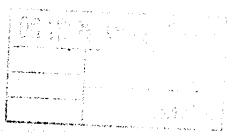


## THE KINGDOM OF THAILAND

# INTERIM FEASIBILITY REPORT ON RURAL LONG DISTANCE PUBLIC TELEPHONE SERVICE (VOLUME II-2/2)





JAPAN INTERNATIONAL COOPERATION AGENCY



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Tertiary / Secondary / Primary Center

Local Exchange (including Mobile Exchange) Terminal Station (including SG/G Branching Station)

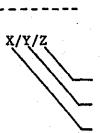
Repeater Station

Site Name

Ο

Underlined site is for Rural Long Distance Public Telephone Service and Mobile Exchange Station in this Study.

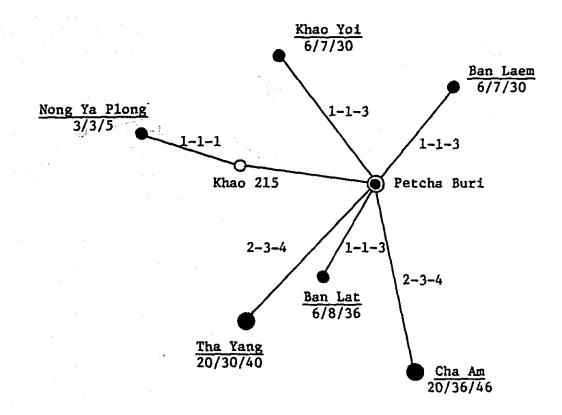
Newly planned radio link Existing radio link Cable link



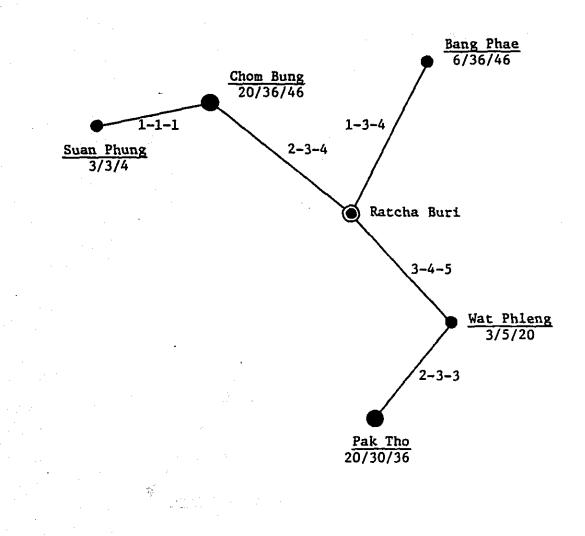
Number of circuits required in 1994 Number of circuits required in 1989 Number of circuits required in 1984

X-Y-Z

Number of basic groups required in 1994 Number of basic groups required in 1989 Number of basic groups required in 1984

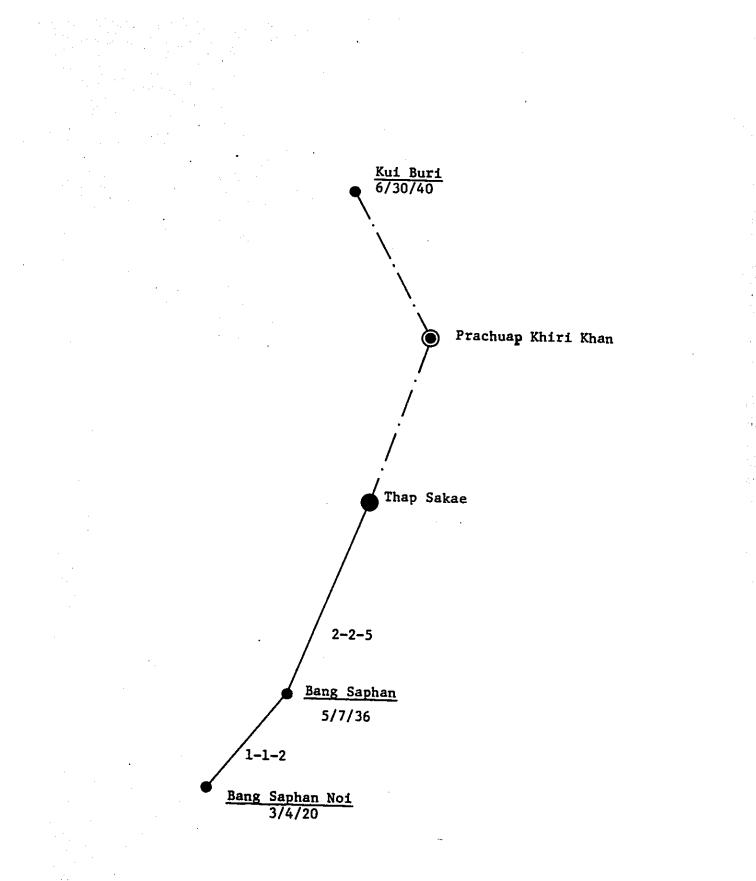


Circuit Assignment, Diagram for Terrestrial System : Petcha Buri Area(3201)

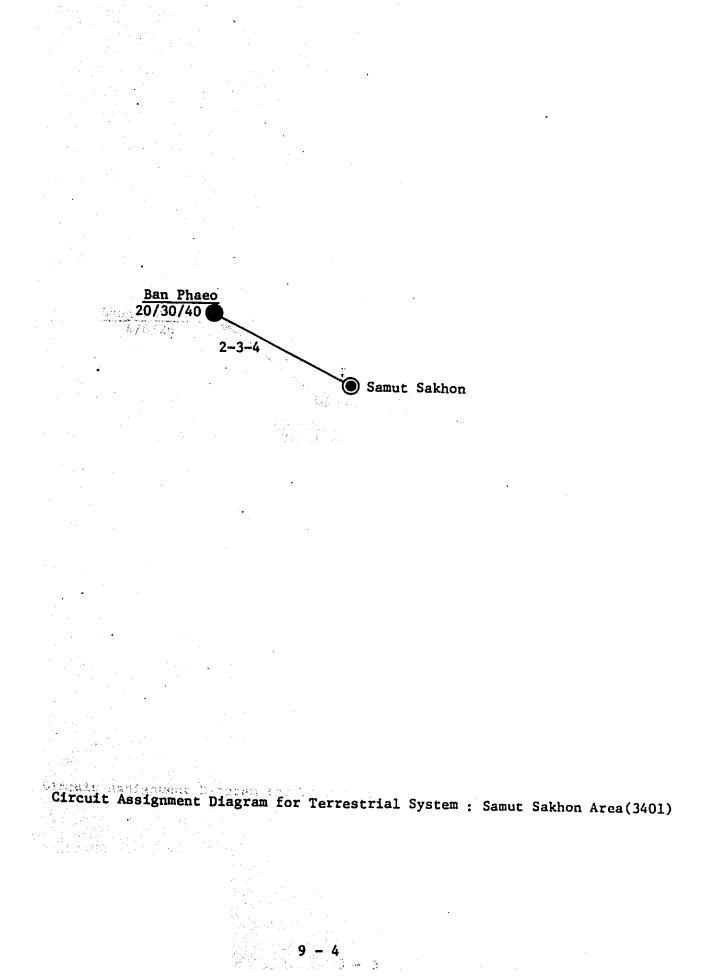


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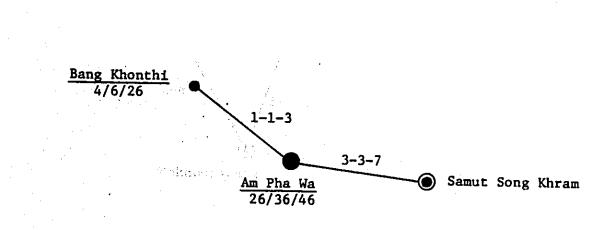
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Circuit Assignment Diagram for Terrestrial System : Prachuap Khiri Khan Area(3215)

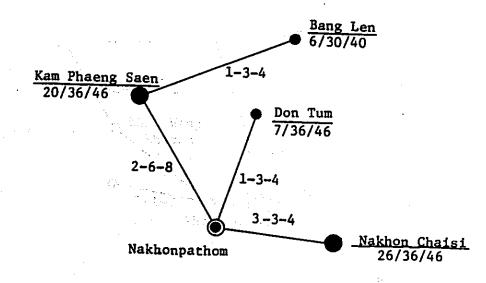


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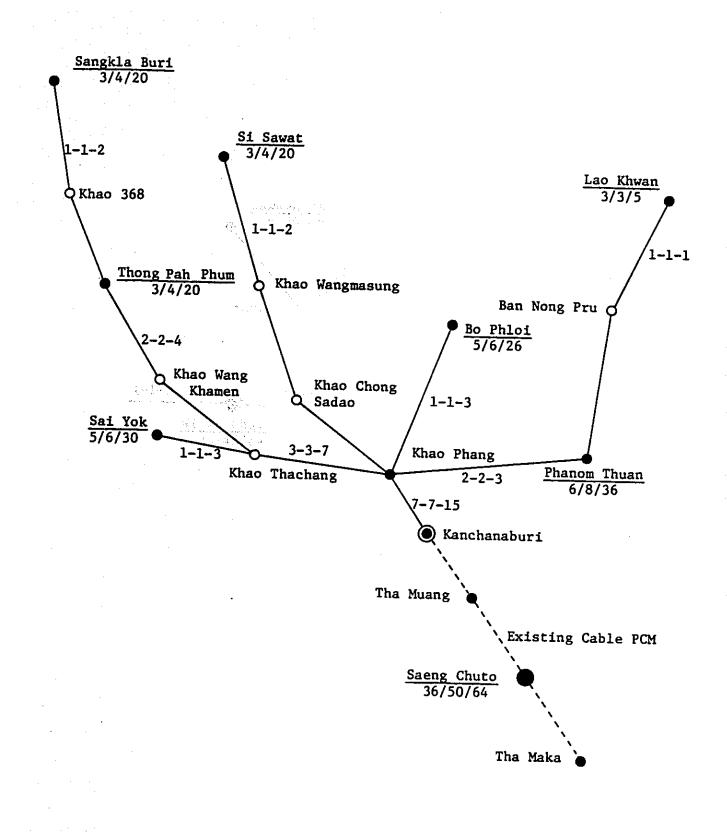


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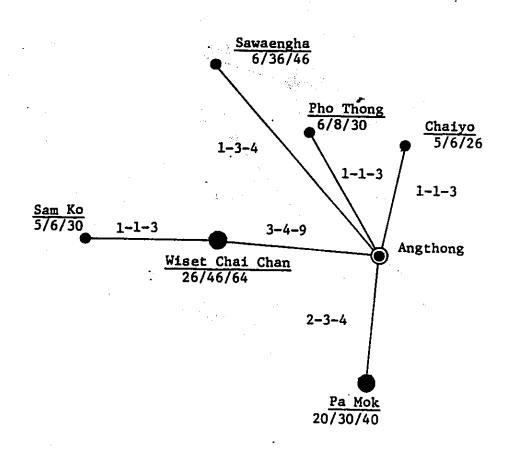




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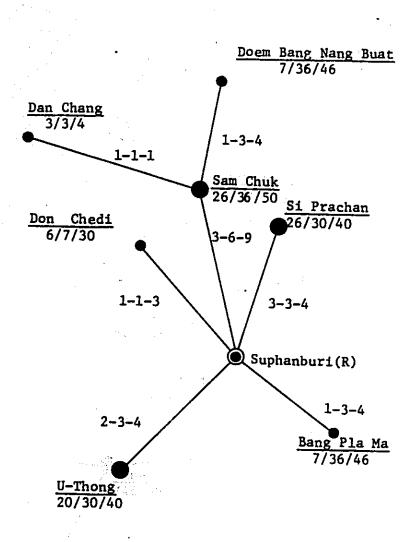


Circuit Assignment Diagram for Terrestrial System : Kanchanaburi Area(3413)

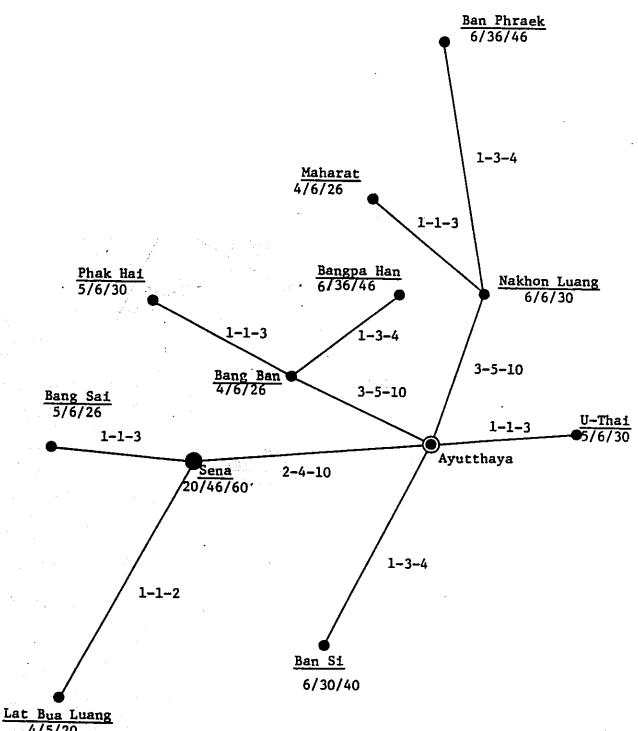


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Circuit Assignment Diagram for Terrestrial System : Angthong Area(3501)

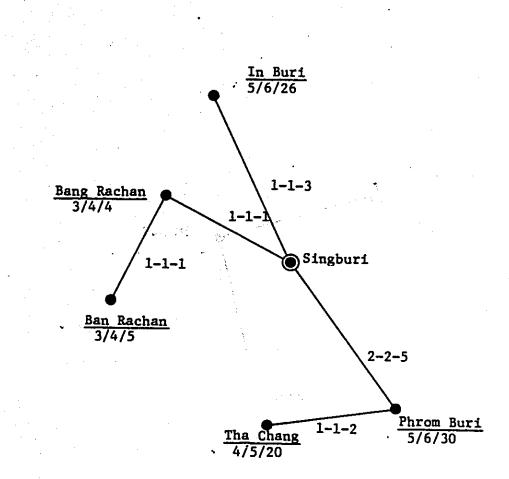


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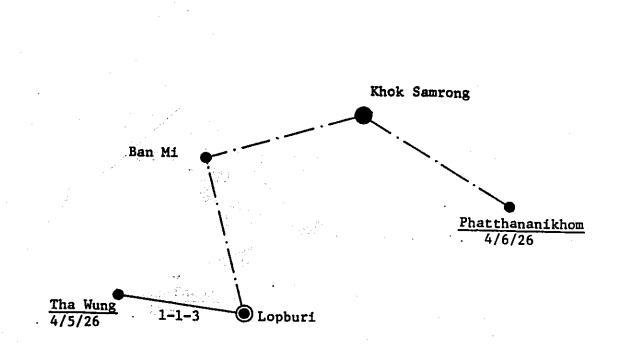


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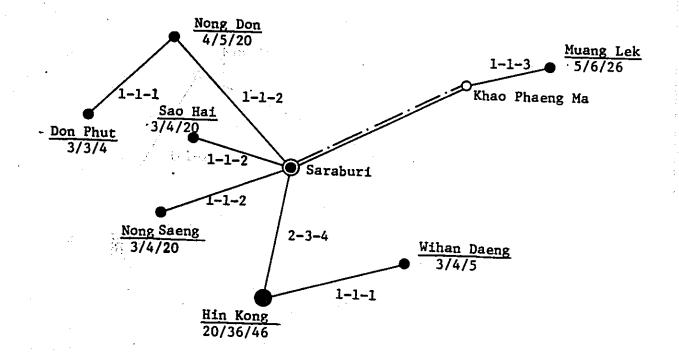
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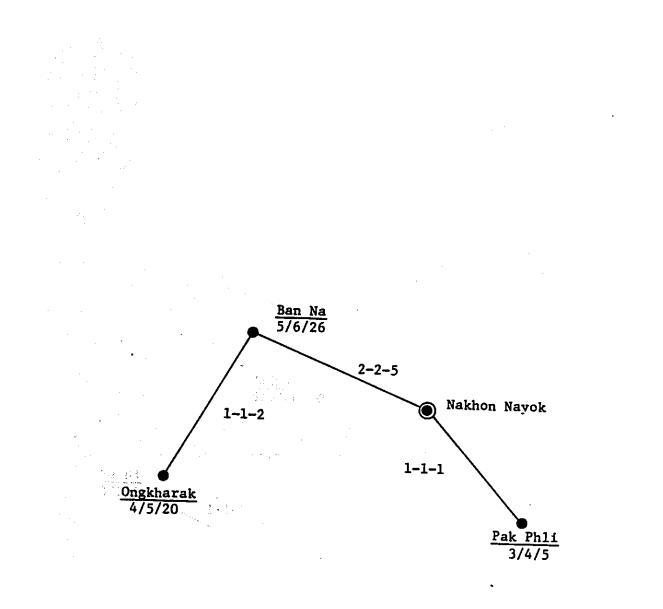
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Circuit Assignment Diagram for Terrestrial System : Lopburi Area (3606)

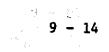


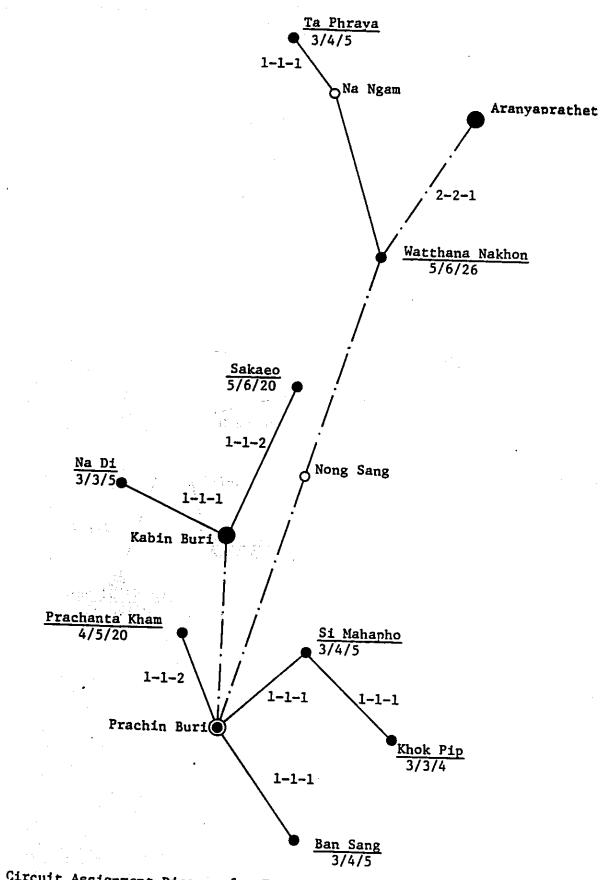
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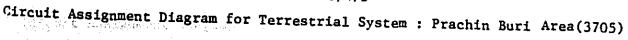


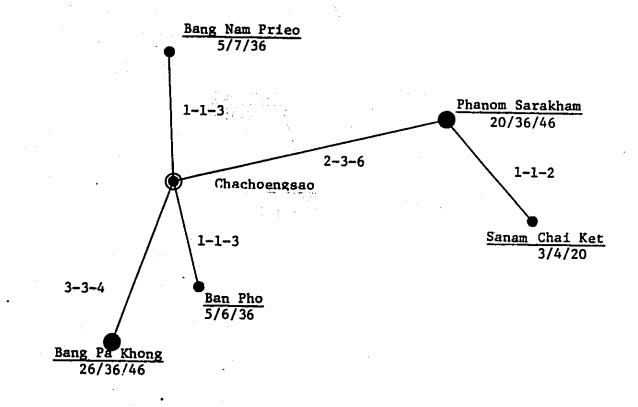


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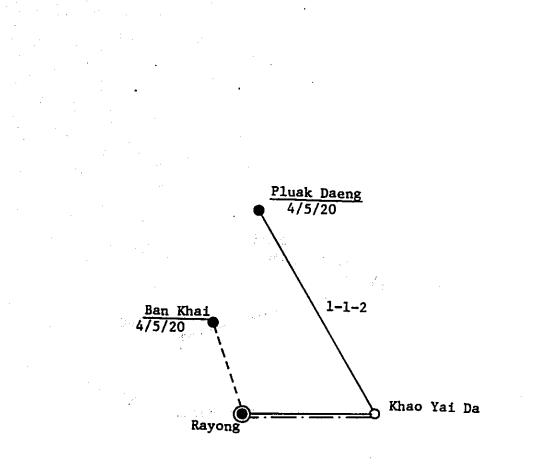




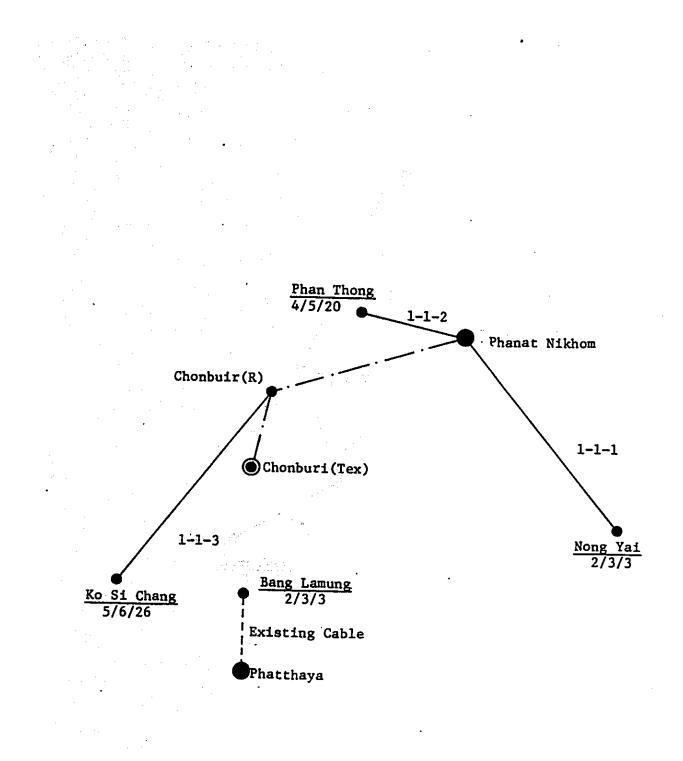




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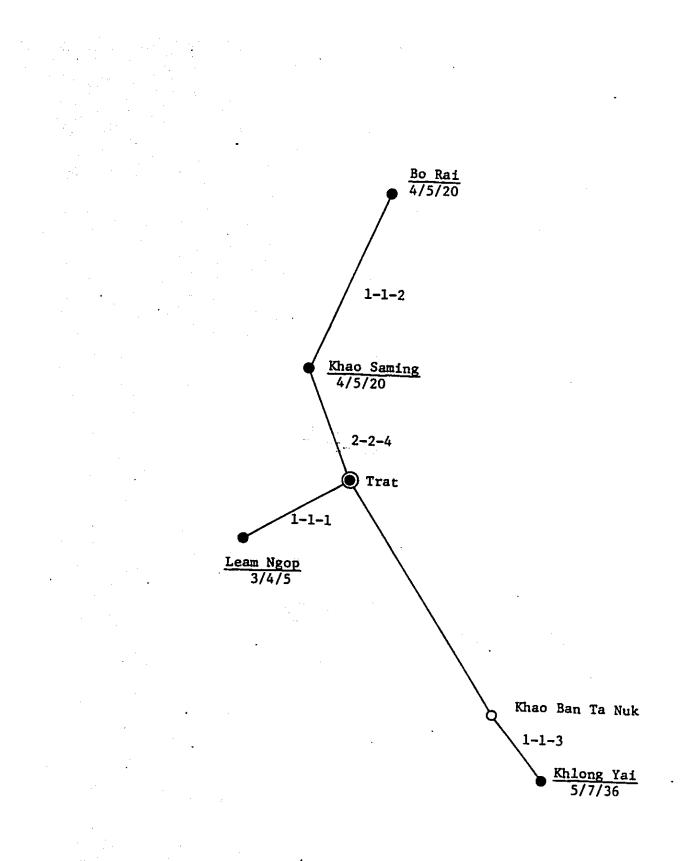


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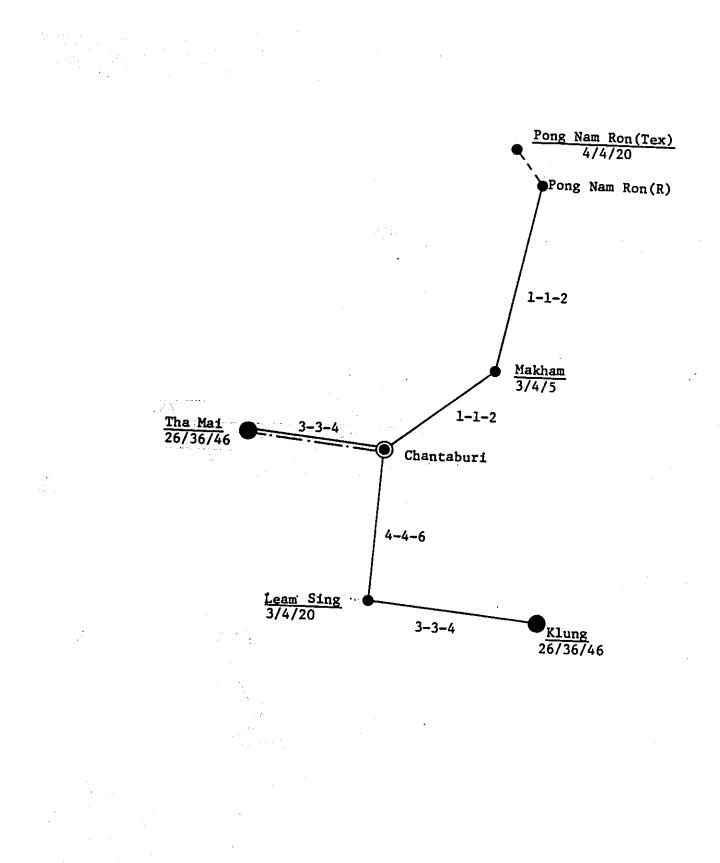


Circuit Assignment Diagram for Terrestrial System : Chonburi Area(3815)

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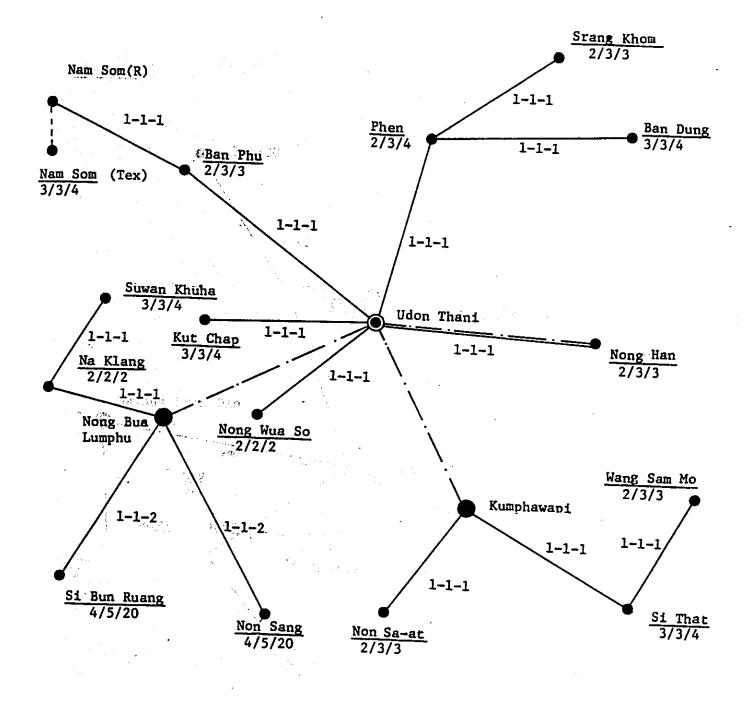
Circuit Assignment Diagram for Terrestrail System : Trat Area (3901)



Circuit Assignment Diagram for Terrestrial System : Chantaburi Area(3905)

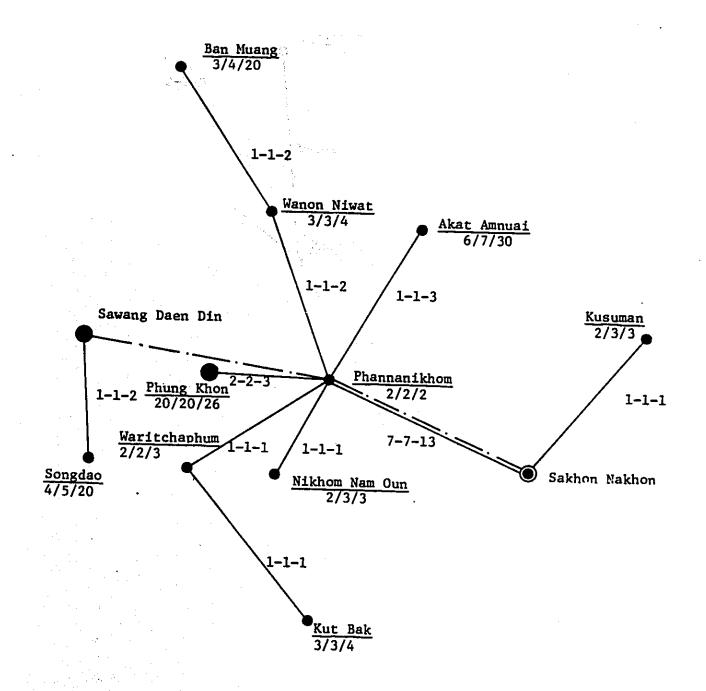
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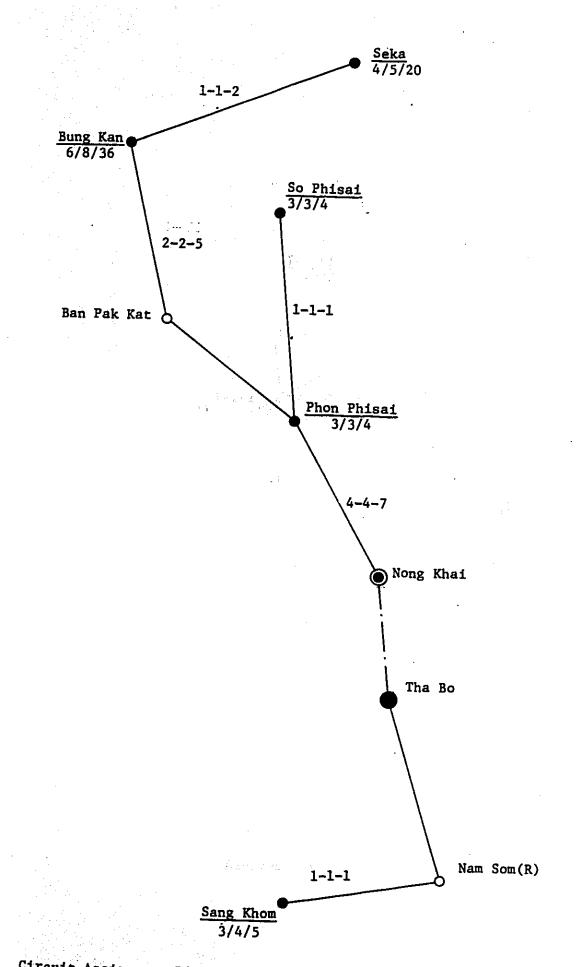
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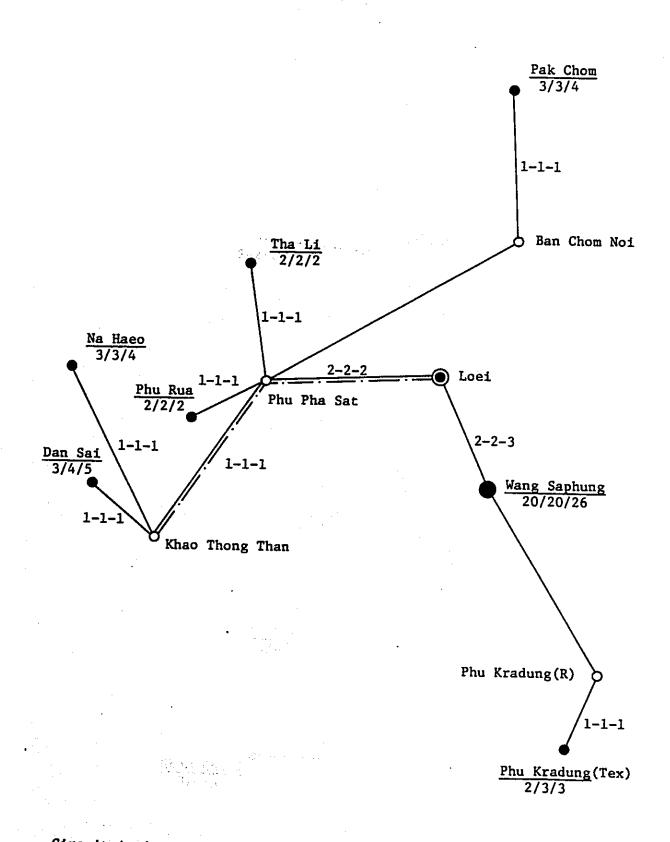


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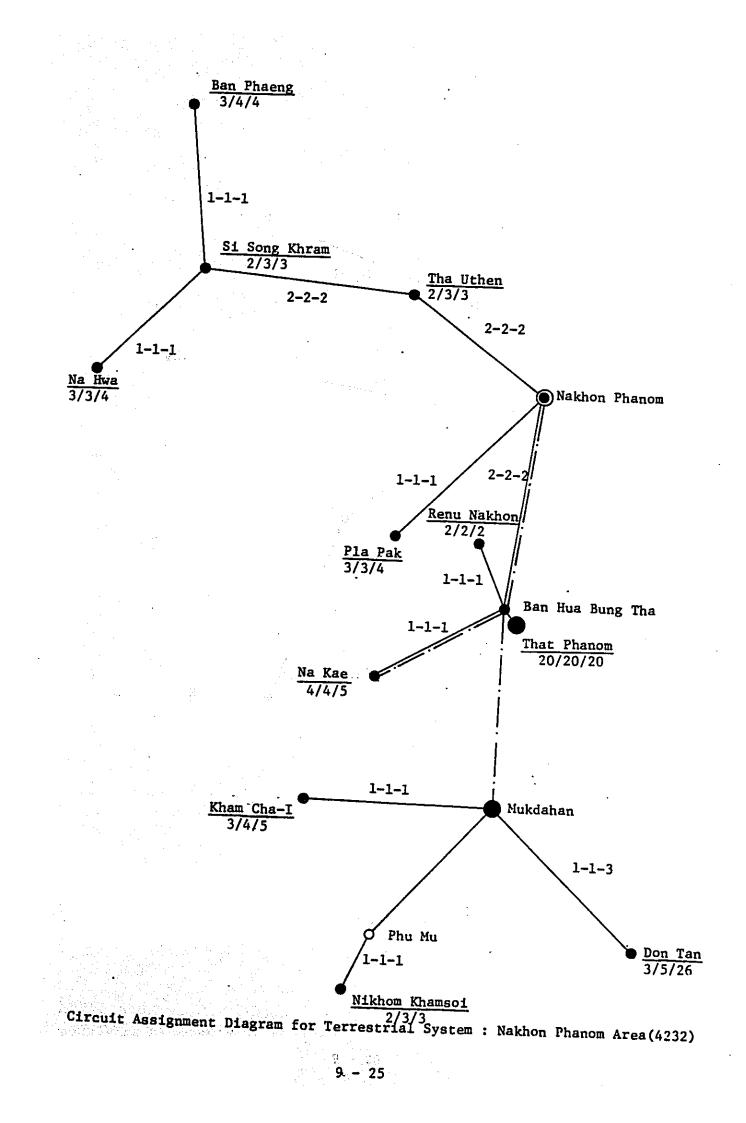
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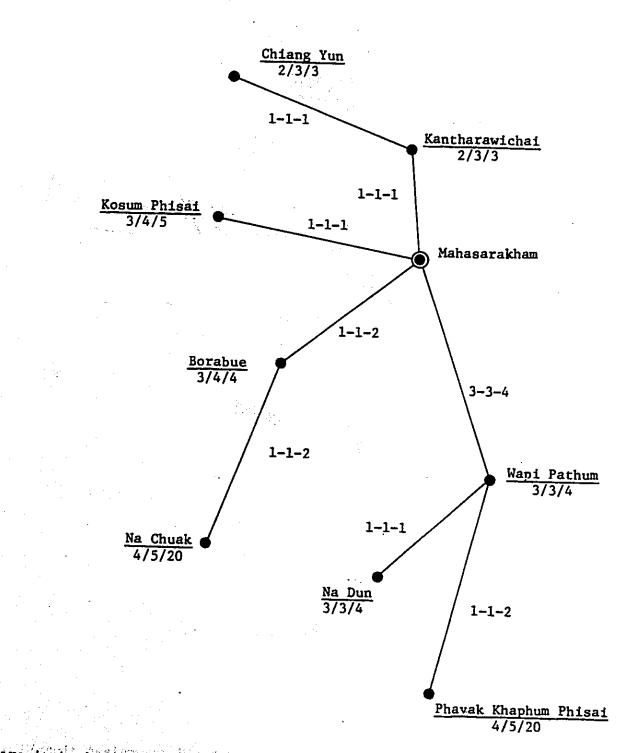


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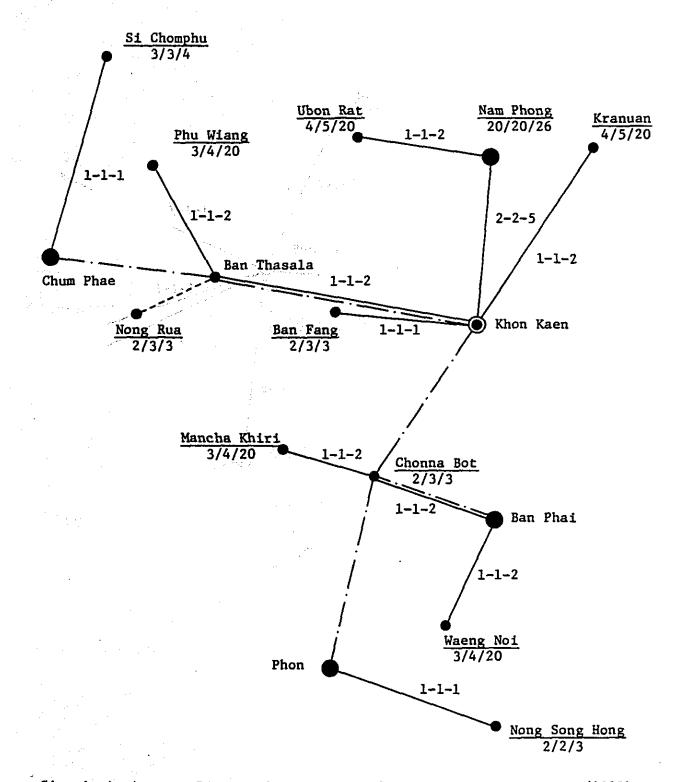
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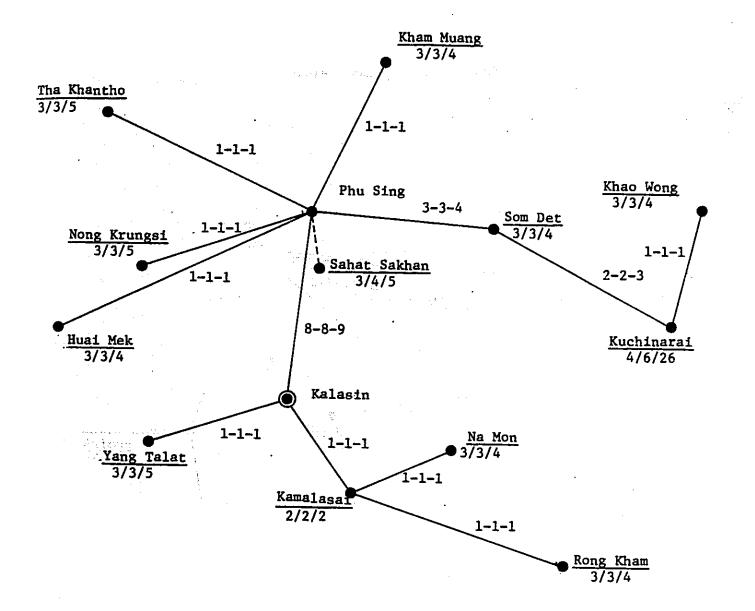




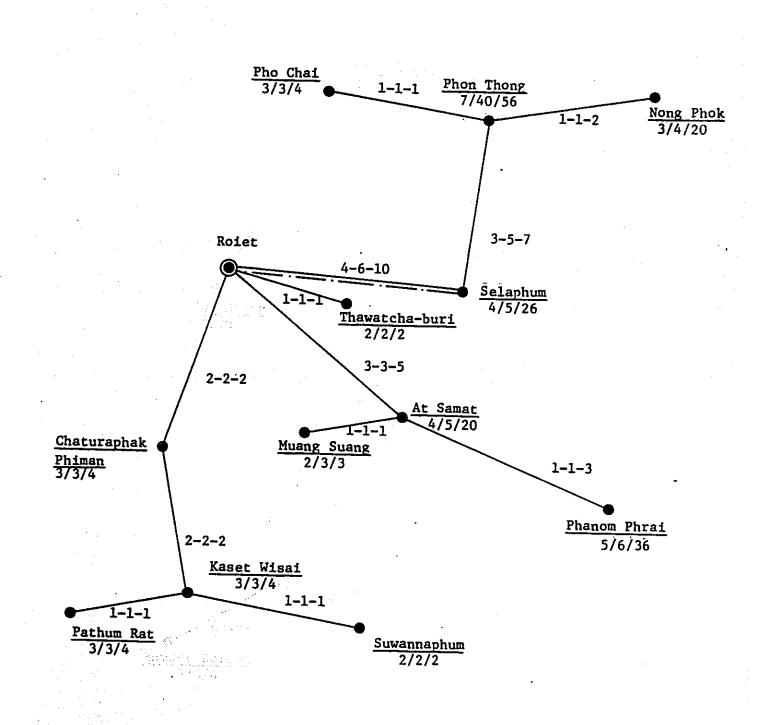
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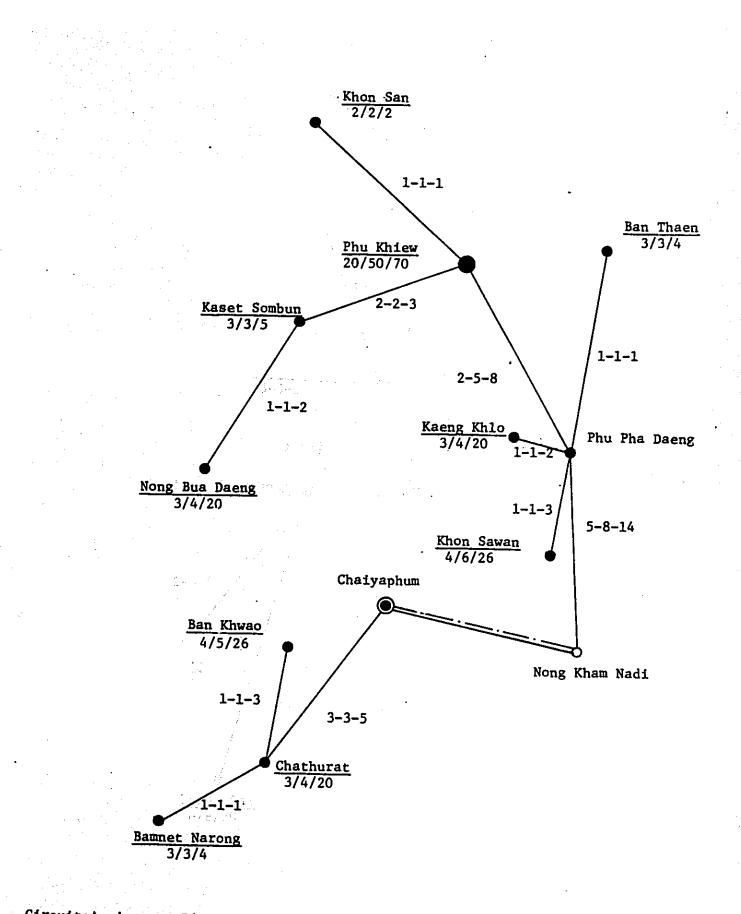
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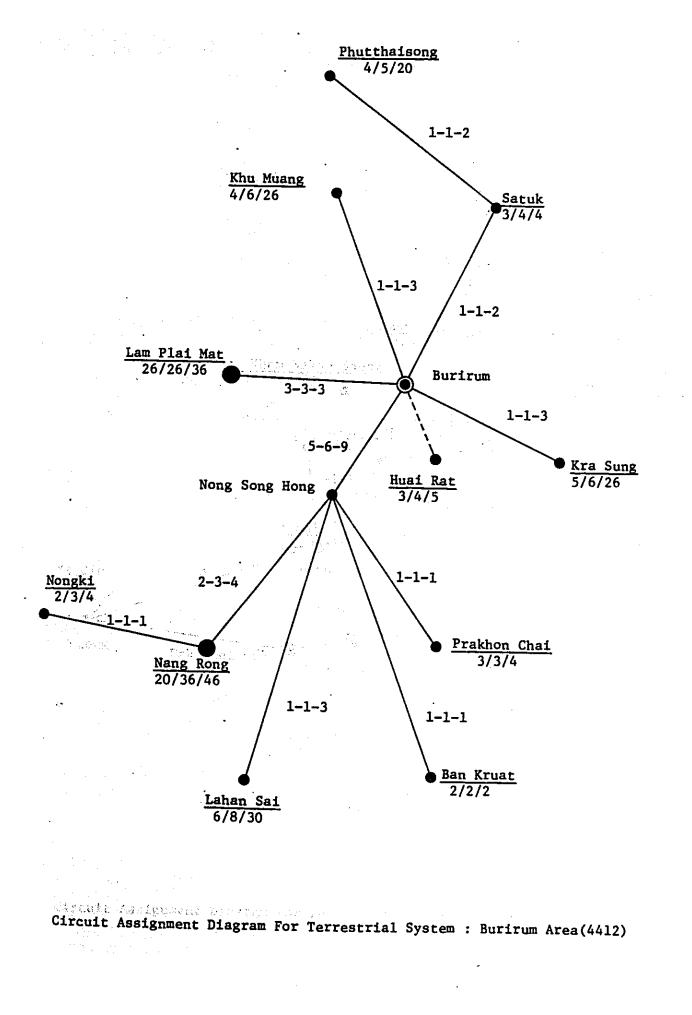
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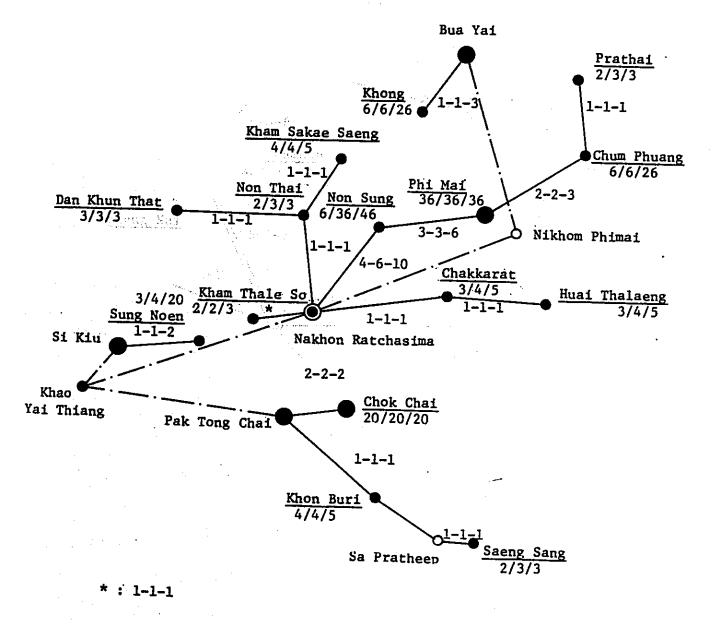


Circuit Assignment Diagram for Terrestrial System : Roiet Area(4328)



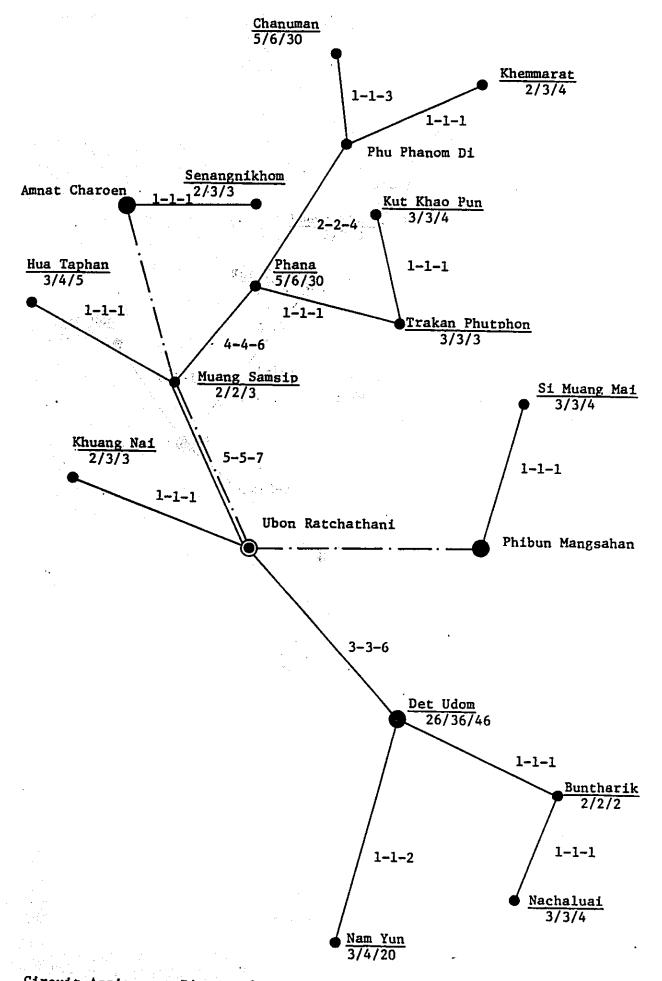
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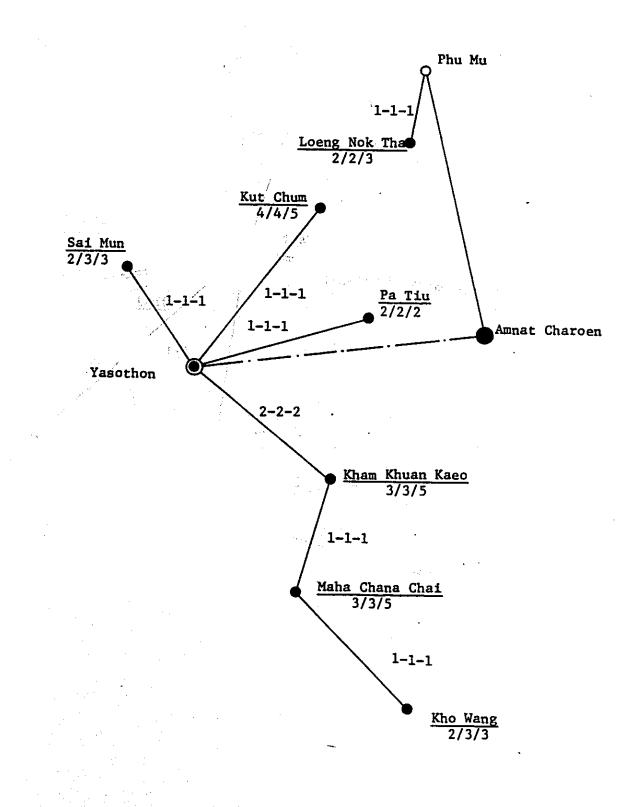


Circuit Assignment Diagram for Terrestrial System : Nakhon Ratchasima Area(4421)

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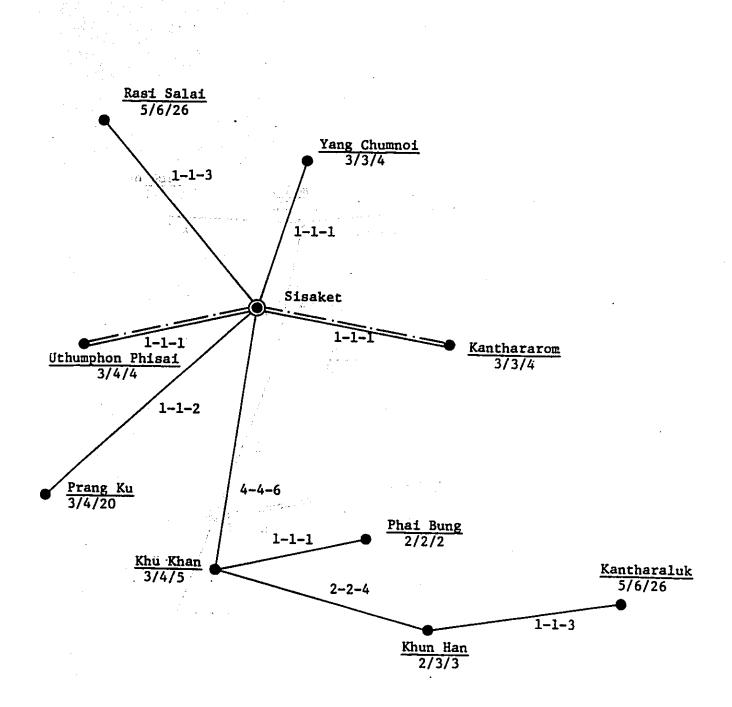


Circuit Assignment Diagram for Terrestrial System : Ubon Ratchathani Area(4501)

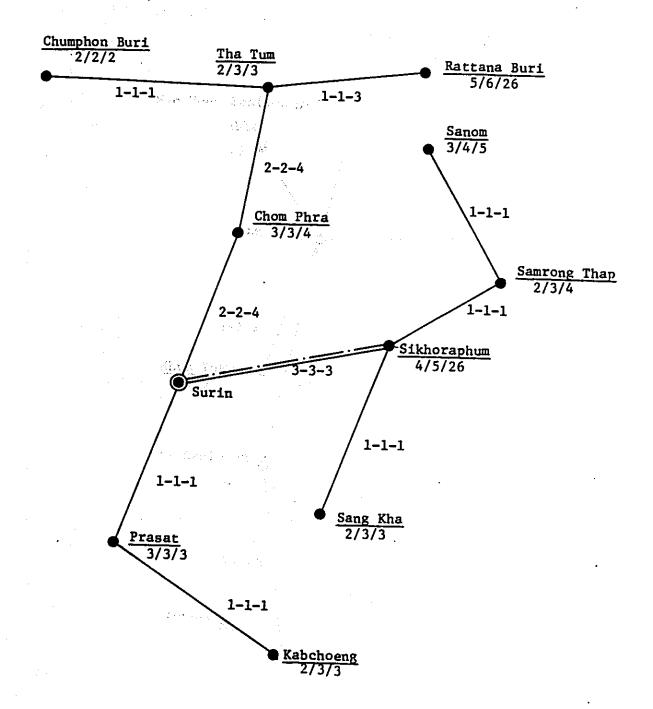


Circuit Assignment Diagram for Terrestrial System : Yasothon Area(4515)

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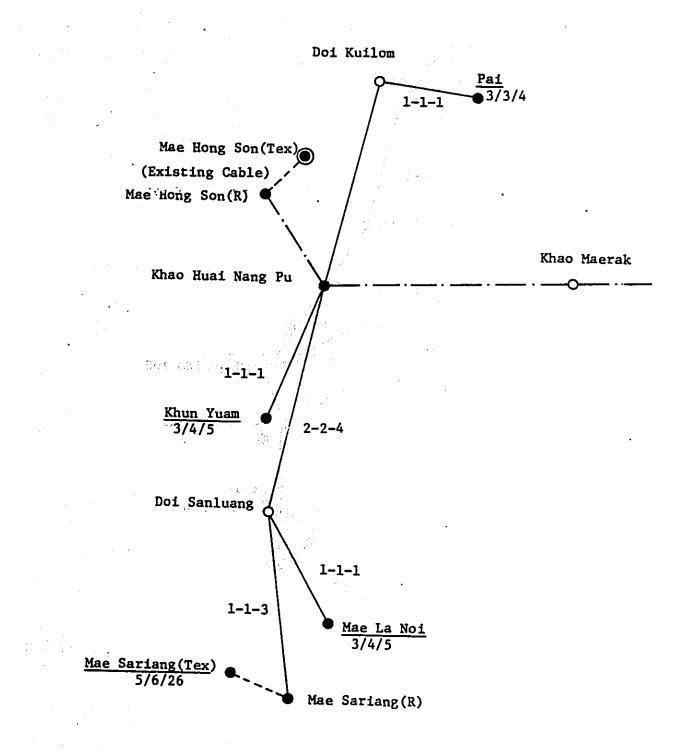


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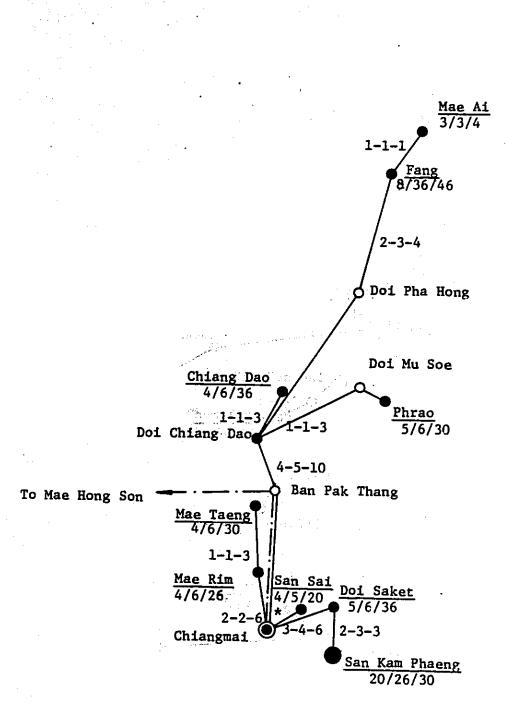
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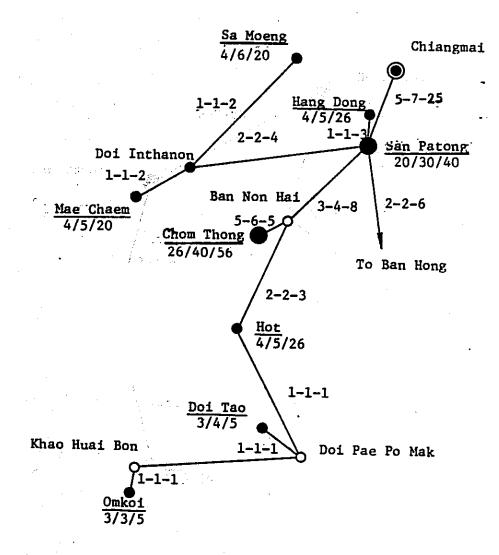
Circuit Assignment Diagram for Terrestrial System : Mae Hong Son Area(5301)

