



บันทึกข้อความ

ส่วนราชการ สำนักส่งเสริมและพัฒนางานเทคนิค ส่วนสำรวจและวางแผน โทร.๐-๒๖๑๘-๒๓๒๓ ต่อ ๑๙๒๑

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เรื่อง สรุปผลการประชุมคณะกรรมการร่วมทางเทคนิคว่าด้วยการประสานและจัดสรรความถี่วิทยุตามบริเวณชายแดนไทย-ลาว ครั้งที่ ๕ (JTC-5)

เรียน อปส.

ตามที่ สำนักงาน กสทช. ขอให้ กปส. พิจารณาส่งผู้แทนเข้าร่วมประชุมคณะกรรมการร่วมทางเทคนิคว่าด้วยการประสานและจัดสรรความถี่วิทยุตามบริเวณชายแดนไทย-ลาว (JTC) ครั้งที่ ๕ ระหว่างวันที่ ๒๐ - ๒๓ ตุลาคม ๒๕๕๗ ณ โรงแรม เดอะริเวอร์ จังหวัดนครพนม และ อปส. ได้มอบหมายให้ สพท.เป็นผู้แทนเข้าร่วมประชุมดังกล่าว

บัดนี้ การประชุมได้เสร็จสิ้นเรียบร้อยแล้ว สพท. ขอสรุปรายงานการประชุมคณะกรรมการร่วมทางเทคนิคว่าด้วยการประสานและจัดสรรความถี่วิทยุตามบริเวณชายแดนไทย-ลาว ครั้งที่ ๕ จึงเห็นควรให้มีการเผยแพร่ผ่านระบบอินเทอร์เน็ตกรมประชาสัมพันธ์ เพื่อให้หน่วยงานที่เกี่ยวข้องได้รับทราบต่อไป ดังมีรายละเอียดตามเอกสารแนบ

จึงเรียนมาเพื่อโปรดทราบ

(นายชุมพร เครือขวัญ)

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สำนักงานคณะกรรมการกิจการ
กระจายเสียง กิจการโทรทัศน์
และกิจการโทรคมนาคมแห่งชาติ
๘๗ ถนนพหลโยธิน กทม. ๑๐๔๐๐

๓๐ มกราคม ๒๕๕๘

เรื่อง ผลการประชุมคณะกรรมการร่วมทางเทคนิคว่าด้วยการประสานและจัดสรรความถี่วิทยุตามบริเวณ
ชายแดนไทย-สปป.ลาว ครั้งที่ ๕ (The 5th Joint Technical Committee on Coordination and
Assignment of frequencies along Thailand - Lao P.D.R. Common border)

เรียน อธิบดีกรมประชาสัมพันธ์

- สิ่งที่ส่งมาด้วย
๑. Agreed Minutes of the 5th Joint Technical Committee on Coordination and Assignment of Frequencies along Thailand - Lao P.D.R. Common Border Meeting (JTC-5)
 ๒. Report of Working Group on Broadcasting Services (WG1)
 ๓. Report of Working Group on Mobile and Non-Broadcasting Services (WG2)

ตามที่ผู้แทนสำนักงานคณะกรรมการกิจการกระจายเสียง กิจการโทรทัศน์ และกิจการโทรคมนาคมแห่งชาติ (กสทช.) และหน่วยงานผู้ให้บริการด้านกิจการกระจายเสียง กิจการโทรทัศน์ กิจการโทรคมนาคม และกิจการวิทยุคมนาคม พร้อมทั้งหน่วยงานเพื่อความมั่นคงของรัฐของประเทศไทย ได้เข้าร่วมการประชุมคณะกรรมการร่วมทางเทคนิคว่าด้วยการประสานและจัดสรรความถี่วิทยุตามบริเวณชายแดนไทย-สปป.ลาว ครั้งที่ ๕ (JTC-5) เมื่อวันที่ ๒๐ - ๒๒ ตุลาคม ๒๕๕๗ จังหวัด นครพนม ไปแล้ว นั้น

กสทช. ในการประชุม ครั้งที่ ๑/๒๕๕๘ เมื่อวันที่ ๒๑ มกราคม ๒๕๕๘ ได้มีมติเห็นชอบต่อบันทึกความตกลงร่วม (Agreed Minutes) ในส่วนของการประชุมเต็มคณะ การประชุมกลุ่มทำงานที่ ๑ (Working Group 1) ในส่วนที่เกี่ยวข้องกับกิจการกระจายเสียง และกิจการโทรทัศน์ และการประชุมกลุ่มทำงานที่ ๒ (Working Group 2) ในส่วนที่เกี่ยวข้องกับกิจการเคลื่อนที่และกิจการวิทยุคมนาคมอื่น ตามที่สำนักงาน กสทช.เสนอ รายละเอียดปรากฏตามสิ่งที่ส่งมาด้วย

