Report from
The 3rd Meeting of the APT Conference Preparatory Group for WRC-2007
13 – 16 February 2006

The third meeting of the Asia-Pacific Telecommunity Conference Preparatory Group for WRC-2007 (APG2007-3) was held in Kuala Lumpur, Malaysia on 13 – 16 February 2006. The highlights/decisions of this meeting are summarized below.

Agenda Item 1.2 - *consideration of allocations and regulatory issues related to the Earth exploration-satellite (passive) service, space research (passive) service and the meteorological satellite service in accordance with Resolutions 742 (WRC-03) and 746 (WRC-03).*

With regard to this agenda item, the APT agreed on the following views:

Resolution 746, 10.6-10.68 GHz frequency band and Resolution 742, 36 – 37 GHz frequency band:
The protection of passive services should not place additional undue constrains on other allocated services. Sharing criteria should be appropriately defined based on the results of the ITU-R studies.

Resolution 746, MetSats at 18-18.4 GHz:
1. In order to provide the necessary frequency spectrum for the next generation geostationary meteorological satellite (MetSat) systems, APT supports the extension of the existing 18 GHz MetSat allocation by 100 MHz;
2. Sharing criteria should be appropriately defined based on the results of the ITU-R studies on the possibility of sharing with other allocated services, including the frequency bands allocated to BSS feeder link plan in Region 1 and 3. The existing pfd limits given in Table **21-4** are appropriate in whichever the direction the extension may be made;
3. Existing services (FS, FSS including feeder-links for the BSS Plan (Regions 1 and 3) and MS) must be protected from harmful interference due to the possible extension of the MetSat allocation.

Agenda Item 1.3 - *allocations related to the Earth Exploration-Satellite Service (active), Space Research Service (active) and the Radiolocation service in accordance with Resolutions 747 (WRC-03).*
With regard to this agenda item, the APT agreed that:
1. the radiolocation service upgrade to primary in bands 9 000-9 200 MHz and 9 300-9 500 MHz can be supported provided that radiolocation service will not cause harmful interference to, or claim protection from the radionavigation service;
2. any extension of EESS (active) and SRS (active) allocations beyond the band 9 500-9 800 MHz is subject to successful completion of the sharing studies and must include regulatory protection of the existing services.

Agenda Item 1.4 - *frequency-related matters for the future development of IMT-2000 and systems beyond IMT-2000 taking into account the results of ITU-R studies in accordance with Resolution **228 (Rev.WRC-03)***

Definition of IMT, IMT-Advanced, IMT-2000 and their relationship

Australia expressed a view that the concept of "IMT" including IMT-Advanced, should be interpreted as encompassing a very broad range of services and applications to suit different user and market requirements at different times. As a consequence, the spectrum estimated and potentially identified for IMT-Advanced should take into consideration the full range of "convergence" services and applications. The issue of the use of term "IMT" as representative of both "IMT-2000 and IMT-Advanced" will be considered at the next APG Meeting.

Frequency bands for future development of IMT-2000 and IMT-Advanced

With regard to this issue,

- Some APT administrations expressed support for identification of bands between the 1 to 6 GHz in order to support higher data rate (up to 100Mbits/s with very high speed, up to 250 km/h and up to 1 Gbit/s with stationary speed) or high capacity applications.
- Some APT administrations support identification of bands above 6 GHz for the deployment of systems using data rates of 1Gbps such as for nomadic/ local access.
- Iran expressed that Appendix 30B is world-wide treaty binding agreement. The frequency bands included in Appendix 30 B, namely 4.5-4.8 GHz band is used (planed) in many developing countries for "infrastructure telecommunication networks" (e.g., RASCOM). In view of Iran, the Appendix 30B bands, therefore, cannot be identified for IMT-2000 and IMT-Advanced.
- Some APT administrations are of the view that in light of the fact that the frequency band 3.4 – 4.2 GHz band is extensivelly used by FSS on a world-wide basis, no identification of this frequency band for IMT-2000 and IMT-Advanced should be made.
- APT administrations agreed that the frequency bands currently allocated to aeronautical mobile (R) services and aeronautical radio determination services related to safety of life should not be identified for use for IMT applications.

