 26 is 5G and agenda item 1.13 and we would certainly like to see our European services taken care of, if there is a consideration of the 22 and 26 gigahertz for HAPS, so I think that's some of the details that we need to work through. Thank you.

>> CHAIR: Yes. Many thanks. I'll give the floor to APT so that they can indicate whether CITELE's proposal takes into account their concerns, namely the identification of Region 2 of HAPS does not put in danger global harmonization of the 26 gigahertz band for IMT within the agenda item 1.13. APT, go ahead.

>> Thank you, Mr. Chairman, for the question. Because we're really out of time, I'll try to be brief. Yeah. So it has been because CEPT mandates support this band for IMT identification under agenda item 1.13 as a preliminary APT common proposal. Now, the detailed technical condition was being discussed to which method and which options will be adopted. And so in this sense, APT members (?) and any organization of this band, this frequency band for HAPS in Region 2, should amount or limit the possibility to identify this band for IMT on a global basis, so I think we have -- we may have some further discussions and coordinations related to this. Thank you, Mr. Chairman.

>> CHAIR: I'd like to thank the APT for their statement. I've just been told I can have another 10 minute, an additional 10 minutes here for us to finish up on this. RCC? You had like to take the floor on these bands?

>> Yes. Many thanks. With regard to the RCC position on the new bands for Region 2, we will have a proposal for this, but similar to that proposed by CEPT, the main thing is to protect global satellite services, inter-satellite services, satellite services downlinked to the ground, passive services, if there is identification allocation for Region 2, what we would like to see is this, we want to see a corresponding resolution about provisions that will protect these services, and so we think that these proposals are an alternative and we want to see if this will be an obstacle to the global identification IMT. This might be okay for region 2, but I think this is also -- the idea is -- I guess the question is can IMT and HAPS, can they work in the same frequency bands? I guess as we see how technology evolve, then this might be a future question for our joint work.

Now, so we are quite open to this issue for Region 2. The main thing, once again for us, is to protect satellite services in

an appropriate manner.

>> CHAIR: I thank the RCC for that additional information. I'd like to ask if any other members of the panel would like to speak on these two frequency bands? 22 and 26? CITELE, you have the floor.

>> Thank you, sir. This is the theme, of course, which concerns Region 2, so we discussed it in a lot of depth in CITELE and CITELE is promoting legislation for these segments, and within the proposal that has been made, with he look at the necessary resources so that we can have the co-existence of these services so we can have satellite services and also terrestrial ones as well.

And so we will be, of course, it goes without saying and discussing with the other administrations with the other regions so that we can see to it that this is properly dealt with during the conference. Thank you very much.

>> CHAIR: I'd like to thank CITELE for their statement. And now let's open it up for the room or to the room. I would like to ask if there are any requests to speak from the room regarding 22 and 26 gigahertz bands? Apparently not. Apparently there are no requests to speak. I do see India. India?

>> INDIA: Thank you Mr. Chair. India has identified (audio muffled) and the identification, don't think anything will help in India -- the status quo in this regard. Thank you.

>> CHAIR: Thank you, India. But these two bands can only be considered -- looking at this from a framework of Region 2, in Region 2, this is pointed out very clearly in this item. Iran, have you asked for the floor? Iran?

>> ISLAMIC REPUBLIC OF IRAN: The conference will need also to prioritize which values they have to discuss after general discussion, after general discussions. The band which is collected or has relations with IMT, 1.13 need to be discussed in order to allow the other group to go ahead, otherwise we should not put one behind the other, so I think in terms of prioritization, this is not to block any progress or any agenda item, particular 1.13 and in particular frequency band 24 or whatever you call them, 26 gigahertz that many people are behind that band as they 5G band, so this is something that you need to consider in the conference. Thank you.

>> CHAIR: Yes. Thank you, Iran, for that proposal. We still have another 5 minutes. I think that we can embark on that last band of 39 gig, a 38 to 39.5, and for this band here, APT, no proposal, ASMG is proposing no change method, no change, and no explanation why. But then for the other regions, with the exception of RCC, there is a proposal for Method B2.

But there is a bit of a discrepancy while CEPT is proposing a band downlink whereas, ATU and CITELE are just proposing an uplink in that direction, so I would like to leave it open to the panel

members if they would like to specify their position. And having said that we only have 3 minutes now so if it could be shoehorned, we'll have to be very brief to get this into 3 minutes. RCC?

>> We think method B2, difficult to determine whether it's going to be downlink or uplink, and if we look at this frequency band, we have to look at both the uplink and the downlink for individual frequency bands in that pair.

Now, obviously for the conception of using HAPS, it would be most effective to use both uplink and downlink, but for us the priority for us is just to look at uplink in terms of compatibility. But as noted by ASMG, it seems to ask that the HAPS concept itself has not really been finalized and we're looking at pairs of frequency, one frequency band or I don't -- so it's -- it still seems to be sort of an open issue for us of how we can use these frequency bands. If we only look at the uplink, how in practice -- what will the positive effect of HAPS be?

So this is an unresolved issue, and perhaps this might be a topic for the next conference when we have to deal with all the open issues that HAPS has uncovered. Thank you.

>> CHAIR: I would like to thank the RCC. ASMG, you have the floor.

>> Thank you very much, Chairman. I heard the translation and maybe it's not right or wrong, but I heard saying that this -- that there is no reasoning behind the position but I just want to again, reiterate the position, the reasoning behind the position of no change. Again, because of the protection of the existing services, there is -- there is a usage -- there is a plan of usage of this frequency band for emphasis and at the FSS, actually, and we need to have proper co-existence between the HTFSS and the HAPS identifications in this frequency band. Thank you.

>> CHAIR: Yes, I think there is a problem in interpretation here because what I wanted to say is that we have, that you have provided the reasons why you're proposing no change, which is to consider those bands were identified, and before looking at the new bands, and perhaps there was a bit of discrepancy in the interpretation.

Would anybody else like to speak before I close this session? Anything else to add? Apparently not. I see France is asking for the floor. France?

>> FRANCE: I would like to ask a question to the ATU and CITELE and I would like to ask why is it considered approach with link with same question, but could we listen from ATU and CITELE, please?

>> CHAIR: Very, very quickly because we don't have any more time, so ATU first and then CITELE.

>> Thank you very much. The African Group requested or supported Method B2 for uplink because most of all of our methods

for the other sub-bands, the other frequency bands already have provision for downlink and we believe that the HAPS application also has made for uplink services so we need to make provisions for uplink for the HAPS.

>> CHAIR: Thank you. CITELE?

>> Thank you, sir. Yes, and in similar ways we see the accommodation with the identification of other bands could be carried out in the same way and so we'll first of all look at the existing attributions, and I think also for, especially for the satellite services. Thank you.

>> CHAIR: Thank you. RCC?

>> Just one other argument. The FSS is also downlink so if HAPS is working downlink, then we might have some difficulty with compatibility of the two services, so this is why we're looking at the priority of the uplink. Obviously in terms of concepts, obviously HAPS can be divided into downlink and uplink.

>> CHAIR: Thank you. All right. This brings us to the end of this session. I would simply like to mention that for this band, there have been some compatibility studies carried out with the FSS and downlink so I would like to encourage the administrations to have a hard look at the studies to see if there could be convergence, if we could have a convergence during the WRC.

So, this brings us to the end of this session. I apologize for having used an additional or taken an additional 10 to 15 minutes -- 15 minutes. Of course, they will be subtracted from our coffee break.

I'd like to thank the members of our panel, and I think that we should give them a big round of applause and thanking them for their input.

(Applause).

This session is closed.

>> Thank you very much for the good session that we have just had. In due of the fact we have postponed the break by 15 minute, I suggest that we resume at 5 minutes past 11:00 so a bit of minutes taken from the next session, so 5 minutes past 11:00. Thank you.

(break).

>> CHAIR: Ladies and gentlemen, we resume and we invite the moderator and the panelists to join us on the podium so we can start the next session on the WAS-RLAN access system so if you could please come to the podium, dear moderator and panelists.

So, ladies and gentlemen, I will invite the panelists, the last panelist to join us, and then if you could please take your seat, we will start.

So, ladies and gentlemen, we are now in a session that will deal with the Wireless Access System and RLAN-relate the issues. We have to focus many on agenda item 1.16, and of course there are a number of other agenda items related to fixed or mobile services,

which have been mentioned in the program to be given some other information, but in view and in order to focus more on the agenda item 1.16 which will require additional discussion, we have put this as an information on agenda items at the end and we'll see how to handle them.

All the panelists are now with us and the session will be chaired by Mr. Hector Marin. Mr. Marin was very active in the preparatory studies, the cycle in particular of Working Party 5A where he Chaired the group preparing the CPM Text, and I thank you very much, Mr. Marin, for being with us this morning and for the preparation of this presentation.

We have with us from APT, representing APT is Mr. Fu Qiang, I hope I say the name right, thank you for being with us. And from ASMG homed Al Janoubi, and Mr. Abdouramane El Hadjar, thank you for being with us, CEPT, Andrew Gowans, Alex Roytblat and Alexey Shurakhov who was with us also this morning and so welcome to all the panelists and, Hector, the floor is yours.

>> CHAIR: Thank you very much, Philippe, I thank all the colleagues as well. Ensure a top of the morning to you. On this item we look at agenda item 1.16 and as Philippe said, if we have the time at the end, we'll be looking at 1.11, 1.12, 1.15 and also one more.

Now, the introduction with regard to 1.16, let's look at this, we all know full well this looks at various aspects looking at Wireless Access Systems and Radio Local Area Networks and 5.1 to 5.0 mhz and 5.1 to 9.25 and regulatory actions as well to this end.

And this, in compliance with Resolution 239 of the WRC-15 and for those studies, pertaining to RLANs in this frequency band that I just sketched out.

Now, among the various studies we carried out in this cycle, in 5A, we decided to break down this entire band into 5 sub-bands, band, A, B, C, D, E. And band A, as we see on the screen there, we look at 5.150 -- B, 5.2 -- and then down on down it's line.

For each of these bands, we have -- for each range we have different methods where we can see what is the assignment for each of these ranges, and then also for A, 5.1 -- we identified three different methods -- in fact, six different methods, six methods. So we say no change to radio method, and A2 a revision to resolution 2.29 to enable outdoor RLAN operations, including possible associated conditions for new EIRP limits.

Then method A3, relating to revision 2.29, making it possible to enable the RLAN operations applying the same conditions of use as defined for what we see in B, 5.250 and 5.350 megahertz and that's Resolve 4.

And then moving on A4, revisions to the Resolution 2.29, facilitating RLAN outdoor operations and RLAN in vehicles, both cars

and trains, and usage and operation associated with EIRP levels.

Now, 5, revisions to resolution 2.29, the maximum up to 40 mille watts and then A6, recommendation to this resolution again, rather, icallying the EIRP limits and out-of-band emission as well.

Now, so B, 5.250 to 5.350 megahertz, they were showing the allocation, and we only have method B with no change to the Radio Regs and 5.350 to 5.460 -- and here for this range for the proposal once again for Method 2 there is no change to the Radio Regs.

Now for Range D, 5.725 to 5.850, we have three methods that were discussed. No change to Radio Regs and D2 a new proposal for a new regional primary MS allocation, and D3, accommodate the WAS-RLAN to a footnote.

And then finally 5.850 to 5.925 and the only method being proposed here is that once again of no change to the Radio Regs.

Now, having said that, what we have here on the screen here, the regional positions for each of the methods as we can see, depending on the region, we have either some support, limited support, or opposition to each and every one of of the methods as the case may be, so this is what we're proposing for all the frequency ranges, and this is where I would like to hear from my colleagues that are representing each of the respective regions to expand a little bit on or upon the position that they have in their region, so I think that we will be able to start hearing from the regions, the input from region, APT colleague with regards to this frequency range here that we are presenting on the screen right now, you have the floor.

>> Thank you, chai. First of all I thank you for the introduction. And from this agenda item, APT is of the view that protection of services including their (?) and planned usage should be issued. The result adversely affecting these services.

And for the frequency band 51, 52 -- APT members don't support Method A2, A4, A5 and A6, and there is no consensus about Method A1 and A3.

So for this frequency band, it would help preliminary APT common proposal, but we support further consideration and investigation on the possibility of other operation under the condition that the services, including the future development should be protected.

And the band 57.25 to 58.50 megahertz, there are some different views proposed by APT members. After some discussion, other APT members support most B it allocated this frequency band to the mobile services on a primary basis in -- however, some APT members emphasized that the radio and incumbent services should be fully impacted.

And for the frequency band, B, s C, and E, we support no change to the definition. Thank you.

>> CHAIR: Thank you very much, Madam, for your

participation. Now, if you agree what we can do is focus on Band A, Band A for the very few points and then we, as you can see here, we'll be looking at the other frequency bands on down the line, so let's focus on Band A, Range A. I would like to hear now from Mohammed, if you would be so kind as to share the viewpoint of ASMG.

>> Thank you, sir. With regard to -- with regard to the use of this frequency for the RLAN, this band is one of the most important bands which are being studied for many considerations. First of all, this band is used for the RLAN applications for a while, but it is quite limited in use within buildings, and also in view of the applications for other services, for example, the radio sources --

When we look at the text and the options available, we find about six methods which clarifies the importance of the use of this band, and also clarifies the importance of the band and the applications today.

Now, with regards to the Arab administrations as mentioned in the presentation you made, there is no agreement on the methods regarding this, and this is shared by the other regional regions, as you can see, in this presentation. But if we discuss the methods and where the Arab Administration discussed it, the Arab Administrations were divided on three methods. There is support -- there is some support for no change, that is to say Method 1, and then discussion took place with regards to A2 and A3 that have to do with reducing the obstacles that we find today and the possibility of using this band for use outside buildings based on the A2 method or outside the buildings with certain regulatory principles as you see in A3.

Now, we are working with other Arab administrations to see whether we can come in the near future and coming up with some proposal and to give you the latest updates, then we can achieve before the holding of the conference. Thank you, Mr. chairperson.

>> CHAIR: Thank you very much, sir, for your input. Mr. El Hadjar from ATU, could you share the position of your region.

>> ATU: Thank you, Mr. Chairman. Good morning to all. According to the ATU regions, the situation is not different from what we've heard from the other regions, so ASMG and APT. There is -- there will not be an African Common Proposal on this issue because during our last meeting, it appears that there are some administrations who have concerns about the protection of existing services in that band, so that is why they are supporting the no change for the band, but still there are some other groups of administrations who are supporting the A3, so it means that we may have a condition of use for the airline systems, which are maybe the same as the one that we have for the band 52, 53 megahertz so there is support for that so it's been very split between Method E1 and Method E3 in the African Group but so at the end we will not

have an African common proposal on this issue. Thank you.

>> CHAIR: Thank you very much. Andy, please from CEPT.

>> CEPT: We say partial support for A4 and I think the entirety of A4 is part of the CEPT and we do agree in the CEPT but there is an extra bit that asks for flexibility in the outdoor usage up to a certain power level, so somewhere between A3 and A4 at the moment, and so the reason this thank we want to see cars and trains recognized somewhere is because there is some doubt in some countries about where that fits in, and in CEPT already, we have regulations that allow this type of usage, so we are looking to try to enable the protection for the incumbent services that are there, but trying to have some limited outdoor usage as part of that package.

The package is there at the moment in ECP and the power limit is limited and slightly different from some of the other methods there which are at the moment looking at outdoor use j, and so I would say at the moment somewhere between A3 and A4.

>> CHAIR: Thank you very much, Andy. Alex? Let's hear from CITELE, CITELE's position.

>> CITELE: Thank you, Chair. Good morning, everyone. CITELE supports method A2 and on arriving on the decision, CITELE recognized two facts. The first is that the use of RLANs has changed significantly since WRC03 when the decision to identify as band for RLANs has been adopted, and so now there is significantly more demand for RLAN deployments, and particularly demand for RLAN deployments outdoors.

Second fact is that 51.50 to 52.50 megahertz band is the only band that does not constrain by the dynamic frequency selection, as are all other bands in 5 gigahertz, and so in light of that, the development of the equipment and the cost and complexity, it is significant with the GFS constraint and this band not having the GFS constraint is quite important for the deployment of RLANs outdoor, and that's why CITELE administration supports Method A2.

In addition to that, CITELE proposes a country footnote for Brazil. Currently, the regulatory provision 5.446 (c) as in Charlie identifies aeronautical telemetry in Brazil and a number of countries in Region 1 and CITELE is proposing to create a separate footnote for that identification. Thank you, Chair.

>> CHAIR: Thank you very much. And then now, last but not least, Alexey let's hear from RCC.

>> RCC: Thank you, Chair. Once again, good morning, Distinguished Colleagues. Seems to me that there is too much red in our column within the framework of the RCC, we're still discussing the issue on these frequency bands. In fact, next week we'll have another meeting and discuss this but at this point in time, however, taking into account all of the results of the studies that have been conducted overall, despite the fact that there are various opinions

out on the table, and understanding about how the frequency bands will be used in the future, in the RCC, we seem to have a unified position and that is that we don't really want to see any changes and our position is -- because the studies that we've seen really depend on the conditions under which the allocations are used and power settings, how the allocations are divided territorially for RLANs so there is some fuzzy area and at this stage, we don't see really any basis for changing the provisions in resolution 229 for these frequency bands.

Now having said that, we do understand that using the RLANs in closed areas is not a real problem. For example, in cars or other transportation systems, this does require some consideration and we can see if we can develop some sort of conditions that will allow us to keep the current level of interferences under wraps, for example A4, maybe we went overboard in opposing that and putting it in red, about you in two areas at least, we think this is just divided and we have serious concerns about the use of RLANs.

Once again RNS is very critical for us, and we must protect that and within the framework of the conference, we will entertain the proposals of other parties and obviously put forward the RCC's requirements in order to protect existing services.

>> CHAIR: Thank you very much, Alex. Yes, thank you. Yes, this is a document, and as you said, this is something that is still open, it's still alive because it's being updated as the various region meetings are unfolding, so this is information for CPM, but it will be updated as more meetings are held.

Now, before we go on to the next range of frequency, the next frequency range, I would like to turn to the room and ask if they have any comments that they would like to voice, any questions or concerns? So I see the U.S. and then Canada and then Brazil. U.S., go ahead, please.

>> UNITED STATES OF AMERICA: Thank you, Mr. Chairman. Good morning to you and to everyone. I'd like to provide some clarity to the CITELE position on this band A under agenda item 1.16 as my colleague up there on the stage from CITELE has indicated that there is an inter-american proposal centered around method A2 for the outdoor use, but in our last CITELE meeting, which was several weeks ago in Canada, that we incorporated elements from method A6 as well, so all of the A6 elements have been incorporated into method A2 so that we have common support under that method A2 now incorporating A6.

But we also, as my colleague up there mentioned, that the no-change proposal issue was also incorporated into A2 to accommodate Brazil, so we have no issue now at this point with the -- there should be no yellow in CITELE. It should be all green for A2. Thank you.

>> CHAIR: Thank you very much, U.S. Canada, please?

>> CANADA: Thank you, Mr. Chairman. Yes, I was going to make a very similar comment as the Administration that proposed in the supporting method of A6. We worked very hard with our colleagues in CITELE to come to an arrangement whereby we took into account the Canadian concerns and incorporated that into method A2, and so what is supported within CITELE is a modified version of method A2 that takes into account both our concerns and Brazil's concerns so that we could have consensus within our region, so just to provide that additional clarity as well. Thank you, Mr. Chairman.

>> CHAIR: I'd like to thank Canada, and now I'd like to turn to Brazil. Please proceed.

>> BRAZIL: Thank you, Mr. Chairman. Canada and U.S. have already pointed to what I would like to clarify, and I would like to receive clarification regarding what is the difference of some support, partial support, what does this mean? Thank you.

>> CHAIR: Thank you very much, Brazil. Alex, would you like to field that question? What we included is at the time this information was prepared and also adding to information by CPM, we can see the amount of support that is coming in, so seeing if there was a basis on EIPR and on the basis I could consider there was partial support and in some cases full support, but I feel that Alex may be able to expand a little more on that if you have any additional comments, please?

>> Well I can clarify that the CITELE IEP incorporates the elements of method A6 and method A1 and is based primarily on method A2, and so I interpret this chart as indicating that there is -- that these elements have been incorporated into the IPM so there is some support for method A1, in particular, for no change to the aeronautical telemetry situation in Brazil, and method A6 as Canada and the U.S. pointed out, concerning the emissions issue, but in large, it's again, primarily based on method A2.

>> CHAIR: Thank you very much, Alex. Yes, this document is still unfolding, it's still alive and changing. On the basis of the meeting that will still be held, including some next week even, the basis of what comes out of there we'll be updating -- Iran, please?

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. In our view, this agenda item is a more difficult one, I would say. I don't qualify whether really difficult -- but there is -- and there has been a lot of discussions I think, and in this band in particular, it is among the complex part of the bands in this. In order to find out the solution for that, we have to see what are the problems, what are the difficulties. The first one is auto-operation and the levels and then how to ensure that the level will be respected. And then indicate that these are the services which are involved and try to find a solution for that. Many people are behind that for airline and you have to find a solution for that.

I think it's possible to have a solution noted to have sufficient assurance that, first of all, the outdoor tower will be respected and we have to find how to do that. And the other services which are involved, in particular the (?), the emphasis or link for the global system -- then also we come to some sense -- and the difficulties that we see, we have difficulties when we first address airline and along that came out with fairly satisfactory or equally unhappy with the megahertz and this time we have to be more successful and we have to work together so we have to find solutions, not I should say to support everybody, but should be happy to allow that and -- distinguished colleagues of APT and in APT there was more or less low selection due to it, but there was some preference for Meth add A3, some preference providing that the incumbent service be fully protected and so on and so forth, so that means that there are some qualifiers that could be put and some technical findings, technical ways to refine that to allow that situation.

More positively, objectively to find a solution for the situation. Thank you.

>> CHAIR: Thank you very much, Iran. Yes, indeed, this frequency range is one you see the most controversy or conflict, so that's -- we had to look at six different methods, that's the reason why, but of course we'll still keep working with spirit, work on this so we can arrive at a consensus.

Any more comments from the room before we move on to the next range? Doesn't seem to be the case. Very well. Thank you.

Let's go on to the next frequency range. As you can see, B and C, let's look at B and C together, 55 -- to 53.50 and 54.70, so these are -- we have here no change. That's the only one here, but I would like to say that it looks like as if there will be no additional comments, no differences in this regard. Right.

So then we can move on to frequency range D, as you can see on the screen, we look at three different methods here for 57.25 and 58.50 and within these three ranges, we have a variety of positions, so I think that I would like to turn to Ms. Fu and see if she can give us the position of APT for the frequency range. You have the floor, Madam.

>> Thank you, Hector. For this band, according to footnote, this frequency band has been allocated to mobile resources in many countries in Region 3, so at the last APT meeting, APT members -- other APT members support method (?).

>> CHAIR: Thank you very much. Now let's hear from Mohammed.

>> Thank you, Chairman. For this -- for this band, in fact, the Arab Group supports Resolution number 1 with no change because there are many Arab Administrations that support D3 so that we have an application specific to cases. As it was said by APT, some Arab associations have mobile services, and this band 5, 725, and

therefore we need more support. Arab resources support the first solution, D1 and no change, thank you, sir.

>> CHAIR: Thank you very much, Mohammed. Now, I would like to hear from El Hadjar to present a position from ATU. Thank you, please.

>> ATU: Thank you. So for Band D, I could confirm here that for the ATU, finally, which consensus to have a common position, the common position here will be D1, so it's mainly no change. Before the meeting, there was some administrations who were willing to go from D2 it, but after some discussion during our meeting, we finally agree to with a common position which will be D1, no change. Thanks.

>> CHAIR: Thank you very much. Now, let's hear from CEPT. Andy, please?

>> CEPT: Thanks, Mr. Chairman. Yeah, in this band, although there are some companies in CEPT that have use in the band, we have agreed to have a no-change position in this band, so we're supporting method D1.

>> CHAIR: Thank you very much, Andy. Now, let's hear from Alex for CITEL.

>> CITEL: Just to clarify, Mr. Chairman. Are we talking about the first role about 52.50 to 53.50 or the latter?

>> CHAIR: At this time we're talking about D, the frequency range D, that's the second block there. There we have different options of D1, 2, and 3.

>> CITEL: Thank you, Chairman. CITEL supports no change, method D1 because there are extensive deployments of RLANs in the band right now and there is no need to change the regulatory conditions to support those deployments. Thank you.

>> CHAIR: Thank you very much. And now let's but not least, Alex from RCC?

>> RCC: Thank you, sir. The table does reflect our position. We didn't look at methods D2, or 3. The main idea, the common position is no change at this stage, and I think this will prove to be the case as we move forward with our discussions for this frequency range of 57.25 to 58.50.

>> CHAIR: Thank you very much, sir. Now, so we've heard the positions of the various regions for frequency range D57.25. Any comments from the room? I see CITEL, you have the are floor.

>> CITEL: Thank you very much Mr. Moderator and thank you for putting up these slides. I have noticed though that for CITEL, at least, they're not completely accurate. I see here for D, it shows some support for D2 and D3, and that is not accurate. CITEL supports no change of D1. I would like to work with the moderator after the session so we can try to fix some of what may cause misunderstanding from the slides, if possible. Thank you very much.

>> CHAIR: Yes, with pleasure. After the session, then we can -- we'll be reviewing all the positions, go over them again, and then to see -- and this way we can update the table.

Any other comments at this time? That doesn't seem to be the case. Thank you very much, indeed.

And then now we have frequency range E, 58.-- 59.25 and there we see consensus for no change, unless there are some specific comments, anything to add from any of the colleagues in the regions? Doesn't seem to be the case. Any general comment from the room?

That doesn't seem to be the case either. Well, very well, so we have another 15 minutes remaining in this session and I would like very briefly to present to you, very briefly, the other agenda items. 1.11, 1.12, 1.15, 1.15, just some comments of a general nature unless my colleagues would like to add anything from the room.

Regarding 1.11, as you can see on the screen, the objective is to take the necessary actions as appropriate to facilitate global or regional harmonized frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations in accordance with resolution 236, so I would like to open it up here. First of all, see if anybody here of my colleagues would like to make a comment of a general nature regarding this agenda item, 1.11? Any comments?

That doesn't seem to be the case.

Now I can turn to the room? Any comments of a general nature regarding this agenda item? This regarding railway radiocommunication systems?

Well, we could move on to the next -- no. I see -- oh, I see Korea. I apologize, Korea, please.

>> REPUBLIC OF KOREA: Thank you, Mr. Chairman. I think I was late to raise my hands. Thank you. Regarding this agenda item of 1.11, this agenda item was initiated by the Asia Pacific Regions and during the last meeting of the Asia Pacific Regions, we developed something new or a different idea, which was different from previous discussions.

So that would be -- after the members get enough support on this new idea, then there will be a ACP and there will be a part of the contributions, so at this stage, I just remind to the room that there will be a new approach from the air Asia Pacific regions, and if they get enough support, and so we thank you them and would like to encourage the members to consider the APT new proposals. Thank you.

>> CHAIR: Thank you, Korea. Now, I would like to give the floor to the RCC. You have the floor, sir.

>> RCC: Many thanks. Although at this particular time, the RCC has a no-change position, we still have to harmonize the railway communication systems, and maybe this can be done at the regional level.

We note that this issue is particularly important for everyone, likely. In the RCC region, we are looking at this, we plan on developing some regional recommendations in our report for the frequency bands and the systems to be used for railway systems in the RCC countries.

Having said that, global harmonization with regard to particular frequency bands to our mind will be quite difficult to achieve at this conference, and this based on our experience. I mean, we've seen that this idea hasn't had a lot of support. If you look at the history of the support for the systems related to railroad communications and the frequencies that are planned to be used, and so it's quite difficult to make any proposals with regard to common frequency bands or global use, but having said that, we will look very carefully at the proposals on the table, believing that looking at them does require some attention.

>> CHAIR: Thank you very much, Alex from RCC. Would anybody -- APT, would you like to make a comment, Madam or Ms?

>> Thank you, Hector. Yeah, as said from Korea, that APT members create to propose a draft new resolution on the spectrum harmonization for it because with new WRC resolution, special finding, certain frequency range for -- can provide a stable regulatory framework to get frequency harmonization.

And in the new draft test proposed by APT, the new WRC resolution, in the part of the results, there are two results. The results, one, will encourage the administrations in region 3 to consider frequency bands that are (?)

And on the other hand we encourage administrations to consider the frequency band which frequency is in the band as well as countries specific frequency band for IST (?) thank you.

>> CHAIR: Thank you very much. Andy, please.

>> Yeah, thanks, Mr. Chairman. I think on this one we support no change because we think that there is plenty of scope within the country framework in the study groups to actually propose some of these harmonization measures, and they're already there, so we're a bit concerned if we start putting resolutions and other things into the Radio Regs we end up with a similar situation of PPDR where we constantly have to am could back to WRC to change the resolution. And then we have a disconnect between the resolutions with some of the recommendations because the two of them are cross-referenced and it just causes chaos, so I think we're happy to have no change. We don't think it's an allocation issue. We think it's an issue of trying to use the existing allocations, either on a regional or national basis, and then identifying them in some kind of recommendation or a report.