จึงเรียนมาเพื่อโปรดทราบและพิจารณาดำเนินการปฏิบัติตามมติที่ประชุมดังกล่าวอย่างเคร่งครัด พร้อมทั้ง รายงานความคืบหน้าการปฏิบัติตามข้อตกลงร่วมดังกล่าวให้สำนักงาน กสทช. ทราบต่อไปด้วย จักขอขอบคุณยิ่ง

ขอแสดงความนับถือ

(นายฐากร ตัณฑสิทธิ์)
เลขาธิการ กสทช.

สำนักบริหารคลื่นความถี่

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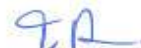
Agreed Minutes
of the 5th Joint Technical Committee on Coordination and Assignment of Frequencies
along Thailand-Lao PDR Common Border Meeting (JTC-5)
20 - 22 October 2014, Nakhon Phanom, Thailand

1. Introduction

- 1.1 The 5th Joint Technical Committee on Coordination and Assignment of Frequencies along Thailand-Lao PDR Common Border Meeting (JTC-5) was held in Nakhon Phanom, Thailand from 20 to 22 October 2014.
- 1.2 Thailand Delegation was led by Air Vice Marshal Thanapant Raicharoen, Ph.D., Deputy Secretary General, Office of The National Broadcasting and Telecommunications Commission (NBTC), and Lao PDR Delegation was led by Mr. Chaleun Sibounheuang, Deputy Director General, Department of Telecommunications, Ministry of Posts and Telecommunications (MPT). The list of delegates appears in Doc.JTC-5/T-02.

2. Opening Remarks

- 2.1 In the opening session, Air Vice Marshal Thanapant Raicharoen, Ph.D., Head of Thai Delegation, welcomed Lao PDR Delegation to the JTC-5 Meeting in Nakhon Phanom. He then informed the Meeting that NBTC had participated in joint measurements along the border areas three times during the first half of this year and attended Ad-hoc Committee on Mobile Services Meetings and Task Force on Frequency Registration Meetings. He also informed that NBTC had conducted the training course on "Techniques and Methodology for Spectrum Monitoring" during 7-10 July 2014 in Bangkok to enhance close relation and cooperation between the staff of MPT and NBTC regional offices. Moreover, NBTC plans to organize a training next year in Thailand course on spectrum coordination mechanism which is designed to mutually benefit all participating countries.
- 2.2 The full text of the Welcome Address appears in Doc.JTC-5/T-03.
- 2.3 In response, Mr. Chaleun Sibounheuang, Head of Laos Delegation, thanked NBTC for warm welcome and for organizing this meeting. He also hoped to continue working closely for close relations and cooperation in spectrum coordination. He then informed that according to continuously meetings for finding the suitable solutions and managing a limited frequency resource along the reference line, it is the main circumstance to work together since previous meeting. However, some points still need to be discussed and to be proposed a best solution for clean up all pending issues, he therefore expected on the best outcome cooperation from this meeting.
- 2.4 The full text of the Reciprocal Address appears in Doc.JTC-5/T-04.



3. Adoption of Agenda and Working Arrangements

- 3.1 The meeting adopted the Agenda and Working Arrangement as appears in Doc.JTC-5/T-05 (1) and Doc.JTC-5/T-06 respectively.
- 3.2 The Meeting appointed the Co-Chairmen of the Working Groups as follows:
 - 3.2.1 Col. Jiroj Santhit (Thailand) and Mr. William Souvannam (Lao PDR) for Working Group on Broadcasting Service (WG1).
 - 3.2.2 Mr. Saneh Saiwong (Thailand) and Mr. Somphone Syhalath (Lao PDR) for Working Group on Mobile and Non-Broadcasting Services (WG2).