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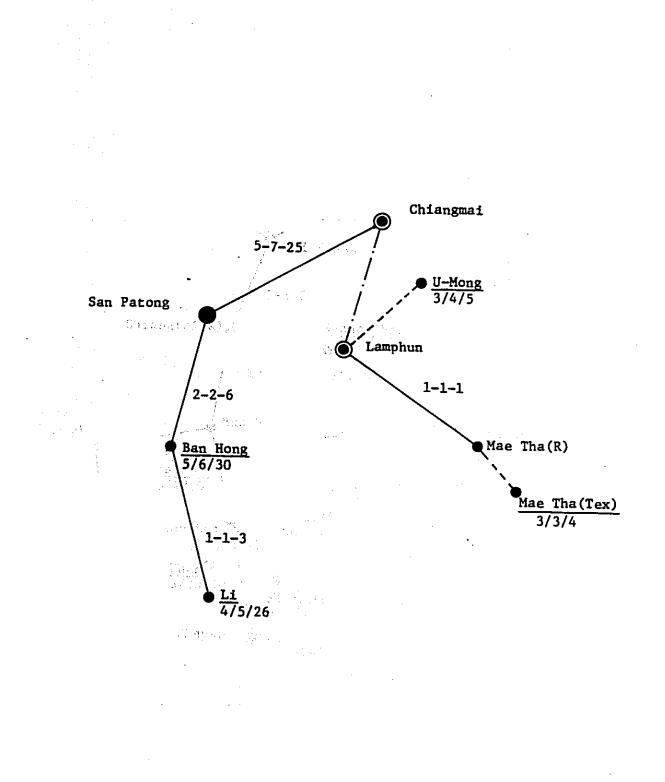


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Circuit Assignment Diagram for Terrestrial System : Chiangmai Area(5313) 1/2

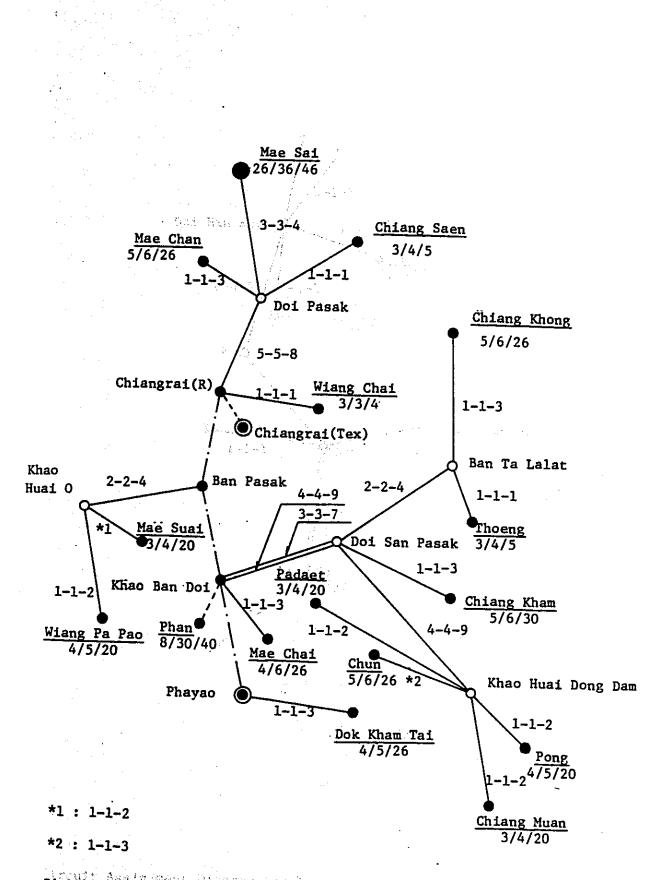


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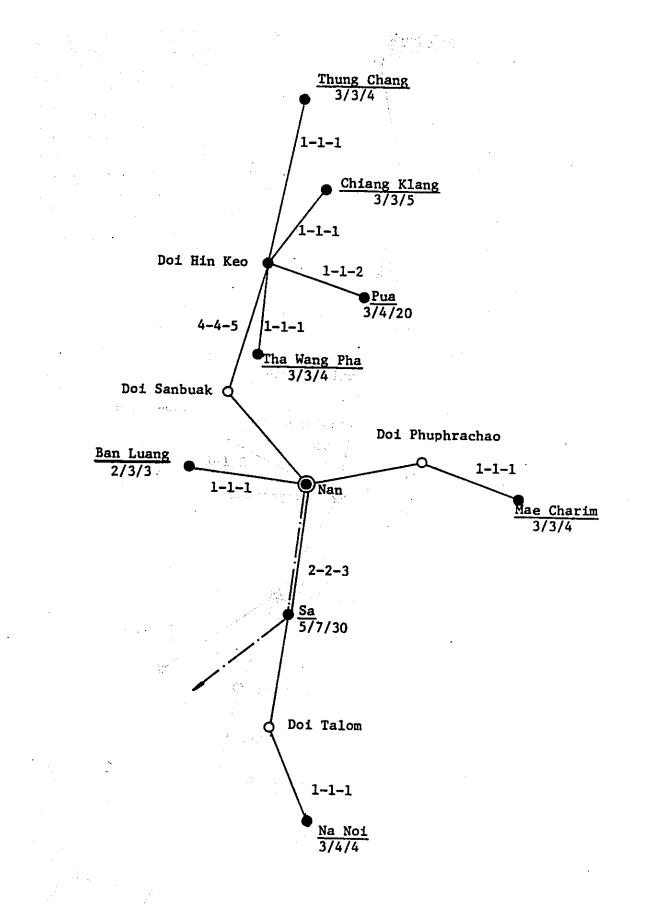


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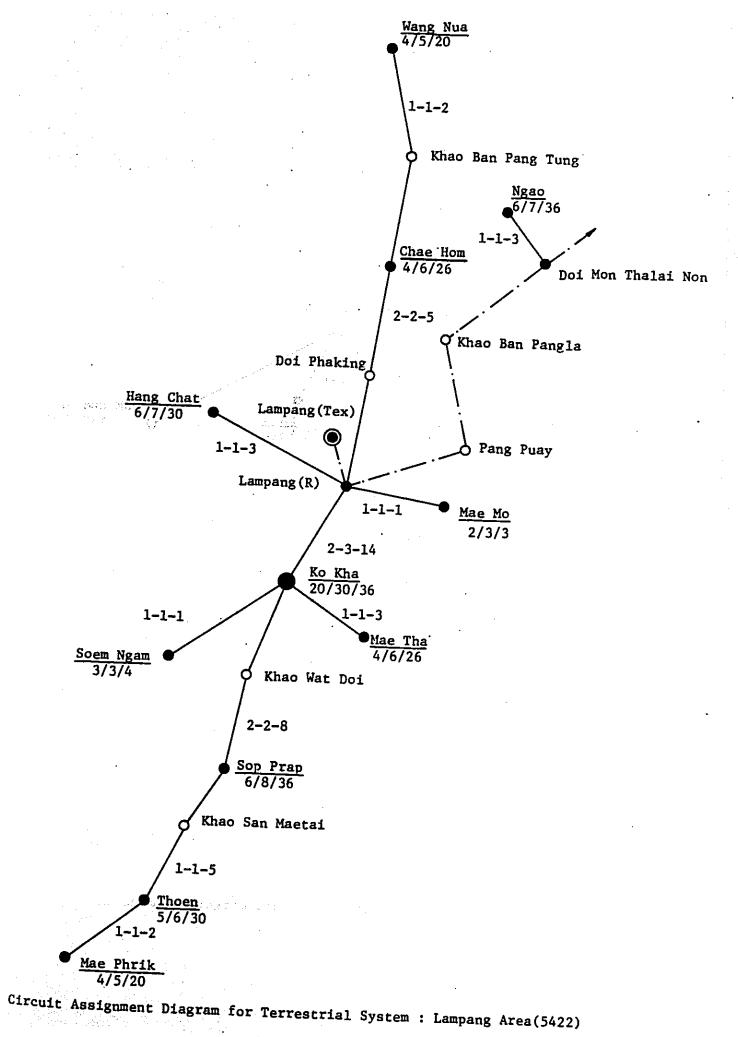
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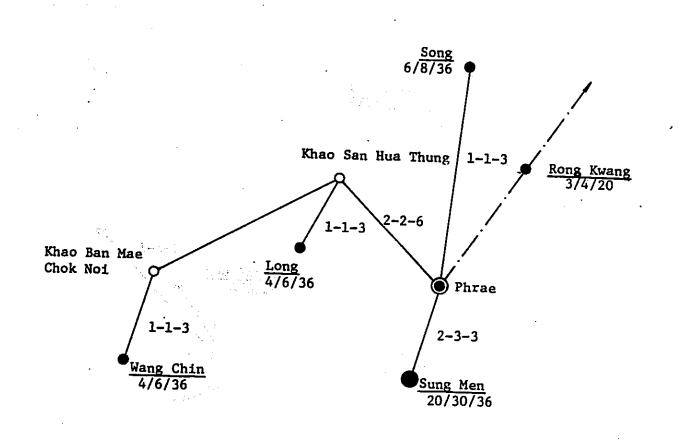


Circuit Assignment Diagram for Terrestrial System : Chiangrai Area(5401)

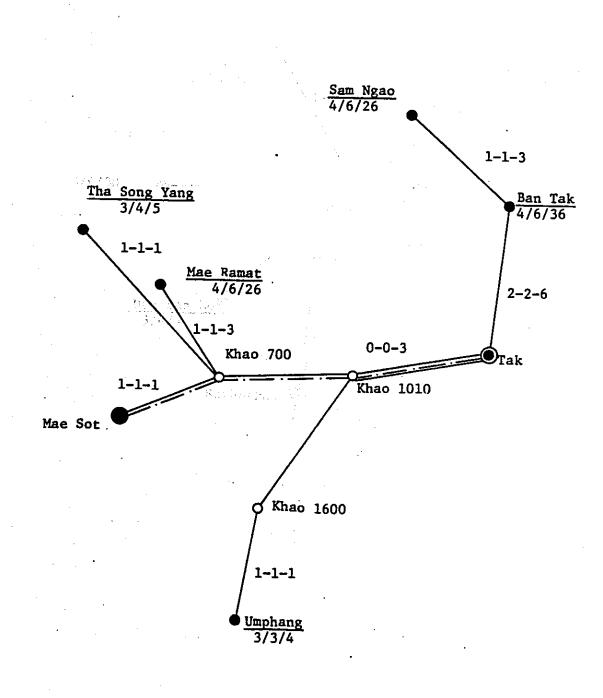


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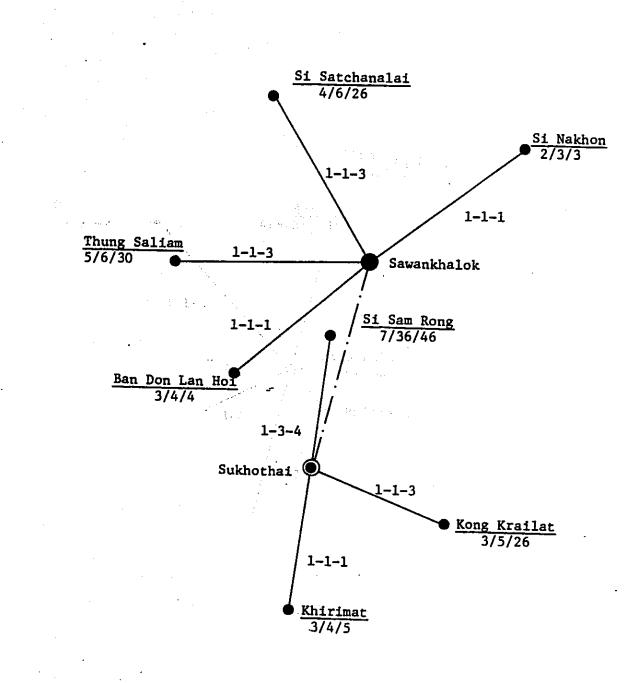




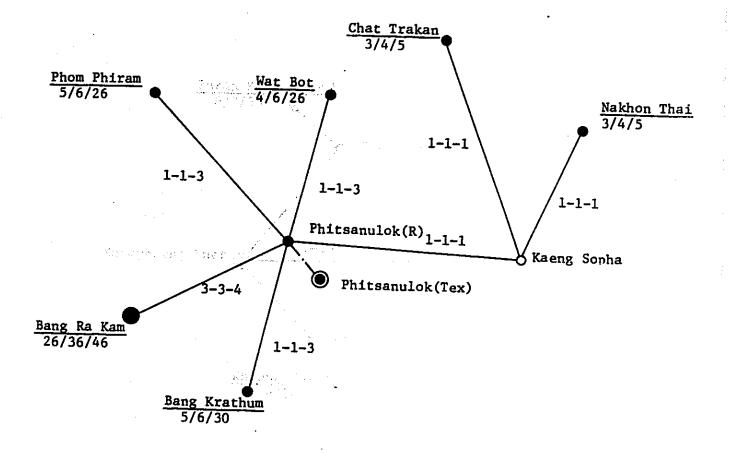
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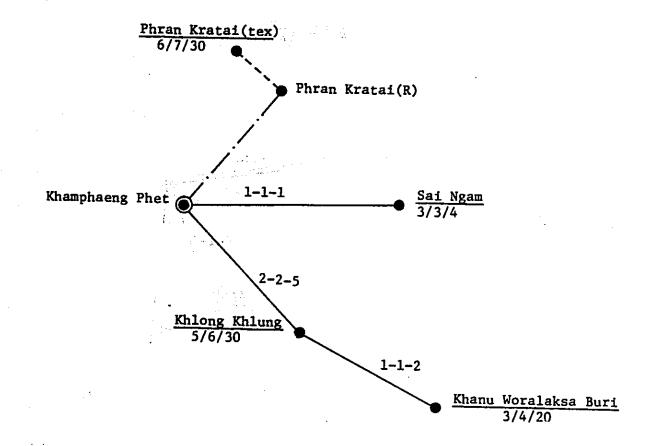
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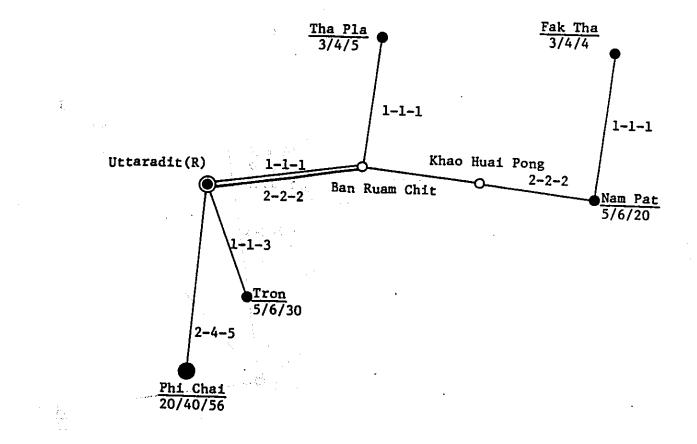
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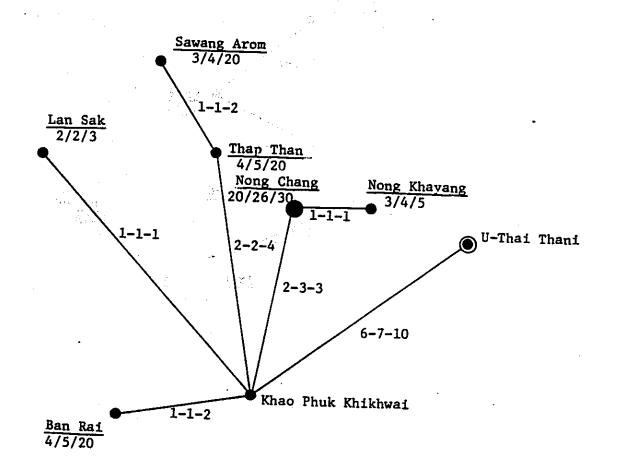
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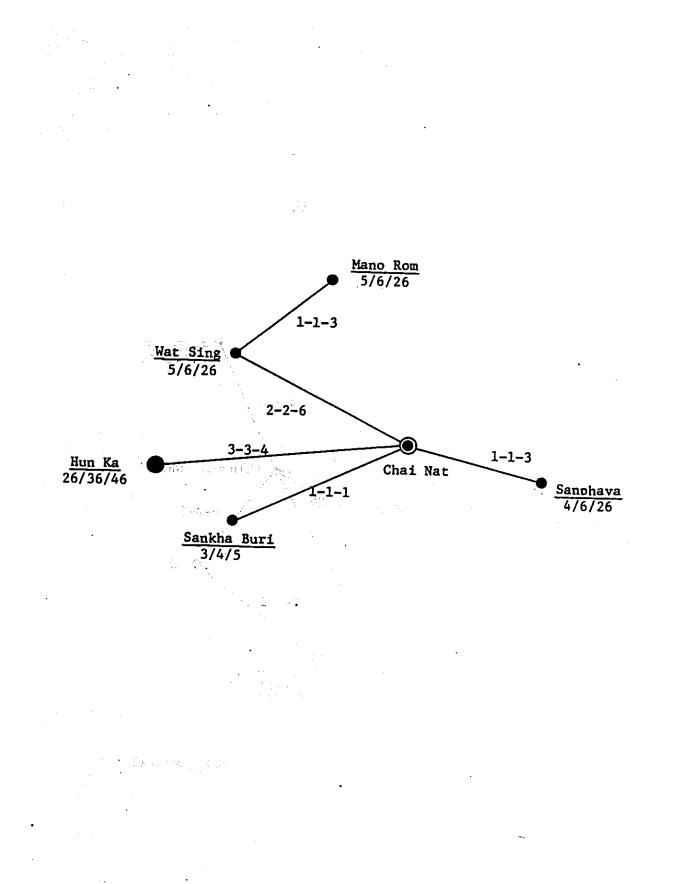
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Circuit Assignment Diagram for Terrestrial System : Uttaradit Area(5527)

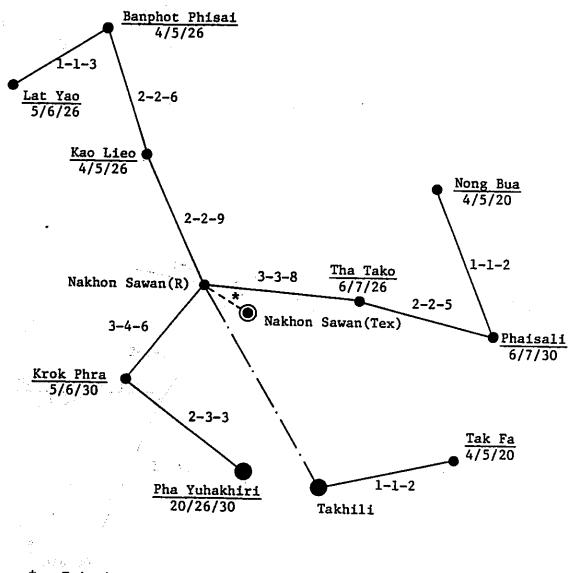


Circuit Assignment Diagram for Terrestrial System : U-Thai Thani Area(5601)



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Circuit Assignment Diagram for Terrestrial System : Chai Nat Area(5607)

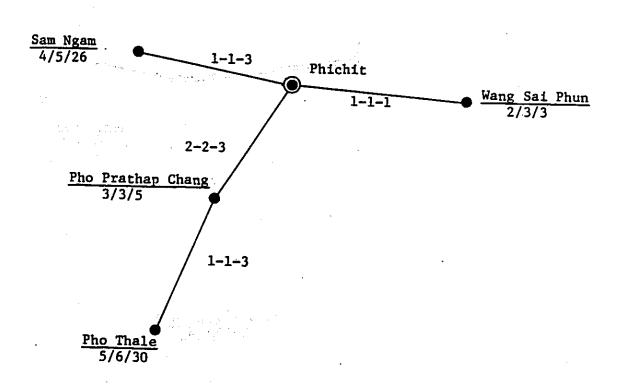


: Existing Cable

Circuit Assignment Diagram for Terrestrial System : Nakhon Sawan Area(5614)

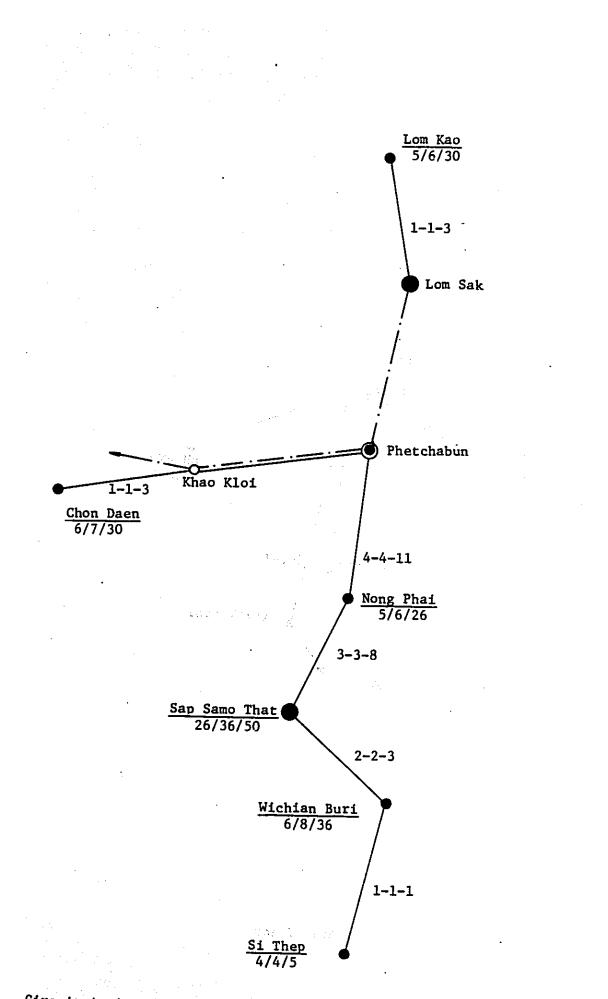
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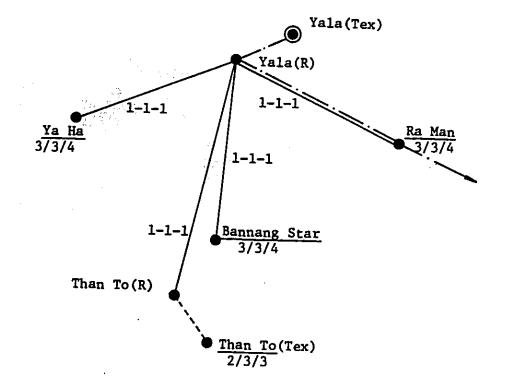
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Circuit Assignment Diagram for Terrestrial System : Phichit Area(5623)

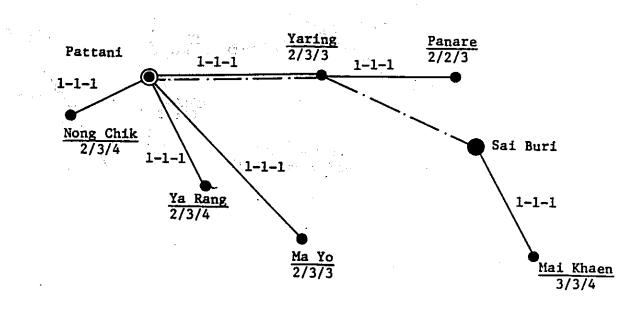


Circuit Assignment Diagram for Terrestrial System : Phetchabun Area(5628)

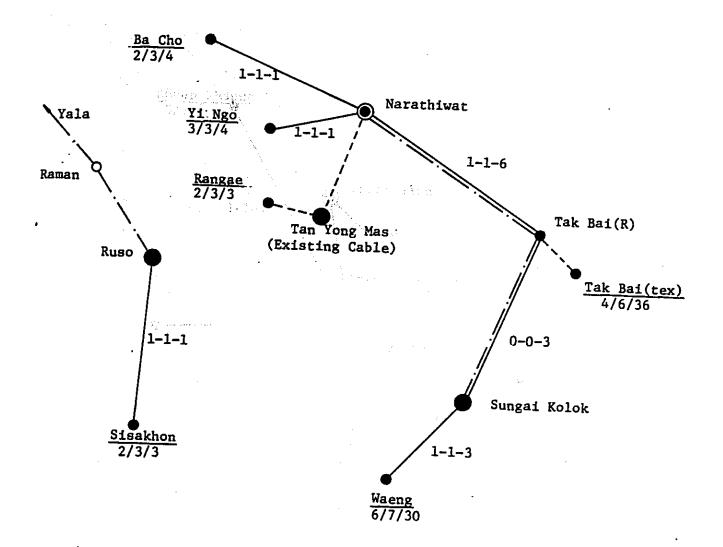
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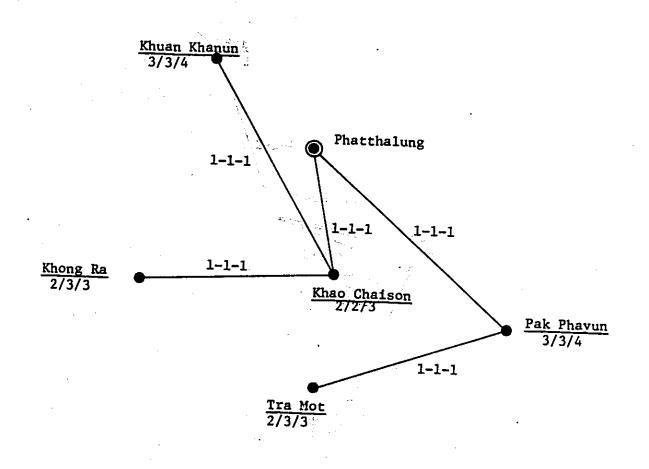
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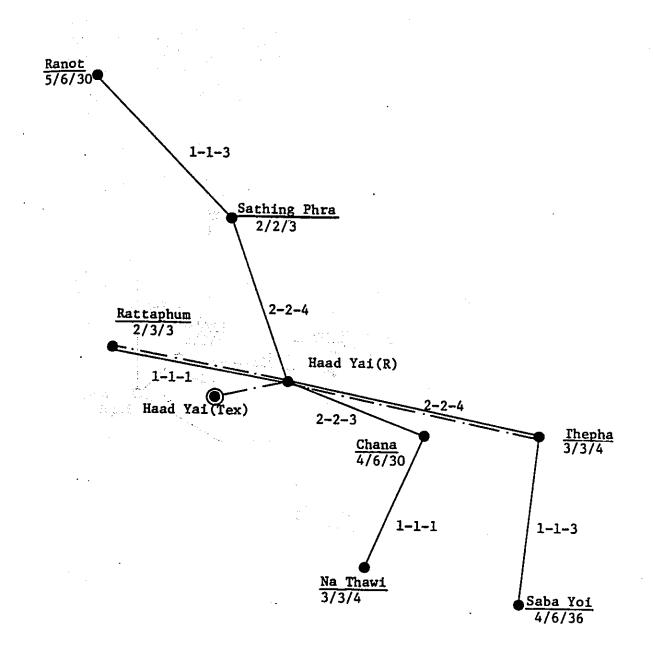
Circuit Assignment Diagram for Terrestrial System : Pattani Area(7313)



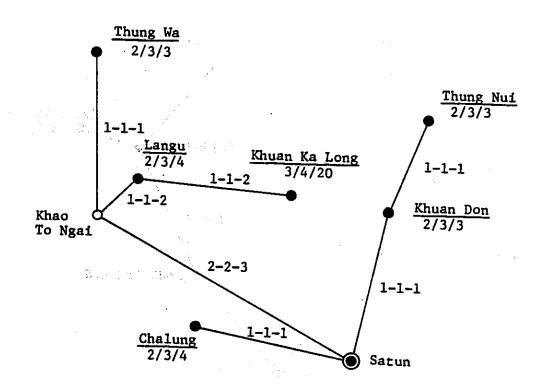
Circuit Assignment Diagram for Terrestrial System : Narathiwat Area(7314)



Circuit Assignment Diagram for Terrestrial System : Phatthalung Area(7401)



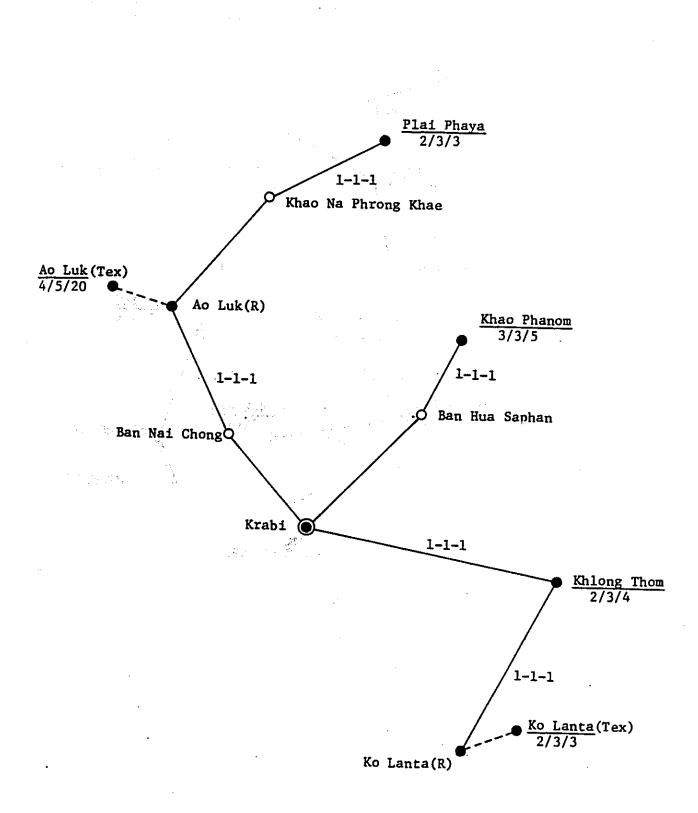
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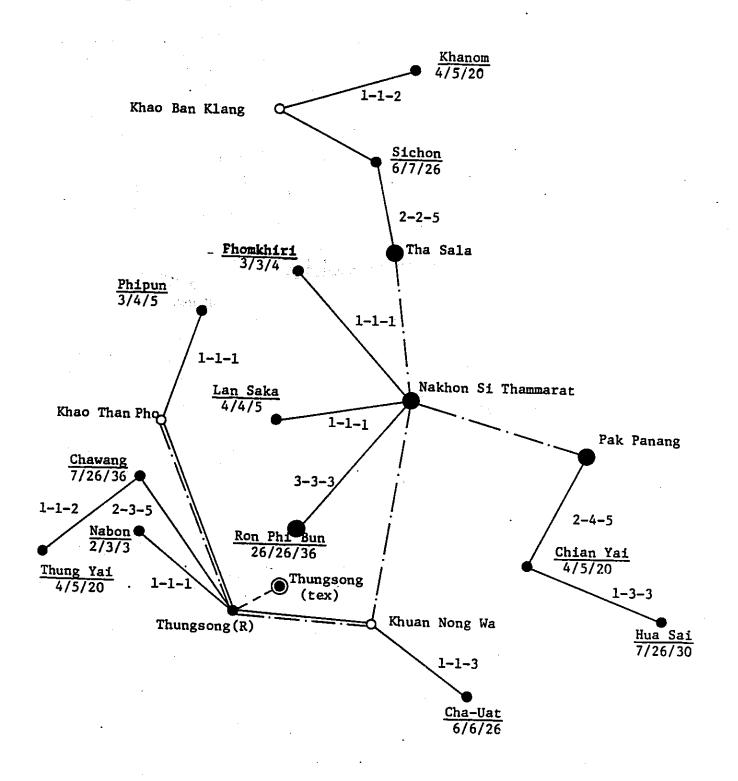
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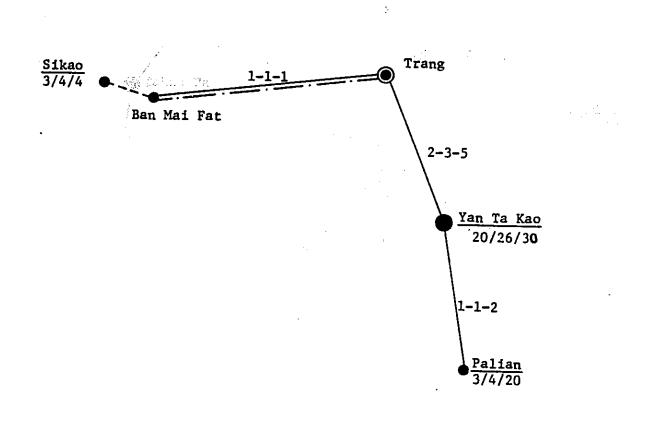
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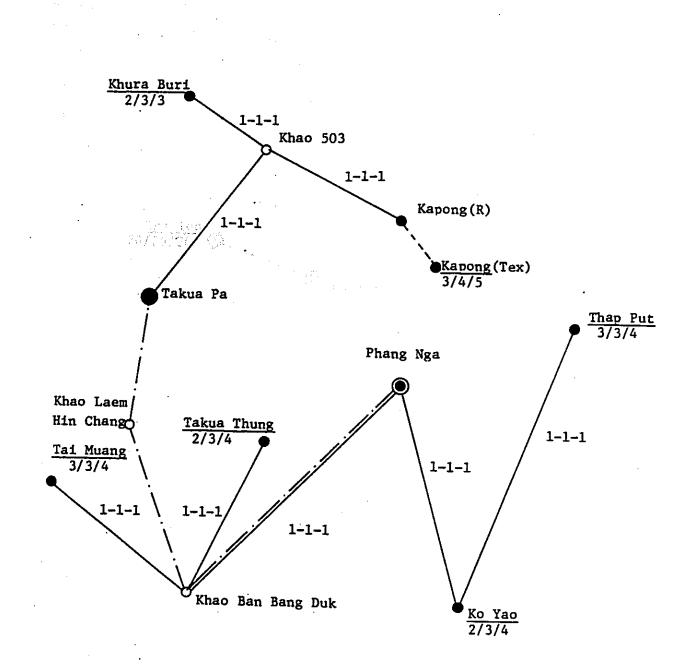


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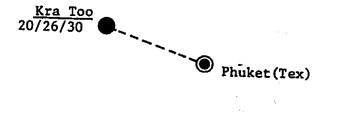
Circuit Assignment Diagram for Terrestrial System : Trang Area(7523)

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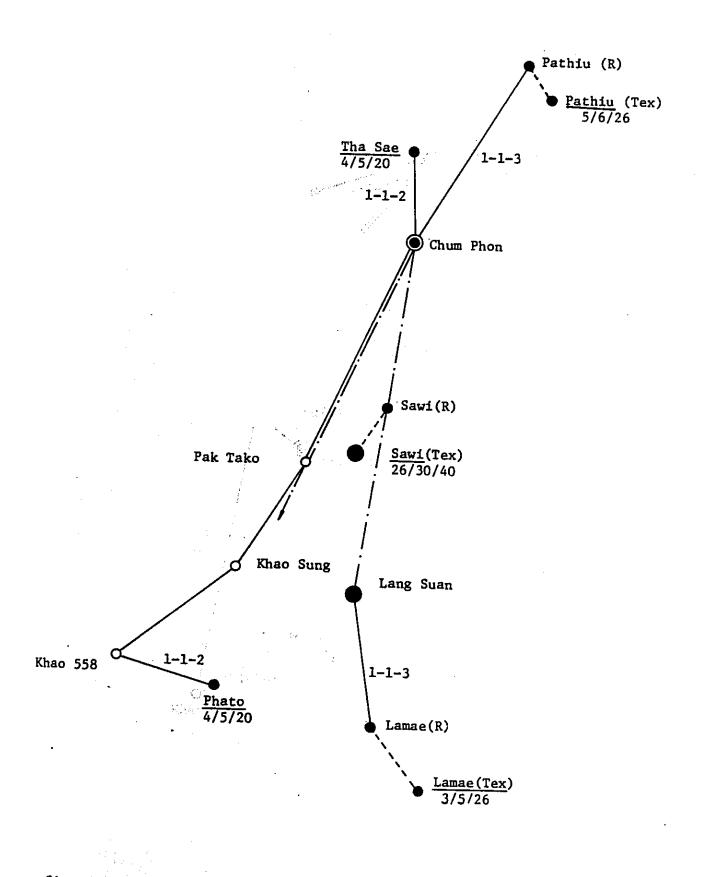


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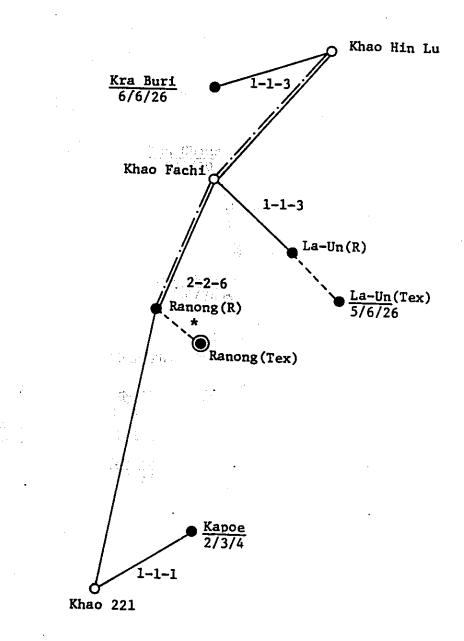
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Circuit Assignment Diagram for Terrestrial System : Phuket Area(7609)



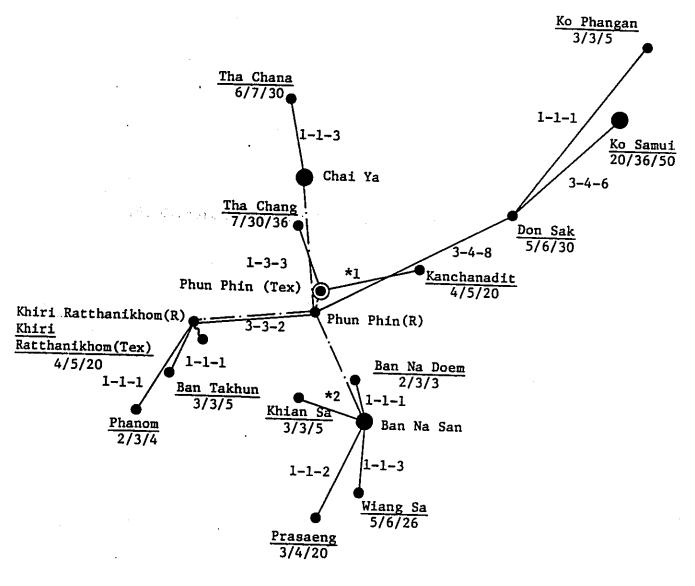
Circuit Assignment Diagram for Terrestrial System : Chum Phon Area(7701)



\* : Existing Cable

Circuit Assignment Diagram for Terrestrial System : Ranong Area(7707)

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\*1 : 1-1-2 \*2 : 1-1-1

Circuit Assignment Diagram for Terrestrial System : Phun Phin Area(7711)

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## 10. Circuit Assignment Diagram for Satellite System

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	3201	Petcha Buri.	10 - 1
	3207	Ratcha Buri.	2
	<b>3215</b>	Prachuap Khiri Khan	3
	3401	Samut Sakhon	4
ï	3404	Samut Song Khram	. 5
	<b>3407</b>	Nakhonpathom	6
	3413	Kanchanaburi	7
	3501	Angthong	. <b>8</b>
	3508	Suphanburi	. 9
.*	3516	Ayutthaya	10
	3601	Singburi	11
	3606	Lopburi	12
	3613	Saraburi	13
	<b>3701</b>	Nakhon Nayok	14
	3705	Prachin Buri	15
	3801	Chachoengsao	16
	<b>3808</b>	Rayong	17
	3815	Chonburi	18
	3901	Trat.	19
	3905	Chantaburi	20
	4201	Udon Thani	21
*• •	4211	Sakhon Nakhon	22
	4219	Nong Khai	23
	4226	Loei	24

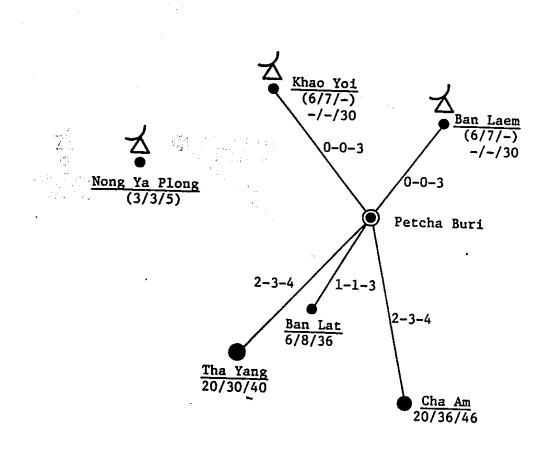
Contents for Circuit Assignment Diagram for Satellite System

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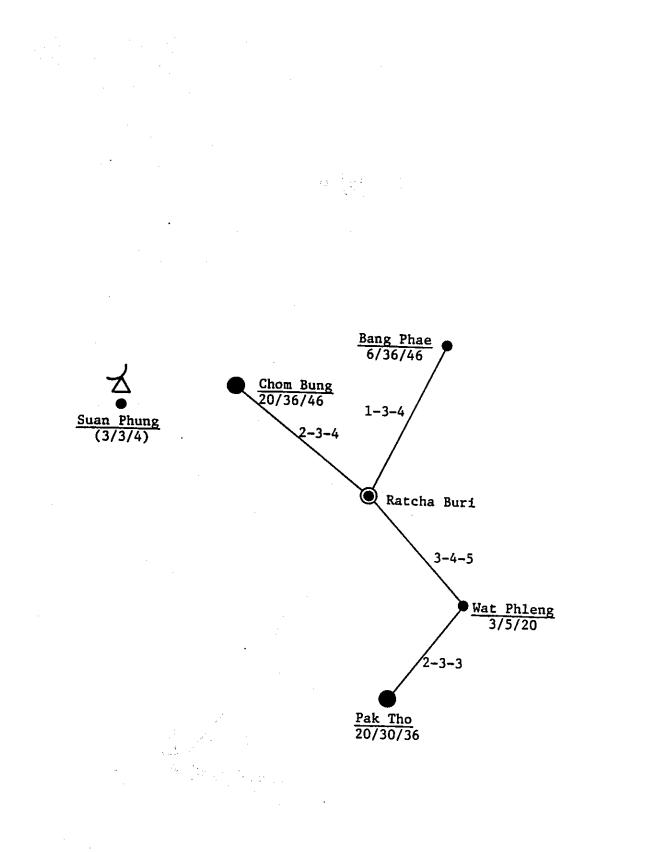
10 - 25 Nakhon Phanom Mahasarakham Khon Kaen Kalasin Roiet Marsh Station Chaiyaphum gester Statues Burirum 🐇 Nakhon Ratchasima Ubon Ratchathani LESS SCOULS Yasothon Sisaket Surin Mae Hong Son Chiangmai 38 - 39 Lamphun Chiangrai Nan Lampang Phrae Tak Sukhothai Phitsanulok Schamphaeng Phet Uttaradit U-Thai Thani Chai Nat Very control of the second

Lengend :

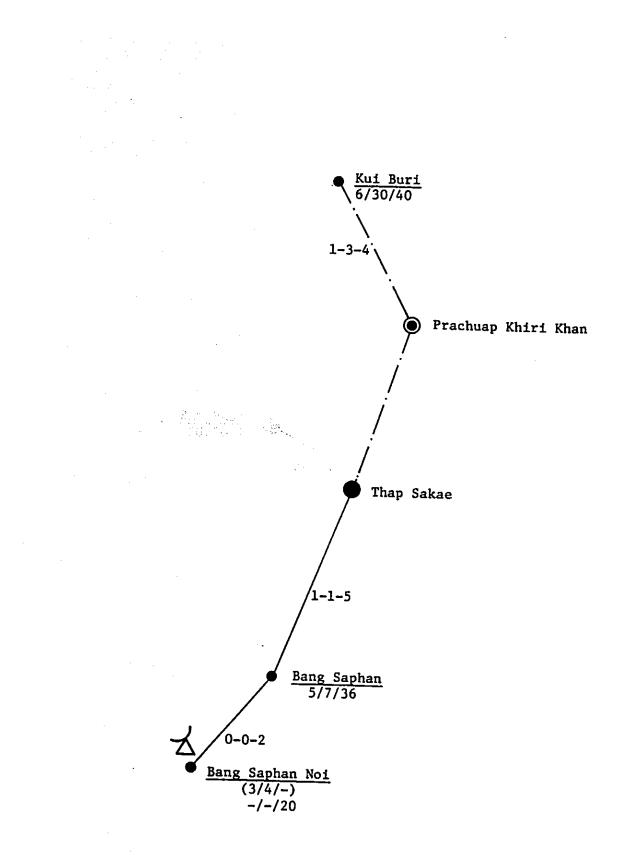
	Tertiary / Secondary / Primary Center	
	Local Exchange (including Mobile Exchange)	
•	Terminal Station (including SG/G Branching Station)	
0	Repeater Station	
Site Name	Underlined site name is for Rural Long Distance	
	Public Telephone Service and Mobile Exchange Station	
	in this Study.	
X	Newly planned Rural Earth Station	
	Newly planned radio link	
•	Existing radio link	
	Cable link	
(X/Y/X)		
	- Number of circuits required in 1994	
	- Number of circuits required in 1989	
	- Number of circuits required in 1984	
X/Y/Z		
	- Number of circuits required in 1994	
	- Number of circuits required in 1989	
	- Number of circuits required in 1984	
X-Y-Z		
	- Number of basic groups required in 1994	
	- Number of basic groups required in 1989	
$\sum$	- Number of basic groups required in 1984	



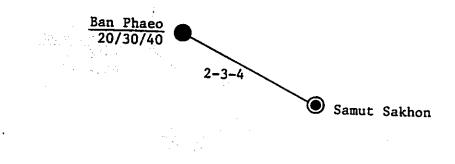
Circuit Assignment Diagram for Satellite System : Petcha Buri Area(3201)



Circuit Assignment Diagram for Satellite System : Ratcha Buri Area(3207)



Circuit Assignment Diagram for Satellite System : Prachuap Khiri Khan Area(3215)



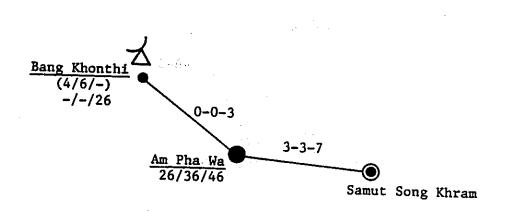
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Circuit Assignment Diagram for Satellite System : Samut Sakhon Area(3401)

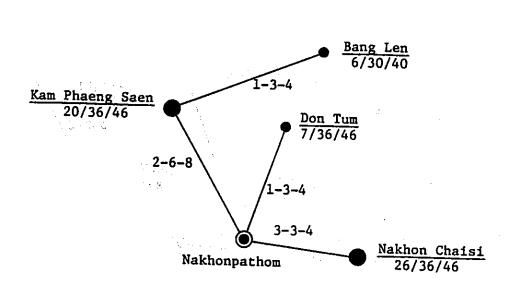
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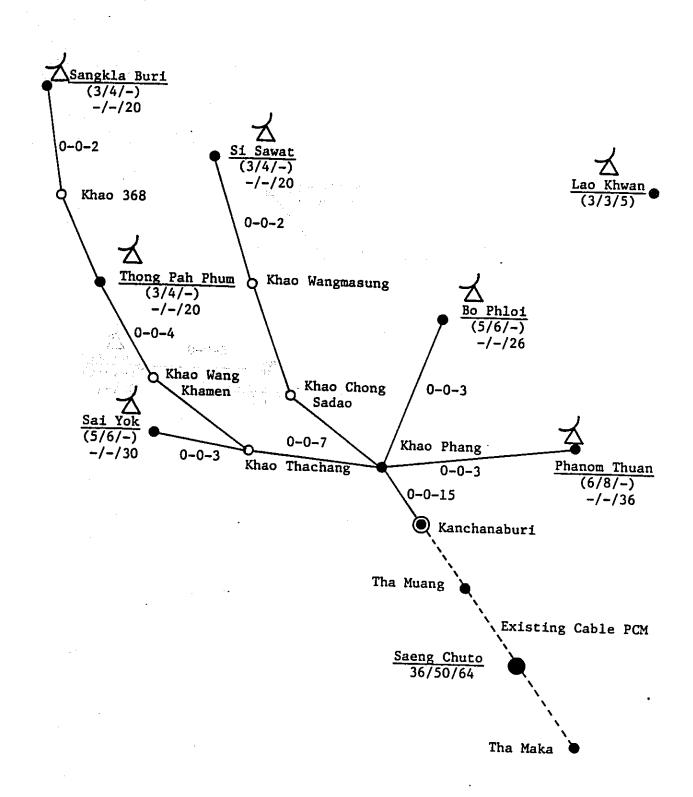


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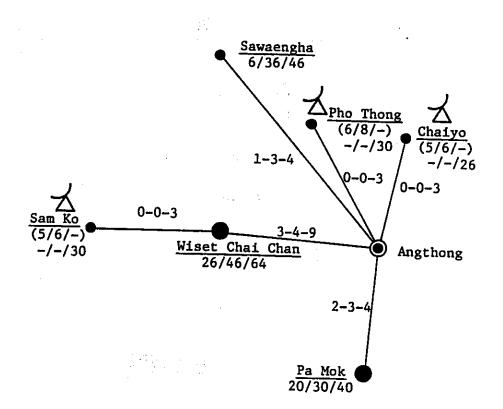
Circuit Assignment Diagram for Satellite System : Samut Song Khram Area(3404)



Circuit Assignment Diagram for Satellite System : Nakhonpathom Area(3407)

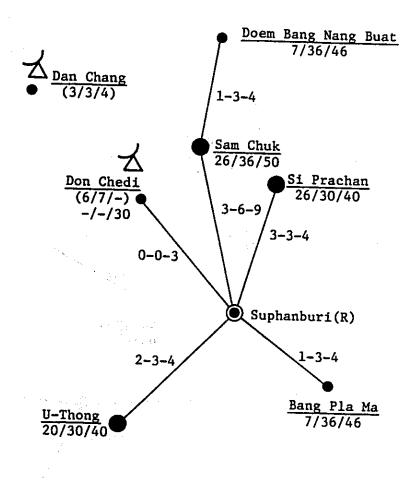


Circuit Assignment Diagram for Satellite System : Kanchanaburi Area(3413)



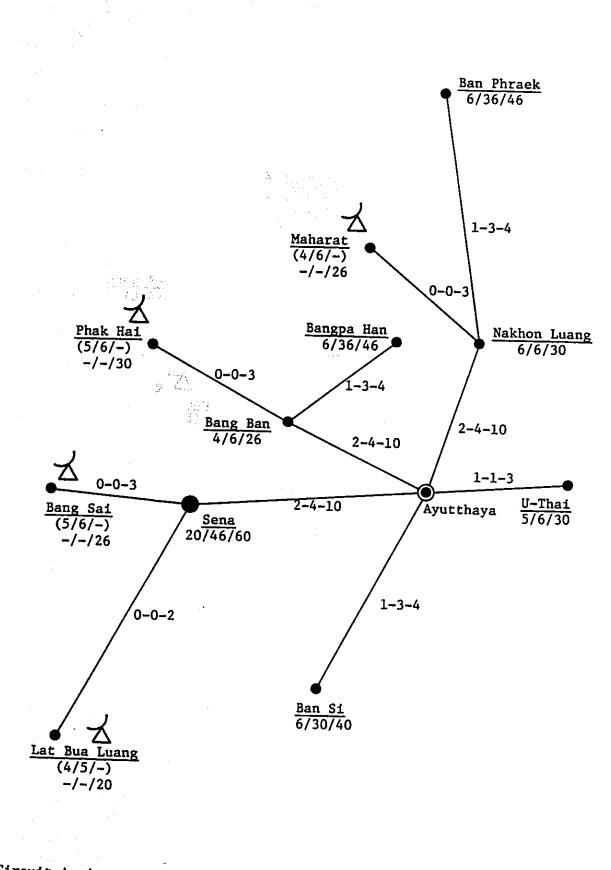
Circuit Assignment Diagram for Satellite System : Angthong Area (3501)

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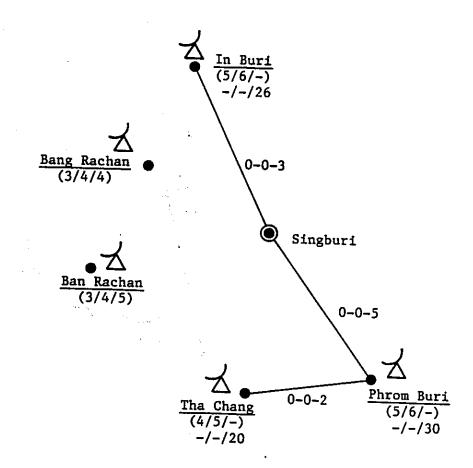


Circuit Assignment Diagram for Satellite System : Suphanburi Area(3508)

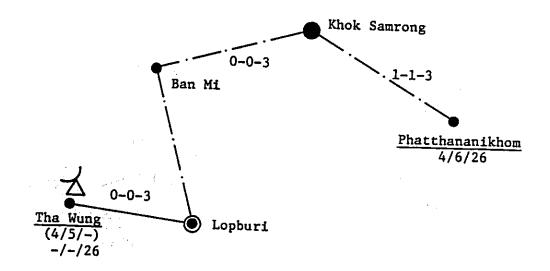
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Circuit Assignment Diagram for Satellite System : Ayutthaya Area(3516)

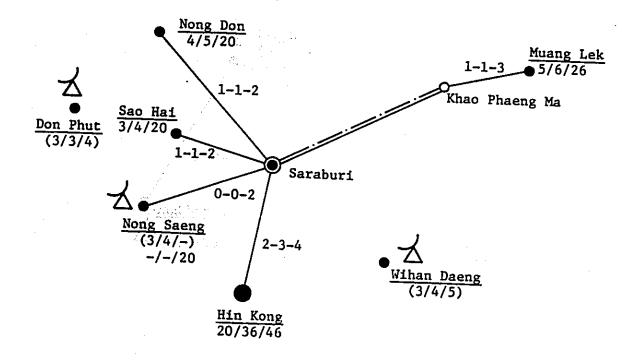


Circuit Assignment Diagram for Satellite System : Singburi Area(3601)



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Circuit Assignment Diagram for Satellite System : Lopburi Area(3606)

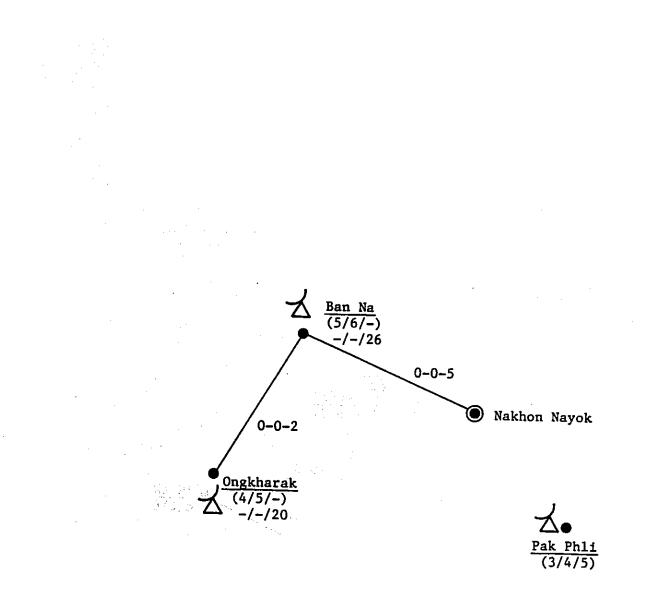


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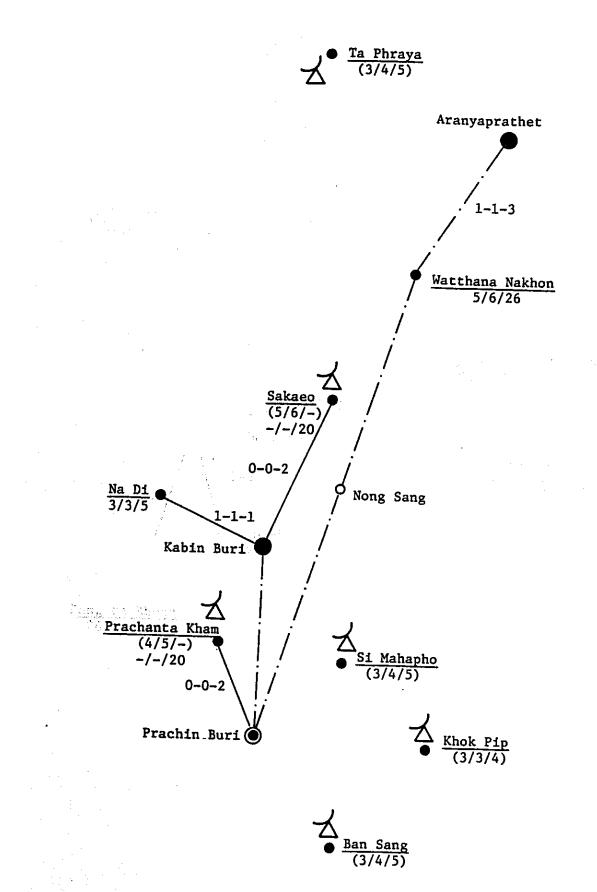
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Circuit Assignment Diagram for Satellite System : Saraburi Area(3613)

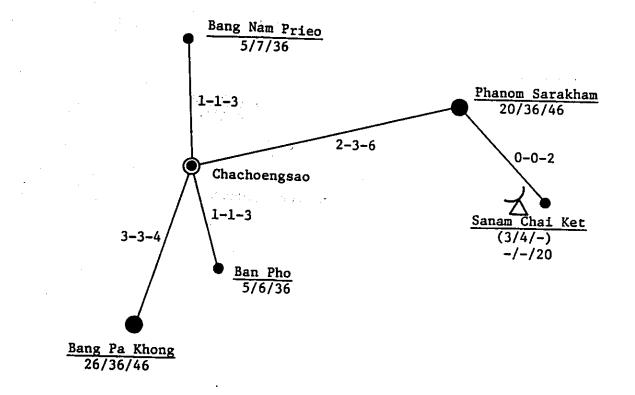
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Circuit Assignment Diagram for Satellite System : Nakhon Nayok Area(3701)

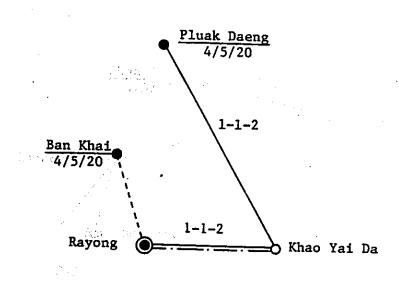


Circuit Assignment Diagram for Satellite System : Prachin Buri Area(3705)