>> CHAIR: Thank you very much. Yes. One of the situations that we see is the positions are still being adjusted, and that's the added value of these workshops because we can continue updating.

If there are no further viewpoints, we have another 8 minutes remaining, so I would like to move on to the next agenda item. 1.12, the implementation of evolving intelligent transport systems. And in this item here, I would like to ask the colleagues from the regions if they have any comments of a general nature to put forward.

That doesn't seem to be the case. Let's turn to the room? Any comments on this agenda item?

Very well. Thank you. Let's move on to the next one.

We'll be looking at 1.15. Here we're talking about the identification of frequency bands for use by administration -- administrations for land, mobile, and fixed services, 27 4.50 gigahertz, any comments from my colleagues from the regions?

I see Andy. Andy, you have the floor.

>> CEPT: In CEPT we support method E because we see it as abolished approach to give enough scope for the services to develop independently and enough spectrum for them all to develop. In a way this is a new type of technology, and it's important that they have a lot of space in there to do it, the spectrum needs are identified, so identified enough spectrum there, method D in the proposal gives us the opportunity for all of the different services to develop independently, get on with it, basically.

>> CHAIR: Thank you very much, Andy. RCC?

>> RCC: Yes. Thank you. In the RCC we also prefer method E, echo, as preferential treatment and so we tend to agree with CEPT on that.

The CPM asked for a balanced approach for both active and possessive services and this is a new frequency band, but I think that we can look at a lot of the proposals in the CPM and there is not much difference if you look at the detail; and therefore, I think the WRC should be able to find a common position without too much difficulty to my mind.

>> CHAIR: Thank you very much, Alex. Any further comments? APT?

>> Thank you, Hector. For this agenda item, APT members agree on no change to footnote 5.5.6.4 and to add a new footnote on verification of frequency band for use for the land, mobile, and fixed service applications in the range of 275 to 450 gigahertz. Thank you.

>> CHAIR: Thank you very much, APT. Please go ahead, Mohammed.

>> Thank you, Chairman. The Arab Administrations are in agreement with the CEPT and support the solution because it's, in fact, a good and balanced solution and it's -- it's very usable in high estimates. Thank you, sir.

>> CHAIR: Thank you. Thank you very much. Alex from CITEL?

>> CITELE: Thank you, Chairman. CITELE administrations are also aligned with the rest -- with other administrations on this issue, and primarily our concern is protection of the passive services, radio astronomy and earth exploration passive in the band, but we can handle that with a footnote to the radio regulations, while making an allocation for about a land, mobile, and fixed services. Thank you.

>> CHAIR: I'd like to thank CITELE very warmly. If there are no other further comments, let's turn, none from the room, let's look at the final item. This is 9.1.5. Any comments of a general nature from my colleagues in the regions? Let's see.

CEPT?

>> CEPT: Just to highlight CEPT has changed the wording slightly in the common proposal, but it's actually in line with the methodology which tries to enable the change for the footnotes so we don't have to come back every time the recommendations change at WRC to update them.

So that's it's main theory behind it, which I think is the two methodologies out there, the text that we provide is one that's been agreed with in CEPT after a lot of discussions, so although the CEPT composition is slightly different from some of the two methods there, I'd say it's in line with the methodology that I think we more or less agreed is the best way forward within this agenda item.

>> CHAIR: Thank you very much, Andy. Alex? CITELE Alex, please?

>> CITELE: Thank you, Hector. Concerning this agenda item, I think it's important to recognize that there is a need to preserve the balance that was established at the previous conferences with regard to the services in the band of mobile and radio allocation and earth exploration satellites and that the CITELE administrations are supporting approach B of CPM with a reference to the existing footnote of 5.4.4.6A, so replacing the references to their recommendations and as Andy pointed out, not requiring the conferences to visit the issue every time the recommendations are updated. Thank you.

>> CHAIR: Thank you very much, Alex. ATU?

>> ATU: Thank you, Hector. For the African Group, also we wish to in African Common Proposal, but our position here is to merge the approach A and approach B, so it's mainly that we will have our proposal that will have these two proposals because of things from each of the methods, we have valuable information that could be kept in the footnote and that's how you're proposing to the match the two approaches. Thank you.

>> CHAIR: Thank you very much. Before I give it's floor to APT and RCC, I would like to ask the interpreters if you can go another 5 minutes to conclude this thing.

>> Yes, indeed, sir, we can do that.

>> CHAIR: Thank you very much. Let's hear from APT now?

>> Thank you, Hector. For this agenda item, I will support approach A as a long-time solution. Thank you.

>> CHAIR: Thank you very much. Now, Mohammed? The Arab Region supports approach B. Thank you. Alex, RCC?

>> RCC: To be brief, we are in favor of A, approach A. Approaches A and B aren't really too different. There is a difference, but overall, both approaches propose excluding references to these recommendations and to replace them with resolution 239, and to do this it's the best way to do this, that will be something that we'll discuss at the WRC and decisions will be taken there. Seems to me that approach A is more of an elegant solution and to be brief, that means we don't have to do any cross referencing, so that's why we are in favor of currently of approach A, or perhaps we can find some way of merging the approaches in A and B and come up with that, but anyway, that's a matter for discussion at the conference.

>> CHAIR: Thank you very much. Before closing this session, I would like to turn to the room and ask you if there are any final comments with regard to this item, 9.1.5?

There doesn't seem to be. Thank you very much. I would like to thank our members of the panel for their input and also the support of the interpreters for the additional minutes. That was a pleasure.

So I see the floor actually close -- I see I think there was a request for the floor. I cannot read the name though?

>> Thank you, Chairman. It's on behalf of (?), and it's announcement of administrative nature, so I'm not sure if I can make it or or wait a few minutes. I can make it now? Just to invite all delegates for a membership hosted by the DOC the global satellite coalition, and it's a sandwich and Salad lunch served on the ground floor of the CICT building, so I hope you can all make it and thank you very much for allowing me to make this announcement. Thank you.

>> CHAIR: Thank you very much for that kind invitation. Any final comments before I close? None. Well, thank you all for your input. We're going to be closing this session, and then of course there will be available for all delegates. Thank you.

(Applause).

>> Thank you very much and thank you to all panelists and to you Hector and we meet again at 2:00 p.m. today. Thank you.

(session completed at 5:04 a.m. CST)

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ITU-R 3RD INTERREGIONAL WORKSHOP ON WRC-19 PREP

SESSION 5 AND 6
MARITIME RELATED ISSUES, SCIENCE RELATED ISSUES
GENEVA, SWITZERLAND
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>> ITU COUNSELOR: Good afternoon, ladies and gentlemen. We will start in two minutes if you could please take your seats. I think all the panelists and the moderator are already with us. We will start in one minute. Thank you.

(Pause.)

>> ITU COUNSELOR: All right. Good afternoon again. Welcome to this fifth session of the workshop. We will be addressing the first panel of the afternoon, the maritime related issues that are addressed in WRC-19 Agenda Item 1.8, 1.9 and 1.9.2. Like we did this morning if time permits at the end of the session we will be looking at some of the other issues that were included in chapter 5 of the CPM report, namely Agenda Item 1.10 and 914 noting that 1.1 is more related to region 1. But to take more time I would like to welcome on the podium the moderator, Mr. David Kershaw. Thank you for being with us this afternoon. Mr. Kershaw has been heavily involved in the preparation of the CPM text also. So he is very well aware of the issues we will be addressing this afternoon.

With us we have representatives from the six Regional Groups. From APT we have Mr. Long. Good afternoon. From ASMG

we have Mr. Mohammad Sadeq. Good afternoon. For ATU, you have Mr. El Hadjar which you saw before. And for CEPT, we have Mr. Christian Rissone.

From CITEEL we have Ms. Sandra Wright. Actually, Mr. Mike. Welcome with us this afternoon also.

And from RCC we have Mr. Vladislav Sorokin. With that I give you the floor, David, please.

>> DAVID KERSHAW: Thank you, Philippe. Good afternoon, everybody. My name is David Kershaw. I'm from New Zealand. Perhaps we'll go through a few slides just to begin with. So the presentation is available online. The way I propose to work is to look at some of the different issues and then stop and then move on.

The reason for that is that I think this is the first session where we are doing multiple Agenda Items. We have been asked to look at three main Agenda Items. 1.8, 1.9.1 and 1.9.2, plus also if we have time we will look also at 1.1, 1.10 and 9.1, issue 9.1.4. If we have time we will get to those final three.

So if we look at Agenda Item 1.8, that separates into two main issues. And they are recognised within the resolution. The first is to look at the organisation of the global maritime safety service and the second issue is to look at the supporting the introduction of an additional satellite into the GMDSS. Those are the issues in resolves one and 2 of resolution 359.

If we then look at the -- if we start with issue A first, we'll go through issue A and look at the different positions of the Regional Groups and have a discussion on that. We'll look at issue B separately.

Issue A we have three main methods to look at. So the first is no change. The second provides frequencies for MF and HF navigational data or nav data in support of the method. Method three is similar to the second method. It adds two more conditions, which is to limit nav dat to transmissions only from coastal stations and usage will be subject to agreement to be obtained with affected administrations.

Those are the three options or the three methods.

So if we look at the positions from the different regions, there is reasonably consistent views in relation to that. I can't quite read all of the screen in front of me but APT has, supports A2, but there are some issues to be considered. ASMG, ATU, CEPT, CITEEL all support at A2 and at the moment RCC is looking at method three.

Perhaps we can ask the regions to look at those issues and tell us what are the concerns or considerations that they might have. Perhaps we'll start with APT. Mr. Bui, please.

>> BUI HA LONG: Thank you, Dave. Good afternoon to you and to everyone. Yes, APT on 1. A, issue A, as under the table that we, the APT support method A2. We also observe that, existing CUs, should be returned and protected. And the second is -- (Captioner apologizes, microphone staticky.)

In five and 5.26 should not impose any additional concerns on the service.

The last one we would like to consider is the recommendation of the MDAT, frequency as geospatial for included in radio frequency. To be considered at the future WRC after the IMO concludes its work on modernization. That is our view on the some Future Work for this issue. Thank you.

>> MODERATOR: Thank you for that. Quick question. I'm not sure if it helps the room. Were there particular issues that were addressed during the APT meeting that might be of interest to the people that are here?

>> BUI HA LONG: Yes, thank you for the question. Actually, in the last IPG5, most of the APT members are supporting the introduction of the nav dat into the geo data. We also support the inclusive image of into the regulatory regulation as required in the recommendation 2010 and 2058.

So that is some of the APT in the last APT meeting. Thank you.

>> MODERATOR: Thank you very much. Perhaps we could hear from ASMG next, please.

>> ASMG: Yes, as far as the Arab groups for method A, for the GMDSS, once again we support approach A2. This includes frequencies to be used within the Nav Dat system. For high frequencies. We want to update the system. We want to update the GMDSS system. During our last meeting, we agreed and the majority of participants agreed to support the A2 approach without any additional constraints for updating the GMDSS system.

>> MODERATOR: Thank you very much. If we could just keep moving along. We'll go to Africa, ATU next, please.

>> ATU: Good afternoon, Mr. Chairman. Thank you to all. The African Group supports the maritime, particularly with respect to digital technologies within the existing frequency band for maritime communications. So that is why we are in support of that approach. There was global support to go towards method A2. Method A2 goes to support introduction of the Nav Dat systems on the HF frequency.

Also we are taking into consideration that maybe the Nav Dat could be considered in the GMDSS. Those are the main points that are justified the position from the African Group to support method A2. Thanks.

>> MODERATOR: Thank you very much.

CEPT, please.

>> CHRISTIAN RISSONE: Yes. Thank you, good afternoon to everyone. Rather than telling you that the CEPT method is the best since everyone seems to agree, let me try to explain what the issues are that revolve around this. We are talking about Nav Dat, but not of everybody knows what that is. It is a system of information diffusion. So it is important to understand that right now there's a system that exists which is called Nav text. It works in the analogical realm but has a very low flow. Now, the maritime community needs more data meteorological information, maps and what not. So Nav Dat will be able to deal with the greater flow of information.

Now, in the Agenda Item, you see that there are two bands. We are talking about medium and high frequencies. In the medium frequency band, the proposal under 2 and also 3 is to identify specific bands that will be dedicated entirely to Nav Dat. And there will be no other service in that frequency.

Now, the idea here is to operate in a frequency band that is very different from nav text. To assure that the transition from Atalogical to meteorological is seamless.

The system has not been recognized officially by the international maritime organisation, the IMO. That is forthcoming. Right now there are two experiments underway, one in China that works in the MF range and in France that works in the HF range. Now, the theoretical studies have been presented at the IMO quite a few years back. Right now we are in the phase of developing the systems. In fact, next January in London at the IMO we will be able to present everything and hopefully the IMO will finally recognize Nav Dat and its applications for GMDSS.

So there are two parts in the point. There is the MF part where we have two proposals on the table. One for the Nav Dat band and another which means that beyond the Nav text realm countries who want to can use the Nav Dat provided they don't interfere with the nav text. I'm emphasizing this because the CEPT proposal is slightly different than the terminology that it uses in the note concerning this item, subitem 2 as far as high frequencies. There's no particular issues here. We have identified a frequency or rather a group of frequencies in all the one, six, eight, and 12-megahertz.

The idea is to cover everything entirely.

So our proposal is quite similar to those from other groups. Perhaps we can have a discussion on this with the RCC after the presentation.

>> MODERATOR: Thank you very much for that explanation. I'm sure that that will elicit some comment and questions later on when we open the floor.

Next, CITELE, please.

>> CITELE: Thank you, to clarify, Ms. Sandra Wright will be addressing the aeronautical issues. That is why her name was on your list.

Regarding the Agenda Item 1.8, issue A, as honestly my friend Christian, he provided significant information. I don't need to add anything to that. Just to confirm as to the CITELE position that we have, the position is consistent with A2. And it is to support both the medium frequency and high frequency for provision of the Nav Dat and allow the elopement and implementation into the future.

And these are reflected in appendix, modification to appendix 15 as well as the modification to the footnotes 579. And new footnote 5. A18, similar to what is in the CPM report. Thank you.

>> MODERATOR: Thank you very much. And last off, we have RCC, please.

>> RCC: Good afternoon, colleagues. This issue 1.8, based on the information we've seen in the presentation, we, the RCC position is a little bit different from those of other regional organisations. The three methods that, the number 3 method that we are supporting adds a few other limitations. In particular there is a limitation having to do with Nav Dat stations. They will only transmit from coastal stations under this method. In our opinion, this is an important measure that will ensure compatibility with existing systems in this frequency range. We are taking -- we are also considering into mobile stations. We can't always have registration in the international register. So we want some additional measures to limit the application Nav Dates to transmissions from coastal stations.

Now at the next meeting of the RCC will take place next week. Obviously we will get down to brass tacks and the final text on this issue. So at this particular point in time the final position of our group has not been approved. Having said that, it I can likely we will choose will be based on proposal A3.

>> MODERATOR: Thank you very much for that. So we have now heard the positions from the different Regional Groups and we have had a very comprehensive explanation from CEPT. So I would like to open the floor now to everybody to ask questions of our experts while they are here and see if anybody has any comments or questions.

So I will open the floor now.

>> I have one comment.

>> MODERATOR: Please go ahead, CEPT.

>> CEPT: Yes, thank you. My comment has to do with the temporary position of the RCC. I am allowing myself to dream a

little bit and hoping they will converge towards the method A2. The reason is, I think there is perhaps a physical interpretation on behalf of our colleagues from the RCC in the fact that we are talking about transmission system. Now, there is no particular cases where there will be transmission from vessels to the coast. It will only be coastal stations to the vessel. This is an important point. Now, MF transmitters are quite important and the antennas are 100 meters high. You can imagine that it is unlikely to have that kind of antenna aboard a vessel. It just won't work.

The question might be able to come up for HF because the antennas are much smaller. When you are talking just about the application, the Nav Dat, this is really just the Siamese twin of the nav text in digital format this time.

So I have a question as to the RCC's position. Now, they want some special agreements between administrations that are involved. When we conducted studies, we discussed this issue with the Russian Federation. The question was raised as to what exactly they meant by special agreements. Putting that in this is really quite vague and doesn't add anything to the solution.

Now, the purpose here is to have a globally recognised system recognised by the maritime community. So any special agreements really should not occur. Everyone should be on the same page as to how this is to be used.

>> MODERATOR: Thank you, CEPT. I think RCC would like to respond. RCC, please.

>> RCC: Yes, many thanks for that question. In fact, I was expecting just such a question.

As to the first issue related to limitations with coastal stations, yes. You agree that it is likely that there will not be any transmission from vessels, that's unlikely. From that point of view we don't really see any issues with the limitations that just covers coastal stations. We don't see any other uses either. So this will just be additional measures that will be just in case cover all bases and allow us to avoid the possibility of say someone using nav data on a vessel outside what is agreed to in the RR.

The second issue now. This has to do with coordination with other administrations. Well, this is not simple and it is under discussion within the RCC. Since we propose A3, this is something we want to discuss further.

Now, your concern obviously is something we are taking on board and discussing. We will look at what sort of measures or text is required for ours to assure that agreement amongst the administrations will occur.

Now, the situation is such that currently we don't have a set or prepared proposal. So I can't really share with you what

the final concrete proposals might be, but nevertheless many thanks for raising the issue. We will obviously take this on board and discuss it during our next meeting.

>> MODERATOR: Thank you very much.

Do we have any questions from the floor? Okay. I see nobody asking for the floor. We'll move on and start looking at issue B for Agenda Item 1.8. And you can see from the presentation slide on the screen in front of you that this is perhaps one of the more challenging Agenda Items. So this relates to the addition of a new satellite system within the GMDSS. We have four methods identified. One of those methods has, if you like, two submethods. You can argue that there are five different options or methods available to us.

In relation to method B1, we have what might be described as relatively minimalist approach. It retains secondary service in relation to the current satellite system that is being operated. There are modifications to footnotes provided and the frequency band is updated in appendix 15 to recognize GMDSS.

For method B2, B2A is very similar to the first method, B1. But it provides also for protection of the adjacent satellite system in the GMDSS service.

Method B2B is very similar to method B4. We can get to that again later. What that one provides for is, as I say, similar to method B4. Again, it provides additional protection to the adjacent satellite service already being operated for GMDSS.

Method B3 is simple. That is, no change. And method B4, that provides an upgrade or update of the allocation -- I beg your pardon, allocation from secondary to primary. It provides updates to footnotes. It provides specific regulatory protections to adjacent radio astronomy service. And it provides obviously recognition of GMDSS within Article 33.

So those are the main features of the different methods. And if we then look at the table that has been prepared based on the contributions to this meeting from the Regional Groups, we can see it is a little bit of a challenge. We have APT, recent meeting they supported the resolution but have not identified a specific method.

The ASMG has indicated a preference for B2B although they have additional changes to the footnotes there. The ATU support method B1, as you can see. CEPT support B4 in terms of upgrades to the allocation and protection of the radio astronomy service and so on.

CITEL supports ATU and prefers method B1 and RCC, I think, also support -- like APT, support resolution of the Agenda Item but have yet to determine a way forward.

As we heard before, the RCC have a meeting coming up and presumably they will be discussing it further. Again perhaps we

can go through the regional issues. And as before, this is an opportunity to provide an indication to the meeting as to the types of discussions that happened at the Regional Groups and what people are thinking, so that we don't just get an issue of this is what the position is but also what are the considerations, what are the concerns that people have? So that we can all understand where the different Regional Groups are coming from.

So APT, please.

>> BUI HA LONG: Eighty, thank you, Dave. In issue APT, with respect to this system, in the last APT meeting some APT members are of the view that directly or indirectly the update the spectrum from secondary to primary while some other APT members support upgrading the -- relating to the allocation of the frequency bands 1321 to 1323 and the primarily, that provides -- applies the primary status. And owner of the services and the frequency bands are primarily allocation and ensure that the correcting of the primary status does not impose any additional concern to the M and S and RDS station in the frequency band 1610 to 1626.

So we certified this issue and we are not in focus or not in concern. Some support B1 and others support B2B and we have some managers supporting B4. That is why we have no clear view on which method that we can support. Thank you.

>> MODERATOR: Thank you very much, APT. If we can go to ASMG next, please.

>> ASMG: Yes, I would just like to say that regarding the introduction of new satellite system with the GMDSS, now, when it comes to distress and security, at our most recent meeting of the Arabic group we saw B2B. B2B represented the ideal or best approach for us to deal with this matter.

When it comes to introducing changes, modifications to the note, 5G GMDSS/B2B. I will read the text that is meant to modify this.

I will read it in English.

Multi-- receiving in band 1621.35 to one.-- point fizzle megahertz shall not impose ... term transmitting one point, to 166.5 I megahertz.

(Captioner apologizes, the microphone is fuzzy.)

>> ASMG: That is the proposal from the Arabic group that is going to be submitted to the conference.

Now, there will be modifications at the level of the note, but we do support approach B2B. Thank you.

>> MODERATOR: Thank you very much. And once again, ATU, please.

>> ATU: Thank you, Mr. Chairman. On issue B, the African Group supports the tradition of an additional GMDSS at light

systems and we have also noted that the IMO has recognised -- as a non-GSO satellite system as an additional provider for GMDSS communication. And we have also noted that in resolution 359 of the WRC-15 has in setting the scope and the condition for this Agenda Item has determined that GMDSS satellite system needs to provide protection of incumbent services in accordance with the radio regulation, including those in adjacent frequency bands from harmful interferences. Such GMDSS satellite systems should operate within the interference in one of the existing systems.

And we have also noted that all allocation used for GMDSS for all allocation for the GMDSS, the frequency band for the operation of the new satellite system provider must be identified in the radio regulation. So we are for the protection from any subsequent assignments. And also any new additional GMDSS provider now or in the future, they are welcome. However, they should not cause any constraint to any existing operators.

Considering all these elements,. African common position is to support method B1. The current secondary allocation to the MSS in the band 16.16 to 1626.five will remain. But we will have other provision regarding the MSS allocation and sensitive services that will be important enough to consider the fact that there is this new additional satellite operator in the GMDSS.

And there is also a slight modification to the footnote which is proposed in the draft CPM. It is to add some text to indicate that the additional GMDSS provider shall not cause any constraint to existing operators. So there is something which is proposed in the African common proposal. Thanks.

>> MODERATOR: Okay. Thank you, ATU. CEPT, Mr. Rissone.

>> CHRISTIAN RISSONE: Thank you very much. The first thing that I think should be noted here and it was said very clearly if I recall from ATU is that IMO has recognised this as a system that is part of the GMDSS for distress and security.

GMDSS, that is very important for the maritime community because irrid yum is going to be come the single constellation to provide the capacity, the possibility to receive and transmit distress signals. It hasn't been the case with MR sat that uses geostationary or bit and didn't have the type of coverage that was necessary. It is important to point that out first to understand what is at stake here and what thinks are changing.

Now, as you look at some of the proposals today, you see that we all agree to recognize irrid yum. How can we recognize it? How do we do it?

The first thing that everybody agrees on is that we will be introducing the irridium frequencies in the 1015. And there is something very important to work on and solve coming up in the WRC. Are we ready to accept this type of system for the saving

huh lives in the sea, has secondary attribution, secondary status. That is primordial. That is really the crux of the issues that we are grappling with when looking at the various proposals on the table. Either we remain secondary, allocation is safety alone or it is primary for safety purposes.

I would just like to say that for the time being in the radio regs we don't have a safety system with a secondary attribution. So this is going to be a very important decision for the administration. The admission has to decide, do they want to set a precedent or not? What CEPT would like to propose is to upgrade from secondary to primary, part of the irridium spectrum, not the totality thereof, but part of it. This is for two reasons. Because if we raise part of the, promote part of the spectrum, this will be the part that is furthest away from radio astronomy. Any possible interference will be reduced, abated. We have to point out that the older, that caused interests experience, the radio astronomy network, in the future to avoid that we have two mechanisms, the first of which is finding a band, a band as far, remote as possible to avoid this type of interference or this interference and the second, one of the adjacent channels. Secondly we want to assure that what is in resolution 379 that prescribes PDF limits in order to protect radio astronomy. It is to provide an incentive. There is no obligation on the part of irridium to actually follow these instructions. CEPT would like to propose that the content of the PDF limits be included in Article 5, in a hard and fast way to make sure that irridium will be able to satisfy the PDF limits we have imposed so as to protect radio astronomy services.

So by upgrading from secondary to primary there will be some collateral damage, using a popular term. I have to bear in mind what is going to happen pursuant to this raising of status. So the CEPT, while we have reviewed a number of provisions that are in the regulations to make sure that MR sat which is already providing for status in the band will not have any trouble with the arrival of irridium in the area of -- but radio air naught I cans safety will not be impacted by the phasing in of irridium. We want to make sure that doesn't happen.

Finally, for radio astronomy, as I said, we will be proposing, we are proposing a specific note for this. The thing is, we have all the possible, there is a plethora of solutions here. With he are going to have to solve the situation. What are we doing, taking a bit of secondary, a bit of primary, combine them. Or we will use a footnote or not? Protect radio astronomy?

But a mixture here, but it will have to be reasonable. We see the spectrum goes, the saying is, it is very limited. We

will have to accept, see to it that everybody can have access and that the system functions properly. The problem is here that this is, we are looking at a system, the geo system is in distress. We want to save lives with irridium. As I see it it is absolutely essential that it be elevated to primary status. Thank you very much.

>> MODERATOR: Thank you very much, crept are for the comprehensive introduction to the issues. CITEL?

>> CITEL: Thank you and once again I thank for the explanations provided.

Now, in relation to CITELE, we have been for quite some time firm in our view that an IAP in the form of method B1 is the proper course of action addressing this matter. I should say that method B1 basically presents the simplest approach which takes advantage of the irridium satellite constellation design which basically utilizes the same frequencies involved up and down direction and establishes a communication being through a terminal.

This as has been shown through the studies and discussions we have had during the ITU is what is unique in terms of the solid design and it shows the protection of of the secondary allocation down to the primary of the option.

I should also add the fact that the same satellite constellation today is providing aeronautical satellite service which is another safety service within the same range of frequencies and which plan to use for GMDSS. And in the same interference environment. So this has been going on for quite some time. And under this method, the priority, that low cakes will remain the same -- the allocations will remain the same but we will add a footnote that will highlight the use of the band for GMDSS. And without changing the status. Because GMDSS is basically a system within the maritime mobile service or the terrestrial maritime service. It also proposes to add the frequency bands which are (indiscernible) at this point in time from annex 15. The frequency bands that are planned to be used for GMDSS and recognised by IMO, range 1616 to 1626 and a half megahertz will be added to annex 15 and consequently to Article 33 provisions.

Now, we heard a little bit about the other methods that -- I'm not sure if this is the right place that I should talk about the other methods that we did obviously take into consideration and in our discussions, and they have shortcomings. Some of these shortcomings I can get into. I don't know if you want me to do it. I'm asking.

>> MODERATOR: I think I prefer you not to at this point.

>> CITEL: Sure. The method B1 from our prospective from the cite prospective is fully consistent with radio regs and the

IMO irridium system and geo satellite system provider and the solid system, the irridium constellation has been in operation for over 20 years. Honestly, other satellite services in the bands above 1626 and a half and the terminals have been operating because GMDSS terminals from ignition perspective they are not different from the terminals that are carrying other types of non-safety services today.

And then from CITELE's perspective, the method B1 remains to be the most straightforward way to record the, in the radio regulations, the frequency bands that would be used on the irridium system and generally to recognize and allow the operation are in early 2020. Thank you.

>> MODERATOR: Thank you very much. And we have RCC. Thank you, now.

>> RCC: Thank you, sir. On issue B, currently our position is reflected on the slide. Overall we support the introduction of a satellite system for GMDSS. Having said that, to date we don't have any concrete preference as to the method to be used to implement this system. We hope that by next week we will have had conversations about this and will be able to update you.

I would like to thank colleagues for already exposing their positions in detail. Obviously we will take that on board as we have our own discussions in the RCC.

>> MODERATOR: Thank you very much. I think it is reasonably clear, we've allowed extra time for this particular issue. It is very clear that there are quite strongly held views. As we go through to the WRC, we are going to have to work these issues through. I think an intervention by Iran this morning made it very clear that people are going to have November so that we can get resolution of this issue.

There is no question that all the regions are supporting resolution. We just don't know how to do so yet. So I open the floor for comments. I see Iran. Mr. Arasteh, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, David. Yes, I maintain my position this morning. We should be objective. We should be positive. And we should try to meet the concerns of everybody.

However, we should not put reel a long emphasis on the ... in the future. One of the stations that this has been used for long -- all positions fliebl. Somebody in the CPM -- says where it has been written. Mr. Chairman, we don't need to write everything. If you do not write the text, how are you testing? You are testing, that's all. You don't need to put what is in there.

Safety applied.

(Captioner apologizes, microphone is poor quality.)

>> ISLAMIC REPUBLIC OF IRAN: I think some manufacturers standards are already met. It seems to me that everybody agreed to add their only available satellite to support the GMDSS.

So that is already very good for those people behind this commercial interest.

How to date, as ... by France. How to avoid having long precedence in the future. We will be responsible for our new inventions, for our sons and others, not to disturb the relations by interests or by narrow thinking. I think we should find a way. There are some ways to do that.