Agenda Item 1.5 - *spectrum requirements and possible additional spectrum allocations for aeronautical telecommand and high bit-rate aeronautical telemetry.*

The APT supports ongoing studies under this agenda item but noted that these studies will need to take into account:

1. the bandwidth requirement for wideband AMT and associated telecommand;
2. where appropriate, existing ARNS and FSS allocations, including the existing and planned usage by each service;
3. possible developments under Agenda item 1.6 (Resolution **414** (WRC–03)) in the 5 091-5 150 MHz and other aeronautical radionavigation bands between 3 and 6 GHz.

Agenda Item 1.6 - *additional allocations for the aeronautical mobile (R) service in parts of the bands between 108 MHz and 6 GHz, in accordance with Resolution 414 (WRC-03) and, to study current satellite frequency allocations, that will support the modernization*

of civil aviation telecommunication systems, taking into account Resolution 415 (WRC-03).

The preliminary APT positions on Resolution 414 issues are as follows*:*

1. Support global allocations to the aeronautical mobile (R) service in the frequency bands 960-1 024 MHz and 5 091-5 150 MHz if shown to meet global CNS/ATM requirements and future trends on the basis of compatibility with the existing services and it cannot operate in existing aeronautical mobile (R) spectrum. One administration expressed concern with regard to the allocation of the aeronautical mobile (R) service in 960-1 024 MHz due to its extensive use of this band for Distance Measuring Equipment (DME).
2. In the 5 091-5 150 MHz band compatibility will be required with FSS Earth-to-space feeder links. Some Administrations in APT has operational feeder links in this band.
3. Any allocation changes in the 108-117.975 MHz band must be compatible with terrestrial broadcasting systems and place no additional constraints on the broadcasting service in the band 87-108 MHz. One Administration indicated support for a global allocation to the aeronautical mobile (R) service in the frequency bands 116-117.975 MHz.
4. The frequency band 5 000-5 030 MHz is allocated to RNSS and is either currently used or is to be used by some systems. If this band were to be considered for the provision of AM(R)S services it has to be ensured that it does not place any additional constraint on RNSS systems.

The preliminary APT views on Resolution 415 issues are as follows*:*

1. Operational FSS networks can be used to create, augment or enhance infrastructure to support civil aviation telecommunications services, including ICAO CNS/ATM applications.
2. The use of satellite-based facilities in connection with civil aviation applications will contribute to the overall improvement of the aviation communications infrastructure in developing countries and remote areas. However, it should be ensured that these applications are consistent with existing satellite frequency allocations.
3. Guidance material in the form of an ITU-R Recommendation or handbook should be prepared detailing the spectrum management issues associated with using VSAT networks for aeronautical telecommunication applications, noting that this spectrum may also support other non-aviation users.

Agenda Item 1.7 - *sharing between the mobile-satellite service and the space research service (passive) in the band 1 668-1 668.4 MHz, and between the mobile-satellite service and the mobile service in the band 1 668.4-1 675 MHz.*

The APT is of the view that sharing studies between MSS and SRS (passive) in the band 1 668 – 1 668.4 MHz and between MSS and MS in the band 1 668.4 – 1 675 MHz currently conducted by ITU-R should be continued. ITU-R study should ensure that the existing services to which the band is currently allocated are protected.

Agenda Item 1.8 - *studies on technical sharing and regulatory provisions for the application of high altitude platform stations operating in the bands 27.5-28.35 GHz and 31-31.3 GHz in response to Resolution 145 (WRC-03), and for high altitude platform*

stations operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz in response to Resolution 122 (rev. WRC-03)
The preliminary APT views on this agenda item are as follows

(1) Support continued sharing studies between systems using HAPS and other systems as identified in Resolution **122(Rev. WRC-03)** for the band 47.2-47.5 GHz and 47.9–48.2 GHz and Resolution 145(WRC-03) for the band 27.5-28.35 GHz and 31-31.3 GHz on a fair basis for all concerned parties.