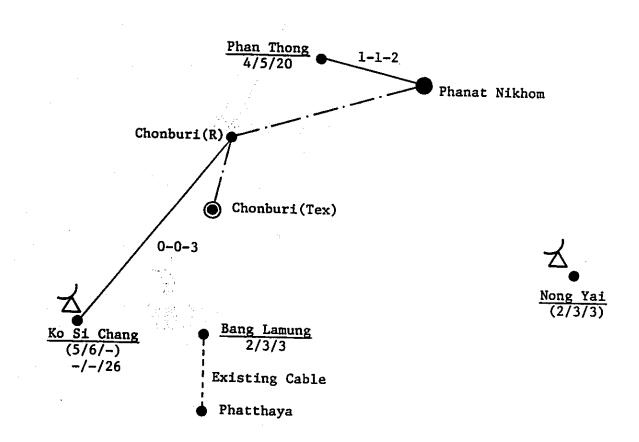


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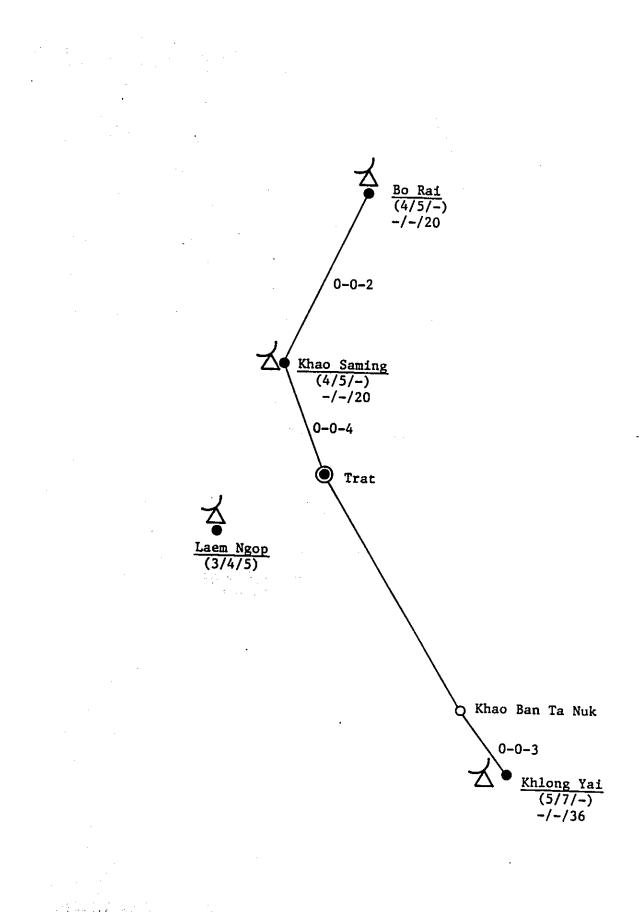
Circuit Assignment Diagram for Satellite System : Chachoengsao Area(3801)



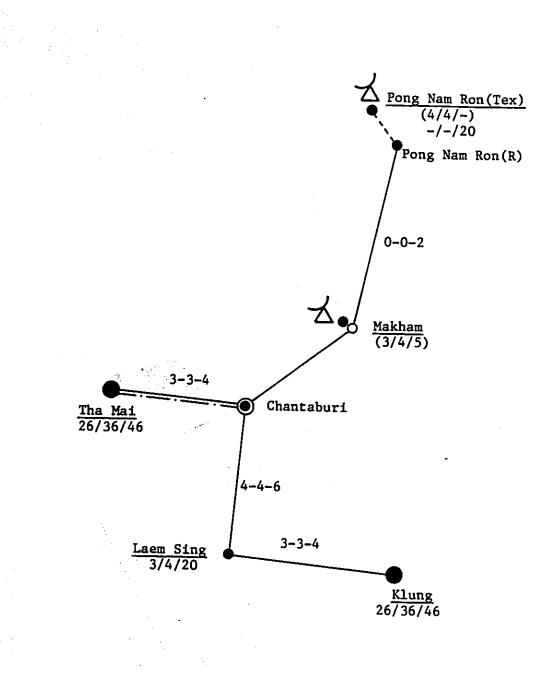
Circuit Assignment Diagram for Satellite System : Rayong Area (3808)



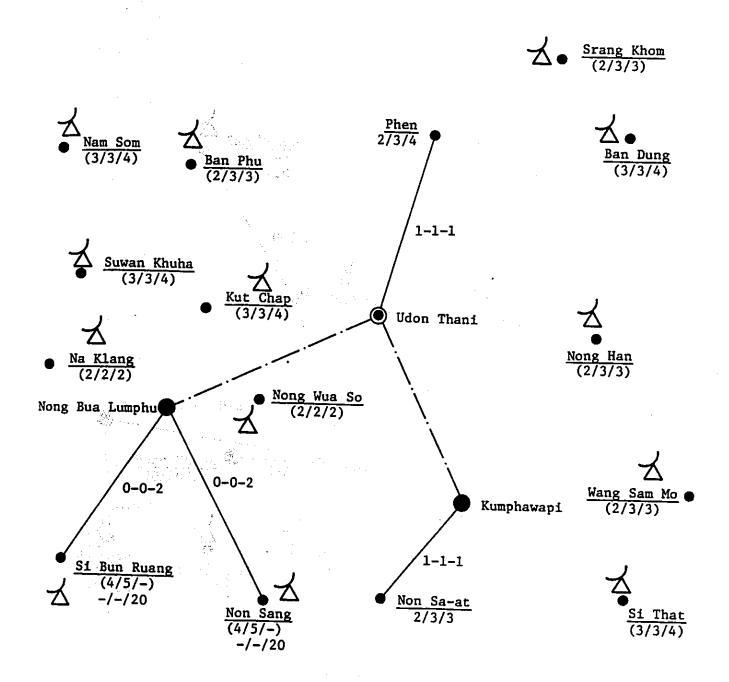
Circuit Assignment Diagram for Satellite System : Chonburi Area (3815)



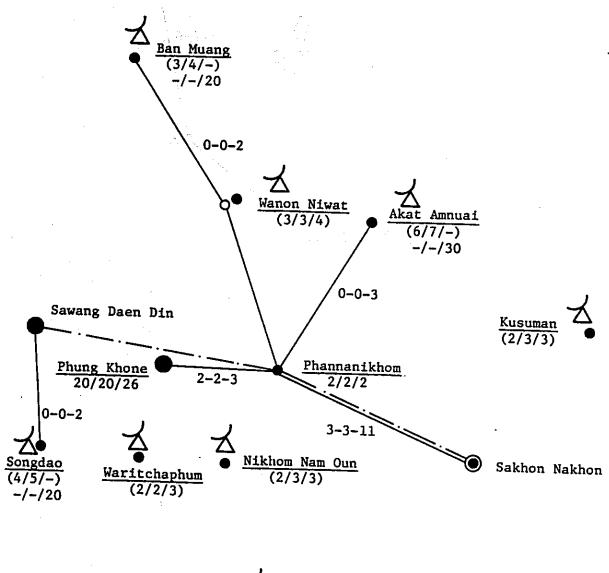
Circuit Assignment Diagram for Satellite System : Trat Area (3901)



Circuit Assignment Diagram for Satellite System : Chantaburi Area(3905)

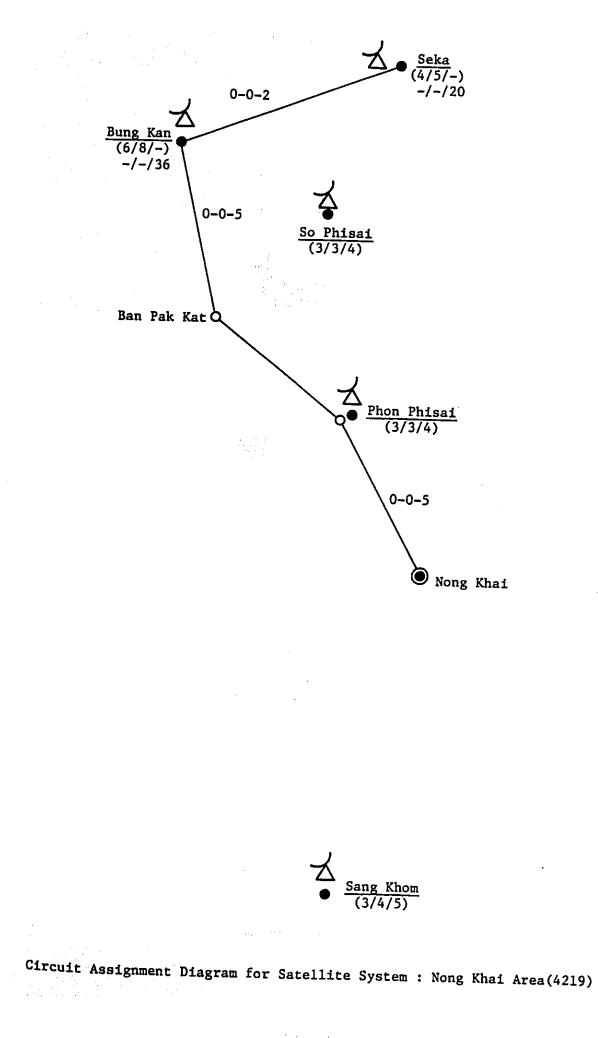


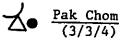
Circuit Assignment Diagram for Satellite System : Udon Thani Area (4201)

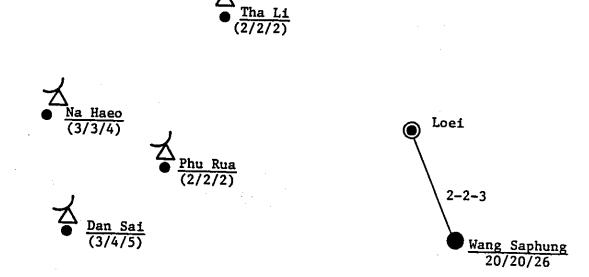


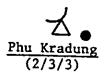


Circuit Assignment Diagram for Satellite System : Sakhon Nakhon Area(4211)

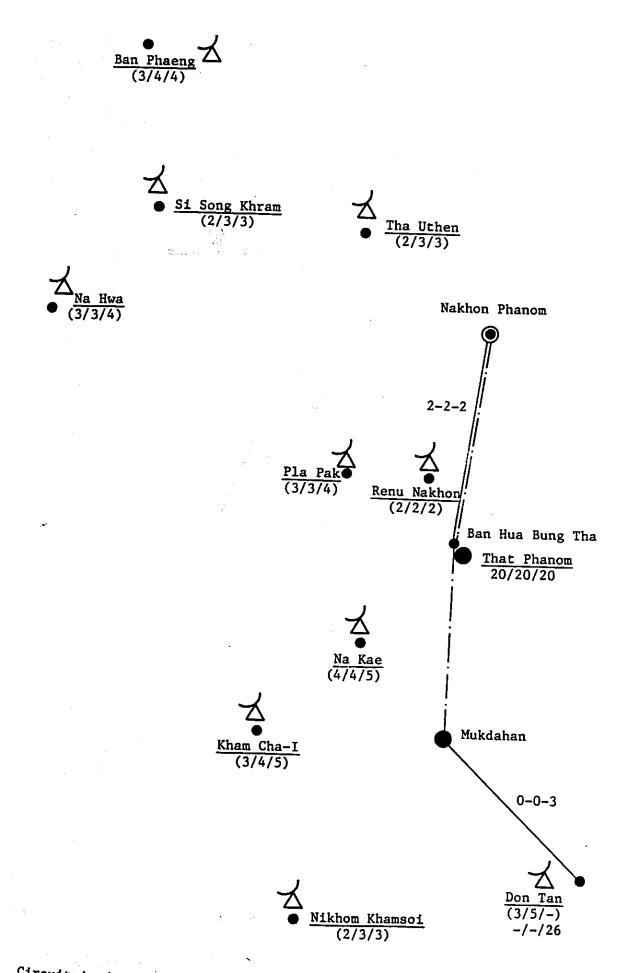




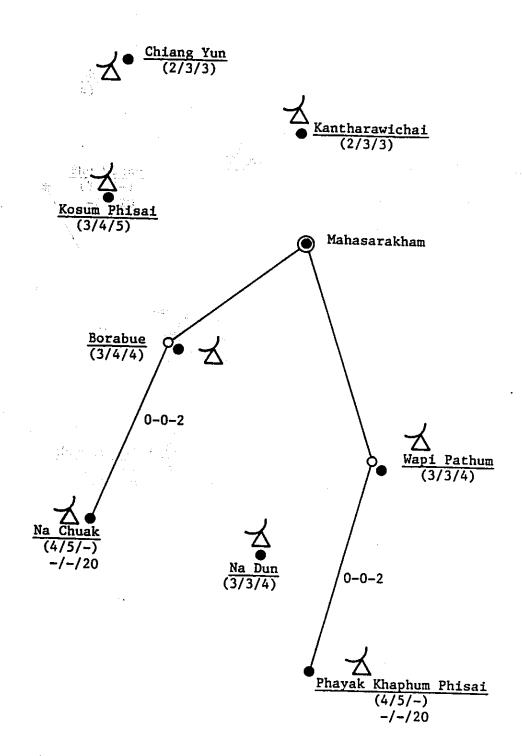




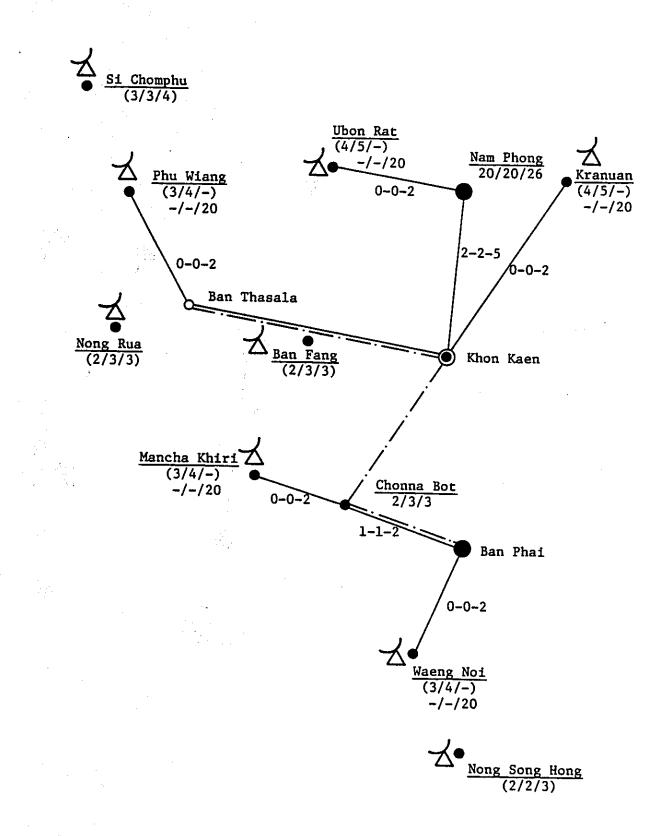
Circuit Assignment Diagram for Satellite System : Loei Area (4226)



Circuit Assignment Diagram for Satellite System : Nakhon Phanom Area(4232)

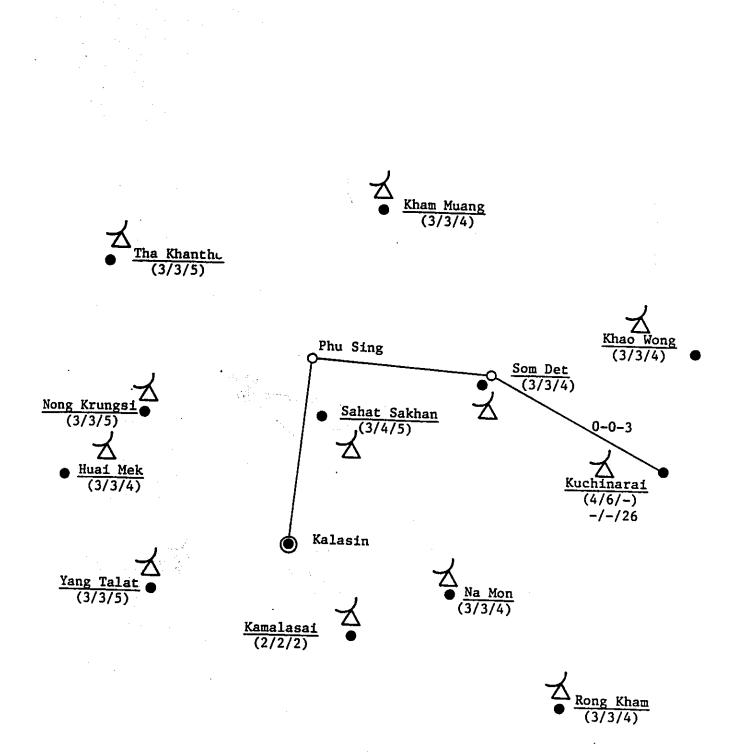


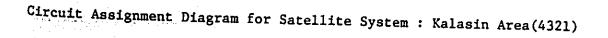
Circuit Assignment Diagram for Satellite System : Mahasarakham Area (4301)

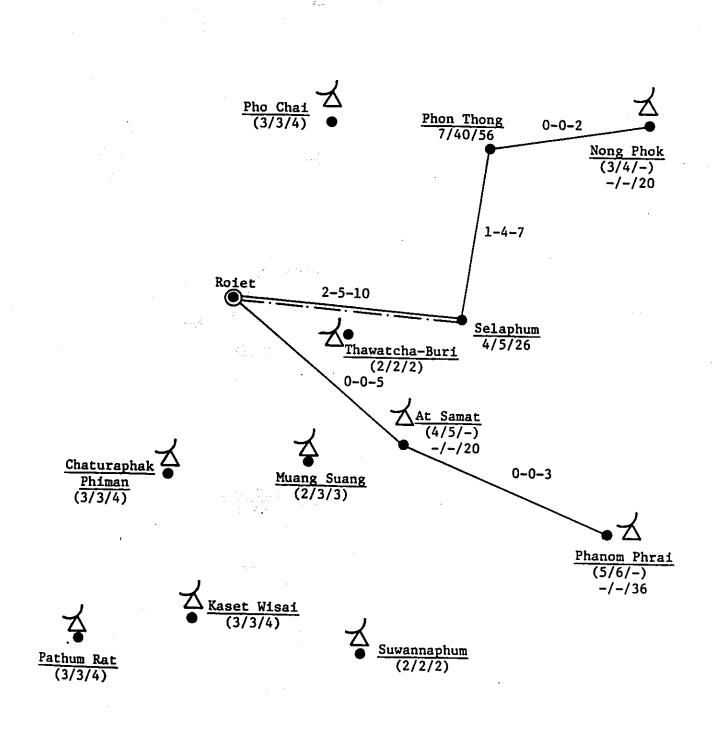


Circuit Assignment Diagram for Satellite System : Khon Kaen Area(4309)

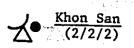
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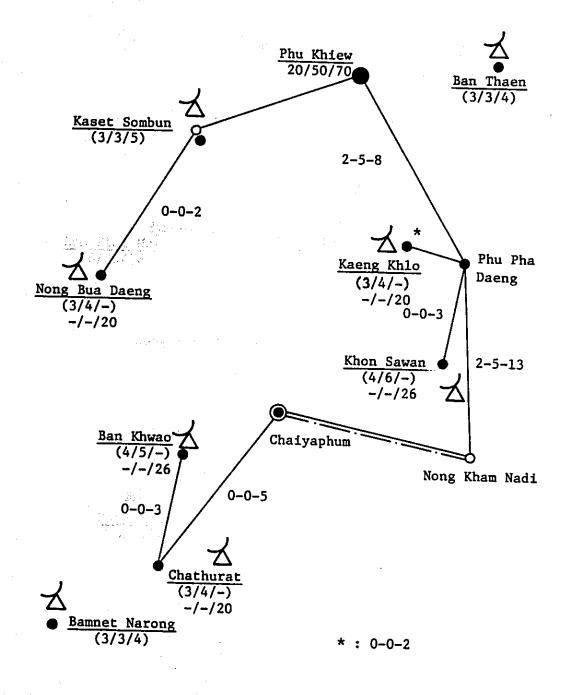






Circuit Assignment Diagram for Satellite System : Roiet Area(4328)

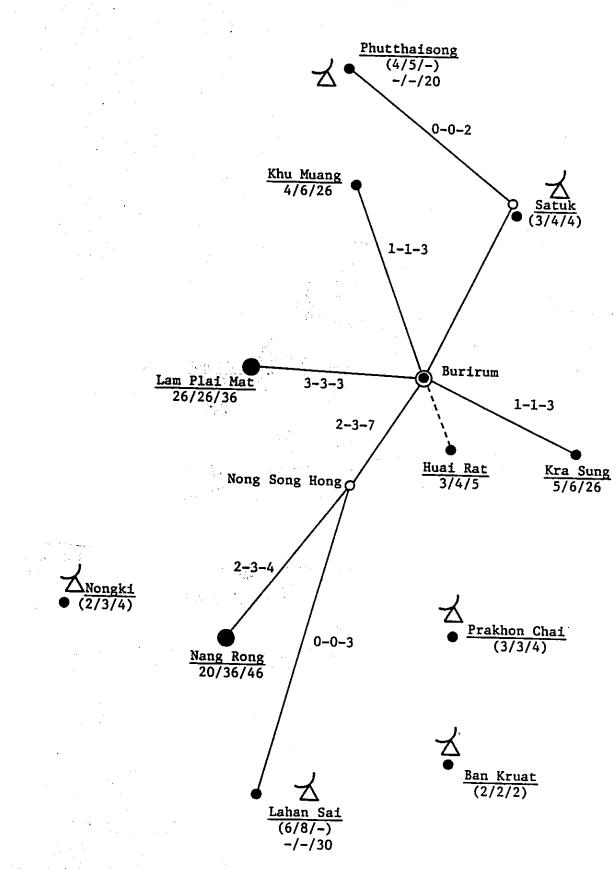




Circuit Assignment Diagram for Satellite System : Chaiyaphum Area (4401)

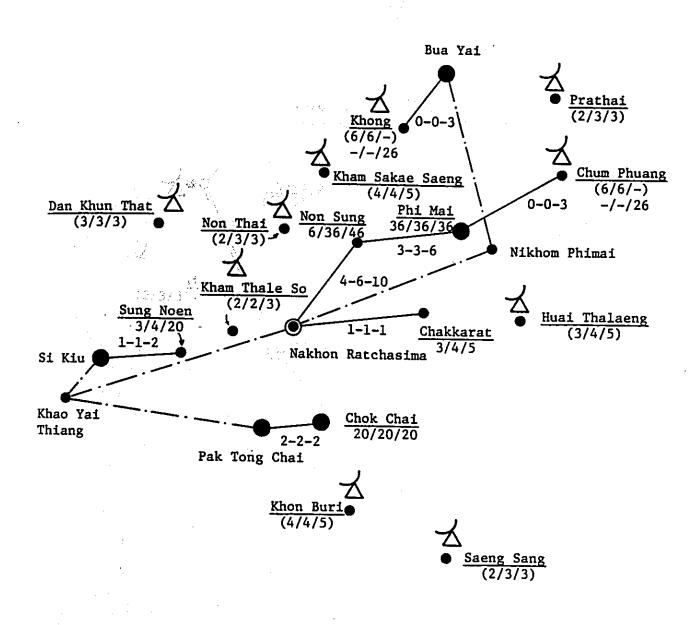
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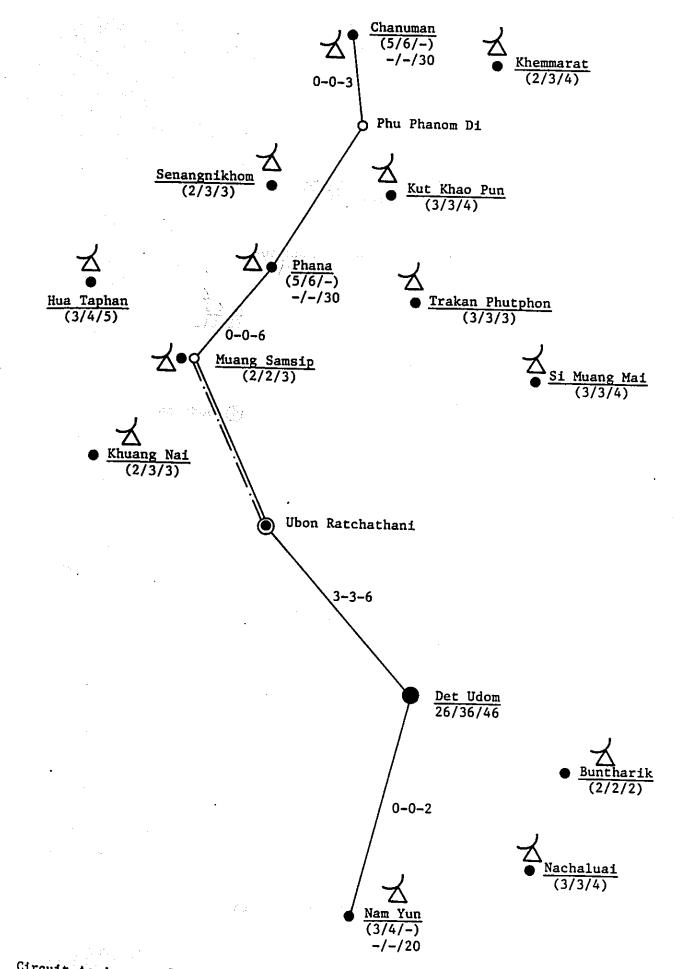
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Circuit Assignment Diagram for Satellite System : Burirum Area(4412)

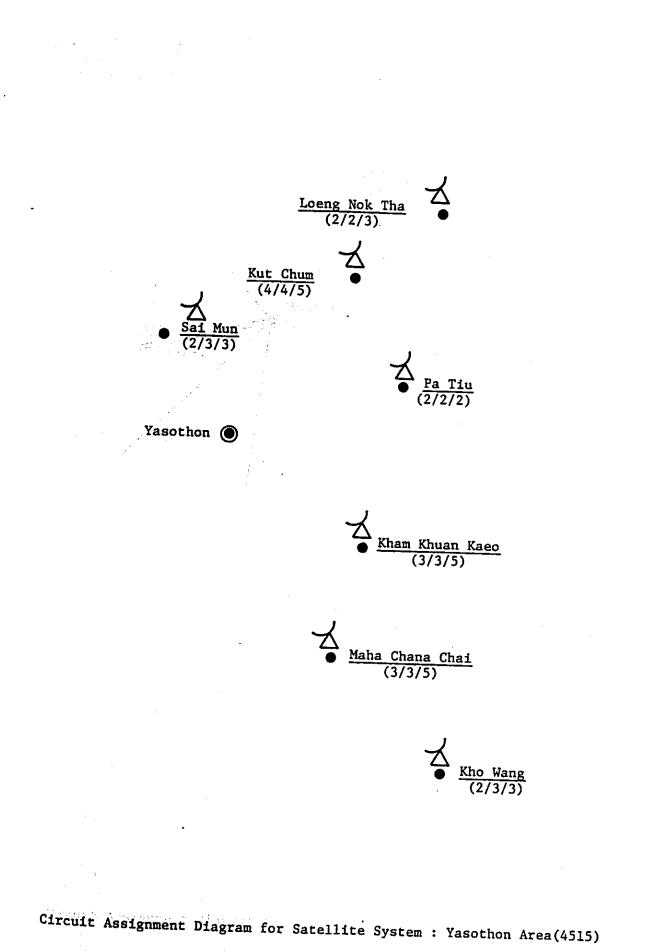


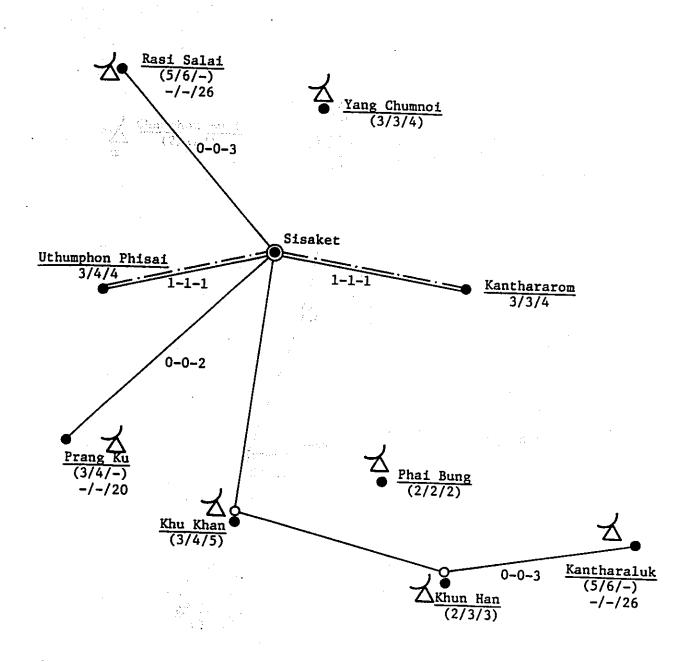
Circuit Assignment Diagram for Satellite System : Nakhon Ratchasima Area(4421)

 $\xi = (1, \dots, 1)$ 

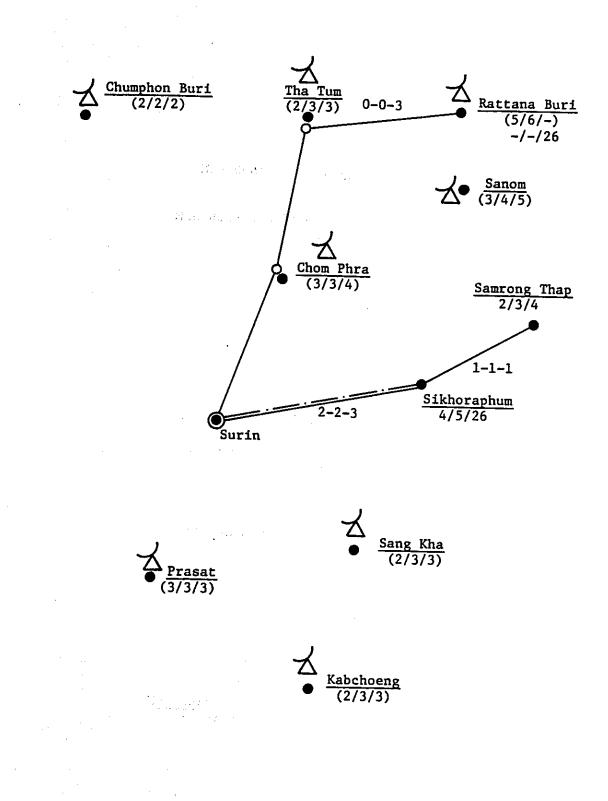


Circuit Assignment Diagram for Satellite System : Ubon Ratchathani Area(4501)

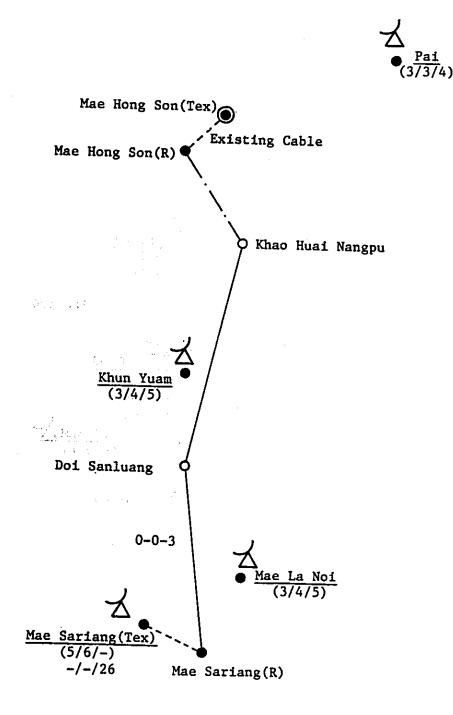




Circuit Assignment Diagram for Satellite System : Sisaket Area(4522)

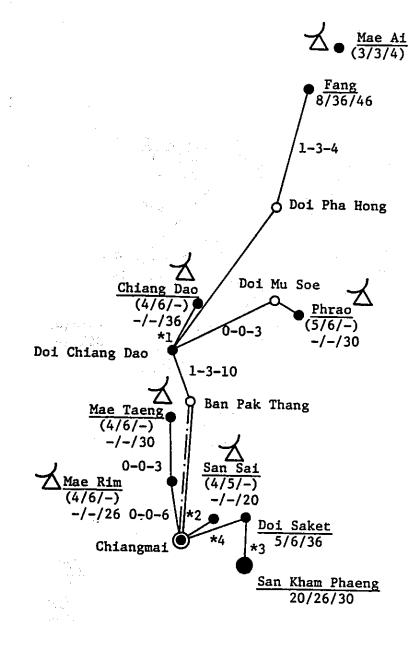


Circuit Assignment Diagram for Satellite System : Surin Area(4530)



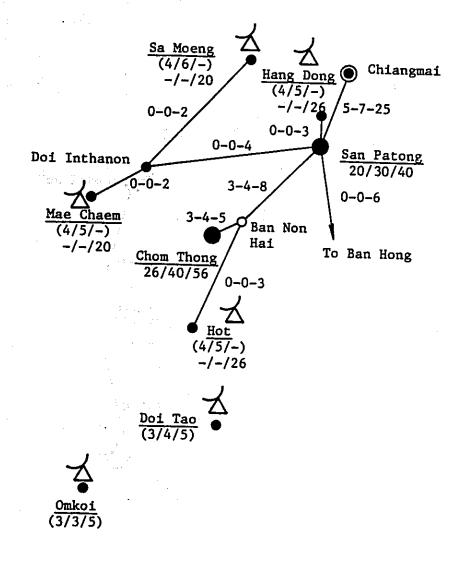
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Circuit Assignment Diagram for Satellite System : Mae Hong Son Area(5301)

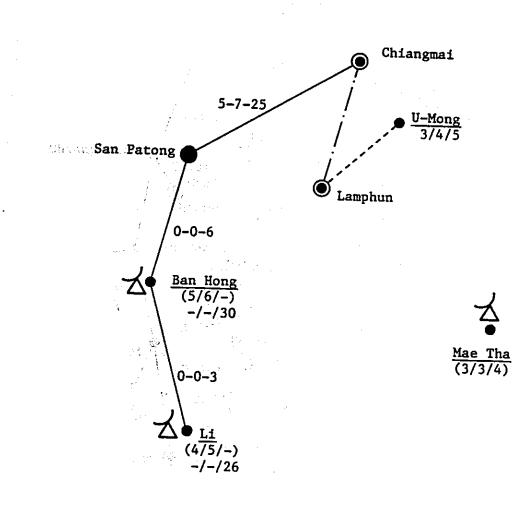




Circuit Assignment Diagram for Satellite System : Chiangmai Area(5313)1/2



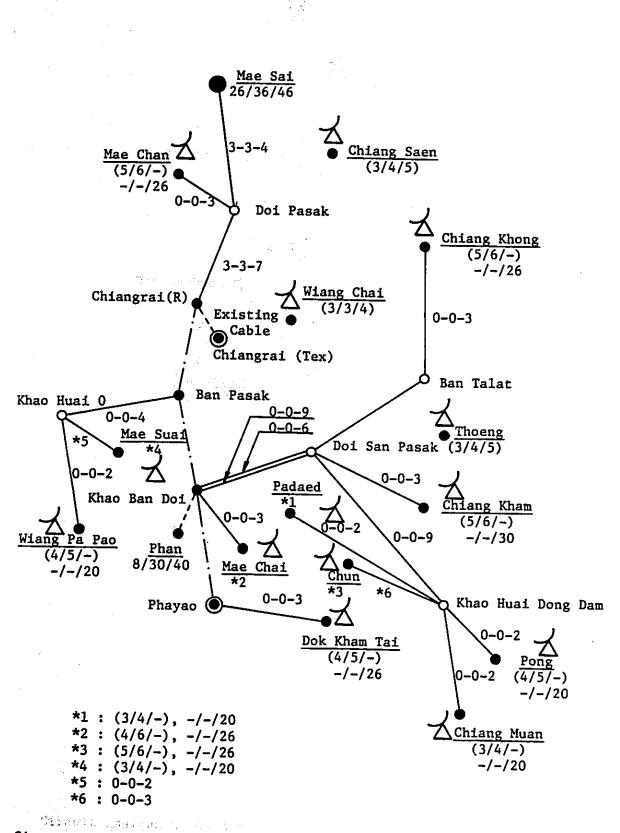
Circuit Assignment Diagram for Satellite System : Chiangmai Area(5313)2/2



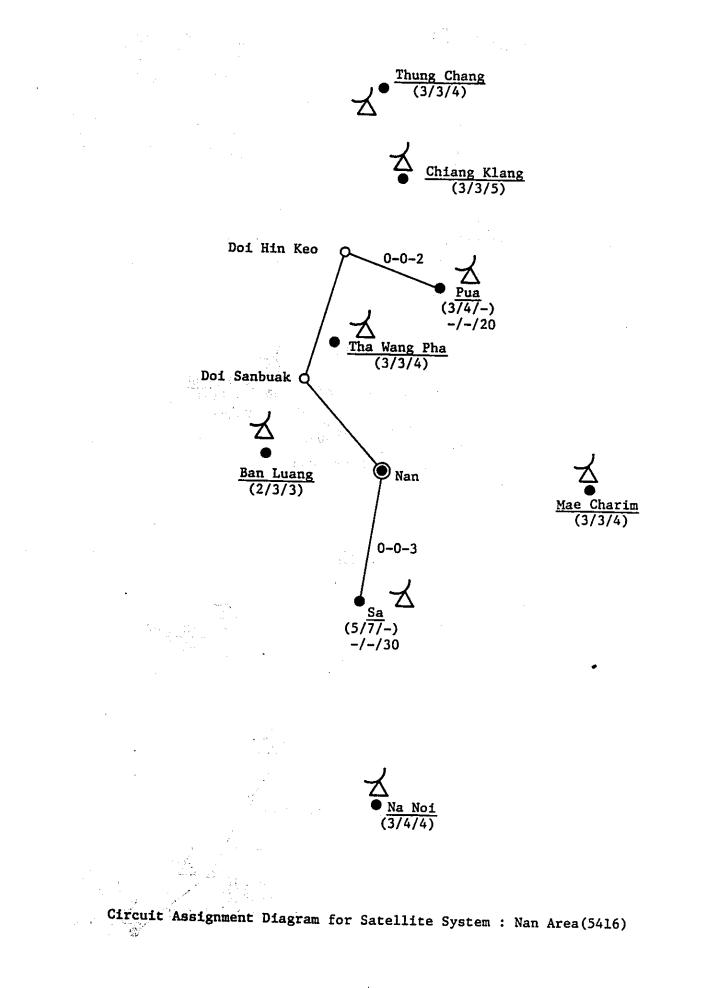
 $E(f) = \{G_{i}, G_{i}\}$ 

Circuit Assignment Diagram for Satellite System : Lamphun Area(5322)

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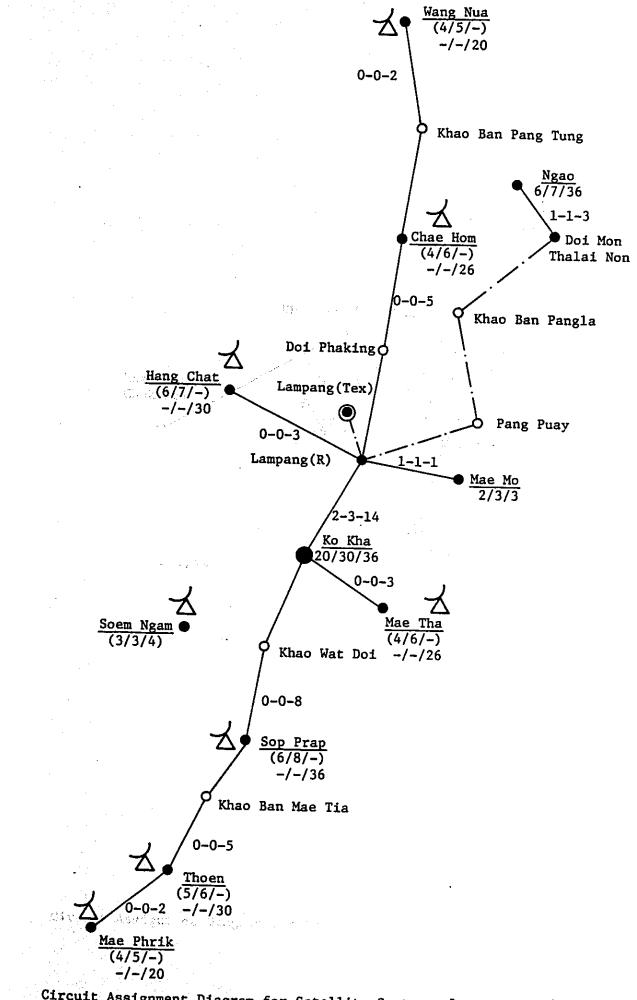


Circuit Assignment Diagram for Satellite System : Chiangrai Area(5401)



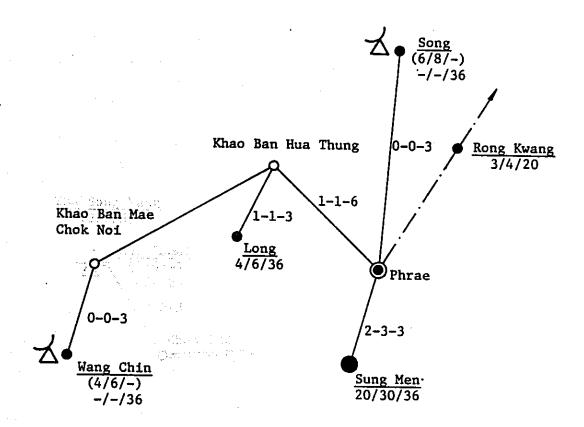
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**10 - 42** 



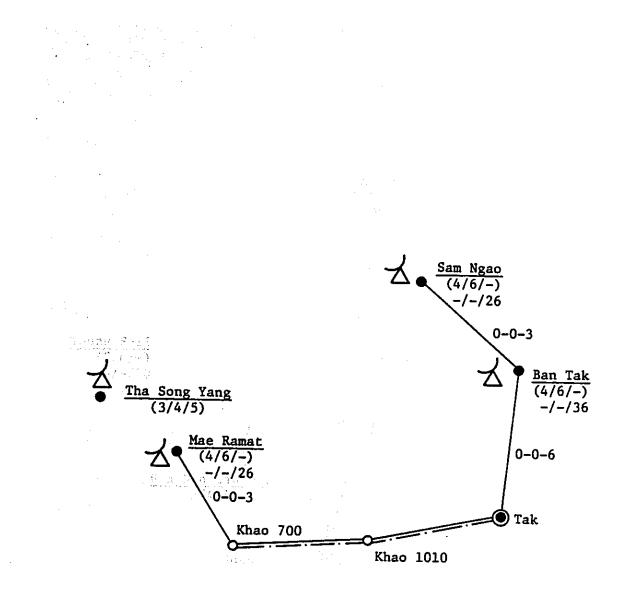
Circuit Assignment Diagram for Satellite System : Lampang Area(5422)

10 - 43



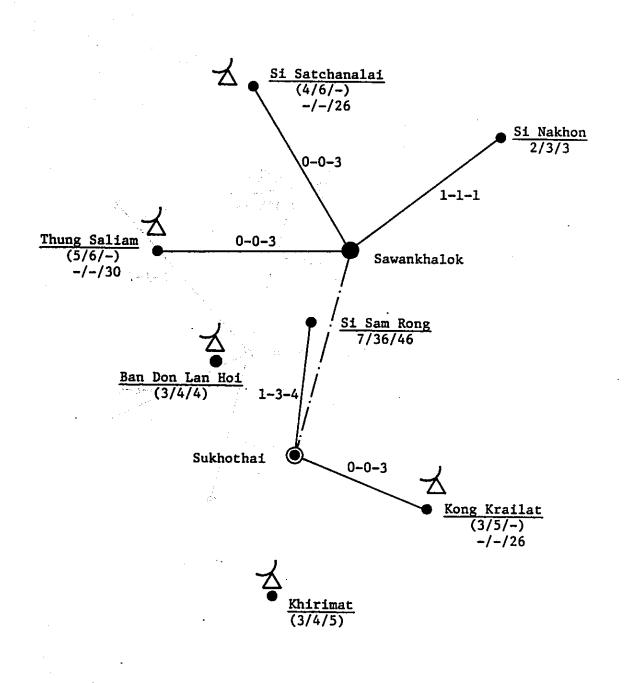
Circuit Assignment Diagram for Satellite System : Phrae Area(5432)

10 - 44



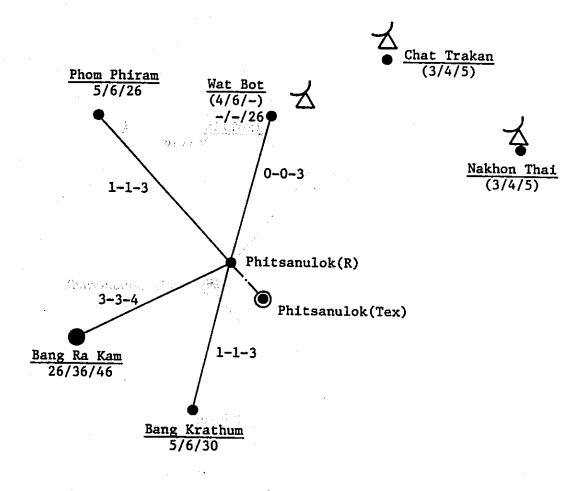


Circuit Assignment Diagram for Satellite System : Tak Area(5501)

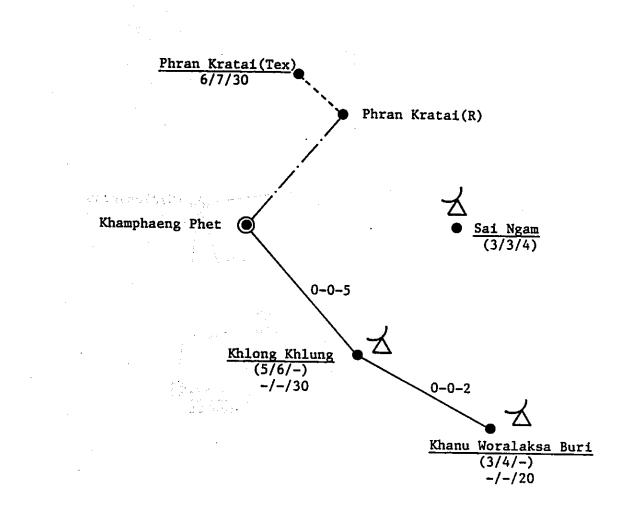


Circuit Assignment Diagram for Satellite System : Sukhothai Area(5508)

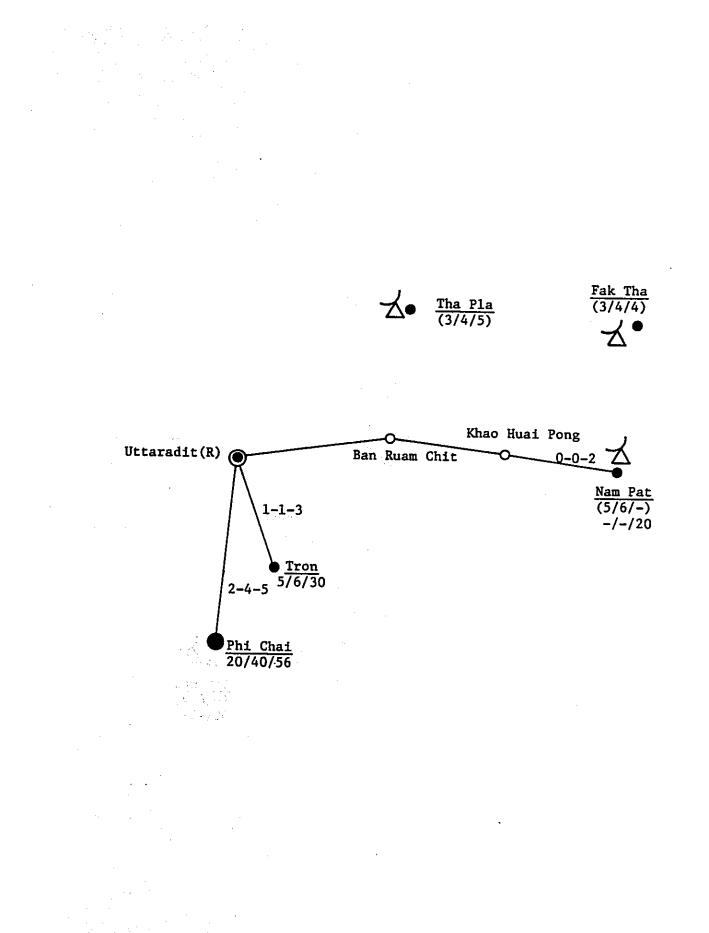
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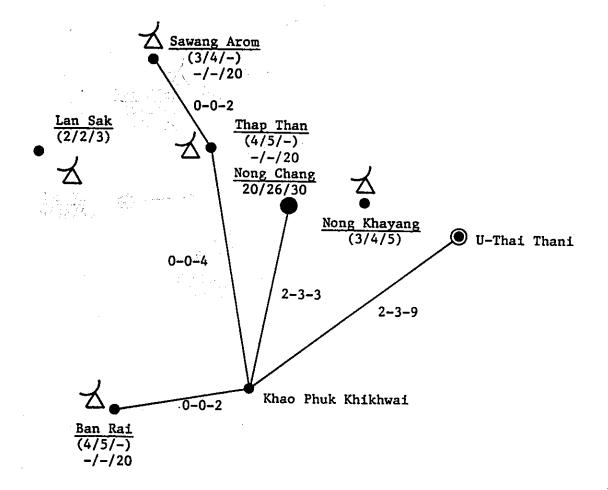
Circuit Assignment Diagram for Satellite System : Phitsanulok Area(5522)



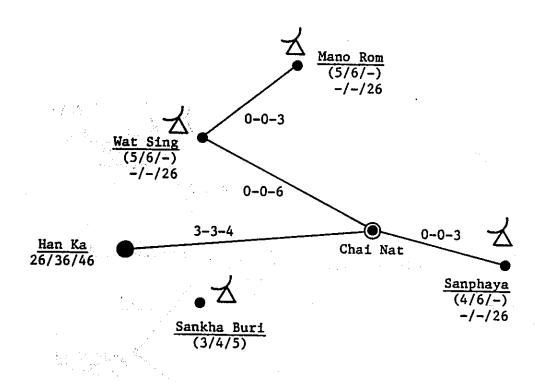
Circuit Assignment Diagram for Satellite System : Khamphaeng Phet Area(5523)



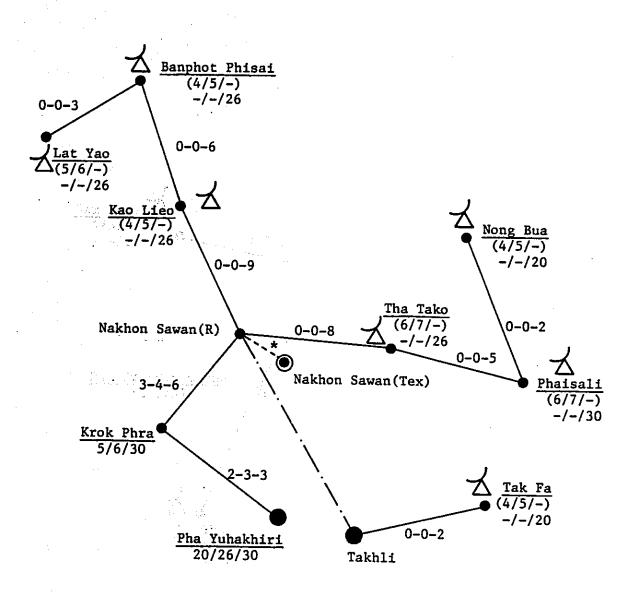
Circuit Assignment Diagram for Satellite System : Uttaradit Area(5527)



Circuit Assignment Diagram for Satellite System : U-Thai Thani Area(5601)

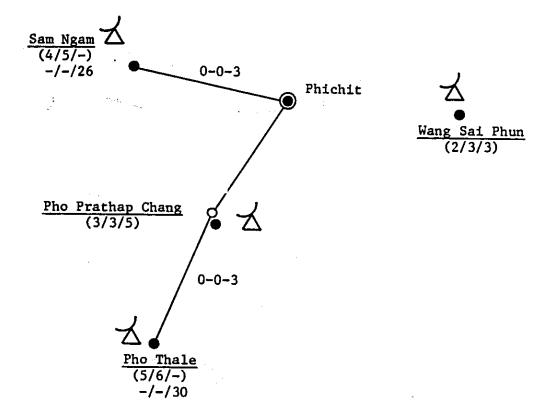


Circuit Assingment Diagram for Satellite System : Chai Nat Area(5607)

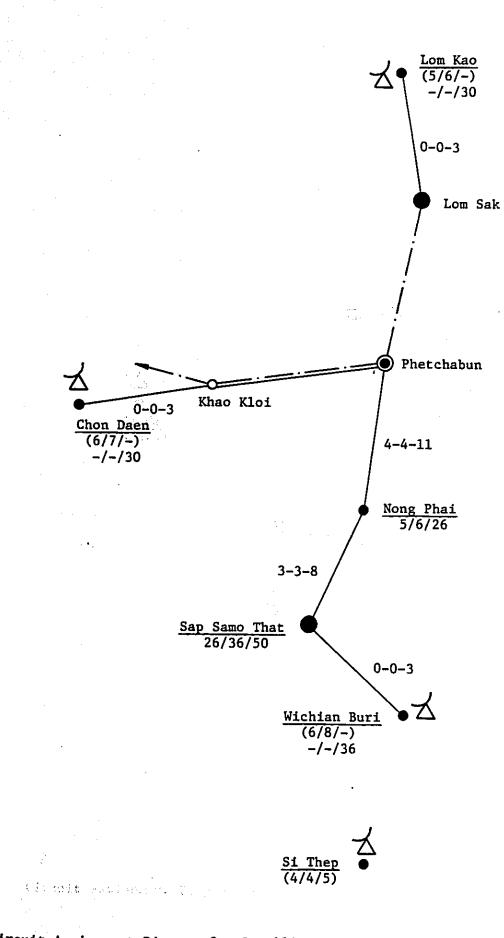


\* : Existing Cable

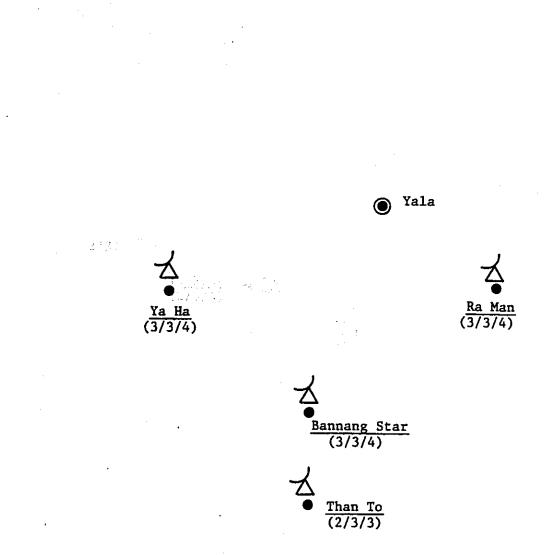
Circuit Assignment Diagram for Satellite System : Nakhon Sawan Area(5614)



Circuit Assignment Diagram for Satellite System : Phichit Area(5623)



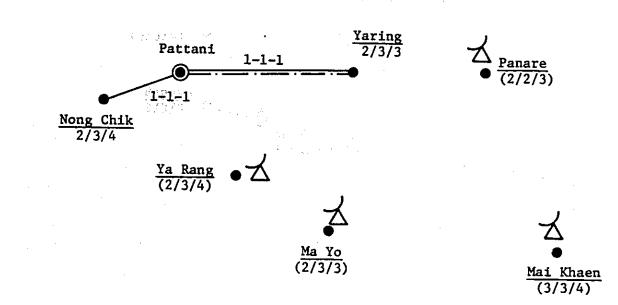
Circuit Assingment Diagram for Satellite System : Phetchabun Area(5628)



**Circuit Assignment Diagram for Satellite System : Yala Area(7301)** 

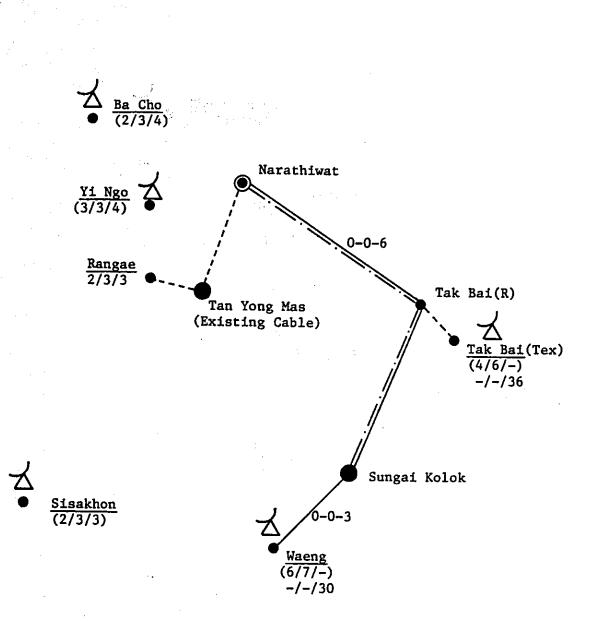
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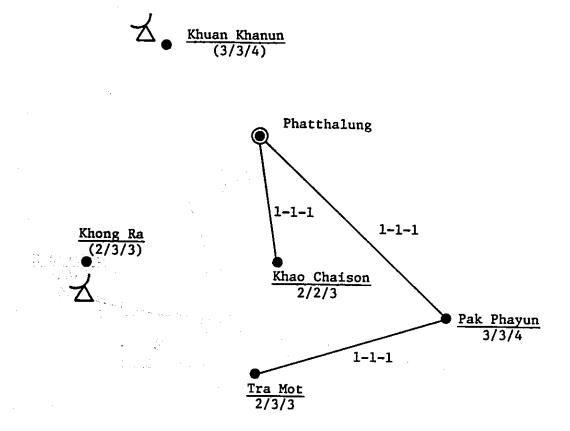


Circuit Assignment Diagram for Satellite System : Pattani Area(7313)

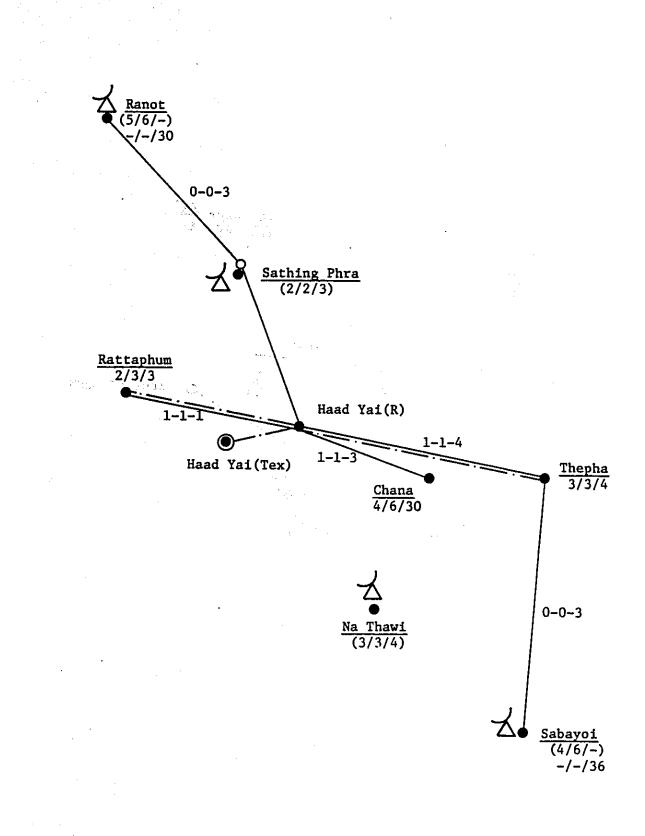
And C. S. S. S. S. S. S. S. S. S. S.