With respect to the band above 26.1 or 26.5, 26.5, I don't think that there is a problem. It is operational measures could be taken. Two type of decisions, they could find some points with that. I don't agree with saying that we try to give new satellites that shall put under constraint. Mr. Kershaw, two reports on the two Directors, to two WRC indicate that there are no definition of what is due constraint and what is undue constraint. And who decides that descript is due. Who decides that constraint is undue? And what is constraint?

We have to translate that to something that is accessible. That is the thing that we should avoid to use, not for this but any Agenda Items. That is clearly in 2003 when one Distinguished Delegate was there, I think Agenda Item 134, misleads everybody. Undue constraint. You have to find some way.

I don't see the anxiety of the satellite creator if they want to -- if they believe that we are covered under the offering, they should not provide the Article admission. Because they could accept everything covered with the up link. I don't understand that. Why do you not allow the community to take the decisions to have primary, which is only for one part, mobile as CEPT mentioned. Or you take the allocation, new entry, mobile satellite, not touching the Article, not touching the LAN mobile and allow that this goes on with I would say -- and acceptable arrangements.

I'm sure that we cannot discuss that here. I don't think this will be for us to say is this sufficient is this a short coming. We should send it to -- discuss what is good and not good. We should make the right decision, the right decision that all primary system, all -- service should be primary. And no services, second issue included in Agenda Item 15. And even GMDSS should be in 16. We should take that. How we arrive that, we have to discuss the issues. There are possibilities. And there are procedures. Say again. If the compromise of upgrade, we should identify what measures should be taken and what course should be done. That should be done.

And I don't think -- sometimes with respect to any other services, we should also have some other procedures, some grandfathered so on, but we should not for goat owe whether there is a new measure of irridium is resolved, we have to wait for CEPT or a leader Regional Group to say yes, maybe not yes. This is the issue.

Chairman, I don't think we can conclude here, but we should not take it simple. I don't agree with some of the colleagues saying this is simple. Mr. Kershaw, we are not making simplicity. We are making correctness, right things to do, but not simplicity.

If that is simplicity not to cause any relations totally, do everything the most simplest way. Let us be honest with each other and discuss. I'm sure that we have found the first solution, satisfying irridium. Now you have your satellites. Let us ITU-R to read the allocation properly.

We don't -- our proposal. Already I plead, APT generously agreed to add the satellite to the GMDSS. How? We have to find a way and put our minds together. We may find something, some qualifier, some conditions and some arrangements. Let us put our thoughts together and look for what should come first. Mr. Kershaw, I'm sorry, Mr. -- I want to talk about this, but we will not be now but later on. We have to proceed in the schedule. This is a difficult issue. Distinguished Delegates, don't put this to long deliberations. Thank you.

>> MODERATOR: Thank you very much, Mr. Arasteh. I saw KO asking for the lore. Lofta, you have the floor, please.

>> Thank you, David. Thank you, everyone. With respect to this, there are satellite systems operating under the aeronautical satellite service in this frequency band, 1616 to 1626.5 World Trade Centerment this is in accordance with note 3567 as coordinated under dot 21 and operated in IKO.

We are all aware of the regulatory conditions in this bands are quite complicated, quite messy. And some of the CPM methods for issue B have the side effect of downgrading the AMSRS from being a safety service.

Method B1 avoids this problem. Method B2 and B4 do not. However, the CEPT version of method B4 also avoids this problem. I think everyone agrees with me that downgrading the AMSRS would be unfortunate and unacceptable side effect when solving this item. I have faith in you that we will come to a good result at the conference. Thank you.

>> MODERATOR: Thank you very much. I would like to close conversation on this particular Agenda Item here. But I just give a brief opportunity if anybody else has any issues they would like to raise with the panelists.

I see nobody else asking for the floor.

Perhaps we can move on now to Agenda Item 1.9.1, looking at regulatory actions within the BITF band 1.6 to one -- mainly autonomous radio devices in the GMDSS and in relation to automatic identification systems.

I have to admit that this is not the Agenda Item that I am an expert in. I'll have to rely on the experts in the panels here. But what I do understand is that there was a recommendation for AMRD that was considered by Study Group 5. On Monday or Tuesday. And that was not yet agreed. That has been, as I understand it, going to be submitted to the radiocommunication Assembly just prior to the WRC. So there will be some work that needs to happen there.

The resolution 362 outlines the studies that need to happen in relation to this particular Agenda Item. And we have four, I was going to say two issues. One issue, method A, is relatively straightforward in relation to group A frequencies. Methods B1, B2 and B3, we have three more options in relation to group two frequencies.

If we look at the positions of the different Regional Groups, there is reasonably consistent agreement in relation to method A. I don't think we -- I think we don't need to discuss that too much. I suspect the RCC position of no opposition is not going to be an issue at the WRC. Maybe they will come around and support it, but it is not going to be an issue, I suspect.

We have APT, CITELE supporting method B1. And we have ASMG, spectrum management group, African Group supporting B3 as well as RCC not objecting to B3.

I note that there are parliaments to work out in relation to method B3 as well in terms of the emissions. Two of the submissions or two of the positions are looking at a little, I think an EIRP of 100 milliwatts. Rather than spending too much time on this particular issue, I guess the question that I would have for the panelists, if we can go through it, is are there any particular issues that need to be resolved? Or are measures reasonably settled?

Perhaps also it would be worth considering how can we bring methods B1 and B3 together? How can we get resolution of the, at the conference? Maybe we can consider that as opposed to simply stating the position.

So sorry to throw you under the bus here, gentlemen. APT, please.

>> BUI HA LONG: Yes, I thank you, Dave. In regard to the revised scope as you mentioned we should not talk a lot on group A. As far as Group B, that means this device has a certainty of maritime. So in APT we are of the view that today there are not many applications of Ahmad Group B using other technologies than

IRS. So we think that at the moment it is not an optimum time that we can see for probably Group B. We should work for the role of this requirement of this kind of device. And we just would like to focus on the Group B device using IES technology. That is why we supported B1 here. And this is a very good question on this issue in the last APT finding. Thank you.

>> MODERATOR: Thank you very much.

All right. ASMG, Mohammad, please.

>> ASMG: Thank you, David. Concerning the -- I do not provide the safety that is required. The Arab Group has an opinion that has been defined. We prefer B3. B3 if you compare it to B1, for instance, you see that it is approximately the same method. But there is a sentence, only one sentence at the end of B3 which defines the ERRP and it is fixed, according to a fixed value. And during the meeting of the Arab Group, we have not discussed this value. But we are looking forward to reaching an agreement with the various Regional Groups once we meet in order to give a value that will be acceptable to everybody. Thank you, sir.

>> MODERATOR: Thank you very much. We will move along. ATU, please.

>> ATU: Thank you, David. As a principle, the African Group supports the development of regulatory measures in order to accommodate the variety of maritime groups with technologies. We acknowledge that we will have the MRID that will be based on AS technology and we may also have the type of devices that will use all the technologies than IES.

We will also support, we support also that the group of devices will not be permitted to use the frequency which causes any constraint on the existing mobile services.

The African common proposal is to support method B3 with proposals for the value for the ERIP, which is 100 milliwatts and we will also note that Study Group 5 has decided to send the draft recommendation on ITU-R MID for approval to the Radio Assembly. This is something that is positive that will help maybe a decision to be made at the conference for this Agenda Item. Thank you.

>> MODERATOR: Thank you very much. CEPT, please.

>> CHRISTIAN RISSONE: Yes, thank you, sir. I am going to explain a little bit like I did previously what the AR -- AMRD covers, the ARMD of group one. Everyone seems to agree on that. These are devices that are designed to save people from going to sea, the man overboard. They are also designed to mark.

Now, I can tell you that Group B is a little bit of a nightmare for vessel captains and others. And the others, what I mean by others are the regulators. Thank you very much,.

The problem here is this. These devices are available on the Internet. They can be bought over-the-counter. Thousands are sold every day.

Now, they are useful for many things and people are very creative in finding applications for them. Some of them are used to mark Buoys or fish lines or fish nets, this or that. When you are in areas with this intense navigation, you know that launch ships are using electronic maps where they have AIS signals. AIS is what, it's a transponder, similar to the transponders that one has in aircraft. When those launch boats go through a zone where the AMDS are operating, they see their map just lights up. So sometimes the captains of these ships are a little bit disturbed by this plethora of information. You know, they have to avoid this or that object. But sometimes this object might be only 10-centimeters high and there is maybe a net underneath. So the danger is not too significant for such a large ship.

Not knowing what it is does create a certain level of danger as well. So we want to regulate the group of B devices so the first method is B1. So we provide a unique frequency -- the interpreter did not hear the frequency but the idea is to, what is emitted on this frequency in terms of 100 milliwatts in power.

Method three is really a combination of methods B1 and B2. The difference is this. There is a limitation of power that is imposed in the B3 method. B2, you try to identify three channels for new technologies. These new technologies, we don't know exactly what they are at this point in time.

It is probably a little bit odd to define frequencies for technologies that don't exist yet. This is something we will likely talk about at WRC-15 and I hope come up with something that is agreeable to all.

Now, there are regions that propose B3. Those regions also should be supporting B1. I think we need to be clear about that. I think I'll stop here. Otherwise I will be giving you a history of my life.

>> MODERATOR: Perhaps as a contribution to the conference.
(Laughter.)

>> MODERATOR: CITEL, please.

>> CITEL: Thank you and perhaps I should clarify that the CITEL, the method B1 is not exactly as it is seen in the CPM text. During the CITEL discussions, we had extensive discussion amongst the interests, the administrations to craft the wording for note 4 in relation to AMRD Group B. One of the elements that is also, you have it here is a matter of the ERP limit of 100 milliwatt which is reflected in method B3. This is something that we have added to our method B1. As well as the

height of the antenna. These are two limits or two characteristics, I should say, of AMRD Group B that CITELE felt would be necessary to be included as part of note R precisely for the reason that you explained at the beginning. This recommendation AMRD is not yet available and as you understand from discussions of Study Group 5, it will be forwarded to RA and they wanted to make sure that we have a complete solution going to the conference.

Obvious, if the RA decides favorably and positively regarding this recommendation, then we would foresee that the, there would be no need to identify some of these characteristics of ERP and antenna height limits as part of the radio regulations itself.

So now, you asked about the, how we can converge these elements as Mr. Rissone mentioned, once the main elements of difference is identification of these additional three channels for other technologies for Group B AMRDs, which is something that CITELE has not adopted. And we felt that it may be premature at this point in time. Obviously something to be further discussed in the conference. Thank you.

>> MODERATOR: Thank you very much. And RCC, please.

>> RCC: Thank you, sir. I just want to confirm what you've just said. Currently we don't have any particular opposition, but we are moving towards support of this or that method. I think method B3 is the basic option which will be the basis for our proposal. Many thanks.

>> MODERATOR: Thank you very much. Okay. With those explanations of the regional positions, I would like to open the floor to any questions. I have Iran and then USA. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. It is not a question. It is a position, you said that the two agreements have -- the positions have not been agreed. They have been adopted in the Study Groups. The only thing -- circulation on the floor, but all -- or to the Assembly. It is mentioned that the Assembly will be in the future, there is no -- it has been adopted by the Study Group. I think there will be no problem.

Chairman, if you need to, come to that, but I don't think there is any problem with the recommendation. Thank you.

>> MODERATOR: Thank you very much for that clarification. I wasn't myself aware that I didn't attend Study Group 5. I was just noting that I appreciate the clarification.

USA, please.

>> UNITED STATES: Thank you very much, David. With regard to the recommendation, yes, I think the Radio Assembly will now have consideration to approve it. And hopefully give us some

better technical clarity with regard to this particular Agenda Item on these AMRD devices. I don't think it solves our problem, though, deciding between which method will be the most appropriate. Whether it is either B1 or B3.

All it does is contain the technical aspects of these devices. It just reinforces the message: Don't put these devices on AIS devices where group A is going to be going.

We have to have some discussion at the RA to help us try to find some better compromise and way forward on which way we would like to go. Clearly from the perspective of the United States, of course, we support the B1 method for CITELE. That is the most efficient in terms of the spectrum usage. B seems to be intensive in terms of the number of channels it means and we know that is a congested set of channels in maritime. We should note that the same frequencies are shared with other services such as Dixon mobile. We want to make sure that we don't proliferate the ... (indiscernible) and be very careful. Thank you.

>> MODERATOR: Thank you very much for those comments. I appreciate those. Do we have any other comments or questions?

Okay. I see nobody asking for the floor. Perhaps we will move on to Agenda Item 1.9.2. So this is the BDES, BHF data exchange item. And again I am not the expert in this particular issue. I imagine that Mr. Rissone will give us a nice explanation.

If we look at the methods, there are -- the text becomes very small because I have to try to put all the methods on the screen. But there are lots, shall we say. Six methods.

If we then look -- I'm not going to give you time to read those because it is simply not going to have enough time. If we do look at the regional positions, we do have some disparity. But perhaps there will be room for more.

What I would like to do is again, because I'm not an expert, I will turn this over to Mr. Rissone who might be able to give us a better explanation of the Agenda Item as he has done with a couple of the others. Then we'll talk to the other panelists from there. Please, Mr. Rissone.

>> CHRISTIAN RISSONE: Yes, thank you, with great pleasure. 1.9.2 is my second child after 1.8. No issues here.

In 2015 at the WRC we also looked at VDH, VHF data exchange system at the conference in 2015 we looked at the terrestrial component and for various reasons the satellite component was not adopted at the WRC in 2015.

In 2015 we were able to add an Agenda Item for 2019 which now addresses the issue of the satellite component for the VDES. This is item 1.9.2.

Well, why do we need a satellite component? It is quite simple in reality. We need one to cover information at the poles. Here I'm addressing the climate septic community. Yes, the poles are melting and very quickly. And we now have new maritime routes through the northern and southern hemispheres around the pole in the winter and in the summer you will now be able to circulate in a boat.

The coastal areas of the polar zones need to be able to receive very precise information as to the drift of the polar caps or icebergs and what not. This is why we wanted to create this system. The idea is to meet the needs of the polar areas. Now, one of the most active countries to this point in this field has been Norway, which launched the first VDES satellite. Indeed there is a VDES up in the air. It has been a year it has been transmitting in an experimental vein and transmits meteorological maps. One satellite, however, is not enough to cover the poles. We need four or five of them to add full coverage and have enough density of information for it to be useful. So we worked during the study cycle. We looked at where we could come up with some spectrum to fulfill these requirements. The first idea was, given the fact that the spectrum is limited is appendix 18 is a little bit over loaded. To look directly at the VDES terrestrial components to see if we could come up with the VDES terrestrial component without satellites. The first study demonstrated that having both at the same time would be somewhat difficult. Indeed very difficult. We have to do some realtime sharing and we wouldn't have enough information available from the down link satellites.

So the proposal on the table with the various methods is either to identify the six VDES channels for the up link. This is method B and several subversions or to identify a 500 keel low band for the down link.

And here is where the problem begins because administrations obviously -- we understand this fully -- want to protect their terrestrial services. This is where you have such a great number of methods. Indeed, we have various levels of PDFs that have been proposed via the methods at hand.

Starting with the, how shall I say, the easiest -- well, I don't want to say that. Well, the easiest for the satellite to have the maximum data while protecting the terrestrial components. Some administrations thought that was not enough. In method B there are two options with the second mask, a little bit more constraining for the satellite but also allows us to have enough information, yet to protect the terrestrial component.

Some administrations still thought that was not enough. Through other methods they came up with other values. Other PDF masks.

These were so constraining for the satellite that in the end it just didn't work. But the terrestrial services are protected but if the ship doesn't get enough information from the satellite it is fairly useless. These PDF levels actually would be equivalent of a no change.

Now, that is the first problem. The second problem is this. Now, although we define some PDFs that seem to protect the terrestrial services, some administrations think that the 500Kilos that have been identified are not in the right spot. They are afraid that despite the PDF mass they may not be able to protect the terrestrial services. This has to do for APT, for example. They want to identify another frequency plan. With these five terrestrial channels, of course, but part of them are the channels would be for the up link and some of the channels would be for the down link. And so we are limiting the down link possibility. But we are also here remaining in appendix 18 in method B we have the down link part outside appendix 18.

Now, all the options are on the table. We have to agree on the frequency plan. Are we going to stay in appendix 18? Are we going to get out of it? What PDF masks will be used?

And the final consequence of the regulatory vein, are we going to make this a primary or secondarial owe I can indication for the VDES which is not -- this is a transmission, it is not safety, it is not safety, it is transmission to and from.

There you go in a nutshell on this Agenda Item, sir.

>> MODERATOR: Thank you very much. I appreciate that, Mr. Rissone.

We are running close to time. I think we are due to finish at 3:30. So I will give the panelists an opportunity to present their issues.

If I recall, the VDES has been an ongoing issue for some years and even coming into a second study cycle. So obviously the hope is to resolve the issues at this conference coming up. So we need to do quite a bit of work to make that happen, I think.

Perhaps we can just briefly go through the panels as we have done in the past for other Agenda Items. As I say we are running close to time. If we can keep it brief, please. APT, please.

>> BUI HA LONG: Yes, thank you. For this Agenda Item the APT community have not yet decided which method we prefer, but for the basic plan we prefer the modifications, some of the frequency plans number 3. We support to have the secondary

allocation for the maritime mobile satellite. And we have not yet decided which PDF mask we should use. And we also have some concerns that the frequency plan for the frequency plan number 3, it would impose some concerns to the VDES terrestrial system. That's why we propose some modification to this plan. Thank you.

>> MODERATOR: Thank you very much. We will move rapidly along. ASMG, please.

>> ASMG: Thank you, David. Concerning the Arab Group, we think A, no change, not to change the tables of frequencies. Except resolution 360. This solution is the best for this item. There is a concern in the Arab administrations in case the allocations concerning the satellites are not respected, this might cause deterioration of the conditions of terrestrial services for the VDES service.

And even the automatic identification service, ANS, will be in danger. If we look into the various methods that are proposed to us, if we look at F, for instance, we discover that there is a need, an urgent need not to cause any interference, not to impact terrestrial services in the existing frequencies. This is why the Arab administrations feel that A is the ideal method for this item. Thank you, sir.

>> MODERATOR: Thank you very much. ATU, please.

>> ATU: Thanks, David. For the will African Group, the African Group supports allocation to the maritime mobile satellite services. Earth to space and space to earth within the frequency range of appendix 18 to enable the VDES satellite component.

Why it is shown that this will not degrade the current VDES components, the ACM and the AS operation and not impose any additional constraints on existing services in these adjacent frequency bands.

Considering all that, the African common proposal is to support method B as described in the CPM report. Thanks.

>> MODERATOR: Thank you very much. Mr. Rissone, you have something to add for the CEPT position?

>> CHRISTIAN RISSONE: Yes, I do. The VDES system was made by sailors for sailors. So it is clear that the CEPT proposals we are making are supported by other services. Obviously we don't want to kill the AES or any other services.

>> MODERATOR: Thank you very much. CITEL, please.

>> CITEL: Thank you. And, well, at CITEL we have still looked at the inter-American proposal based on method B which has taken, which method B2 with option 2 for the PDF mask, that would be used as a coordination trigger to protect terrestrial services. So now the technical compatibility with mobile services as well as the VDES broadband capabilities are being

addressed. And definitely the objectives have been to protect frequencies used for safety of navigation, including IS1 and 2. And in whole sum, even though when you look at the proposal as a multipage proposal with a number of changes introduced to various notes, either suppressing or adding or modifying. And the notes vis-a-vis appendix 18, but from CITELE's perspective, we believe that you have addressed the Agenda Item and identify two sets of frequencies from 50 cz each for primary maritime mobile solid service and one down link portion at 525 cz. And I have leave it at that. Thank you.

>> MODERATOR: Okay, thank you very much, Mike.

I would like to ask the interpreters if we could have say ten minutes, please, extra and if that is satisfactory?

>> INTERPRETER: Yes, indeed, that will be all right, sir.

>> MODERATOR: Thank you very much, I appreciate it. I handed it over to the RCC. If you could take just a few minutes, we'll open the floor to comments or questions for just two minutes perhaps and then I would like to take a couple of minutes to wrap up if that's okay. RCC, please.

>> RCC: Yes, thank you, sir. I'll try to be brief.

Our regional organisation is concerned by the studies on the basis of the ITU recommendations. They've shown that the overall zone of the service of the space stations on VDES are not compatible with fixed stations and mobile service on a primary basis.

So we would like to note that a number of aspects of this system have not been mentioned. If we are looking at this, which method is best for us, we think this is quite a strict method. This right now, we are looking at method E, echo. And we think this is strict enough. Having said that, at next week's meeting we will come up with a final decision on this issue and you will see our proposal.

>> MODERATOR: Thank you very much. Briefly, I will open the floor for any comment or questions for the panel.

Okay, I see nobody asking for the floor.

Certainly as I mentioned before this, I think this particular issue has been over a couple of study cycles. It has been an issue of trying to reach a compromise, reach agreement and has been challenging. It will be an issue that again will be challenging for this upcoming conference.

Certainly I encourage the proponents to reach agreement where they can.

With respect to this Agenda Item, I note we were asked if we had time to cover Agenda Items 1.1, 1.10, and/or issue 9.1.4. In the slide presentations which I think are presented on the website, you can find the comments on the regional positions. I'm not going to open the floor for compensates or questions on

this. I think we've gone over time. That material is there for you to have a look at. So we have the regional positions for 1.1, 1.10, which is the GAD assist, for the aviation area. And for issue 9.1.4. I would note that for issue 9.1 point four, of course being Agenda Item 9.1, there are no methods identified. There is a description of what the different APT views or I beg your pardon, the different regional views are in relation to that particular issue.

Finally I would like to say in wrapping this up, being over time, thank you very much to all the panelists. It is very interesting to understand where the different regions are coming from. And that understanding will help us in Egypt resolve the different issues. It is clear there is work to go on some of the different Agenda Items and we all have to be positive in meeting each other halfway perhaps.

I will hand over to Mr. Aubineau in case he has any extra messages.

>> ITU COUNSELOR: Thank you, David. I have to thank you all for being with us. I think like we did before we would like to applaud all the panelists and the moderator for the great information you share with us. Thank you very much.

And now we have no more time for the break so we will resume this workshop at 4:00 p.m. on schedule. Thank you.

(Applause.)

(A break was taken.)

>> ITU COUNSELOR: Good afternoon again, ladies and gentlemen. We start the next session in one minute.

(Pause.)

>> ITU COUNSELOR: Welcome again to this last session of the day. This is session 6 which will be dealing with science related issues.

We have three Agenda Items related to this topic. Namely Agenda Item 1.2, 1.3 and 1.7.

And with us we have the moderator, Mr. Eric Allaix, who was there during the study cycle in Study Group 7 as well as the CPM on these different Agenda Items.

So welcome, Mr. Allaix and thank you very much for being with us this afternoon.

And we have also representatives of the six regions. And you will recognize Dr. Kyu Jin Wee representing APT. Welcome, Dr. Wee.

We have also Mr. Ahmad Amin from ASMG, welcome, sir. And Mr. George William Kasangaki representing the ATU. Welcome, sir and representing CEPT we have Mr. Jean and from CEPT. We have Mr. David Franc for CITEL. And from RCC we have -- and when we go to Agenda Item seven we have Alexander joining us.

With this, I give you the floor, Eric.

>> MODERATOR: Good afternoon to you all. To this so-called scientific related issues, 1.1, 1.2, 1.3 and 1.7. We have one hour for this and give seven minutes to each Agenda Item.

Kick off with Agenda Item 1.2. The objective here is to define power limits for earth stations, two different bands, 399.9-megahertz and 400.05 and so three -- .4401 and 403-megahertz on this in accordance with resolution 765. As you will know.

This is indicated in the, here on this visual. Visual support here.

1.2, in two ranges, mainly for data collection through different platforms and stations and they also, these various earth stations are spread out throughout the world on land, for example mountains to determine snowfall and also the oceans, seas, placed on Buoys. They can either drift or be fixed or to collect other observational information for ocean areas.

So to deal with this CPM, depending on the band here, let's start out with 399.9 to 400.0-megahertz. There are four different methods. Method A, no change. Method B, well, they are looking at a limit, an ERP limit. ERP limits for part of the band, 399.9 to 400.03. Yes, I see it, yes, 03 indeed. That's method B.

And then not having any EIRP between 400.03 to 400.05-megahertz. They would combine with this transition period up to November 22, 2024, to take into account the existing systems or those that will have been phased in before the end of WRC-19.

And method C would provide for two EIRP limits. One for the entirety of the band three, the entirety thereof and one EIRP density of four cz.

So the combination of these two limits using them simultaneously. Here once again there is a transition period for the same date, 22 November 2024.

So that is four years five years after the conference.

Method D, which is quite similar to B, but only the difference with the band here. To which you would have application. The EIRP 399.9 to 400.02-megahertz. So ten cz less as compared to B and no difference between 200.4 and 200.5, EIRP limits. There is a minor distinction with regard to method D. Transition period would run longer, five years. Ten years post WRC 19.

I think an issue, what we should do is go straightaway and look at the various regional positions. For this band. Then we move on to 401, 403. Here we have the various regions. I would like to call upon each of the representatives, each of the Delegates to see if there is a little bit of a difference between the support that we have manifested here. Perhaps there have been some adjustments that would bring about a minor

divergence with regard to the method. Can we start out with Dr. Wee? You have the floor.

>> KYU JIN WEE: Thank you. I would like to sum up the position of the APT. We simply support method C. That's all at this stage. Thank you.

>> MODERATOR: Thank you, that's very clear.
Now ASMG.

>> AHMAD AMIN: Thank you, Mr. Allaix. During the previous meeting of the Arab Group, we came up with a common Arab position, namely to lend support to method C for the 399.9 to 400.05-megahertz band.

We want to adopt appropriate power limits and add a note here.

>> MODERATOR: Thank you, Mr. Amin. ATU, George?

>> GEORGE WILLIAM KASANGAKI: Thank you, moderator. Until the last ATU meeting in South Africa, the African Group was a bit torn between method A and method C. The fear was that method B, C, and D were not offering sufficient protection to the low power systems that are currently being operated by the African Group.

So as a safety net, we opted for a no change going into the conference to see what will be transparent probably in the discussion. At this moment we are for a no change. Thank you.

>> MODERATOR: Again, thank you very much. We already see possibilities for some convergence, at least in some regions. For CEPT, Jean?

>> CEPT: Yes, thank you. If you allow me I would like to explain why we have these, you are talking about data collection by satellite. Here really these are platforms that are emitting in low level power units, a few watts at most. We have seen for the past few years that these frequency bands are used for a remote commands and sometimes they are using strong powers. These compromise existing systems that are used for data collection.

Now, we looked at various possibilities and CEPT's proposal which is, of course, method C. What we are trying to do is to limit ERP or EIRP and to avoid remote control. We want to use four kilohertz reference band -- cz reference band where each and every one of the emissions should not exceed five dB watts. So it is not -- what it is is a power within the objective band. That is the objective of CEPT.

In order to maintain compatibility with systems, systems at the end of the conference we are saying we have a grandfather clause that allows the stations to emit all the way up to 24 November 2020.

>> MODERATOR: Thank you, sir.

I forgot to tell you that there was an update or revision to this document. If you didn't have the possibility of loading the latest version of the slides, this covers the CEPT version, whether the CEPT version rather ... inbound EIRP limits were mentioned. Whether an EIRP limits and fl Franc is present here. We are talking about --

>> DAVID FRANC: Thank you, everyone. The CITELE proposal differs from CEPT in a number of ways. It doesn't directly align with method D either.

You see on the screen, method C is getting a lot of support. The difference between the CITELE proposal and what has already been discussed here with method C is that the CITELE proposal does not apply limits to the entire band. The limits are applied to the frequency range 399.9 to 399.99-megahertz, leaving 60-kilohertz without limits for preparation of existing systems that require a higher EIRP limits. This is important to CITELE. A number of CITELE member countries have existing systems that need to be accommodated and that's why the 60-kilohertz is implemented in the CITELE proposal without limits.

The other difference in the CITELE proposal which is that we give a ten-year grandfathering period rather than five years. So existing systems that have been notified and brought into use by the end of the WRC will have ten years to transition before the limits will apply to them. That would be November 22, 2029.

I guess the other thing I would point out, in CITELE it is -- we haven't gotten to Agenda Item 1.7 yet, but the CITELE proposal there is for no change. The 60-kilohertz here that we are carving out here is within CITELE viewed as an option for alleviating that need for spectrum that we couldn't accommodate in the CITELE proposal under Agenda Item 1.7.

Thank you, Eric.

>> MODERATOR: Thank you, Dave, for those explanations. It's very clear.

Now we give the floor to Alexander to present the RCC's position.

>> RCC: Many thanks, Eric. Good afternoon, colleagues.

The RCC position on this item on the Agenda, we also support method C, namely limiting the maximal level of EIRP in the 400-kilogram megahertz and all the other bands as well.

>> MODERATOR: Yes, thank you, Alexander for that. Now I give the floor to the floor. Perhaps you have some questions or requests for clarifications? You can address any one of the regional representatives. Iran, go ahead, you have the floor.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. I personally consider this Agenda Item not complex. I consider that the grandfathering is something we can discuss to some sort of

agreement in order to also meet the Agenda balance, gender balance, grandparents.