(2) For the identification of an appropriate 300 MHz segment in the band 27.5 – 28.35 GHz for use by HAPS in the countries listed in Nos. **5.537A** and **5.543A** or countries in Region 2 planning provisional operation, APT Members expressed a view that it is appropriate to choose such a segment within the upper part (e.g. 28.05 – 28.35 GHz) of this band, considering that, in the lower bands, there are a number of other existing/planned systems in the primary services, as well as the identified frequency band (i.e. 27.5-27.82 GHz) for use by high-density applications in the fixed-satellite service (HDFSS) in Region 1.

(3) The footnotes **5.537A** and **5.543A** may need to be modified with regard to application of non-harmful interference and non-protected basis for use of HAPS systems in the countries listed in these footnotes. This issue will be further considered at the next APG meeting.

Agenda Item 1.9 - *technical, operational and regulatory provisions applicable to the use of the band 2 500-2 690 MHz by space services in order to facilitate sharing with current and future terrestrial services without placing undue constraint on the services to which the band is allocated*
The APT agreed that, if possible, the preferred solution under this agenda item would be to use a hard limit regulatory regime, based on the specification of a power flux density mask in Article 21 of the Radio Regulations. Such regulatory solution would ensure the long term safeguard of terrestrial systems in the band 2 500-2 690 MHz from satellite interference, provided that no undue constraints are placed on the services to which the band is allocated. The hard limit regulatory regime would also be beneficial to the long-term development of space services, as a defined set of pfd limits would be known. If it is not possible to derive suitable pfd limits that are both sufficient to protect terrestrial services and allow for the operation of space services, an alternative method would be to use a coordination procedure using coordination triggers. Noting that the agenda item calls for a solution that "*does not place undue constraint on the services to which the band is allocated*", some APT administrations found it important to stipulate that regulatory solutions under this agenda item should be compatible with the existing and future systems. In view of these administrations, the regulatory solution should not have any retroactive implication on satellite networks and systems for which filings (API or coordination information, as appropriate) have been received by the Radiocommunication Bureau prior to the date of entry into force of the Final Acts of WRC-07.

Agenda Item 1.10 - *review of the regulatory procedures and associated technical criteria of Appendix 30B, without impact on existing allotments or assignments, Resolution 146 (WRC-03).*

The preliminary APT views on this agenda item are as follows:

- The work undertaken in the Working Party of the Special Committee and Working Party 4A on this Agenda item, recognizing that two 'Approaches' have been developed to review the regulatory procedures and technical criteria of Appendix 30B. A decision on the most suitable approach, at the conclusion of the work presently ongoing in the ITU-R, will need to be made at WRC-07.
- To retain the current practice/arrangement not to separate the up-link part from the down- link part of an assignment.
- Part B of the Plan is removed with/without a resolution to define the period of validity of assignments of the existing systems in the List.
- Shifting of orbital positions of Administration A having several allotments on one orbital position as result of the application of the PDA concept by Administration B, can only occur with the explicit consent of Administration A, should such a split be allowed.
- Generalized A, B, C, and D parameters can be deleted from AP 30B and included in an ITU-R Recommendation.
- The principle of macro-segmentation should be excluded in connection with the use of digital transmission method
- PFD examination should be done when processing submissions under Article 6 of Appendix 30B
- When the assignments in the List are not implemented within the regulatory time limit, reinstatement of the allotment with the same parameters that are in the List, is the appropriate approach to take.
- That WRC-07 needs to properly reflect the actual geographical situation of those ITU Member States which were not considered when the Allotment Plan was established at WARC-Orb-88.

