

主 題

# APT CONFERENCE PREPARATORY GROUP(APG) PREPARATIONS AND ACTIVITIES FOR WRC-2000

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차 례

- I. VISION
- II. OBJECTIVE
- III. PROGRESS TO DATE
- IV. APG WORK STRUCTURE
- V. AGTE activities
- VI. APG MEETING SCHEDULES TO PREPARE FOR WRC-2000
- VII. APG ACTIVITIES (1998-2000)
- VIII. FUTURE ACTIVITIES FOR WRC-2003

## I. VISION

Following the success reaped from its first attempted coordination work for members in the Asia-Pacific region (Region 3) for the WRC-97, the APT has a vision to improve its efforts as a regional catalyst, bringing members even closer together with greater cooperation and coordination to synchronize views/proposals to promote their interests as a regional group at WRC events for maximum benefit. Hence, the APT Conference Preparatory Group (APG) for WRC is formed, consisting of member administrations from 30 countries in the Asia-Pacific region.<sup>1)</sup>

## II. OBJECTIVE

The objective of the APG is to harmonise the views of the APT Members and develop common proposals for submission to WRC-2000. The output will be in the form of a consolidated report on views of the APT Member countries and the development of common proposals for consideration at the CPM/WRC. This is expected to ease the task of reaching a consensus during the WRC-2000 and, more importantly, result in the adoption of APT proposals at the Conference thereby benefiting the Members.

1) APT Member Palau (Republic of) is not included since it is not an ITU member yet.

### III. PROGRESS TO DATE

The APT has organised several regional meetings to prepare for the WRC-2000 to date, the most recent one being the 4<sup>th</sup> APT Conference Preparatory Group Meeting for WRC-2000 (APG2000-4) held in Tokyo in January/February 2000. Being the final preparatory meeting for the WRC-2000, the members met to finalise the common proposals for the WRC-2000. The entire process of developing the APT views and proposals jumped started in 1998, with various activities undertaken by the APG and its members.

At the point of this write-up, the APT Common Proposals for WRC-2000 has been submitted to the ITU for documentation and consideration at the WRC-2000 in Istanbul (8 May - 2 June 2000) with its signatory list on members' endorsements of the various agenda items attached. (*Document CMR-2000/20-E*). Late endorsements are currently being compiled and will be submitted as an Addendum to the main document.

In terms of establishing close ties with partners-in-progress, the APT has been working closely and learning from other regional organisations like CEPT, CITELE and the Arab League on their methods of generating and presenting views/proposals for the WRC-2000, as well as

maintaining good relations with other international organisations like the ABU, ICAO, IATA with continuous support/guidance from the ITU.

Where global participation is concerned, it is worth noting that the APT has progressively drawn greater interests from the outside regions in its APG activities and preparations for the WRC-2000, resulting in increasing participation from these parties at APG meetings. This has given a more international leverage to the APT in its role as a prominent regional coordinator in the Asia-Pacific region.

### IV. APG WORK STRUCTURE

The APT Conference Preparatory Group for WRC (APG) has been established with four Working Parties under their respective WP Chairman. The Group is guided overall by the Chairman and Vice-Chairman of the APG. The table below shows the APG structure.

WP	Subject	Chapter of CPM Report	WP Chairmen	Chairman, Vice-Chairman
1	- Regulatory and procedural matters - Other matters	- 7	Mr. Philip McGill, Australia Email: <a href="mailto:pmcgill@aca.gov.au">pmcgill@aca.gov.au</a>	Chairman : Mr. R. N. Agarwal, India Email: <a href="mailto:ragarwal@vsnl.com">ragarwal@vsnl.com</a>
2	- Mobile and radionavigation services - Mobile-satellite and radionavigation- satellite services - Space science services and radio astronomy	1 2 4	Dr. K. Kosaka, Japan Email: <a href="mailto:Kkosaka@docomo-e.co.jp">Kkosaka@docomo-e.co.jp</a>	Vice-Chairman: Mr. E. Behdad, Iran Email: <a href="mailto:behdad@itu.int">behdad@itu.int</a>
3	- Appendices S30 and S30A - IRG & GTE matters	5 -	Mr. Sharad Sadhu, ABU Email: <a href="mailto:se2@abu.org.my">se2@abu.org.my</a>	
4	- Fixed and fixed satellite services - Frequency sharing with Non-GSO FSS issues	6 3	Mr. K. Okada, Japan Email: <a href="mailto:okada@sat.netlab.ntt.co.jp">okada@sat.netlab.ntt.co.jp</a>	