The EIRP would help that maybe at a later stage after some years with such a high power, maybe.

We could develop something, so I don't see any problem mentioning them together. When I see -- I have a lot of hope that we can have agreement and that is not difficult that you need to sit down together. Because this has been prepared in the usual way in each region but at WRC they sit around the table all and they can have something and once again think of probably the Agenda Item that could be centered more quickly than many others like 1.8, 1.5 and issue A. So these are the things. I have no specific comments on the situation, but see how much time, still a way to look at reality. How much you need ... I would say keeping spectrum a long while. I don't see that, but this is what you need. If you need more than that, okay, that is not needed at the time and you are not able -- you can add again. So this is my suggestion. Thank you.

>> MODERATOR: Thank you for those comments, Mr. Arasteh.

I think that is in line with what I mentioned at the outset of the presentation. I don't see any great divergence. In fact, there are three levels. There is the EIRP power, and I think our colleague from ATU mentioned there is some matter here to be discussed at the conference. And there is the spread between the bands of frequencies for which we would apply any EIRP. That is something else that can be discussed.

Finally there is the grandparenting clause as you mentioned.

All of this will give rise to some discussion at the WRC, but I don't see many obstacles for finding a compromise.

No other comments for this frequency band?

So I propose to look at three methods proposed here for 399 ... three methods are proposed here. Once again the same method as for the previous band. E echo looks at a band within 4-kilohertz and for the entire band.

And that's method echo,.

Method F, fox trot, provides an EIRP limit for only portions of the 401 to 403-megahertz band and method G, Gulf, proposes some ERP limits for the entire band, 401 to 403-megahertz but also associated with a resolution which would determine the usages for this band 4 space operations.

At the beginning of the presentation I didn't say that what was the origin of this item on the Agenda. The idea was to determine these very power limits, the ERP power limits because via Article 1.23 of the RRs, it is possible to use this frequency band for space operations. And the fact that we are having a great increasing of these usages that we noticed the need to determine power limits so that each and every one could

continue to operate within this frequency band keeping in mind the fact that there are all sorts of platforms for data collection from satellites in this band. These are platforms that are emitting at very low power units.

So as to the regional positions, here you have them up on the screen. Lots of green and a little bit of yellow. So I'm going to give the floor to the representatives of the various regions to explain why there are differences and why they support this and that method.

Dr. Wee.

>> KYU JIN WEE: Thank you, Mr. Chairman. I don't think APT has any differences with the other Regional Groups. We support method E. Thank you.

>> MODERATOR: Thank you, Mr. Lee, that's very clear. Let me move on to the ASMG. Mr. Amin?

>> AHMAD AMIN: Thank you, Mr. Allaix. The common Arab position on this issue 401 to 403-megahertz is method A. I beg your pardon, E, echo. And we call for an ERP limit and to add a new note on this subject for this band.

>> MODERATOR: Thank you, Mr. Amin. Now let me give the floor to ATU, George.

>> GEORGE WILLIAM KASANGAKI: Thank you, moderator. Within the ATU block we are pretty much for the three methods the same. The difference to us lies mostly in the transition period. However, we are all for protection of the ESS and -- services. However, the ATU block wishes to have the protection of these services continued after January 2019. That is why we opted for method G. But when you look at all the three, the 4-kilohertz, but reference and then we are all looking at ERP limits, but the transition period of implementing the ERP. That's why we opted for method G. Thank you.

>> MODERATOR: Thank you, George. And thank you for those clarifications. Which once again opens avenues for compromise. I think this is true as well for the preceding band and possibilities of convergence here. Let me give the floor to Jean for CEPT.

>> Thank you, Eric, thank you for reminding us of the point for four, as far as 401, 403 band, this is similar to the previous band with the 4-kilohertz band inside. We obviously prefer method E, echo. But we are looking at different limits, depending on when we are looking at geostationary and non-geostationary satellites. As far as grandparenting clauses, the interpreter did not hear the end of the sentence, apologies.

>> MODERATOR: Thank you, Jean. Let me give the floor to Dave.

>> DAVID FRANC: As far as these bands, I think we are very close to the others in the top row there in green. There are

slight differences with the CITELE proposal. We have a longer transition period to 2029 again which is important to some of the CITELE administrations to ensure some of their existing systems will be accommodated until the end of their operational life, which is expected to possibly go that long.

I think the other difference possibly with the CEPT proposal and the CITELE proposal is our footnote states in the EIRP limit, without powered EIRP density limit, whereas the CEPT proposal applies an EIRP density limit within 4-kilohertz and I was wondering if Jean can confirm that or not.

>> CEPT: Yes, indeed that's the case.

(Moderator.)

>> DAVID FRANC: I view this slide as positive. I think this should be hopefully a fairly easy item to solve once we get to the WRC. Thank you.

>> MODERATOR: Thank you, Dave, for those clarifications and finally, I will wrap up with the RCC. Alexander, you have the floor.

>> RCC: Many thanks. RCC also supports method E, echo. As mentioned by previous colleagues, as to transitional measures.

The RCC position is such that they should not be any shorter than five years long. It seems to me that here there is a window for finding a compromise. Many thanks.

>> MODERATOR: Yes, thank you, Alexander. Indeed after our discussions that we have had here we see that the only divergence that is possible here might be this famous date, 2024, 2027, or 2029, depending on one's position. I think that we may find an easy way to converge.

Are there any comments from the floor or any comments on this band?

I see none. So we will be able to move on to the next Agenda Item, which is 1.3. Now, this item has to do with the 460, 470-megahertz band for which we are proposing to raise to the primary status for meteorological satellite services and also the earth satellite services as well. 166 is mentioned here and it is clear that this change in status will have to be accompanied by protection measures for existing services and future services in adjacent bands.

For example, this may be the case for the broadcasting services. Here we have three methods. The first which is no change. We have method B, so method A, no change. Method B, here we are proposing to raise the status from secondary to primary for both services while ensuring protection of existing services. We are referring to terrestrial services by applying a power density mask for both GSO and non-GSO satellites.

If you look at the RRs, there are two masks proposed for non-GSO and GSO satellites and this will give rise to discussions at the conference. That is it for method B.

For method C it is similar to method B, upgrading the status while applying the same masks for non-GSO and GSO satellites. But the difference here is that these masks should be part of a footnote. Then we are going to cover in a resolution all of the constraints that will be associated with this upgrading of status. For both mat sat, meteorological satellites and also for earth exploration satellites. These are the proposals on the table. Based on the presentations that have been received for this workshop. Let me now give the floor to begin with to APT to tell us a little bit more about their position and tell us if their position has evolved or not. Dr. Wee, you have the floor.

>> KYU JIN WEE: Thank you. Under the current, it seems no consensus. But most of the APT members support method C. However, some members have some difficulties because they used the PPDR systems in these bands. In these countries, they are still below the current PDF proposed in the CPM is not good enough to protect the PPDR systems. That is the reason we couldn't make any common. In general most of the countries support C, but we should consider those countries who want to protect their PPDR with regard to ... Thank you.

>> MODERATOR: Thank you.

Next, I think the proposal will be made during the conference for this PDF mask. Now I would like to give the floor to Mr. Amin for the presentation for ASMG.

>> AHMAD AMIN: Thank you very much indeed, Mr. Allaix. Yes, the Arab position on this item is that we support method A, no change. Of course, we engage in deliberation during the latest meeting of the Arab Group. And we found that one of the main reasons for supporting this position of no change is that some Arab administrations massively use, or use on a high scale in one of the applications the PPDR. There's Wyatt spread use.

Now, there's widespread use.

Now, as my colleague just mentioned there is wide use of PPDR. That is the Arab position regarding this Agenda Item, thank you.

>> MODERATOR: Very well, thing. I would like to thank Mr. Amin for that information. This opens the door perhaps for compromise to provide for the protection of PPDR in this particular band in a number of countries in the ASMG group.

I would like to hand it over to George for the ATU presentation.

>> GEORGE WILLIAM KASANGAKI: Thank you very much, Mr. Moderator. The ATU block is in support of the (indiscernible)

because they made certain ... Becoming quite critical to the African continent. However, we do have existing services of the PPDR that we think should be protected plus other terrestrial services. So we are in support of the upgrade as well as having a protection criteria that shall be drawn in a resolution. We have plans of having a Draft Resolution for the conference for consideration. So that those services are protected and we have primitive level for these services and then you have the upgrade. Thank you.

>> MODERATOR: Very well, thank you.

Thank you, George, for that presentation. I see that the -- I was trying to see some convergence between the first three. For the protection of existing services. I would like to hand it over to Jean for CEPT.

>> CEPT: Thank you. Before explaining the CEPT position I would like to come back to the reason for 1.3. Now, in 1.2 we are looking at earth to space. 1.3, space to earth. The objective here is to try to have a more rational use of the spectrum. The platform used in the various frequency bands. We ought to be able to provide the information low power. So signals. As I said earlier, these are highly occupied, quite cluttered in systems, in CEPT we have a lot of systems, mobile systems. We have been working hand-in-hand with the Working Parties in Study Group 5, mobile 6, we were able to develop some masks, PDF. And taken on board by 5C for certain levels of protection. So we want to have protection for the non-GSO and GSO satellites.

So we have a priority of met sat. Met sat for the extension of the space between satellites. It's something we see in the regulations. After that moreover there's some satellites -- not small ones, but large weather satellites for space agencies. Now, they are used -- a number of them will be launched but not that many. The pay load with equipment that does not fall within the PDF limits. So therefore, if you look at the explanation to see, you see that under certain conditions -- well, we propose to provide them with primary allocation for CEPT. So the CEPT would be method C with some modifications. For example, for met sat, satellite exploration, not calling for protection for fixed and mobile services already operating. Thank you.

>> MODERATOR: Thank you for the information regarding the origin of that point and some of the fine points of the resolution. It took a lot of time to draft that, that's true.

I would like to hand over to Dave for CITELE. Dave, you have the floor.

>> DAVID FRANC: Okay, thank you, Eric. For Agenda on 1.3 I see on the slide here, Eric, you weren't quite sure where to put

us, under method B or method C. It is true, our CITELE proposal doesn't align with either of them exactly. However, it is fairly consistent with what CEPT has proposed. The intent is the same. There are some minor details that are different. But certainly I'm sure we can work them out at the WRC.

So yes, CITELE supports the upgrade of the ESS, or upgrade of the met sat and creation of an ESS allocation on a primary basis with the application of the PDF limit. And I guess the other thing I would like to come back to the concern raised about PPDR. Within the study process here in the ITU-R I would like to point out that Working Party 7B did liaise with all of the relevant Working Parties with incumbent services. There is information exchange back and forth along with studies.

In the end, all the relevant Working Parties representing the incumbent services indicated to 7B that they were satisfied with the studies. All the correct characteristics and protection criteria, used. And that's what we need to base our work on here. And so there should be no problem with the sharing studies with the protection of the PPDR. I think I'll leave it at that, Eric. Thank you.

>> MODERATOR: Thank you, Dave, thank you for that. Thank you, Dr. Franc.

I would thank you for that discussion. I think we will have the opportunity to discuss back and forth on a technical basis, making it possible for us to design the various PDF masks that we see. I would like to hand it over to Alexander for the RCC position.

>> RCC: Many thanks, Eric. RCC supports method C, Charlie. However, as you can see, in the position of RCC is a little bit different from method C in some ways. But these differences are of an editorial nature rather than technical.

So during WRC-15 I don't see any particular difficulties to finding a solution. Many thanks.

>> MODERATOR: Thank you, Alexander. I would like to also thank you for that information regarding some changes. I wasn't really up to speed on that. So it was very good to receive it. I think it's very clear now that we have some possibilities. It looks like we should be able to arrive at convergence for method C.

Now, are there any questions or comments in the room? Regarding Agenda Item 1.3 for WRC-15? I don't see any requests to speak.

I suggest that we move to the last item not only for this session but for this afternoon, for today. 1.7. I think that RCC, maybe there has been some changing Delegates, changing representatives. A request for the floor? I see maybe ...

Oh, India, you have the floor. Please stay with us, Alexander.

>> INDIA: Thank you, Mr. Chairman. Before we go off of Agenda Item 1.3, this is with regard to the upgrading of the method from primary to secondary. In that report, a recommendation which was mentioned at ITU-R with respect to PPDR was not taken into account. We propose method B, option 2. Now we too need to understand how the protection was not taken into account. How to accommodate all those things here. Thank you, Mr. Chairman.

>> MODERATOR: I would like to thank you for that question, sir. The gentleman from India. As far as I know, perhaps I'll hand it over to Dave in a moment and let him answer with more detail as needed. As far as I know there has been some exchange of views during the drafting of the report to take into account the question of PPDR. Public protection disaster relief and also B2 option. I didn't mention that earlier, but B1 opinions out that be it met sat or satellite terrestrial exploration, there cannot, they cannot create any interference. So B1, but only, would only apply to the fact that you cannot call for protection. Now, for B2, B2 also adds protection for adjacent bands. It is diffusion, for broadcasting. But all of this is included in the method C through the resolution where it is also pointed out that met sat and satellite terrestrial exploration - - in view of the exchanges that there have been through Study Group 7B and 5A, rather Study Group 5A, there are liaison statements pointing out that PPDR was taken into account. There is no need to focus more on this type of use.

Now, I have answered up to there. I don't know if Dave would like to add anything in the wake of what I said.

>> DAVID FRANC: Thank you, Eric. I think you covered it pretty well. I would like to point out there are actually existing satellite systems operating in this band now at a much higher PDF level. And so for the incumbent services and these satellites are operating on a secondary basis, by the way. There don't seem to be problems. It would seem beneficial to the incumbents to actually have this limit applied where it would lower the PDF limit to further ensure compatibility.

So in addition to what Eric said, that's the only other point I would like to make. You have one? Okay, I'm pass it off to you here.

>> MODERATOR: Thanks. Thank you, Dave, thank you, Eric.

>> CEPT: There are levels of satellites where they are above the PDF that we find here for Agenda Item 1.3. As far as I know PPDR systems as far as I know haven't been specifically looked at in that regard, but in the liaison statements for 5A and 7B, we find on the one handsome technical characteristics

for all of the mobile systems and then all, looking at all of the systems as well. Thirdly, the question of the adjacent band. For Study Group 7, this includes a exaltibility I study out of band or space to earth and for broadcasting. Thank you.

>> MODERATOR: Thank you. Thank you, Jean. Does that address the question you raised, India?

>> INDIA: Actually, I just want to point D, about the condition 18 ...

(Captioner apologizes, poor audio.)

In the report it was taken in ... This is our concern.

>> MODERATOR: Thank you very much, India. Yes, I think that we will have the opportunity to discuss this in more depth during the conference.

If there are no further requests to speak, I think that we can now move on to Agenda Item 1.7 and I ask for Mr. Pashtuk to come up to the Chair on his podium. Thank you, Alexander, for joining us for the first two items.

Yes, welcome, Mr. Pashtuk, good to have you with us.

Item 1.7. Here the objective is to identify, first of all define the spectrum needs for telemetry tracking command in space operation for non-GSO satellites with short duration missions.

Resolution 659 provides for all of this. And during the CPM report, the methods. Method A, no change. Method B, either identifying 4344-megahertz or 403, 404-megahertz.

For new allocations or space operations.

And then we have method C. Proposing the use of existing allocations. Space to earth. 137, 138-megahertz for the down link. For the up link, 1481.4.9-megahertz.

What I have not pointed out in my presentation is the spectrum needs for the down link space to earth, of course, is less than 2.5-megahertz, a 027 to 05. When it comes to the up link it is below 1 megahertz.

Less than 1 megahertz.

So I think that the details of all that will be provided during the presentation by the regional representatives. I will be giving the floor straightaway to Dr. Wee to present the position of the APT.

>> KYU JIN WEE: Thank you. Things are more complicated for the APT point of view. We have a preference to support method C. However, it still requires protection particularly for the AMRS around 177 to one -- bands and also 148 to 149 bands for the protection of the MSN data. So still our members are looking for protection of the common services while we doubt that they can support method C. Thank you.

>> MODERATOR: Thank you, doctor, for that information. Yes, as somebody pointed out the protection of adjacent bands

which was the focus of a number of discussions in 7B. 7B were not able to conclude before this workshop, before the conference. It is going to have to be looked into in order to dispel any ambiguity.

Looking now to Mr. Amin for his presentation of the position of ASMG.

>> AHMAD AMIN: Thank you, Mr. Allaix. Our position for this item is preferring solution number B. A, sorry.

No change in the radio regulations.

We believe that there might be a need to study the matter in detail. As I said before, about other matters. Unfortunately, my request wasn't taken into account in the past.

Thank you, sir.

>> MODERATOR: Thank you, Mr. Amin. I prefer, if possible, yes -- well, between you, I prefer method A rather than B. I will hand it to ATU, George.

>> GEORGE WILLIAM KASANGAKI: Thank you, moderator. The African block is in support of method C, to use the ... the down link and 148 to 149-megahertz for the up link. However, we think there is need for further studies, particularly to do with the application of provision 9.21 of the radio resolution. However, we think there will be an easy compromise if that is really addressed. But we are lightly for method C. Thank you.

>> MODERATOR: Thank you, George.

I see the application of 9.21 for the up link. And 148 and 149 for Ms. -- thank you.

CEPT, Jean.

>> CEPT: Thank you, Eric. Yes, I was pointing out 1.7, the will frequency band for telemetry, remote control for short duration missions in the CEPT often made a link with item 2, we try to have limited frequency bands indicated. As an exchange it would be good if the operators of these satellites had the possibility of being able to operate in conformance with their specifications and the outer frequency bands.

What is important to point out, in the resolution adopted in 2015, all of the studies for specific frequency bands showed that the compatibility studies gave rise to a negative outcome. So that being the case, CEPT has looked for other frequency bands to find solutions. 137, 138 has an attribution for space operations, down links and CEPT proposed this frequency band for down link and 140, 149, nine for the up link. All of this is in the resolution. That includes a number of specifications, PDF, ground PDF for 137, 138 band.

So what it boils down to, we are talking about thoughted C for CEPT.

>> MODERATOR: Thank you, Jean, for that information. I would like to hand over to CITELE, Dave.

>> DAVID FRANC: Thank you, Eric. For the CITELE proposal, it is a bit different than what has been presented by CEPT. This is going to be a tougher one to solve, I think, at the conference.

CITELE proposes no change as is shown there. That's pretty clear. A little background on why. If we look at method B first, the bands 403 to 404-megahertz or 404 to 405-megahertz are used extensively globally for meteorological operations, met aids in if I can. There was one study in the ITU-R that showed that in a limited geographic area sharing could be possible. There are other areas globally, much larger areas where met aids operations is much more extensive and sharing would not be possible. There are a number of studies that supported that conclusion in Working Party 7B.

So there is really, there is a compatibility issue there and those bands are just not suitable for creating a space operation surface allocation.

I would like to point out that the met aids operations in that band even though they are conducted in some countries and other countries they are less extensively, the data from those systems benefits all countries worldwide. When we talk about numerical weather prediction, that benefits everyone.

When we move on to method C, that is a bit of an issue because in the 137, 138 merchandise band and 148 to 149-megahertz band, the studies are incomplete at this point regarding existing services there.

And in particular, protection of existing NDSO organisations and aeronautical safety and life operations in the adjacent band have to be properly addressed before any decision can be made. CITELE doesn't see a way forward with those bands at this point either.

I think that's all I have, Eric. Thank you.

>> MODERATOR: Thank you, Dave, for that information. Now I will be handing it over to RCC. Sergey, you have the floor.

>> RCC: Yes, many thanks, Eric. RCC's position, as you see on the screen revolves around method C, Charlie. But as before, we tend to hesitate between method A and method C, between Alpha and Charlie.

Now, where is the problem? Well, for the up link the frequency proposed in method B as already mentioned by colleagues, we see here some incompatibilities. So we can't use it.

As for the second 148, 149.9-megahertz, does have with it a number of problems with existing services both mobile and fixed.

So what we agreed to with regard to these frequency bands is that within the RR9.21 that is something that needs to be kept in the RRs.

We don't support the proposal to remove this provision. Now, that's one thing. The other has to do with the fact that method C, Charlie, will use almost 2-megahertz of spectrum for this application. For short duration missions. So the result, in addition the results of the studies of the ITU have shown that we really need less than 1 megahertz to address the issue. So method C for us contains a certain number of issues that we will have to look at at the last meeting scheduled next week and come up with the final decision.

All I can say at this point is this: Since we have already sent out a proposal to this meeting, there seems to be only support for the down link, 138 to 138-megahertz. As for the up link under method C we are proposing no change. Once again let me point out we will have discussions next week and there we will come up with our final position. Thank you.

>> MODERATOR: Thank you, Sergey. Before I open it up for the room I would like to ask the interpreters, would it be possible to extend five minutes?

>> INTERPRETER: Yes, sir, we can extend, yes.

>> MODERATOR: Thank you very much. Very well, then. Thank you to the interpreters. I see that there is a request for the floor. Iran, you have the floor.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. Yes, we need five minutes for everybody. I think the discuss we have to discuss is how much time do we need, number one. Two, see if the studies are complete or not complete. If the study is not complete it is difficult to do something.

Third issue, see whether the option that can be 40137, 139, you have compatibility with one that is less capability ... 921 was a procedure for function to use in 1979. But whether there was no sharing and compatibility study possible. That was brought to the table. If you have a way to address compatibility, so on and so forth, then you have another flexibility. But if you don't have that, 951 is available on the table and you have to ...

>> MODERATOR: Thank you, Iran, for that comment.

Just wanted to highlight that perhaps not all of the studies have not been completed but really we are talking about existing astronomy biewgs especially in the 138, 139-megahertz band. As far as 921, more specific, that does exist for the 148, 149.9 part.

Obviously we will look more in detail at the impact and it is likely there is a need to clarify or perhaps identify some of the problems.

I have the United States requesting the floor. USA, go ahead.

>> UNITED STATES: Thank you, Eric. Good afternoon to you, to everyone. With regard to the CITELE position on Agenda Item 1.7, while it appears that we are supporting a no change on this Agenda Item given some of the study, technical study and regulatory challenges that are involved in those bands that are being considered, I would just like to highlight that related to this particular issue of short duration satellites that Agenda Item 1.2, the cite IAP did create a carve-out for these types of short duration applications. In particular, if you look at the CITELE inter-American proposal with regard to the treatment of the 399-megahertz to 400.06, in that particular provision or that inter-American proposal we clearly have a carve-out there that shows from 399 to 399.99 there is the particular provision to protect the met sates. Then from 399 to 400.05, there is a carve-out there that will continue to operate without any sort of IPR constraints or any particular conditions -- EIRP constraints or any particular conditions of time.

That's something we considered in the development of no change on this. It is not that we are totally ignoring the short duration application. We think it is important. We see this as a challenging Agenda Item. We do take that into consideration in somewhat connecting this and Agenda Item 1.2. Thank you.

>> MODERATOR: Thank you, United States, for these remarks and the comments here.

Go back to French. I think it is the end of the day. I'm having trouble keeping things straight.

I think earlier this was mentioned, but there is a link between 1.2 and 1.7. I think this is something that should be raised. We are certain to cover the entire range of needs. We don't create any constraints in bands where we don't need them.

Any other comments? If not, we can close this session. Seeing no comments, I would first like to thank all of the panelists for the clarity of their presentations and their explanations of their positions. I think that we've seen some convergence at least in 1.2 and 1.7.

I think there are open windows for finding convergence. Perhaps 1.7 may be a little bit difficulty, but we will have four weeks to do so in Sharm el-Sheikh. Thanks once again and thanks, Philippe for his assistance in organising the logistics surrounding this session. Many thanks.

Thanks to all of you.

(Applause.)

>> ITU COUNSELOR: Thank you very much, Eric, and many thanks to you as well.

We will now adjourn for today and we will start tomorrow morning at 9:00 o'clock with sessions dealing with satellite issues. So have a nice evening. See you tomorrow. Thank you.
(The meeting adjourned at 1705 CET.)
(CART captioner signing off.)

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>> PHILIPPE AUBINEAU: Good morning, Ladies and Gentlemen. If you could please take your seats, we will start in two minutes. And in the meantime I will invite the Moderator and the panelists to join us on the podium. And you apologize for a slight delay in our start this morning. So dear colleagues, if you could please come to the podium.

(Pause).

>> So good morning, again Ladies and Gentlemen, we will start session 7 of the workshop. This session has two main parts. One dealing with agenda item 1.5 after which we will be dealing with non-GSO FSS under agenda item 1.6 and hopefully we will have some time at the end or so to look at -- to provide some information on agenda 94, 919 and with us we very the Moderator as the panel on (inaudible) 1.5, Mr. Chris Hofer. Chris Hofer he is the Chairman of ITU-R Study Group 4 and knows this topic. We also have the Moderator for the next part of this session, Mr. Kim Kolb. He is also very well aware of the

issue related to agenda item 1.6. And on the podium we have representatives of six regions. From APT we have Mr. Nobuyuki Kawai, good morning, sir. We have from ASMG . Mr. Abdulrahman Al Najdi. And then from ATU we have Georges Yayi. From CEPT Mr. Steve Limb. And from CITELE -- think I got the wrong name. I was told it would be another name here. So I will let you introduce yourself. I apologize. I don't have your name. And from ACC Ms. Olga Dashkevich. I hope I pronounce well. So I wish you a welcome to the podium and Chris, the floor is yours for this session.

>> CHRIS HOFER: Okay. Thank you Mr. Philippe Aubineau. Appreciate the introduction of our team here and we have got one hour. We have a lot of material to cover but the plan really is to spend most of our time on the first two agenda items, 1.5, and agenda item 1.6 and then just touch lightly on the other agenda items. But think the slide deck is complete in providing the information for all the agenda items related to the regional groups where they are today.

So let's go ahead start and start with agenda item 1.5. The last conference ESIM was discussed for the first time and Resolution 156 was approved for ESIM use. 29.5 to 30. This spectrum is a satellite only band around the world. And so it had some interesting challenges but not as many services so to speak in that particular spectrum during the last cycle.

Certainly this cycle we have our new Resolution, 158 in which we are looking to potentially enable use of the ESIMs and additional two gigs of spectrum, specific 27.5 to 29.5 gigahertz. There is interest for the airlines to use this spectrum and for Maritime ships to use this spectrum as well and we have been looking at sharing studies within 4A on how this could take place but think the key here is we must ensure that the existing services are protected and in particular the terrestrial services at all times.

The CPM has come up with two methods. Method A is no change and then method B is the only method of a way forward for potentially allowing ESIM to use this spectrum. And since the CPM I think some of the work has been completed by the working parties to help complete the work for Resolution 158. So working party 5A complete characteristics of the mobile service. It is important that mobile services are protected and the PFD masks being discussed are related to these services and Study Group 5 approved that document fairly recently within 4A and report was approved related to the ESIM operation with the GSO FSS satellites. It is fair to say that the work has been complete within the working parties. And, of course, the regional groups at this time are finalizing their documentation related to this.

All right. I have been approached, these slides are a little bit different than the other slides. I could have certainly developed one slide that said all six regions support method 6B but we are missing the details with a lot of discussions taken place within the regional groups and working parties. So within method B really the details get in to the Resolution and if you look at the Resolution from the CPM text there are multiple options throughout the sections of of the CPM. So I think this is really where a lot of the work will continue to take place and the negotiations will take place at the conference related to specific text that will be in the Resolution if again this agenda item is approved. So the key here the way this is organized really is section 1 is related to operation of ESIMs and protection of satellite systems. Section 2 is related to the operation of ESIMs and the protection of *terres trill* services and then some key annexes associated with that as well. So I'm touching on these specifics because really the Chairman who will Chair this group at the WRC he is going to take these regional proposals and he is going to combine them in to one document and we are going to have specific text within the Resolution where we are going to have some differing views or different ways that this could be accomplished and we are going to have to work through that to solve the issues. So that's why I was highlighting basically a hand full of these issues where some of the text is different in the different regional groups. So that was the *toifb* when we put together these slides and that's why they are a little bit different. Because I don't think a slide that just says method B was very useful to everyone.

So this particular topic is touching on I think the cross-border issue. We all understand here at the ITU this is about cross-border issues, sharing with your neighbors, and what conditions could be place on the ESIMs so we can do that. And I think within some of the proposals that may not be as clear as in others. And so the CITELE proposal was one where there was a lot of discussion on this and it makes it real clear, for example, the PFD mask does apply cross-border and when the ESIM is operating there is going to be an authorization or license in place before that country may operator before that ESIM may operate within country and the Resolution itself is not telling in an administration what it must do within an administration of that's left up to the administration. So to be Chris *kal* clear I think we are dialling with cross-border issues here and think the CITELE document and the A2 document at this time help make that more clear. Just looking on this particular topic before I move to the next one, are there any comments from my panelists regarding that specific topic? I see none. One other item I

wanted to add is within the APT, my understanding is their proposal is up for voting right now. And within the ATU 1.5 finalization of the text is within the correspondence group and the RCC is having a meeting next week to finalize the proposal.