4. Exchange of Information

- 4.1 Thailand showed videos on Thailand Regulatory Update, which can be summarized as follows:
 - 4.1.1 Digital TV networks (file JTC-5/T-07 (1)):
 - (i) In 2013, NBTC issued 5 network (Multiplexer operators) licenses to 4 network operators: Public Relation Department (PRD), MCOT, ThaiPBS, and Royal Thai Army (2 licenses). In the first 2 years, network operators have to deploy 39 main stations, which are able to cover all 77 provinces and 80% of households in Thailand.
 - (ii) According to NBTC's rollout obligation, network operators have to expand the network to cover a number of households as follows:
 - (a) 50% of households within 2014;
 - (b) 80% of households within 2015;
 - (c) 90% of households within 2016; and
 - (d) 95% of households within 2017.
 - 4.1.2 Digital TV Subsidy Program (file JTC-5/T-07 (2)):
 - (i) As part of Thailand's transition roadmap to digital television broadcasting, NBTC approved and announced the Digital TV Subsidy Program. With this program, the Digital TV coupons will be distributed to every household in Thailand. The coupon value was 690 Baht and could be used as a discount when purchasing the digital terrestrial TV receivers (either set-top box or TV with an integrated tuner (iDTV)).
 - (ii) NBTC began to distribute Digital TV coupons via postal service to households in 21 provinces since 10 October 2014. e



4.1.3 Universal Service Obligation (file JTC-5/T-07 (3)):

- (i) NBTC has arranged for provision of basic telecom services to serve society along with other social services according to 2012 – 2016 USO Master plan.
- (ii) NBTC has continually developed and extended the networks according to USO Zoning Concept which divides the areas into 3 groups:
 - (a) Zone A: Commercially served zone
 - (b) Zone B: Underserved zone
 - (c) Zone C: Un-served zone
- (iii) Zone C is the focus area where NBTC will strive to implement the plan. NBTC is now piloting USO programs in two provinces: Phitsanulok and Nong Khai, and plans to expand the project to all provinces by the end of 2016.

4.1.4 Thailand-Lao PDR Training Program (file JTC-5/T-07 (4)):

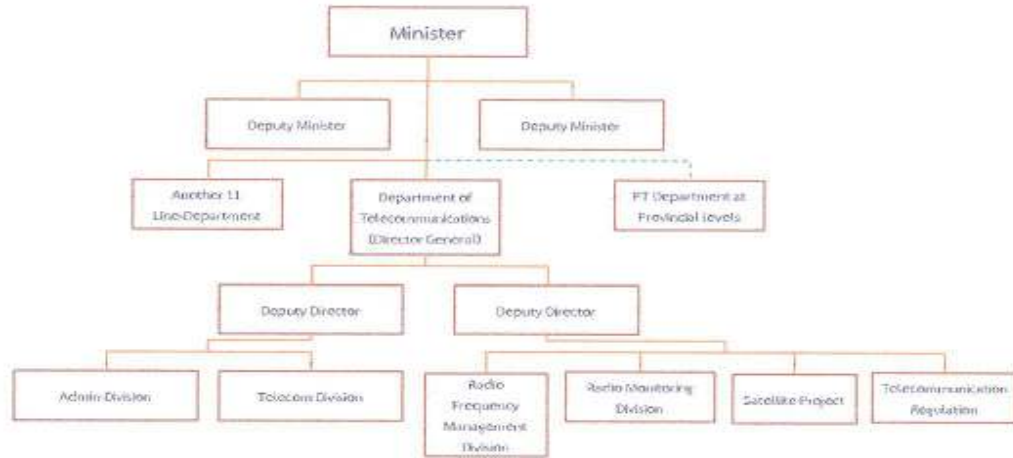
- (i) Air Vice Marshal Thanapant Raicharoen, Head of Thai Delegation, proposed at the JTC-4 Meeting that the regulators of both countries should collaborate to provide opportunities for exchange of staff, study visit, and training course to learn about technique and technology.
- (ii) NBTC had conducted the training course on 'Techniques and Methodology for Spectrum Monitoring' during 7 – 10 July 2014 in Bangkok to enhance close relation and cooperation between the staff of MPT and NBTC regional offices.
- (iii) The training course had completed successfully, with over 40 participants from both sides. Participants had given satisfactory results in course evaluation and recommended more cooperation in this matter. NBTC plans to host more training courses to further develop skills and exchange of staff next year.

4.2 In response to inquiry from Lao PDR, Thailand clarified the details of USO project and funding mechanism. USO Fund is established and each telecommunication network operator will contribute a percentage of its net revenue (currently 3.75%) to this Fund as provided by law. For the project in Zone C, any entity can propose projects to NBTC and, if selected under selection criteria, NBTC will provide appropriate funding.

4.3 Lao PDR presented a paper on "Lao's Information Update" as appears in Doc.JTC-5/T-08, which can be summarized as follows:

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4.3.1 Structure of DoT in MPT appears in the chart below:



4.3.2 Currently, there are 5 operators (ETL, LTC, STL, VLL and Sky Telecom) providing telecommunication services in Lao PDR. Lao PDR also provided its spectrum plans and assignments, as well as statistics of subscribers and service coverage.