The APT also agreed on the following technical parameters;

- The elevation angle associated with rain climatic zone Q should be 40°.
- It is desirable to reduce the antenna size for allotments in the Appendix 30B Plan. APT believes that it is feasible to reduce the antenna size with a corresponding reduction in C/I criterions, but that the exact size reduction without the need for relocation of allotments or assignments needs to be further studied.
- The improved antenna diagram in Table 2 of Annex 1 of Appendix 30B should be used for allotments in the Plan.
- To base a revision of Appendix 30B on the rain fade model contained in Recommendation ITU-R P.618-8.
- That receiver noise temperature for allotments should be updated to reflect the advances in receiver design. APT furthermore agrees that values in the order of 96 and 126 K for 4/6GHz and 10-11/13GHz band would seem representative numbers for earth stations and that values in the order of 500 and 550 K would seem representative for 4/6GHz and 10-11/13GHz band spacecraft receivers.
- That C/I requirements should be considered as an integral part of the review of the technical parameters and should be based upon amongst others Recommendation ITU-R S.1432 and consideration of practical service quality requirements.

- Technical parameters and criteria at the table of the attachment is a good starting point for identification of technical parameters and for defining a set of revised parameters which will not require relocation of allotments or assignments.
- That Appendix 30B is well suited for the introduction of the coordination arc concept, using an arc of +/- 10° in the 4/6 GHz bands and +/- 9° in the 10-11/13 GHz bands and that such a coordination arc, if introduced, should be complemented with a hard pfd limit to protect networks outside the coordination arc.

Agenda item 1.11 - *to review sharing criteria and regulatory provisions for protection of terrestrial services, in particular terrestrial television broadcasting services, in the band 620-790 MHz from BSS networks and systems, in accordance with Resolution 545 (WRC-03)*

The APT decided to adopt text relating to *Potential Method A to satisfy the Agenda item 1.11* from Document 6E/296 Annex 6 as the baseline text for the APT Preliminary View. This text considers possible modifications to No. **5.311** on how best to achieve regulatory protection of terrestrial broadcasting services in the band. In preparation for the next meeting, administrations agreed to consider the following issues:

a) Pfd limit values for angles above 20 degrees

b) text of a new Resolution [YYY (WRC-07)] specifying limits (to be sourced from ITU-R studies currently underway) for the protection of terrestrial broadcasting services.

Agenda Item 1.12 - *Coordination and notification procedures for satellite networks" in accordance with Resolution **86 (WRC-03)***

Resolution 88 (WRC-03)

The APT supports the outcome of the Working Party of the Special Committee and proposes to suppress Resolution 88 (WRC-03).

Resolution 86 (WRC-03)

The APT is of the view that scope and objectives of Resolution 86 (WRC-03) as stipulated/outlined in the "resolves" section of that Resolution to be incorporated in the future WRCs standing Agenda Item 7.1, second indent, and the Resolution be modified or suppressed as appropriate, this incorporation would be as follows:

Resolution 49 (Rev.WRC-03)

Some APT administrations were of the view that Resolution **49 (Rev.WRC-03)** has served its purpose in reducing the reservation of orbit and spectrum capacity without actual use. By suppressing this resolution and related references in RR, the application of Articles **9** and **11** would be simplified and Bureau resources could be available for other efforts. Other APT administrations were of the opinion that "administrative due diligence" can provide some transparency as to the actual use of the orbit/spectrum resource, and would continue to help in addressing the problem of reservation of orbit/spectrum capacity without actual use. This issue will be reviewed at the next APG

meeting based on the information to be provided by the BR and APT Members on the advantages, disadvantages and effectiveness of retention or suppression of Resolution **49 (WRC-07)**.