Any comments on this topic from the group? I see none. Going to the next slide, I think just the item here is just related to some of the language that's in particular to the resolves and some of the differences there. And so there has been a lot of discussions of what the PFD mask means. And meaning the PFD mask, what does that mean. So again on this particular topic, looking for the panelist if they have something they would like to add.

Because this certainly was a lot of discussion on this within 4A and also at the CPM text. Yep. Thanks. CITEL.

>> Good morning. I'm Rena Hoff. I wanted to give a brief overview of the CITEL position going in. So in terms of how we see things play out, as Chris mentioned there are two sections protection of satellite services and then the protection of terrestrial service. For the protection of satellite services we have annex 1 with a limits there and we have a new element in terms of the protection of finger Lings for MSS. We see it playing out as coordination but we do provide a framework for the coordination with sets of limits that, you know, could be met to facilitate the coordination discussions. So that's one element there. And then in terms of the protection of terrestrial services **rngrs** as mentioned we have a PFD mask that we agreed to that's a compromise between option 1 and option 2 of the CPM report. So that's something we see as a good compromise that we have put forward there for the protection of adjacent countries, neighboring country services. Thank you.

>> CHRIS HOFER: Thank you. Looking at this slide related to the APT I think it would be fair if the APT could explain a little bit of their discussion related to I think it is really annex 2 and the aeronautical issue, what happened at the APT and where they stand.

>> Good morning Chris. You mentioned APT we have had very exciting discussion on this agenda item in our APT meeting in Tokyo. (Nobuyuki Kawai) we had some improvement on many aspects. So the local centers on protection of terrestrial service from (inaudible). So mentioned. So two approaches were identifies, establishment of PFD mask and those establishment of (inaudible) limit. Although we had very active discussion, so process of needs on either (inaudible) approach or more support together. So we believe this is very critical on these topics on this agenda item and in fact, there are many outstanding issues, like technical and (inaudible) how to implement, to compromise this either PMD or outer limit. And also necessary

precision for coordination. So existing procedure may not be applicable to this. I think these issues need to be studied. In this regard we need further discussion only the study among the APT, also beyond APT. Thank you very much.

>> CHRIS HOFER: All right. Thank you. Moving on to the next slide, just to help I think clarify where the power levels are within Maritime and aero. There seems to be some convergence on Mary Tim and this is related to cross-border protection of neighboring countries and the only difference on there is the bandwidth that's being selected and then with the arrow, CITELE clearly stated their mask is a little bit different than the mask of some of the other regional proposals and that's related to be safe to say that the protection of system A that's within the 5A document that was approved at Study Group 5.

So there will be certainly some discussions on that particular PFD mask I'm expecting at the conference and we may at the end of the day resolve that with a compromised mask. Any comments on this particular topic from the panelists? I see none.

And the last couple of items is related to the satellite issues. Okay. Iran please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. Thank you for all your efforts. Right input you are asking the question. The question is not this. The question is different. Totally different. There is two components. (Inaudible). Each of these need to protect terrestrial service and each of these need to protect other services. And then their responsibilities. Question should be this one, power density is not these questions. We should mention the situation. How you protect terrestrial, how you protect (inaudible). How you protect terrestrial body and then with respect to the other services. And how the responsibility at this session with respect to the management of interference need to be carried out. We have limited time. If you go this way we know that (inaudible) discuss the main issues, if you allow let us go this one. This is not giving good result the. You have Distinguished Colleagues here who want to share our information with them. And benefit of their knowledge and vice versa. If you allow you are differently. We spend one hour for nothing. Please go back to the situation how you protect terrestrial service. Your situation is PFD. So you ask, is this the only way? Correct protect ourselves or not. And then PFD is coming from. What's the other issues. Some organizations Mr. (Inaudible) serious Delegate of APT Convention and APT there are no views on that. There are different views. Some could say PFD and some could say altitude. These are important issues. And then unacceptable interference nonprotection these

are the issues. If you want to have a some result of this meeting, the direction of the discussion should be entirely different. I fully agree with you. You are a knowledgeable person and respected person and very, very technical but you are technical operator and administrative and (inaudible) through that one. If you allow to say whether there is any need to protect terrestrial. Why is this. Is there any method to ITU-R to protect terrestrial from the issue. Then you have to divide it in to three times. Maritime missing, almost yes. And then no position (inaudible). The only thing is distance. There is (inaudible). There is no method at all. You come to the PFD, yes, is the PFD sufficient, is it the PFD correct, appropriate or not. Altitude for (inaudible) or not. And the other thing how we protect the terrestrial and other neighboring communities from the issues, putting interference in to each other and how your interference will be managed and come to other space services to be protected. We talk about space service, the issue of -- should operate within the envelope. What envelope. Noefl of characteristics or until of coordination. Where are the envelope of characteristics. There is no envelope of characteristics at all. Chairman, under the Resolution 155, ITU-R Study Group worked three years and have now more or less something which is called until of characteristics on all emphasis. So that should be used. Assume the course of actions. Other than they are saying that the administration is listen to BR and BR should check what is the until. Who has developed that envelope. And even f it is more scientific, (inaudible). If it is not envelope, send back to administrations. Then the (inaudible) by Distinguished Delegated of CITELE talking that which type of satellite should be used. Satellite in operation or satellite also in coordination. This is very important issue we have to address. Such as the coordination below, we don't know whether they complete the coordination, but they complete the coordination. Then responsibility of interference management, administration authorizing has no control on the issue because it is controlled by the satellite operators. How could they manage interference and if interference of country A and B put together and cause the country C who is responsible? And then most important issue, you have not mentioned, the issue taken from Resolution 156 saying that shall not cause unacceptable interference and shall not claim protection. However, for that in Resolution there is a commitment. Administration need to send a commitment to the ITU-R, the BR that in brace case any interference is caused, it is not acceptable. This should be mentioned clearly the situation and now the most important, what some people say that if you meet the PFD, which is not the correct method, you

will be released from all your responsibilities. That is not true. Still you are responsible because you are given the commitment. This is the main issue that we discussed. And the last issue that's -- does not want to protect the development of the other services, fixed service, mobile service, satellite service and so on and so forth. And there is options. So we should discuss. Do we go over the agenda item or not. The agenda item protects the existing services and the point. So this one is very important element. So these are the points that really discussed. We authorize as a decision of country and this has decision controlled by others caused interference to other services. Who is responsible? Me. I am not responsible. But (inaudible) of WRC mission the responsibility is on the short end of administration on which territory is protected. These are the unresolved issues and we have to find a solution for all of them. Non-GSO issue. Problem over the other problems. So let's finish one and go to the other. Chairman I am sorry. Please discuss this one but not this ELP. This is not. The issue is not this one. Thank you.

>> CHRIS HOFER: Thank you Iran for those comments. I think they were helpful. Just to finish up these two issues and then to come back to some of the topic you brought up, related to satellite, we have non-GSO and feeder links and solutions have been proposed either be handled through coordination or CITELE has put forward an additional annex that has proposed way forward that will be discussed at the conference as well.

And so again this is for protecting the existing feeder links. You want to touch on that or not? Okay. And then the last item really is just related to the frequency range in which ERP limit will apply. There are different views as to whether the protection of the non-GSO through inERP limit will be from 27.5 to 28.6 or 27.5 to 29.1 and again this there are various proposals on that and we will have to resolve this issue at the conference. I think it is fair from the comments from Iran these two issues are a little bit easier to solve at the conference. Items that he brought up I think are very relevant. And would like to see if there is anyone on the panel would like to touch base with what Mr. Arasteh said and make some comments? CITELE, please.

>> Thanks, Chris and thank you Mr. Kavouss Arasteh for all your comments. There is a lot to consider and agree. And we have been working through on the draft Resolution in hopes to address most of the concerns. In terms of the characteristics and the ESIM remaining within the envelope of the GSO network, so in assisting the bureau in terms of their analysis of whether it is within the envelope, CITELE does have a proposal for changes to appendix 4. So we went through all the tables in

appendix 4 to see which characteristics would apply and we are proposing a new calling for new notice for ESIM and, you know, all the elements that would apply to ESIM and earth station motion have been proposed in that. So we would definitely invite administrations to review that prior to the conference so that we can discuss that.

Now in terms of the PFD, not causing unacceptable interference. So we agree that, you know, ESIM shall not cause unacceptable interference to existing services as well as services that come in the future but, you know, the PFD should be sufficient but if it isn't, and if there is still unacceptable interference caused then they have to cease operations and we believe that the Resolution is worded such that that is absolutely necessary. Because we shall not cause unacceptable interference to exist -- to services. So I think the -- those are a couple of points. There are a number of other points I won't address. I will give the other panelists a chance. Thank you.

>> CHRIS HOFER: Thank you. Anyone else? Clearly the application of the PFD mask will be discussed further. I think it has been a lot of discussion within working party 4A and the CPM and clearly will continue at the conference some of the details brought up by Iran. I think related to the PFD mask and meeting the PFD maskant term ab solve responsibility, I think is not quite correct the way it has been interpreted but again this is going to be further discussion. Certainly a view in ESIM that complies with the limits by definition provides the required protection terrestrial services we are defining the unacceptable level of interference. So the PFD mace can for arrow and that the ESIM is met and continues to meet the obligation in resolves 1.2.2 not to cause unacceptable interference to cofrequency terrestrial services operating within administration. This is the case for all terrestrial services now and in to the future, thus provides regulatory certainty and nothing more for ESIM operators and establishes the interference environment for designing of future terrestrial systems without the need tore coordination on either side. This is something that we need to discuss further and to work through at the conference. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. And I come after him. Thank you.

>> CHRIS HOFER: I didn't see his flag. USA, please.

>> UNITED STATES: Thank you Chris and thank you

Mr. Kavouss Arasteh. Good morning, everyone. Could you go back to slide No. 4, please? Yeah. Thank you. With regards to this slide I want to make a remark here with regards to this whole premise we are building a framework for ESIM in the radio regs.

With regards to the operation of ESIM it shall not cause unacceptable interference to existing services. And that's an important Foundation for the framework that we need to build here if we are ever going to succeed at WRC. And the premise for that is outlined in it WRC Resolution. And there may -- there are many issues still being discussed and resolved as you can see there. There seems to be across the regional groups further work and agreement is needed in that path that we need to agree on. But in the context of whatever decision we come up with or whatever agreements we can come up with for the WRC, whatever a solution, that solution has to be something that's implementible in the radio regs interest a cross-border protection perspective. Whether it is a PFD mask or altitude limit, whatever. The solution has to be implementible from the international radio regulations perspective. I see a lot of wording in here in country, in country, I am not concerned with in country. That's an administration to decide how it authorizes and allows the ESIM to operate within the territory of that country. That is the right. We should not be providing any sort of provisions or implications that the solution that we will provide will also be applicable to countries. That is within the sovereign right of that country to chooses to license authorize or allow the operation. So I am very concerned. I see a lot of wording here in country, in country, the solutions should be applied from the cross-border international perspective when only to protect those countries and their neighbors to -- so that those existing services are protected. With regards to the CITELE we made that very clear, that the PFD mask that we have come **abrement** on is for the protection of neighboring adjacent countries. Now this line of sight text I think is also something that we need to discuss. Line of sight for me is a quantitative set of words of it is not something easy to enforce. So we need to come to some understanding of that but we do have the agreement that the PFD should apply. The administration should take note that if there are existing terrestrial services authorized within that administration that they should not -- the ESIM should not operate on those frequencies unless prior agreement is granted by that administration. That's a very important provision and helps build this framework.

I think we need to look at it from that perspective. Work within the context of trying to find a solution that will build a good framework for ESIM and I hope that we can do that at the WRC. Thank you.

>> CHRIS HOFER: Thank you USA. I think that every single proposal is crystal clear about the operation of ESIM granted through permission by the administration which is tied to the

licensing and those will be the conditions applied to the ESIM. So it is very helpful. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. I fully agree. Emphasize that. Preamble of the constitution state that. Governments or members or so rain to manage telecommunication in their country. If a country A authorized issue how to protect other services up to that country national and I don't think that ITU get in to the national issue of any country. Having said that, why in 2003 for decision which is almost identical to the Maritime issue we had the distance. Because we have no coordination method. PFD was not workable. PFD -- way goes up or down. There is no control on the PFD because it relates to power of transmission of earth station. The same question, I'm sorry to link to WRC-15 was rejected. Don't want to be dynamic approach. They want something clearly kept. Yes, I authorize. No, I don't authorize. But not something that you should follow all these to situation. Because there was no coordination method or decision to protect terrestrial. We had this sense of 300 kilometers which was changed to 340 in WRC-15 and 945 gigahertz which is different. *Mear* are time is more or less (inaudible). Take in to account the distance. But our -- impossible with the PFD to have protection in satisfactory manner because you took or we (inaudible) Study Group. You are Study Group 2, PFD from the fixed satellite service but the PFD is stemming from the earth station in motion going up, going down, going left, right and so on and so forth approaching Assembly, *des* sending and so on and so forth. It is not similar to the PFD. That's why in a Study Group should be verified. Sorry. Examined, verified and validated. It has not been done. We have one ITU. In other parts Resolution 155 we have the same situation, still we say that PFD is not a valid point. Need to be validated. So you couldn't have concluded on that saying that PFD. May or may not. So we have to validate. We have to see that PFD will stack from the fixed satellite service is sufficient and cover all the points. From 22,000 meter or 12,000 meter. After that (inaudible) to airport. And sometimes one hour around the airport. One airport one hour turning. And so on and so forth. There are mainly terrestrial service. This should be verified. That's why some people in APT come to the issue of altitude. When the airplane comes down it certain area, after that transmission should be stopped. Whether -- four kilo me *teters* and five and so on and so forth. Then as soon as the interference is identified and I want to follow that, the (inaudible) is gone. We sent a message in BR and we don't have anything. Interest there is no interference. So we have to find something more workable for that. That's why cause you lot -- not cause you unlike satellite interference

which is -- however if you read the PFD, whatever PFD you have, does not release you from your responsibility that you have sent to the ITU to the commitment. This is the point of difference between the people. Some group, I'm sorry to say, some Europeans say no, (inaudible) meet the PFD. You are released from all responsibilities.

That is something -- much more difficult than that. Because my (inaudible) interference in a country was not -- is not proper. But as soon as even in the country, we have (inaudible) track. You have (inaudible) on the train. All of them, actionable nature of interference. We don't know who is committing problems. Who you have to hold responsible and then the third country comes and another country (inaudible) the border. We have cross-border from the countries. Add to each other. We don't know which two ways we have to go. First one, second. This is not something. So we have to find the solution. So we have the very, very difficult task to at the conference, not I am disappointed. We may find some solution but we may not find all the solutions. And put something for the future. Don't be surprised that I am saying that we may see authorizing the allocation, but subject to Resolution of these issues at later stage.

For us the management is the most important issues. For us the correct (inaudible) of terrestrial this is a very important one. We have potential terrestrial in that band, traditional environment, I'm sorry, IMT. If you don't have you can't authorize this and this is -- this can come every where, from any market on the boats. Come in to the country and so on and so forth and we have problem of unauthorized transmission. Sto we need to carefully discuss this issue at the conference and have some ideas and so on and so forth. And then space services we need to (inaudible) carefully who is responsible. And the control of the station in the document sent by the proponent, the could increase the power, cease the power and reduce the power but what about the decision in country A, his power is increased by someone else. So that's why we say we have collective control. This has not been resolved. Sorry Chairman. Thank you very much. Issue to be resolved. But PFD is not the proper way unless and until we correct the data, we have sufficient element or minimum minimum margin adding the altitude that some country wants. These are the things and then I continue to the others with WRC. Thank you.

>> CHRIS HOFER: Thank you Iran for those comments. Related to as discussions have taken place verifying the PFD needs to be verified by somebody. The BR potentially is capable of doing this in the 29.5 to 30 gigahertz, we do have a class can station UF that's related to the satellite file ings. We

could create a class of station and but this requires further discussion obviously and we will be handled at the conference. Take one more comment and then we do need to switch to the next agenda item. Ly have close down the discussion. Korea.

>> Republic of Korea: Thank you, Mr. Chairman. Good morning. Observations from USA and Iran. And in addition to that concerning there are many proposed future agenda items which use very similar the ESIM. So one WRC-19 comes to the 1.5, you have to put together the solution of 1.5 which model case in future for the other agenda items likely this ESIM agenda items. In this regard WRC-19 consideration under 1.5 should be careful and make a very good model, not to give any wrong (inaudible). Thank you.

>> CHRIS HOFER: Thank you Korea. With that I would like to close the discussion on 1.5. And we are going to move on to 1.6 and I am going to trade places with Mr. Kolb.

>> KIM KOLB: Okay. Good morning, everyone. Hard swap of the seat here for CITELE. Marcella should be sitting in now. Agenda item 1.6, the NGSO in V band as we have seen satellite technology, the next real many is V band. So we have this agenda item looking at establishing the regulatory framework. So GSO and NGSOs can share. So in the Resolution we have two elements to deal with. One is to develop the regulatory framework and the second issue is to update and review and update Resolution 750 which protects the passive services in the adjacent band. As we have worked through the technical solutions for how to -- we have gone back and looked at how EPFD was calculated and lot of existing tools we are at or below 30 giga herd. We went through and looked at propagation skashg characteristics of band.

So we have used as their 1323 is as a reference point but you need to incorporate other issues in to there. And so at CPM, the CPM we came in to CPM with several methods of pretty close and we have folded them in to a one method to solve this and then we have another method that I looked at continuing the work if we need to.

And but we folded it in to one but then all -- that solution depended on working party 4A having some recommendations complete so we could incorporate them by reference. And so that was all well and good until we got to 4A and we got to that last meeting where we are want to approve a recommendation and we weren't quite there yet and I think everyone has been there. And sometimes given that last hump last meter or so to get a completed recommendations is very difficult. So they didn't come through with that. So I think at that point we are left up to improvization reaction from the regional groups. So we have the solutions. But maybe go down the chain of the regional

groups to talk about how you have reacted and the discussions that you have had in there. So APT.

>> NOBUYUKI KAWAI: Thank you. APT the -- I think new satellite, up in the next page, the -- yeah, the unfortunately some -- the recommendations incorporated are not approved. So we support the Resolutions, the describing some technical stuff in the Resolutions. And also in issue 2, common proposal, but (inaudible). It is more option A so that's a situation with APT. Thank you.

>> KIM KOLB: Okay. Great. Thank you. I think need -- we can talk about the Resolution 750 after -- complicated enough on the FSS side. But that's good. ASMG.

>> ABDULRAHMAN AL NAJDI: Thank you and good morning to you all. With regards to the ASMG position and as was clarified in our last meeting of Working Group 4A, the Arab group so that it was necessary to continue carrying out research and studies until things become clearer, as for the limits, the Arab group and based on the Resolutions here is that studying the limits, the passive services and the non-GSO studies that have to be carried out. Thank you Mr. Kim.

>> KIM KOLB: ATU please.

>> GEORGES YAYI: Good morning, and thank you. Now on the drafting of regulatory framework for non-GSO system, during its last meeting the African Group preferred method A. With regard to Resolution 750 we chose to revise the limits only for non-GSO systems. Thank you, Chris.

>> KIM KOLB: Thank you.

>> Thank you very much. And good morning, everyone. So as you can see in the slide deck in CEPT we considered the recommendations that didn't make it out of working party 4A. And felt the best way to do this was to produce a new Resolution which we call (inaudible). That contains where it is -- as basing those recommendations. So it contains sharing methodology and also the generic links and sentimental links that were contained in both of those recommendations. And we use that Resolution as part of the solution to develop the GSO and NGSO sharing framework. Thank you. (Steve Limb).

>> KIM KOLB: CITELE.

>> Thank you, Kim.

>> KIM KOLB: Trust me it is on.

>> Thank you Kim and good morning, everyone. As you can see CITELE is also part of this growing consensus around method A as the way to resolve this agenda item. Method A is also at the Foundation of the inter-American proposal that was approved at our last meeting in Ottawa in August. Very much in line with what was described by APT and by CEPT, the CITELE proposal also seeingst the content of that twos two recommendations. It sees

it broaden in the form of a Resolution. So the key here is that it allow us to continue to use the method -- the sharing methodology as well as the GSO links to -- to provide Resolution to the agenda item. Now in the case of CITELE and differing in one sense with CEPT, is that the CITELE brings in information, content of those two recommendations in a fairly straightforward intact manner by comparison. For example, the modifications to Article 22 that are proposed in the CITELE IAP reflect the content of method A in the CPM text. There is no new material brought in in Article 22. We have kept the aggregate limit basically that exists in bands under 30 gigahertz. We have not made changes to that either.

But aside from these I guess what I would call sort of regulatory approach differences, it is important to highlight that there is agreement on the general approach, the methodology and what we debate is basically for those proponents of method A, regular laer to information of that methodology. And if I can just mention there is sort of three elements to those methodology that I think make it a good solution for the agenda item. So No. 1 it allows for a variety of designs of NGSOs to co-exist in the same frequency band. If you look around today and the -- level of interest in NGSOs in vast sort of diversity and their design and capabilities, this means that the methodology that exists today in untd 30 gigahertz doesn't really address the new reality. That methodology drives one mask and makes this assumption that about 3 and a half of those systems would kind of fit in the band. So this no longer addresses the reality of today. So we need a more complex more dynamic solution and this has been found. Two, I would say the methodology is very efficient. It allows for more GSO systems with diversity to co-exist in the same frequency band. And third it provides for protection of GSO operations in the aggregate. So in the aggregate of the NGSO potential interference the aggregate has a way to be controlled. That's not something that is found in bands under 30 gigahertz. So all of this to say that, you know, CITELE is looking forward to working with other regions, with administrations at the WRC to discuss and debate and arrive at a good solution for this agenda item. Thank you.

>> KIM KOLB: Thank you. RCC please.

>> OLGA DASHKEVICH: Good morning. As the table shows the RCC also supports method A, the report of the CPM. I would like to point out in addition that the RSS Working Group meeting, the position in this table took the -- our meeting took part after the CPM but before the working party 4A meeting where a certain number of progress was made on resolving this issue. And these circumstances in the second line of the table we see the to be

determined position noted. Right now what we think is that it is also possible to find a solution for this issue. I think the recommendation could be transformed in to a Resolution.

>> KIM KOLB: Thank you very much. Thank you everyone. So yes, I think we got some -- a lot of commonality. I think there is some knobs to turn for some compromise to help out in terms of the FSS sharing situation. But we do also have a -- the protection of passive services in the adjacent band to address at some members brought that out. You see on the table some differences in whether we need to update Resolution 750 to include GSO -- the limits on GSO satellites or not. So that's up for debate and discussion. So just to put that out there as a lot of thought on that.

So that's agenda item 1.6. I think from up here open up to the floor for any comments or questions. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. Thank you very much following this issue, working party 4A very competently and very firmly. And third I don't think it is a difficult issue. In my understanding this is not a medium complexity. I don't think we have difficulty. We could come up with issue to tie up something. Increase -- when I say validity of PFD I did not say how checked by the BR. I said how the method is valid. The appropriateness of the method but not checking by the BR. I have no problem with that. Thank you.

>> KIM KOLB: Thank you Iran. Any other points or issues? Okay. I think we can move on.

So we have agenda item 1.4. Kristy or do you want me to fuddle through it? There we go. So everyone's -- my eyes are bad. Thank you. So we have a couple of different methods and selections of method A and method B. I have seen this on the edges of working party 4A and I know it started at one point andy **vern**led and suddenly come together again but panel, if people have any comments they want to bring on agenda item 1.4. No. Okay.

I think we can call that straightforward. Oh, anybody in the room have any comments on 1.4? Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. And agenda item 1.4 we wish to emphasize that the important illusions in that agenda item is submitted by African countries and that's important issue to be looked at carefully. The BR is invited to look at EPM, human protection margin of those countries whose protection margin is so low that any subsequent submission they will not be identified as affected and if this limitation is removed from annex 7 of (inaudible) according to the Resolution priority should be given to the African country in order to treat that. There is a need to study that one and consult with the administration and try to find a solution, how

to best suit these countries in order to have something in the plan rather than having minus 30 decibel. So this is important and seek indulgence of the country to consider favorably this Resolution at the compounds and try to remove the problems African countries for years and years and which has been discussed at two conferences. Some other countries might that one but the priority is given for those countries who have submitted this. This is the result of the reminders to all Distinguished Colleagues for the full support at the conference. Thank you.

>> KIM KOLB: Thank you. Any other comments on 1.4? Okay. So we will move on. We have agenda item 9.1, issue 3. It is C-band and NGSO and we did some studies on this in working party 4A and it looks -- the proposals everyone is saying no change.

Any other comments from the panel on this? And then to the floor anybody? Okay.

Next issue is issue 9 from an agenda item 9.1 and that's V band. Gateway links for geostationary satellites and also requires in addition to Resolution 750 to make sure passive services are protected. And I think we have got a lot more -- saying we have a lot of agreement here. Everyone says it is okay to allocate it and we need to address the limits in res 750 as appropriate. Again to the panel if anybody has any comments on this.

Okay. Any other comments on the floor? Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. It is not only for this agenda item but Resolution 750 and 750 is Resolution WRC and look at all the changes proposed Resolution 750. We have a consolidated document and we understood that is (inaudible). And that is not on purpose my intervention. My intervention is to have clear look or a careful look, sorry, careful look to the application of the Resolution. Resolution of WRC, this is cross-reference footnote is Treaty. Recommendation of ITU-R. The question is that if pointing to a recommendation in a Resolutions which is cross-reference in footnote what is the status of that recommendation. It is not recommendation incorporated by reference but what is the status of that. This is not -- we don't seek any answer now but it is something that we should be very careful because now more and more we come to the potential of ESS. We have to know what is status of of that recommendation which is subject to changes and it is not cooperated by reference. So linking a nonincorporated by reference recommendation to a Resolution which is reported or incorporated in the reference in the footnote which is Treaty. So we mixing a change of non-Treaty together. We have missed previous conference. We need to have a clear idea on that. It is exactly what -- non-GSO you have in satellite part of the

system GSO. Other part non-GSO. How we treat combining this GSO and non-GSO other than potatoes. So this is important issue that we need to think it over and at the conference have a clear understanding of the matter. Thank you.

>> KIM KOLB: Thank you. Very good to keep track of details and map out everything that we are pointing to that we are doing the right thing. Okay.

Any other comments? Questions? All right. That brings us to the end of our session. So thank you very much. And thank you to the panel for contributing. Thank you for Chris for helping out with the agenda item 1.5. We will pass it back over. Thank you.

>> Thank you very much Kim. I would like to thank all the panelists in our general way. If you will, join me in applauding.

(Applause.).

>> PHILIPPE AUBINEAU: And with that I hope you could agree with me that we have a shorter morning break up to 10:30. So then we can start on time the next session. Thank you very much.

(Break).

>> PHILIPPE AUBINEAU: Good morning, again Ladies and Gentlemen. If you could please take your seats now that we have with us the Moderator and panelists for the next session, we will start in one minute.

(Pause).

>> PHILIPPE AUBINEAU: All right. Good morning, again everyone. So welcome this session 8 of the workshop which will be dealing with the satellite regulatory [esh us](#), namely those that are under agenda item 7. As you know we have 11 issues under agenda item 7 that have been identified by the CPM. And the responsible group working party 4A but out of those 11 issues there was some agreement to today focus more on the issue A and I. And also we have some slides on the issue 917 under agenda item 9.1 as well as on the agenda 9.3. With us we are lucky to have this morning the Chairman of working party 4A Mr. Jack Wengryniuk as a Moderator for this session. Thank you very much, Jack, for coming this with us this morning and for the representatives of the regional groups we have Mr. Abe representing APT. We have Mr. Abdulrahman Al Najdi, representing ASMG. Basebi Mosinyi, good morning, madam. Thank you for being with us. From CEPT Mr. Steve Limb, again for this session with us. From CITELE Mr. Brandon Mitchell and from RCC, Ms. Natalia Stepanova, good morning, madam and thank you for being with us. So Jack the floor is yours.

>> JACK WENGRYNIUK: Okay. Thank you very much. And good morning, Ladies and Gentlemen. So as was mentioned we will be

focusing in this session on satellite issues. One of my favorite topics agenda item 7, a standing agenda item for each conference and then we will also touch on 9.1.7 and 9.1.3 or 9.3. As I say agenda item 7 this is where we are striving for perfection. There have been multiple issues identified #u7bd this agenda item and we give them letters in order to keep track of them. This time as Philippe mentioned we have 11 issues, A through K. We cheated a little bit because under issue C we have seven subish yours. With agenda item 7 some of the issues are more straight forward and others are ghi Kated. Certainly in this study cycle issue A has been one of more economy Kate #desh us. And we clearly can't cover all 11 issues in any sort of detail in the session. So we will focus on issues A and I which could in fact, be two of the most impactful issues for the satellite industry and you will see which why as we go through the issues. So issue A, most of the agenda item 7 issues with brought to -- in to the study cycle by administrations. However this particular issue was passed to us from WRC-15. The director's reports to WRC-15 noted that the BR was seeing submissions of satellite filings what they call mega non-GSO systems with tens of thousands of satellites covering very, very wide bands of frequencies. And there was some concern that perhaps there could be some abuse of or spectrum. And suggestion that perhaps a milestone procedure should be put in place to ensure that these large non-GSO systems actually get deployed in timely manner. We should study application of such milestones on non-GSO systems that are brought in to as after WRC-15, before WRC-19 so that raises a whole set of transitional issues that need to be addressed.