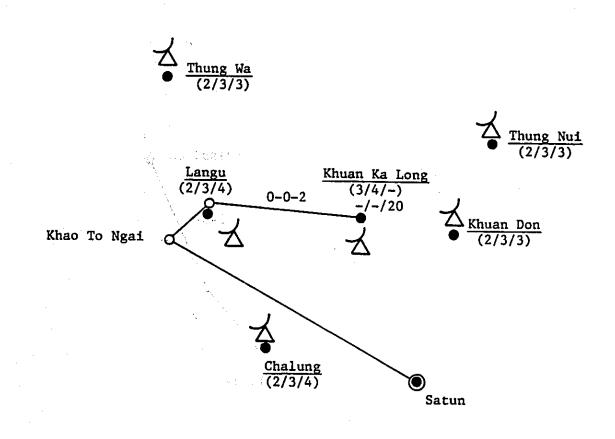
Circuit Assignment Diagram for Satellite System : Narathiwat Area(7314)



Circuit Assignment Diagram for Satellite System : Phatthalung Area(7401)



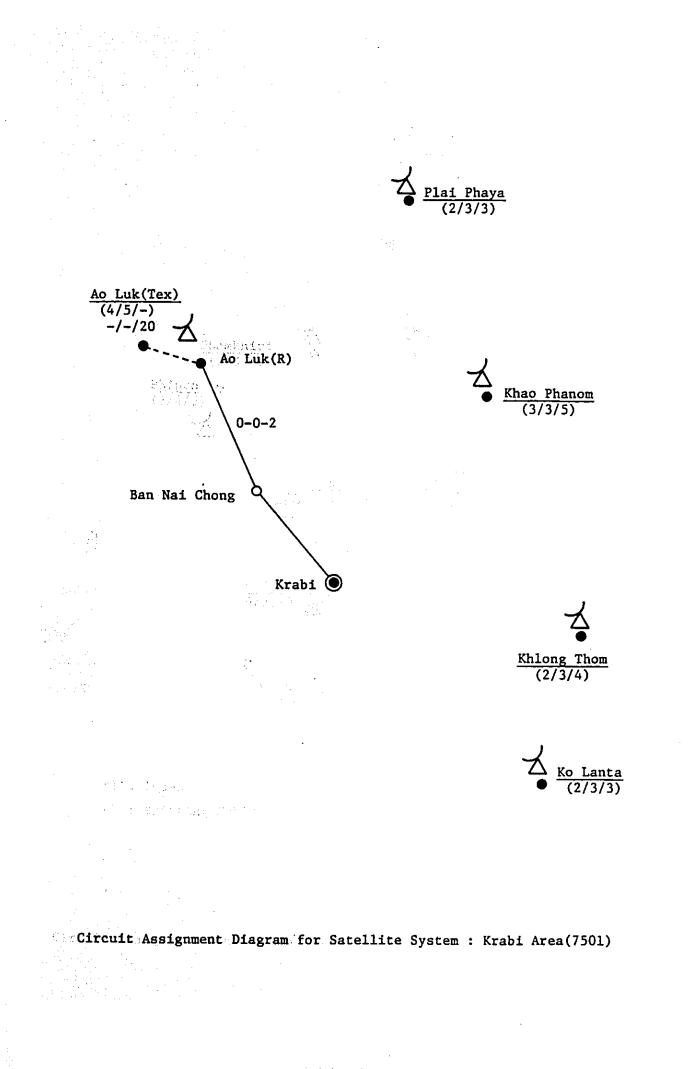
Circuit Assignment Diagram for Satellite System : Haad Yai Area(7405)



Circuit Assignment Diagram for Satellite System : Satun Area(7406)

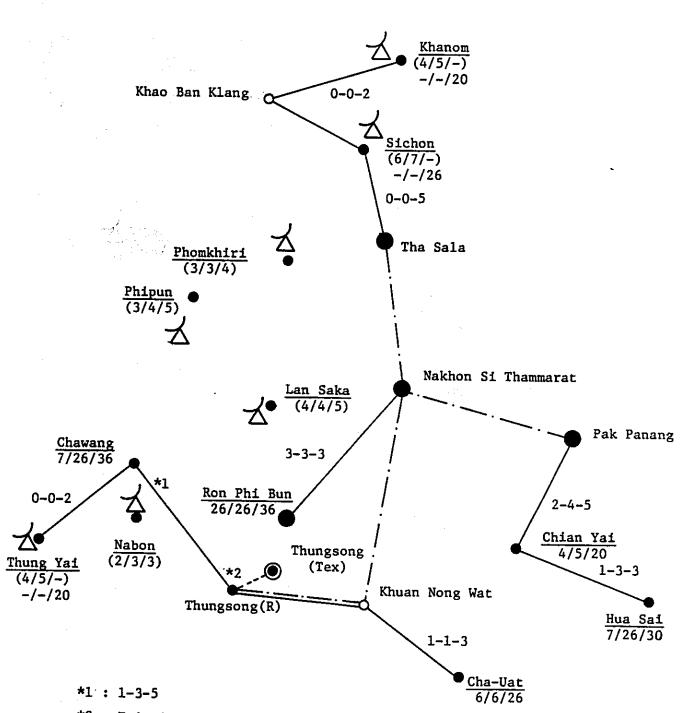
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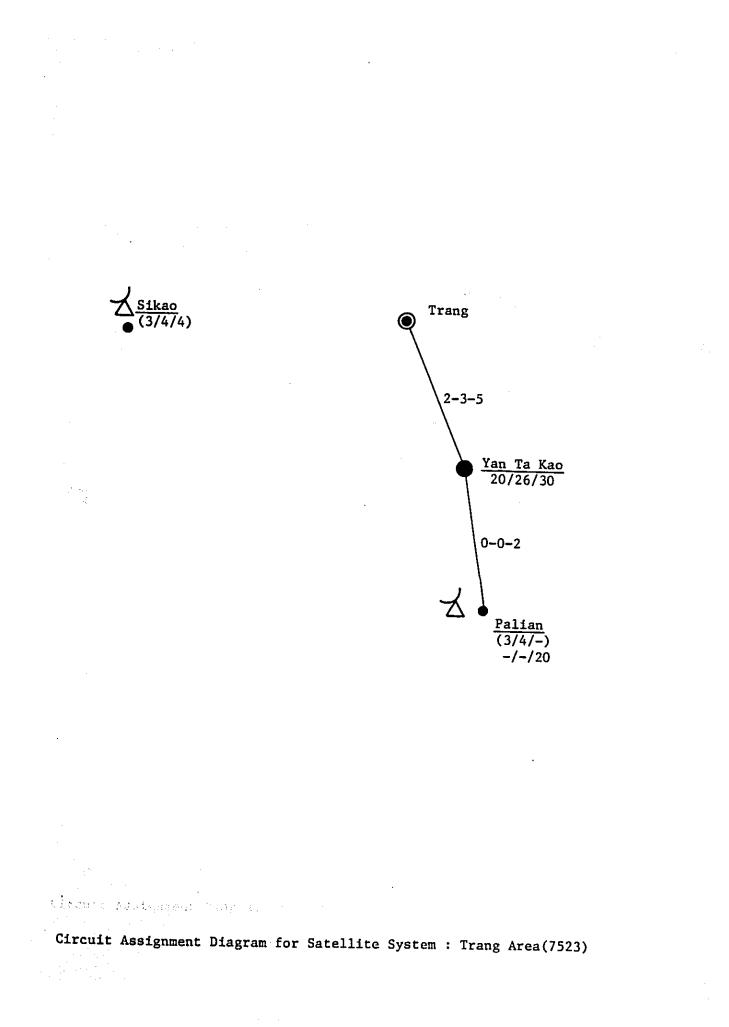
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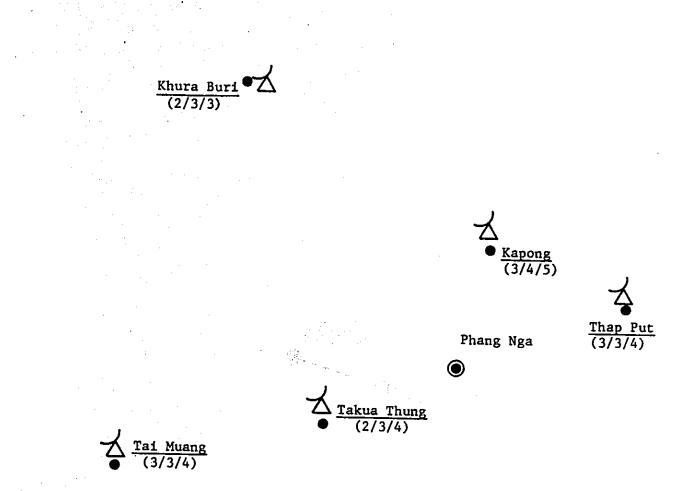


\*2 : Existing Cable

Circuit Assignment Diagram for Satellite System : Thungsong Area(7505)

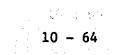


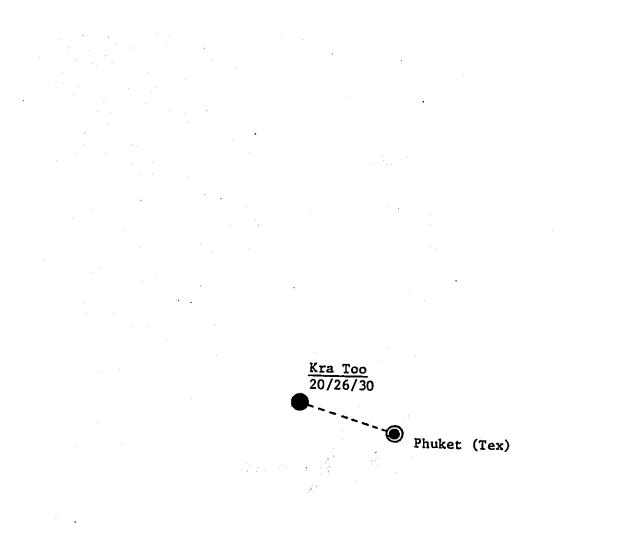
10 - 63



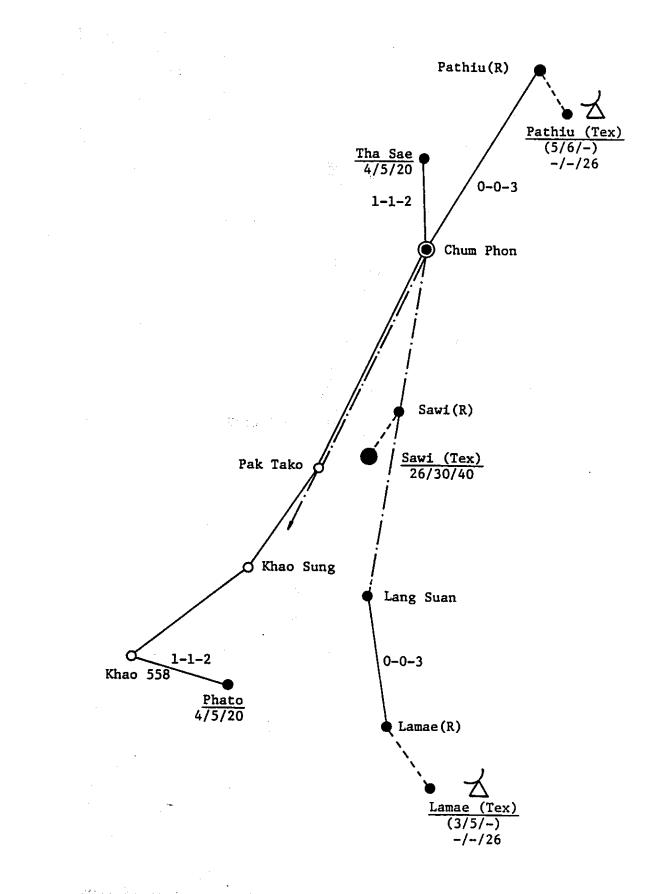
Ko Yao (2/3/4)

Circuit Assignment Diagram for Satellite System : Phang Nga Area(7601)

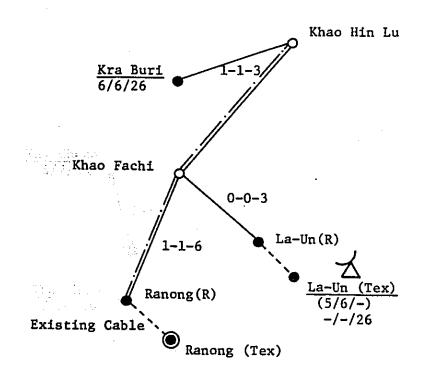


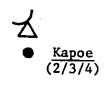


Circuit Assignment Diagram for Satellite System : Phuket Area(7609)

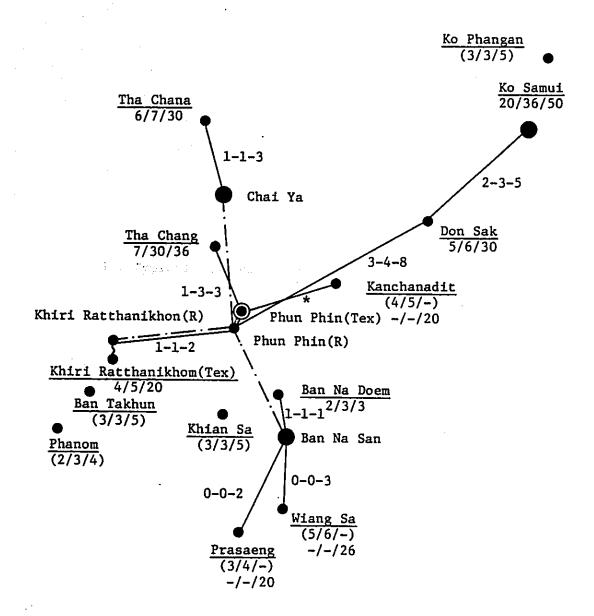


Circuit Assignment Diagram for Satellite System : Chum Phon Area(7701)





Circuit Assignment Diagram for Satellite System : Ranong Area(7707)



\*: 0-0-2

Circuit Assignment Diagram for Satellite System : Phun Phin Area(7711)

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### 11. Typical Channel Accommodation Plan

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Contents for Typical Channel Accommodation Plan

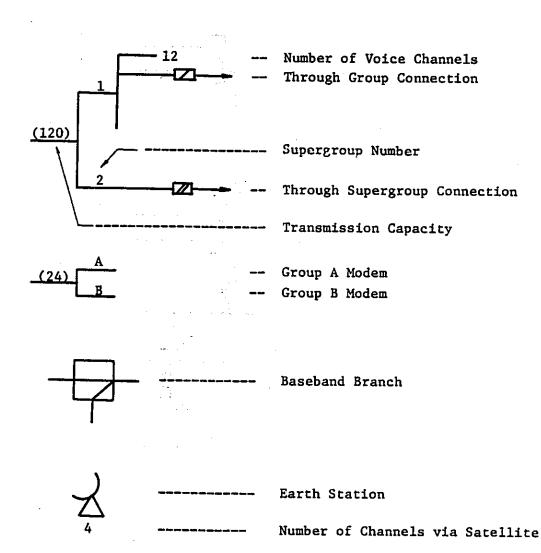
Typical Channel Accommodation Plan for Terrestrial System

	- Laggerard -	
<u>Code</u>	Area	Page
3516	Ayutthaya (Initial Stage)	11 - 1
3516	Ayutthaya (Final Stage)	2
4421	Nakhon Ratchasima (Initial Stage)	3
4421	Nakhon Ratchasima (Final Stage)	4
5313	Chiangmai (Initial Stage)	5 & 6
5313	Chiangmai (Final Stage)	7 & 8
7711	Phun Phin (Initial Stage)	9
7711	Phun Phin (Final Stage)	10

Typical Channel Accommodation Plan For Satellite System

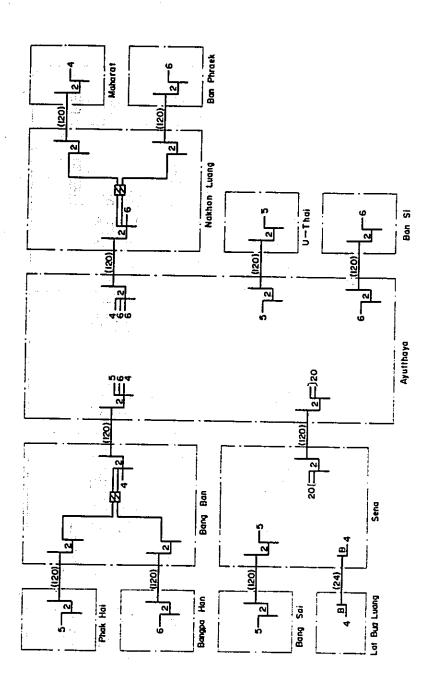
<u>Code</u>	Area	Page
3516	Ayutthaya (Initial Stage)	11 - 11
3516	Ayutthaya (Final Stage)	12
4421	Nakhon Ratchasima (Initial Stage)	13
4421	Nakhon Ratchasima (Final STage)	14
5313	Chiangmai (Initial Stage)	<b>15</b> & 16
5313	Chiangmai (Final Stage)	17 & 18
7711	Phun Phin (Initial Stage)	19
7711-	Phun Phin (Final Stage)	20

#### Legend:

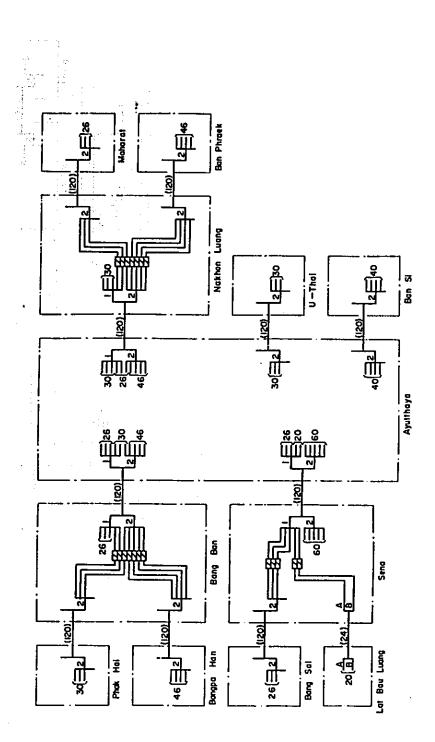


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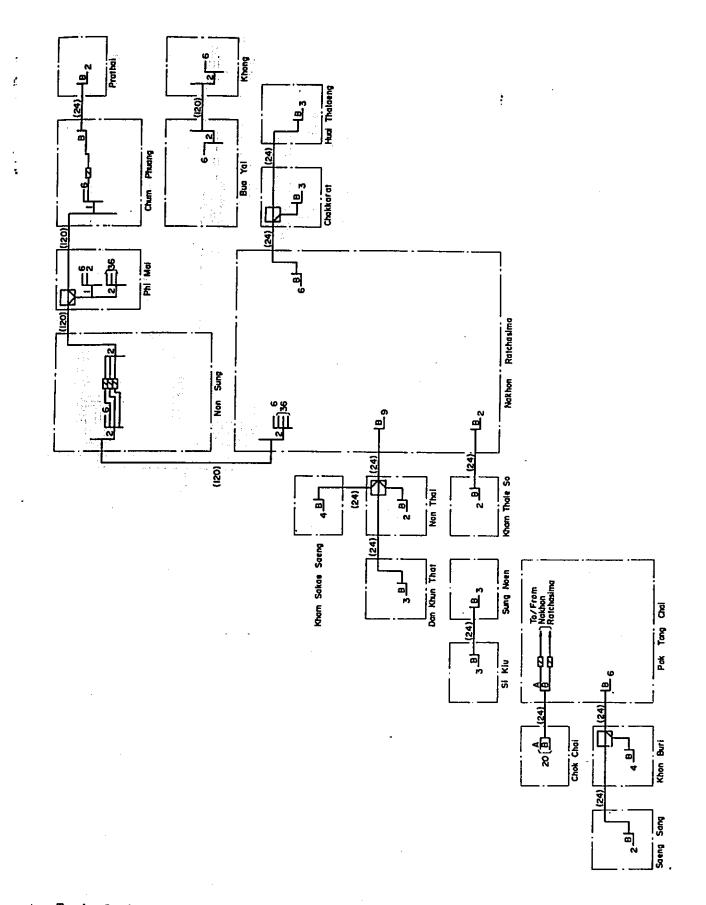


Typical Channel Accommodation Plan for Terrestrial System (Initial Stage) : Ayutthaya Area (3516)

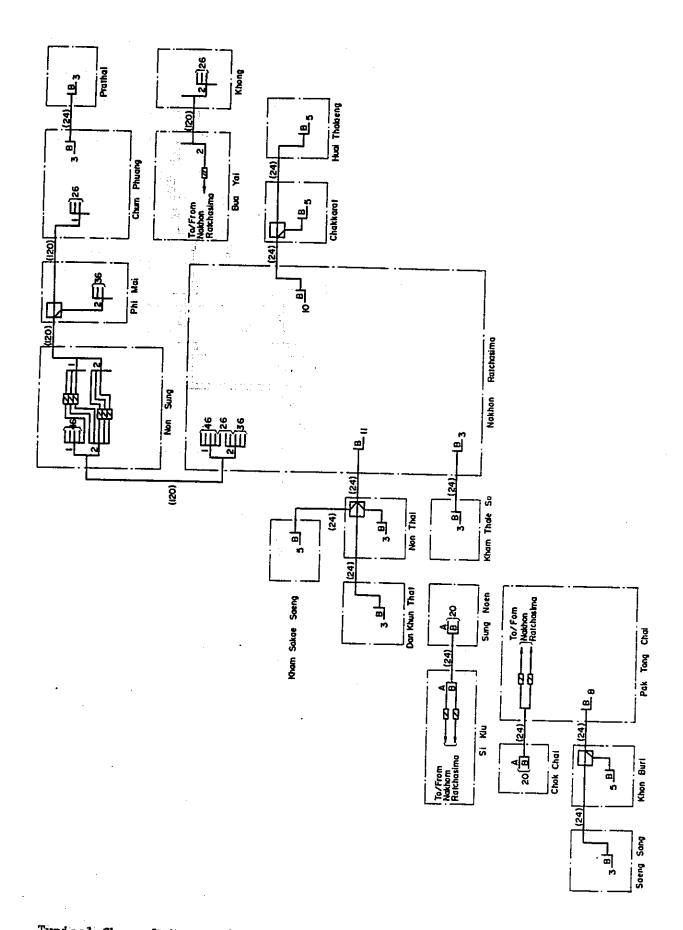


Typical Cannel Accommodation Plan for Terrestrial System (final Stage) : Ayutthaya Area (3515)

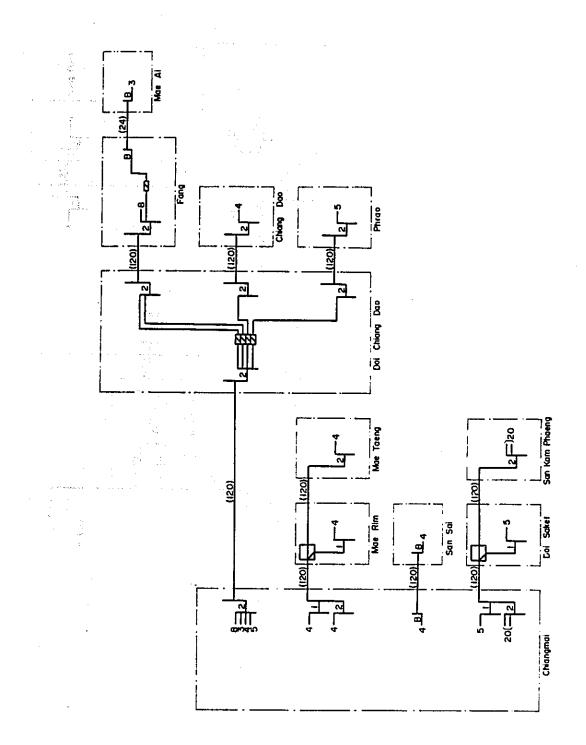
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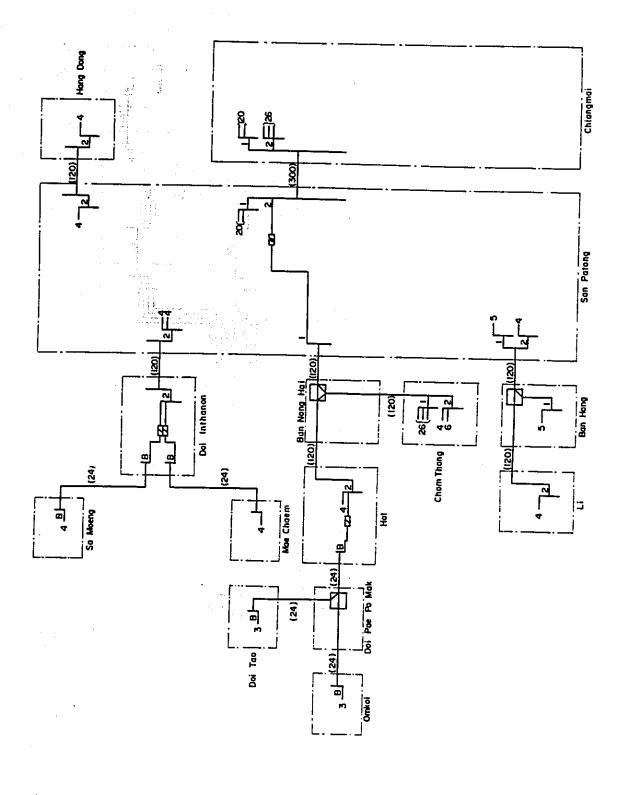
Typical Channel Accommodation Plan for Terrestrial System (Initial Stage) : Nakhon Ratchasima Area (4421)



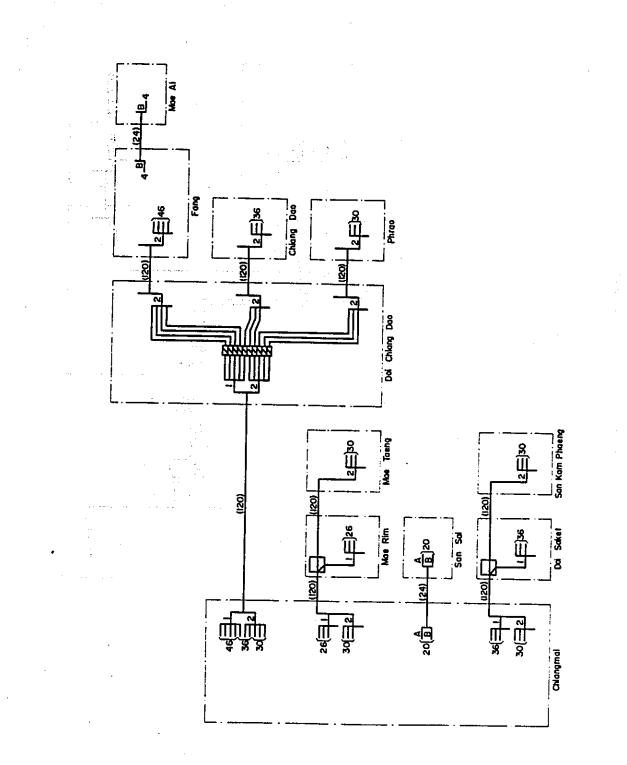
Typical Channel Accommodation Plan for Terrestrial System (Final Stage) : Nakhon Ratchasima Area (4421)



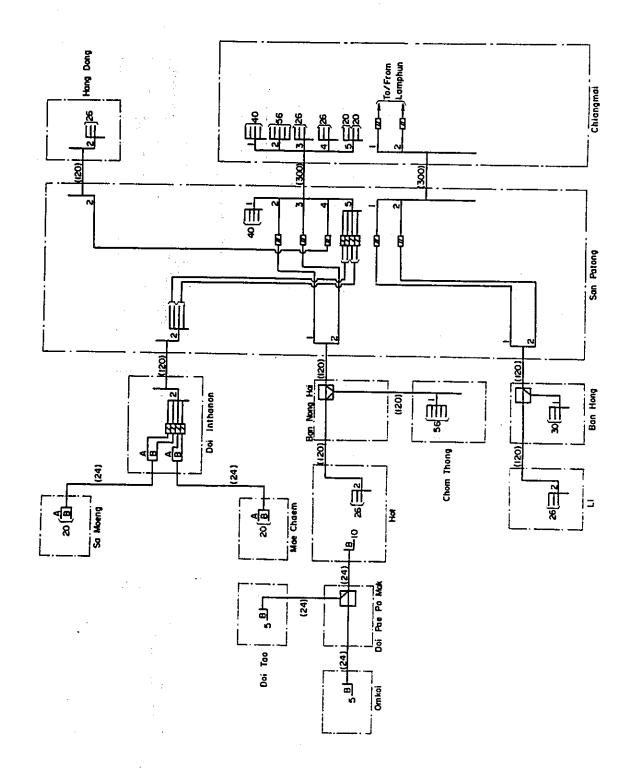
Typical Channel Accommodation Plan for Terrestrial System (Initial Stage) : Chiangmai Area (5313) 1/2



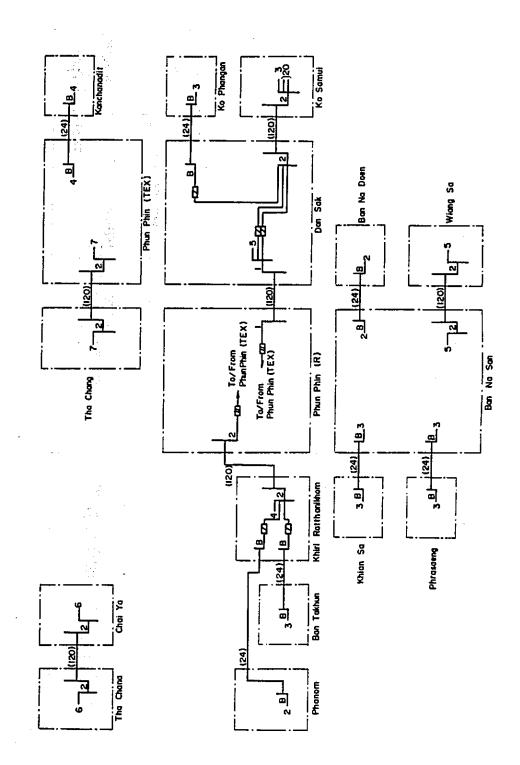
Typical Channel Accommodation Plan for Trrestrial System (Initial Stage) : Chiangmai Area (5313) 2/2



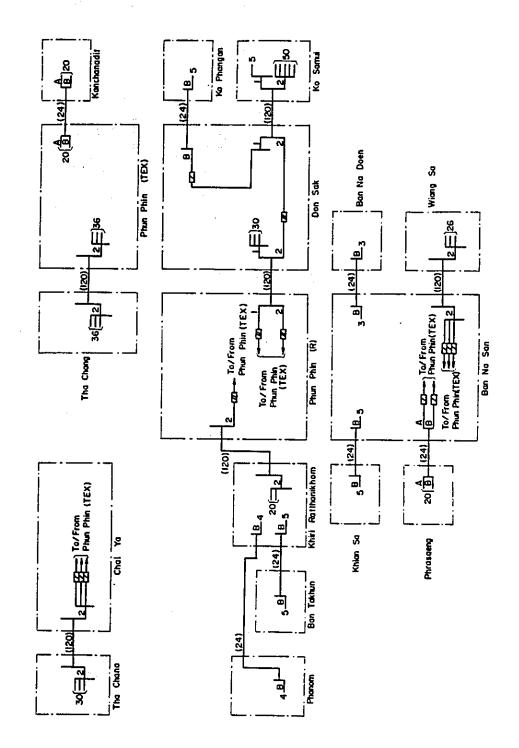
Typical Channel Accommodation Plan for Terrestrial System (Final Stage) : Chiangmai Area (5313) 1/2



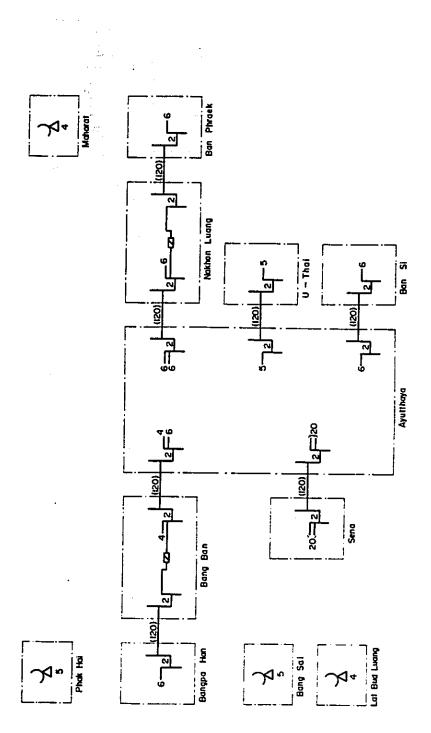
Typical Channel Accommodation Plan for Terrestrial System (Final Stage) : Chiangmai Area (5313) 2/2



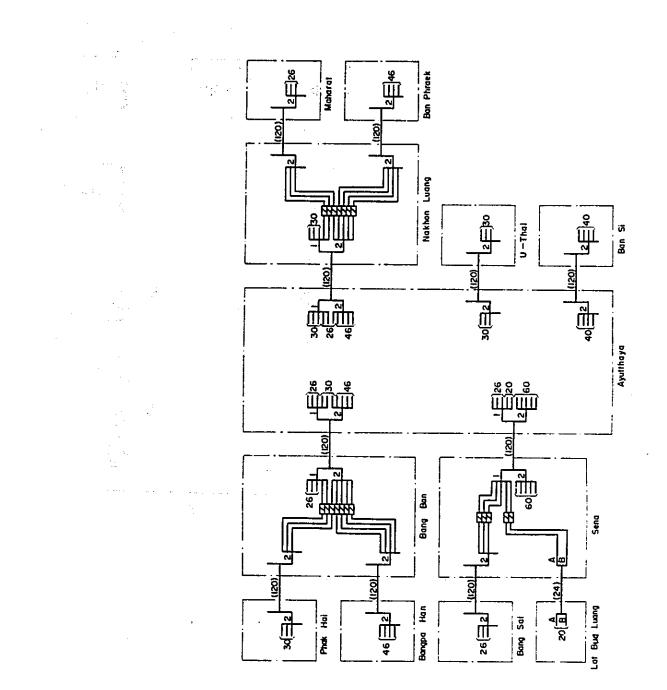
Typical Channel Accommodation Plan for Terrestrial System (Initial Stage) : Phun Phin Area (7711)



Typical Channel Accommodation Plan for Terrestrial System (Final Stage) : Phun Phin Area (7711)

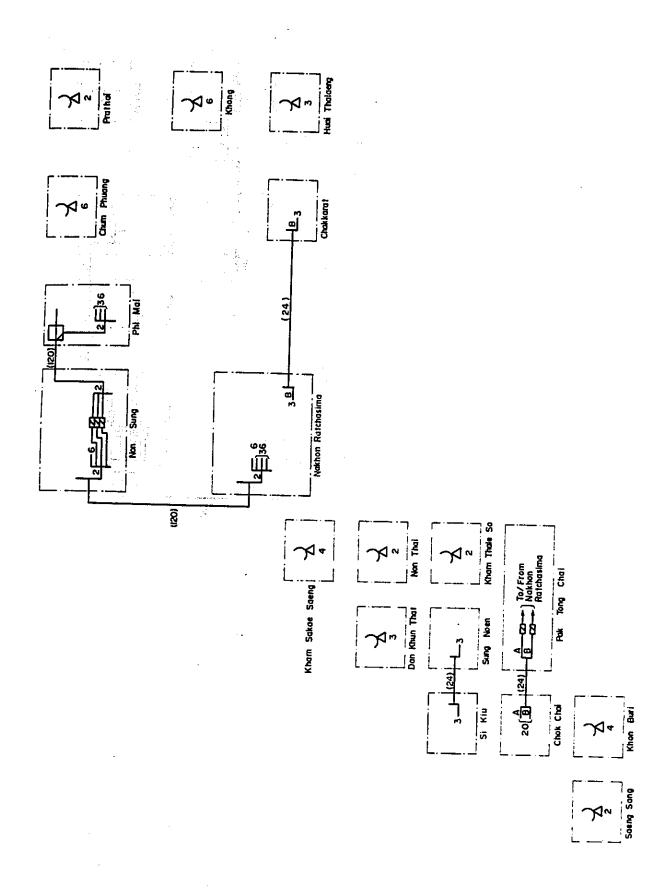


Typical Channel Accommodation Plan for Satellite System (Initial Stage) : Ayutthaya Area (3516)

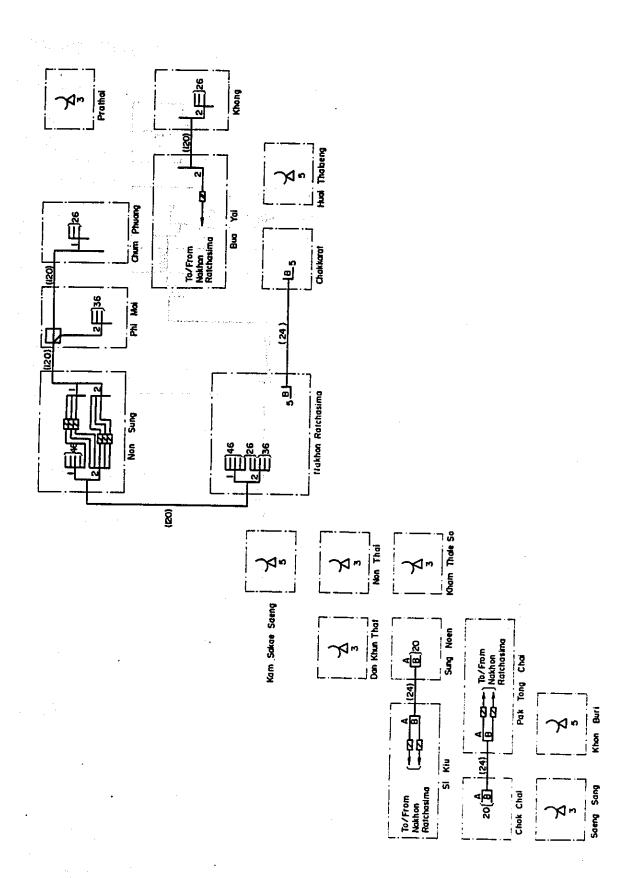


Typical Channel Accommodation Plan for Satellite System (Final Stage) :

Ayutthaya Area (3516)

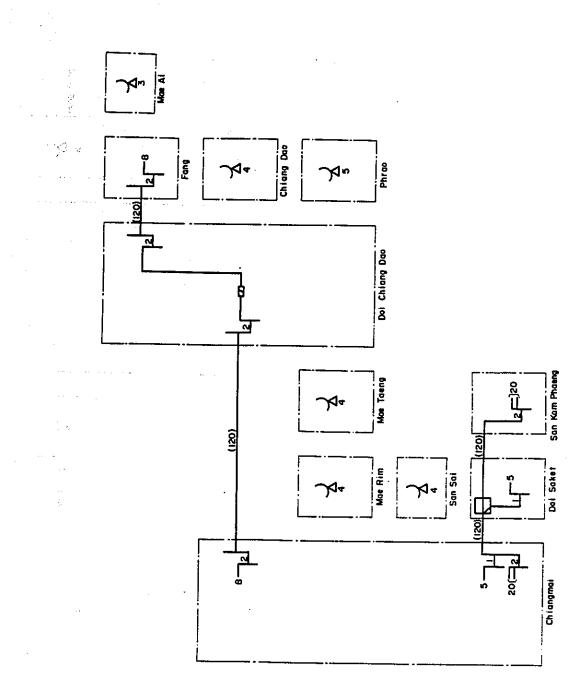


Typical Channel Accommodation Plan for Satellite System (Initial Stage) : Nakhon Ratchasima Area (4421)

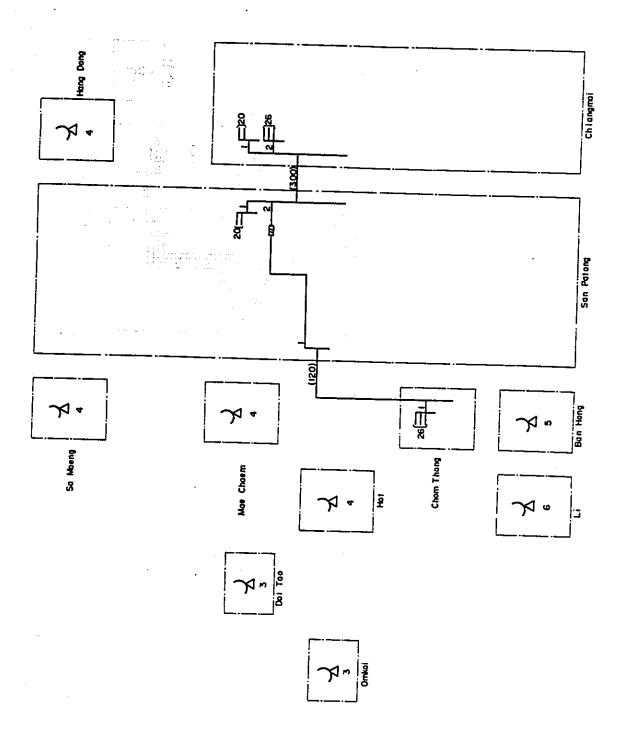


Typical Channel Accommodation Plan for Satellite System (Final Stage) : Nakhon Ratchasima Area (4421)

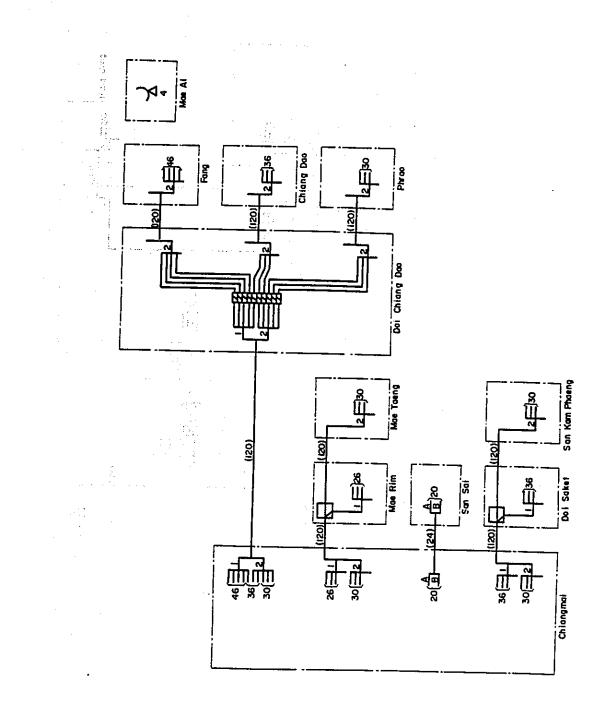
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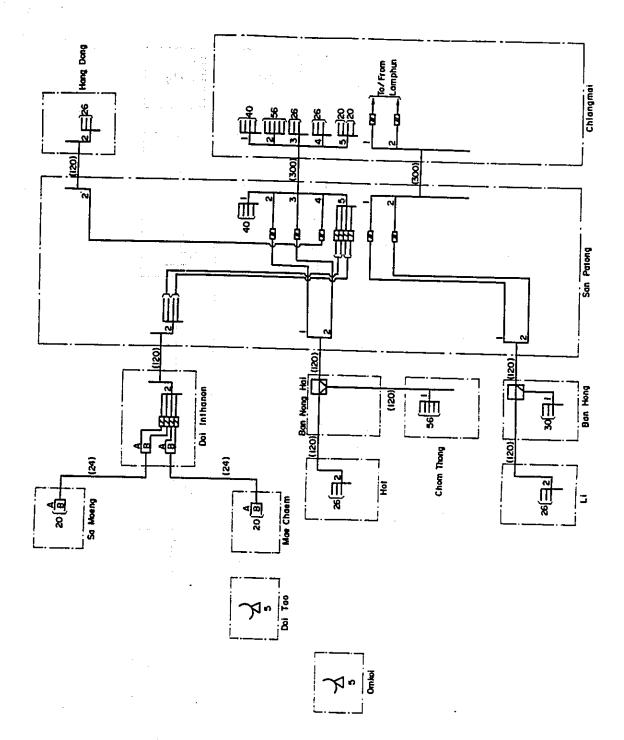
Typical Channel Accommodation Plan for Satellite System (Initial Stage) : Chiangmai Area (5313) 1/2



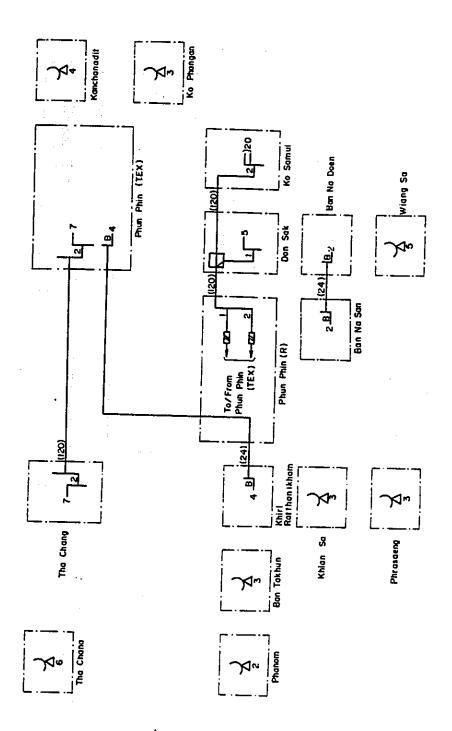
Typical Channel Accommodation Plan for Satellite System (Initial Stage) : Chiangmai Area (5313) 2/2



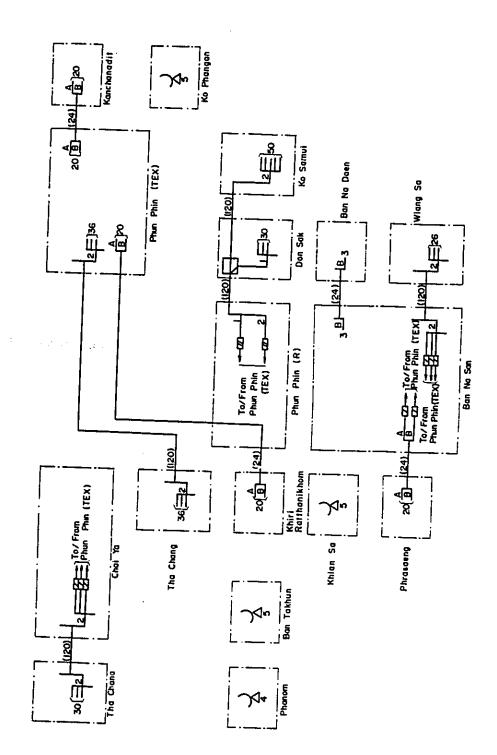
Typical Channel Accommodation Plan for Satellite System (Final Stage) : Chiangmai Area (5313) 1/2



Typical Channel Accommodation Plan for Satellite System (Final Stage) : Chiangmai Area (5313) 2/2



Typical Channel Accommodation Plan for Satellite System (Initial Stage) : Phun Phin Area (7711)



Typical Channel Accommodation Plan for Satellite System (Final Stage) : Phun Phin Area (7711) 12. Coordinates and Elevation of Station Site

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## Coordinates and Elevation of Station Site - (1/16)

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Code		Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
32 01	00	Petcha <sup>®</sup> Buri	с С		
	01	Nong Ya Plong	99 42 03	13 09 03	65
	02	Ban Lat	99 55 05	13 03 04	4
is ĝ	03	Khao Yoi	99 49 52	13 14 01	6
	04	Ban Laem	99 59 10	13 12 08	3
	05	Tha Yang*	99 39 12	12 57 40	10
	06	Cha Am*	99 58 25	12 47 45	3
32 07	00	Ratcha Buri			
	01	Suan Phung	99 21 04	13 31 00	115
	02	Wat Phleng	99 53 21	13 27 10	2
1999 (AR) 1999	03	Bang Phae	99 56 00	13 41 16	4
	04	Pak Tho*	99 50 50	13 22 27	5
	05	Chom Bung*	99 35 32	13 37 08	90
32 15		Prachuap Khiri Khan	• •	i i	
	01	Bang Saphan Noi	99 21 12	11 04 54	10
	02	Bang Saphan	99 31 00	11 12 44	10
	03	Kui Buri	99.52 08	12 33 55	9
34 01		Samut Sakhon	х · ·		
	01	Ban Phaeo*	100 06 45	13 35 40	4
34 04		Samut Song Khram			
	01	Bang Khonthi	99 56 37	13 28 05	4
	02	Am Pha Wa*	99 57 36	13 25 22	3
34 07		Nakhonpathom			
	01	Bang Len	100 10 35	14 01 24	2
	02	Don Tum	100 05 04	13 57 34	7
	03	Nakhon Chaisi*	100 11 18	13 47 57	2
	04	Kam Phaeng Saen*	99 59 42	13 59 50	5
34 13		Kanchanaburi			
	01	Lao Khwan	99 47 22	14 35 50	30
	02	Sangkla Buri	98 28 16	15 07 12	160
		Thong Pah Phum	98 38 06	14 44 21	80
	04	Sissawat	99 02 04	14 40 27	100
	05	Boehloi	99 30 51	14 19 20	163
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## Coordinates and Elevation of Station Site - (2/16)

Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation
06	Sai Yok	99 08 26	14 07 00	50
07	Phanom Thuan	99 42 10	14 07 41	25
-a - a <b>08</b> ,	Saeng Chuto*	99 45 17	13 57 10	16
35 01 00	Angthong			
01	Chaiyo	100 28 10	14 39 44	5
02	Sawaengha	100 19 30	14 45 04	5
03	Sam Ko	100 14 52	14 36 12	5
04	Pho Thong	100 24 43	14 39 50	5
05,	Wiset Chai Chan*	100 22 00	14 35 52	8
06	Pa Mok*	100 27 13	14 29 11	5
35 08 00	Suphanburi			
01	Dan Chang	99 41 41	14 49 10	48
02	Bang Pla Ma	100 09 30	14 24 00	3
03	Doem Bang Nang Buat	100 05 58	14 50 37	15
04	Don Chedi	100 01 35	14 37 54	10
. 05	Sam Chuk*	100 05 51	14 44 46	10
06	Si Prachan*	100 08 43	14 36 54	15
07	U-Thong*	99 53 41	14 22 31	10
35 16 00	Ayutthaya			
01	Bang Ban	100 28 21	14 24 09	3
02	Lat Bua Luang	100 19 14	14 09 34	5
03	Maharat	100 31 55	14 32 01	6
04	Nakhon Luang	100 36 33	14 27 47	4
05	Ban Phraek	100 34 41	14 38 39	3
06	Bangpa, Han	100 32 53	14 27 42	4
07	Bang Sai	100 18 25	14 19 58	2
08	Phak Hai	100 22 22	14 27 22	3
09	<b>U-Thai</b>	100 40 27	14 21 40	2
10	Ban Si	100 30 07	14 12 38	3
<b>11</b>	Sena*	100 24 32	14 19 24	3
36 01 00	Singburi			
<b>01</b>	Bang Rachan	100 19 18	14 53 26	5
18 68 02	Ban Rachan	100 19 10	14 48 01	3
03	Tha Chang	100 23 39	14 45 32	3

# Coordinates and Elevation of Station Site - (3/16)

2	Cod	<u>e</u> .	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
		04	Phrom Buri	100 27 24	14 47 26	6
		05	In Buri	100 19 45	15 00 20	10
36	06	ŐÒ	Lopburi	х.		
		01	Phatthananikhom	100 59 08	14 51 10	47
		02	Tha Wung	100 30 55	14 48 48	12
36	13	00	Saraburi			
• .	• , •	01	Muang Lek	101 12 08	14 39 18	200
		02	Sao Hai	100 56 48	14 32 58	15
		03	Nong Saeng	100 47 09	14 29 26	10
		04	Don Phut	100 37 22	14 35 32	1
		05	Wihan Daeng	100 59 46	14 20 20	6
2.1		06	Nong Don	100 42 57	14 41 03	10
		07	Hin Kong*	100 52 12	14 20 16	5
37	01	00	Nakhon Nayok			
		01	Pak Phli	101 15 46	14 09 55	5
		02	Ban Na	101 04 22	14 15 32	4
		03	Ongkharak	101 00 05	14 07 19	2
37	05	00	Prachin Buri			
	•	01	Na Di	101 47 25	14 06 54	30
		02	Sakaeo	102 04 26	13 48 58	37
		03	Ta Phraya	102 48 52	14 00 32	68
٠		04	Watthana Nakhon	102 16 40	13 45 58	83
		05	Ban Sang	101 13 40	13 59 50	2
		06	Si Mahapho	101 31 08	13 58 12	8
		07	Khok Pip	101 24 24	13 53 16	20
		80	Prachanta Kham	101 31 25	14 04 56	9
38	01	00	Chachoengsao			
		01	Bang Nam Prieo	101 03 20	13 50 50	2
		02	Ban Pho	101 05 05	13 35 50	2
		03	Sanam Chai Ket	101 26 32	13 39 23	10
	•	04	Bang Pa Khong*	101 00 00	13 30 13	2
-		05	Phanom Sarakham*	101 22 00	13 45 00	7
38	08	00	Rayong			
		01	Pluak Daeng	101 13 14	12 58 00	50
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### Coordinates and Elevation of Station Site - (4/16)

	· •			
Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
02	Ban Khai	101 17 59	12 46 58	10
38 15 00	Chonburi			
01	Ko Si Chang	100 48 44	13 09 28	5
02	Phan Thong	101 06 02	13 28 09	5
03	Nong Yai	101 23 00	13 09 08	70
04	Bang Lamung	100 55 00	12 58 34	10
39 01 00	Trat		. <del>.</del>	
01	Bo Rai	102 32 00	12 34 08	26
02	Khao Saming	102 25 48	12 21 14	35
03	Leam Ngop	102 24 21	12 10 34	5
04	Khlong Yai	102 53 23	11 46 35	10
39 05 00	Chantaburi			
01	Pong Nam Ron	102 15 20	12 53 59	237
02	Makham	102 12 08	12 40 16	10
03	Leam Sing	102 05 51	12 28 15	3
04	Tha Mai*	102 00 56	12 37 12	5
05	Klung*	102 13 33	12 27 03	2
42 01 00	Udon Thani			
01	Nong Wua So	102 36 20	17 16 40	220
02	Si Bun Ruang	102 16 44	16 57 55	190
03	Suwan Khuha	102 18 50	17 34 10	170
04	Non Sang	102 34 10	16 51 54	189
05	Kut Chap	102 30 57	17 25 00	200
06	Non Sa-at	102 53 42	16 58 06	210
07	Wang Sam Mo	103 26 30	17 01 30	241
08	Srang Khom	102 16 42	18 03 31	170
09	Bán Phu	102 27 54	17 41 37	184
10	Phen	102 54 37	17 01 43	168
11	Ban Dung	103 15 46	17 41 59	170
12	Si That	103 13 27	17 58 26	184
13	Na Klang	102 11 25	17 18 28	251
14	Nam Som	102 11 30	17 46 25	220
15	Nong Han	103 06 40	17 21 38	171
08	an anns alla sea			
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# Coordinates and Elevation of Station Site - (5/16)

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Coo	le	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
42 11	00	Sakhon Nakhon			
	01	Kusuman	109 19 56	17 19 48	160
	02	Nikhom Nam Oun	103 44 40	17 11 30	197
	03	Ban Muang	103 35 00	17 50 46	150
	04	Akat Amuai	103 59 12	17 35 43	150
	05	Songdao	103 27 00	17 20 10	190
	06	Waritchaphum	103 38 28	17 17 48	178
	07	Kut Bak	103 49 29	17 05 05	196
	08	Wanon Niwat	103 45 22	17 37 44	172
	09	Phannanikhom	103 51 15	17 21 16	170
	10	Phung Khon*	103 43 20	17 23 06	170
42 19	9 00	Nong Khai	· · ·		
	01	Sang Khom	102 16 42	18 03 31	167
	.02	Phon Phisai	103 04 58	18 01 18	160
	03	Bung Kan	103 39 41	18 21 46	154
	04	Seka	103 57 14	17 55 34	150
	.05	So Phisai	103 27 34	18 00 19	180
42 26	5 00	Loei			
	01	Na Haeo	101 04 20	17 28 17	520
	02	Phu Rua	101 21 30	17 27 10	610
	03	Dan Sai	101 08 52	17 16 53	360
	04	Phu Kradung	101 53 23	16 52 54	264
	05	Pak Chom	101 53 35	18 01 14	206
	06	Tha Li	101 25 30	17 37 20	260
	07	Wang Saphung*	101 45 46	17 18 51	248
42 32		Nakhon Phanom			
	01	Pla Pak	104 31 50	17 10 42	150
	02	Ban Phaeng	104 13 07	17 57 52	148
	03	Renu Nakhon	104 40 49	17 02 00	140
	04	Nikhom Khamsoi	104 33 00	16 22 09	190
	05	Na Hwa	104 55 05	15 53 06	165
	06	Kham Cha-I	104 25 17	16 34 30	175
· ·	07	Tha Uthen	104 35 00	17 34 35	147
· · .	.08	Si Song Khram	104 28 33	17 37 30	162 ·

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### Coordinates and Elevation of Station Site - (6/16)

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Code	Name-	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
. 09	Don Tan	104 55 30	16 18 56	153
10	Na Kae	104 30 19	16 56 56	145
11	That Phanom*	104 43 44	16 57 47	135
43 01 00	Mahasarakham			
01	Kantharawichai	103 18 05	16 19 28	150
02	Na Chuak	103 02 18	15 48 00	160
03	Chiang Yun	102 06 30	16 24 16	160
04	Na Dun	103 13 49	15 43 14	160
05	Wapi Pathum	103 23 02	15 50 46	138
06	Phayak Khaphum Phisai	103 11 42	15 30 46	138
07	Borabue	103 07 26	16 02 10	171
08	Kosum Phisai	103 04 14	16 14 42	149
43 09 00	Khon Kaen			
01	Mancha Khiri	102 32 10	16 07 42	160
02	Nong Song Hong	102 47 47	15 43 55	170
03	Nong Rua	102 26 02	16 29 47	190
04	Ubon Rat	102 39 33	16 44 22	185
05	Phu Wiang	102 22 46	16 39 15	210
06	Waeng Noi	102 40 00	15 56 40	215
07	Ban Fang	102 38 42	16 26 55	180
08	Si Chomphu	102 11 11	16 47 55	205
09	Kranuan	103 05 00	16 42 14	207
10	Chonna Bot	102 37 38	16 06 04	155
11	Nam Phong*	102 48 24	16 43 10	170
43 21 00	Kalasin			
01	Kuchinarai	104 03 39	16 32 04	160
02	Khao Wong	104 05 30	16 41 52	180
03	Tha Khantho	103 31 29	16 43 28	170
04	Som Det	103 45 13	16 42 12	205
05	Yang Talat	103 22 20	16 23 54	140
06	Na Mon	103 40 44	16 22 47	160
07	Rong Kham	103 45 20	16 16 25	140
08	Kham Muang	103 38 06	16 55 47	210
09	Huai Mek	103 13 34	16 35 54	180

#### Coordinates and Elevation of Station Site - (7/16)

.

Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
10	Nong Krungsi	103 17 03	16 38 46	180
11	Sahat Sakhan	103 31 29	16 42 43	180
12	Kamalasai	103 34 43	16 19 56	140
43 28 00	Roiet			
01	Phon: Thong	103 58 55	16 17 53	140
02	Nong Phok	104 12 23	16 18 20	162
03	Suwannaphum	103 48 12	15 36 24	140
04	Phanom Phrai	104 06 44	15 40 36	130
05	Thawatcha-buri	103 45 02	16 02 18	138
06	At Samat	103 53 02	15 50 38	135
07	Pathum Rat	103 20 28	15 37 56	150
08	Pho Chai	103 46 46	16 19 25	150
09	Muang Suang	103 43 16	15 49 23	150
10	Kaset Wisai	103 34 56	15 39 12	136
11	Chaturaphak Phiman	103 33 43	15 50 32	141
12	Selaphum	103 56 49	16 01 32	140
44 01 00	Chaiyaphum			
01	Kaset Sombun	101 57 32	16 16 36	231
02	Nong Bua Daeng	101 48 28	16 04 42	250
03	Bannet Narong	101 41 22	15 30 00	205
04	Khon San	101 55 28	16 36 48	230
· · 05	Khon Sawan	102 19 00	15 25 48	175
06	Ban Khwao	101 54 35	15 46 33	202
07	BangThaen	102 20 37	16 24 01	196
08	Kaeng Khlo	102 15 38	16 06 22	203
09	Chathurat	101 50 58	15 33 42	192
10	Phu Khiew*	102 07 46	16 22 23	214
44 12 00	Burirum			
01	Ban Kruat	103 06 17	14 25 01	198
02	Prakhon Chai	103 05 01	14 36 31	160
03	Kra Sung	103 18 14	14 55 16	150
04	Khu Muang	103 01 00	15 21 16	135
05	Satuk	103 17 42	15 17 38	132
06	Phutthaisong	103 00 22	15 32 25	141
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## Coordinates and Elevation of Station Site - (8/16)

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Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
07	Nongki Star	102 32 33	14 40 58	200
08	LahanaSai	102 51 32	14 24 40	208
# 175 <b>09</b>	Huai Rat	99 31 48	07 45 42	154
10	Nang Rong*	102 47 56	14 37 46	185
11	Lam Plai Mat*	102 45 35	15 01 10	162
44 21 00	Nakhon Ratchasima		÷.,	
01	Khon Buri	102 14 43	14 31 25	207
02	Prathai	102 43 27	15 31 46	150
03	Non Thai	102 04 31	15 11 55	170
04	Khong	102 19 51	15 26 27	175
8 a 1 <b>05</b>	Chum Phuang	102 44 35	15 20 46	145
06	Dan Khun That	101 46 14	15 12 30	210
07	Kham Thale So	101 57 00	14 57 34	200
08	Kham Sakae Saeng	102 10 32	15 19 40	180
09	Huai Thalaeng	102 38 33	14 59 45	190
10	Saeng Sang	102 28 43	14 24 43	223
11	Sung Noen	101 49 51	14 52 46	232
12	Chakkarat	102 25 02	15 00 39	170
13	Non: Sung:	102 15 15	15 10 19	175
14	Phi Mai*	102 30 12	15 12 18	175
15	Chok Chai*	102 10 09	14 44 04	190
45 01 00	Ubon Ratchathani			
01	Nam Yun	104 59 04	14 28 44	200
02	Nachaluai	105 21 42	14 34 24	186
03	Trakan Phutphon	105 01 57	15 36 28	130
04	Si Muang Mai	101 17 00	15 29 40	140
05	Kut Khao Pun	104 59 24	15 01 59	150
06	Senangnikhom	104 47 00	16 00 50	162
07	Hua: Taphan	104 27 20	15 43 38	130
08	Phana	104 51 07	15 40 00	127
09	Muang Samsip	104 43 35	15 30 56	140
11 QE 10	Buntharik	105 24 52	14 45 21	161
11	Chanuman	105 00 56	16 13 22	134
12	Khemmarat	105 13 24	16 02 10	147

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### Coordinates and Elevation of Station Site - (9/16)

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Co	de.	Name	Longitude	Latitude	Elevation
	13	Khuang Nai	(D.M.S.)	(D.M.S.)	( m )
	14	Det Udom*	104 33 28	15 23 29	123
45 1	5 00	Yasothon	105 04 47	14 54 02	130
	01	Kut Chum	106 00 00		
	02	Kham Khuan Kaeo	104 20 40	16 01 52	150
	03	Maha Chana Chai	104 18 38	15 39 05	123
	04	Pa Tiu	104 14 47	15 31 45	124
	05	Sai Mun	104 23 23 104 12 42	15 49 55	135
	06	Kho Wang	104 12 42	15 56 34	145
	07	Loeng Nok Tha	104 21 04	15 22 06	125
45 22		Sisaket	104 55 27	16 12 18	155
	01	Kantharaluk	104 38 58	16 20 65	160
	02	Khu Khan	104 12 01	14 38 45	150
	03	Khun Han	104 12 01	14 42 46 14 36 54	142
	04	Rasi Salai	104 29 39	14 36 34 15 20 04	150
	05	Prang Ku	104 02 37	15 20 04 14 51 11	120
	06	Yang Chumnoi	104 23 46	14 J1 11 15 16 08	135 120
	07	Phai Bung	104 21 46	13 10 08	120
	08	Kanthararom	104 35 02	14 45 00	140
	09	Uthumphon Phisai	104 10 53	15 07 17	127
45 30	00	Surin		15 07 17	140
	01	Prasat	103 24 30	14 38 38	167
	02	Sang Kha	103 51 21	14 37 50 14 37 50	160
	03	Chumphon Buri	103 23 47	15 20 44	130
	04	Chom Phra	103 36 00	15 06 08	130
	05	Tha Tum	103 40 30	15 18 53	146
	06	Rattana Buri	103 51 42	15 19 05	135
	07	Sanom	103 46 03	15 12 19	150
	08	Kabchoeng	103 36 42	14 28 22	194
· . ·	09	Samrong Thap	103 56 18	15 01 17	132
· · ·	10	Sikhoraphum	103 47 38	14 56 39	132
53 01	00	Mae Hong Son	· · · · · · ·	·· •• ••	
	01	Khun Yuam	97 56 20	18 49 26	586
	02	Pai	98 26 18	19 21 29	510
					<del>-</del>

### Coordinates and Elevation of Station Site - (10/16)

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Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)	
03	MaesLa Noi	97 56 17	18 22 46	308	
04	Mae Sariang	97 56 11	18 10 09	220	
53 13 00	Chiangmai				
01	Mae Ai	99 17 17	20 01 47	485	
02	Omkoi	98 21 53	17 48 00	802	
03	Doi Tao	98 40 58	17 57 22	276	
04	Fangage Marsha	99 13 10	19 55 24	475	
05	San Sai	99 02 44	18 50 39	303	
06	Doi Saket	99 07 51	18 52 07	312	
07	Phrao	99 12 17	19 21 52	440	
08	Mae Taeng	98 56 45	19 07 10	336	
09	Chiang Dao	98 58 16	19 22 59	389	
10	Sa Moeng	98 44 10	18 50 34	530	
11.	Mae Rim	98 56 51	18 54 47	330	
12	Hot	98 36 56	18 11 28	276 ·	
13	Hang Dong	98 55 41	18 41 35	324	
14	Mae Chaem	98 22 02	18 30 02	467	
15	San Kam Phaeng*	99 07 02	18 44 44	297	
16	San Patong*	98 54 02	18 37 04	313	
17	Chom Thong*	98 40 46	18 24 57	293	
53 22 00	Lamphun				
01	Ban Hong	98 49 18	18 18 28	320	
02		98 56 35	17 48 34	450	
03	Mae Tha	99 08 16	18 27 34	400	
04	U-Mong	99 03 05	18 40 35	297	
54 01 00	Chiangrai				
01	Wiang Chai	<b>99 55 36</b>	19 53 00	400	
02	Padaet	99 59 39	19 30 10	393	
03	Chiang Muan	100 18 24	13 53 10	264	
14 GR 04	Wiang Pa Pao	99 30 36	19 20 45	540	
05	MaesSuai	99 33 00	19 39 32	452	
06	Pong	100 16 40	19 08 32	288	
07	Chiang Saen	100 05 24	20 16 29	366	
08	Phan Starting	99 44 30	19 32 10	408	

#### Coordinates and Elevation of Station Site - (11/16)

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Co	ode	Name	Longita (D.M.			itude M.S.)	Elevation (m)
	09	Chun	100 08	12	19	20 06	400
	10	Mae Chai	99 48	57	19	20 38	400
	11	Dok Kham Tai	99 59	40	19	09 40	386
	12	Mae Chan	99 51	28	20	08 46	417
	13	Thoeng	100 12	20	19	40 30	360
	14	Chiang Kham	100 18	37	19	31 10	392
	15	Chiang Khong	100 24	44	20	15 13	364
-	: 1 <b>6</b>	Mae Sai*	99 53	02	20	25 44	427
54 1	6 00	Nan traditional					
	01	Mae Charim	101 00	31	18	42 20	267
	02	Na Noi	100 43	06	18	19 55	270
	03	Ban Luang	100 26	15	18	50 10	380
	04	Tha Wang Pha	100 48	53	19	07 15	227
	05	Chiang Klang	100 51	55	19	17 32	247
	06	Pual De Contra	100 55	28	19	10 23	281
	07.	Thung Chang	100 53	06	19	24 06	330
	08	Saturation and succession	100 45	03	18	35 00	192
54 2	22 00	Lampang					
	01	Sop. Prap	. 99 20	26	17	52 46	200
	02	Ngao	99 59	00	18	45 20	275
	03	Hang Chat	99 21	03	18	19 34	270
	04	Thoen	99 13	04	17	36 40	160
	<b>: 05</b> :	Mae Mo	99 43	28	18	15 56	300
	06	Mae Tha	99 30	57	18	07 57	257
	07:	Mae Phrik	<del>99</del> 07	00	17	26 48	160
	08	Chae Hom	99 34	80	18	42 06	290
	09	Wang Nua	99 37	20	19	08 42	400
3y	: 2 <b>10</b> -	Soem Ngam	99 12	10	18	03 00	230
	11	Ko Kha*	99 14	26	18	11 43	229
54 3	12 00.	Phrae					
	01	Long staff	99 50	10	18	04 30	140
	02	Song	100 11	27	18	28 10	197
	03	Wang Chin	99-36	22	17	53 56	100
	04	Rong Kwang	101 31	24	18	19 55	205

#### Coordinates and Elevation of Station Site - (12/16)

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Code	<b>2</b>	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
n an	05	Sung Men*	100 06 53	18 02 50	155
55 01	00	Taktonational			
	01	The Song Yang	97 54 57	17 34 02	130
	02	Mae Ramat	98 31 28	16 59 56	200
	03	Sam Ngao	99 02 17	17 14 35	160
	04	Ban Tak	99 04 54	17 04 00	160
	05	Umphang da	98 51 03	16 00 34	530
55-08	00	Sukhothai			
	01	Ban Don Lan Hoi	99 34 25	17 00 26	80
·	02	Si Nakhon	99 59 54	17 25 00	60
	03	Si Satchanalai	99 45 53	17 30 00	70
	04	Thung Saliam	99 34 04	17 20 41	70
	05	Si Sam Rong	99 51 48	17 10 08	53
i (†	06	Kong Krailat	99 58 29	16 56 58	44
	07.	Khirimat	99 48 14	16 50 00	46
55 22	00	Phitsanulok			
	01	Chat Trakan	100 36 08	17 16 28	185
	02	Bang Krathum	100 18 00	16 45 12	35
	03	Wat Bot	100 18 42	16 59 34	45
	04	Phom Phiram	100 12 22	17 01 52	53
	05	Nakhon Thai	100 50 04	17 05 39	184
	06	Bang Ra Kam*	100 07 47	16 45 40	43
55 23	00	Khamphaeng Phet			
	01	Sai Ngam	99 53 38	16 27 50	45
	02	Khanu Woralaksa Buri	99 51 37	16 03 38	43
	03	Khlong Khlung	99 43 15	16 12 58	55
	04	Phran Kratai	99 35 34	16 39 04	67
55 27	00	Uttaradit			
	01	Tha Plasses	100 31 28	17 46 46	140
	02	Tron	100 06 56	17 28 55	50
	03	Nam Pat	100 42 07	17 43 52	160
	04	Fak Tha	100 52 54	17 59 19	220
	05,	Phi Chai*	100 05 24	17 17 08	60
	03	1 Norman and a start and a	$r_{\rm eff}$		

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Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
56 01 00	U-Thai Thani			
01 01 01	Sawang Arom	99 51 47	15 34 57	40
02	Nong Khayang	99 55 55	15 21 45	30
03	Lan Sak Star	99 36 54	15 26 26	20
04	Thap Than	99 53 47	15 27 26	30
05	Ban'Rai	99 38 04	15 05 28	170
<b>06</b>	Nong Chang*	99 50 50	15 22 57	47
56 07 00	Chai Nat	• .		
01	Mano Rom	100 05 09	15 18 34	8
02	Sanphaya	100 14 52	15 08 04	14
03	Sankha Buri	100 09 45	15 02 50	160
04	Wat Sing	100 02 06	15 50 49	19
05	Hun Ka*	100 03 51	14 55 58	13
56 14 00	Nakhon Sawan			
01	Banphot Phisai	99 59 05	15 55 58	33
02	Kao Lieo	100 04 48	15 50 47	28
03	Nong Bua	100 35 12	15 51 52	35
04	Tak Fa	100 28 30	15 21 54	100
05	Krok Phra	100 04 31	15 33 21	25
06	Lat Yao	99 47 31	15 44 53	53
07	Tha Tako	100 29 06	15 38 20	25
08	Phaisali	100 39 22	15 35 44	40
09	Pha Yuhakhiri*	100 08 14	15 27 31	23
56 23 00	Phichit			
01	Wang Sai Phun	100 32 56	16 24 20	45
02	Pho Prathap Chang	100 16 48	16 18 28	27
03	Sam Ngam	100 12 28	16 30 20	30
04	Pho Thale	100 15 54	16 05 29	30
56 28 00	Phetchabun			
01	Lom Kao	101 13 53	16 52 58	160
02	Wichian Buri	101 06 23	15 39 21	60
03	Si Thep	101 04 25	15 25 53	65
04	Chon Daen	100 51 26	16 11 05	94
05	Nong Phai	101 04 03	15 59 31	103

### Coordinates and Elevation of Station Site - (14/16)

Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
8 <b>.</b>	Sap Samo That*	101 00 38	15 47 43	76
73 01 00	Yala			
01	Than To the second	101 12 05	06 08 28	200
02	Bannang Star	101 15 20	06 14 05	41
. 03	Ya Ha	101 08 01	06 28 41	29
04	Ra Man	101 25 36	06 28 44	20
73 13 00	Pattani			
01	Mai Khaen	101 40 21	06 37 50	5
02	Panare	101 29 50	06 51 34	1
03	Nong Chik	101 10 50	06 50 30	8
04	Ma Yo	101 24 48	06 43 24	17
05	Ya Rang	101 17 46	06 45 27	8
06	Yaring	101 22 18	06 51 37	2
73 14 00	Narathiwat			
01	Sisakhon	101 30 44	06 12 28	34
02	Yi Ngo	101 42 40	06 24 18	10
03	Rangae	101 44 03	06 17 40	15
04	Waeng	101 53 18	05 55 28	28
05	Tak Bai	102 03 00	06 15 03	5
06	Ba Cho	101 39 24	06 30 52	15
74 01 00	Phatthalung			
01	Khong Ra	99 56 02	07 28 16	50
02	Pak Phayun	100 19 40	07 21 02	10
03	. Khuan Khanun	100 00 32	07 44 02	10
04	Tra Mot	100 04 09	07 17 25	50 .
05	Ranot	100 14 10	07 46 28	2
1 <u>2</u> 3 <b>06</b>	Sathing Phra	100 26 32	07 28 15	5
07	Khao Chaison	100 08 06	07 27 30	30
74 05 00	Haad Yai			
01	Rattaphum	100 15 10	07 11 03	25
06 GE 02	Thepha	100 58 03	06 49 32	5
03	Sabayoi	100 57 02	06 36 59	14
04	Na Thawi	100 41 49	06 43 56	22
05	Chana	100 44 50	06 54 47	2

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# Coordinates and Elevation of Station Site - (15/16)

Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation (m)
74 06 00	Satun			· - /
01	Thung Wa	<b>99</b> 45 09	07 06 20	2
02	Khuan Ka Long	100 00 40	06 51 39	30
5 (J <b>. 03</b> )	Khuan Don	100 05 07	06 47 24	35
04	Chalung	100 38 52	06 59 02	5
05	Thung Nui	100 07 47	06 52 26	40
06	Langu	99 47 32	06 52 49	10
75 01 00	Krabi			
01	Khlong Thom	99 09 02	07 55 55	3
02	Khao-Phanom	99.03.08	08 15 40	60
03	Ko Lanta	99 05 40	07 31 50	10
04	Plai Phaya	98 57 20	08 35 54	10
05	Ao Luk	98 43 20	08 22 32	4
75 05 00	Thungsong			
01	Sichon	99 54 18	09 00 17	10
02	Hua Sai	100 18 30	08 02 30	1
03	Chian Yai	100 08 50	08 10 04	12
04	Thung Yai	99 22 04	08 18 11	70
05	Khanom	99 51 55	09 12 03	5
06	Phomkhiri	99 49 36	08 31 35	50
07	Nabon	99 35 43	08 15 47	46
08	Cha-Uat	100 00 09	07 57 37	6
09	Chawang	99 30 25	08 25 27	22
10	Lan Saka	99 48 30	08 22 10	33
11	Phipun	99 37 04	08 33 32	24
12	Ron Phi Bun*	99 51 32	08 10 42	24
75 23 00	Trang			
01	Palian	99 41 08	07 10 44	15
02	Sikao	99 21 06	07 34 03	8
03	Yan Ta Kao*	99 40 50	07 22 24	10
76 01 00	Phang Nga			
01	Thap Put	98 38 36	08 30 46	10
02	Ко Уао	98 35 38	08 06 42	10
03	Kapong	98 24 49	08 41 44	10

### Coordinates and Elevation of Station Site - (16/16)

Code	Name	Longitude (D.M.S.)	Latitude (D.M.S.)	Elevation
04	Khura Buri	98 25 06	09 11 20	10
05	Tai Muang	98 15 14	08 23 41	3
06	Takua Thung	98 27 21	08 23 21	7
76 09 00	Phuket			
01	Kra Too*	98 20 34	07 54 37	15
77 01 00	Chum Phon			
01	Pathiu	99 19 16	10 42 28	10
02	Tha Sae	99 10 43	10 39 50	35
03	Phato	98 47 53	08 47 07	60
04	Lamae	98 06 36	09 46 02	10
05	Sawi*	99 05 17	10 15 14	3
77 07 00	Ranong			-
01	Kra Buri	98 46 59	10 24 20	20
02	La-Un	98 45 54	10 06 55	20
03	Карое	98 35 57	09 35 26	18
77 11 00	Phun Phin			
01	Khian Sa	99 12 10	08 50 29	30
02	Prasaeng	99 15 03	08 33 55	40
03	Phanom	98 49 21	08 49 03	30
04	Tha Chang	99 11 40	09 16 04	5
05	Tha Chana	99 09 58	09 33 52	15
06	Don Sak	99 41 44	09 18 43	2
07	Khiri Ratthanikhom	98 56 50	09 01 59	21
08	Ban Na Doem	99 19 04	08 53 10	10
09	Ko Phangan	99 59 53	09 43 01	7
10	Ban Takhun	98 53 41	08 54 55	5
11	Wiang Sa	99 20 57	08 37 45	30
12	Kanchanadit	99 28 22	09 09 54	25
13	Ko Samui*	99 56 22	09 32 01	3

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13. Propagation Path Data

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No.	Radio Path		Page
(Ayutthaya area			
3516-1 Ay	utthaya	- Nakhon Luang	13 - 1 - 2
-2 Na	akhon Luang	- Ban Phraek	3 - 4
	. '	- Maharat	5 - 6
	yutthaya	- U-Thai	7 - 8
-5 Ay	vutthaya	- Bang Ban	9 - 10
-6 Ba	ang Ban	- Bangpa Han	11 - 12
-7 Ba	ang Ban	- Phak Hai	13 - 14
-8 Ay	vutthaya	- Sena	15 - 16
-9 Se	ena	- Bang Sai	17 - 18
-10 Se	ena	- Lat Bua Luang	19 - 20
-11 Ay	vutthaya	- Ban Si	21 - 22
(Nakhon Ratchas	sima area)		
4421-1 Na	akhon Ratchasima	- Non Sung	23
	on Sung	– Phi Mai	24 - 25
	ni Mai	- Chum Phuang	26 - 27
-4 Cł	um Phuang	- Prathai	28 - 29
-5 Bi	ua Yai	- Khong	30 - 31
-6 Na	akhon Ratchasima	- Non Thai	32
-7 No	on Thai	- Kham Sakae Saeng	33
-8 No	on Thai '	- Dan Khun That	34
-9 Na	akhon Ratchasima	- Chakkarat	35
-10 Ci	nakkarat	- Huai Thalaeng	36
-11 Ki	nam Thale So	- Nakhon Ratchasima	37 - 38
-12 S		- Sung Noen	39 - 40
	19 - 2 - 2 19 - 2 - 2	· – ·	

-13	B Pak Tong Chai	- Chok Chai - and a start 13 -	41 - 42
-14	Pak Tong Chai	- Khon Buri	43
-15	i Khon Buri	- Sa Pratheep	44
-16	Sa Pratheep	- Saeng Sang	45 45
(Chiangmai a	rea)		
5313-1	Chiangmai	- Ban Pak Tang	46 - 47
-2	Ban Pak Tang	- Doi Chiang Dao	48 - 49
-3	Doi Chiang Dao	- Doi Pha Hong	50
-4	Doi Pha Hong	- Fang	51 - 52
5	Fang	- Mae Ai	53 - 54
-6	Doi Chiang Dao	- Chiang Dao	55
-7	Doi Chiang Dao	- Doi Mu Soe	56
-8	Doi Mu Soe	- Phrao	57 - 58
-9	Mae Rim	- Chiangmai	59
-10	Mae Rim	- Mae Taeng	60
-11	Chiangmai	- San Sai	61 - 62
-12	Chiangmai	- Doi Saket	63 - 64
-13	Doi Saket	- San Kam Phaeng	65 - 66
-14	Chiangmai	- San Patong	67
-15	San Patong	- Ban Non Hai	68
-16	Ban Non Hai	- Hot	69 - 70
-17	Hot	- Doi Pae Po Mak	71
-18	Doi Pae Po Mak	- Khao Huai Bon	72
-19	Khao Huai Bon	- Omkoi	73
-20	San Patong	- Hang Dong	74 - 75
-21	Ban Non Hai	- Chom Thong	76 - 77
-22	Doi Pae Po Mak	- Doi Tao	78 – 79
-23	San Patong	- Doi Inthanon	80 - 81
	-		

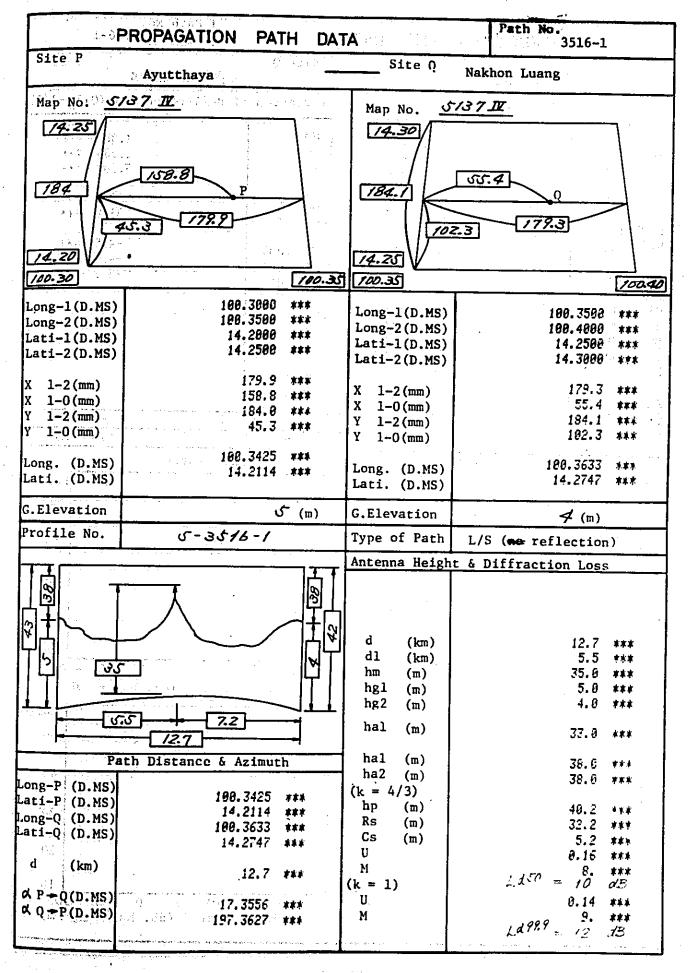
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	- y -	an a		
	-24	Mae Chaem	- Doi Inthanon	13 - 82
	-25	Doi Inthanon	- Sa Moeng	83
(Phun	Phin a	rea)		
	7711-1	Phun Phin(R)	- Don Sak	84 - 85
	-2	Don Sak	- Ko Samui	86 - 87
· · · · · · · · · · · · · · · · · · ·	. <sup>™</sup> –3	Don Sak	- Ko Phangan	88 - 89
	-4	Phun Phin(Tex)	- Kanchanadit	90 - 91
· .	-5	Phun Phin(Tex)	- Tha Chang	92 - 93
	-6	Chai Ya	- Tha Chana	94 - 95
	-7	Khiri Ratthanikhom	- Phun Phin(R)	96 - 97
	-8	Khiri Ratthanikhom	- Ban Takhun	98 - 99
	-9	Khiri Ratthanikhom	- Phanom	100 - 101
	-10	Ban Na San	- Khian Sa	102
	-11	Ban Na San	- Ban Na Doem	103
	-12	Ban Na San	- Wiang Sa	104 - 105
	-13	Ban Na San	- Prasaeng	106 - 107
	-14	Phun Phin(Tex)	- Phun Phin(R)	108 - 109
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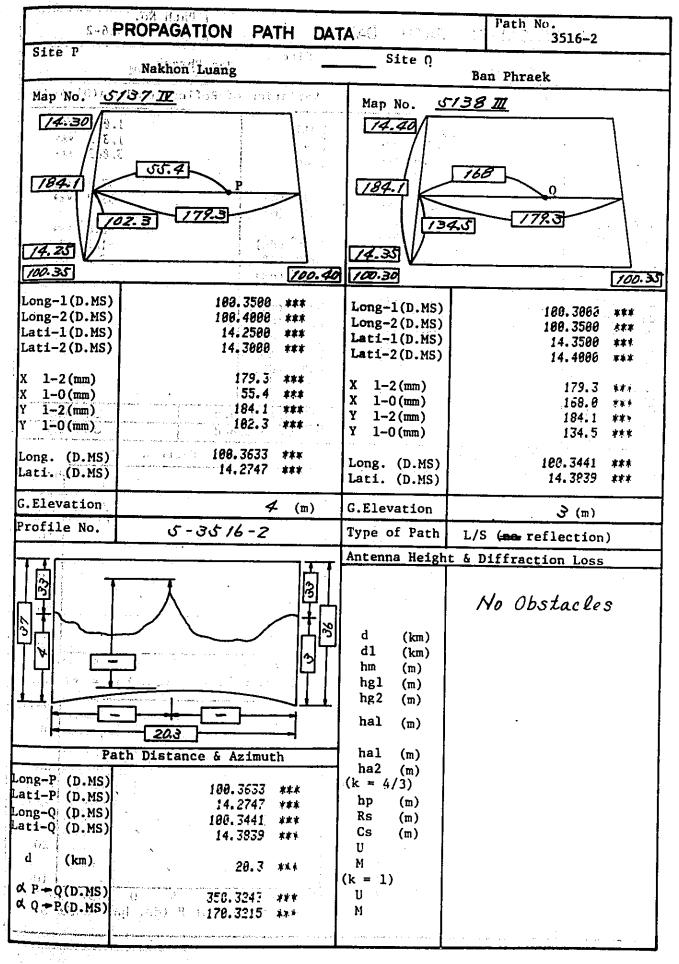
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Ayutthaya         Nakhon: Luang           Reflection Area(011A-1/3)         Variation of Reflection Loss(011A-3)           f         (NHz)         980.00         ###         K           hg1         1.335         ###         K         1.000         ###           hg2         (m)         4.0         ###         K         36.0         ###           hg2         (m)         36.0         ###         ha1         (m)         36.0         ###           ha1         (m)         38.0         ###         ha2'(m)         38.0         ###           ha2'         (m)         5.0         ###         ha1'(m)         38.0         ###           ha2'         (m)         5.4         ###         Lr##?(dB)         -4.5         ###           lr <max< td="">         6.3         ###         ha1'(m)         -4.5         ###           f         (dob)         6.1657         ###         Lr#??(dB)         -4.5         ###           Dv         0.94         ###         Lr#??(dB)         -4.5         ###         -50           Lr main(dB)         -4.6         ###         Lr#??(dB)         -50         -50           Lr main(dB)</max<>		ROPAGATION PATH DA	TA BEAR	at [TADA C3516-1
f       (NHz)       SGC.00       ***       K $K^{\pi,q}$ I.080       ***         hg1       1.333       ***       K       K**       K       I.080       ***         hg2       m)       4.0       ***       K       K**       I.080       ***         hg2       m)       4.0       ***       K       K**       I.080       ***         ha1       m)       12.7       ***       ha1       m)       38.0       ***         ha2       m)       38.0       ***       ha1       m)       38.0       ***         ha1       m)       5.0       ***       ha1       m)       38.0       ***         hr       m)       5.0       ***       ha1       m)       38.0       ***         ha1       m)       6.4       ***       ha1       m)       38.0       ***         f       (M)       6.4       ***       ha1       m)       36.0       ***         f       min(dB)       5.9       ***       ha1       determined       30       ***         f       min(dB)       ***       ***       ha1       determined       3	Site P	Ayutthaya	Site Q	Nakhon' Luang
R       JGC. UC       K**       K       K       I.333       K       K       K       I.333       K       K       I.336       K       K       I.337       K       K       I.336       K       K       I.337       K       K       I.336       K       K       I.337       K       K       K       I.337       K       K       K       K       K       K       K       K       K       K       K       K       K	Ref	lection Area(011A-1/3)	Variation (	of Reflection Loss (011A-3/3)
Reflection Loss (011A-2/3)         Height Pattern         ha1' (m) $38.0$ *** $55$ 2.8       *** $50$ -0.7       *** $55$ 2.8       *** $50$ -0.7       *** $40$ -2.8       *** $40$ -4.0       *** $40$ -4.6       *** $30$ -4.5       *** $20$ -2.6       *** $15$ -0.5       *** $20$ 2.7       *** $10$ 2.7       *** $a2'$ (m) $38.0$ *** $r60m(dB)$ 7.9       *** $55$ 2.5       *** $50$ -0.9       *** $40$ -4.0       *** $40$ -4.0       *** $50$ -2.9       *** $50$ -2.9       *** $50$ -2.9       *** $50$ -2.9       *** $30$ -4.6       **	K hg1 (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr' (m) d1 (m) d1 (m) d2 (m) \$\psi (LT (km)) Dv fe fr (deg) Lr min(dB)	1. 333 *** 5. $0$ *** 4. $0$ *** 12. 7 *** 38. $0$ *** 38. $0$ *** 5. $0$ *** 5. $0$ *** 6. $3$ ***	K ** K ** ha1 (m) ha2 (m) Lr** (dB) Lr** (dB) Lr** (dB) ha1 (m) ha1 (m) Lr** (dB) Lr** (dB) Lr** (dB) Lr** (dB) Lr** (dB)	1.333 *** 3.000 *** 38.0 *** 38.0 *** -4.5 *** -4.3 *** -3.9 *** () () () () - ()
na1' (m) $38.0$ $***$ $ba2($ $r60m(dB)$ $8.6$ $***$ $50$ $55$ $2.8$ $***$ $40$ $45$ $-2.8$ $***$ $40$ $45$ $-2.8$ $***$ $40$ $35$ $-4.6$ $***$ $40$ $30$ $-4.5$ $***$ $30$ $25$ $-3.9$ $***$ $20$ $25$ $-3.9$ $***$ $20$ $15$ $-9.5$ $***$ $25$ $10$ $2.7$ $***$ $25$ $20.5$ $-50$ $a2'$ (m) $38.0$ $***$ $-50$ $-10$ $a2'$ (m) $38.0$ $***$ $-50$ $-50$ $55$ $-8.9$ $***$ $-50$ $-50$ $50$ $-2.9$ $***$ $-4.6$ $***$ $-4.0$ $***$ $40$ $-4.6$ $***$ $-50$ $-50$ $-50$ $55$ $-2.9$ $***$ $-30$ $****$ $-4.6$ $***$				
$\begin{array}{c} 7.9 \\ 1.760m(dB) \\ 5.5 \\ 5.5 \\ 5.6 \\ -8.9 \\ 1.760m(dB) \\ 2.5 \\ -8.9 \\ 1.760m(dB) \\ -2.9 \\ 1.760m(dB$	Lr60m(dB) 55 50 45	8.6 *** 2.8 *** -8.7 *** -2.8 *** -4.0 ***		40 30
7.9 $41*$ $55$ $2.5$ $*4*$ $50$ $-8.9$ $***$ $45$ $-2.9$ $***$ $40$ $-4.0$ $***$ $35$ $-4.6$ $***$ $30$ $-4.5$ $***$ $25$ $-2.7$ $***$ $20$ $-2.7$ $***$	35 30 25 20 15	-4.5 *** -3.9 *** -2.6 *** -0.5 ***		10 5 0 -5 -10
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	35 30 25 20 15 10	-4.5 *** -3.9 *** -2.6 *** -0.5 *** 2.7 ***		10 5 0 -5 -10

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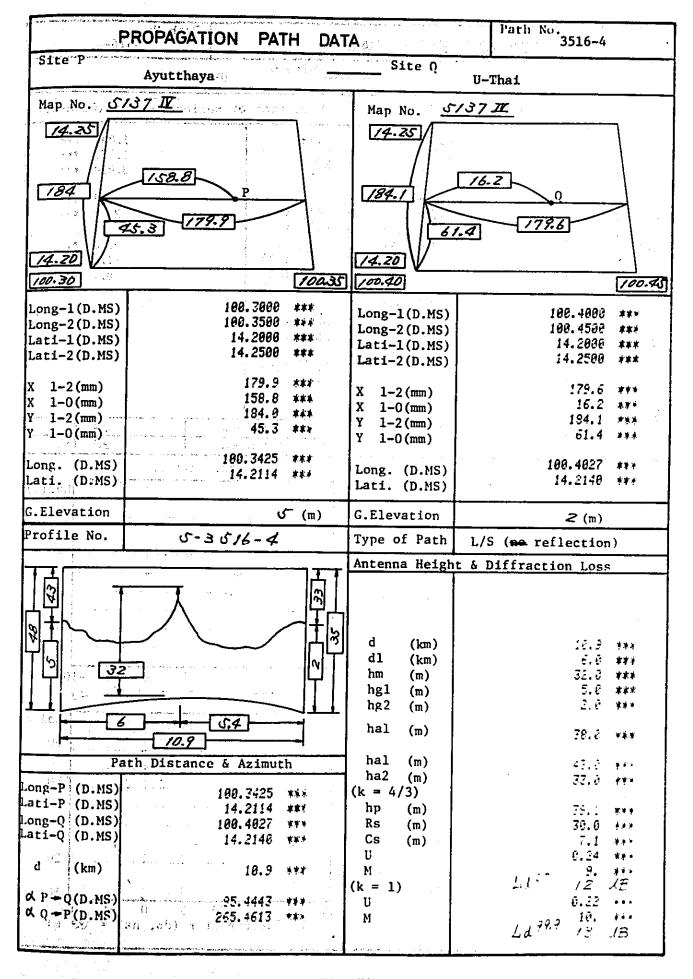
	PROPAGATION	PATH	H DA1	TANG HIAR	Path No.	516-2
Site P	Nakhon Luang		<u> </u>	Site Q	Ban Phraek	9 5712
]	Reflection Area(0)	11A-1/3	) <sub>. st</sub> r	Variation	of Reflection I	.oss(011A-3/3)
f (MH:	2)	900.00	***	K 99.9		1.080 ***
K hal ()		1.333	末本省	K SO		1.333 ***
hgl (m)	·· •	4.0	***	K at		3.000 ***
hg2 (m) d (km)			***	/		
hal (m)	· · · · · · · · · · · · · · · · · · ·		***	hal' (m)	يتهر بيناه بالمانية بالمالم مامر بالتكوية	33.8 ***
ha2' (m)	and the second		本本本  	ha2 (m)	میں میں ایک ایر کا کر کر کری	-33.0 ***
hr' (m)			***	· · · ·		-0.8 ***
ni (m)		2.0	<b>ተተተ</b> 11 ዓ. የ. በ. በ. በ. በ.	Lr <sup>9%9</sup> (dB)		-1.8
hr (m)			· · · · · · ·	Lr#0 (dB)	t some more company and a second	-3.3/ ***
(				Lr 4/ (dB)		DE LOW
dl (m)		10.2		a para di secondo para para mana como	والهوروري بالاستعادون فالعدارية فالمراجع والالتان الالمالة	
d2 (m)			*** ***	hal (m)		19月1日,(17月
<i>ψ</i> (D.M	is)		***	hal (m)		1, 83 <b>-</b> 018-3850.,
T1 (km)			***			(all and I - Edward
Dy	· .		***	Lr"" (dB)	N.1.,	(22.4) (+1.14)
		··· · · · · .		Lr* (dB)		
Pe	ļ	0.8	***	Lr . (dB)		(ans) + I
∳r (deg	<b>)</b>	186.0	***			(ma) () - (
Lr min(dB			***	hal determin		<u>33 (m)</u>
Lr max(dB		14.0	***	ha2 determin	ned	33 (m)
R	eflection Loss(01	1A - 2/3)		He	ight Pattern	
<u> </u>						
hal (m)						ha2(m)
nar (m)		33.0	***		a a a a a anno 2000 a anno Anno 2000 a anno	50
Lr60m(dB)		_F + '			أويهو ويوجين ورستان المحمو ومرار الالتيان الم	For a second se second second sec
. 55	e de la composición d		***			i ust Elijand
50		-4 6	***		धतीच्च प्रति हो प्राप्त चार्च्याच्यात्वलः हो हो	
45			#### - [		···· ··· ····· ······	
40			***	· · · · · · · · · · · · · · · · · · ·		30
35			***			· · · ·
30			***			20
25			***			
20			***			10
15			***	25 20 15	10 5 0	-5 -10
10			***		n at Q (dB, ha	
				DI IQUEI	n ar A (qp' ua)	( 33 m)
ia2′(m)	Ì	33.0	***		r ve e e de la deserve	
-			·			and a second sec
_r60m(dB)			***		·····	-50
55			***		ىرىنى ئەرىكى بىرىمىرى بىلىيە بىلىيە بىرى بىلىيە. 1944-يىلى ئېزىكى بىلىيە ئېچىكى بىلىيە يېچىك	
50			***	·	ا بې مېږې د دلايو سرمې مې د د د د د د د د د که . لو مېښې د د د د د د مې د مېرو د که د مېرو د کې د	40
45			***			(2 <b>14</b> , 43) (1-4349-5)
40			***			28.40) 4-100-2 <b>20</b>
35			<b>**</b> *		•• • • • • • • • • • • • • • • • •	(
30			<b>**</b> *	1.1.1.1		(金融)(4)等的+144节节
25			k∦.∦ ∷		• •	20
20		2.3		and the second second		Contra 5
15			k¥¥ ,	L		10
10		7.7 4	<b>**</b> *	25 20 15		-51-1-10"
					n at P (dB, ha2	and the second and the second s

•

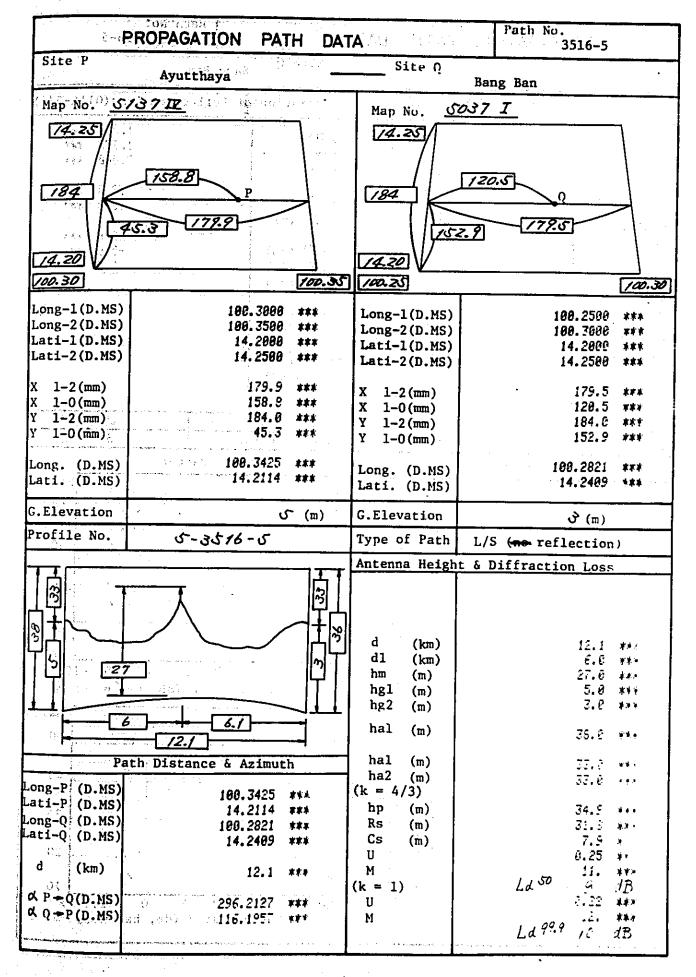
13 - 4

2-4 <b>P</b>	ROPAGATION PATH DAT		Path No. 3516-3
Site P	Nakhon Luang	Site Q	
Map No. 57	······································	Map No. 5	Maharat /38 M
14.30		[4.35]/	
		127.001	
		1 * <u>/  </u>	
	55.4		69.7
184.1	P	184.1	
	2 51 179.3		1788
14	2.3	24	20 1///0
14.25		74.30	
100.35	100.40		/20.35
Long-1(D.MS)	100.3500 ***		
Long-2(D.MS)	100.3300 ***	Long-1(D.MS) Long-2(D.MS)	100.3005 *** 100.3500 ***
Lati-1(D.MS)	14.2500 ***	Lati-1(D.MS)	166.3366 ***
Lati-2(D.MS)	14.3000 ***	Lati-2(D.MS)	14.3500 ***
X 1-2(mm)	179.3 ***		170 6
X 1 - 0 (mm)	55.4 ***	X 1-2(mm) X 1-0(mm)	179.6 *** 69.1 ***
Y 1-2(mm)	184.1 ***	Y 1-2(mn)	184.1 ***
Y 1-0(mm)	102.3 ***	Y 1-0(mm)	74.0 ***
Long. (D.MS)	100.3633 ***		108.3155 ***
Lati. (D.MS)	14.2747 ***	Long. (D.MS) Lati. (D.MS)	14.3201 ***
G.Elevation	✓ (m)	G.Elevation	6 (m)
Profile No.	5-3516-3	Type of Path	L/S (me reflection)
		Antenna Heigh	t & Diffraction Loss
3	入 13		
<b>∏∔k</b>			
«ГЦ		d (km)	11.4 ***
┲╝ <u>┢</u> ╝		dl (km)	5.1 ***
ि उर्व	[Ļ]	hm (m)	36.0 ***
	1. · · · · · · · · · · · · · · · · · · ·	hgl (m)	. 4.8 ### 5.8 ###
		hg2 (m)	0.0 -**
<u> </u>		hal (m)	33.0 ***
Pa	th Distance & Azimuth	hal (m) ha2 (m)	33.0 *** 33.0 ***
ong-P (D.MS)	100 7077 +++	(k = 4/3)	2515 893
ati-P (D.MS)	100.3633 *** 14.2747 ***	hp (m)	35.8 ***
ong-Q (D:MS)	100.3155 ***	Rs (m)	30.7 ***
ati-Q (D.MS)	14.3201 ***	Cs (m)	6.8 ***
		U	0.20 ***
d (km)	11.4 <b>##</b> #	M	$Ld^{50} = 4 dB$
	an and the surface and an analysis of the state	(k = 1)	
			·····································
$P \rightarrow Q(D.MS)$ $Q \rightarrow P(D.MS)$	313.1359 *** .d.,85) 5 133.1250 ***	M	$La^{99.9} = 5 dB$

Site P	Nakhon Luang	Site Q Mahar	asti Astronomia
Ref	lection Area(011A-1/3)	Variation of Rei	flection Loss (011A-3/3)
f       (MHz)         K       hgl (m)         hg2 (m)       d         d       (km)         ha1' (m)       ha2' (m)         hr' (m)       hr' (m)         hr (m)       d1 (m)         d2 (m)       Ψ         ψ       (D.MS)         T1       (km)         Dv       Dv	998.60 *** 1.333 *** 4.0 *** 6.0 *** 11.4 *** 33.0 *** 33.0 *** 5.8 *** 5.9 *** 6.1848 *** 5.6 *** 6.94 ***	$ \begin{array}{c}     K \\     K \\     K \\     F^{50} \\     K \\     K \\     hal' (m) \\     ha2' (m) \\     Lr^{97.9} (dB) \\     Lr^{47} (dB) \\     Lr^{47} (dB) \\     Lr^{47} (dB) \\     Lr^{67.9} (dB) \\     Lr^{69} (dB) \\     Lr^{69} (dB) \\     Lr^{69} (dB)   \end{array} $	1.000 *** 1.333 *** 3.000 *** 33.0 *** 33.0 *** -5.6 *** -5.6 *** -5.5 ***
ρe ⊈r (deg) Lr min(dB)	0.9 *** 186.0 *** -5.6 ***	Lr <sup><i>a.i</i></sup> (dB) hal determined	3 - 10+2(114) マーユー()(2014) モー」(前)からを
Lr max(dB) Refl	20.0 *** ection Loss(011A-2/3)	ha2 determined Height Pa	33 <sup>1111</sup> (m)
hal (m) 1.r60m(dB) 55 50 45 40 35 30 25 20 15 10	33.0       ***         9.3       ***         1.9       ***         -1.6       ***         -3.7       ***         -4.9       ***         -5.5       ***         -5.5       ***         -5.0       ***         -3.8       ***         -1.9       ***	25 20 15 10 Lr Pattern at Q	ha2(m) 50 40 30 20 10 5 0 $-5$ $-102$ (dB, hal' = $33$ m)
ha2' (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	33.0 *** 13.9 *** 3.3 *** -1.1 *** -3.5 *** -4.9 *** -5.5 *** -4.9 *** -3.6 *** -1.4 *** 2.2 ***		hal(m) -50 -50 -50 -50 -50 -50 -50 -50 -50 -50
· · · · · · ·		6	••••••••••••••••••••••••••••••••••••••

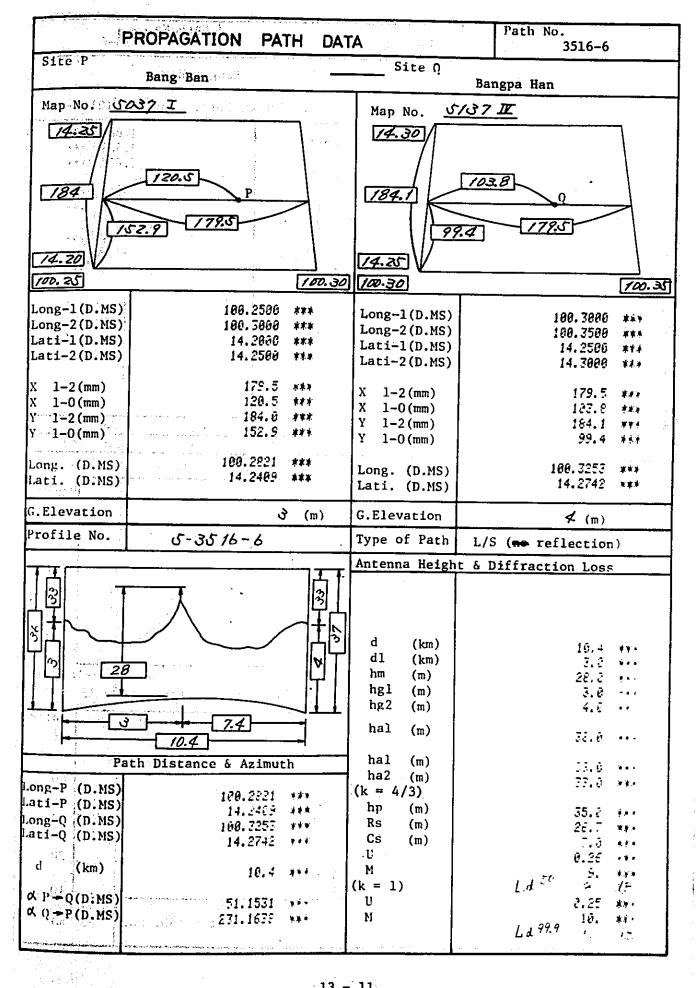


PR	OPAGATION PATH DA	ATANI	an Saistean Taistean	Path No. 3516-4
Site P	Ayutthaya	Site Q	U–Th	ait curves ait curves meteoretes curves
Ref1	ection Area(011A-1/3)	Variation	of Ref	lection Loss (011A-
f (MHz)	908.00 ***	K 91.9	T	1.000 ***
К	1.333 ***	K So	Î	1.333 ***
hg] (m)	5.0 ***	K ar		3.000 ***
hg2 (m)	2.8 ***	K		
d (km)	18.9 ***	1 1 (-1)		43.0 ***
hal (m)	43.0 ***	hal (m) ha2 (m)		33.0 ***
ha2 (m)	33.8 ***	ha2 (m)		
hr' (m)	4.0 ***			-1.6 ***
		Lr <sup>721</sup> (dB)	L	-1.E ***
hr (m)	2.0 ***	Lr <sup>20</sup> (dB)		0.1 ***
		Lr af (dB)	1 · · ·	ار با از این از این این به می این معالمات از این معامد از ا - ۲۲ در زندگانیستان در در اینیم این معارمات از این معامد از ا
d] (m)	6.3 ***			
d2 (m)	4.6 ***	hal (m)	1.1	a tate in a firm
$\psi$ (D.MS)	8.2349 ***	hal (m)	4. <sup>3</sup>	and that as
Ť] (km)	4.3 <b>**</b> *			t state
Dv	8.96 ***	Lr**. (dB)	· ·	ť
	0.6 ***	Lr <sup>eo</sup> (dB)		
Pe		Lr •.1 (dB)		(mga Para
$\Phi r$ (deg)			L	
Lr min(dB)	-4.1 *** 8.0 ***	hal determi		<i>43</i> (m)
Lr max(dB)		ha2 determi	ned	33 (m)
Refle	ction Loss(011A-2/3)	He	ight Pa	ttern
,				ha2
hal (m)	43.0 ***			50
	<b>* •</b> • • •			
Lr6Om(dB)	-3.8 ***			
55	-2.3 ***		<u></u>	- 40
50	8.9 ***			
45	6.4 *** 5.7 ***			30
40	5.7 *** 0.4 ***			30
35	0.4 *** -2.5 ***			
30	-2.0 *** -3.9 ***			20
25	-3.5 ***			
20	-3.8 ***			10
15	-6.5 ***	25 20 15	10 5	- ,//
10		Lr Patter	n at Q	(dB, hal = 43 m)
hu 2' (_)	33.0 ***			1
ha2' (m)				
	6.0 ***			*50
Lr60m(dB)	7.5 ***			
55	3.4 ***			
50	-9.486549342-03 ***			40
45	-2.2 ***			
40	-3.5 ***			
35	-4.6 ***			
30	-4.0 ***			
25	-3.4 ***			20
20	-2.1 ***			
1 r l			I	10,
15	4.285166942-03 ***	25 20 15		



	Р	Ayutthaya	Site Q	Bang	Ban	
	Ref	lection Area(011A-1/3)	Variation	· · · · ·	flection Loss (011A-3/	(3)
ſ	(MHz)	500.00 ***			1.000 ***	
ĸ		1.333 ***	K		1.333 ***	
hgl	(m)	5.0 ***	. K 50		3.000 ***	
	(m)	3.6	K af			
	(km)	12.1 ++>			33.0 ***	4
	(m)	33.6	hal (m)	· · · · · · ·	33.0 ***	. f
	(m)	33.0	ha2 (m)	11010	The second standards and the second	
-	(m)	5.8 4.4			······································	
14	(m)		Lr <b>***</b> (dB)	1	-5.6 ###	
. <b></b>	() ·		Lr <sup>50</sup> (dB)		-5.5r *##	÷.,
n <b>r</b> i (	(m)	1 · · · · · · · · · · · · · · · · · · ·	Lr <sup>a</sup> (dB)			
				10.00	میں کو ایک ایک آن 1934ء والک سریک مصفحہ میں ایک ایک سریک میں میں ایک میڈی میں میں میں ایک میں ایک ایک میں ایک میں ایک ایک ایک ایک 1934ء والک سریک میں میں میں ایک	 2
	(m) .	6.2 ***	hal (m)	1.1		:
	(m) :	5.9 ***			e (en l'Atgenier	
	(D.MS)	0.1801 ***	hal (m)		- 1997年1月1日 - 1997年1月1日 - 1997年1月1日 - 1997年1月1日	
	(km) 👘	6.1 ***			<ul> <li>K = 1 (1)</li> </ul>	
v		0.94 ***	Lr <sup>ff,f</sup> (dB)			E.
<b>.</b> .	*		Lr <sup>eo</sup> (dB)		1	
° .		0.3 ×××	Lr •.1 (dB)			
r (	deg)	180.0 ***			) (e.e.)()-(	,
r min	(dB)	-5.6 ***	hal determi			
r max	(dB)	20.8 ***	ha2 determi	ned	<u></u>	
	Ref1	ection Loss(011A-2/3)	He	icht F	Pattern	
	m) -	33.0 ***		· • • • • • • • • • • • • • • • • • • •	ha2(π	a)
r60m( 55 50 45 40 35 30 25 20 15 10 *2' (n	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -5.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 ***	25 20 15 Lr Patter	10 rn at	50 40 40 30 20 10 5 0 -5 -10 Q (dB, hal' = 33 m) hal(1 -50	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (d	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -4.5 *** -3.6 *** 1.7 *** 33.0 *** 6.8 ***	_		50 40 30 20 10 5 0 -5 -10 Q (dB, hal' = 33 m) hal (i	
55 50 45 40 35 30 25 20 15 10 2' (n 60m(c 55	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 *** 6.8 *** 1.0 ***	_		50 $40$ $30$ $20$ $10$ $5  0  -5  -10$ $0  (dB, hal' = 33 m)$ $hal(i = -50)$	m)
55 50 45 40 35 30 25 20 15 10 2' (n 60m(c 55 55 50	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 *** 6.8 *** 1.0 *** -2.1 ***	_		50 $40$ $30$ $20$ $10$ $5  0  -5  -10$ $9  (dB, hal' = 33 m)$ $hal (i = -50)$ $40$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (c 55 50 45	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -1.6 *** -1.6 *** 1.7 *** 33.0 *** 6.8 *** 1.0 *** -2.1 *** -4.9 ***	_		50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $0$ $(dB, hal' = 33$ $m)$ $hal(i)$ $-50$ $40$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (d 55 50 45 40	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 *** 6.8 *** 1.0 *** -2.1 *** -4.0 *** -3.6 ***	_		50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $0$ $(dB, hal' = 33$ $m)$ $hal(0)$ $-50$ $40$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (c 55 50 45 40 35	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 *** 1.0 *** -2.1 *** -4.0 *** -5.0 *** -5.0 ***	_		50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $Q$ $(dB, hal' = 33$ $m)$ $hal(1)$ $-50$ $40$ $30$	
55 50 45 40 35 30 25 20 15 10 .2' (m 60m(c 55 50 45 40 35 30	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -4.5 *** -4.5 *** -1.6 *** 1.7 *** 33.0 *** 1.7 *** 33.0 *** -2.1 *** -2.1 *** -4.0 *** -5.0 *** -5.0 *** -5.5 ***	_		50 $40$ $30$ $20$ $10$ $5 0 -5 -10$ $Q (dB, hal' = 33 m)$ $hal (1)$ $-50$ $40$ $30$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (d 55 50 45 40 35 30 25	dB) n)	9.9 *** 2.1 *** -1.6 *** -3.8 *** -5.0 *** -5.5 *** -4.9 *** -4.9 *** -3.6 *** -1.6 *** 1.7 *** 33.0 *** 33.0 *** -2.1 *** -4.0 *** -2.1 *** -5.5 *** -5.6 ***	_		50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $0$ $(dB, hal' = 33$ $m)$ $hal(t)$ $-50$ $40$ $40$ $30$ $40$ $30$ $40$ $40$ $40$	
55 50 45 40 35 30 25 20 15 10 2' (m 60m(c 55 50 45 40 35 30	dB) n)	9.9 $***$ 2.1 $***$ -1.6 $***$ -3.8 $***$ -5.0 $***$ -5.5 $***$ -4.5 $***$ -4.5 $***$ -3.6 $***$ -1.6 $***$ 1.7 $***$ 33.0 $***$ 33.0 $***$ -2.1 $***$ -4.0 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.9 $***$ -3.9 $***$	_		50 $40$ $30$ $20$ $10$ $5 0 -5 -10$ $Q (dB, hal' = 33 m)$ $hal (1)$ $-50$ $40$ $30$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (d 55 50 45 40 35 30 25	dB) n)	9.9 $***$ 2.1 $***$ -1.6 $***$ -3.8 $***$ -5.0 $***$ -5.5 $***$ -4.5 $***$ -4.5 $***$ -3.6 $***$ -1.6 $***$ 1.7 $***$ 33.0 $***$ 33.0 $***$ -2.1 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.9 $***$ -5.9 $***$ -3.9 $***$	_		50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $0$ $(dB, hal' = 33$ $m)$ $hal(i)$ $-50$ $40$ $40$ $30$ $40$ $40$ $30$ $40$	
55 50 45 40 35 30 25 20 15 10 2' (n 60m (c 55 50 45 40 35 30 25 20	dB) n)	9.9 $***$ 2.1 $***$ -1.6 $***$ -3.8 $***$ -5.0 $***$ -5.5 $***$ -4.5 $***$ -4.5 $***$ -3.6 $***$ -1.6 $***$ 1.7 $***$ 33.0 $***$ 33.0 $***$ -2.1 $***$ -4.0 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.5 $***$ -5.0 $***$ -5.9 $***$ -3.9 $***$	_	rn at	50 $40$ $30$ $20$ $10$ $5$ $0$ $-5$ $-10$ $0$ $(dB, hal' = 33$ $m)$ $hal(0)$ $-50$ $40$ $(30)$ $($	