## V. AGTE activities

According to the recommendations of the APG2000-1 meeting in May 1998, a technical task group under the Chairman of Working Party 3, named the APT Group of Technical Experts (**AGTE**), was set up in July 1998 to contribute to the ITU-R Group of Technical Experts (GTE) and the ITU-R IRG. Members felt that it is imperative for the APT to be adequately represented at the ITU-R GTE meetings and the ITU-R IRG meetings. The **AGTE** would be entrusted with carrying APT formal contributions to the GTE, presenting country proposals

or joint proposals to the IRG and taking care of the APT interests. Members of the **AGTE** comprise experts from Australia, P. R. China, India, Iran, Japan, Republic of Korea, Laos, Pakistan and Thailand.

The workplan for the AGTE activities was approved in September 1998. The **AGTE** activities are conducted on e-mail basis, with Interim Meeting(s) if necessary.

Soon after its establishment, the **AGTE** adopted an approach to BSS replanning and devised the related methodology. Several trial BSS plans for Region 3 was

produced. The Group developed several replanning techniques, which made it possible to prepare a well-balanced BSS "Plan" for Region 3 with satisfactory results. Among others, the AGTE pioneered the provision of 12 channels to Region 3 countries and the use of orbital-offsets for reducing interference in the feederlink.

- Many of the results obtained in AGTE replanning studies were adopted by the IRG/GTE. The IRG report has devoted a section to the contributions made by the AGTE/ APT, the only group to have been so acknowledged.

## VI. APG MEETING SCHEDULES TO PREPARE FOR WRC-2000

The following meetings were agreed upon under the APG activities for 1998 until 2000 to prepare for the WRC-2000.

## VII. APG ACTIVITIES (1998-2000)

### 1. APG2000-1:

#### HF Interference and BSS Replanning Meeting in Bangkok 6-8 May 1998

The APT HF Interference and BSS Replanning Meeting was held from 6-8 May 1998 in Bangkok. The objectives of the meeting were to enable the APT Members to discuss and seek solutions to the interference problem in maritime and

Month / Year	APT Activities
6-8 May 1998 Bangkok, Thailand	HF Interference and BSS Replanning Meeting (APG2000-1)
1 - 3 December 1998 Phuket, Thailand	1 <sup>st</sup> AGTE BSS Replanning Meeting (AGTE-1)
11-16 April 1999 Bangkok, Thailand	APT Seminar on WRC Issues and the 2nd APT Conference Preparatory Group Meeting for WRC-2000 (APG2000-2)
13-15 September 1999 Kuala Lumpur, Malaysia	2nd AGTE BSS Replanning Meeting (AGTE-2)
3-8 October 1999 Gold Coast, Australia	The 3 <sup>rd</sup> APT Conference Preparatory Group Meeting for WRC-2000 (APG2000-3)
31 Jan-4 Feb 2000 Japan	The 4 <sup>th</sup> APT Conference Preparatory Group Meeting for WRC-2000 (APG2000-4)

aeronautical services in the High Frequency (HF) bands related to WRC-2000 agenda item 1.7 and replanning of BSS (Broadcasting Satellite Service) related to WRC-2000 agenda item 1.19 and Resolution 532 (WRC-97). The meeting also addressed some Plenipotentiary-98 (PP-98) and WRC-2000 issues raised by the members.

#### ***Results of the discussion on BSS Re-planning Issues***

The meeting reviewed Resolution 532 (WRC-97) and discussed matters to be looked at by the APG, namely: Planning principles (Res 532), Planning Approaches developed by the IRG and the GTE and APT participation in the activities of these two groups.