So as we looked at this issue in working party 4A it really quickly evolved in to two main issues. The first one is what does it mean to bring in to use a non-GSO system for GSO systems it is quite clear. We have this 90-day period but the question came what about non-GSO systems should we do the same or something different. If we are going to have milestones how do we implement these milestones. How many should there be, et cetera, et cetera. So as you see on the slide there is really only one method on this issue with the CPM report. No change is always a possibility but it was -- it bim pretty clear oerl on there was consensus that something should be done here and that's why there is only one method in the CPM. For the use issue, basically there are four possibilities in the CPM. Sort of parallel what's been done for the GSOs. So 90-day period of continuous use. Recognizing that in the case of non-GSO it is a different issue that's being addressed as an opposed to the case for the GSO as to what led to the 90 days for GSO. Some suggestion that something perhaps less than 90 days would be

sufficient and no fixed period is needed and also a suggestion as perhaps an different sheags could be made between those non-GSO systems that are subject to coordination, IE section 2 of Article 9. All the cases at least a single satellite should be deployed in to the system within the 7 year regulatory lifetime of filing. Implementation of the non-GSO milestones that was considerably more complicated. There are lots of elements at play here and you can see some of the subissues that were discussed and considered. Recognizing that these systems that have been filed were only filed in certain frequency bands that led to a discussion of well, which specific frequency bands should be subject to a milestone procedure. And you see in the CPM table of consensus bands and then a table of nonconsensus bands. If you are going to have milestones how much should there be. And if you -- what sort of implementation should be expected for each of these mile stoens and you see a number of sub issues under that. It started out at the beginning of study cycle with a variety of different views on the number of mill stones and that converged to a consensus on three milestones. So that's good. But the actual timing of the mill stones and percentage there is were diverging views on that. As far as the there has been to be a consequence for not meeting a milestone. There was considerable discussion on that and because WRC-15 asked that we look at what about those systems that have been filed or brought in to use before WRC-19 there are transition issues that need to apply or need to be considered. And all of these issues are addressed in draft WRC-19 Resolution. So that sounds like a simple thing but if you look at the Resolution, you will see that it has upwards of anywhere 15 to 20 resolves. So it is a very, very detailed Resolution and this has been a very complicated topic throughout the -- throughout the period.

So I tried to give some sort of high level summary. Because it is such a complicated issue, we clearly can't take about all the different aspects. But from my perspective having watched the discussions throughout the study cycle, these I thought were sort of the key areas that if we can get consensus on these, many of the other differences in the proposals the specific differences could be resolved more readily. And so you see the non-GSO period, the frequency bands and which services to which services should apply, the timing for the milestones as I mention the prooeflsly for which there is still some divergence. And the implementation date for when these milestones should start. And that has an implication. I tried to summarize in this chart what I think I have seen to the various inputs to this meeting but I would like to turn to each of the regional representatives and maybe say a few words does this chart accurately reflect where you are and maybe a few words as to how

it is or why it is that you have arrived at that position. So let's turn to APT, please.

>> DR. ABE: Thank you. Thank you Mr. Jack Wengryniuk. First, good morning, to everyone. Thank you for letting me speak up. And first I would say this table is a good summary of the APT's view which was developed in last August. And concerning the view, we -- we think that 90 days consecutive location requirement is only for non-GSO system in FSS and NSS and BSS. It was pointed out at our meeting that even the current ROT requires 90 days location for only FSS and NSS services. So for other services we consider that no specific requirement for the period of the location. Concerning a band, we support the band agreed at CPU second CPU with consensus. And also we do not oppose inclusion of FSS in 140 to 150 gigahertz and 400 gigahertz which are not agreed at the second CPM. Concerning timing and percentage, we to that range, the first (inaudible) to (inaudible), second period four to five years and third period seven years. The percentage on piloting of location of satellite is 10% to 50%. And third party, more than 90%. And also we consider it is desirable to develop some kind of requiry procedure, notification and administration, if they fail the location of satellite in the first period or second period.

Concerning the time, as it is mentioned, we consider January 1st of 2021 appropriate. And although these are the views of APT, we generally did the APT's current view only for time and percentage. We consider that the several items of milestone approach are in provisional nature. And some of these factors are interrelated in each other. We consider that individual decision on one element without (inaudible) of other element is not appropriate.

So APT decided to submit only a range of telereceptors. And most probable options so that the was a period would analyze the situation freely and make the best decision on this issue. APT will join the discussion at WRC. Rather neutral standpoint to evaluate the overall picture of the new approach. Thank you.

>> JACK WENGRYNIUK: Thank you very much and an excellent point on the interrelationship between many of these issues. That clearly was a theme throughout the discussions during this study cycle. So please ASMG if you could share your views and thoughts, please.

>> ABDULRAHMAN AL NAJDI: Thank you. Good morning. We would like to thank you for the -- for presenting this summary. This table which reflects the positions of various regional groups, our group has looked in to this issue. First of all we study the frequency bands for non-GSO services. We agreed on 90 days. We mentioned the properties of the frequency bands to be

used for this service. Why had a long discussion on this issue during the meeting of our group. And we adopted the frequency bands as specified in the report of the last CPM. With regard to satellites and the various milestones, we adopted our procedure to determine an appropriate period. Our group supported approach F. So the approach based on additional period of six years and they use -- 100% use of satellites. We also agreed on entry in to force of issue as of the 1st of June 2021.

>> JACK WENGRYNIUK: Thank you very much for that. So please ATU.

>> BASEBI MOSINYI: Good morning, colleagues. What is on the slide is a true reflection of ATU position. With regards to non-GSO barrier period, ATU is of the view of 90-day period of all geostationary periods irrespective of the type of service is appropriate. With regards to frequency, and timing, we didn't quite delve in to those issues but I -- ATU is open to discussion going forward to the WRC. And with regards to implementation date, ATU is of the view that the 1st of January 2021 should be the date. Thank you.

>> JACK WENGRYNIUK: Thank you very much for that summary. CEPT, please.

>> STEVE LIMB: Good morning. So CEPT the position that's on the slide I think it is broadly accurate with what we have done but there is more detail in our proposal than shown here. For the brilliant use period it is true to say it is 90 days for systems which do have the earth as a reference body. A little more subtly to that and we say it is deployed for 90 days in general. And for assignments that are subject to the Resolution that's part of this issue it has to be also maintained on one of the notified planes.

So it is true that it is 90 days for the reference body. For systems which do not have earth as a reference body, there is no fixed period. It is just when the administration that a satellite has been deployed with the notified characteristics. That's the BIU period. As far as bands and services are concerned, we have a little bit of divergence from a consensus table. There is a few of the nonconsensus bands that are **boe** dues. We are also aware that **la** are likely object possibly be other proposal from other regional groups for additional bands. So we are going to consider our view on those as and when they appear and we will consider our position when we get to the conference. As far as milestones are concerned, what you see on the screen is accurate. It is two years four years and seven years, 10%, 30% and 100%. The 100% milestone is contingent on there being a post milestone procedure to take account of possible fluctuations in that number during the lifetime. And

as far as implementation date is concerned that's one of the most contentious issues that we discussed all the way through. In the end we could not agree on a single date. So we have rebleked that as a to be decided by the conference. Thank you.

>> JACK WENGRYNIUK: Thank you and now you are starting to hear om of the interrelationships between and nuances associated with some of these issues. It is a good summary. Thank you. Please CITE.

>> BRANDON MITCHELL: Thank you Jack. So I'm happy to present the CITE position under this issue which is accurately reflected here on the screen. Let me take a moment to describe how we got to this position by starting with the April CITE meeting where we had two proposals that diverged significantly on these key issues that are on the screen the for the -- bring in to use period one approach was proposed for 30 days and another approach was proposed for 90 days. It was agreed that the BIU period would apply for all -- all frequency bands and services for NGSO systems. So the issue was to figure out whether a period of less than 90 days that would help address those systems that operate in RNSS or space science services. So on the issue of frequency bands and services, there was a agreement on that and not too much discussion. There was a largely vernance with regard to timing. One proposal proposed approach for 2, 5, 7 years and another approach was proposed for 4, 7, 8. These two proposals were significantly different. It was decided to work on combining a proposal that would have multiple options and can forward that work to the final meeting in August. With that said at the August meeting we had a compromised solution that is what you see here on the screen, that was proposed. So the 90 day BIU period with the earth as a reference body was an im -- that's an important distinction between we do have missions that go beyond the earth. And then the timing of 3, 5, 7 was agreed. There was support for the 2, 5, 7 approach that was submitted to the April meeting by way of administration. However it was agreed to go forward with the IAP on 3, 5, 7. I should point out that with regards to the first milestone of three years, CITE recognized that it was a very important milestone. This is the first milestone that the systems would be deployed and providing adequate time for the systems to launch and operate and test their systems was very important to us. So the compromise of three years was agreed. Despite this being after WRC20 -- WRC23. And we addressed that through an additional instructs DBR that requires the bureau director to provide any difficulties in the implementation of that -- of the Resolution that is under this issue.

So that is I think all for us. The implementation date was

agreed very early and no discussion of a alternative. It was agreed that somewhat reflects the licenses regime within one of the administrations in CITELE. Thank you.

>> JACK WENGRYNIUK: Thank you for that and I think it is instructive for people to hear sort of historically as you said how it was ultimately arrived at. So finally, RCC.

>> NATALIA STEPANOVA: Thank you. Good morning, dear colleagues. I would like to thank you for the accurate presentation of our position. I would like to say it is a preliminary position because we will meet next week. Nonetheless there are a number of aspects in our position which I think have been agreed upon. So the first line in the table is the BIU. On the one hand we can say that the RCC position differs from other regional organizations. On the one hand it accumulates and resolves all concerns expressed by other regional organizations. If we do not use the fixed period, for example, 90 days, when bring it in to use, non-GSO networks then we will have problems with the services or reference body. And the record of the text would be simplified, simply UI, did we decide not to use the 90-day period. First of all, this is an existing practice. And there are no reports to date that satellite was placed, moved from one orbital to another. It is difficult to imagine this but if it is -- if it can be done the satellite loses a number of capacities. Why am I talking about moving satellite from one play in to another? 90 day was used for GSO systems in order to avoid so-called jumping problems. So the satellite transfer across orbits. We can imagine that one satellite can be used for bringing in to use of various systems because we will be -- there will be various frequency bands assigned. So we will suggest that our colleagues to think, should think about whether we need the 90 days period. So the second important aspects of the frequency bands and services and we agree with the table, with table 1 which is contained in CPM report, we agree fully with this. We think that significant studies have been conducted also by RCC administrations, we analyzed where we see the multi satellite systems in which frequencies and services. So we support this and I think our position will not change next week on this.

Concerning the next two lines, I think that we will still discuss this next week. At present the table presented here reflects our preliminary position. Nonetheless, in the third line there could be some changes. And as far as the last line is concerned it is more or less the same for all regions but we will still discuss it. At present we are planning to work on the regulatory text on the bringing in to use of the non-GSO systems without the 90-day period. A number of improvements might be needed. They will be presented to the conference,

thank you.

>> JACK WENGRYNIUK: Thank you very much for that. So I turn to the room. You have heard the regional positions and some background as to how those positions were arrived at. So any comments overall or questions for our panelists here? So I see Iran first. And then France, Switzerland and Mexico.

>> ISLAMIC REPUBLIC OF IRAN: Thank you very much, Jack. First of all, grateful to you from this -- during the four years period and kindful to (inaudible) who was the architect of this arrangement. And also for the six or seven people and some of them sitting on the panel and some in the room. They work very, very hard and so on and so forth. I didn't want to name everyone. Chairman, it seems to us that all regional groups that are quite wise and follow degree of flexibility to be given to the conference on latitudes to freely without any particular bias or any particular method to discuss the issue. If you allow me **cheafm** as the representative of APT mentioned we tried our best, 90 days for didn't create any problems but we have discussion being FSS and NSS. It is not a very critical issue. Agreed, with respect to the U.S., we did not even try to fix a date because this is the range. So we put the range of that. Keeping state of latitude and also very grateful to Mr. Brandon mentioned CITELE and try to get out something that is based on two years. But what the APT mentioned is quite important. If it is three years then you have data collected. So we have to discuss this together. You cannot discuss that differently. Another point that I think it is very perfectionist to say 100% of satellite. A system of 800 satellites just arbitrary as we want to refer to anyone, satellites in operation, what to do with that. That's by APT figure, 90 to 95%. The most important element that APT put given latitude to the conference to discuss clearly what are the qualifications and arrangement to be provided to the people involved in this matter. In order to arrive as some agreement and in particular APT mentioned if they miss one milestone what they do. They will not be penalized. It is not just which is this issue, we don't have experience. On the other hand, we have serious operator behind that. We have six. Might be more and potential operators. So we don't want to divide something that closes our hand in future. The objective of WRC Jack, is not to **sfai** one and disfavor others. The objective of WRC to have a fair balance between all operators currently have planned and also potential operators. And that's why we put these two paragraphs in the APT common proposals to go on. What we suggest without taking your valuable time is that at the beginning of the conference under the group dealing with the matter we need to have the same action taken. Fewer people, not limited to six or seven involve

operators and sit down and are most concerned people. Because they have something in design and so on and so forth. Try to prepare some skeleton document for discussions. They are not doing anything and not excluding anybody's skeletal document to have some of these issues, two or three years whether they have some agreement. I think that seven years more or less maybe this one. Date it depends on the first one. Three years, date is different. If you have three years, date is different. Look at the situations. The intention is to provide this flexibility to all operators. In my humble categorization this issue is from the complexity Point of View high class. Like (inaudible) high class. So you have to put effort on that. And we have to make -- in fact, this is more serious than (inaudible) because there are -- something is going on. Even some of them they put something already and some of them they have a bunch of production. So this is very important thing. I'm sure that maybe Mr. Connor or someone else -- we don't know anything. I exclude myself as a nonexpert. Get together and try to find a Foundation for these two. We need to have output. It is not something -- something Chairman, and that is regulatory procedures. The (inaudible) sensibly modified by these six people. Brought to your Committee working party. There was no time. I requested the director to put some efforts that the expert look at these procedures and provide us comments on the implementation of that, whether they have file stones, or something you have to reconsider because if we have all these skeleton everything agreed under regulatory is not proper. We will get to the problems. Chairman what we don't want, we don't want that the issue really WRC goes to RRB. It will be very difficult because issue is super complex. So we try to resolve all of them at WRC and I also wish good you can will for WRC with this issue. Thank you.

>> JACK WENGRYNIUK: Thank you very much for that and those good ideas on early implementation of possible solutions at WRC. It was France next I believe. Yeah.

>> FRANCE: Thank you, sir. Distinguished Colleagues, first I would like to thank Mr. Steve Jones for presenting CPT's position. I have to add that the reason why CPT is not yet defirmed dates for the start of the process is that we still have some three important meetings before the WRCdebut. These are coordination meetings for satellites between different sets of -- between different administrations including the French administration and others. Now the 2020 date is supported by one of the European operators who has already started launching its first satellites in the run up to the conference in February 2019 and they hope to launch 800 of them. There are some difficulties of coordination with other operators, others

administrations. So these three coordination meetings with satellites aimed to resolve the coordination issues that are still open prior to the opening of the conference and the operator at hand has reassured us that it could show some flexibility on their position. With regard to the milestone approach, depending on the results of our coordination meetings on satellites. Now I also have to highlight a couple other things. There are some other conciliation projects that have a longer duration. First delay might be 10% of satellites launched and this is around 1st January 2025. That means the beginning of process will start 1st January 2023. So CEPT is hesitating between these dates 1st of January 2021 and the 1st of January 2023 for the beginning of the milestone process approach. Now the table that you have under your nose, I see a few points of convergence, CITELE's position talks about a little bit longer timeline and then others. So that is one positive point and perhaps an avenue towards some convergence. We are convinced that it is not the ITU's role. It is the market's role to do so. They should make the decisions concerning deployment. It is not the purpose of WRC to set out timelines that might be too short for certain systems too short to fulfill. So on this item of the agenda we have to find a very delicate balance between the risk of dealing with the spectrum and isolating some of the competition within the satellite community. This is why our position is still to be determined to some degree on this agenda item. And we will get to it in great detail at the conference and many thanks for your attention.

>> JACK WENGRYNIUK: Thank you very much for that. So next was Switzerland I believe.

>> SWITZERLAND: Thank you, Mr. Chairman for giving us the floor. Thank you very much for this overview of different regional positions on this important issue **ubd** agenda item 7. As the -- especially in the beginning of your panel Mr. Chairman, different elements try to discuss under this issue are interrelated. And therefore on this table I would like to provide some comments where some clarification might be required. And in particular if you look at the implementation date, it may appear that the position of different regional organization aligned twine other except CEPT for the time being. However, this should be looked together in combination with timing for milestones.

In particular combining the panel with implementation date you may see in some cases the date was first milestone before the next conference which is presumably planned for 2023 and some fall after the next conference. For this discussion it took place at second session CPM and also devibing some **propoen**

in any event and this issue is first milestone takes place before or after the conference. Therefore Mr. Chair, would welcome if the analyst present different organizations could comment whether their information between planning of first milestone and the conference and if yes, why. Thank you, Mr. Chairman.

>> JACK WENGRYNIUK: Okay. I think I'll wait until I take the a few more requests for the floor before I turn to the panel with that question on the interrelationship. I hope they were listening carefully. So Mexico, please you are next.

>> MEXICO: Many thanks. Thank you, sir. Thanks to the Moderator and good morning, to colleagues. First I would like to thank you for all of the information that the regional groups have been so kind to share with us. This is particularly important to get an overview of the situation. We are pleased by CITELE's effort for efforts of discussions within our region. We think that they were very productive and this is why we are thanking them once again. We know that CITELE at this time has a proposal on the table. The administration of Mexico has some qualms with the common position, for example, as to the percentages and time delays, time periods. So I think the Mexican Delegation will take an active role and contribute in the discussions during the WRC on this point and others.

>> JACK WENGRYNIUK: Thank you for that interregional clarification. (Inaudible).

>> Thank you, Mr. Chairman. I guess I would like to echo some of the comments that were made earlier by Iran and France in terms of our objective here with this solution, more issue A appropriate or iterative framework. And including from our perspective the objectives is not to favor any operator over the other and this is why you see the CITELE proposal for support. The first milestone that is later than the others and yes, we are quite -- that it would be after the next conference but we also I feel it is close to the next conference, that we would be in a position to take any remedial action that would be necessary at the conference because all the proponents if they are experiencing difrts they would not be able to take action, if the milestone occurs a few months later. I have heard earlier mentions perhaps there should be consideration given to whether flexibility should be afforded to for systems that may miss a milestone but perhaps not by much and (inaudible) and certainly a consideration we had in our mind as well. And from our perspective if you miss especially if we talk for an hour about the first milestone, if you missed the first milestone and you are given flexibility to perhaps make up for it at the next milestone, which something I have heard mentioned on occasion, for us it wouldn't -- undermines the value of first milestone.

And anybody tells us is that if we are concerned about the first milestone to be restrictive it means we need to be more conservative which is why we took the direction we took with making sure that we -- this is a very complex endeavor that all the proponents are taking and we need to give sufficient time and regulatory (inaudible) for all propoen in any event the to deploy without the fear of not missing a milestone before conference and not be clear on whether that stus will be for significant period of time. So that was certainly a key consideration for Canada and CITEL as well. Thank you.

>> JACK WENGRYNIUK: Thank you for that. Before I move on to the next issue let me turn to the panelists had heard the question from Switzerland on the inter relationship. And is there anything you would like to add to what you already said about the interrelationship between those things and importance of having a first milestone before WRC-23 or not? Any of you like to make additional comments on that? Please.

>> Yes, Mr. Chairman. As you can see for the ATU position we as the -- we are still open for the milestone based on the fact we do see it is quite a complex issue and we are here to learn from other regions. So that's the reason why we have left that one open. (Basebi Mosinyi) thank you.

>> JACK WENGRYNIUK: Thank you.

>> BRANDON MITCHELL: Thank you, Jack. So I want to highlight two points that were Mr. Kavouss Arasteh raised in his intervention, in regards to his question. And that's we have no experience with a milestone based approach. This is entirely new and if a milestone, if we go with the twoo year mile sfoen or any moil stone that's prior to the conference and milestone is missed that we should ultimately go up to the ROB and as Mr. Kavouss Arasteh said dwent want the ROB to deal with this. We should be able to adjust prior to the first milestone or prior to any administration missing a milestone. I thought that was two points that needed to be highlight and Canada answered the question from CITEL.

>> JACK WENGRYNIUK: Okay. Thank you. Anyone else? Steve may want to say something.

>> STEVE LIMB: Yes. Thank you. I think because we have not agreed on a particular date the date, 1 January '21 and 1 January '23 were debated and looking at when that first milestone would happen as a function of either of those dates, I assume or I'm implying that aI don't think there is necessarily a strong linkage between that first milestone and the date of WRC23 whether it fell before or after. And it was something that we talked about but I think we -- it looks like we have concluded that there is no firm linkage. I may have mischaracterized our position a little bit but that's what I

take from what we have.

>> JACK WENGRYNIUK: Thank you for that. I think we need to move on now. For those of you who have been involved in this issue you already **sdwund** stood how complex it is. For those of you not I am sure you have a better appreciation for just how complicated this is going to be at the WRC.

So where we go from GSOs to short duration, that's in the Pico sets. This was an issue that was handed to ITU-R from WRC-15. There was some discussion at WRC-15 whether this should be an agenda item and the -- in one of the Plenary sessions it was decided that there could be considered under agenda item 7. You saw some of the motivation behind the consideration of this issue. The in the Mino and Pico set but the launching of satellites. The difficulties that have been carried by administrations, the current regulatory framework was really established for a different paradigm for geostationary or these large nongeostationary systems that take longer to develop and deploy and these nanosets and Pico sets are bigger background and sort of catch can as to when they go up. So things happen much more rapidly in that environment. The issue was not within working party 4A again and we tried to find the best way to accommodate the needs of these growing nano and Pico sets. There are two methods in the CPM report. Everything is okay the way it is and a method 2 that looked at some specific radio regulatory changes to provisions in Articles 9 and 11 and WRC Resolution that would attempt to address some of the needs of these new systems. So the changes in Articles 9 and 11 that were developed would apply to all non-GSOs not just these nanosets and Pico sets. And then you have certainly you can see some of the changes there. We do see various times for publications and response times and things like that but then will was a Resolution, really specific to these short duration measures and attempts to define what is a short duration issue in terms of number of satellite systems, how long does the mission last. A different definition of bringing it to use. For of these systems and specifying the maximum number of satellites. One of the important things about notification submitted only after launch and part of that is because in some cases the operator of a system doesn't actually know the final system until after it has been launched because they are piggybacking on a final launch vehicle. So their thinking was after launching inclination, et cetera, et cetera, and that's the best time to report to information in a notification request.

So if we look at the submission, you see pretty good alignment across all of the regions on doing something. So the radio regulatory changes and the Resolution. And I would like

to turn to each of the regional representatives to see if there is anything you like to add or say specifically about the development position. APT, please.

>> DR. ABE: Thank you. Thank you. Do you hear me? Okay. Thank you Mr. Jack Wengryniuk. We support the method I2 and however there were some opinions that we may have to review the Resolution carefully. The first one is the BIU date. The notification is after launch, up to two years after BIU. And BIU is assumed as a date of launch in the Resolution. But in issue A, we are discussing about the requirement of 90 days. If 90 days we -- it is presented for SDM that's fine. But if a requirement includes SDM, then notification is earlier than notifying the BIU date to the BR. That's aspect maybe carefully review. That's an example. So we support the issue, CPU method that we -- that we may have to review the details. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you for that. So please ASMG.

>> ABDULRAHMAN AL NAJDI: Thank you, sir. Thank you, sir. The Arab group has shown an interest to this question and the Arab countries do support whatever is important for research and the academy and we have identified the time frame, the short time frame for the short range satellites to be three years. And we supported the research centers to carry out coordination and to come up with Resolutions and to amend the radio regulations in a way that would be -- how it would facilitate carrying out coordination and -- without any complications. Thank you, Mr. Chairperson.

>> JACK WENGRYNIUK: Thank you for that. ATU.

>> BASEBI MOSINYI: Thank you. This issue was initiated by the African countries and we do support method I2 which propose a new Resolution that will facilitate regulatory regime for short duration mission satellites. This is because we -- in building capacity in space issues in the region. Thank you.

>> JACK WENGRYNIUK: Thank you very much for that. Please CEPT.

>> STEVE LIMB: Thank you very much. We have developed a common proposal on this issue. It is on the method I2. The proposal is almost identical to what you see in the CPM report. The only difference I think is where we specified the maximum number of satellites that can be contained in a conciliation to be described as a short duration mission which we have gone for ten satellites. Also the other thing we have done is add alignment to appendix 4 just to refer to this Resolution when specifying a period of (inaudible) so this that can be checked and established that it is three years and not more. But other than that everything is exactly as it is in the CPM report. Okay. Thank you.

>> JACK WENGRYNIUK: Thank you. Brandon, CITEL.

>> BRANDON MITCHELL: Thank you. We identified a maximum number of satellites of ten in our IAP. We made a slight modifications in some many texts but nothing that diverges from what is contained in the CPM report. Thank you.

>> JACK WENGRYNIUK: Thank you. So Natalia Stepanova perhaps you can give some clarity on my yellow coloring.

>> NATALIA STEPANOVA: Yes, many thanks. I think that we may be able to change this color to green. Next week we are going to be working very hard on the text of the Resolution. We also want to make some improvements but obviously we will use this as a basis what's in the CPM report. We will have some additions following our discussions. There might be some definitions. Obviously we will look at the number of satellites very carefully. And there are a few other proposals on the table but overall we tend to support the second method as well.

>> JACK WENGRYNIUK: Thank you very much for that. So you have heard the regional positions. Any comments, questions from the floor on this issue? I see none. So we will keep moving.

So this is the remaining issues under agenda item 7, I wanted to touch on them briefly and show a quick high level summary of what's in the CPM report. All of the green highlighted issues are basically single method issue. So that's very encouraging. And you are going to see on the next slide that leads to a lot of green on the next slide which is quite good and the only other issue that wanted to make sure was that it was issue, so all of these issues were brought to ITU-R by administrations. This is improvements that they have suggested based on their experience and issue G is actually handed to ITU-R from the last WRC as well. So this time we have 11 issues which came from the last conference at remaining 8 that came from administrations. And you see how we cheated here to make things simpler. We have under issue C there are seven subissues and they were combined in to one issue because they were suggestions made how to approve. Very quickly a consensus that this is something that definitely should be done.

Straightforward and it was felt that there was very straightforward issues could be combined in to one issue to minimize CPM text and to minimize the number of issues. So here I tried to summarize where things stand. And I would like it to turn to each of the regional representatives to see in particular if any clarification or qualification that we can offer to the yellow or anything else you want to say about the remaining issues realizing we still have a half hour. So APT.

>> DR. ABE: Thank you Mr. Jack Wengryniuk. Concerning APT, we highlighted EMJ for APT concerning E, we support the CPM report that we are proposing. We will propose slight

modification to the Resolution. The proposal informed -- notify two points. The first point is clarification method for the interference of the uplink. And as you discussed at the working party 4A meeting, we consider that the gain difference of the satellite towards the interfering earth station is missing. So we propose to add that difference in the calculation method. The other one is the highlighted importance of (inaudible) of the administration having global or regional assignment in the list for the newcomers. So this -- we try to highlight the importance of their cooperation in the reservation. These points we propose to modify the Resolution. Thank you. Sorry.

Should I go ahead?

>> JACK WENGRYNIUK: Please.

>> DR. ABE: Concerning J, it seems that other regions support J, too, where there is no change. But it was APT's country to propose to consider this issue. And we are still discussing this issue leading APT. So we will continue our discussion. Likewise G is also use divided for G1 and G3. And no country support due to. So that's -- we still discussing about the 4G and 4G 3. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you very much for that. Iran, please.

>> ISLAMIC REPUBLIC OF IRAN: Thank you, Chairman. As was mentioned by the Distinguished Representative of APT with respect to **ush u E** there was a correction which was agreed and the working party. And they followed that at APT and then we add another dimension. Therefore, cooperation between the satellite operators.

Our colleagues to assisting that administration having no sense allowed and wants to come in covering its own national territory. This is something that if all of those procedures are exhausted this is the last resource. Having said that we discussed in regional group in APT and we hope they have considered that in the proposal and RCC we do that. I would like to take this opportunity to reassure I was attending ATU and I observed that ATU has taken the issue E and provided a common proposal called extended issue E and what is that? They told that it might be difficult for single country from the economical Point of View, cost point of view and many others to have a division satellite. If a few countries getting together putting resources together, and using this simplified procedures to cover their own national territory with the initial test point in all of those issue E, nonrelating one country to Act on their behalf as a notifying administration that should first be considered and that facilitates the task of the African country, which in future with other regions.

So similar colleagues from Africa may further comment on

that but that's what I observed and it was agreed with no problem at ATU and perhaps maybe a good opportunity to ask Distinguished Colleagues in all regions to consider that proposal and consider that to assist African countries and also any other group of countries in other regions. Not every country is rich. Not every country has -- could have economically viable satellites. We put resources together. I just ask you perhaps asking the distinguished member of ATU whether they want to add something to what I said.