4.3.3 For broadcasting service, Lao PDR has 63 radio stations, 9 TV stations in Vientiane, 36 TV stations in other provinces, 1 analog TV station, 3 satellite broadcast providers and 3 cable TV providers. Lao PDR uses 99.7 MHz and 103.7 MHz as National FM Channels, which were installed in every province. Ministry of Information, Culture, and Tourism (MICT) also plans 3 phases for analog to digital TV transition:

- (i) Phase 1: ASO planning in 4 big provinces in 2015
- (ii) Phase 2: Extend to 9 provinces from 2015 to 2018
- (iii) Phase 3: Completed ASO by the end of 2020

4.3.4 In February 2014, Lao PDR had set up monitoring stations, including one fixed station, one semi-fixed station and 3 mobile vehicles operating for Frequency Monitoring System.

4.4 Lao PDR clarified on the followings:

4.4.1 Lao PDR may use auction in the future for 900 MHz, 1800 MHz and 2100 MHz.

4.4.2 The semi-fixed monitoring station is a portable station.

4.4.3 According to the Lao national policy, government enforces telecommunication operators to expand the network and service to rural areas, to achieve the same objectives as Universal Service Obligation in Thailand.

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4.4.4 Parts of frequency 700 MHz are currently in use; therefore, the plan for this frequency band is under consideration, although largely the frequency arrangement will follow APT band plan.

4.5 The Meeting took note of Information Update from both sides.

5. Report on Ad-hoc Committee on Mobile Services

5.1 Thailand presented "Report on Ad-hoc Committee on Mobile Services" as appears in Doc.JTC-5/T-09. There were two Ad-hoc Committee meetings since the last JTC Meeting. The 3rd Ad-hoc Meeting was held during 11-12 November 2013 in Bangkok, Thailand and the 4th Ad-hoc Meeting was held during 26-27 June 2014 in Vientiane Capital, Lao PDR. The meetings discussed the following issues:

5.1.1 Interference Cases

- (i) LTC & CAT, including Lao Government Agency
- (ii) ETL & DTAC
- (iii) AIS & STL and ETL

5.1.2 Update on Implementation of the Signal Level Threshold for Service Area Coverage of 2G (900/1800 MHz) and 3G (2100 MHz) in Special Zone.

5.1.3 Remaining Issues for HSPA850 and E-GSM900

5.1.4 Defining the Signal Strength Threshold for 850 MHz Band

5.1.5 Remaining E-GSM Band Interference Issue after Addressing the ETL-DTAC Case


5.1.6 Defining Coordination Parameters in 900 MHz, 1800 MHz, 2100 MHz and 2600 MHz Bands

5.1.7 Acceptable Level/Received Threshold and Implementation of PSC for 3G (2100 MHz)

5.1.8 New Interference Case: VLL & DTAC

5.2 The Meeting agreed to adopt the Reports of the 3rd and 4th Ad-hoc Committee Meeting on Mobile Services as appears in Annex 1 to Doc.JTC-5/T-09 and Annex 2 to Doc.JTC-5/T-09 respectively. The Meeting agreed with the conclusion reached in the Reports, and further requested Working Group 2 to discuss other pending and unresolved issues.

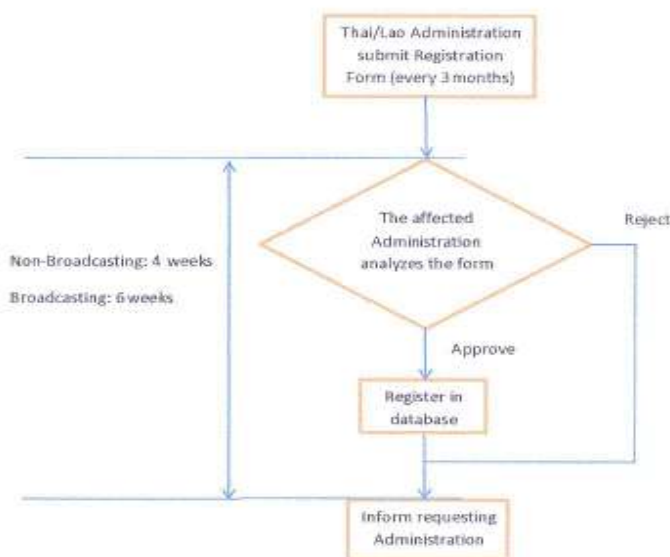
6. Report on Task Force for Frequency Registration

6.1 Thailand presented a paper on "Report on Task Force for Frequency Registration" as appears in Doc.JTC-5/T-10. In JTC-4, the Meeting agreed to establish Task Force for Frequency Registration to consider Registration Procedure and Registration Form/format in detail. The 1st Task Force Meeting was held on 13 November 2013 in Bangkok, Thailand, and the 2nd Task Force Meeting was held on 27 June 2014 in Vientiane Capital, 



Lao PDR. The result of both Task Force for Frequency Registration meetings can be summarized as follows:

6.1.1 NBTC and MPT had agreed to follow the Registration Procedure as appears in the flowchart:



6.1.2 NBTC and MPT had agreed to begin Frequency Registration starting with base stations of cellular mobile services located within 1 km from the reference line.