The Adhoc Group agreed upon the following proposals for consideration of the meeting:

- That the APT constructively contribute to the activities of the IRG. This may be done through the assistance of a few designated member administrations participating in the IRG;
- That the APT contribute, on a technical level, to the studies being carried out by the GTE;
- That the APT carry out focused studies on BSS replanning, including

those on policy matters and on technical assessment of various Approaches. For this purpose, a BSS Task Group be set up with participation from technical experts:

- That the APT membership be urged to generously contribute to the above, in terms of providing technical experts and appropriate software.

#### ***Results of the discussion on HF Interference Issues***

The meeting agreed that interference to aeronautical and maritime HF communications was a serious problem and that action needed to be taken to mitigate this interference. All the proposals presented to the meeting were considered and it was agreed that these could be broadly classified into two distinct categories: proposals requiring action on a regional basis and other proposals requiring consideration and possible action by the ITU.

Regional action was focused on the need for regional cooperation and coordination. It was agreed that networking of available HF monitoring and direction finding facilities would greatly assist all administrations in dealing with HF interference investigation and resolution. It was also agreed that a centralised data collection, processing and dissemination facility would facilit-

ate recording and analysis of data on a regional scale.

The meeting considered that the necessary protocols and processes to initiate and operate a regional monitoring, direction finding and interference analysis scheme should be submitted for consideration and action by the Asia-Pacific Telecommunications Standardisation Programme (ASTAP). A liaison statement tasking ASTAP (Wireless) with this action including consideration of implementing a centralised data bank was prepared.

The meeting further considered that all administrations should be formally advised of the findings of this APT Meeting and requested to take action to improve and enhance spectrum management capabilities with particular reference to Monitoring, Direction finding, Licensing, Equipment standards, Import and sale of radio transmitters; and Inspection.

Finally, the meeting considered the amendments proposed that to Res 207 and some changes were made to reflect the need for ITU-R to study interference mitigation. The draft Resolution was also amended mainly to introduce some editorial changes.

The office bearers of the APG were

elected and the APG Action Plan and Terms of Reference were approved at this meeting. The action plan contains the new work structure for the APG activities to prepare for the WRC-2000.

## **2. AGTE-1 :**

### **1<sup>st</sup> AGTE BSS Replanning Meeting in Phuket, 1-3 December 1998**

The APT held the AGTE-1 meeting in Phuket from 1-3 December 1998 with the prime objective to speed up the replanning exercise, overcoming any difficulties that existed. The meeting also reviewed the input data for the exercise, making modifications necessary. Members were entrusted with specific responsibilities for contributing to the exercise.

## **3. APT Seminar on WRC Issues**

Kicking off on the right footing in 1999, to familiarise and enhance the knowledge of APT administrations on WRC issues to better prepare for the WRC-2000, the APT organised the one-day Seminar on WRC issues on 11 April 1999 in Bangkok, prior to the 2nd APT Conference Preparatory Group Meeting. There were nine speakers from Australia, Iran, Japan, Republic of Korea, as well as from the International Telecommunication Union (ITU) who contributed greatly to the seminar with their presentations. The seminar was well received by all the

131 participants from the various administrations and organisations.

#### 4. APG2000-2 :

##### **The 2nd APT Conference Preparatory Group Meeting for WRC-2000 in Bangkok, 11-16 April 1999**

Following the Seminar on WRC issues, the 2<sup>nd</sup> APT Conference Preparatory Group Meeting continued 12-16 April 1999 in Bangkok. The objective of the meeting was to prepare and develop APT inputs to CPM, IRG and other related meetings concerning WRC, including development of preliminary views and draft inputs to the Special Committee on Regulatory and Procedural Matters (SCRPM), amongst the objectives laid out for the meeting. The meeting was attended by 131 participants representing Members, Associate Members, Affiliate Members and Participating Companies of APT and international and regional organisations.