>> JACK WENGRYNIUK: Yes. We will get to ATU in a moment. ASMG, again focussing on any differences from CPM solutions that people should be aware of. So please ASMG.

>> ABDULRAHMAN AL NAJDI: Thank you, Chairman. Obviously would vibrate to speak on behalf of the ASMG, C1, C7. Of course we have exchanged correspondence and we would like to support any initiative. Some administrations have some items and remarks to make. Generally everybody would like to discuss C1, C7. Concerning E the Arab group supports the idea to support decisions to have competence whether it is in range of (inaudible). We support the idea that all administrations should have the rights and there should be a method that simplified that could be easily implemented. At the same time because we have (inaudible) with the regulations. This concerning E for the Arab group. Concerning H, for the Arab group, as you see, there is a tendency to think about services in non geostationary possibilities. In this field, this will help administrations to do exactly what they need and how they can use them non geostationary. And to reach agreements between them and between other administrations. Thank you, sir.

>> JACK WENGRYNIUK: Thank you. ATU.

>> BASEBI MOSINYI: Yes. Thank you, Chairman. It is indeed true what Mr. Kavouss Arasteh has just said. This issue is very important for Developing Countries. And it is in this regard that they ATU meeting which was held last week resolved it. The draft new Resolution should be extended to include subregional systems submitted under Article 6 for an additional system by an administration Acting on behalf of a group of new administrations. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you for that. CEPT, please. Steve.

>> STEVE LIMB: Yes, thank you very much. I'm not aware of this new proposal at this stage but it is something we will obviously look at in fine detail within CEPT, between now and the conference. As far as the other issues are concerned, you see green, I am watching them. On issue E and F, I think they are quite supporting in principle what I should say is that we support what's come out of working party 4A. So it is the same

Resolution in the CPM report with the addition of the further resolves that was developed in working party 4A and also to take in to account the uplink and telegain at the space station. So both of those amendments are included in our proposal.

I think with that that's all I have to say on the remaining issues. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you. So CEPT, please. I'm sorry, CITELE, sorry.

>> BRANDON MITCHELL: Thank you Jack. So all those issues e under agenda No. 7, we reached an IEP with the compengs of two. E and F. Issue E we do have support for this draft new Resolution but unfortunately there was not enough support to achieve an IAP status and then on issue F there were proposal -- in was a proposal to support method F1 as well as proposal to support method F2 or F3. And unfortunately neither one of those proposals were able to gain enough enough to reach IAP status. We have IAPs on all these issues with compengs of E and F. No opposition to draft new Resolution unt'd issue E. We didn't get enough support from CITELE Member States.

>> JACK WENGRYNIUK: Thank you. RCC.

>> NATALIA STEPANOVA: Thank you. We fully support all the issues discussed here and we hope that the discussion on these issues will not take too much time. So we on B we have green color. Now with regard to the next issue, I understand the need for Developing Countries to discuss the proposals made. Concerning F this should be a modification to the table. We support method F2 and F3, method F3 alone does not work. So it is in addition that says to which satellites, to which networks the new masks will be applied as well as other criteria. We are very concerned that this mask does not fully ensure the protection of the networks that have been included in the list before WRC. These -- vital to protect the networks. So we support F1 plus F3. But another issues, issues think we more or less support them. Thank you.

>> JACK WENGRYNIUK: Okay. So that last introduction should be -- should in the be F1, 3. F1 and F3, a combination of the two it should be.

>> ISLAMIC REPUBLIC OF IRAN: At level of working party 4A you are well aware that we brought a proposal for a comprehensive modification to appendix 13B to bring it back to what was before WRC-2007 IE there was no additional use as open as today. Today one administration is sending 86 networks. Can you imagine? 86 networks? This 86 networks problems for other countries for eight years. We were told by the same group of countries proposals or problems (inaudible) and it was for issue E. And last thing, lots of (inaudible) we agreed to issue E with changes made at APT. We request our colleague to kindly

consider this issue E together with extended issue E if this requirement is not met we have no option to bring back comprehensive modification to administrative B and we have all foengss and all arguments valid that this does not meet the objective of administrative B which was designed in 1988, giving positions to developing countries to have the assistance. Many of these countries they have no satellites. In our administration all emphasis was deleted because of the circumstance. I don't want to go to that one. But we have nothing. Now -- so either we go to comprehensive not agree to any of these additional use or all requirements met. We request our Distinguished Colleague to consider kindly and indulgence to get agreement to support issue E, and extended issue E coming from our African brothers and sisters and countries, to provide them some opportunity to have at least one network for their own national coverage and then other to have up to 86 or 90 satellite networks with global coverage. Most of them do not get agreement of global countries. In reality this service area would be limited to a few countries but frequent obstacle for any newcomers. Very sensitive and we pick up that country even ask to be excluded. So this a request and all countries in the particular certain countries. A lot and also African countries that 52 or 54 countries is a bulk of the union, it is important. So we have to try to convince other people to at least satisfy one of the requirements of the country and that is this extended issue. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you. I think Mr. Mitchell was careful in saying there was to opposition. I take it that toes CITES Member States have heard the intervention from Iran. So Russian Federation, please.

>> RUSSIAN FEDERATION: Thank you, Mr. Chairman. I would like to address issue E and F. Two of these issues provide for the introduction of the PPF mask and the coordination arc change. Beyond the arc we have the PFD mask. We saw that at the end of the coordination arc the -- that is which are within the coordination arc do not correspond to the PFD limit.

And the limit on the border inside of the coordination arc is more stringent than outside it. So it is enough for me to move 01 degrees to side and I will have better conditions for work. So I think that the proposal -- the authors of this method should work prior to the conference in order to eliminate this problem. Otherwise I would ask what have we been doing for the last four years if we are making this proposal to the conference. Thank you.

>> JACK WENGRYNIUK: Thank you for that observation. Well, I will keep my comments to myself.

My mistake. Okay. Any other comments from the floor on

this remaining agenda item 7 issues? We have ten minutes left to go through the last two.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. Distinguished Delegate of Russian Federation discussed the issue with me. I think in technical problems, it is hard to consider that. Politically, favorably and I ask him to kindly contact some of the people behind this PFD outside the arc. If had there is a correction we can make it at the conference. I don't think it is an issue of controversial. Correction that's is made by working party 4A last meeting and growth by APT if we get purely technical issue, it doesn't have problems. Maybe before the conference ends this take technical correction to other people and also some other people, I don't want names and then at conference we proposal Russian Federation and we can support that. I don't see any problems. Do we see the Distinguished Delegate from Russian Federation that there is any problem? Thank you.

>> JACK WENGRYNIUK: Thank you. Take you up on your offer and make some of us aware of this problem. Yeah, yeah. I see him acknowledging. Okay. So we will continue on with the two remaining issues. The next is issue 9.1.7 under agenda item 9.1. This is the issue of transmissions from unauthorized earth stations. So earth stations operating in accordance with 18.1 and there were two issues here. Are there changes needed to the radio regulations to address this topic. And the second one although our methods to assist administrations in managing the operation of unauthorized earth stations or controlling or addressing the issue of unauthorized transmissions of earth stations.

So this slide just gives some of the background. It is -- there have been cases in the past where it has been found there are earth stations operating without proper authorization. And, of course, there are a number of difficulties with determining that this is even occurring. Capability to monitor this is happening. Once it is established that it is happening the capability to geo locate the **ter main nal** and where the terminal is found how do you actually resolve the problems and a means for cooperation cross-border cooperation or cooperation with earth station or satellite operators. There are a number of aspects to this topic. You can see the work carried out by ITU-R the different areas that were considered. There was a question to administrations and their experience with this issue. Questions to the BR on the assistance that they provided in the past. Historically under No. 18.1 and then discussions on uplink monitoring capabilities and you can see at the bottom of the slide the different options that were developed to address the two subissues. So issue 2A which is the possibility

of developing regulatory provisions, two option of no change or possible AWS Resolution and 2B is a single option of the i ITU-R continuing to develop ways to assist administrations through guideline the or reports or [hajd](#) books and things of that nature. So here is my attempt to summarize where things stand and maybe I can ask to brief comments from the regional representatives on their support for option 2A or 2B and then any comments they want to make on this topic. APT, please.

>> DR. ABE: Thank you, Mr. Chairman. Thank you, Mr. Chairman. I don't have much to say. It is clear from the statement. APT supports no change for issue 2A. And we support the same option included in CPM report for issue 2B. That's all. Thank you.

>> JACK WENGRYNIUK: Perfect. No problem. No problem. Please ASMG.

>> ABDULRAHMAN AL NAJDI: Thank you, Chairman. This is a problem that many Arab countries are facing, especially Arab and African countries. As everyone knows there are some stations that are unauthorized and are registered services are suffering. The Arab positions support the idea of the need to reduce these problems and eliminate them. In addition to Guidelines published by the ITU in order to eliminate this type of problem, especially transmissions that are unauthorized. Thank you.

>> JACK WENGRYNIUK: Thank you for that. ATU, please.

>> BASEBI MOSINYI: My colleague has already said and Africa is grappling with this issue. We are in support of option 2 which is the WRC Resolution to assist us in this matter. Thank you.

>> JACK WENGRYNIUK: Thank you. CEPT.

>> STEVE LIMB: Thank you. From the table CEPT's position is clear, we are the same as APT. As far as changes to the radio regulations are concerned under this issue, we feel that's not necessary. So we are proposing no change. We are supportive of studies within the ITU-R to look at this issue. To look at national measures that could be taken. But it is definitely no change as far as the radio regs are concerned. Thank you.

>> JACK WENGRYNIUK: Okay. Thank you for that, CITEL.

>> BRANDON MITCHELL: Similar to CEPT and APT we support no change to the radio regulations. We believe that this is largely a national matter but there has been some advancements in spectrum monitoring that would help address this issue. So there is no need to modify Article 18.1.

Under issue 2B we have our proposal notes there has been a number of reports that have been approved by working party 1C. And that -- those reports help address the ITU guidance and support for spectrum monitoring, geo location and other issues

under this issue.

>> JACK WENGRYNIUK: Thank you for that and finally RCC.

>> NATALIA STEPANOVA: We support the development of Resolution. So you have reflected our position correctly in this table. I would like to say in our position we have given sufficient attention as to what should be the content of this Resolution and, of course, we support the development of reports, Guidelines. So the second part of the table we can also change the color and we fully support it. Thank you.

>> JACK WENGRYNIUK: Very good. Thank you for that. Realizing we have few moments left any comments from the floor? Iran.

>> ISLAMIC REPUBLIC OF IRAN: Thank you. This issue brought to the WR -- to RA-15 by our colleagues from Egypt, followed the WRC and they have this issue. I don't see any problem to have the Resolution to assist at this issue. Why they have problem with the Resolution? We have hundreds of Resolutions. Any Resolution providing some ground how the issue will be resolved, Egyptian colleague not to change the regulation is already good but not have the Resolutions. Assess the countries having problems with it. So I think at least I'm not asking your particular favor for Egypt but this is our host country. We have problems. If colleagues have some difficulty or language or warning, that's (inaudible). To make it positive agreed by everyone. But not leave it blank.

>> JACK WENGRYNIUK: I was going to say the exact same thing. As with any Resolution it matters what's in the Resolution. That's where the areas of compromise could be reached on this topic. I have one last slide which is fairly straightforward. This agenda item 9.3. And you see the total Resolution, first bullet. The RRB has now developed and made available its report on Resolution 80. It is on the WRC-19 contributions page. The report addresses a number of different **ush us** that have considered by the RRB and expresses their views on those issues. And as far as I could see I did not see any regional proposals that are publically available at this time. And maybe I just turn to my panelists to say by confirmation of nodding in one direction or another, is that accurate statement, there is no publicly available position or proposal this time but I am sure there will be consideration of the RRB report and I'm sure there will be some discussion at WRC? Any comments? I am trying to be respectful of the time of the interpreters. There are none. I think we can close. I thank you for active engagement during this session and I thank you my panelists.

(Applause.)

>> PHILIPPE AUBINEAU: Thank you very much **jaek** and once again thank you to all the panelists and have a small

announcements. First to tell you that we will start our session at 2:30. Today is Friday. So we start at 2:30 here. And secondly was to invite the panelists for this next session to be with us ten minutes before we start. Thank you very much. See you at 2:30.

(Session concluded at 12 p.m. CET)

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>> PHILIPPE AUBINAU: Good afternoon, ladies and gentlemen. If you could please take your seat, we will start in one minute. In the meantime, I invite the panelists and the moderator to join me on the podium.

Good afternoon, again, ladies and gentlemen. So, we are now ready to start this last panel session of the workshop before the closing and conclusion, conclusion and closing.

We will be addressing during this session WRC-19, that is the agenda item and which the conference has to prepare the agenda for the future conference, 2023, normally, and is subsequent one.

Time permit, we will also address very briefly some other standing agenda items that were not discussed during the workshop yet.

With us, we have the moderator, Mr. Dave Reed. Maybe I should say David Reed. He is one of the (?) very well all the topics in relay communications, so I think he is the proper person to handle this session.

As representative from the regions, we have with us

APT, Mr. Hu Wang. Good afternoon. Mr. Khalid Al Awadhi, good afternoon. Mr. Georges Yayi, good afternoon. From CPT, Mr. Karstan Buckwitz. Charles Glass. And, from RCC, Alexy Shura Khov. So, good afternoon, and welcome all to the podium.

So, Dave, I give you the floor, with this introduction.

>> DAVID REED: Thank you, Philippe, and good afternoon everyone.

First, let me say it is a pleasure to be back in Geneva. It's been a few years. I've been away for a while, but it's my pleasure to see faces these are familiar to me. Finally, well it's easy to remember faces. Sometimes names are harder, so bear with me.

We have approximately one hour to go through agenda item 10, as well as other standing agenda items, so if you looked at the input documents for agenda item 10, and if you do a count, you will see almost 60 items. So, it's not practical to go through each of those items, so what we will be doing for the most part is giving the regional representatives a time to provide highlights of agenda items they would like to discuss,

and we will have time for questions, too, so I would encourage you to open up the documents associated with each of the regions that deal with agenda item 10, and if you have any questions, this would be a good time to address those.

Just by way of introduction, I think most of us know what the purpose of this agenda item is. It is specifically called out in resolution 809 as resolves 10, and basically provides information to the council to make a decision on the agenda for the next conference.

For those who are involved in study group activities and working parties in between conferences realize that a good deal of the work, if not most of the work that occurs in these meetings comes from these agenda items that we decide upon at the WRC, the bulk of it. So, there are other sources these agenda items. Proposals from the last conference, resolution 10, which I'll be briefly going over in the next slide, and the conference preparatory meeting, the last one that was held provided additional information to highlight some of those items, as well. But I think, for the most part, the agenda, at least in my experience t agenda items for the following

conference comes from regional proposals, basically, from the six regions. That is why it's important to pay attention to the regional proposals that have been brought both into this meeting, as well as those that will be brought into the conference. So, we will focus on those.

The one area, too, that is always kind of interesting to see, is as the conference plays itself out and solutions are developed for the various agenda, oftentimes the solution involves continuation of the agenda item in some fashion, so that is also a source of agenda items for the following conference.

Resolution 10 had five agenda, proposed agenda items for work 19, and I believe most of you know those already. You will have seen information from the regional representatives on their views on those agenda items, as well, at this meeting. For the report to the CPU provided some further information for you to review.

I did highlight one other point, and that is there are guidelines for future work agenda items in resolution 804, especially Lenox 1. I think it is important for the meeting and

for those proposing agenda items to understand what these principles are. I won't go through them in detail. I will leave those to you for the sake of time, and also in the same document annex 2, there is a template to use for submitting proposed future work agenda items.

So, as I mentioned, it will be impossible to go through all the different proposals into -- that the regional groups have been developing, and I'm not sure exactly if I'm making this correct, as I read through the documents, this is the count I saw in terms of the number of proposals by each region. What I did attempt to do, with some help from Philippe and others, is to try to provide some information in the themes that we saw in those proposals, without going into too much depth that you will discover that there is similarities in many of those proposals and there are also some differences, as well, which of course is the work of the conference will handle those. So, this is just a high-level overview.

So, at this time, what I would like to do is just give the regents a chance, the regional representatives a chance to provide any highlights they would like to make at this meeting

for you to consider. After each of the regions have presented their information, then I will open the floor for questions.

So, APT, I would like to give the floor to you, and you have a few minutes to go over your items. Thank you.

>> Thank you, Mr. Chairman. Ladies and gentlemen, good afternoon. My name is Hu Wang from China. Here I will provide some -- about APT on item 10. Let me start from the resolution 810.

The item from 810. So, 2.1, the CMDSS. So, this region APTU, we can support premier 9.2 on the radar sounders and sensors.

2.5, to review the 470 megahertz full the region 1, and we object the primary item, 2.4, that is FSS, in the service 39.5 data hertz.

We got to the proposed a new agenda item for the WC3 from APT. Start from the IMT. We propose a new eye MT, industry to consider the frequency bands, 70, to 71 mill law hertz for identification for IMT.

In addition to that, the frequency 5935 to 60725 was also considered, and we are still working on consensus, which is

not yet achieved.

A little background of this is that from 5G has started to be deployed in APT region, starting from middle frequency range, as well in some countries from the middle range. We foresee that in coming years, maybe five years, maybe more, there will be certainly strong demand for the 5G and so this will be -- this will mean that some additional demand for the middle frequency range. That is a rationale behind this proposal. That's proposal to study additional middle frequency range for IMT.

There is another background is that in APT region, we do have many other sources and the existing available frequency from the middle range is quite needed. That is why we are eager to work on this urgent item.

And, the second urgent item, we agree as PSAP, that is the -- which is considered identification of certain frequency -- below 2.7 Gigahertz that were already identified for IMT. So, the purpose is for use by high altitude platform station as IMT base station. We notice that some other regions also support this, and we certainly are open work further on

this with other regions.

The third one we proposed to consider effective use of the Maritime frequency, 156 mill law hurts and 161 mill law hertz. We're also proposing EMS allocation for both -- applications. In the frequency from 117 to 137 mill law hertz.

We propose for new agenda item is for implementation of station on both of some orbital vehicles. So, this other propose am from our side and we can discuss detail later.

Thank you.

>> DAVID REED: Thank you, APT.

ASMG, you have the floor.

>> Good afternoon, ladies and gentlemen. I will be presenting the ASMG's views with regards to the proposed agenda items for WRC23, which is under agenda item 10.

In fact, as a -- we discussed this issue during your last meeting, ACG25, which was held chiro end of July. At that meeting we held the position of the ACMG position with regard do all agenda items, including agenda item 10.

During the meeting, of course we had many proposals coming to us from different stakeholders with regards to the

proposed items to be included in agenda item 10. Ultimately we decided to six items under agenda item 10, which can be rightly distributed into two categories. One category is the -- and the other category is ESMS or -- so, I will try to go with you through all of these proposals, and I will explain the current status or the situation of these proposals and the ASMG.

So, the first one is to consider identification of additional frequency bands for future development of international mobile telecommunications, including possible additional allocation to the mobile service on a primary basis, and identification of -- for the IMT applications.

In the bands 3.3 to 3.4. So, that's the first band that we are propose ago for -- as an agenda item.

For this item, within the ASMG, we don't have a complete consensus, so we have some administrations who are in favor of this item, and some administrations who are still not in favor, or, let's say, still discussing this item, but ultimately we cannot say that we have a complete ASMG position with regards to this item, but this is one of the items that we might have as a draft proposal from the ASMG.

The second one is exactly the same, which is IMT mobile service allocation as a primary location and a -- for IMT in the band 36 to 38. So, the first one was 3334. This one is 3368, and for this one we have complete consensus from the ASMG administrations, and most likely this will be coming to the conference as a proposals from the ASMG for identification 36328.

The third portion is 38 to 42, and also for this portion, we don't have a complete agreement from the ASMG. That is a proposal, draft proposal, let's say, from the ASMG, but we are still working on finding consensus in the ASMG, so we might see this as an item coming from the ASMG from the conference.

So, these flee items were all correlated or almost similar. Only the three portions of the C band.

Then we go to the next item, which is also with regards to the INT possible allocation for the mobile service and identification for INT and portions of the band 6 to 24 Gigahertz. Now, band is quite large range. We don't propose to keep it as it is like this to the conference, however, we are going to have discussions within the ASMG in order to identify

specifically specific portions that within this region that we are going to introduce in the conference as a proposal from the ASMG.

One very important point, also, very important element with regards to this item is that the IMT identification, we are hopefully proposing to have IMT identification as a conventional mobile service allocation, and then identification for IMT, and also within this range we are hoping to entertain the requirements for fixed wireless access for the IMT technologies. So, we might have a requirement to have IMT identifications but within the fixed services. So, this is something also we would hope that we could be able to look at for the next -- as an agenda item for the next conference.

Then we go to the next proposed item for the IMT in the band 470 to 694. This is a proposal from the ASMG to look at this portion, which is in the current item 2.5, in the current resolution, so instead of having 2.5, we are proposing to replace it with actually a -- identification in portions 470 to 694. In this band we are not planning to introduce this item as a whole of the band, we are going to continue the discussion

in the ASMG and try to identify portions of this band to introduce in the next conference.

Also for this item, I cannot say that we have a complete consensus as ASMG. We still have further discussion. Still a draft proposal from ASMG, but we are still discussing it and hopefully if we get complete consensus then we can consider it as an ASMG proposal to the conference.

The last item that we have is to consider the use of the frequency bands within the range 37.5 to 51.4 Gigahertz, which is basically -- bands stations in -- communicating with GSO in the fixed satellite service. That is a big range, which is the QV, and this item, as well, we are trying to identify specific portions where we are going to propose the status of these portions to have them for these applications.

That is all from the ASMG.

>> DAVID REED: Thank you so much, ASMG. I can see my counsel was way off, but I suppose the two categories work, but not the number of items. So, that will be interesting.

Okay. APT, you have the floor. Yeah. Thank you.

>> Thank you, David. Good afternoon, everyone. My

African group met last week and finalized proposals. So, we have the proposals from various African sub regions. It is indicated in the table there are nine points, in fact there are eight that are new items that are categorized in three categories.

The first is IMT, then satellites, and then the ESEMS.

Now on the IMT's, they have a group would like to include two items. The first concerns the identification and possible attributes of frequency bands for the band 6 to 24 Gigahertz for the IMT. So, this calls for studies in order to see which frequencies can be identified or assigned for this band to the IMT. And, in order to facilitate the discussions that can lead to this item, this band was organized in nine sub bands. I would like to invite you to consult this document.

The second -- before concluding this point, I would like to say if you remember in WRC-15, this point was adjusted by the African region, but it was not addressed.

The second point on the IMT relates to HIPS, high altitude IMP base stations. On this point we would like studies to be carried out in order to identify and able to include this

item and this HIPS in order for them to -- for them to be in the frequency bands 3 Gigahertz.

For the second category of resources in African -- the satellites, the first point concerns the L band or the series of SAM bands 1518, 1569, 1660, 1668 to 1675 for mobile satellite service space to space.

The second point on satellites concerns the non-GSO, non-geo stationary satellite services on the band 71 to 76, space to earth, and 8186 to space, the aim is to see to what extent it's possible on the basis of studies to take technical operational regulatory measures to ensure that the non-J cells can work in this band.

The third point concerns non-GSOs, space to space, in the band 27.5 to 30 Gigahertz. Space to earth, and band 70.7 to 20.2 Gigahertz earth to space.

And, for communication, for this band -- so, for communication between non-geo stationary station and geo stationary station, so space to space. So, 18 Gigahertz, geo station to orbit.

The last point on the satellites relates to the

frequency band 18.6 to 18.8 Gigahertz, which provides for possible allocation to satellite service while ensuring the protection of EESS.

The third, and last category, concerns the ISNS, and on this category, we included two points. The first concerns we can see band 70.7 to 18.6 space to earth 18.8 to 20.2 space to earth and then 27.5 to 30 space -- earth to space for communication between the ISNS and satellites and GSO.

Lastly, the last point of the ISN categories relates to possible harmonization of the use of the frequency band 12.75 to 13.25 Gigahertz, earth station on aircraft, communicating with geo stationary space stations in a fixed satellite service globally.

We are aware in the ITU that this band is under AP30B and would like to highlight the inclusion of this point does not mean opening up the whole issue of the functioning of 30 B, so Mr. Moderator, these are the eight points that we would like to include on the agenda.

Thank you.

>> DAVID REED: Thank you very much, ATU, for giving

us a very good summary and rundown of your agenda items, or proposals.

Next we will have CPT, Karstan, you have the floor.

>> KARSTAN BUCKWITZ: Thank you very much, Dave, and good afternoon everybody.

On behalf of CPT, I would like to express the gratitude that we are enabled to provide our overview of the agenda items. The preparation of this in CPT started about a year ago, and we just concluded last week in our last meeting. We provide WOC with 20 proposals, and I will provide you with the ultimate -- to all of them. Just want to have some highlights and would like to highlight a few commonalities between the proposals of the other regions.

I also would like to convey the apology of our main coordinator, Positov, which cannot be here because he has unfortunately a health issue.

The presentation of CPTU is a document help to this workshop and we think that everybody is aware of the first set of proposals, and we have a few satellite issues, of course, including the inevitable ISN proposals. We have -- we have

motoresterial proposals and scientific proposals and three proposals on regional issues for the WOC.

For agenda item -- for the standing agenda items on the resolution 810, we support the agenda items 2.2, 2.1 and 2.5. We also support agenda item 2.3, but here we propose a revision of the connected resolution in order to enhance the protection and recognition of the same source in the regulations, and we are not supporting agenda item 2.4 on the -- allocation of the FSS in the 37 dot 5 to 39.5 Gigahertz, because of the common understanding on agenda item 9.1 issue, 9.1.9, where we are already going to allocate one Gigahertz for the same purpose.

In the -- we have four proposals mainly on AMS, which connected to the possibility -- region except -- mobile and -- we identified three similarities of the four proposals of other regions.

Then we have under the satellites, we have non-GSO ISMs in the FSS and we have GSO ISM s in the FSS, where the second one is in full alignment with the proposal of the ATU. The last one introduced, which is under our appendix 30B,

where we would like to identify the -- 1325 for the use of arrow knot particular cull on aircraft. We call them ISMS.

Again, four to five have similar or identical proposals of the regions. Under terrestrial category which is not the overview of Dave, sorry for that. We have protection of the FSS in the range 71 to 86 Gigahertz, and related to considerations on provisions we regard to protection of the service.

The same band is also addressed by several proposals of the other regions.

In the scientific category, we have a new up link allocation for the ESSS, we have the protection of the ESS in between the bands proposed for non-GSO ISMS in the range 18.8 Gigahertz, and we address a very interesting agenda item for millimeter and sub millimeter imaging systems.

At least a protection of the ESSS has been addressed by some of the other regional organizations as well.

Then, we have another additional category, which takes care about the regulatory issues we are going to propose, and this is the review of the secondary allocation in the band 40 to

1,300, then -- and consideration of the protection of GSO systems in the range of 7 to 8 giga hurts and 20 to 30 giga hurts.

Unfortunately we haven't seen any similarities of this part, this proposal of the other regions.

As Dave already said in the beginning, we have a number of agenda items, but we found out that a lot of them are similar and if the proponents can overcome their viewpoints, which are certainly based on the different situation in the different regions, we are quite sure that in the preparation of the WSE and WSE itself, we can overcome this differences and most of the proposed agenda items into common proposals.

And, with this, Dave, it's yours.

>> DAVID REED: Thank you, Karstan, very much, and thank you for pointing out some of the points I was going to make towards the end. There are a few observations I think we can make so far, and if you want to think as we go along, CITEL.

Charles, the floor is yours.

>> CHARLES GLASS: Thank you. Good afternoon to everyone. It is definitely a pleasure to be here, and I'm

honored that so many of you came back after lunch on a Friday afternoon, so thank you. It does, however, show the level of interest that there is always in agenda item 10.

As Dave had indicated at the beginning, this sets the work program for the next four years, and unfortunately or fortunately, depending on your view, most of us will be involved in that work program. So, this is something that we will all have to work together at the conference to build the best product possible, while at the same time making sure that we have as tight an agenda as we can possibly get.

To that end, I would indicate Dave characterized our proposals correct. We have 19 proposals. There is a number of themes. We broke those up slightly differently within CITELE, so we have some safety items that we looked at for arrow knot particular cull issues. There are issues with IMT, satellite issues, Maritime issues, et cetera, that we're looking at. So, the good news is, there is a lot of commonality. In looking at the input proposals that came in, there is in the range of around 30 separate agenda items, and about half of those are common among three or more regions. The bad news is, the

specific frequency bands on those common items is not so common. It does mean we will have work at the conference to try to resolve those issues, but I think that that will be possible.