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Р	ROPAGATION PATH D	ATA AS ASTAR	Path No. 3516-6	بالمرفقة المعاد
Site P	Bang Ban -	Site Q	Bangpa Han	<u>n in an an</u>
Ref	lection Area(011A-1/3)	Variation	of Reflection Loss(0)	L1A-3/3
f (MHz) K hg1 (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr (m) d1 (m) d2 (m) $\psi$ (D.MS) F1 (km) Dv $P_{c}$ $P_{$		K       91.1         K       50         K       61         ha1       (m)         ha2'       (m)         Lr       91.9         Lr       91.9         (dB)       Lr         ha1'       (m)         ha1'       (m)         ha1'       (m)         Lr       91.9         (dB)       Lr         Lr       6B)         Lr       0         ha1       determin         ha2       determin         Hei       1	of Reflection Loss (0) 1.000 1.333 3.000 73.0 -5.4 -5.2 -4.9 1.333 3.000 73.0 -5.4 -5.2 -4.9	*** *** *** *** *** *** *** *** *** **
r60m(dB) 55 50 45 40 35 30 25 20 15 10	4.6 *** 19.9 *** 5.2 *** -8.5 *** -3.4 *** -4.9 *** -5.5 *** -5.4 *** -4.5 *** -2.8 *** 9.3 ***	25 20 15	10 5 0 -5 -1 at P (dB, ha2 = 33	50 40 30 20 10

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Path No. **PROPAGATION** PATH . . . . . 3516-7 Site P Site 0 Bang Ban April Phak Hai Map Not 0) CO376 Impetent the good entry Map No. 5037 I 14.25 14.30 ¥ 1.5 120.5 85 184 184 0 111 179.5 179.2 152.9 86.8 14.ZD 14.25 100.25 100.30 100.20 100.25 Long-1(D.MS) 109.2566 \*\*\* Long-1(D.MS) 109.2000 \*\*\* Long-2(D.MS) 100.3000 : \*\*\* 100.2500 \*\*\* Long-2(D,MS) 14.2000 \*\*\*\* Lati-1(D.MS) 14.2508 \*\*\* Lati-1(D.MS) 14.2500 \*\*\* Lati-2(D.MS) 14.3000 \*\*\* Lati-2(D.MS) X 1-2(mm) X 1-0(mm) Y 1-2(mm) 179.5 \*\*\* 179.2 \*\*\* X = 1 - 2 (mm)128.5 \*\*\* X 1-0(mm) 85.8 \*\*\* -184.0 -\*\*\* Y 1-2(mm) 134.8 \*\*\* Y 1-0(mm) 152.9 \*\*\* Y 1-0(mm) 86.8 \*\*\* A second sec second sec 100.2821 \*\*\* Long. (D.MS) 100.2222 \*\*\* Long. (D.MS) 14.2409 \*\*\* Lati. (D.MS) 14.2722 \*\*\* Lati. (D.MS) G.Elevation ර (m) G.Elevation <mark>ሪ</mark> (m) Profile No. 5-3516-7 Type of Path L/S (me reflection) Antenna Height & Diffraction Loss ЭJ 33 30 d (km) 12.3 \*\* d1 (km) 8.2 \*\*. う か 28 hm 28.0 +4: (m) hgl (m) 3.0 \*\*\* 3.6 \*\*\* hg2 (m) 8.2 41 hal (m) 38.0 m. 12.3 hal (m) Path Distance & Azimuth 17.0 444 ha2 (m) 33.0 \* .. Long-P (D.MS) (k = 4/3)180.2821 \*\*\* Lati-P (D.MS) hp (m) 34.0 \*\* 14.2489 \*\*\* Long-Q (D.MS) Rs 30.2 180.2222 \*\*\* (m) \$3 e Lati-Q (D.MS) Cs 14.2722 \*\*\* 6.8 MA (m) U -8.20 \*\*\* d (km) М 9. 12.3 ##+ ¥9. Ld <sup>50</sup> = (k = 1)6 dB A P Q(D:MS) 298.4729 \*\*\* 0.18 × U 5  $\alpha Q = P(D.MS)$ ₽. М \*\*\* Ld 49.9 = 8 dB

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P	ROPAGATION PATH DA	TA DE DETAG	Path No. 3516-7
Site P	Bang Ban —	Site Q Phak	Haigne
Ref	lection Area(011A-1/3)	Variation of Ref	lection Loss (011A-3/3)
f (MHz)	988.85 ***	K 97.7	
К	1.333 ***	K <sup>so</sup>	1.333
hgl (m)	3.8 ***	Kat	
lig2 (m)	3.6 ***	<b>N</b>	the second second second second
d (km)	12.3 ***	hal (m)	33.0 ***
hal (m) ha2 (m)	33.8 *** 33.8 ***	ha2' (m)	33.0 ***
ha2′(m) hr′(m)	4.0 ***		
nr (m)		Lr*** (dB)	-5.2 ***
hr (m)	ta seconda en la companya de la comp	Lr. (dB)	-5.4 #\$*
		Lr Al (dB)	-5.5 ***
dl (m)	6.2 ***		
d2 (m)	6.2 ***	hal (m)	a l
$\psi$ (D.MS)	0.1639 ***	hal (m)	1.
[] (km)	5.5 ***		
Dv	6.93 ***	Lr <sup>99.9</sup> (dB)	1.1
		Lr <sup>eo</sup> (dB)	
Pe	e.s ***	Lr #/ (dB)	
br (deg)	180.0 ***		
Lr min(dB)	-5.6 ***	hal determined	33 (m)
Lr max(dB)	20.0 ***	ha2 determined	33 (m)
	ection Loss(011A-2/3)	haz determined Height Pa	
Refl			attern (Biorgan et al
Refl			ha2(m)
Refl nal (m)	ection Loss(011A-2/3)		attern (Biorgan et al
Refl nal (m) .r60m(dB)	ection Loss(011A-2/3) 33.0 *** 0.4 ***		ha2(m)
Ref1 1al (m) .r60m(dB) 55	ection Loss(011A-2/3) 33.0 ***		ha2(m)
Ref1 .r60m(dB) 55 50	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 ***		ha2(m)
Ref1 .r60m(dB) 55 50 45	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 ***		attern 
Ref1 .r60m(dB) 55 50 45 40	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 ***		ha2(m)
Ref1 .r60m(dB) 55 50 45 40 35	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 ***		attern ha2(m) 50 -40 -40 -30
Ref1 .r60m(dB) 55 50 45 40 35 30	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 ***		attern ha2(m) 50 
Ref1 .r60m(dB) 55 50 45 40 35 30 25	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 ***		ha2(m)           50           40           30           20-
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 ***	Height Pa	attern ha2(m) 50 -40 -40 -30 -20- 10
Ref1 .r60m(dB) 55 50 45 40 35 30 25	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -2.5 ***	Height Pa	ha2(m) 50 40 30 20 10 5 0 -5 -10
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.0 *** -4.1 *** -5.8 *** -5.8 *** -6.1 *** -8.1 *** -8.5 *** -8.5 *** -5.5 *** -5.5 *** -5.6 *** -6.1 *** -6.1 *** -5.6 *** -5.6 *** -5.6 *** -6.1 *** -6.1 ***	Height Pa	attern ha2(m) 50 -40 -40 -30 -20- 10
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -2.5 *** -6.1 ***	Height Pa	ha2(m) 50 40 30 20 10 5 0 -5 -10
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -2.5 *** -6.1 *** 33.0 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = 33 m) hal(m)
Ref1 nal (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB)	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -5.6 *** -4.1 *** -5.7 *** -5.8 *** -4.1 *** -5.5 *** -5.6 *** -4.1 *** -4.1 *** -5.5 *** -5.5 *** -6.1 ***	Height Pa	ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = 33 m)
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10 	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -2.5 *** -6.1 *** 3.6 *** 33.0 *** 0.4 *** -2.4 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 $-5$ -10 (dB, hal = $33$ m) ha1(m) -50
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.0 *** -4.1 *** -2.5 *** -6.1 *** 3.6 *** 3.6 *** 0.4 *** -2.4 *** -2.4 *** -4.1 *** -2.4 *** -2.4 *** -4.1 *** -2.4 *** -2.4 *** -2.4 *** -2.4 *** -2.4 *** -2.4 *** -2.4 *** -2.5 *** -3.6 *** -4.1 *** -5.5 *** -5.0 *** -6.1 *** -7.5 *** -6.1 *** -7.5 *** -6.1 *** -7.5 *** -7.5 *** -7.5 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = 33 m) hal(m)
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10 	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.5 *** -5.0 *** -4.1 *** -2.5 *** -6.1 *** 3.6 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -3.5 *** -5.1 *** -5.5 *** -6.1 *** -7.5 ***	Height Pa	attern ha2(m) 50 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40
Ref1 .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2 (m) r60m(dB) 55 50 45 40	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.6 *** -5.0 *** -4.1 *** -2.5 *** -6.1 *** 33.0 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -2.4 *** -3.5 *** -5.5 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40
Ref1 1a1 (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50 45 40 35	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.1 *** -5.5 *** -5.5 *** -5.8 *** -4.1 *** -5.8 *** -4.1 *** -6.1 *** 33.0 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -2.4 *** -3.5 *** -5.5 *** -5.5 *** -5.5 ***	Height Pa	attern ha2(m) 50 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40 10 30 20 10 10 30 20 10 10 50 30 30 30 30 30 30 30 30 30 30 30 30 30
Ref1 na1 (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50 45 40 35 30 35 30 35 30 35 30 35 30 45 40 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 30 35 30 25 20 15 10 45 40 35 30 25 20 15 10 45 40 35 30 25 20 15 10 45 40 35 30 25 30 25 30 45 30 35 30 25 30 45 30 45 30 35 30 35 30 45 30 35 30 45 30 35 30 45 30 30 45 30 30 45 30 45 30 45 30 45 30 45 30 45 30 30 30 30 30 30 30 30 30 30	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.6 *** -6.1 *** -2.5 *** -8.1 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -2.4 *** -3.6 *** -3.6 *** -5.1 *** -5.5 *** -5.6 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40 10 50 40 10 50 40 10 50 40 10 50 40 10 50 40 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 50 10 10 50 10 10 50 10 10 50 10 10 10 10 10 10 10 10 10 10 10 10 10
Ref1 nal (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50 45 40 35 30 25	ection Loss (011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -5.8 *** -6.1 *** 33.0 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -5.1 *** -5.5 *** -6.1 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40 10 20 40 10 50 20 20 20 20 20 20 20 20 20 20 20 20 20
Ref1 nal (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50 45 40 35 30 25 20	ection Loss(011A-2/3) 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.6 *** -4.1 *** -2.5 *** -6.1 *** -6.1 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -5.5 *** -5.5 *** -6.1 *** -5.5 *** -6.1 *** -2.5 *** -6.1 *** -2.5 *** -6.1 *** -2.4 *** -2.4 *** -5.5 *** -5.5 *** -6.1 *** -2.5 *** -5.5 ***	Height Pa	attern ha2(m) 50 40 30 20 10 (dB, hal = $33$ m) ha1(m) 50 40 40 20 20 20 20 20 20 20 20 20 20 20 20 20
Ref1 nal (m) .r60m(dB) 55 50 45 40 35 30 25 20 15 10 a2' (m) r60m(dB) 55 50 45 40 35 30 25	ection Loss $(011A-2/3)$ 33.0 *** 0.4 *** -2.4 *** -4.1 *** -5.5 *** -5.5 *** -5.6 *** -5.0 *** -4.1 *** -4.1 *** -4.1 *** -2.5 *** -6.1 *** 33.0 *** 33.0 *** 0.4 *** -2.4 *** -2.4 *** -5.1 *** -5.5 *** -5.5 *** -5.5 *** -6.1 *** -2.4 *** -5.1 *** -5.5 *** -6.1 *** -6.1 ***	Height Pa	attern ha2(m) 50 40 40 30 20 10 5 0 -5 -10 (dB, hal = $33$ m) ha1(m) 50 40 10 20 40 10 50 20 20 20 20 20 20 20 20 20 20 20 20 20

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3-3 <b>P</b>	ROPAGATION PATH	DATA	Path Nu. 3516-8	
Site P	Ayütthaya		Sena	
Map No.0 57	370Rosties to not str	Map No.	5037 I	
184 14.20	<u>[158.8]</u> <u>p</u> <u>5.3</u> [778.7]	[ <u>74.20</u> [ <u>184.7</u> ]	<u>762.7</u> 0 <u>61.8</u> <u>7786</u>	
100.30 9.31	<b>/</b>	00.35 100.20		100.25
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	100.3000 ** 100.3500 ** 14.2000 ** 14.2500 **	t Long-2(D.MS t Lati-1(D.MS	108.2500           14.1508	*** *** ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	179.9 *** 158.8 *** 184.0 *** 45.3 ***	$\begin{array}{c c} X & 1-2 (mm) \\ X & 1-0 (mm) \\ Y & 1-2 (mm) \end{array}$	179.6 162.7 184.1 161.8	*** *** *** **
Long. (D.MS) Lati. (D.MS)	ab 90 0 % 6 0100.3425 ### 14,2114 ###	Loug. (D.No		本女女 本女子
G.Elevation		m) G.Elevation	ঔ (m)	
Profile No:	5-3516-8	Type of Pat	h L/S (no reflection	)
		الم الم الم الم الم الم الم الم	ght & Diffraction Loss 18 14.0 28.7 7	本本本 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
	<i>10.1</i>	hal (m) hal (m)	50.0	***
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS)	100.3425 *** 14.2114 *** 100.2432 ***	$ \begin{array}{c} ha2 (m) \\ (k = '4/3) \\ hp (m) \\ Rs (m) \end{array} $	45.0 33.0 35.8 32.5	
d (km)	14.1924 ***	U	7.8 0.24 15. Ld <sup>50</sup> = E	*** *** \$B

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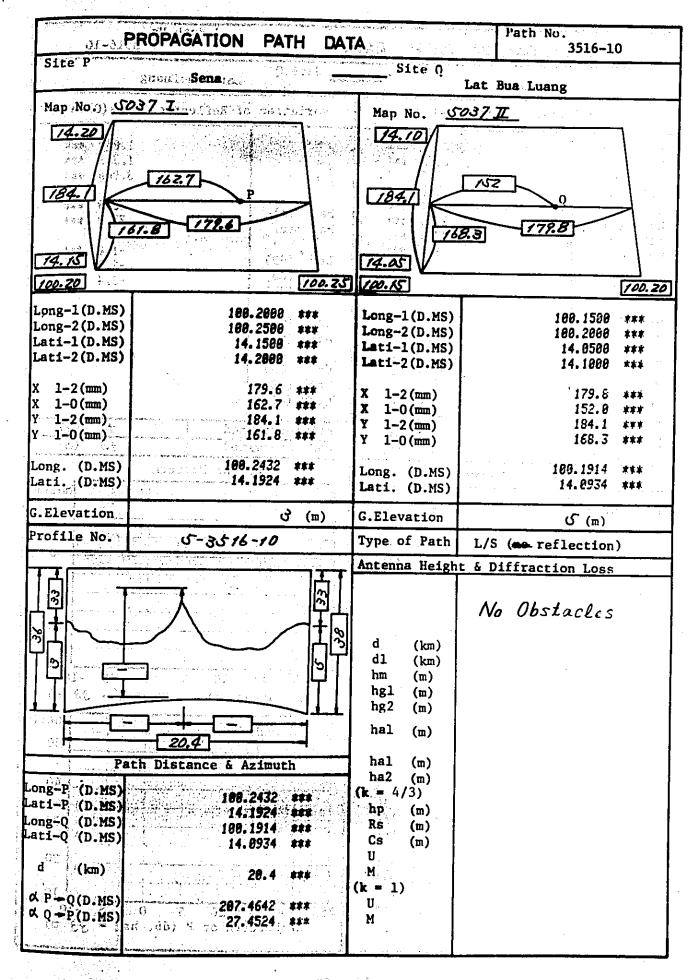
P	ROPAGATION PATH DA	TARE HERE H.	Path No.
Site P	Ayutthaya	Site Q Sen	8. 1
Ref	lection Area(011A-1/3)	Variation of Ref	lection Loss (011A-3/3
f (MHz)	900.88		
K	1.333 ***	K <sup>50</sup>	1.000 ***
hgl (m)	5.0 ***	K AT	1.333 ***
hg2 (m)	3.6 ***		3.888 ***
d (km)	18.1 *** 45.6 ***	hal (m)	45.0 ***
hal' (m) ha2' (m)	33.0 ***	ha2' (m)	33.0 ***
ha2' (m) hr' (m)	3.0 ***		
nr (m)		Lr <sup>fff</sup> (dB)	-11.4 .***
hr (m)		Lr 20 (dB)	-9.9 ***
		Lr 41 (dB)	-11.9 +++
il (m)	10.5 ***		
12 (m)	7.6 ***	hal (m)	
μ (D.MS)	8.13! - ***	hal' (m)	
1 (km)	9 ***		1. 《新聞》:「新聞」(1995) 「「「「「「「「「「「」」)」(1995) 「「「「「「」」」(1995)
)v	0.8 <u>9</u> **•	Lr <sup>#!!</sup> (dB)	,如何是一般系统的。 1
0		Lr <sup>40</sup> (dB)	
e	6.9 ***	Lr <sup>af</sup> (dB)	
r (deg)	180.0 ***	hal determined	<i>45</i> (m)
r min(dB) r max(dB)	-5.6 *** 20.0 ***	ha2 determined	33 (m)
	ection Loss(011A-2/3)		
		Height Pa	ttern (Ris.()) and
al (m)	15 D		ha2(m)
al (m)	45.0 ***		50
r60m(dB)	-1.9 ***		
55	-3.7 ***		
50	-4.8 ***		40
45	-5,4 ***		
40	-5.6 ***		30
35	-5.3 ***		
30	-4.7 ***		20
25	-3.6 ***		
20	-1.9 ***		10
15	0.5 *** 4.0 ***	25 20 15 10 5	
10	7.0 4+4	Lr Pattern at Q	(dB, hal' = 45 m)
2′(m)	33.0 ***		the second se
·~ (w)			hal(m)
60m(dB)	-5.5 ***		-50
55	-5.6 ***		(1) C. S.
50	-5.5 #**		40
45	-5.1 ***		where a second state of the second
40	-4.6 ***		Contraction (1-1-1-1-
35 .			
30	-2.7 *** -1.3 ***		
25	-1.3 *** 8.5 ***		20
20	3.8 ***		(法) (法)
15	6.3 <b>**</b> *		10
10		25 20 15 10 5	0 -5 -10

PROPAGATION	PATH D	ATA se estas	Path No. 3516-9	
Sena		Site Q		
	and the second		Bang Sai	
Stor	o nožáta dev	Map No. J	<u>037 I</u>	
162.7		[1843]	122.5 0 2.8 178.6	
	· <u> </u>			· : `
	1		100.2	9
		Long-1(D.MS)	188.1588 ***	12
				Ċ.
	i situ) - Tour ising situ			
		X 1-2(mm)		.
والمراجع والمراجع والمنافعة والمحافظ والمراجع والمحافظ	184-1-+++			Υ.
	161.8 ***			
And an internet and a second s	e e ster a construction de la destruction de la	1 1-0(mm)		
		Long. (D.MS) Lati. (D.MS)	100.1825 *** 14.1958 ***	
	ය (m)	G.Elevation	<b>2</b> (m)	-
5-3516-	9	Type of Path	L/S (me reflection)	-
		Antenna Heigh	t & Diffraction Loss	4
	~ 」「「「		11. ē — 4000	ľ
28			2.6	ľ
		1		
and the second s		hg2 (m)		
2 9		hal (m)	38.0	
Path Distance & A	zimuth	hal (m)	77.0	
	an a			1
100.2	the second se		·	
			34.8	ľ
100-1				
	eev	U		ŀ
1	1.0 *** .	M	8. ***	ſ
		1	$L^{d,ST} = 6 dB$	l
275.2 95.2	319 ***		2.27 **	Į.
San ( 4) 7 95.2	749 +++	[ M ]	9. ***	
	Sena 2 2002 Sena 2 2002 Sold 7 - Z Sold	Sena: 3 100 5037 Z of last to not the second secon	Site Q         Site Q         Map No. Site Q         Map No. Site Q         Map No. Site Q         Map No. Site Q         Ide. 2000         Ide. 2000	Site 0         Site 0         Site 0         Bang Sai         Site 0         Site 0 <t< td=""></t<>

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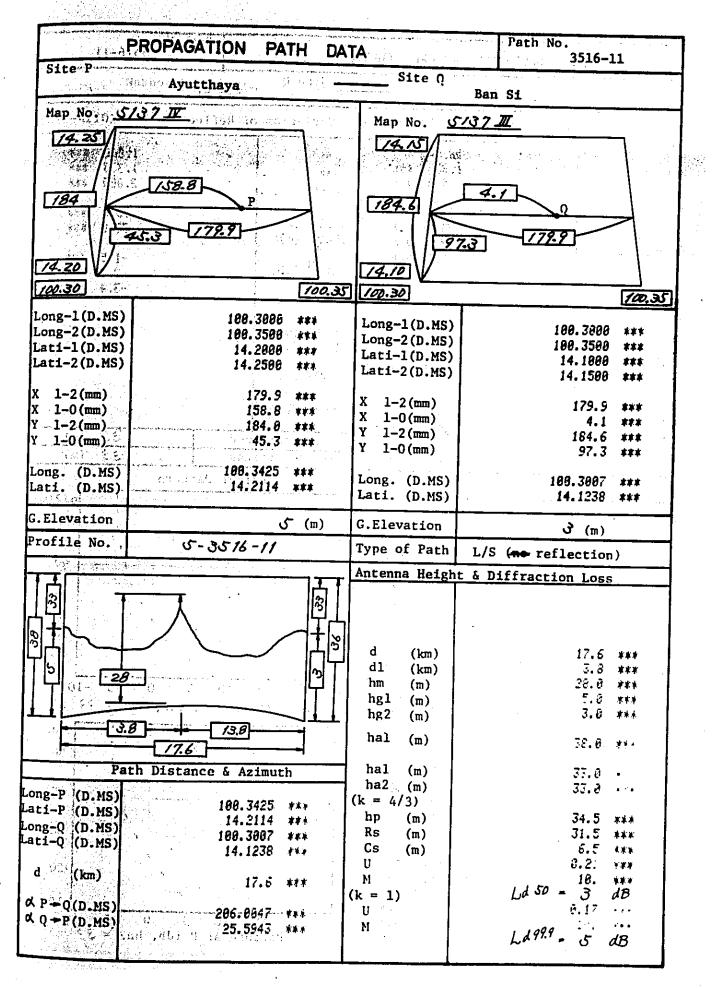
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i w			Landa - Ladar Ball Boyana - Joseffe	- terrainfined States - Los 18 Pris Installanger eine a reero da	in a start and
P	ROPAGATION PA	TH DAT		Path No	3516-9
Site P	Sena	<u>بر المراجع الم مراجع</u>	Site Q	Bang Sai	1 - 293 2 (c. 1) States of the states of the
Ref	lection Area(011A-1	/3)	Variation	of Reflection	Loss (011A-3/3)
f       (MHz)         K       hg1 (m)         hg2 (m)       (km)         d       (km)         ha1' (m)       ha2' (m)         hr' (m)       (m)         hr (m)       (m)         d1 (m)       d2 (m)         ψ       (D.MS)         T1 (km)       Dv	908.0 1.33 3. 2. 11. 33. 33. 3. 3. 5. 6.191 5. 0.9	8 *** 8 *** 8 *** 8 *** 8 *** 8 *** 8 *** 6 *** 4 *** 1 *** 4 ***	K <sup>41,4</sup> K <sup>50</sup> K <sup>41</sup> hal (m) ha2' (m) Lr <sup>92</sup> (dB) Lr <sup>41</sup> (dB) hal (m) hal (m) hal (m) hal (m) hal (dB) Lr <sup>92</sup> (dB)		1.000 **** 1.333 *** 3.000 *** 33.0 *** 33.0 *** -5.6 *** -5.6 *** -5.5 *** (24.1) - 23 (24.1) - 23
Pe ∯r (deg) Lr min(dB) Lr max(dB) Ref1		8 ***	Lr *' (dB) hal determi ha2 determi		33. (m)
hal (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	33.6 16.5 4.6 -0.7 -3.3 -4.8 -5.5	3 *** 3 *** 3 *** 3 *** 3 *** 3 *** 5 ** 5 *** 5	25 20 15		ha2(m) 50 
ha2' (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	13.3 3.2 -1.0 -3.4 -4.8 -5.5	*** *** *** *** *** *** *** ***	25 20 15 Lr Patter	10 5 0 n at P (dB, h	hal (m) 50 40 11 20 10 20 10 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20



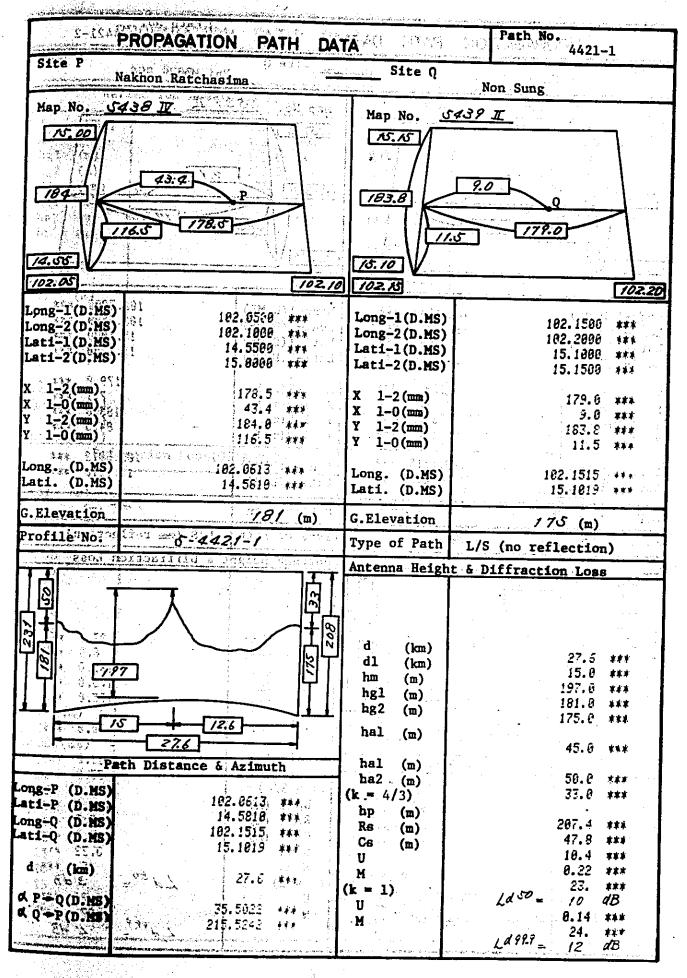
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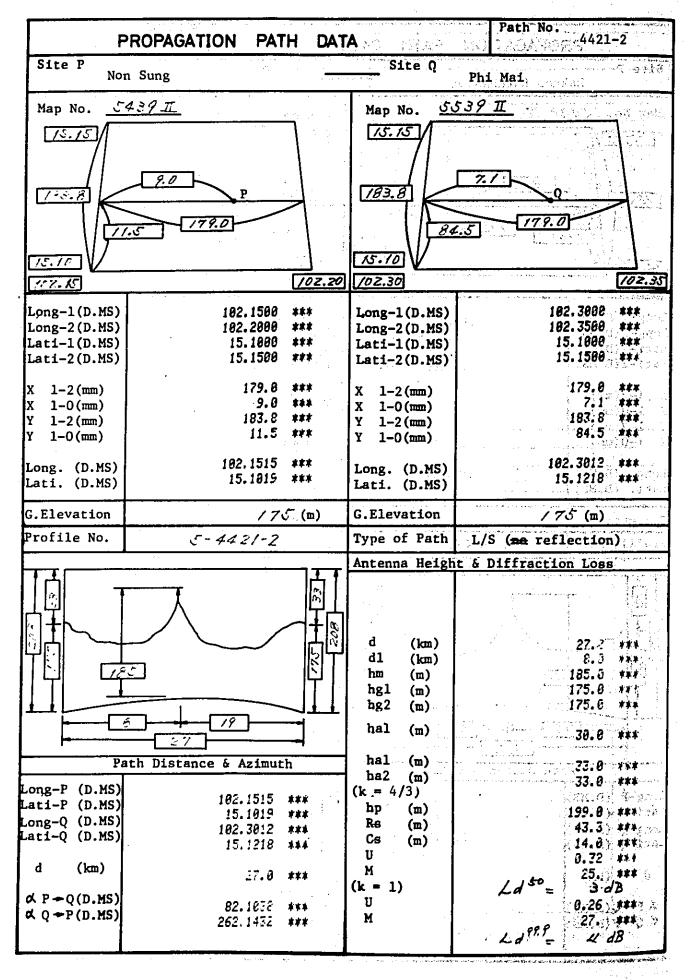
·* · · · · · ·	and and a second second	and the second secon	antan ing mpananan ar ar arang da sananan a sanang	944/11-146-1499- <b>2-1</b> 949-12-1410-14-14-14-14-14-14-14-14-14-14-14-14-14-	coget approximation
P	ROPAGATION P	ATH DA	TA HTAM U	Path No. 3516-1	0
Site P	Sena	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Site Q La	teBua Luang	1 1292.0
Ref	lection Area(011A-	1/3)	Variation of	Reflection Loss (O	11A-3/3
f (MHz) K hg1 (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr (m) d1 (m) d2 (m) ↓ ↓ (D.MS) T1 (km) Dv /e	3 5 20 33 33 2 2 9 10 0.09 14 0.0 9	33. ### 6 *** 7 *** 7 *** 7 *** 7 *** 7 *** 7 *** 7 *** 7 *** 7 *** 8 *** 8 *** 8 ***	K K k ha1 (m) ha2' (m) Lr Lr (dB) Lr (dB) ha1 (m) ha1' (m) ha1' (m) Lr Lr (dB) Lr	1.000 1.333 3.006 33.0 -1.0 -2.0 -3.4 (7.1.0 -2.0 -3.4	
∳r (deg) Lr min(dB)	180 -5	.0 *** .1 ***	hal determined	(410) 33	
Lr max(dB) Refl	14.		ha2 determined	33	(m)
keri hal (m)	ection Loss(011A-2 33.		Height	Pattern	ha2(m)
Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	-1. 0. 2. 4.	9 *** 6 *** 1 ***			40 30 20 10
ha 2' (m) Lr 60m(dB) 55 50 45 40 35 30 25 20	33. -5. -5. -4. -4. -3. -2. -1.	8 *** 1 *** 0 *** 7 *** 1 *** 4 *** 5 *** 2 *** 3 ***		t Q (dB, hal' = 33	m) hel(m 50 40 30 20

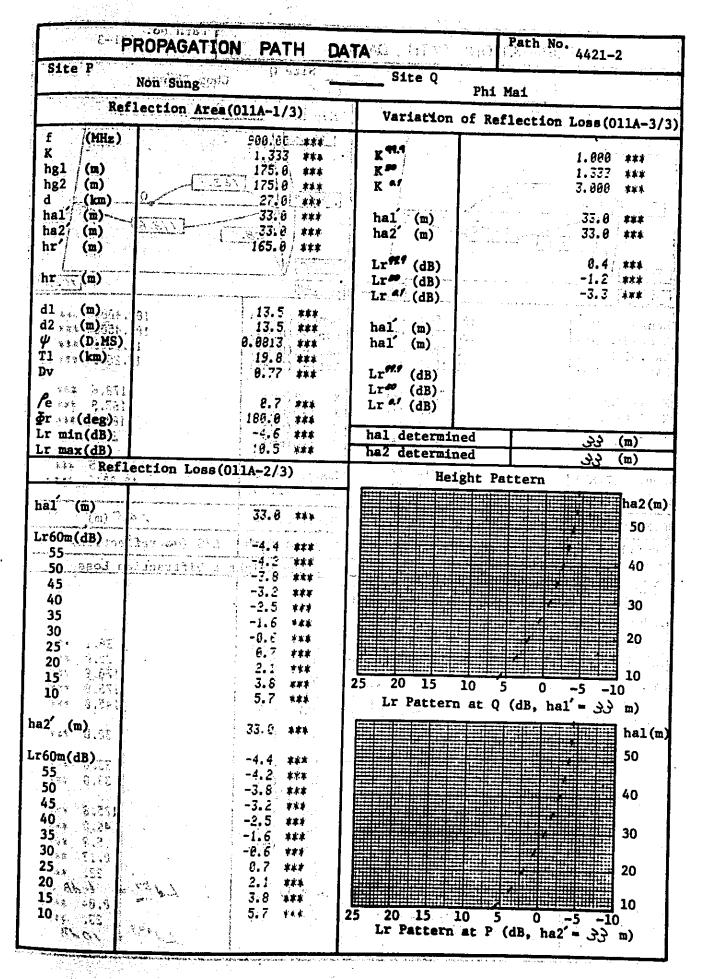


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P	ROPAGATION PATH	ATA	Path No. 3516-11
Site P	Ayutthaya	Site Q	Ban Si
Ref	lection Area(011A-1/3)	Variation of	Reflection Loss (011A-3/3
f (MHz) K hgl (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr (m) d1 (m) d2 (m) Ψ (D.MS) T1 (km) Dv	900.00 **** 1.333 *** 5.0 *** 3.0 *** 33.0 *** 33.0 *** 5.6 *** 5.6 *** 8.5 *** 0.1940 *** 12.3 *** 0.87 ***	$ \begin{array}{c}     K^{97.9} \\     K^{50} \\     K^{61} \\     hal (m) \\     ha2' (m) \\     Lr^{97.9} (dB) \\     Lr^{50} (dB) \\     Lr^{41} (dB) \\     hal (m) \\     hal' (m) \\     Lr^{97.9} (dB) \\     Lr^{90} (dB) \end{array} $	1.600 *** 1.333 *** 3.000 *** 33.0 *** -1.5 *** -2.3 *** -3.4 ***
Po Pr (deg) Lr min(dB) Lr max(dB) Pof1	8.8 *** 188.8 *** -5.1 *** 14.8 *** ection Loss(011A-2/3)	Lr " (dB) hal determined ha2 determined	d 33 (m)
ha1 (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10 .r60m(dB) 55 50 45 40 35	33.0 *** $-5.1 ***$ $-5.1 ***$ $-4.9 ***$ $-4.4 ***$ $-4.4 ***$ $-3.7 ***$ $-2.8 ***$ $-1.5 ****$ $0.1 ***$ $2.3 ***$ $5.1 ***$ $8.9 ***$ $-5.1 ***$ $-5.1 ***$ $-4.8 ***$ $-4.3 ***$ $-3.7 ***$ $-2.8 ***$ $-1.6 ***$	25 20 15 1	ht Pattern ha2(m) 50 40 30 20 20 10 0 5 0 -5 -10 at Q (dB, hal' = 33 m) hal(m 50 40 40 40 40 40 40 40 40 40 40 40 40 40







.

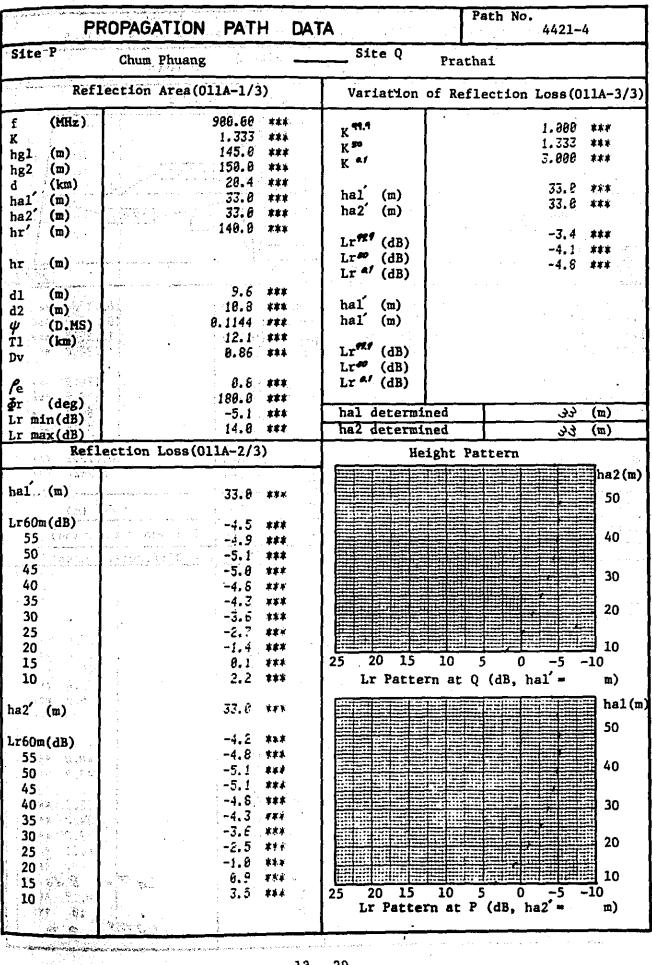
F	ROPAGATION	PATH DAT	A		Path No. 4421-3
Site P	Phi Mai		Site	Q Chu	m Phuang
Мар No. <u>53</u>	<u>-39 II</u>	t giragat	Map No.	5539	
X. 10	7.1 P 74.5 179.0		<u>15.25</u> [ <u>/64.0</u> ]	<u>763.</u> 28.1	2 9 9 778.6 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
102.30	·. ·	102.35			- 102.4
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	102.3 102.3 15.1 15.1	1500 *** 000 ***	Long-1(D Long-2(D Lati-1(D Lati-2(D	.MS) .MS)	102.4006 *** 102.4500 *** 15.2000 *** 15.2500 ***
$\begin{array}{c} X & 1-2 (mm) \\ X & 1-0 (mm) \\ Y & 1-2 (mm) \\ Y & 1-0 (mm) \end{array}$	18	9.0 *** 7.1 *** 3.8 *** 4.5 ***	X 1-2 (m X 1-0 (m Y 1-2 (m Y 1-0 (m	m) n) m)	178.6 *** 163.9 *** 184.0 *** 28.1 ***
Long. (D.MS) Lati. (D.MS)	102.3 15.1	012 *** 218 ***	Long. (D Lati. (D	•••••	102.4435 *** 15.2046 ***
G.Elevation		175 (m)	G.Elevat:	ion	/45 (m)
rofile No.	5-442	/-3	Type of 1	Path L/S	(mo reflection)
		Imuth	d (1 dl (1 hm (1	cm) cm) a) a) a)	30.1 *** 21.0 *** 170.8 *** 175.0 *** 145.0 *** 30.0 *** 33.0 ***
$d (km)$ $A P \rightarrow Q(D.MS)$ $A P \rightarrow Q(D.MS)$ $A P \rightarrow Q(D.MS)$	102.30 15.12 162.44 15.20	312 *** 218 *** 35 *** 346 *** 3.1 ***	ha2 (n (k = 4/3) hp (n Rs (n Cs (n U M (k = 1) U M	a) ) )	$L_{d} = \frac{50}{23.8} = \frac{50.6}{33.8} = \frac{50.6}{33.8} = \frac{50.6}{46.8} = \frac{50.8}{22.844} = \frac{50.8}{22.8$
			- 26		en kan den er forstanden songe men i songe versteren en standeren er son son. I songe versteren er songe verstere

	PR	OPAGATION	PAT	H DAT			Path No	4421-3	
Site		Phi, Mai	<u>.</u>		Site	´	um Phuang		• .
a a a a a a a a a a a a a a a a a a a	Refl	ection Ares(O	11A-1/3	)	Variat	_~~	Reflection		11A-3/
f	(MHz)		900.00						
K			1.323		K			1.005	
hgl	(m)	and a state of the state of the state	175.0		K <sup>are</sup>	- 1 L		1.333	
hg2 👔	(m)	يې بې شوې د او کې کې کې د د د د کې کې د د د د د د د د	145.0	<b>学学</b> 学	K **			3.000	
	(km)	and a second second Second second	38.1	***``+ ***	hal (m	<b>N 1</b>			an taon an
hal				177 178	hal (m ha2 (m			33.0 77.0	
ha2		and the second		11.11.11 11.11.11				33.8	, <b>**</b> *
hr'i 🗇	(m)		· • • • • • • • • • • • • • • • • • • •		Lr <b>***</b> (d	2		4 5	***
	<u></u>	الي. وي الارتيبية بمعهو تهت النفر الالتحافي			Lr <sup>90</sup> (d	Rí I		1.7	
hr	(Ш)	4			Lr #/ (d	B)	. *	-1.5	
	(m)	and the second	15.3	***	<u> </u>	- <b>*</b>			All Constants
43	(m)	α • <b>Σ</b>	10.8	***	hal (m	<b>)</b> 1			
	(D.MS)		9.062E	***	hal (m			. *	
7 - 34 T1 - 34	(km)		25.7		~ ~				- 1
Dv			8.73		Lr"" (d)	B)		•	÷.,
	14 24 20 1	× 1			Lr# (dl				
Pesa			0.7	***	Lr 💜 (d)	B)			
or and	(deg)		180.0						
	n(dB)		-4.6		hal dete			33	(m)
	x(dB)		10.5	***	ha2 dete	ermined		33	(m)
5.5.4	Refle	ection Loss(0)	L1A-2/3	)	• •	Height	t Pattern		
		<u> </u>							ha2(1
hal	(m)	anna an an tha an thail an thai	33.9	arata.					50
Lr60m	(dB)	and the second of the second secon	-3.9	1					Ħ
	an a	e de la contra de la Namente de la contra	-3.5						40
50		i shaqaa iyo ahaa ahaa ahaa ahaa ahaa ahaa ahaa ah	-2.5	**** ****					
45	2		-1.6	***					
40			-8.4	***					<b>≣</b> 30
35	•	:	1.0	***					
30		,	2.7	***					<b>≣</b> 20
25	90 (A) (1) 10 (1) (1)		14.7	***					
20		4 	6.8	***					= 10
15	1954779 <b>4</b> 1964-7953	:	8.5	¥##		15 10			-10
10		:	13.2	*##	Lr Pa	ittern a	t Q (dB,	hal' =	m)
ha2'	<u></u>	· · · ·	97 A						📰 hal
1192	(ш)	. ,	73 E	***				71	
Lr60m(	(AR)		-2 7	***				7	50
55 S	( <b>u</b> )	t.	1.7	***					<b>.</b>
50		:	-1.1	\$\$F					40
45		· · · · · · · · · · · · · · · · · · ·	+0.4	***					
		•	9.4	***					30
40		·	1.3	×**					
40 35		;	2.3	***					
35,	44 8 1	· · · · · · · · · · · · · · · · · · ·	7.3	***					20
35, 30			24.2						
35, 30, 25,		a a construction of the second se	4.5	***					
35, 30			4.5 5.7						10
35, 30 25 20 (4)			4.5 5.7 6.9	***	25 20	15 10	5 0 t P (dB,		10 -10 m)

13 - 27

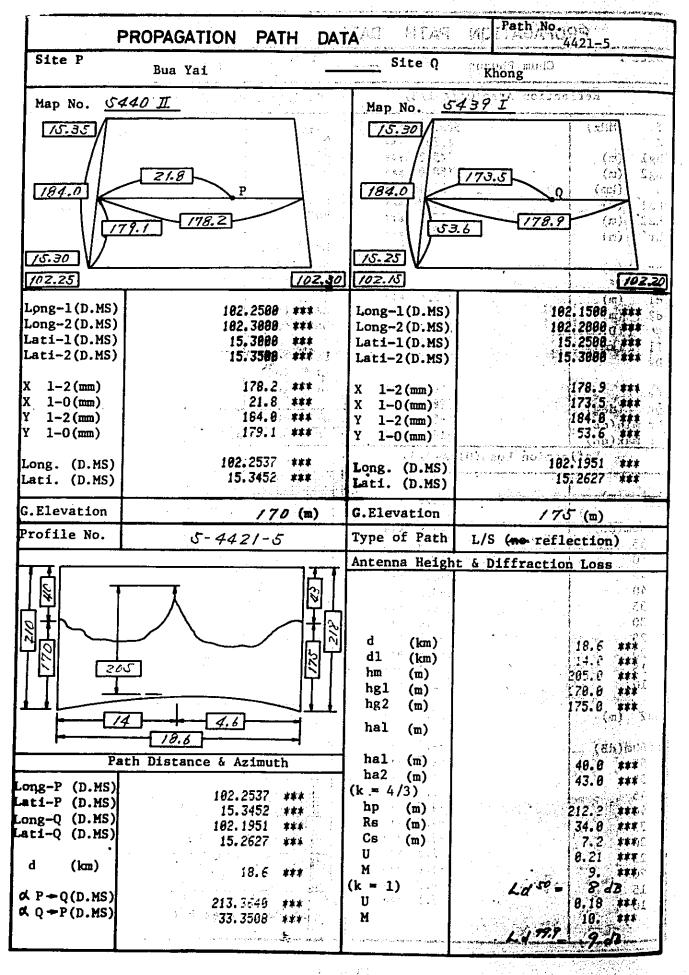
P	ROPAGATION P	ATH DAT	And	Path No. 4421-4
Site P	Chum Phuang	· · · ·	Site Q	Prathai
Map No. 53	39 II	· · · · ·	Map No. 5	540 III not contrast
<u>15.25</u> 184.0	[763.7] P [178.6]		<u>15.35</u> 184.0	123.2 0 178.6
15.20	A.[ ]		15.30	•.9 110.0 (a)
102.40		102.45	102.40	<i>[02.4</i> ]
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS) X 1-2(mm) X 1-0(mm)	102.480 102.450 15.200 15.250 15.250 178. 178.	0 *** 0 *** 6 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS) X 1-2(mm) X 1-0(mm)	102.4000 *** 102.4500 *** 15.3000 *** 15.3500 *** 178.6 *** 123.2 ***
Y 1-2(mm) Y 1-0(mm)	184. 23.	1 ***	Y 1-2(mm) Y 1-0(mm)	184.0 **** 64.9 ****
Long. (D.MS) Lati. (D.MS)	102.443 15.204		Long. (D.MS) Lati. (D.MS)	102.4327 *** 15.3146 ***
G.Elevation		45 (m)	G.Elevation	/50 (m)
Profile No.	5-4421	- 4	Type of Path	
	2 		d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m) hal (m)	20.4 # 20.4 # 13.0 # 160.8 # 145.0 # 158.0 # 33.0 #
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS)	102.443 15.204 102.432 102.432 15.314	35 *** 16 *** 27 ***	ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U	33.0 1175.5 13916 15.5 15.5 0.39
d (km) & P + Q(D.MS) & Q + P(D.MS)	20. 354.155 174.155	55 ***	M (k = 1) U M	22. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1

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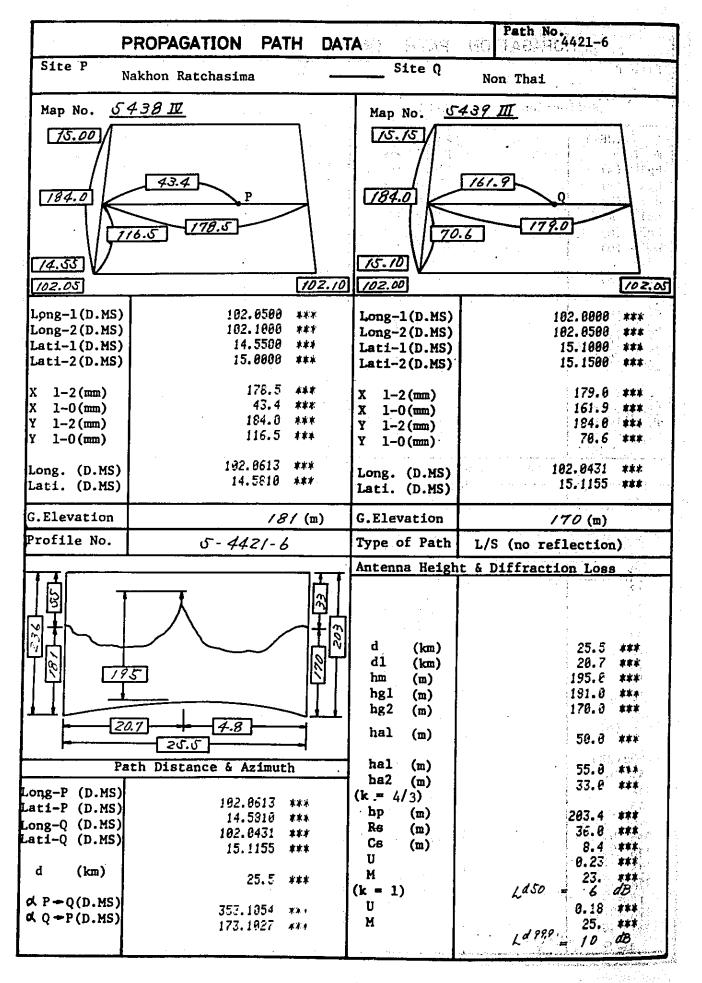
13 - 29

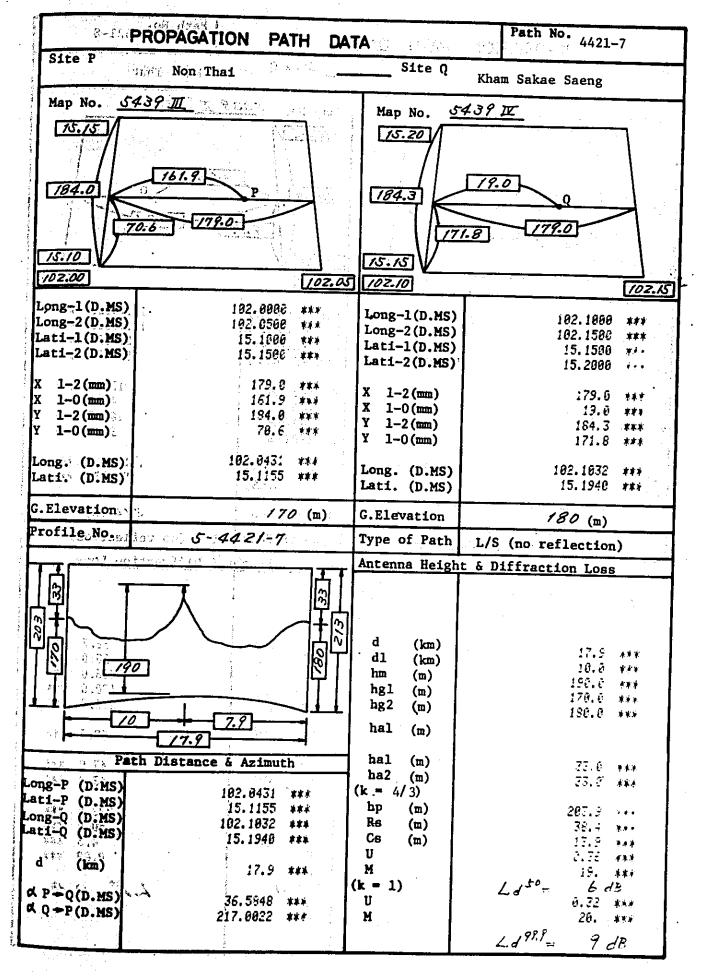


PROPAGATIC		ΓA.	Pat	4421-5
Site P Bua Yai		Site Q	Khong	
Reflection Area	a(011A-1/3)	Variation	of Reflect	ion Loss(011A-3/3)
f (MHz)	988.06 ***	K 41.1	T	1.889 ***
	· 1.333 ***	K 50	1	1.333 ***
ngl (m) i har sa	. 170.0 ***	K at		3.000 ***
ng2 (m)	175.0 ***	Ĩ.		
d (km)	18.6 *** 48.0 ***	hal (m)	l stille series	49.8 ***
nal; (m).	43.0 ***	ha2 (m)	1.	43.0 ***
1a2 (m)	170.0 ***	1102 (111)		-5.0 ***
nr' (m)	11010 174	Lr <sup>92,9</sup> (dB)	l.	-5.1 ***
and the second	na se la filma de la com	Lr <sup>50</sup> (dB)		-5.6 ###
nr. (m)		Lr 4/ (dB)		TT I I I I I I I I I I I I I I I I I I
	• • • • • • • • • • • •		1	· · · · · · · · · · · · · · · · · · ·
11. (m) 12., (m)	2.6 ¥** 18.3 ***	hal (m)	1	
	0.1418 ***	hal (m)		
μ (D.MS) [] (km)	5.4 XXX		1	
	0.89 ×××	Lr*** (dB)		· · · ·
A second se		Lr <sup>50</sup> (dB)	1	
Personal Address	0.5 ***	Lr af (dB)	1	· · · · · ·
þr (deg)	186.2 ***		<u></u>	۰۰ <del>محمد با المحمد الم</del>
r min(dB)	-5.1 ***	hal determ:		<i>40</i> (m)
r max(dB)	14.9 ***	ha2 determ:	ined	43 (m)
Reflection Loss	(011A-2/3)	He	eight Patte	ern
		·		ha2(m)
nal (m)	48.8 ***		and the second second	
.r60m(dB)	-3.6 ***			
55	-4,4 ***			40
50 cateron of standards	-4,9 ***		· . :	
45	-5.1 ***			
40	-5.0 ***			30
35	-4.6 *** -3.9 ***			······································
30	-3.9 *** -3.9 ***			20
. 25	-1.6 ***			
· · · · · · · · · · · · · · · · · · ·	0.3 ***			<u> </u>
<b>20</b> No. 19 Marca		25 20 15	10 5	0 -5 -10
15				
			ern at Q (d	B, hal' = $40 \text{ m}$ )
15 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			ern at Q (d	B, $hal' = 40$ m)
15 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	2.8 *** 43.8 ***		ern at Q (d	B, hal' = 40 m) hal(m
15 10 a2' (m)	2.8 *** 43.0 *** -1.8 ***		ern at Q (d	B, $hal' = 40$ m)
15 10 a2' (m) r60m(dB)	2.8 *** 43.0 *** -1.8 *** -3.5 ***		ern at Q (d	B, hal' = 40 m) hal(m
15 10 a2' (m) r60m(dB) 55	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 ***		ern at Q (d	B, hal' = 40 m) hal(m
15 10 a2' (m) 55 50	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 ***		ern at Q (d	B, hal' = 40 m) hal(m) 50
15 10 a2'(m) 55 50 45	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 ***		ern at Q (d	B, hal' = 40 m) hal(m) 50 40
15 10 a2 <sup>2</sup> (m) 55 50 45 40	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 ***		ern at Q (d	B, hal' = 40 m) hal(m) 50
15 10 ma2' (m) r60m(dB) 55 50 45 40 35	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 *** -4.8 ***		ern at Q (d	$\begin{array}{c} \text{B, hal' = 40 m)} \\ \text{hal (m)} \\ \text{50} \\ \text{40} \\ \text{40} \\ \text{30} \end{array}$
15 10 a2 <sup>2</sup> (m) 55 50 45 40	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 *** -4.8 *** -4.1 *** -3.6 ***		ern at Q (d	B, hal' = 40 m) hal(m) 50 40
15 10 a2'(m) 55 50 45 40 35 30 25	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 *** -4.1 *** -3.6 *** -3.6 ***		ern at Q (d	$\begin{array}{c} \text{B, hal' = 40 m)} \\ \text{hal (m)} \\ \text{50} \\ \text{40} \\ \text{40} \\ \text{30} \end{array}$
15 10 a2' (m) 55 50 45 40 35 30 25 20	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 *** -4.1 *** -3.6 *** -1.4 *** 1.0 **>		ern at Q (d	$\begin{array}{c} \text{B, hal' = 40 m)} \\ \text{hal (m)} \\ \text{50} \\ \text{40} \\ \text{40} \\ \text{30} \\ \text{20} \\ \text{10} \end{array}$
15 10 a2'(m) 55 50 45 40 35 30 25	2.8 *** 43.0 *** -1.8 *** -3.5 *** -4.5 *** -5.0 *** -5.1 *** -4.8 *** -4.1 *** -3.6 *** -3.6 ***	Lr Patte	10 5	$\begin{array}{c} \text{B, hal'} = 40 \text{ m} \\ \text{hal}(\text{m}) \\ \text{50} \\ 40 \\ 40 \\ 40 \\ 30 \\ 20 \end{array}$

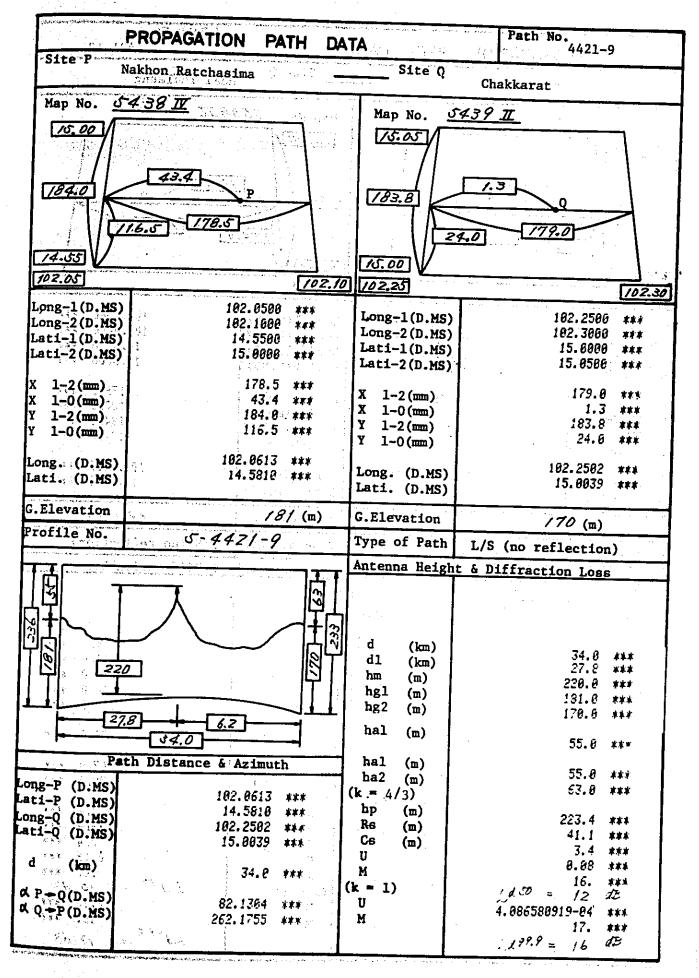
13 - 31

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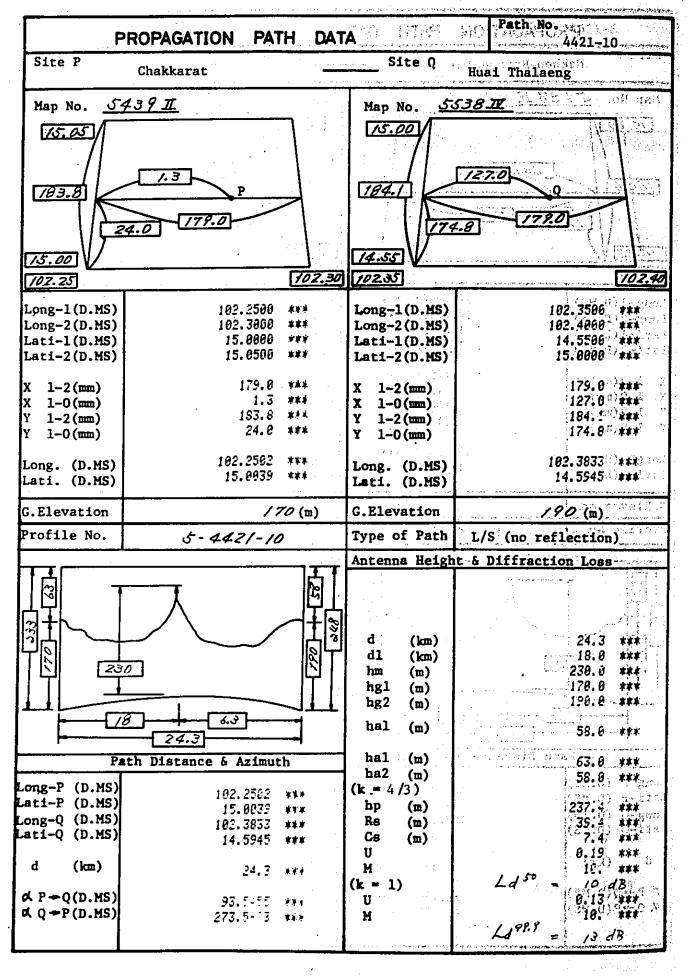