The meeting was successful in producing the results it wanted in the form of preliminary views and proposals on the WRC-2000 agenda items and two resolutions, which were forwarded by the APT to the ITU Joint Working Party 10-11S, the Forth Meeting of the Inter-conference Representative Group - IRG-4 (1-2 July 1999), the Third Meeting of the Group of Technical Experts -

GTE-3 (28-30 June 1999) and the SCRPM Meeting (12-16 July 1999) for consideration, as follows:

- Proposals for Agenda items 1.19 on Avoidance of BSS Resource Monopolisation : (Proposals on BSS Replanning Issues and Compatibility Issues between Region 1 BSS and Region 3 FSS ):
- Proposal for Agenda item 1.20 on Restructuring Appendices S30 and S30A:
- Revision to Resolution 207 on "Unauthorized Use of Frequencies in the Bands Allocated to the Maritime Mobile Service and to the Aeronautical Mobile (R) Service":
- Draft new Resolution on "Technical and Operational Needs for Distress and Safety Frequencies between 500 kHz and 1 656.5 MHz Allocated to the Maritime Mobile Service and to the Aeronautical Mobile (R ) Service".

The APG2000-2 meeting also produced an input document on Proposed Modification to the draft CPM Text of Task Group 8/1 of Radiocommunication Study Group 8 on IMT-2000 to the 17<sup>th</sup> meeting of the TG8/1 (31 May-11 June 1999, Beijing) for consideration.

#### 5. AGTE-2 :

##### **The 2nd APT Group of Technical Experts BSS Replanning Meeting in**

### **Kuala Lumpur, 13-15 September 1999**

The APT organised the 2nd APT Group of Technical Experts meeting in Kuala Lumpur, Malaysia, 13-15 September 1999, to bring the experts together to conduct BSS re-planning exercise for all the APT member countries in the region. The meeting was supported by the Asia-Pacific Broadcasting Union (ABU).

The Meeting was attended by 25 participants representing Members, Affiliate Members, Participating Companies of APT and international and regional organisations. The ITU assigned an expert to help and provide guidance to the administrations on the replanning exercise.

The results of the meeting has been presented at the 3<sup>rd</sup> APT Conference Preparatory Group Meeting (APG2000-3) at the Gold Coast, Australia, 3-8 October 1999; and also, as agreed, it has been submitted to the fourth meeting of the Group of Technical Experts (GTE) of the ITU, scheduled 27 September - 1 October 1999, for consideration.

#### **Workshop on Satellite Coordination and Notification Procedures**

Prior to the 3<sup>rd</sup> APT Conference Preparatory Meeting (APG2000-3), the APT will hold a one-day workshop on

Satellite Coordination and Notification Procedures on 3 October 1999. The purpose of the workshop is to generate some free-flow discussion and ideas on how administrations might respond to Resolution 86 of PP98. The workshop will address satellite coordination and notification procedures, including problems and prospects for improvement.

### **6. APG2000-3 :**

#### **The 3<sup>rd</sup> APT Conference Preparatory Group Meeting for WRC-2000 in Gold Coast, 4-8 October 1999**

The 3<sup>rd</sup> APT Conference Preparatory Group Meeting (APG2000-3) has been organised at the Gold Coast, Australia 3-8 October 1999 with the purpose of preparing the APT common proposals to the CPM-99 and other WRC related meetings and updating preliminary views/proposals on the WRC-2000 agenda items.

The meeting was hosted by the Department of Communications Information Technology and the Arts of Australia and the Australian Communications Authority and attended by 181 participants representing Members, an Associate Member, Affiliate Members, Participating Companies of APT and International/Regional Organisations.

The meeting completed very success-



fully. The results of the meeting then be submitted to the CPM-99, scheduled 15-26 November 1999 and IRG-5 from 29 November to 3 December in Geneva for consideration.

At the meeting, Document APG2000-3/38 was introduced by the Executive Director of APT, Mr. Jong Soon Lee. He explained that the APT Study Groups met in Bangalore, India, 2-7 September 1999 and that at that meeting, the proposals on HF Interference and IMT-2000 matters were referred to APG for action. Some administrations mentioned the serious nature of the HF Interference problem and the importance of IMT-2000 issue. These administrations were asked to raise the matter at the APT Management Committee meeting.