Provisions of No. 11.49

The APT is of the view that the current Provisions of No. **11.49** allow a suspension of an assignment to a space station for a maximum period of two years and the notifying administration shall, as soon as possible, inform the Bureau of the date on which such use was suspended and the date on which the assignment is to be brought back into regular use. Since these provisions are mainly applied by administrations in the case of malfunction of a satellite and allow the continuation of the rights of the assignment to be protected, APT Members are of the opinion that two years, as provided in No. **11.49**, is the minimum period for the malfunctioning spacecraft to be replaced so as to reflect actual situations. Consequently, APT supports no changes in the Provisions of No. **11.49**

Provisions of No. 22.2

The APT supports the outcome of the second SC-WP meeting to modify No. **22.2** so that it clarifies that NGSO systems shall not claim protection from GSO networks. A possible example of modification to No. **22.2**, by reusing a wording similar to that contained in footnotes **5.441**, **5.484A**, **5.487A** and **5.516** is provided below.

Provisions of No.11.47

The APT supports modification to No. **11.47** to suppress the reference extension granted under No. **11.44**, pursuant to WRC-03 decision to modify No. **11.44**. The APT also supports the removal of the requirement to bring into use assignments to space stations provisionally recorded in the Master Register by the date specified in the notice, as this date is considered as a planned date of bringing into use and the only regulatory deadline is the latest date provided by No. **11.44**. Under this approach, the Bureau would send a reminder only when administration fails to advise the Bureau that the provisionally recorded assignment have been brought into use in accordance with No. **11.44**.

Provisions of No.5.538 and Table 21-4 of Article 21 of the Radio Regulations

In order to solve the possible inconsistency between the provisions of No. **5.538** and the contents of Table **21-4** of Article **21**, the APT supports the inclusion of the 27.500-27.501 GHz band in Table **21-4**. Considering that the pfd limits applicable in the lower adjacent frequency band (25.25-27.5 GHz) may be appropriate for the 27.500-27.501 GHz band (subject to confirmation or otherwise by WP 4A and other groups concerned), it is proposed to consider the extension of these pfd limits to the 27.500-27.501 GHz band.

Provisions of No. 9.6.3

The APT support modifications to **No. 9.6.3** to remove any misunderstanding regarding coordination requirement(s).

Provisions of No. 9.11A and transfer of its associated rules of procedure to the RR

The APT does not support the transfer of rules of procedures relating to Provision RR **9.11A** to the Radio Regulations. In order to simplify the task of administrations and the Bureau, when applying this Provision it is necessary to add a footnote to this Provision in the RR which clearly and in a transparent manner cover all issues which are currently addressed in the corresponding Rules of Procedures.

Provisions of No 9.19

The APT members are not in favor to limit the application of No. **9.19** to the bands subject to Appendices **30** and **30A**.

Provisions of Nos. 9.15-9.19

The APT members are not in favor of the following regulatory actions:

- to merge No. **9.15** into No. **9.17** so as to have a single procedure for the coordination of an earth station in respect of terrestrial stations;
- to merge No. **9.16** into No. **9.18** so as to have a single procedure for the coordination of a terrestrial station in respect of earth stations;
- to modify No. **9.17A** to specify that it applies only to specific and typical mobile earth stations;"

Provisions of No. 11.43A

The APT agreed to modify the provisions of No. **11.43A** to incorporate the content of the Rule of Procedure on No. **11.43A** so as to specify the criteria associated with the applicability of No. **11.43A**. In particular, it is proposed:

- to specify the cases of applicability of No. **11.43A** regarding the possibility of changing the orbital location;
- to clarify the procedures applied by the Bureau and the notifying administration.

Provisions of No. 11.43B

The APT are of the view that it may be necessary to clarify the wordings of the provisions of No. **11.43B** that these provisions relate to the case of a modification to an assignment recorded in the MIFR with a favorable finding under No. **11.31**.

Coordination between the BSS in R2 and the FSS (space-to-Earth) in R1 in the band 17.3-17.8 GHz

Introduction of a coordination arc value of ±8° between Region 2 BSS networks and FSS (space-to-Earth) networks whose service areas are limited to Region 1 in the band 17.3-17.8 GHz (with a note indicating that, in the band 17.7-17.8 GHz, for the cases of FSS networks whose service area is not restricted to Region 1, a default coordination arc value of ±16° applies.