6.1.3 NBTC and MPT had agreed that Registration form shall be submitted in both EXCEL and PDF formats via contact persons.

6.1.4 NBTC and MPT had agreed on the Registration form as appears below:

No.	Field name	No.	Field name	No.	Field name
1	MTG_NO	13	A1_AMSL_M	25	F5_RXASFRE
2	MDATE	14	A2_GAIN_DB	26	F6_RXCRFRE
3	OAC	15	A3_AZIMUTH	27	F8_ITUCODE
4	CLIENT	16	A8_ELEVATI	28	F9_STCODE
5	S1	17	A6_MFR	29	F10_HOUR
6	S2	18	A7_MODEL	30	T1_BW
7	S_5LAT	19	A5_RADPATT	31	T3_RFOPPOW
8	S_5LONG	20	S7_RADIUS	32	T5_TOTALLO
9	S_6LATLINK	21	F1_TXRX	33	T6_RAD_PWR
10	S_6LONGLINK	22	F2_POLCODE	34	APPROVAL_DATE
11	S6LINK_LOC	23	F3_TXASFRE	35	REMARK
12	A1_AGL_M	24	F4_TXCRFRE		

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6.2 Thailand also presented a paper on “Frequency Registration Submission” as appears in Doc.JTC-5/T-11. NBTC has submitted total of 1189 records of cellular service base stations located within 1 km from the reference line for MPT consideration as appears below:

Date of Submission	Type of Service	No. of Records	Remarks
30 July 2014 (Online)	Cellular	385	Pending Analysis by MPT
13 August 2014 (Online)	Cellular	904	
Total		1189	

6.3 The Meeting agreed to adopt the Reports from the 1st and 2nd Task Force for Frequency Registration as appear in Annex 1 to Doc.JTC-5/T-10 and Annex 2 to Doc.JTC-5/T-10 respectively. The Meeting also took note of the Frequency Registration status updated by Thailand

6.4 Lao PDR presented a paper on “Report of Implementation Task Force on Frequency Registration along Lao-Thai Common Border” as appears in Doc.JTC-5/T-12. Lao PDR proposed that the Meeting define every word for the procedure of Frequency Registration and submit information of Mobile Cellular starting from 2G (900/1800 MHz) and 3G (2100 MHz) for registration.

6.5 NBTC and MPT had a discussion and the results of the discussion appears in Annex to this Agreed Minutes, which can be summarized as follows:

6.5.1 The Frequency Registration is changed to be Frequency Notification due to the following reasons:

- (i) Lao PDR is not familiar with the Frequency Registration process, so there are some difficulties and challenges to implement the frequency registration;
- (ii) The Frequency Notification is a good way to practice and could lead to a common understanding of both sides before implementing the Frequency Registration in the future; and
- (iii) There is no agreement on band plan and field strength limit; therefore, the station approval may be very difficult.

6.5.2 The Frequency Notification will be implemented starting after the JTC-5 Meeting.

6.5.3 The Frequency Notification will begin with base stations of cellular mobile services (beginning with systems in 900 MHz and 1800 MHz and further expanded to systems in other bands) located within 1 km from the reference line, and Digital TV stations located within the coordination zone (30 km from the reference line).

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6.5.4 Once the Frequency Notification process is mature and could be implemented efficiently, both Thailand and Lao PDR may escalate the process to Frequency Registration.

6.5.5 The Frequency Notification form and its description appeared in Appendices 1 and 2 to Annex to this Agreed Minute, respectively.

6.6 The Meeting agreed with the results of the discussion between NBTC and MPT, including the Frequency Notification procedure and form.

7. New Interference Cases along Thailand-Lao PDR Common Border Areas

7.1 It was reported that interference to Lao PDR Aeronautical service from radio broadcasting station in both Lao and Thai language in frequency 124.1 MHz.