#### **7. APG2000-4 :**

##### **The 4<sup>th</sup> APT Conference Preparatory Group Meeting for WRC-2000 in Tokyo from 31 January to 4 February 2000**

The 4<sup>th</sup> Asia-Pacific Telecommunity (APT) Conference Preparatory Group Meeting for the World Radiocommunication Conference 2000 (APG2000-4) was held in Tokyo, Japan from 31 January - 4 February 2000 with the main objectives to develop the APT common proposals to WRC-2000. The work of the four working parties in developing the common proposals are summarized below:

#### ***Working Party 1***

APG Working Party 1 addresses Regulatory and Procedural matters and any other matters not addressed by the other three APG Working Parties in relation to the WRC-2000 agenda. This includes WRC-2000 agenda items 1.1, 1.2, 1.3, 2, 4, 7.2 and regulatory aspects of 1.7, 1.18, 1.20. In preparation for APG 2000-4, views and proposals addressing Working Party 1 matters were received and compiled for consideration/finalization at the APG2000-4 meeting. Additionally, the views of International/Regional Organisations have been taken into consideration.

#### ***Working Party 2***

The progress of works of WP2 at the APG2000-3 meeting was significant owing to valuable contributions and extensive efforts by the participants and WP2 took into consideration the results of the CPM99-2 (November 1999) relating to the work of WP2 in generating the common proposals for WRC-2000 for finalization at the APG2000-4 Meeting. The APT administrations were also encouraged to submit their results of the spectrum survey for the possible additional candidate IMT-2000 bands to APG2000-4, in order to get an overall consensus of Members' views.

### ***Working Party 3***

Since its setting up at the APG2000-1 (Bangkok, 6-8 May 1998), Working Party 3 has actively pursued studies on BSS re-planning. As a result of its efforts, several APT contributions were made to the ITU-R Inter-conference Representative Group (IRG) and the Group of Technical Experts (GTE). Most of the proposals were accepted.

Subsequent to the APG2000-3 meeting (Gold Coast, 3-8 October 1999), the IRG held its last meeting and finalised its report for WRC-2000. This report contains several elements proposed by WP3/APG, prominent among them being the following:

- 12 channels for Region 3 countries,
- implementation of full digital planning,
- use of orbital off-sets in feederlink planning,
- downlink and feederlink example plans for Region 3 having only an insignificant number of incompatibilities,
- amendments to the Morocco proposal, reflecting improvements proposed by WP3/APG.

### **Unresolved Issues**

The APG/ WP 3 proposal to IRG -

preventing use of the "Region 3 arc" (FSS-BSS and BSS-BSS compatibility) by Region 1 countries - does not find any mention in the IRG report. However, the orbital assignments of a large number of Region 1 countries have been relocated by the IRG to the east of 34 degrees E. This will bring about considerable pressure on the BSS and FSS resources of Region 3 countries. The above-cited proposal was intended to prevent this influx. It was therefore necessary for WP3 to seek the APG guidance on how to deal with this issue and this issue was addressed in some depth at the APG2000-4.

WP3 and WP1 also activated the Joint Group to address WRC-2000 agenda item 1.20 on restructuring of Appendices S30 and S30A where some progress has been made in addressing the CPM text on this issue, to incorporate into the common proposals.

### ***Working Party 4***

WP4 is responsible for matters regarding the fixed service, the fixed-satellite service, and frequency sharing with non-GSO systems, relating to WRC2000 Agenda Items 1.4, 1.5, 1.8, and 1.12 through 1.14. The objectives of WP4 are to enable the APT members to discuss and share their own views on those Agenda Items. During the APG2000-3 (Gold Coast), APT common

proposals to CPM99-2 and preliminary views for WRC-2000 Agenda Items have been drafted as outputs of the meeting based on many valuable contributions from APT members. The APT common proposals were considered at the CPM-99 meeting. Most of them were reflected to the CPM Report. Thereafter, WP4 continued with the drafting/finalisation of the final proposals at the APG2000-4 meeting for the WRC-2000.

## VIII. FUTURE ACTIVITIES FOR WRC-2003

### 1. APG2003-1 :

**The 1<sup>st</sup> APT Conference Preparatory Group Meeting for WRC-2003 in Bangkok from 4-7 September 2000**

The APT is now planning to organise the 1<sup>st</sup> APT Conference Preparatory Group Meeting for WRC-2003 in Bangkok from 4-7 September 2000 to decide on follow up actions of WRC-2000 and for making preparations for the next meeting. A Workshop on development trends of radio communication services and technology is also being considered to be held in conjunction with this APG2003-1 meeting.



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