Agenda Item 1.13 - *taking into account Resolutions 729 (WRC-97), 351 (WRC-03) and 544 (WRC-03), to review the allocations to all services in the HF bands between 4 MHz and 10 MHz, excluding those allocations to services in the frequency range 7 000-7 200 kHz and those bands whose allotment plans are in Appendices 25, 26 and 27 and whose channeling arrangements are in Appendix 17, taking account of the impact of new*

modulation techniques, adaptive control techniques and the spectrum requirements for HF broadcasting

The APT agreed on the following preliminary views:

Issues A and B

APT Members support the continuation of ITU-R studies called for in Resolution **729 (WRC-97).**

Issue C

APT Members support the continuation of ITU-R studies called for in Resolution **351 (WRC-03).**

Issues D and E

1. APT Administrations are of the opinion that the sharing between the Broadcasting and other Services is not feasible.
2. APT Members noted the difficulty of meeting the requirements of all services in this band including additional allocation to HFBC in the band 4-10 MHz.
3. The HF band between 4-10 MHz is very heavily used for all services to which the band is currently allocated, in particular the fixed and mobile services.
4. APT members are therefore looking forward to finding a satisfactory and fair solution for the resolution to the matter.

Agenda Item 1.14 - *Operational procedures and requirements of the Global Maritime Distress and Safety System (GMDSS) and other related provisions of the Radio Regulations*

The APT agreed on the following preliminary views:

Issue A *-- Resolution **331 (Rev.1 WRC-03)**, transition to the Global Maritime Distress and Safety System (GMDSS)*

Sufficient experience has been gained from GMDSS, such that appropriate and/or necessary changes to the Radio Regulations could be considered by WRC-07. The non-GMDSS distress and safety communications provisions should be gradually revised to accommodate interoperability with GMDSS. In particular, Chapter **VII** of the Radio Regulations should be revised. This interoperability is required to maintain Safety-Of-Life At Sea (SOLAS) until the maritime community has fully transitioned to the GMDSS standard. In accordance with IMO recommendations, GMDSS ships continue to keep continuous guard on VHF channel 16 (156.8 MHz) with a view to maintaining communications between SOLAS and non-SOLAS ships. All vessels should be encouraged to make use of the GMDSS as soon as possible. The IMO has authorized the discontinuance of a 2 182 KHz guard for SOLAS vessels. In recognition of continuing domestic requirements regarding non-SOLAS vessels outside of VHF range in some countries, a 2 182 kHz guard will need to be maintained for some time. RR Appendix **13** on radiotelephony procedure for 2 182kHz is needed to transfer into a new Recommendation or Resolution. Rules and procedures for radiotelegraphy can be deleted from RR Appendix **13** along with relevant changes to Chapter **IX**. The necessary regulatory provisions in RR Appendix **13** should be maintained by stipulating Resolutions, since, except for the maritime mobile service, the Appendix includes regulatory provisions concerning distress and

safety communications. Resolution **331 (Rev.WRC-03)** should be updated to reflect the current situation.

Issue B -- *Resolution **342 (Rev. WRC-2000)**, new technologies to provide improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service*

It is important that efficient use be made in the maritime VHF band for not only distress and safety communications but other digital communications and the demand for public correspondence. Therefore the introduction of digital systems and rearrangement of channel spacing is needed, but the further introduction of digital systems into this band should be based on adopting suitable technologies into a worldwide interoperable standard and be able to handle the existing system. Consequential revision of RR Appendix **18** to reflect these requirements and the worldwide decline of VHF public correspondence may be necessary at an appropriate time.