7.2 The Meeting agreed to discuss this interference case in Working Group 1.

8. Report on Working Group on Broadcasting Service (WG1)

The Meeting agreed to adopt the Report from the WG 1 meeting as appears in Doc.JTC-5/T-35.

9. Report on Working Group on Mobile and Non-broadcasting Services (WG2)

The Meeting agreed to adopt the Report from the WG 2 meeting as appears in Doc.JTC-5/T-36. The Meeting was of the view that relevant parties from both sides should strive toward conducting the joint measurement as much as practicable in order to have clear and common understanding of the results from the signal testing.

10. Any Other Matters

10.1 Thailand proposed the Meeting to designate common frequencies for Thailand-Lao PDR for use in the case of Public Protection and Disaster Relief (PPDR) service.

The Meeting agreed in principle to Thailand's proposal and both sides will study this issue and further discuss in the next JTC Meeting.

10.2 Air Vice Marshal Thanapant Raicharoen Ph.D., Head of Thai Delegation, proposed the following:

10.1.1 NBTC plans to have exchange program between staff of regional offices of NBTC and MPT to further enhance collaboration between both sides and invited staff from MPT to attend this exchange program.

10.1.2 NBTC also plans to organize a training course on spectrum coordination mechanism with the assistance from ITU next year in Thailand and invited MPT to send participants to attend this course which will be beneficial all participating countries.

Lao PDR expressed its appreciation for the proposal from Thailand and looked forward to mutual and stronger cooperation between MPT and NBTC in this area. ✓

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11. Date and Venue of the Next JTC Meeting

The Meeting agreed that the next JTC Meeting will be held in Lao PDR. The date and venue are to be confirmed by Lao PDR through correspondence.

12. Consideration and Adoption of the Agreed Minutes

The Meeting considered and adopted the Agreed Minutes of the 5th Joint Technical Committee on Coordination and Assignment of Frequencies along Thai-Lao PDR Common Border Meeting held in Nakhon Phanom, Thailand from 20 – 22 October 2014.



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AVM. Thanapant Raicharoen, Ph.D.

Deputy Secretary General
Office of The National Broadcasting
and Telecommunications Commission
Thailand



.....
Mr. Chaleun Sibounheuang

Deputy Director General
Department of Telecommunications
Ministry of Posts and
Telecommunications
Lao PDR

Date : 22 October 2014
Venue : Nakhon Phanom, Thailand

Paper reference : **Doc.JTC-5/T-35**
Contribution by : **Secretariat**
Subject : **Report of Working Group on Broadcasting Service (WG1)**

1. Introduction

The Working Group on Broadcasting Service (WG1) of the 5th JTC Meeting was co-chaired by Col. Jiroj Santhit from Royal Thai Army Radio and Television Station, Thailand and Mr. William Souvannam from Ministry of Information, Culture, and Tourism, Lao PDR and comprised of 28 delegates from Thailand and 9 delegates from Lao PDR. The list of delegates is shown in Annex to Doc.JTC-5/T-35.

The following documents were discussed in the WG1 Meeting session:

- a) Doc.JTC-5/T-13 : Coordination Services Area;
- b) Doc.JTC-5/T-14 : Frequency Planning for Television in VHF Band III and UHF Band IV/V;
- c) Doc.JTC-5/T-15 : FM Broadcasting Service in VHF Band II; and
- d) Doc.JTC-5/T-34 : Radio and TV Stations in Lao PDR.

2. Adoption of Agenda

The Meeting adopted the Agenda of Working Group 1 Meeting as appeared in Doc.JTC-5/T-05(2).

3. Results of WG1 discussion:

3.1 Coordination Services Area

Thailand presented a paper on 'Coordination Services Area' as appeared in Doc.JTC-5/T-13.

Thailand proposed the meeting to confirm the coordination zone, which is 30 kilometers from Thailand – Lao PDR common border, and to use ESRI Map (either .kmz or .shp) for checking the stations located within the coordination zone.

The meeting confirmed the coordination zone and the ESRI Map.

In addition, Thailand proposed the scope of frequency registration and coordination for broadcasting stations within coordination zone as shown in the Table below:



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Proposal on the frequency registration and coordination			
Digital TV	Digital Radio	Existing Analogue TV	Existing F.M.
<i>The frequency registration is required.</i>	The information exchange will be applied (if any).	The frequency registration may be applied when necessary. The information exchange will be applied on case-by-case basis.	The frequency registration may be applied for authorized stations, when necessary.