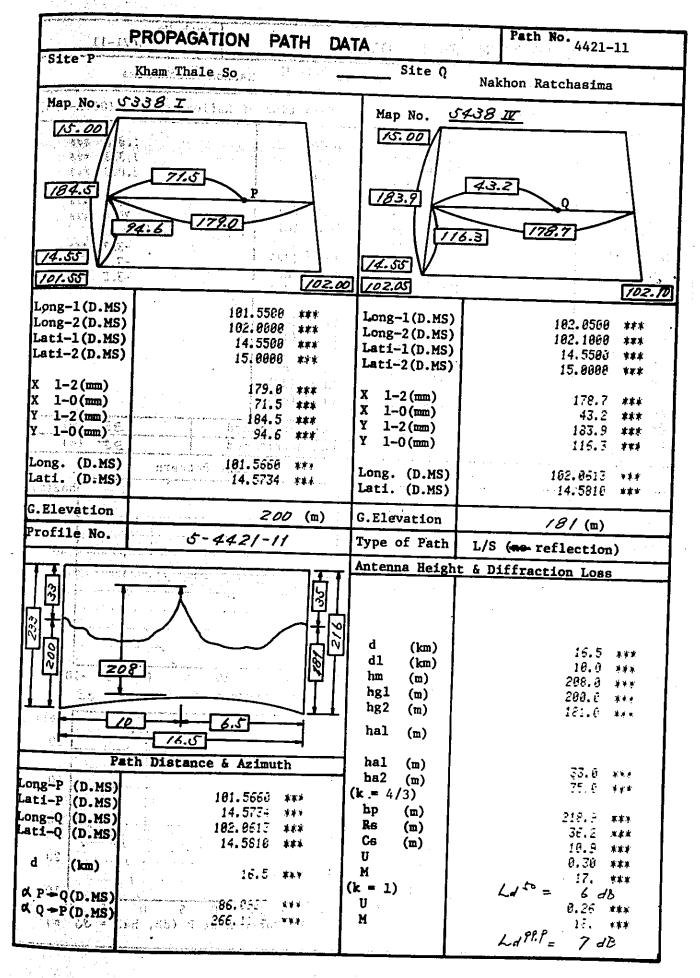


4	ROPAGATION PATH DA	TANG	Pach No. 4421-8
Site P	Non Thai -	Site Q	Dan Khun That
Map No. <u>54</u> [15.15] [184.0] [15.10] [102.00]	<u>439 III</u> <u>161.9</u> P <u>70.6</u> <u>179.0</u> <u>102.0</u>	15-15 184.0 9 15-10	339 I 44.3 0 778.7 701.50
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	102.0080 *** 102.0500 *** 15.1000 *** 15.1500 *** 179.0 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	101.5800 \$******** 15.1808 ****** 15.1500 ******
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm) Long. (D.MS)	161.9 *** 184.0 *** 70.6 *** 102.0431 ***	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm) Long. (D.MS)	179:1) **** 44.3) **** 184:3) **** 2:0) **** 101:46:4
Lati. (D.MS) G.Elevation	15.1155 *** /70 (m)	Lati. (D.MS) G.Elevation	2/0 (m) ****:
Profile No.	5-4421-8	Type of Path	L/S (no reflection)
	$2 \rightarrow 7 \rightarrow 76.7$	d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m)	32.7 *** 32.7 *** 28.8 *** 218.8 *** 178.9 *** 210.0 *** 50.0 ***
Pa Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS) d (km) d (km) d (km) d (km) d (km)	IO2.0431         ***           15.1155         ***           101.4514         ***           15.1230         ***           32.7         ***           271.5456         ***           91.5010         ***	ha1 (m) ha2 (m) (k = 4/3) hp (m) Re (m) Cs (m) U M (k = 1) U M	43.0 *** 43.0 *** 43.0 *** 222.5 *** 50.9 *** 4.5 *** 8.89 *** 6.89 *** 6.89 ***

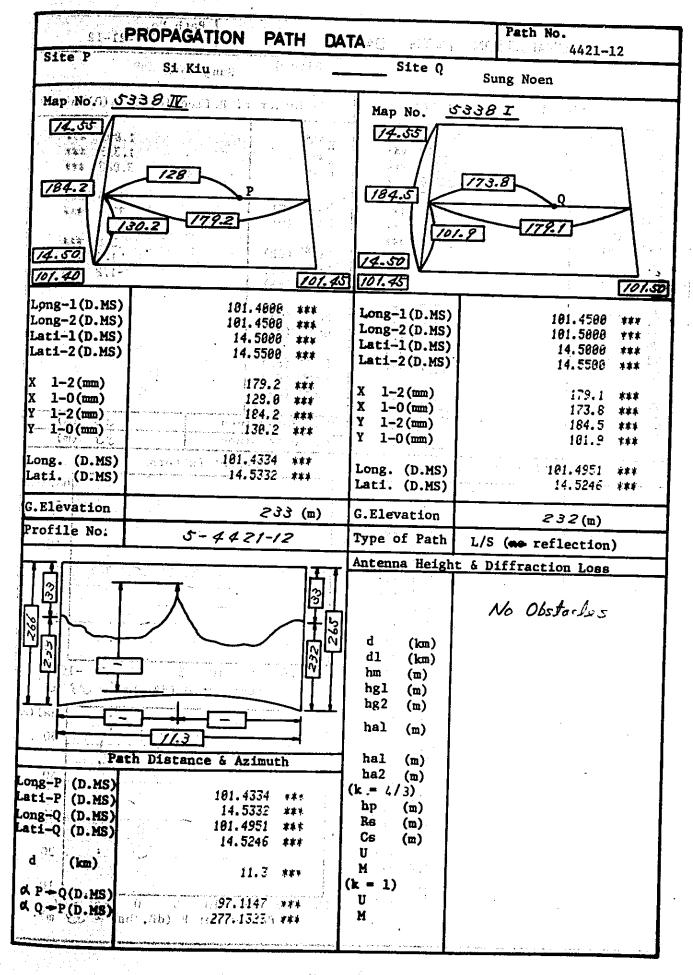


1.1.6



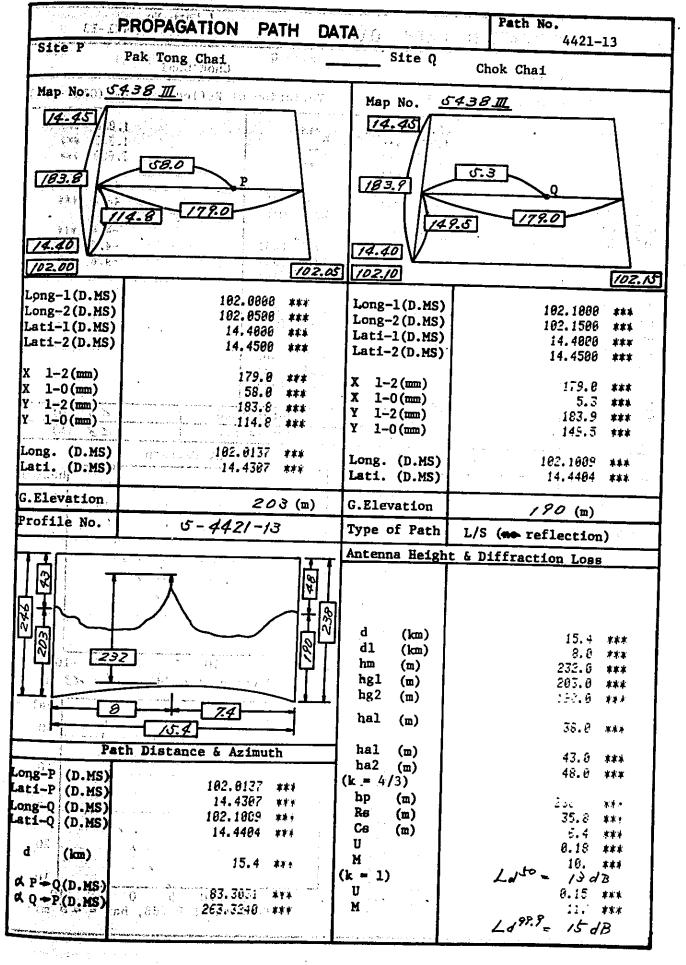


Nekhor Refchering           Reflection Area(011A-1/3)         Variation of Reflection Lose(011A-3/3)           Variation of Reflection Lose(011A-2/3) <th< th=""><th>P</th><th>ROPAGATION PATH DA</th><th>TA U TA HO TA</th><th>:h,No. 4421-11</th></th<>	P	ROPAGATION PATH DA	TA U TA HO TA	:h,No. 4421-11
(MHz)       900.00       ***       Ref.       (Mathematical and the state of the	Site P	Cham Thale So	Site Q Nakhon R	atchasima
t       1.332       ***       R**       1.400       ***         121       200, 0       ***       1.333       ***       1.333       ***         121       101, 2       ***       R**       1.333       ***       1.333       ***         121       101, 2       ***       R**       1.333       ***       1.333       ***         121       101, 2       35.8       ***       ha1' (m)	Ref	lection Area(011A-1/3)	Variation of Reflec	tion Loss (011A-3/3)
g1       m       200.0       ess $\mathbb{R}^{97}$ $\mathbb{R}^{97}$ $\mathbb{R}^{37}$			ν	1 400 +++
light (m)       light (m) <thlight (m)<="" th=""> <thlight (m)<="" th=""> <thlight (m)<="" th=""></thlight></thlight></thlight>	K (-)		K so	
a1' (m)       33.0       ***         a1' (m)       35.0       ***         a2' (m)       185.6       ***         r (m)       184.0       ***         1 (m)       9.8       ***         2 (m)       6.7       ***         1 (m)       9.8       ***         2 (m)       6.7       ***         1 (km)       8.2       ***         2 (m)       6.7       ***         1 (km)       8.2       ***         1 (km)       8.2       ***         2 (m)       6.7       ***         3 (m)       8.2       ***         1 (km)       8.2       ***         2 (m)       8.91       ***         2 (m)       8.91       ***         2 (m)       33.0       ***         2 (m)       33.0       ***         2 (m)       33.0       ***         3 (m)       3 (m)       ***         2 (m)       33.0       ***         3 (m)       3 (m)       ***         4 (m)       3.9       ***         3 (m)       3 (m)       ***         4 (m)       3.9	<b>v</b>			3.808 ***
a1' (m)       33.6       ###       ha1 (m)       35.6       ###         a2' (m)       185.6       ###       ha2' (m)       35.6       ###         r (m)       195.6       ###       ha2' (m)       -3.5       ###         r (m)       9.8       ###       ha2' (m)       -3.5       ###         1 (m)       9.8       ###       ha1' (m)       -3.5       ###         2 (m)       6.7       ##       ha1' (m)       -3.5       ###         1 (m)       9.8       ###       ha1' (m)       -3.5       ###         2 (m)       6.7       ###       ha1' (m)       -3.5       ###         1 (km)       8.2       ###       ha1' (m)       -3.5       ###         2 (m)       6.7       ###       ha1' (m)       -3.5       ###         1 (km)       6.2       ###       ha1 determined       32       -7.5         r max(dB)       -3.5       ###       ha2 determined       32       -6.6       ###         r max(dB)       -3.6       ###       -50       -2.7       ###       -50       -2.7       -10       10       -75' -10         a1' (m)       3.9			د میں ایک	77 6 444
a2 (m) $200$ <	hal (m)			
1       (m)       184.0       11 $1x^{eff}$ (dB)       -3.3       344.         1       (m)       9.8       11 $1x^{eff}$ (dB)       -3.5       344.         1       (m)       9.8       11 $1x^{eff}$ (dB)       -3.5       344.         1       (m)       6.7       11 $1x^{eff}$ (dB)       -3.5       344.         1       (km)       8.2       11 $1x^{eff}$ (dB)       -3.5       11         1       (km)       8.2       11 $1x^{eff}$ (dB)       11       11       11       11 $1x^{eff}$ (dB)       11			naz (m)	
r       (m) $184.0$ $184.0$ $184.0$ $184.0$ $184.0$ $184.0$ $1164.0$	hr' (m)		L.T. (AB)	
1       (m)       9.8       ***       ha1'(m)       3.3       ***         1       (m)       6.7       ***       ha1'(m)       ha1'(m)       ha1'(m)         2       (m)       6.7       ***       ha1'(m)       ha1'(m)       ha1'(m)         2       (m)       6.5       ***       ha1 determined       33       (m)         2       (m)       6.0       ***       ha1 determined       33       (m)         2       (m)       6.0       ***       ha1 determined       33       (m)         r       max(dB)       6.0       ***       ha2 determined       35       (m)         a1' (m)       33.0       ***       ha2 determined       35       50       -1.9       ***       ha2 determined       32       (m)         a1' (m)       33.0       ***       ***       30       -2.9       ***       30       -2.0       ***       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -40       -50       -5'       -10       10       10	h <del>r</del> (m)			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ur (m)	184.0 ***		-3.3 ***
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	dl (m)	9.8 ***		Constant and the second se
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	d2 (m)			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
v $\theta, S1 \ txx$ $Lr^{so}$ (dB) $Lr^{so}$ (dB) $S_{2} \ (n)$ Reflection Loss(011A-2/3)       Height Pattern         ai' (m)       33.0 ***       hal determined $35 \ (n)$ r60m (dB)       2.4 *** $hal 2$ determined $35 \ (n)$ 55       -0.1 *** $hal 2$ determined $35 \ (n)$ 40       -1.9 *** $hal 2$ determined $35 \ (n)$ 55       -0.1 *** $af \ (n)$ $af \ (n)$ 55       -0.1 *** $af \ (n)$ $af \ (n)$ 20       -2.9 *** $af \ (n)$ $af \ (n)$ 25       -2.1 *** $25 \ (n)$ $af \ (n)$ 20       -3.6 *** $20 \ (n)$ $af \ (n)$ 21 $af \ (n)$ $af \ (n)$ $af \ (n)$ 26 $af \ (n)$ $af \ (n)$ $af \ (n)$ $af \ (n)$ 20       -2.1 *** $af \ (n)$ 27 $af \ (n)$ $af \ (n)$ $a$			nai (m)	11 10 10 1-1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	• •		Lr <sup>99,9</sup> (dB)	
r       (deg)       188.0       ###       hal determined $33.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $36.0$	DV	0.51 ***		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Pe	8.5 ###	Lr 4/ (dB)	and the second
Imax(dB) $6.0 \pm sis$ ha2 determined $35 - (m)$ Reflection Loss(011A-2/3)         Height Pattern         ai' (m)         ai' (m)         33.0 $zis$ bit is a colspan="2">bit is a colspan="2"         55         50         -0.1 $sis$ 40         -3.5 $sis$ 20         -2.1 $sis$ 20         -2.1 $sis$ 25         -2.1 $sis$ 25         -2.1 $sis$ 20         -0.6 $sis$ 10         10         10         10         10         10         10         10         10         10         10         10         10         10         10     <				
Reflection Loss(011A-2/3)         Height Pattern         hai (m)         33.0 ***         15         55         -0.1 ***         50         -0.1 ***         45         -0.1 ***         40         -3.0 ***         -2.9 ***         -3.0 ***         -2.9 ***         -2.9 ***         -3.0 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.1 ***         -2.0 ***         -2.1 ***         -2.0 ***         -2.1 ***         -2.0 ****         -2.0 ****         -1.0 ***         -1.0 ****         -1.0 ****         -1.0 ****	Lr min(dB)			
aí (m) $33.0$ $***$ r60m (dB) $2.4$ $***$ $55$ $-0.1$ $***$ $50$ $-1.9$ $***$ $50$ $-1.9$ $***$ $40$ $-3.5$ $***$ $40$ $-3.5$ $***$ $40$ $-3.5$ $***$ $40$ $-3.5$ $***$ $30$ $-3.6$ $***$ $25$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $20$ $-2.1$ $***$ $10$ $3.9$ $***$ $25$ $-2.1$ $***$ $50$ $-2.7$ $***$ $50$ $-2.7$ $***$ $50$ $-2.7$ $***$ $50$ $-2.7$ $***$ $30$ $30.4^{-2}$				
a1 (m) $33.0$	Kei.	lection Loss(UllA-2/3)	Height Patt	ern the second
$2.4$ $35$ $-0.1$ $35$ $55$ $-0.1$ $35$ $55$ $-1.9$ $32$ $45$ $-2.9$ $32$ $40^{}$ $-3.5$ $32$ $30$ $-3.5$ $32$ $30$ $-3.6$ $32$ $30$ $-3.6$ $32$ $25$ $-2.1$ $32$ $20$ $-9.6$ $32$ $15$ $1.5$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $3.9$ $32$ $10$ $-2.7$ $32$ $30$ $-3.5$ $32$ $30$ $-3.5$ $32$ $30$ $-3.5$ $32$ $30$ $-3.5$ $32$ $30$ $-3.3$ $32$				ha2(m)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	nal (m)	33.0 ***		50
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	r60m(dB)	2 4 +++	(1) Some discussion of the second state of	special and the set of the second
50 $-1.9$ $31$ $45$ $-2.9$ $330$ $30$ $-3.5$ $330$ $35$ $-3.5$ $330$ $30$ $-3.5$ $330$ $30$ $-3.5$ $330$ $30$ $-3.5$ $330$ $30$ $-3.5$ $330$ $20$ $-6.6$ $315$ $15$ $1.5$ $510$ $50$ $10$ $35.0$ $310$ $2'$ (m) $35.0$ $310$ $60m(dB)$ $-1.9$ $310$ $-1.9$ $310$ $50$ $-2.7$ $310$ $50$ $-2.7$ $310$ $50$ $-3.5$ $310$ $50$ $35$ $-3.5$ $310$ $30$ $-3.5$ $310$ $25$ $-2.9$ $310$ $25$ $-2.3$ $310$ $30$ $-2.3$ $310$ $30$ $-2.3$ $310$ $25$ $-2.3$ $310$ $25$ <td< td=""><td></td><td>-0.1 ***</td><td></td><td></td></td<>		-0.1 ***		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				and the factor of the state of
35 $-3.5$ $***$ $30$ $-3.0$ $***$ $30$ $-2.1$ $***$ $20$ $-0.6$ $***$ $20$ $-0.6$ $***$ $15$ $1.5$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $10$ $3.9$ $***$ $2'$ (m) $35.0$ $***$ $60m(dB)$ $-0.8$ $***$ $-1.9$ $***$ $-2.7$ $***$ $40$ $-3.5$ $***$ $40$ $-3.5$ $***$ $30$ $-3.3$ $***$ $20$ $-2.9$ $***$ $10.7$ $***$ $-4.7$ $20$ $-2.3$ $***$ $-4.7$				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				<b>30</b>
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				/20
20 $-\theta.6$ ***       10       1.5       ***       10       25       20       15       10       5 $0^{-5^{-10}}$ 10         10       3.9       ***       25       20       15       10       5 $0^{-5^{-10}}$ 10         10       3.9       ***       25       20       15       10       5 $0^{-5^{-10}}$ 10         10       35.0       ***       10       5 $0^{-5^{-10}}$ 10       10         10       35.0       ***       10       5 $0^{-5^{-10}}$ 10       10         10       -0.8       ***       -1.9       ***       50       -1.9       50         -1.9       ***       -3.5       ***       -3.5       40       -40       40         -3.5       ***       -3.5       ***       -3.5       40       -1.4       40       -1.4       -1.4       40       -1.4				and the second of the second o
15 $1.5$ $3.9$ $3.9$ $25$ $20$ $15$ $10$ $5$ $-5$ $-10$ $2'$ (m) $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $35.0$ $10$ $5$ $-5$ $-10$ $2'$ (m) $35.0$ $78.4$ $-0.8$ $8144$ $-0.8$ $10$ $50$ $-10$ $10$				10
10 $3.9 \# \# \#$ Lr Pattern at Q (dB, hal = $33 m$ )         2' (m) $35.0 \# \# \#$ hal(m)         60m(dB) $-0.8 \# \# \#$ $50$ $55$ $-1.9 \# \# \#$ $50$ $50$ $-2.7 \# \# \#$ $50$ $45$ $-3.2 \# \# \#$ $40$ $35$ $-3.5 \# \# \#$ $40$ $35$ $-3.5 \# \# \#$ $40$ $30$ $-3.5 \# \# \#$ $(1 \# \# \# (1))$ $25$ $-2.9 \# \# \#$ $-2.3 \# \# \#$ $20$ $-1.5 \# \# \#$ $-1.5 \# \# \#$ $15$ $-9.4 \# \# \#$ $-1.5 \# \# \#$			25 20 15 10 5	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	10	<b>3.</b> 9 ***		1B. hal = 3.3 m)
$\begin{array}{c} -\theta.8 & *** \\ 55 & -1.9 & *** \\ 50 & -2.7 & *** \\ 45 & -3.2 & *** \\ 40 & -3.5 & *** \\ 35 & -3.5 & *** \\ 30 & -3.5 & *** \\ 25 & -2.9 & *** \\ 15 & -2.8 & *** \\ -3.5 & *** \\ -2.9 & *** \\ -1.5 & *** \\ -2.8 & ***$	int in a	75 Q +++	1	and the second
$ \begin{array}{c}                                     $	a2 (m)	55.0 ***		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	r60m(dB)	-0.8 ***		50
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	55		ter in the second s	
$\begin{array}{c}             45 \\             40 \\             35 \\             30 \\             25 \\             20 \\             15 \\             15 \\           $	50	•		1
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	45		s to state for the state of the	
$\begin{array}{c} -3.3 & *** \\ -2.9 & *** \\ 25 & -2.3 & *** \\ -1.5 & *** \\ 15 & -8.4 & *** \end{array}$	40			
25 -2.3 *** -1.5 *** 15				
-2.3 *** -1.5 *** 15 -0.4 ***				20
	20			
	15			103 A
Lr Pattern at P (dB, ha2 = $35m$ )	10	-U.4 <del>4</del> ##	25 20 15 10 5	0 -5 -10 - 0 -



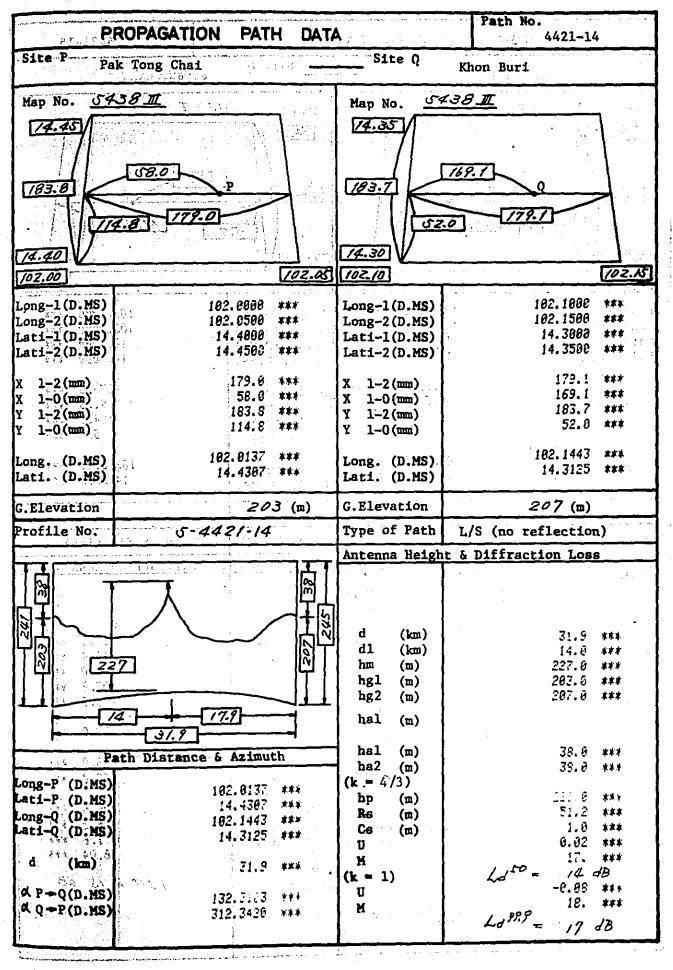
F	ROPAGATION	PATH	DATA	Path All	No. 4421-12
Site P	Si Kiu		Site C	Sung Noen	
Ref	lection Area(0	11A-1/3)	Variati	on of Reflecti	on Loss (011A-3/3)
f (MHz) K hgl (m) hg2 (m) d (km) hal' (m) ha2' (m) hr' (m)		900.00 **: 1.333 **: 233.0 **: 232.0 **: 11.3 **: 33.0 **: 33.0 **: 217.0 **:	K K K K K K K K K K K K K K K K K K K		1.000 *** 1.333 *** 3.000 *** 33.0 *** 33.0 *** 2.8 *** 1.9 ***
hr (m) d1 (m) d2 (m) $\psi$ (D.MS) T1 (km) Dv $\int_{C}^{C}$		5.7 *** 5.6 *** 0.2826 *** 3.7 *** 0.96 *** 0.9 *** 180.0 ***	hal (m) hal' (m) Lr <sup>#!,#</sup> (dB Lr <sup>#0</sup> (dB Lr <sup>#!</sup> (dB		-1.2 (1) -13 (-17) (1) -13 (-17) (1) -13 (-17) (2) -12 (-17)
<pr (deg)<br="">Lr min(dB)</pr>		-5.6 ***	hal dete	· · · · · · · · · · · · · · · · · · ·	
Lr max(dB) Ref	l lection Loss(01			Height Pattern	
hal (m) 55 50 45 40 35 30 25 20 15 10		33.0 *** 0.5 *** -3.6 *** -5.3 *** -5.5 *** -4.3 *** -1.1 *** 6.4 *** 10.8 *** 0.3 *** -3.6 *** -3.6 ***	25 20 1	L5 10 5 :tern at Q (dB,	ha2 (m) 50 40 30 20 10 0 -5 -10 ha1' = 33 m)
na 2' (m) 55 50 45 40 35 30 25 20 15 10		33.0       ***         -0.1       ***         -3.8       ***         -5.3       ***         -5.5       ***         -4.2       ***         -1.1       ***         6.3       ***         11.5       ***         0.6       ***         -3.4       ***         -5.2       ***		5 10 5 tern at P (dB,	

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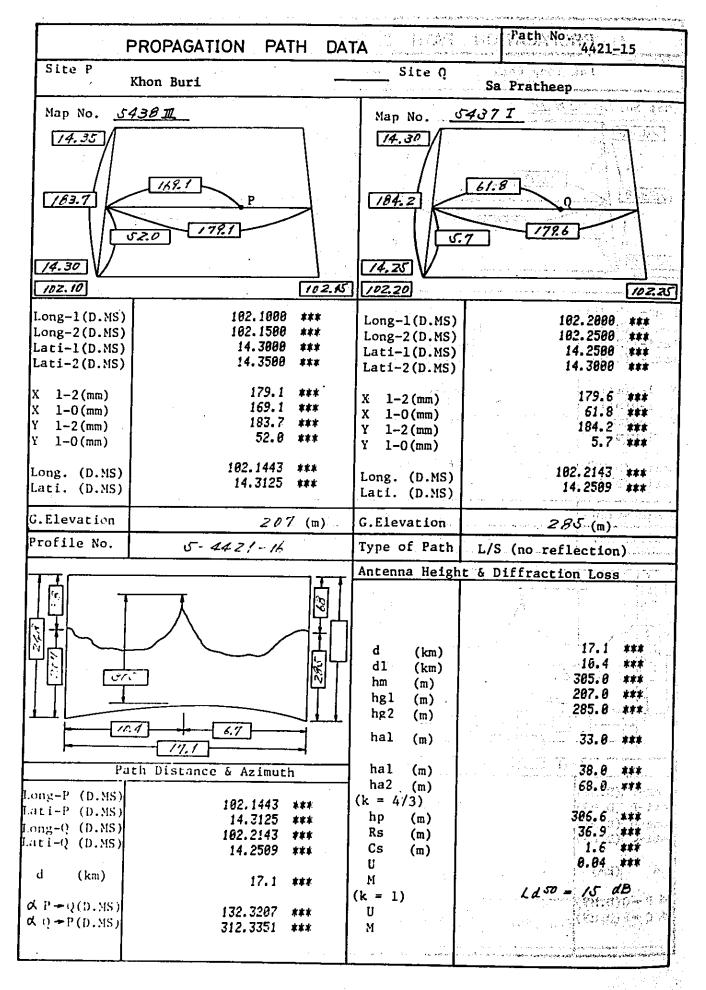


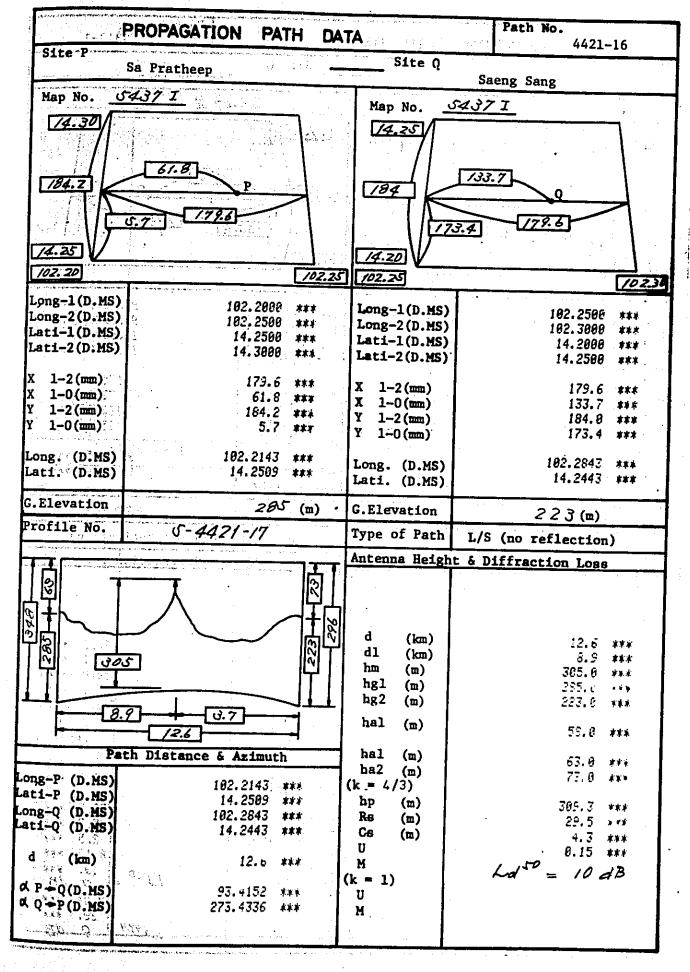
P	ROPAGATION F	ATH DA	TA BAR	Path No.	4421-13
Site P P	ak Tong Chai		Site Q	Chok Chai	an serve
Ref	lection Area(011A-	-1/3)	Variation	of Reflection	Loss (011A-3/3
f (MHz) K hg1 (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr' (m) d1 (m) d2 (m) ψ (D.MS) T1 (km) Dv fe fe fe fe fe fr (deg) Lr min(dB) Lr max(dB) Ref.	20 19 4 20 6.1 5 180 	333       #**         3.0       #**         5.4       #**         3.0       #**         3.0       #**         8.0       #**         4.0       #**         5.4       #**         8.0       #**         8.0       #**         5.4       #**         8.0       #**         5.4       #**         5.6       #**         5.6       #**         5.7       #**         8.7       #**         8.7       #**         8.8       #**         8.9       #**         8.4       #**         7.9       #**         8.7       #**         8.8       #**         8.7       #**         8.8       #**         8.9       #**         8.7       #**         8.8       #**         8.9       #**         8.7       #**         8.8       #**         8.9       #**	<pre>K **** K *** ha1 (m) ha2 (m) Lr *** (dB) Lr ** (dB) Lr ** (dB) ha1 (m) ha1 (m) ha1 (m) Lr *** (dB) Lr ** (dB) Lr ** (dB) Lr ** (dB) ha1 determine ha2 determine ha2 determine </pre>	ned	1.000 **** 1.333 *** 3.000 *** 43.0 *** 43.0 *** 43.0 *** 43.0 *** -4.4 *** -4.5 *** -4.5 *** -4.6 *** (11.1) -1.1 (11.1) -
hal (m) 55 50 45 40 35 30 25 20 15 10	-3 -4 -4 -3 -2 -0 2	.6 *** .3 *** .5 *** .2 *** .3 *** .5 *** .5 ***	25 20 15		ha2(m) 
a2' (m) r60m(dB) 55 50 45 40 35 30 25 20 15 10	-3. -4.	1 *** 5 ***	25 20 15	10 5 0 n at P (dB, ha	hal (m 50 1 40 1 1 1 20 10 10

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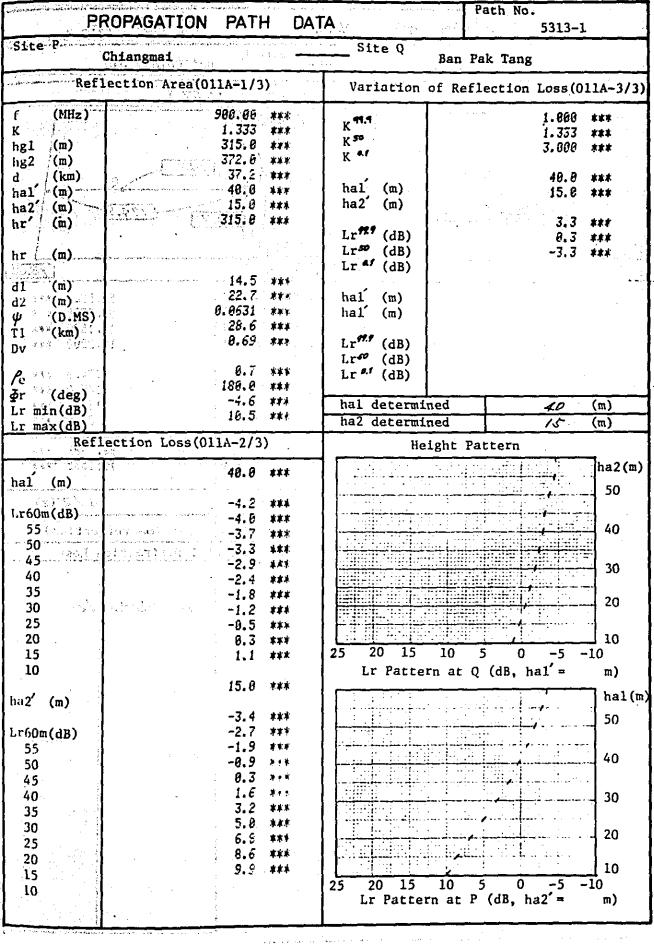


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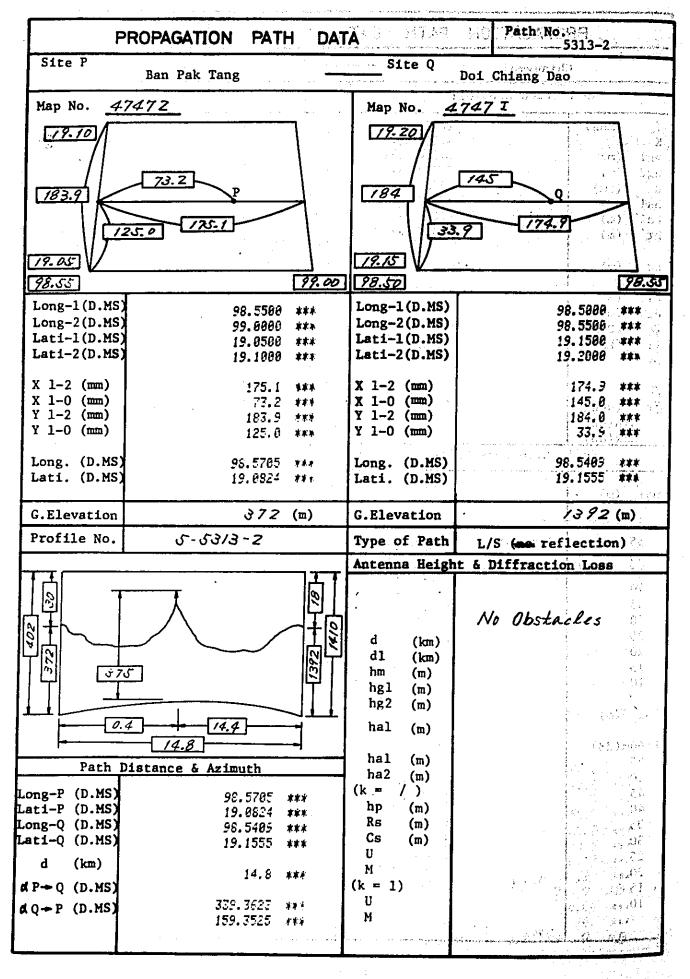
			<ul> <li>A statistic sectors and sect</li></ul>	Path No. 25
Site P	PROPAGATION	PATH DAT	Site Q	Path No. 5313-1
	Chiangmai	······································		Ban Pak Tang
Map No. 4	746 I		Map No. 4	747 I CAO
18.45	<u>114.2</u> P 18.9 [735.7]		19:05	23.2 0 5.0 775.7
98.55	· /	99.00	<u>98.55</u>	99.0D
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.8	500 - *** - :	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.5500 *** 99.0000 *** 19.0500 *** 19.1000 ***
X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	11 18	5.1 *** 4.2 *** 3.8 *** 8.9 ***	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	175.1 **** 73.2 **** 183.9 **** 125.0 ***
Long. (D.MS) Lati. (D.MS)	96.5 18.4		Long. (D.MS) Lati. (D.MS)	98.57051)*** 19.0824:)***
G.Elevation		ও/ <b>ऽ</b> (m)	G.Elevation	\$72 (m)
Profile No.	5-5313-		Type of Path	L/S (me reflection)
			d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m)	t & Diffraction Loss 37.2 *** 2.1 *** 350.0 *** 315.0 *** 372.0 ***
Pa	th Distance & Azi	muth	hal (m) ha2 (m)	1
ong-P (D.MS) ati-P (D.MS) ong-Q (D.MS) ati-Q (D.MS) d (km)	98.53 18.43 98.57 19.00	14	(k = 4/3) hp (m) Rs (m) Cs (m) U	(15.0) **** 352.5) *** (25.7) *** 2.5 *** 0.10 ***
V = Q(D.MS) V = P(D.MS)	37. 255.502 176.500		M (k = 1) U M	$Ld^{SD} = \begin{array}{c} 19. & *** \\ .7. & dB \\ .8. & 64. \\ .8. & 84. \\ .8$
		13 -	46	



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13 - 47

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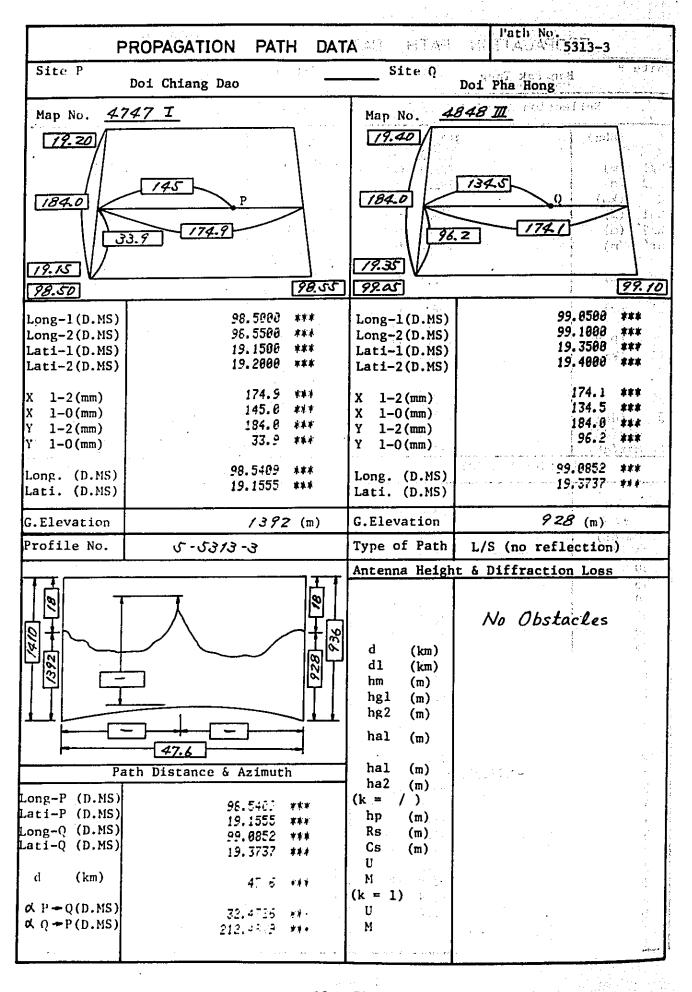
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				T	Path No.		1
	ROPAGATION PATI	H DA1	ΓΑ			5313-2	
Site P	Ban Pak Tang	· · · · · · · · · · · · · · · · · · ·	Site Q	Doi C	hiang Da	0	
Ref	lection Area(011A-1/3	)	Variation	of Ref	lection	Loss (O	11A-3/3)
(MHz)	980.80		K 91.9			1.080	***
1gl (m)	1.333 372.0	•	K 50			1.333	###
igi (m)	1392.0	· ***	K at	ļ		3.000	***
(km)		***		ļ		30.0	
al (m)	30.0	***	hal (m)		• •	18.0	
a2 (m)	18.0	***	ha2 (m)	<b>j</b>	1.1.1.1		
r' (m)	398.8	***	Lr*** (dB)	}	· ·	2.1	***
r (m)		بالم بالم بال	Lr <sup>so</sup> (dB)			-0.1	***
1 - Ann (m) Color (23	375.0	***	Lr 4/ (dB)	1		-2.5	***
1 (m)	8,4	***		1			a da Malaka eta eta eta eta eta eta eta eta eta et
2 (m)	14.4	***	hal (m)	<b>]</b> .			· ]
(D.MS)	4,8368	***	hal (m)	ł			
1 (km)	0.2	★★★ 	Lr <sup>#!!</sup> (dB)	Į –			
v	1.00	***	Lr <sup>60</sup> (dB)	ļ		,	
n an	9.8	***	Lr ./ (dB)				j
r (deg)	175.0	***					
r min(dB)	-5.1	末末末	hal determi			30	(m)
r max(dB)	14.0	***	ha2 determi	ned		18	(m)
Refl	ection Loss(011A-2/3	)	He	ight P	attern		
							ha2(m)
al (m)	30.0	***					50
r60m(dB)	n na seanna an	-					
55	- <b>3.8</b>					· · · · · · · · · · · · · · · · · · ·	40
50	-2.6	***					
45	1.4	***		•			
40	5.0	***					30
35	ALA DIAN A 10.8	***					20
30	12.7	***					<b>~ ~ </b> [
25 20	6.4	***				••••••••••••••••••••••••••••••••••••••	
15	2.3 -0.4	*** ***	25 20 15	10	5 0	-5 -	10 10
10	-2.2		Lr Patte				
							_ }
12 <b>' (</b> m)	18.0	***	· · · · · · · · · · · · · · · · · · ·	 			hal(m)
	· · · · ·					مستحدث <b>ه</b> ست د	50
60m(dB)	13.6	***					
55 50	-4.782983786-03 -4.5	*** ***					40
45	-4.9	*** ***					
40	-1.6	***			1	······································	
35	11.0	***					7~
30	· 1.1	<b>*</b> **			· · · · · · · · ·	· · <b>`</b>	20
25	-4.2	***					- 20
20	-5.0	***			· · · · · · · · · · · · · · · · · · ·	••••	10
1	-2.4	***					
15	7.6	***	25 20 15	10	5 0	- <u>-</u> ) -	10 1
15 10	7.6	***	25 20 15 Lr Patter	10 rn at I	50 2 (dB, h		10 m)

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N-R PRO	PAGATION PATH DA	ATA	Path No. 5313-4
Site P Doi	Pha Hong -	Site O	Fang
Map No. 4848		Map No. 💆	848 1
19.40 184 19.35	34.5] P 774.1	20.00 [184.2] [19.55]	[710.5] 0 (7] (74.2)
79.05	98.1		99.15
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.0500 +++ 99.1000 *** 19.3500 **+ 19.4000 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.1000 *** 99.1500 *** 19.5500 *** 20.0000 ***
$\begin{array}{c c} X & 1-2 (mm) \\ X & 1-0 (mm) \\ Y & 1-2 (mm) \\ Y & 1-0 (mm) \end{array}$	174.1 *** 134.5 *** 184.0 *** 96.2 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	174.2 *** 110.5 *** 184.2 *** 14.9 *** 99.1310 ***
Long. (D.MS) Lati. (D.MS)	19.3737 ***	Long. (D.MS) Lati. (D.MS)	19,5524 ***
G.Elevation	<i>928</i> (m)	G.Elevation -	\$75 (m)
Profile No.	5-5313-4	Type of Path	L/S (ma reflection)
and the second	Distance & Azimuth	b d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m) ha2 (m)	No Obstacles
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS) d (km) & P-Q(D.MS) & Q-P(D.MS)	99. 6852 *** 19. 3737 **- 99. 1318 *** 19. 5524 *** 33. 5 *** 12. 5406 *** 192. 5533 ***	(k = /) hp (m) Rs (m) Cs (m) U M (k = 1) U M	
	en geleg filmen geli film i statistica de la compañía de la compañía de la compañía de la compañía de la compa Referencia de la compañía de la comp	3 - 51	

Site P	Doi Pha Hong —	Site Q	Fang 6 460
Ref	lection Area(011A-1/3)	Variation	of Reflection Loss (011A-3/
	· · · · · · · · · · · · · · · · · · ·		an a
f. (MHz) K	900.00 *** 1.333 ***	K 91.1	1.600 ****
	928.0 ***	K 50	1.333 *** 3.006 ***
	475.8 ***	K at	3.006 ***
hg2 (m)	33.6 ***		and a second
d (km)	18.0 ***	ha1 (m)	18.8 ***
hal (m)	33.0 ***	ha2 (m)	33.8 ***
ha2 (m)	470.0	1142 (14)	n an an ann an Anna an Anna an Anna an
hr' (m)	in one	Lr <sup>97,9</sup> (dB)	-4.1 *** -6.3 ***
	·	Lr <sup>50</sup> (dB)	• • • • • • • • • • • • • • • • • • • •
hr' (m)		Lr <sup>a</sup> (dB)	10.9 ***
			and an
d1. (m)	30.8 ***	ha1 (	
d2 (m)	2.8 ***	hal (m)	
$\psi$ (D.MS)	0.4649 ***	hal (m)	
T1 (km)	Z.1 ###		
Dv	0.98 ***	Lr <sup>#.#</sup> (dB)	
· .		Lr <sup>50</sup> (dB)	
Pc	0.9 ***	Lr . (dB)	
<b>⊅</b> r (deg)	188.0 ***		
Lr min(dB)	-5.6 ***	hal determin	
Lr max(dB)_	20.0 ***	ha2 determin	ned 33 (m)
Refl	lection Loss(011A-2/3)	He:	ight Pattern
			ha2(m
hal (m)	18.0		an a
I.r6Om(dB)	1+5 ++4 (		
55	-5.5 ***		-40
50	4.5 14#		
45	-7.7 lek		
40	-4, 5 · · · ·		30
35	13.0*		ann funn all manger ter eine fie nin furger frein
35 30	-5.2 44		20
30	-5.2 (** -1.6 ***		20
30 25	-5.2 ++ -1.6 ++* 1.6 ***		
30 25 20	-5.2 *** -1.6 *** 1.6 *** -5.5 ***	25 20 15	
30 25 20 15	-5.2 ++ -1.6 ++* 1.6 ***	25 20 15	10  5  05  -10
30 25 20	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 ***		
30 25 20 15 10	-5.2 *** -1.6 *** 1.6 *** -5.5 ***		10  5  0  -5  -10  10 In at Q (dB, hal' = /8 m)
30 25 20 15	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 ***		10 - 5 - 10 = 10 $10 - 5 - 10 = -10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$
30 25 20 15 10 ma2' (m)	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 ***		10  5  0  -5  -10  10 In at Q (dB, hal' = /8 m)
30 25 20 15 10 ma2' (m) r60m(dB)	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 ***		10 - 5 - 10 = 10 $10 - 5 - 10 = -10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $10 = 10$ $ha1(n = 10)$
30 25 20 15 10 ma2' (m) 55	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 ***		$ \begin{array}{c} 10 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ -5 \\ -10 \\ -10 \\ -10 \\ -5 \\ -10 \\ -$
30 25 20 15 10 a2' (m) ar60m(dB) 55 50	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 ***		10 = 10 $10 = 5 = -10$ $10 = -5 = -10$ $10 = -5 = -10$ $10 = -5 = -10$ $10 = -5 = -10$ $10 = -5 = -10$ $ha1(m)$
30 25 20 15 10 ar60m(dB) 55 50 45	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 ***		$ \begin{array}{c} 10 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ -5 \\ -10 \\ -10 \\ -10 \\ -5 \\ -10 \\ -$
30 25 20 15 10 a2' (m) ar60m(dB) 55 50 45 40	-5.2 *** -1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 *** 7.5 ***		10 $10$ $10$ $5$ $0$ $-5$ $-10$ $m$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$
30 25 20 15 10 ar 60m (dB) 55 50 45 40 35	-5.2 *** -1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 *** 7.5 *** 4.3 ***		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
30 25 20 15 10 at 2' (m) at 2' (m) at 60m(dB) 55 50 45 40 35 30	-5.2 *** -1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 *** 7.5 *** 4.3 *** 2.8 ***		$10  5  0  -5  -10 \\ n \text{ at } Q  (dB, hal' = / \ m) \\ hal(m \\ 50 \\ 40 \\ 30 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $
30 25 20 15 10 ar 60m (dB) 55 50 45 40 35 30 25	-5.2 *** -1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 9.1 *** 13.5 *** 19.9 *** 12.5 *** 12.5 *** 4.3 *** 2.0 *** 0.2 ***		10  5  0  -5  -10  10  10  10  10  10  10  1
30 25 20 15 10 ar60m(dB) 55 50 45 40 35 30 25 20	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 *** 12.5 *** 4.3 *** 4.3 *** 4.3 *** 4.3 ***		10  5  0  -5  -10  10  10  5  0  -5  -10  10  10  10  10  10  10  1
30 25 20 15 10 ar 60m (dB) 55 50 45 40 35 30 25 20 15	-5.2 *** -1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 9.1 *** 13.5 *** 19.9 *** 12.5 *** 12.5 *** 4.3 *** 2.0 *** 0.2 ***		10  5  0  -5  -10  10  10  5  0  -5  -10  10  10  10  10  10  10  1
30 25 20 15 10 ar60m(dB) 55 50 45 40 35 30 25 20	-5.2 *** -1.6 *** 1.6 *** -5.5 *** 4.3 *** 33.0 *** 4.7 *** 2.1 *** 13.5 *** 19.9 *** 12.5 *** 12.5 *** 4.3 *** 4.3 *** 4.3 *** 4.3 ***	Lr Patter	10  5  0  -5  -10  10  10  5  0  -5  -10  10  10  10  10  10  10  1

<i>α</i> ∞ετ( <b>Ρ</b> )	ROPAGATION	PATH DA	<b>TA</b> *****	Path No. 5313-5	
Site P	Fang		Site Q	Mae Ai	
Map'No. 48	4 <u>8 IV</u> ertiere fa		Map No. 4	349 IL	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	110.5 4.9 174.2		20.05 [184.5] [20.00]	29.3 0 .0 774.0	
79.55		99.1			79.20
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	9 1	9.1000 *** 9.1500 *** 9.5500 *** 0.0000 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.1500 99.2000 20.0000 20.0500	### ### ### ###
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	an in a substance and a substance of the	174.2 *** 118.5 *** 184.2 *** 14.9 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	174.0 79.3 184.5 65.0	*** *** ***
Long. (D.MS) Lati. (D.MS)		9.1310 *** 9.5524 ***	Long. (D.MS) Lati. (D.MS)	99,1717 20,014?	### ### 
G.Elevation		<i><b>オ</b>7</i> 5 (m)	G.Elevation	<i><b>キ</b>名</i> ら (m)	
Profile No.	5-5313	-5	Type of Path	L/S (no reflection	1)
	2 2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		6 d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m)	485.0 38.6	19 43 24 29 27 20 27 20 20 20 20 20 20 20 20 20 20 20
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS) d (km), 01 01 02 01 01 01 01 01 01 01 01 01 01 01 01 01	11 9 21	9.1310 *** 9.5524 *** 9.1717 *** 9.0147 *** 13.8 ***	hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U N (k = 1) U N	33. 6 33. 7 505. 6 30. 8 8. 6 6. 28 14. L. d. <sup>50</sup> = 6 8. 25 L. d. 99.9 15. L. d. 99.9 10	*** *** *** *** *** *** *** *** ***

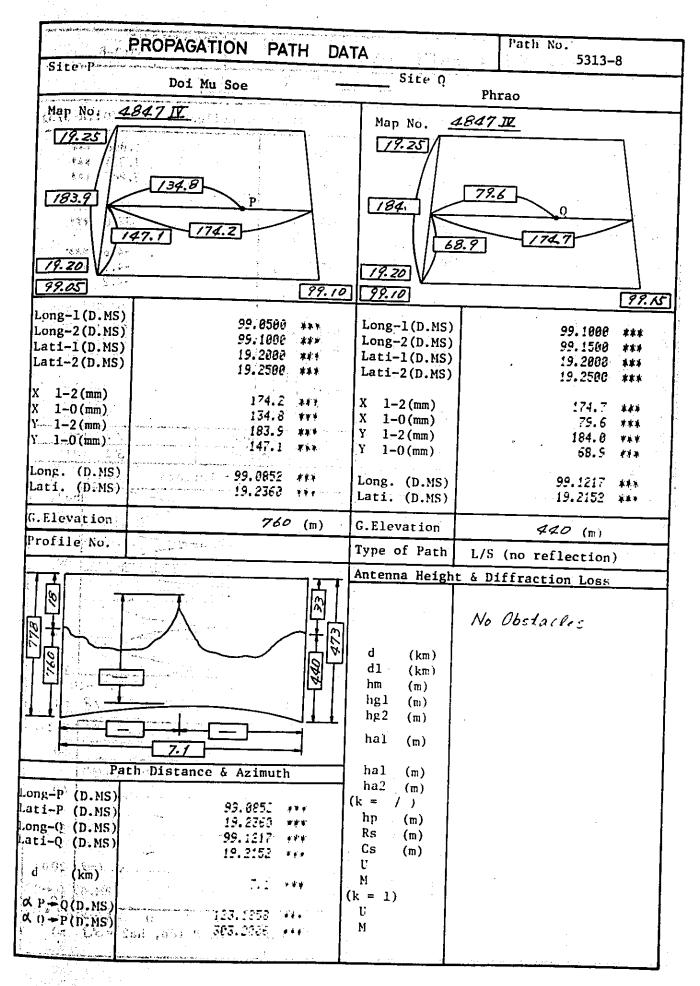
. <b>P</b>	ROPAGATION	PATH	DATA	Path No.	<b>5313-5</b>
Site P	Fang		Site Q	Mae Ai	
Ref	lection Area(01	1A-1/3)	Variation	of Reflection	Loss (011A-3/3
f (MHz) K hgl (m) hg2 (m) d (km)		900.00 *** 1.333 *** 475.0 *** 485.0 *** 13.8 ***	K <sup>41.4</sup> K <sup>50</sup> K <sup>41</sup> hal (m)		1.000 *** 1:333 *** 3.000 *** 33.0 ***
nal (m) na2' (m) nr' (m) nr (m)		33.8 *** 33.8 *** 468.8 ***	ha2' (m) Lr <sup>#2</sup> (dB) Lr <sup>#0</sup> (dB) Lr <sup>47</sup> (dB)		33.0 *** 18.8 *** 5.8 *** 1.0 ***
11 (m) 12 (m) 14 (D.MS) 11 (km)		6.3 *** 7.5 *** 6.2507 *** 4.6 *** 0.95 ***	hal (m) hal (m) Lr <sup>#!</sup> (dB) Lr <sup>#!</sup> (dB) Lr <sup>#!</sup> (dB)		<pre></pre>
e fr (deg) r min(dB) .r max(dB) Refl	ection Loss(01)	188.8 *** -5.6 *** 26.8 ***	hal determi ha2 determi		ਤੇਤੇ (m) ਤੇਤੇ (m)
al (m)		33.9 ***		ignt Pattern	ha2(m)
55 50 45 40 35 30 25 20 15 10		-4.9 *** -5.5 *** -5.3 *** -4.2 *** -1.8 *** 2.7 *** 14.6 *** 7.1 *** 0.2 *** -3.0 *** -4.8 ***	25 20 15 Lr Patter	10 5 0 rn at Q (dB, f	40 30 20 -5 -10
a2' (m) r60m(dB) 55 50 45 40 35 30 25 20 15 10		33.0       ***         -3.0       ***         -5.0       ***         -5.6       ***         -4.9       ***         -2.7       ***         2.2       ***         17.6       ***         -1.7       ***         -4.4       ***         -5.5       ***			hal (m 50 40 30 20 10 