Agenda Item 1.15 - *secondary allocation to the amateur service in the frequency band 135.7-137.8 kHz*

The APG agreed on the following preliminary approach to resolve this agenda item:

1. Add a new amateur secondary allocation entry in Article 5 for the band 135.7-137.8 kHz;
2. Limit the transmit power of amateur systems.

Agenda Item 1.16 - *to consider the regulatory and operational provisions for Maritime Mobile Service Identities (MMSIs) for equipment other than shipborne mobile equipment, taking into account Resolutions 344 (Rev.WRC-03) and 353 (WRC-03)*

With regard to this agenda item, the APT adopted the following preliminary views:

1. Support the assignment of MMSIs to SAR aircraft and Aids to Navigation;
2. A unique and entirely different format for these MMSIs should be developed and not impact on the MMSI numbers available for ship stations and coast stations;
3. The registration of MMSIs assigned to SAR aircraft and aids to navigation in the Maritime Mobile Access and Retrieval System (MARS) is also supported;
4. ITU-R Recommendation **585-3** and RR Article **19** should be revised in order to permit to assign MMSIs to SAR aircraft for AIS and Aids to Navigation;
5. Continue and complete ITU-R studies to satisfy the requirements of Resolution **353 (WRC-03)**.

Agenda Item 1.17 - *allocation to the FSS for feeder links for non-geostationary-satellite networks in the mobile-satellite service with service links below 1 GHz in the bands 1390-1392 MHz (Earth-to-space) and 1430-1432 MHz (space-to-Earth).*

APG was of the view that all existing services must be protected from interference that may be caused by MSS feeder links operations in the subject band. Some administrations expressed a view that the protection of the existing services can be best achieved by suppressing FSS allocation in RR 5.339A and Resolution 745.

Agenda Item 1.18 - *pfd limits in the band 17.7-19.7 GHz for satellite systems using highly inclined orbits*

With regard to this agenda item, the preliminary APT views are as follows:

(1) Support ongoing studies to review the current PFD limits for satellite systems using highly inclined orbits (HIOs) to adequately protect the fixed service without unduly constraining these satellite systems in the band 17.7 – 19.7 GHz.

(2) Satellite systems using HIOs should continue to be considered as a subset of non-GSO systems and have the same regulatory procedure as other types of non-GSOs. There is no need to modify the Radio Regulations in this regard. The characterization of HIO may be addressed in an ITU-R Recommendation.

(3) APT administrations did not agree on whether the satellite systems using HIOs mentioned in Resolution 141 should include those using elliptical orbits or circular orbits having characterization in considering g) of that Resolution. This issue will be addressed at a future meeting.

(4) Some APT administrations were of the view that the current pfd limits in Article 21 of the Radio Regulations are not appropriate to ensure the protection of FS systems from HIO FSS systems.

Agenda Item 1.19 - *spectrum requirements for global broadband satellite systems in order to identify possible global harmonized FSS frequency bands for the use of Internet applications, and consider the appropriate regulatory/technical provision*s
The APT members are of the view that existing RR can fully accommodate the ability of FSS systems to provide Internet access, therefore, no change is required in response to this agenda item.

Agenda Item 1.20 - *regulatory measures for the protection of the Earth exploration-satellite service (passive) from unwanted emissions of active services in accordance with Resolution 738.*
The APT members are of the view that adequate protection should be given to EESS (passive) from unwanted emissions without imposing undue burden on active services in adjacent bands. The regulatory measures to regulate unwanted emissions from active services should be appropriately determined taking into account the results of ITU-R studies.

Agenda item 1.21 - *compatibility between the radio astronomy service and the active space services*.
With regard to this agenda item, the preliminary APT position is that the threshold levels of unwanted emissions from active space services should be appropriately determined taking into account the results of ITU-R studies.

Documents:
The documents of this meeting are available at:
http://www.aptsec.org/meetings/2006/APG07-3/Documents/APG2007-3DocList.htm

Next meeting:
The next meeting of APG2007 is scheduled for 8-12 January 2007.