Note :

1. The proposal is to give a priority to the frequency registration to Digital TV Service, because it is a new technology and a number of new stations will be installed. The existing stations will be the second priority, since the existing stations are able to coexist for several years.
2. When the information exchange is applied, the following information is needed to submit: (1) Coordinates; (2) ERP; (3) Frequency channel; and (4) Antenna height above ground level.

The meeting agreed on the proposal from Thailand. Both Thailand and Lao PDR will begin the frequency registration after JTC-5.

In addition, Lao PDR presented a paper on 'Radio and TV Stations in Lao PDR' as appeared in Doc.JTC-5/T-34.

Lao PDR informed the current status of Radio and TV Stations located within the coordination zone (30 km from the common border) as summarized in the table below:

Type	Vientiane Capital	Other provinces	Total
Radio	10	17	27
Radio (future plan)	-	3	3
TV	12	7	19

In Lao PDR, the Digital TV sites are deployed in 4 provinces:

- (i) Vientiane Capital;
- (ii) Luangprabang Province;
- (iii) Savanakheth Province; and
- (iv) Champasak Province.

The meeting took note of the presentation from Lao PDR.

3.2 Frequency Planning for Television in VHF Band III and UHF Band IV/V

Thailand presented a paper on ‘Frequency Planning for Television in VHF Band III and UHF Band IV/V’ as appeared in Doc.JTC-5/T-14.

Thailand provided an update on the status of digital terrestrial television in the following topics:

- (i) Digital transition milestones;
- (ii) Network operators and commercial services;
- (iii) Web application and mobile applications for DTTB coverage checking;
and
- (iv) Rollout plan and revision of frequency plan.

Thailand also informed the meeting regarding the frequency planning for DTTB in Thailand, which was based on DVB-T2 system and using the frequency range 510-790 MHz with 8 MHz channel bandwidth. The frequency plan was designed to serve 39 service areas with 5 multiplexes per area. The 6th multiplex will be available after Analogue Switched-Off. The coverage target was set to be 95% of households within June 2017.

In addition, Thailand emphasized the deployment schedule and technical characteristics of four main sites located in the provinces along the common border as shown in the Table below. Those four main sites are within the coordination distance of 30 km from the common border.

Name	Frequency channels for each multiplex					Date of Deployment (Planned)
	#1	#2	#3	#4	#5	
Udonthani	47	35	31(55)	39	51	1 June 2014
Mukdahan	47	39	35	28	51	1 February 2015
Loei	46	50(42)	57	54	38	1 April 2015
Buengkan	44	32	36	40	26(52)	1 June 2015

Note: The frequency channels in the blanket are the temporary channels to be used before Analogue Switched-Off.

Thailand also informed the meeting the information on frequency re-planning to avoid the usage of channel 37 at DTTB main site in Ubon Ratchathani as shown the detail in the Table below. The frequency re-planning has been done by Thailand, since Lao PDR

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expressed their difficulties to change the frequency due to receiver's specification and other technical constraints.

Name	Frequency channels for each multiplex					Date of Deployment
	#1	#2	#3	#4	#5	
Ubon Ratchathani	41	30(52)	33(58)	27(26)	49	1 May 2014

The meeting took note of the presentation. Thailand will provide more information on the frequency planning of additional stations at the next JTC.

3.3 Community Radio and Aeronautical Radio

Lao PDR informed the meeting that there was interference to aeronautical service at Wattay International Airport on 124.1 MHz. It was suspected that the interference was from F.M. radio stations located along common border areas.

Thailand took note of this issue. Thailand will investigate and resolve this interference case immediately.

Both Thailand and Lao PDR agreed to update the contact persons for interference report as follows:

Thailand *, **

Contact person	E-mail	Telephone Number
Mr. Supatrasit Suansook Office of NBTC	Supatrasit.s@nbt.go.th	Tel: + 66 (0)2271 7600 ext 5303 M: +66 81 807 7336
Mr. Chalard Arsayut Office of NBTC Region 8 (Udonthani) Responsible areas (provinces): <u>Nong Khai, Nakhon Phanom, Bueng Kan,</u> Udonthani, Sakon Nakhon	mtr_ut@nbt.go.th	Tel: + 66 (0)4222 3657 M: + 66 84 700 1808