To highlight just a couple of specific issues that we have within CITELE that I think will garner the most questions for our region, we do have an INT mid-band agenda item as due five of the other regions. In our particular case, we are looking at specific frequencies within the range 3.3 to 15.35. We were unable during our final meeting to come up with a list of the specific frequencies, so we will continue to work between now and the conference with our partners within CITELE, and of course during the conference with the other regions to develop that list, but we do believe that it is important, and as you read our proposal, you will see notes to this effect that we develop frequencies rather than a broad range so that we are working towards INT as we had previous conferences where there were a lot of proposals that were defensive in nature. So, we want to look more towards the positive aspects of identifying and were needed allocating for mobile so that we can encourage the growth of mid-band spectrum for INT, which I believe

everyone in the world has identified a need for. The specifics, however, is where we're going to have our difficulties at the conference.

We have both GSO and non-GSO ISM agenda items. As I said we have some arrow knot particular cull safety items, and of course we want to continue with the work on GMDSS. We do think that there is a good opportunity for synergy, as I indicated before, and we really look forward to working with you and the other regions representatives to try and solve these issues as we move forward.

Thank you.

>> DAVID REED: Thank you, Charles. You have a good memory.

RCC, you have the floor.

>> ALEXY SHURA KHOV: Thank you, David. Good afternoon, once again to colleagues.

With regard to the RCC, at present we have three clear proposals on which we've been working for quite a long time. These are two items and a proposal on amending resolution 804. So, this resolution 804, given the experience of preparation for

this conference were nine issues where inclusion and 9.1 of the director which complicated the overall preparation for the conference in general, and it's not clear, also, how proposal should be prepared on these issues with the CPM report and -- on some issues the ROI has to be changed in others. It doesn't have to be changed in order to eliminate these difficulties with proposed that resolution 804 should be amended so that all the issues related should be included as individual within the RCC. We have agreed on this that in future we need to focus on clear individual items in order for the preparation to be as planned and well organized.

The other two agenda items, I think I can say this is a quiet unique proposal by ICC, the first one concerns upgrading allocation of the frequency band 14.8 to 15.38 Gigahertz for the SRS. We discussed this proposal at length. We submitted to the CPM and discussed it with other organizations. For us this is a critically vital item we have scientific project that require this service, this is scientific project, so we hope that this item, we hope that this will be the new item, a new item in WRC23 agenda.

The second point, of course, is related to the IMT identification. Our experience shows that it is not enough to have higher frequency bands, so the medium frequency bands for countries, in particular countries with large territories out of particular importance. We looked at the leader of frequency bands from 1624, we had different alternatives that we looked into. At present we focused and I will propose two frequency bands, 6, 555 to 700 Megahertz, and a lower frequency band, 400, 49019 Megahertz.

We will continue discussing these proposals, if they are at the RCC meeting next week, but these two new agenda items are of vital importance to us, and we didn't want to have other proposals, because we understand and saw there will be many proposals from other regional organizations, so we did not want to complicate the work.

Now, of course we analyze -- at the proposals that are on the resolution. We looked at them carefully. I believe item 2.2 and 2.3 that were studied in detail during the stud period have been looked at sufficiently. We support them. And, we would like to see them among the agenda items of the next --

with the GM DSS, the electronic means certification. This is a very important issue for the entire global community.

We think that within WRC-19, we will need to work on this item on the resolution and to identify more clearly which issue should be dealt with with regard to the modernization of GMDSS, electronics, which batch should be considered, how they should be included, if need be, in the regulations. So, this is a topical issue, but it needs to be looked at and worked on more carefully.

Item 24, we agree with more regional organizations. It is overlapping with item 9.9 of this conference, so we don't think it is of high importance for it to be included on the WRC agenda.

Frequency band 406, its future use, it's a difficult issue for us. To date, we are using this for broadcasting service very actively, whether it needs to be reviewed the use of this band where it should be identified, it is a complicated issue. At present we are not ready to support it as a potential WRC agenda item.

When I look at the table, I can say that all the

proposed items and proposals on satellites, the new allocations for FSS, and a number of issues which are different, but are similar, on various frequency bands, a non-GSO system or GSO systems are really interesting proposals to use ISS lines which are related to ISM.

We understand that all these are new and very relevant trends. This, of course, again with item 1.5. How successful we resolve the issue 1.5 and how we can join in the proposals on ISM Ss the new proposals.

So, we are ready to consider these items and we're ready to find a joint solution, and most relevant, decisions which can be dealt with before in the period before next conference. We got to -- we see many organizations support this item. We, however, think that all the necessary studies have been concluded at this stage, but we'll see what happens next.

With regard to aeurnitacal spaces arrow knot particular cull users, when we use -- we propose to use AMS within the framework of IMT or in terms of the issues or the tasks of IMT or using equipment, we see a new items. We just proposed to have high altitude, high -- station. All these new

aeronautical users in our view have not been studied sufficiently within the framework of IMT itself, for example in five D, whether there are such users, how serious they are, how much -- what has been done on them and how much work needs to be done on them. For us this is extremely important proposals. We are considering them carefully, but whether we can support them, and whether they need to be included on the CAR agenda, this remains a question to us. We haven't decided upon us.

So, we also have more than 50 proposals on various agenda item. We sat down and looked at them. If we have an artistic approach to this, maybe this could be reduced to 30 individual issues. So, 30 issues. So, it would be manageable, which can be dealt with within the framework of one conference, WRC-23. At presents, we don't have any proposals on the agenda item which we could propose for the next conferences. Maybe you should think about the fact that of these 30 items as we said in the past, we will need to organize these items and see what can be postponed to the next conference. All these issues I highlighted. We will try to discuss them once again at the meeting next week in the RCC, and then we will finalize them and

submit the proposals for consideration at the WRC.

Thank you.

>> DAVID REED: Thank you, Alexy, very much, and thank you for that comprehensive description of where we're at and what we're faced and to the future, and it just highlights a couple of points from me.

One is that there is still work to be done within the regions to come to their own solutions, and the other highlight is that there is a lot of common elements here, there are differences in these common elements that we'll have to resolve going forward.

Charles, did you want to make a comment? Go ahead.

>> CHARLES GLASS: Thanks, Dave. One thing I forgot to mention is CITEL has just completed its -- and we had some new ones that came out of that consultation process, so I just wanted to mention those briefly.

So, we do have now proposal in enter satellite links. We have one more mobile at 1,300 to 1350. We have one for SRS upgrades. These are additional IP's.

Carmelo has updated our slides and uploaded those, so

they are part of the package that can be reviewed on the presentation that we have, but I just wanted to specifically mention that.

I would say we also have one proposal for one of the standing agenda items on this space whether to move that to WRC-27, which is a different issue than you see from some of the other regions with respect to that particular issue. So, I wanted to highlight that.

Thank you.

>> DAVID REED: Thank you very much, Charles.

If you look at the clock, you see we have approximately ten minutes left. I do want to give the audience a chance and the floor a chance to ask questions, and I'll recognize Iran first. I saw their flag. Iran you have the floor.

>> Iran: Thank you, chairman. Thank you, David. We know you very well. We have worked with you in -- 1.5. The issue of 1.51, and we have some difficulties not because of you, but because of the complexity.

First of all we don't have 58 other items. Some of them are -- we have too sit down and prepare a consolidated

list -- that is No. 1 I have to mention.

Then, the second question for the committee is how many agenda item we can afford? Maybe we can as the chairman of the board provide -- along with the captioning. Take it into account we have ten standing items. Some of them are quite complex, and they will have an item, and then the items and there are several complex. If you have similar issue A, I do not know. Agenda item 8 would know how difficult this problem. Agenda item 9, one report is most important element that when you have not had time to totally consider and reflect on that in previous conference and given one group, this is a part of the -- Alexander -- she is 90 -- so -- issues and other people mostly agenda items of IMT.

So, something to -- and, then, item 3. The report through the resolution -- now coming complex issue -- the issue is where -- conference is invited to do this and this. So, we have ten agenda items, plus other numbers.

Then, the staple of our Russian colleagues saying we could support -- agenda items plus -- I don't know where this comes from. I don't know what basis. We don't know the nature

of these items.

We know the bulk of the work. We know the complexity, so we can't say that it is 2060 independent from that. So, this is important -- that we have to take into account.

Then, in my humble considerations, in Peter's conference agenda item was proposed in order to make people happy. This is the involved in the (?) minimum or (?) it's not the case. The -- the case.

I give you agenda item 114. 400 documents. 1, 800 pages of reports. At one point on these large issues, annex 1, blank. Annex 2, one part, discuss this I don't really want to here, so at the beginning of the conference, our regional organization getting together, ask this consolidated try to prioritize the agenda items. This I understand for IMT -- but which one of those is -- if you could handle all of them. If you don't handle all of them, take some of them, take some other actions.

No agenda item should be put on the coverage of issue. This is, I'm sorry to say this -- agenda items. And, complex to address, because they don't have --, they don't have -- 911 is a

clear example of that. So, we should avoid that.

We should give, agenda 9 or 6, and -- once again, those actual workload during the status of the conference has been really -- we don't know the workload. We have to have this chairman, we can't work on -- one -- and taking into account next -- we have -- starts. So, we have short of logistic for conference rooms, and you see if we cannot have it here because of all issues. Some of the meet can we will outside Geneva, in which at least ITR supporting this stuff could not be available. I do not think -- sorry to tell you some of the -- if you said the meeting to -- which you come for that period, because once it is already approved, and this is not such a thing. We have to have that one. This is very, very important issue.

Second question, chairman, has the condition under 804 been respected? My view is low. It was recommendation. We propose two resolutions. One country, big countries, and after some discussion agree with that, but still the -- is shaky. Some of them are short, some of them optional, other -- to that. So, we have to see to what extent. Either that resolution has effect. If not -- is there no way to configure that?

Any other agenda item for the big range of frequency band is unavailable. I already mentioned that we will consider the situation is very good. We can't -- 2 Gigahertz. It is difficult. You have to have a specific bands, because in order for the band to be -- experiences and experience of the previous conference, we could not do that.

Chairman, I think -- should not be based on the unfinished item of WRC-19. We have not got -- 27.5 -- how we could have agenda on -- band and on the-band. We don't know without it. How you could have -- years old. Situation is much more difficult. So, we should be quite careful of this situation, and we should not lash into the things. Another event. So, let's wait for WRC-19 to resolve on the issue to see how many parts, how many element of ISM is not covered WRC-19, will be covered WRC, then based on that we could have the situation. That is an important element that we have.

Second -- up link to U band. I have mentioned to you under the issue that many countries are disappointed of the number of application -- U band in particular country 86, another country 42, unmanageable and 1 to 4. That is why

issue -- with the situation given time and efforts to one single -- for the country which does not have anything released.

Now, the African proposal to extend that for -- country. If you tried to overload, why would you do that. Chairman, do you want to have a CCB, you have to work on that for 15 years. It's not that -- if you overload that, effective interference from this aircraft and so, so so forth, if you how it really, how do we calculate this -- whether -- or not. Take into account that -- colleagues put their-aggregate to the lowest possible level to today. From 27 to 33. There is not a margins. So, we have to be quite careful of starting that, and we have to know how many -- we want to communicate and whether -- what is possible. If the technical is possible, yes. What I suggest is -- CPTU, why not put to study groups to consider the possibilities, technically, and -- and we did that to WRC-227, but if you do, we don't allow serving countries like African -- because it is overloaded and -- is done. In this running, these people with a lot of effort and then -- so, this is something that we have to consider quite carefully.

Chairman, more importantly, a lot of -- in the agenda

item should be clear, concise, and concise, and should be consistent. Now -- resolution that the language and open -- the thought are not consistent of the agenda items and also consider that the way that the three incumbents are quite different. Usually. I say usually. Or normally. We should protect incumbent services in operation and future. It's not acceptable.

Moreover, we should -- to have resolution -- we need to reduce -- is something that should be -- in the part. Why we need to take -- what is the purpose of that? Because some of this will cause problems, we discussed at the -- no, I do not believe in this because it's not consistent considered -- so, we should quite -- how to do that.

Chairman, we need to sit down together, and after this consultation and all of this needs to say what is possible and what is not possible. It seems to me that I have 27 or 30 -- I want to 100 people we can -- then I say first of all I don't have money for that. I can serve them. What is possible? That is important. No agenda item on anybody is rejected. All well come on what is possible and what is not possible.

If you want to save agenda item -- that you have stated and not completed and have -- we have to report 2003 after nine years on the agenda as many as you want. So, we should be careful, chairman, and we should be wise and cautious and thankful. Thank you very much.

>> DAVID REED: Thank you, for two things, first your kind words in the beginning and your comprehensive and clear overview of the complexity of the work we have. In my experience, this will be my fifth conference coming up. It seems like it is only getting more and more complex for us, and one thing I did say that I would also echo and encourage is for the -- to try to if they can get some -- to work out any differences ahead of time in the beginning of the conference. That with definitely help.

I know we're out of time. Would not want to close this meeting without giving opportunities for others to ask questions. It has to be very quick, though.

So, is there anyone that would like? India, you have the floor.

>> India: Thank you -- in the first -- Gigahertz, and

if you see allocation 8 -- realize primary allocation to mobile -- if you need difference -- include and on -- most part of the transfer -- in this situation what is the solution? We have to get consensus for the -- .3. And, the resolution to get resolved the -- thank you.

>> DAVID REED: Thank you, India.

I believe UK also wanted the floor.

UK.

>> UK: Thank you -- (Audio cutting in and out) SMG presentation. 3.6 to 3.8. It was mentioned about the potential to have an INT identification in a band allocated to the thick service, which pairs the question to me that INT is for international mobile telecommunications. So, we would be providing a regulatory restriction for an identification that normally is mobile in nature. I just wondered if -- not wanting to put too much appreciate our the ASMG representative, if he had any further clarifications on how that might be managed as a regulatory level.

Thank you.

>> Thank you very much. Thank you, Mr. Chairman.

Not -- at all. I don't have any proposal at the time. These are ideas that we are trying to discuss and trying to figure out solutions for. Whatever solution is going to be identified, it's not a solution for further ASMG. It's a solution for the -- industry as a whole, because the whole ecosystem have identified a requirement to have a fixed wireless access solutions for the new 2020 deployments, and there are many scenarios that we were thinking about, and one of the scenarios or possible solutions would be to have anti-identification in the fixed service allocations.

We do have (?) in the FSS. We have proposal to have identification for identified for -- and the HAPS, as you know, is identified in the FS services. So, we do have some varieties.

Thank you.

>> DAVID REED: Thank you. I get the feeling it may be good to expand the time of this group for next time. Just kidding. It becomes very important and perhaps the amount of time we have for this panel needs to be expanded. I know my panel members sitting over here wanted to respond to a number of

items. I think I can see in their minds that they want to do that and I have to apologize, I can't give you the time to do that, I would encourage after the meeting to please approach the gentlemen and ask any questions, we don't have much time in between, but after the meeting ends. Again, communicate, communicate, communicate with each other after the conference and try to work out any differences you can and try to get to the point where we have very clearly articulated and clearly understood agenda items that we want to propose for the next conference. Keeping in mind the complexity of just about all of them in terms of solutions.

If you -- I won't go through the rest of my slides of the they simply go over the other standing agenda items and they just list those. Please review those and make sure that you understand what they mean, as well, in terms of the conference agenda and if issues they have there.

So, I'm going to at this point thank my panel members. Again, I apologize for not giving you more time to respond. Thank you for being here for your clear and very well articulated, I believe, view of your positions at this point.

Philippe.

>> PHILIPPE AUBINEAU: Thank you very much, Dave. I would like to applaud the panel. Thank you very much for coming with us.

(Applause)

Just before closing this session I mentioned at the beginning that there are two other agenda items from the CPM report we have not covered. These are standing agenda item 2 and 4. There is no slide on them, but you will see in the CPM reports that agenda item 2 and 4 are included with some proposed changes to the resolutions, in particular regarding the resolutions on these two agenda items, as well as foreign corporation by reference of some ITR recommendations. So, it means that it confirms as expected some proposals in that regard.

So, thank you very much again, and we have only 15 minutes break, which we have exceeded by ten minutes. So, I think only five minutes left. So, I think as the objective we need to conclude this workshop at 4:30, so if you can accept, we will simply have a five-minute break and then we will resume

very shortly.

So, I invite panelists to join us on the podium.
Thank you again, everyone here, also the director, please, if
you could join us for the closing.

Thank you.

(Five-minute break)

>> PHILIPPE AUBINEAU: Ladies and gentlemen, I invite
the representatives of the regional groups to join us on the .

Ladies and gentlemen, good afternoon. Now we have
with us Mr. Director, Mr. Mamuvich who will share the final
workshop to address the conclusion and closing remarks.

We are pleased to have with us the chairman or
representatives of the regional groups. I'm sure you recognize
all of them, but just to introduce everyone. We have Dr. Kyu
Jin Wee from the Air Chan of APT. We have Mr. Tariq Al Awadhi.
Mr. Alexander Kuhn representing ATU, Secretary General us with.
We have Chairman of the CTCPG, Mr. Alexander Kuhn. We have the
Chairman of the CITEL working group, Mr. Carmelo Rivera, and RCC
working group, Mr. Albert Nalbandian.

With this introduction, I give you the floor.

>> Chairman: Thank you, Philippe, and good afternoon everyone.

So, we reached the end of this exercise. I think it's been a very useful three days. The feedback I've gotten from all of you is that it has been most interesting workshop, maybe one of the best we've had so far, not only the best of the three, because the last one is always the best of the three, because we have all the info already of the covered proposals that we have, but maybe the best one of the last cycles. So, it has been most interactive, and it was most positive. In fact, I am very pleased to note that in addition to the issues that were already identified at CPM, there have been converging views. During these three days we have identified many more. For instance, in agenda item 116, the change around 5.4 Gigahertz for wireless access systems in our land, in issue A of agenda 1.6, the recognition of frequencies for mid-frequencies and high frequencies of NAVDA. The frequencies for Maritime services in group A, which is the -- 191. The location of frequency band 51.4 to 52.4 Gigahertz as to space issue 919. The coordination arc and KM

band for SMS versus other services issue B of agenda 7. The publication of list of satellite networks and systems for frequency assignment subject to RR912 and 912A and 913, which is issue D for agenda item 7. New specific regulatory positions to facilitate the notification of non-GSO satellite systems with short duration issues, issue I of agenda item 7. The update procedure for part B of examinations in -- 3030A or 30B, which is issue K of agenda item 7.

I have noted the worldwide support for 26 Gigahertz on 41 Gigahertz band, and the agenda 113 with conditions to be determined.

And also the measures that are extremely in the consideration of the proposed new agenda items for WSC23. So, I wanted to list all of them, even if it is a bit long, because it's not meaningless. On the contrary, we should be all very happy to have identified already this conversion and use at this early stage. So, thank you very much to all of you for all of this goodwill, and for this, let's say, approach to this issues that release the work of the conference. So, if we can take out of the way the issues that we can agree upon, then we have more

time and energy in the conference to deal with those that are not that easy to deal with.

So, this is a kind of introductory remark for this session about this satisfaction that we have about the workshop itself and all these issues that we have identified as being already converging and the views of the various regional groups. So, I would suggest that we do a short intervention by each head of regional group, and then there are some questions or comments from the audience, and we can be brief so that everybody can rest a bit and do some shopping before going back home, or whatever you would like to do.

So, let's start again alphabetical order, by APT. KJ.

>> DR. KYU JIN WEE: Thank you. Thank you.

The previous sessions discussed the future agenda items, and one of the APT slides shows how many issues under the agenda 109.1. It analyzed the previous WRC and we can get -- we have some idea that the future agenda can normally invest in -- including the issue 9.1. However, we do see the value under the issue of 9.1 and that continues to be in the normal agenda item 1. That is the final (?) in these workshops for this APT

regions.

Second is I believe that this workshop is -- and I hope you continue to the next -- thank you.

>> Chairman: ASMG, Tariq.

>> TARIQ AL AWADHI: Thank you very much, Mario, and I would like to thank ITU, specifically BR for organizing this 3rd ITU Inter-regional Workshop for WRC-19. Good discussion as been made during these three days. At least now we know each other and our position for several issues of WRC agenda items, and also now we understand what is the, at least the future agenda item for coming to WRC. So, it is good that time to time we have these kind of discussions together, and try to understand each other so that we can know how to deal with each other during the conference.

As mentioned earlier, that we will serve our energy for the conference, because it has a lot of issues there, and WRC-2019 is becoming very important for all the world, especially a number of agenda items where many organizations and vendors, administration are waiting to see what kind of frequencies will be assigned or allocated for the new services.

Maybe I give a brief overview of the informal group that we, almost eight meeting right now, and we almost distributed that agenda item between all committees and working group of WRC, and in the final stage almost now 80% that we have got the names. Still we have an issue for two committees, and hopefully that before WRC we can finalize and we'll have good candidates. We're going to run WRC-19, committee and working groups, and we have to support them for the success of the conference.

So, again, I would like to thank everybody here in the room who has supported us for these three days. Thank you ITR, Mario, yourself, and Philippe and all your team for organizing this one, and hope we can see eachother there in WRC-19.

Thank you.

>> Chairman: Thank you, Tariq.

We continue.

>> Thank you, Mr. Director. Yes, thank you Mr. Director. I would like first and foremost to thank the entire organization, thank the ITU for holding this workshop and this has been very instructive for us. We've learned a lot, and

I would also like to thank the opportunity to commend the sound work. Moderators and panels. They have done outstanding work. This enables us by focusing on these various visual aids to better understand the expectations of the various regional organizations. For us, this has been very important, because over a brief period of time we have, as it were, a snapshot of the overall situation for each and every one of our respective regions, and this material, these elements are going to be very important for the home stretch that will soon be on now, the home stretch and the run up to the conference, it gives us an idea of the positions of the various regions, and to know the motivations of each region, and this will greatly smooth away for the negotiations during the conference. So, we commend this initiative, and it's our hope that going forward that this same exercise will continue in the run of WRC.

What I would like to say is furthermore, we are taking this opportunity to say how much we welcome the input of all of the various international organizations and gatherings, because during our most recent meeting that was held last week, most of the regional organizations were there, they took active part,

and they shared with us appraised us of their viewpoints, so it's been very good during this assembly. It's very good to have this opportunity to be able to convey our heartfelt thanks.

The work will continue, and when will make sure we maintain the effort so that the conferences will be held on African continent will be a successful one.

Thank you very much.

So, let's move on.

>> We continue CBT. Alexander

>> ALEXANDER KUHN: Yes. Thank you. Okay. Also my thanks to the ITU, to the organizers for all the workshops throughout this cycle. I think it was very helpful to be a little bit outside the formalities of the the study cycle and discuss in more familiar this year all the different issues and all our different viewpoints. And, you mention it, Mario, that we have already achieved a lot of consensus, so let us bring this consensus to the WRC and therefore try to get it out of the way of the WRC discussions also in a very brief and in a good spirit of consensus good way there and not start to go back to issues, which are already served. Maybe also seen at this

workshop that we need to take us with, and I think the informal group has to work with us a little bit on that aspect, as well.

With the other one, I really like the format of this exchange and I hope you can further work around that and invite further for such kind of workshops. It's a very helpful tool for everybody to get the understanding of the regional groups and the other different perspectives and in particular on various complex issues of spectrum management. That's, I guess, the whole thing. So, it's very helpful for all of us.

I'm very grateful to all of the partners of the regional groups here that we have also, besides the inter-regional workshops, always the possibility to work a little bit around that and to discuss and find also the common understanding is necessary to achieve consentses, and we saw already at the CPM on the some of the major items where we had only a single method. That is an achievement which is also to be mentioned here at this stage.

Looking forward to the WSE. I'm very confident that we will have a very good conference. I think right now the logistics are in place, and I look forward to work with every

colleague and all the CPT colleagues I look forward to work with every other coordinator and with all you to the conference, and to find the best solutions for the ITU and for the global spectrum management scene.

With that one, I can just say thank you again, and hope to see you all in Africa.

>> Thank you very much, Alexander.

So, we continue with CITELE. Carmelo.

>> CARMLO RIVERA: Thank you very much, director. I want to echo the previous speakers in our extending gratitude to the ITU and to you, director, for organizing this event.

It is very useful. Has been very useful, and as I agree with you, this, I think, is the most useful I've seen so far because of the enter activity with the audience.

There is a lot of information that has been exchanged. I know we've all learned quite a bit some of the complexities we weren't aware of before have come out here.

I do want to also thank all of our representatives that came out and put work into being able to come out here and explain each one of the regions issues. The moderator that put

in a lot of work to put in these slides, which I hope to use each one of those to help our region decide and strategize what we're going to do at the conference, because it is a lot of information just in those slides.

And, the gentleman here on this panel, we've been working together for the last four years. We're not there yet, but we're almost there. There is a lot of work that I think has been done behind scenes to make this a little bit easier, but most of all, I look forward to seeing all of you in Chamishek, not because I love you all, but at least for a month I don't have to explain to anyone what I do for a living.

>> (Laughter)

>> CARMLO RIVERA: Thank you very much.

>> Chairman: Thank you, Carmelo.

Albert, RCC

>> ALBEERT NALBANDIAN: Thank you, Mr. Chairman and to colleagues. Distinguished representatives of regional organizations. I would like to start by -- with the same as I started with when we opened our workshop. The three days just passed confirm the importance and the usefulness of holding

these workshops. I would like to thank the VR for continuing this work. These meetings are extremely useful.

I would like to draw your attention here to the fact that for the representatives of the RCC, since we have concluding our final meeting next week, and many types of advice and wishes expressed when discussing first issues, of course we will try to take all these into consideration and agree on a proposal.

I would like to also thank the chair of the informal group, Derick, for having organized an informal meeting. It's very difficult to say whether it's formal or informal. There is not much difference between the structure and the issues. When you discuss structure, we also went into substance and then we also touched upon everything. So, the meeting was very useful.

In conclusion, since I support everything that was just said before me in terms of assessment of the efficiency of work and the openness and on and so forth, so conclusion I would like to thank you, Mr. Director, but also all the participants, and only thanks to this organizational approach and representatives of all regional organizations. Almost all ITU

member states are covered. I think it will be a very important useful step in concluding the conference.

Thank you.

>> Chairman: Thanks very much, Albert.

So, thank you all for your final remarks and for your kind words. I would like to thank also in turn the moderator of all these sessions that we had so far. They not only prepared themselves to moderate, but also they provided very meaningful presentations, that as Carmelo said, are going to be very useful to us from now on, as well as you, I mean the heads of the regional groups, that they had extra work not only by coordinating the work of their groups, but also here in the inter-regional event, and well as the informal group that was also mentioned. A special thanks to Tariq, but to all of you that participated in all eight meetings by now. I'm very happy to say that this is an excellent way of agreeing on the structure and the chairmanship of the most important committees and working groups, even drafting groups before the conference, so that we won't lose precious time on the conference of that, and we can start immediately with substantive work.

So, what I would like to highlight mostly here is the spirit of corporation that has been felt in this room throughout these three days. The approach was try to converge in common views, and to try to find solutions to problems, and this is what I would rescue from this effort and I would hope would purvey when we get to the WRC-19. If this continues with the same spirit, we will have a great assembly and a most successful conference and it will be -- really. It all depends on this approach, on this spirit, and I'm sure that if this pur veils, we will manage.

This workshop, another initiative of this type, formal suggestions and we tried to improve them funneling your comments and feedback after we carry them out, so more interaction was requested by you three days -- was requested by you, so we are trying to be responsive to your suggestions, so don't hesitate to come to us and to continue making suggestions in order to improve our working procedures and our way of helping you to achieve what the ITU community needs to achieve.

So, wouldn't want to finish without thinking the ITU staff that was behind this workshop. Not only the ones that you

have seen, but the ones that were working behind the scenes for this to be successful. There were a lot of people that I am not going to name, but I would like to highlight a couple of them. Philippe Aubineau, that we all have here.

I would like a round of applause for him for his efforts.

(Applause)

>> Chairman: And, Fabian, who is not in the room, but she was behind Philippe all the time providing the administrative support for this event.

As well as all the rest of the VR team. As we know, they are always providing support both technically and administratively for our work.

Before closing, I would like to give the opportunity to some of you, if you want to say a few words, to keep them short, and then we will be finishing the workshop.

Yes, Iran, please.

>> Iran: Thank you, distinguished. I echo what you said, and I echo what other distinguished panelists mentioned.

I would like to congratulate you as the first year of

your directorship. You were very successful, beyond our expectations, to provide this very interactive and important event of the workshop that allow us to continue to exchange reviews under the very friendly environment and very friendly atmosphere. I hope that the same environment and atmosphere continue to purvey at the conference under the -- distinguished -- also congratulate you having Mr. -- on board. He is one of the key elements, machine of the ITR, it has been to the conference, to the CPM -- resolve this -- CPI and all bulk. Work of that. His devotions and -- is example of something beyond the -- I work with you when I was in SMP, working together, and he was my secretary in the CPM 2007 and I know how much activity and so on -- prepared for us is really fantastic.

Chairman, I think that between distinguished colleagues and ourself take into account what was said in this conference and try to take it -- to the WRC in order to be able to find a solution for difficult discussions. We express our sincere appreciation to all the distinguished delegates from the corporations and -- second value applause for Philippe.

(Applause)

>> Chairman: Thank you, for your kind words.

If there aren't any other requests for the floor, then I would just close this workshop. Thank you again for participation, and for your input and for your spirit of collaboration, and I wish you a safe trip back home, and wish to see you all at many more in Shemshak.

(Applause)

(Concluded at 9:15 AM CT)

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