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Contact person	E-mail	Telephone Number
Mr.Narong Insuk Office of NBTC Region 3 (Lampang) Responsible areas (provinces): <u>Chiang Rai</u> , <u>Phayao</u> , <u>Nan</u> , <u>Uttaradit</u> , Lampang, Phare	mtr_lp@nbt.go.th	Tel: + 66 (0)5431 3920 - 2 M: + 66 89 632 2009
Mr.Sanya Krajangsri Office of NBTC Region 2 (Ubon Ratchathani) Responsible areas (provinces): <u>Ubon Ratchathani</u> , <u>Mukdahan</u> , <u>Amnat</u> <u>Charoen</u> , Si Sa Ket, Surin, Roi Et, Yasothon	mtr_ub@nbt.go.th	Tel: + 66 (0)4528 1706 - 9 M: + 66 84 751 1030
Mr. Assawin Mungkunkamchao Office of NBTC Region 6 (Khon Kaen) Responsible areas (provinces): <u>Loei</u> , Khon Kaen, Nong Bua Lam Phu, Maha Sarakham, Kalasin,	mtr_kk@nbt.go.th	Tel: + 66 (0)4320 2601 - 4 M: + 66 89 569 1922
Mr. Monchai Na lamphun Office of NBTC Region 10 (Phitsanulok) Responsible areas (provinces): <u>Phitsanulok</u> , Sukhothai, Pichit, Phetchabun, Nakhon Sawan, Uthai Thani, Tak, Kamphaeng Phet.	mtr_pl@nbt.go.th	Tel: + 66 (0)5524 5151 - 2 M: + 66 86 911 3009

* The province name with underline is the province along Thailand-Lao PDR common border.

** Any changes of contact persons due to new appointment of person in charge, NBTC will inform MPT through correspondence.



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Lao PDR

Contact person	E-mail	Telephone Number
Mr. Phuangpasert Keosouvanh (MPT)	keosouvanh@mpt.gov.la Keosouvanh@gmail.com	Tel: +856 21 222991 M: +856 20 2222 7940
Mr. Xaysavanh Kittanouvong (Lao Air Traffic Management)	Xays.kitta@gmail.com	Tel. +856 21 512090 M: +856 20 55696066

If there is a harmful interference, the country shall report the interference case to another country through regular process, and may also report to the responsible contact person to investigate and resolve the problem immediately, especially the interference to aeronautical service. Whether or not the interference has been resolved, the report will be submitted through correspondence within two weeks. Any progress report will also be submitted within two weeks in case of unresolved interference.

Thailand proposed to close this agenda item. If the interference case occurs in the future, it will be discussed under agenda item “New Interference Case along Lao PDR and Thailand common border areas” of Plenary Session.

Both Thailand and Lao PDR agreed to close this agenda item.

3.4 FM Broadcasting Service in VHF Band II

Thailand presented a paper on ‘FM Broadcasting Service in VHF Band II’ as appeared in Doc.JTC-5/T-15.

Thailand informed the meeting about the pre-qualifications including technical standards and license conditions for Trial F.M. Radio Service stations. The transmitter of each Trial F.M. Radio Service stations is required to pass the following technical standards:

- (i) Rated carrier power;
- (ii) Conducted spurious emission;
- (iii) Out-of-band emission;
- (iv) Frequency error; and
- (v) Frequency deviation.

Thailand further informed the meeting that the Trial F.M. Radio Service stations in 12 provinces, which are along the common border, consist of 446 stations as shown in the Table below.

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Provinces	Number of Stations
1. Chiang Rai	66
2. Phayao	27
3. Nan	46
4. Uttaradit	22
5. Phitsanulok	54
6. Loei	29
7. Nong Khai	28
8. Bueng Kan	16
9. Nakhon Phanom	32
10. Mukdahan	35
11. Amnat Charoen	17
12. Ubon Ratchatani	74
Total Stations	446

Lao PDR took note of the presentation from Thailand

Thailand further proposed to close this agenda item. If the interference case occurs in the future, it will be discussed under agenda item “New Interference Case along Lao PDR and Thailand common border areas” of Plenary Session.

Both Thailand and Lao PDR agreed to close this agenda item.



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4. Endorsement of Report

The Meeting agreed and endorsed the Report of the Working Group on Broadcasting Service (WG1).



Col. Jiroj Santhit
THAILAND



Mr. William Souvannam
LAO PDR

Date : 21 October 2014

Venue : Nakhon Phanom, Thailand

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**Annex
List of Delegates for Working Group 1**

No.	Name	Organization	Email Address
Thailand			
1	Col. Jiroj Santhit	RTA	pomjirot17@hotmail.com
2	Mr. Supatrasit Suansook	NBTC	supatrasit.s@nbtc.go.th
3	Mr. Suphasorn Sriwichai	NBTC	suphasorn.s@nbtc.go.th
4	Mr. Natthapong Tungkuekham	NBTC	natthapong.t@nbtc.go.th
5	Ms. Rapeeporn Buahom	NBTC	rapporn.nbtc@gmail.com
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