	PROPAGATION PATH D	ATA	Path No. 5313-6
Site P	Doi Chiang Dao	Site Q	Chiang Dao
Map No. <u>4</u>	747 1	Map No.	4747 I
79.20		79.25	
	and a second	71	
184	_145P		114
	22 0 174.9	183.9	
	33.9 72.9	1/20	9.9 172.6
79.15	a na anna ann an an an an an an an an an	19.20	
<u>98.50</u> Long-1 (D.MS)	98.3	T 98.55	98.
Long-2(D.MS)	90.3000 *** 90.5500 ***	Long-1(D.MS) Long-2(D.MS)	98.5500 ***
Lati-1(D.MS) Lati-2(D.MS)	19.1500 ***	Lati-1(D.MS)	99.0000 ***
	19.2000 ***	Lati-2(D.MS)	19.2000 *** 19.2500 ***
X 1-2 (mm) X 1-0 (mm)	174.9 *** 145.0 ***	X 1-2 (mm)	174.6 ***
Y 1-2 (mm) Y 1-0 (mm)	184.0 ***	X 1-0 (mm) Y 1-2 (mm)	114.0 ***
	33.9 ***	Y 1-0 (mm)	183.9 *** 189.9 ***
Long: (D.MS) Lati. (D.MS)	98.5409 *** 19.1555 ***	Long. (D.MS)	98.5816 ***
		Lati. (D.MS)	19.2259 ***
G.Elevation	1392 (m)	G.Elevation	3 <i>89</i> (m)
ちゃんがき シー・・	5-5313-6	Type of Path	
Transformer (1997)	<u>ander sy delander ble synnesse</u> and de la serie de la ser	Antenna Heigh	t & Diffraction Loss
	T R	,	· · · · · ·
		d (km) dl (km)	14.9 ***
		hm (m)	5.5 *** 1140.0 ***
The second s		hg1 (m) hg2 (m)	1392.0 ***
3.3		hg2 (m)	383.0 ***
		hal (m) ha2 (m)	18.0 *** 33.0 ***
Path Di	lstance & Azimuth	(k = 4/3)	
ong-P (D.MS)	98.5409 ***	hp (m) Rs (m)	1175.6 *** 29.9 ***
ati-P (D.MS) Dng-Q (D.MS)	19.1555 ***	Cs (m)	35.6 ***
ti-Q (D.MS)	98.5816 +++ 19.2259 ***	U M	$Ld S^{0} = O dB$
d (icn)		(k = 1)	
P-Q (D.MS)	14.9 ***	U M	
Q≁P (D.MS)	28.5652 ***		
The second second second second second second	208.59:4 ***		
	n na hara an		

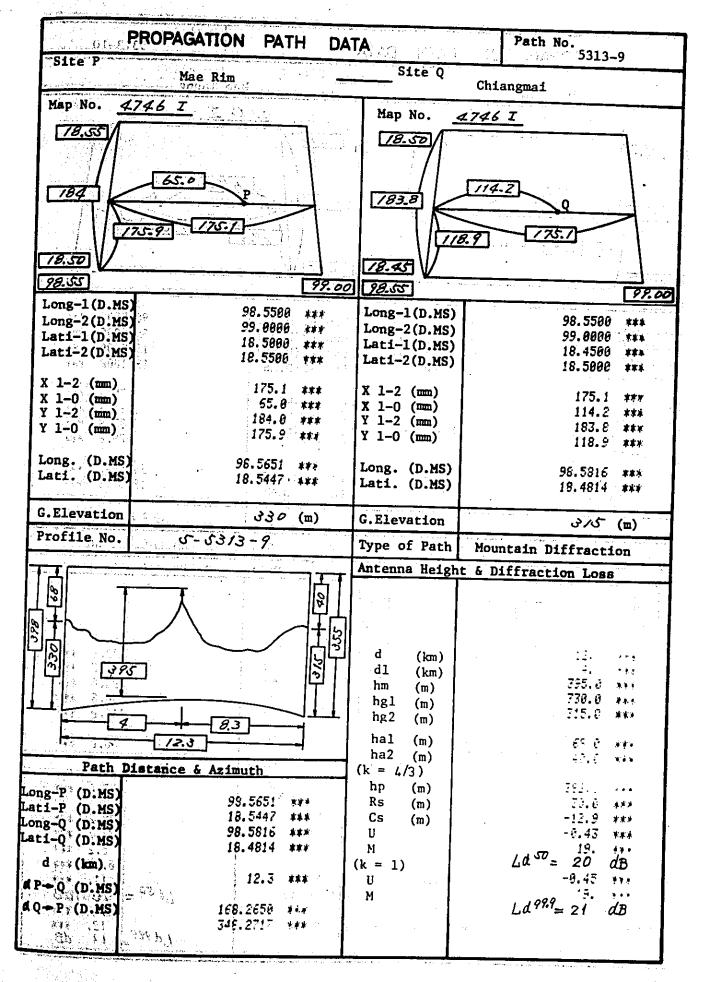
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P	ROPAGATION PATH DATA	And Hods	Path No:
Site P	Doi Chiang Dao	Site Q	Doi Mu Soe
Nap No. <u>47</u>	<u>47 I</u>	Map No. <u>4</u>	<u>134.8</u>
784 3 19.15	745 P 3.9 174.9	183.9 14 17.20	27 1742
98.50	98.55	99.25	<u></u>
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.5008 *** 98.5500 *** 19.1500 *** 19.2000 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99,0503) **** 99,1800 * *** 19,2000 * *** 19,2500 * *** 19,2500 * ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	174.9 *** 145.0 *** 194.6 *** 33.9 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	174.2.) **** 134.8. **** 183.9.5 *** 147.1.) ***
Long. (D.MS) Lati. (D.MS)	98.5465 *** 19.1555 ***	Long. (D.MS) Lati. (D.MS)	99,0852:) *** 19,2360; ***
G.Elevation	/ <i>392</i> (m)	G.Elevation	760 (m) presti
Profile No.	5-5316-7	Type of Path	L/S (no reflection)
		Antenna Heigh	t & Diffraction Loss
	29.8 29.8 29.8	d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m)	29.8 *** 24.5 *** 860.0 *** 1352.0 *** 760.0 ***
	ath Distance & Azimuth	hal (m)	The second
.ong-P (D.MS) .ati-P (D.MS) .ong-Q (D.MS) .g+i-Q (D.MS)	98.5409 *** 19.1555 *** 95.0852 *** 19.2360 ***	ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U	18.6 *** 18.6 *** 362.8; *** 362.8; *** 36.1; *** 22.8; *** 6.68 ***
d (km) & P+Q(D.MS) & Q+P(D.MS)	29.8 *** 59.5560 *** 248.0050 ***	M (k = 1) U M	La S = (O) dB

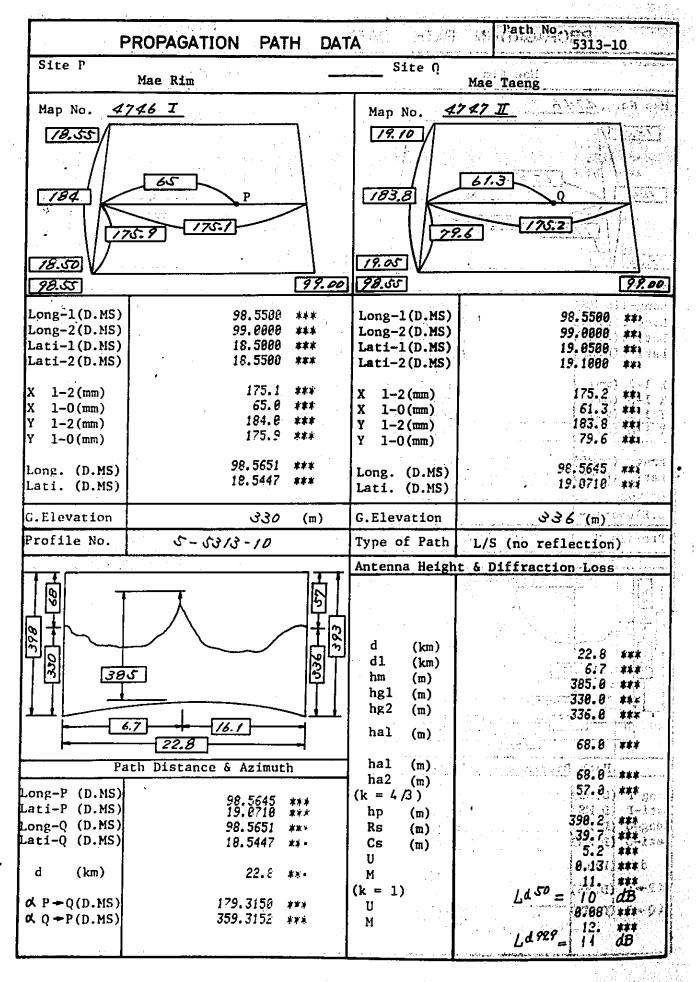
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	PROPAGATION PATH DA	TA	ath No. 5313-8
Site P	Doi Mu Soe	Site Q Phra	0
	flection Area(011A-1/3)	1	ection Loss (011A-3/3)
f (MHz)	906.00 ***	K.41.4	1.000 ***
K	1.333 ***	K 50	1.333 ***
hgl (m)	760.0 ***	K et	3.000 ***
hg2 (m) d (km)	448.8 ***	• • • • • • • • • • • • • • • • • • •	18.8
- ,,	7.1 ***	hal (m)	
hal (m) ha2' (m)	18.0 ***	ha2' (m)	33:0 ***
hr' (m)	33.0 ***		
ur (m)	430.0 ***	Lr <sup>921</sup> (dB)	-4.6 *** -4.5 ***
hr (m)	and the second	Lr <sup>50</sup> (dB)	-4.2 ***
nr (m)		Lr <sup>a</sup> (dB)	
dl (m)	6.3 ***		
d1 (m)	6.8 ***	hal (m)	
$\psi$ (D.MS)	7 6010	hal (m)	and the second sec
γ (D.MS T1 (km)	<b>b.</b> 3 <b>*</b> **		11、资源14、资源14、14、14、14、14、14、14、14、14、14、14、14、14、1
Dv	1.00 ***	Lr <sup>#1.9</sup> (dB)	n an star an
	1	Lr <sup>eo</sup> (dB)	a da anti-
Pc	8.7 ***	Lr ** (dB)	11.1.1.1.1.2.2.1.2.2.1.1.1.1.1.1.1.1.2.2.1.2.2.1.1.1.1.1.1.1.2.2.1.1.1.1.1.1.1.1 1.11111111
∳r (deg)	179.0 ***		A STATE OF A
Lr min(dB)	-4.6 ***	hal determined	1.8(m)
Lr max(dB)	10.5 ***	ha2 determined	33 (m)
	flection Loss(011A-2/3)	Height Pat	
hal (m)	18.0 ***		ha2(m)
nat (m)	10.0 +++		50
Lr60m(dB)	-4.4 ***		and start and the second st
55	9.7 ***		
50	-4.6 ***		40
45	7.8 ***		
40	-4.3 ***		30
35	2.7 ***		
30	-3.3 ***		20
25	-8.6 ***		
20	-1.7 ***		
15	-2.7 ***	25 20 15 10 5	0 -5 -10
10	0.9 ***		
		Di lactein at Q	(dB, ha1'= /8 m)
a2' (m)	33.0 ***		hal (m)
			50
.r60m(dB)	6.4 ***		
55	3.9 ***		
50	-2.7 ***		40
45	-4.6 ***		
	-3.6 ***		
40	1.1 *** 10.1 ***		30
40		- Frankiski for a Biogland frankiski stale	
40 35			
40 35 30	-0.2 ***		20
40 35 30 25	-0.2 *** -4.0 ***		20
40 35 30 25 20	-0.2 *** -4.0 *** -4.4 ***		
40 35 30 25	-0.2 *** -4.0 ***	25 20 15 10 5	20 10.4 A 0 -5 -10 + 1 X



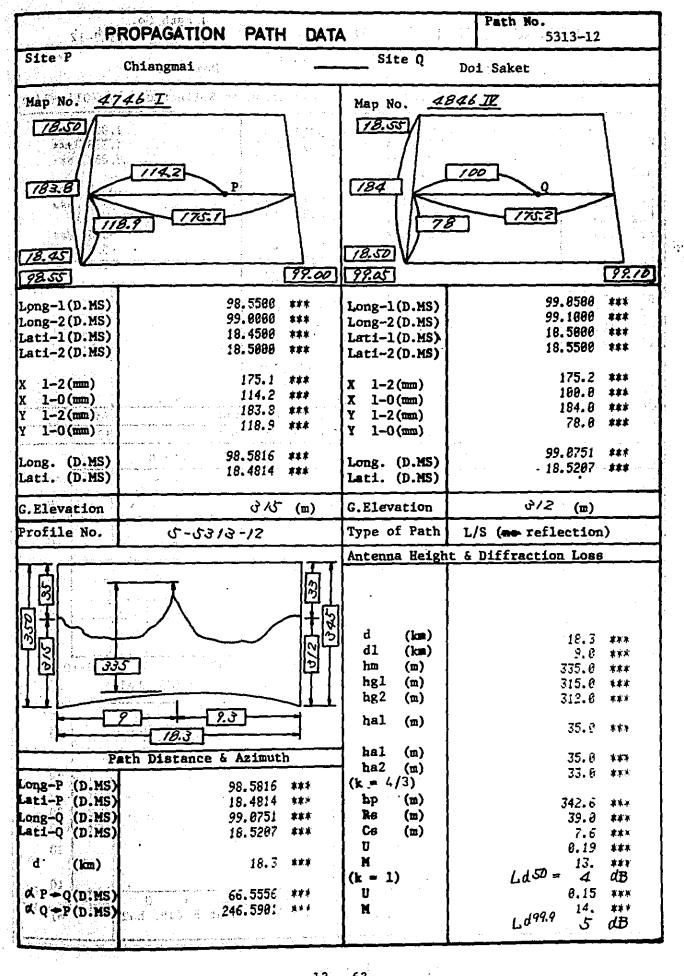


	PROPAGATION PATH D		Path No. 5313-11
Site P	Chiangmai	Site Q	
Map No 2014	146-17	<u> </u>	San Sai
18.501			4846 <u>IV</u>
	i Ωin the state of the state	18.55	
	114.2		
[183.8]	P	184.1	76
	175.1		
			24 /75.2
18.45 98.55		18.50 V	
	99.0	0 95.00	99.0
Long-1(D.MS) Long-2(D.MS)	98.5580 *** 99.0000 ***	Long-1(D.MS	99.0060 ×**
Lati-1(D.MS)	99.0000 *** 18.4500 ***	Long-2(D.MS Lati-1(D.MS	) 99.0500 *** 18.5000 ***
Lati-2(D.MS)	18.5000 +***	Lati-2(D.MS)	18.5500 ***
X 1-2(mm) X 1-0(mm)	175.1 ***	X 1-2(mm)	175.2 ***
Y 1-2(mm)	114.2 ***	X 1-0(mm)	96.0 ***
Y 1-0(mm)	**************************************	Y 1-2(mm) Y 1-0(mm)	184.1 *** 24.0 ***
Long. (D.MS)	98.5815 ***	Long. (D.MS)	99.8244 ***
Lati. (D.MS)	18.4814 <b>**</b> *****	Lati. (D.MS)	
G.Elevation	よい 、 (m)	G.Elevation	<i>उ०</i> ३ (m)
Profile No.	5-5313-11	Type of Path	L/S (mo reflection)
	<u></u>	Antenna Heig	ht & Diffraction Loss
R T	X R		
	- / \ / \	al l	
ション		]] = (\\)	9.0 ver
330		dl (km) hm (m)	4.0 · · · · · · · · · · · · · · · · · · ·
A REAL		hgl (m)	315.2 +++
4		hg2 (m)	303.0 ***
An and a second se	9.0	hal (m)	79.0 ***
	h Distance & Azimuth	hal (m) ha2 (m)	38.0 ***
ong-P (D.MS) ati-P (D.MS)	98.591 <del>6</del> ***	(k = 4/3)	33.0 ×***
ong-Q (D.MS)	18.4314 .**	hp (m) Rs (m)	344.3 ×#* 27.2 ***
ti-Q((D:MS)	95.6244 *** 18.5079 ***	Cs (m)	14.3 x##
d ((km)	All second s	U M	0.52 xxx 14. xxx
( P-Q(D.MS)		(k = 1)	$Ld^{30} = 2 dB$
Q-P(D.MS)	5 6 5 5 5 5 5 <b>6 6 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 </b>	U M	€.51 *** 15. ***
	en 1 - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997) - 1997 (1997)		Lid. 99.9 - 2 dB
Contraction and			

Pl	ROPAGATION	PATH D		Path No.	55313-11
Site P	Chiangmai		Site Q	San Sai	The state of the s
Ref	lection Area(011	A-1/3)	Variation	of Reflection	Loss (011A-3/3
f (MHz) K		30.00 *** 1.333 ***	K	and a state of the	1.000
hgl (m)		315.0 ***	K so	an a	1.333 *** 3.000 ***
hg2 (m) d (km)		9.0 ***	K		and a substance of
hal (m)		38.8 ***	hal (m)	n 1. 1825 og en som en er som er som er som en som en som er s An er som er s An er som er s	
ha2'(m) hr'(m)		33.8 *** 188.8 ***	ha2 (m)		
h <b>r' (m)</b>		VUIV . +++	Lr #!! (dB)		-0:3 /*** -1.2 ***
hr (m)			Lr <sup>so</sup> (dB)	Al	-2.4 ***
11 (m)		, 1979) 	Lr 🥙 (dB)	ىسىرىمىيە بىرىم مەھەرەن مەھىيەن بەھىيەن بەلغان بەرمە دەرىيەت ورىرىيە بىرىم مەھەرەن بىرىمىيەت	
12 (m)		5.3 *** 3.7 ***	hal (m)		
/ (D.MS)	8.	3301 ***	ha1 (m)		小常用(6)型41:50
1 (km) )v		2.8 *** 0.97 ***	Lr"" (dB)		
0		· · · · · ·	Lr <sup>eo</sup> (dB)		(an) 2""
e 5r (deg)	. 1	0.9 *** 80.0 ***	Lr • ! (dB)		(om)frit
r min(dB)		-5.6 ***	hal determin		# 38 (m)
r max(dB)		28.8 ***	ha2 determin		33 (m)
	ection Loss(011A	-2/3)	Hei	ght Pattern	- Cargo , shoe
al (m)		8.0 ***			ha2(m)
	• •				50
r60m(dB) 55		2.1 *** 2.2 ***			1
50		1.4 ***			-40
45	-	5.0 ###			
40 35		5.4 *** 3.2 ***			30
30		4.3 ***			
25 20	-	7.6 ***			
15	-	5	25 20 15	10 5 0	-5 -10
10	-	5.3 **≉		n at Q (dB, ha	
a2′(m)	3	3.0 ***			hal (m)
	-	3.2 ***			50
60m(dB) 55	-	5.1 ***			n mei Cantana (n. 1997) 19 Maria - Cantana Angelaria 19 Maria - Cantana Angelaria 19 Maria - Cantana Angelaria 19 Maria - Cantana Angelaria
50	-	5.6 #*# 4.5 #**		11 114 11 11 11 11 11 11 11 11 11 11 11	40
45		2.6 ***			HPRINE ASSAC
40 35		2.1 ***			16-21, 71 30 and
30		6.8 *** 4.6 ***			lanka seesa
25	-	1.5 ***			20 (int)
20 15		4.3 *** 5.4 ***			1
10	,			10 5 0	÷5, =10
			Lr Pattern	at P (dB, ha2	(= 33 m)

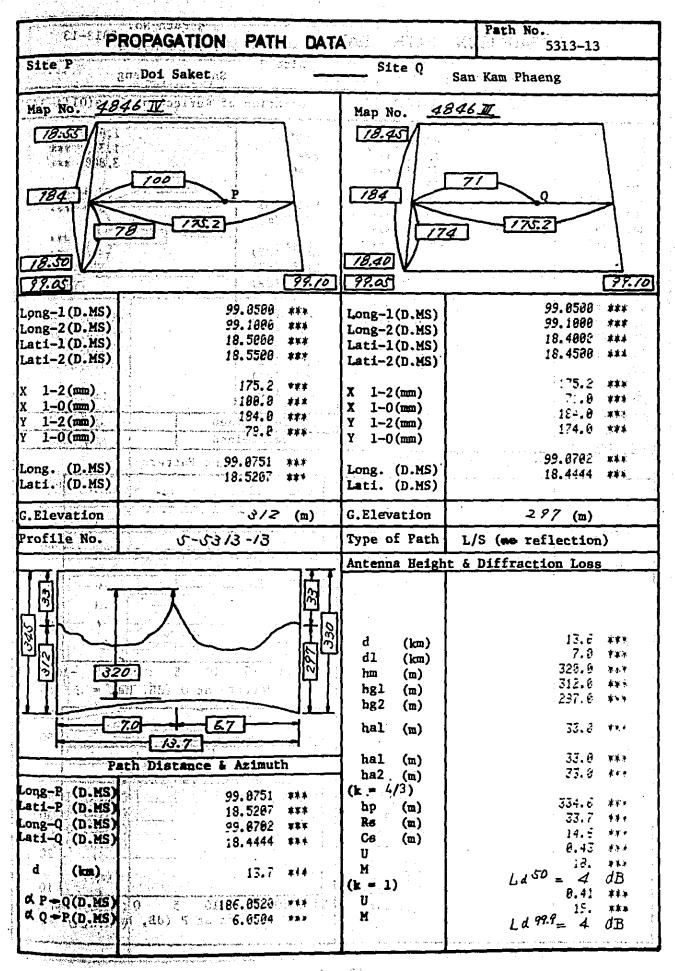
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PI	ROPAGATION	PAT	H	DAI	ANT	Pa	th No.
Site P	Chiangmai	2		•	Site Q	Doi S	aket
Ref	lection Area(01	14-1/3	3)		Variation	of Refle	ction Loss (011A-3/
f (MHz) K hg1 (m) hg2 (m) d (km) ha1 (m) ha2' (m) hr' (m) hr' (m) d1 (m) d2 (m) $\psi$ (D.MS) T1 (km) Dv /e		908.00 1.333 315.0 312.0 18.3 35.0 33.0 302.0 9.6 8.7 9.1517 8.8 0.90 8.90 8.9	*** *** *** *** ***		K <sup>41.4</sup> K <sup>50</sup> K <sup>50</sup> K <sup>50</sup> (m) ha2 (m) Lr <sup>92</sup> (dB) Lr <sup>41</sup> (dB) ha1 (m) ha1 (m) ha1 (m) Lr <sup>92</sup> (dB) Lr <sup>42</sup> (dB) Lr <sup>42</sup> (dB)		1.000 **** 1.333 *** 3.000 *** -33.0 *** -5.6 *** -5.5 *** -5.0 *** (-1-5) (-1-5)
Ør (deg) Lr min(dB) Lr max(dB)		180.0 -5.6 20.0	*** ***	:	hal determin ha2 determin		(arr) 0- 1 ২০১৯ (m) - 1 ২৪ (m) - 1 ২৪ (m) - 1
	ection Loss(01)	1A-2/3	)		Hei	ght Pat	tern
hal (m)		35.0	***				ha2(m
Lr60m(dB) 55 50 45 40 35 30 25 20 15 10		$\begin{array}{r} 6.9\\ 1.3\\ -1.7\\ -3.6\\ -4.8\\ -5.4\\ -5.6\\ -5.3\\ -4.7\\ -3.6\\ -2.0\end{array}$	*** *** *** *** ***		25 20 15 Lr Patter	10 5 n at Q (	40 30 20 10 (dB, hal' = m)
ha2' (m)		33.0	***				hal (1
Lr60m(dB) 55 50 45 40 35 30 25 20 15 10		-1.1 -3.1 -4.3 -5.1 -5.5 -5.5 -5.2 -4.6 -3.6			25 20 15	10 5	

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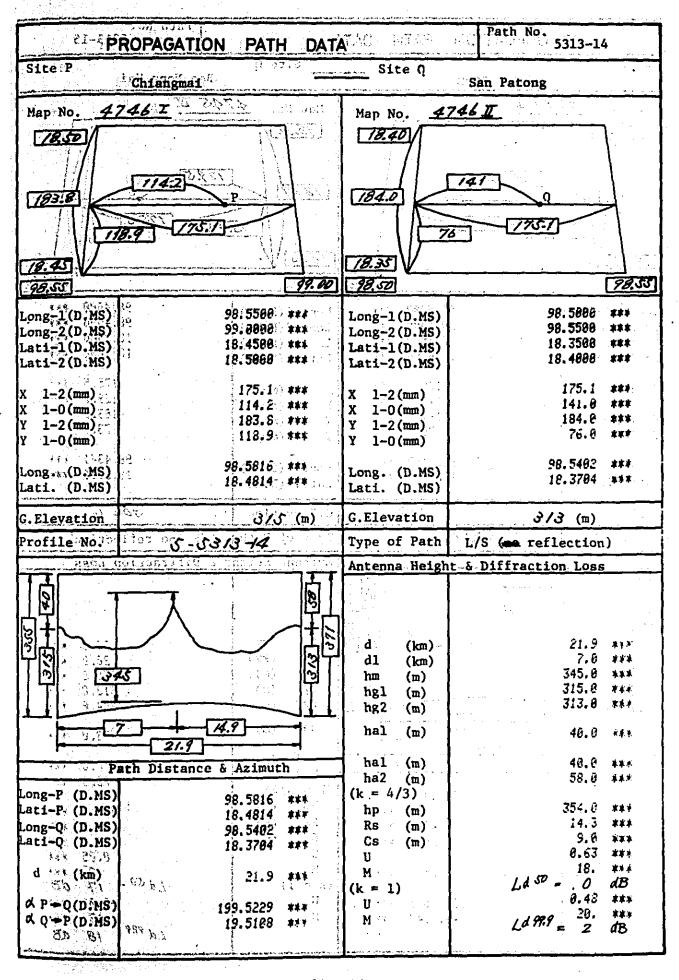
• : <b>P</b>	ROPAGATION PATH DAT	Also stand sto	h No. 49085313-13
Site P	Dol Saket	Site Q San Kam	Phäeng
Ref	lection Area(011A-1/3)	Variation of Reflec	tion Loss (011A-3/:
f (MHz)	980.88 ***	K 41.1	1.808 ***
К	1.333 ***	K So	1.333 ***
hgl (m)	312.0 ***	K A/	3.666 .***
hg2 (m)	297.0 ***	K T	
d (km)	13.7 ***		33.8 ***
hal (m)	33.0 ***	hal (m)	33,0 ***
ha2 (m)	33.0 ***	ha2 (m)	
hr' (m)	297.0 ***		
ιι <sub>(</sub> (ω)	271.2 +++	Lr <sup>fff</sup> (dB)	-4.3 ***
1	295.0 ***	Lr <sup>20</sup> (dB)	-3.3 ***
hr (m)	295.0 ***	Lr #/ (dB)	
	S.0 ***	l'este a <u>s</u> e success quites antises se prime entrepo	n partier na mar en la trasse pour annance de la construction de la construction de la construction de la const Internet de la construction de la co Internet de la construction de la c
d1 (m)	= -	hal (m)	
d2 (m)		hal (m)	计常常 化外型电子
$\psi$ (D.MS)			1. (18.24), (h+2.4),
T1 (km)	5.8 ***	Lr <sup>#1,9</sup> (dB)	
Dv	0.94 ***	Lr <sup>so</sup> (dB)	
		Lr <sup>AI</sup> (dB)	(KOD FALSE)
le le	8.9 ***		( (star) (find)
<b>∳r</b> (deg)	180.0 ***	hal determined	<u> २२</u> (m)
Lr min(dB)	-5.6 ***	ha2 determined	<u>ි රි. (m)</u>
Lr max(dB)	20.0 ***	naz determined	00.4(m)
	lection Loss(011A-2/3)	Height Patt	ern
hal (m)	33.6 ***		ha2(n
Lr60m(dB)			
55	-1.9 ***		40
50	2.9		
45	16.5. <sup>***********************************</sup>		30
40	5.9 ***		
35	-0.5 ***		
30	-3.5 ###		20
25	-5,1 ***		
20	-5.0 ***		10
15	-5.2 ***	25 20 15 10 5	0 -5 -10
10	-4.8 ***	Lr Pattern at Q (	and the second
10	-1.6 ***	LA LALLEAN AL V	
ha2' (m)	33.0 ***		ha1
1-(0-(1-)	· · ·		
Lr60m(dB)	7.9 ***		and a new front from the second state of the second
55	19.2 ***		40"
50	6.2 ***		Here Constant and the second
45	1.0 ***		TTT NEAT I-Las
40	-1.9 <b>***</b>		30
35	-3.8 ***		
30	-4.9 ***		20
25	-5.4 ***		
20	-5.6 ***		
15	-5.2 ***		10
10	-4.5 ***	25 20 15 310 5	0 = 5,4=10
T.A		Lr Pattern at P. (	4B 64925 SS m)
		l	un, nac. J.J

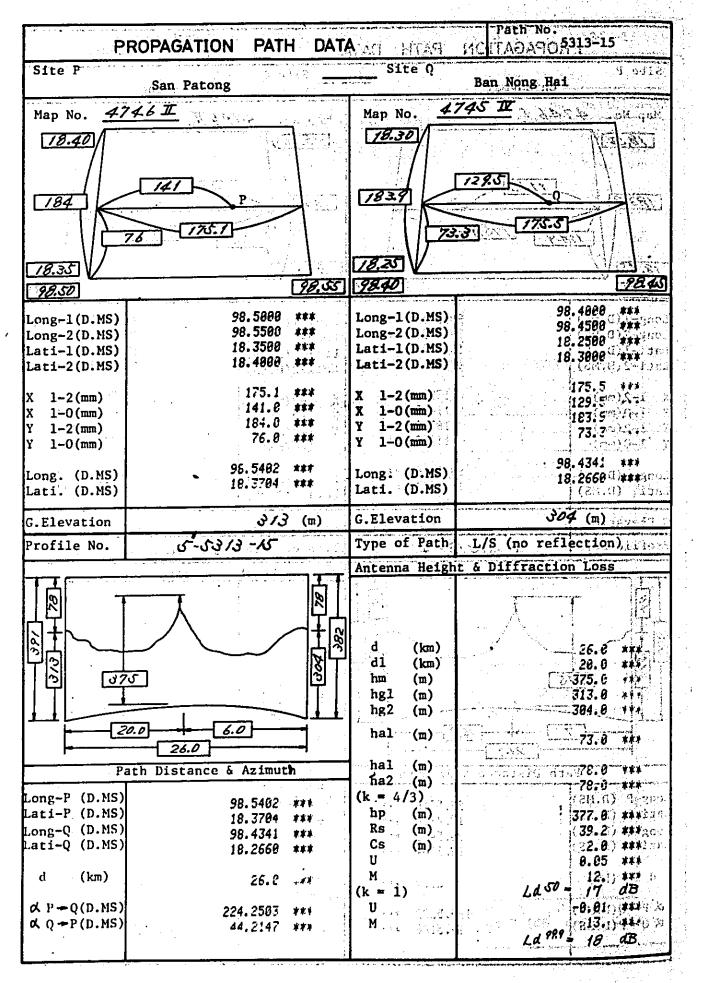
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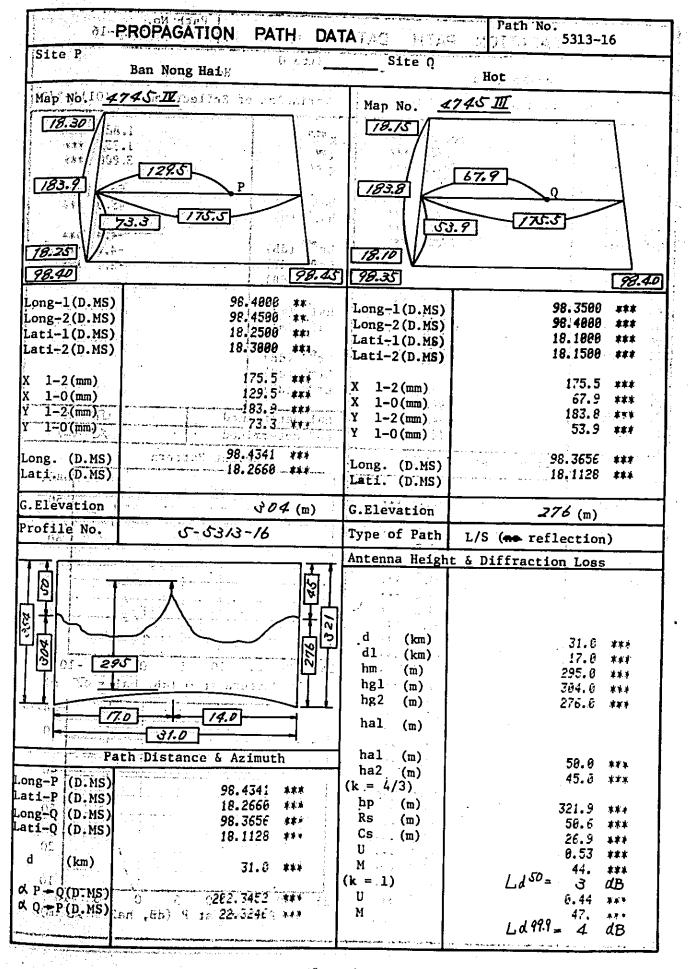
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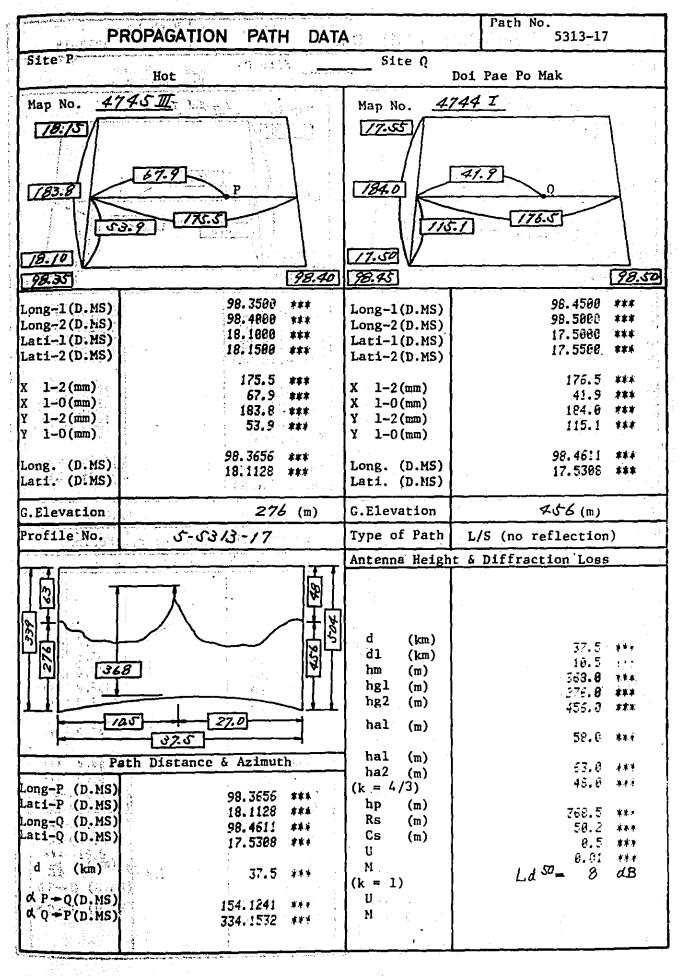
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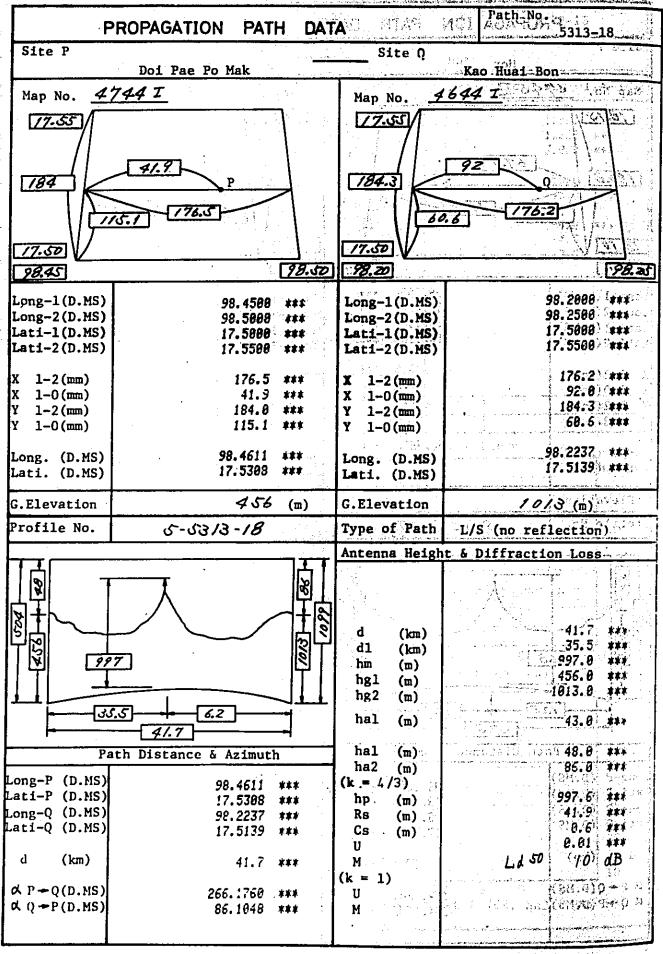




PF	OPAGATION PAT	H DAT	A	Path No. 2 1 At 05313-16
Site P	Ban Nong Hai		Site Q	Hot Ster and
Refl	ection Area(011A-1/	3)	Variation o	of Reflection Loss (011A-3/3)
$(MHz)$ K hg1 (m) hg2 (m) d (km) ha1' (m) ha2' (m) hr' (m) hr (m) d1 (m) d2 (m) $\psi$ (D.MS) T1 (b=)	908.60 1.333 304.0 276.0 31.0 50.0 45.0 270.0 18.6 12.4 0.1143 14.6	*** *** *** *** *** *** *** *** ***	K 41.4 K 50 K 41 ha1 (m) ha2 (m) Lr 41 (dB) Lr 41 (dB) Lr 41 (dB) ha1 (m) ha1 (m)	1.000 1.333 *** 3.000 *** -50.8 *** -45.0 *** -4.4 *** -4.6 *** -3.2 ***
Tl (km) Dv Pe ∳r (deg) Lr min(dB) Lr max(dB) Refl	8.81 9.7	*** *** *** ***	Lr <sup>#!</sup> (dB) Lr <sup>#0</sup> (dB) Lr <sup>#!</sup> (dB) hal determin ha2 determin Hei	
hal (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	-2.7 -3.7 -4.3 -4.6 -4.5 -4.2 -3.5 -2.5 -1.1	*** *** ***	25 20 15 Lr Patter	$ \begin{array}{c} 50 \\ -40 \\$
ha2' (m) Lr60m(dB) 55 50 45 40 35 30 25 20 15 10	45.0 -4.2 -4.5 -4.6 -4.6 -4.4 -4.2 -3.8 -3.2 -2.5 -1.7 -0.7	*** *** *** *** *** *** ***	25 20 15 Lr Patter	hal (m 50 40 30 20 10 10 5 0 -5 -10 n at P (dB, ha2' = 45 m)



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PROPAGATION PATH DAT	A Site Q	Path No. 5313-19
Kao Huai Bon		Omkoi
Map No. $4644 T$ 7-55 72 784.3 60.6 776.2	Map No. <u>4</u> [ <u>7.50</u> ] [ <u>184.2</u> ]	<u>66.2</u> <u>762</u>
17.50	17.45	
98.20 98.25	98.20	PR 25
Long-1(D.MS) 98.2090 *** Long-2(D.MS) 98.2500 *** Lati-1(D.MS) 17.5006 *** Lati-2(D.MS) 17.5500 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.2000 *** 98.2500 *** 17.4500 *** 17.5000 ***
X 1-2 (mm)       176.2 ***         X 1-0 (mm)       92.0 ***         Y 1-2 (mm)       184.3 ***         Y 1-0 (mm)       60.6 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	176.2 *** 66.2 *** 184.2 *** 110.3 ***
Long. (D.MS) 98.2237 *** Lati. (D.MS) 17.5139 ***	Long. (D.MS) Lati. (D.MS)	98.2153 *** 17.4760 ***
G.Elevation /0/3 (m)	G.Elevation	<i>802</i> (m)
Profile No. 5-5313-19	Type of Path	L/S (me reflection)
	Antenna Heigh d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m)	6.8 *** 6.8 *** 6.2 *** 890.0 *** 1013.0 *** 802.0 *** 68.0 ***
Path Distance & Azimuth	hal (m) ha2 (m)	63. B ***
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Long-Q (D.MS) Ati-Q (D.MS) d (km) d (km) f: 8 ***	(k = 4/3) hp (m) Rs (m) Cs (m) U M (k = 1)	78.6 *** 897.: *** 13.5 *** 7.1 *** 6.52 *** Ld 50 3 dB

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ſ	PROPAGATION PATH DAT	A	Path No. 5313-20
Site P	San Patong	Site Q	Hang Dong
Map No4	.746 II	Map No. 🗲	1746 <u>1</u>
[78.47]		18.45	the second s
184	p	184	24
75.33	76 775.1	18.40	<b>3.2</b> 5.7 <b>B</b>
98.50	[98.st]	98.55	99.00
Long-1(D.MS) Long-2(D.NS) Lati-1(D.MS) Lati-2(D.MS)	58.5000 *** 58.5500 *** 18.3500 *** 18.4000 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.5500 *** 99.0000 *** 18.4000 *** 18.4500 ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	175.1 *** 141.0 *** 184.0 *** 76.0 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	175.6 24 184.0 58.0
Long. (D.MS) Lati. (D.MS)	98.5402 *** 18.3764 ***	Long. (D.MS) Lati. (D.MS)	93.5541 *** 18.4135 ***
G.Elevation	خ/ئ (m)	G.Elevation	324.0(m)\$999828.0
Profile No.	5-5213-20	Type of Path	L/S (no reflection)
	25 25 25 25 25 25 25 25 25 25	d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m) hal (m) hal (m) (k = 4/3) hp (m) Rs (m) Cs (m) U N (k = 1) U M	$\begin{array}{c} 8.8 \\ 4.4 \\ 4.4 \\ 345.0 \\ 4.4 \\ 345.0 \\ 313.0 \\ 324.6 \\$

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P)21	ROPAGATION	PATH	DAT	A AC HIAR		h No. 5313-2	
Site P				Site Q	<u>ADDN</u>	5313-2	
	San Patong (i)		un area and and	DILE Q	HanggDon	g	
Ref	lection Area(0	11A-1/3)	n tagantun port	Variation		tion Loss(0)	1.1
(MHz)		·	, est M Street				
K I I	n Maria Maria	300.00 *** 1.333 ***	A. Same	К <b>9¶.</b> ¶		1.096	**
hgl (m)	4 4	313.0 ***		K 50		1.333	**
hg2 (m)		324.E ***		K. ar			**:
d (km) hal (m)	- Lie	6.8 ***		hal (m)	1.1	60.0	**
ha2' (m)	NOWN	50.0 *** 33.0 ***		ha2 (m)	· · · · · · ·		***
hr' (m)	5	-322.6 1		•			
		i e i Vilana	•	Lr <b>***</b> (dB)		-0.5	***
hr(m)			12 St. 12	Lr <sup>50</sup> (dB)		-1.4	***
02-33		jeje Transformation		Lr (dB)		-2.5	***
$\frac{d1}{d2} (m)_{a_1,a_2}^{a_1,a_2} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_1,a_2}^{a_2,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_2,a_3}^{a_3,a_3} (m)_{a_3,a_3}^{a_3,a_3} (m)_{a_3,a_3}^{a_3$	186	5.2 ***		hal (m)	and a second s	يري يصفرونه هايف المنا	18 <b>1</b> .
$\psi$ (D.MS)		0.3323 ***		hal' (m)	2011 20		
T1 (km)	·51 ·	2.7 ***					•
Dv tas 1022	3) 	0.98 ***		Lr <sup>91.9</sup> (dB)		•	•
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0.0		Lr‴ (dB)			-
Pe in a to		0.9 *** 180.0 ***		Lr <sup>0.1</sup> (dB)		·	
$\Phi$ r (deg)	}	-5.6 ***		hal determi			
Lr min(dB) Lr max(dB)	8	20.8 ***		hal determine		60	_
	ection Loss(01	14-2/21			······		(m)
1		1A-2/3/	14 J	He:	ight Patte	ern	
hal(m)	The Array and the second second	181.					ha
· · · · · · · · · · · · · · · · · · ·	Anna hanga sa ana anna 2 anna 2 anna an anna 2 anna an anna an anna an anna an anna an an	60.0 ***		•			5
Lr60m(dB)	in an			1 (11) (11) (11) (11) (11) (11) (11) (1	1111 - 1111 1111 - 1111 - 1111		
55 30115	estate Taxado - Maria	1.5 ***	· •	•••••			4
50	norices fild 3	-14-2*** -1-0***					<b>?</b> '
45		-4.9 ***					
40 35	1. (A	-5.5 ***					30
	sate the set	-3.3 ***					2(
		3.9 ***					21
30 25			- I'				10
25 20		6.2 ###			··· · · · · · · · · · · · · · · · · ·	· · · · · · · ·	
25 20 15		6:2 *** -2:1 ***		<b>25</b> 20 15	10 5	0 -5 -1	0
25 20		6.2 ###					
25 20 15 10	- -	6:2 *** -2:1 *** -5:2 *** -5:4 ***				0 -5 -1 B, hal' = 60	m)
25 20 15	· •	6:2 *** -2:1 *** -5:2 ***					m) ha
25 20 15 10	- - -	6:2 *** -2:1 *** -5:2 *** -5:4 *** 33:8 ***					
25 20 15 10 ha2' (m) Lr60m(dB) 55	•	6:2 *** -2:1 *** -5:2 *** -5:4 ***					m) ha
25 20 15 10 ha2' (m) Lr60m(dB) 55 50	•	6:2 *** -2:1 *** -5:2 *** -5:4 *** 33.0 *** -1:4 *** 5:3 *** 14.1 ***					m) ha 50
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45	· · ·	6:2 *** -2:1 *** -5:2 *** -5:4 *** 33.0 *** -1:4 *** 5:3 *** 14.1 *** 1.4 ***					m) ha 50
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40		6:2 *** -2:1 *** -5:2 *** -5:4 *** 33.0 *** 33.0 *** -1:4 *** 14.1 *** 1.4 *** -3.0 ***					m) ha 50 40
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40 35		6:2 *** -2:1 *** -5:2 *** -5:4 *** 33.0 *** 33.0 *** 1.4 *** 1.4 *** 1.4 *** -3:0 *** -5:0 ***					m) ha 50 40
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40 35 30		6:2 *** -2:1 *** -5:2 *** -5:4 *** 33:0 *** 33:0 *** 1:4 *** 1:4 *** 1:4 *** -3:0 *** -5:0 *** -5:0 ***					m) ha 50 40 30
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40 35 30 25		6:2 *** -2:1 *** -5:2 *** -5:4 *** 33.0 *** 33.0 *** 1.4 *** 1.4 *** 1.4 *** -3:0 *** -5:0 ***					m) ha 50 40 30
25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40 35 30		6:2 *** -2:1 *** -5:2 *** -5:4 *** 33:0 *** -1:4 *** 5:3 *** 14:1 *** 1.4 *** 1.4 *** -3:0 *** -5:0 *** -5:0 *** -5:0 ***					m) ha

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P	ROPAGATION PATH D	ATA	Path No. 5313-21
Site P	Ban Nong Hai	Site Q	Chom Thong
Map No. 🗲	<u>145 II</u>	Map No.	1745 IF
[18.30] [183.9] [18.25]	729.5 P 73.3 775.5	18,20	27 0 2.2 773.7
98.4.0	98.4	5 98.40	<b>?.8.4</b> 5
ong-1(D.MS) ong-2(D.MS) ati-1(D.MS) ati-2(D.MS) 1-2(mm)	98.4000 *** 98.4500 *** 18.2500 *** 18.3000 *** 175.5 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	
1-0 (mm) 1-2 (mm) 1-0 (mm)	129.5 *** 183.9 *** 73.3 *** 98.4341 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	27.8 *** 184.8 *** 182.2 *** 98.4846 ***
ong. (D.MS) ati. (D.MS)	18.2660 ***	Long. (D.MS) Lati. (D.MS)	18.2457 <b>***</b>
Elevation	304 (m)	G.Elevation	293(m)
rofile No.	5-5313-21	Type of Path	L/S (me reflection)
	th Distance & Azimuth	Antenna Heigh Antenna Heigh d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m)	No Obstacles
ng-P (D.MS) ti-P (D.MS) ng-Q (D.MS) ti-Q (D.MS) d (km)	98.4341 *** 18.2660 *** 98.484E *** 18.2457 *** .6.4 ***	ha2 (m) (k = / ) hp (m) Rs (m) Cs (m) U M	
P = Q(D.MS) Q = P(D.MS)	233.4725 *** 53.4630 ***	(k = 1) U M	

•

	ROPAGATION PATH	DATA		Path No	5313-2	21
Site P	Ban Nong Hai		Site Q	Chom Thong		•
Ref	lection Area(011A-1/3)		Variation	of Reflection	Loss(0	11A-3/3
f (MHz)	500.68 *	**		- <u></u>	1 000	
K		**	K 41.1		1.000 1.333	*** ***
hgl (m)	1 / · · · · · · · · · · · · · · · · · ·	**	K <sup>so</sup>		3.000	***
hg2 (m)	a section of the sect	**	K Af		0,000	****
d (km)		**	1-1 (-)		30.0	***
hal (m)	30.8 *	- 14 E	hal (m) ha2 (m)		33.0	***
ha2 (m)		**	ла <b>г (m)</b> -	· · · · · · · · · · · · · · · · · · ·	•	
hr': (m)	280.0 *	**	Lr <sup>9%9</sup> (dB)		-2.7	***
			Lr# (dB)		-3.2	***
hr (m)	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Lr 4/ (dB)	and the second	-3.8	***
ing the international states in the second		and and a second se			• • •	·· · ·
d1 (m) d2 (m)		**  -	hal (m)		· · · · ·	·
	44 - Altaile - A	**	hal (m)			· · · ·
ψ (D.MS) Tl (km)	1.5 *		1. A			÷ .
Dv		**	Lr <sup>97.9</sup> (dB)			
			Lr <sup>eo</sup> (dB)			
<i>Pe</i>	8.9.**		Lr " (dB)			. •
ðr (deg)	186.0 *					
Lr min(dB)	-5.6 *		hal determin		30	(m)
Lr max(dB)	sa asa 28.8 ≭	**	ha2 determin	ned	<u>.</u>	(m)
Ref	ection Loss(011A-2/3)		. He:	ight Pattern		
a the second sec	1		<u>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1</u>	• • • • •		
hal (m)		tt I				
1	00.0					50
Lr60m(dB)	-4.9 **	**			<u> </u>	1
55		**				40
50	2.8	** 1				
45	the same of the second property of the second s	## · ``				1 20
40		##				- 30
35 .		<b>**</b> .				20
30		**				- 20
25		**	• • • • • • • • • • • • • • • • • • • •		·····	
20		**: **:	<b>25</b> 20 15	10 5 0		10
15		**				-10
10	2.0		Lr Patter	in at Q (dB,	ۍ ≃ nai	<i>U</i> m)
ha2' (m)	33.0 *	**				] hal(m
шег (щ)		- 1 - E				50
Lr6Om(dB)	-5.4 *	¥¥ [				
55 8 8 8	a −4.5 <b>*</b> 1	1		·····		1
50	2,5 *			·····		40
45	5.7 *					
40	-3.7 *			۸۰۰۰ موجود و مع موجود ا	·	30
35	-5.6 **	**				
30		**	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			. 20
25		**				
			<b>h</b>			10
20	3993 v <b>⊷∆.9 ≭</b> 1	東米 、				
20 15		##	25 20 15	10 5 0	-5 .	
20			25 20 15 Lr Patter	10 5 0 n at P (dB,		-10

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			and the second secon
F	PROPAGATION PATH DAT	A	Path No.
Site P	Doi Pae Po Mak	Site Q	Doi Tao
Map No. 9	744 1	Map No.	744 1 101136 (304
77.53 7840	41.9 P 13.7 176.5	18.00 1838 1838	
98.45	98.50	98.40	98 AS
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.4500 *** 98.5000 *** 17.5000 *** 17.5500 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.4888 98.4568 *** 17.5568 *** 18.8888 ***
X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	176.5 *** 41.9 *** 184.6 *** 115.1 ***	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	176.2 *** 34.0 *** 183.8 *** 87.2 ***
Long. (D.MS) Lati. (D.MS)	98.4611 *** 17.5308 ***	Long. (D.MS) Lați. (D.MS)	98.4058 *** 17:5722 ***
G.Elevation	<i>へ</i> びら (m)	G.Elevation	2.76 (m)
Profile No.	5-5313-22	Type of Path	L/S (ac reflection)
T-T (			t & Diffraction Loss
	Azimuth	d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m)	12.1 *** 12.1 *** 11.6 *** 305.0 *** 456.0 *** 275.0 *** (n) 26.0 *** (n) 26.0 ***
		ha2 (m)	15.0 **** 33.0 ****
ong-P (D.MS) ati-P (D.MS) ong-Q (D.MS) ati-Q (D.MS) d (km)	98.4611 *** 17.5308 *** 98.4058 *** 17.5722 ***	(k = 4/3) hp (m) Rs (m) Cs (m) U	323.0 *** 18.3 *** 18.0 *** 0.99 ***
a (km) X P <del>+</del> Q(D.MS)	12.1 *** 310.2045 ***	M (k = 1) U	$Ld^{50} = \begin{array}{c} 68. & *** \\ 0 & dB \\ 8.97 & *** \end{array}$

28- <b>P</b> I	ROPAGATION	PATH	DAT	Ave HING	Pat	h No. 5313-2	2
Site P	Doi aPae Po Mal	<ul> <li>(i ≤ 2)</li> <li>s</li> </ul>		Site Q	Doi Tao		
Ref	ection Area(0)	[1A-1/3]		Variation	of Reflec	tion Loss(O	11A-3/
í (MHz)		000 00 1				1 000	
K		980.00 *	**	К <b>т.т</b> К <b>з</b> е		1.000 1.333	
hg1 (m)	a survey and a survey of the	456.0 *		K at		3.600	
lig2 (m)	بالمربعة المربعة المرب مربعة مربعة المربعة الم		<b>K</b> 3	K			
d ((km)	and and the second of the second s			hal (m)		15.0	
hal (m) ha2 (m)	Second in consideration of the second s	15.0 *		ha2' (m)		- 23.0	· 宋宋主
hr' (m)	Company and Company	33.0 ** 280.0 **			i en la compañía de l		
		200.0 . 4	ка. 1910 г. – 1	Lr <b>***</b> (dB)		-4.0	*** ***
hr (n)	and a second contract of the second	and and the second		Lr <sup>30</sup> (dB)		-3.3	
ي در	a and a second	د . 		Lr af (dB)		010	
dl (m) 🖂	5		r#	· · · · · ·		· · · ·	
d2 (m)	9	1.6 *		hal (m)		· .	
$\psi$ (D.MS)		• A faile state	**	ha1 (m)			
Tl (km) Dv		1.2 * 0.95 *		Lr <sup>#!!</sup> (dB)			
DV			**	Lr <sup>so</sup> (dB)			
Pe		9.6 *	tai – I	Lr <sup>0.1</sup> (dB)			
₫r ··· (deg)		188.6 🗰	rat 👘				
Lr min(dB)		-5.1 *		hal determi			(m)
Lr max(dB)		14.0 *	5A	ha2 determi	ned	<u></u>	(m)
Refl	ection Loss(01	1A-2/3)	1	He	ight Patte	ern	
		r (astron					ha2(r
hal (m)	ايىدى دە بەلى بىرىپ سىلىسىغا دام مىسىلىغۇم. يىمى ئۇر	15.0 🗰	Р <b>А</b>		· · · · · · · · · · · · · · ·	ta t	50
	h 🖉 Sa Bahamangkalan shakan kaliyalan kaliji	3.3 **	tst				
Lr60m(dB) 55	Clar and Real	-4.8 #1			· •		10
	11 12 83 13 6 3	-0.6 #					40
45	(a) The second s second second sec		r#				
40.		-2.9 *1	F#			······ ··· ···· ······················	30
35		-	rat 🗍				
30		-4.3 **	1				20
25							
20		-5.0 **	u#   ⊔#		10 =	<u> </u>	10
15 10		-5.0 *4		25 20 15	10 5	- ·	-10
±0	· · · · ·		. I	E LT Patte	n at Q (d	IB, hal' = /	(m )
ha2' (m)	•	33.0 M	r#		•••	i	hal(
	-				•••	· · · ·	50
Lr60m(dB)		-3.0 **			···· · · · · · · · · · · · · · · · · ·	•••••••••	
55		-1.0 ** 2.1: **	1	1 ··· ·	a 🖌 🖌 🖌	an sa sa sa sa	1
50		2.1: ** 7.3 **		· · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	40
45							Ī
40		6.7 **	1			• • • • • • • • • • • • • • • • • • •	30
35 ( ) ( ) ( )		1.8	1				1
30 25		-1.2 **		· · · · · · · · · · · · · · · · · · ·			. 20
20		-3.1 **					
20 15		-4.3 **				1 _	10
. 10	· · ·	-4.9 **	₩12 - 1		10 5		-10
	an a		1	Lr Patter	n at P (d	B, ha2' = 🕄	3 m)

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**13 - 79** General Vie

F	PROPAGATION PATH DAT	A TOL HIAS	Path No. TA 247 5313-23
Site P	San Patong	Site Q	Dof Inthanon C
78.40 784 784 7835 78.35 78.35 298.57 Long-1 (D.MS)	<u>746 II</u> <u>747 P</u> <u>76 775.7</u> <u>98.5880 ***</u> 98.5880 ***	78.35 784.7 78.30 78.30 98.23 Long-1 (D.MS)	2.8 /74-1 0 785-1 (1) (2) (2) (2) (2) (2) (2) (2) (2
Long-2(D.MS) Lat1-1(D.MS) Lat1-2(D.MS) X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm) Long. (D.MS) Lati. (D.MS)	98.5500 *** 18.3500 *** 18.4000 *** 175.1 *** 141.0 *** 184.0 *** 76.0 *** 98.5402 *** 18.3704 ***	Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS) X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm) Long. (D.MS) Lati. (D.MS)	98.3000 *** 18.3000 *** 18.3500 *** 175.1 *** 144.1 *** 184:1 *** 184:1 *** 184:1 *** 184:1 *** 184:1 *** 18:3425 ***
G.Elevation	रे/रे (m)	G.Elevation	2500(m)
Profile No.	5-5313-23	Type of Path	
$\frac{P}{d}$	98.5462 *** 18.3704 *** 98.2907 *** 18.3425 *** 44.6 ***	Antenna Heigh d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m) hal (m) hal (m) (k = /) hp (m) Rs (m) Cs (m) U M (k = 1) U M	t & Diffraction Loss

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日本にした時間	ROPAGATION PATH D	ATA	Path No. 5313-23
Site P	San Patong	Site Q	Doi Inthanon
Ref	lection Area(011A-1/3)	Variation	of Reflection Loss(011A-3/
(MHz)	<ul> <li>Magnety - agents and the programmer and straining a straining and the programmer and the progra</li></ul>		UI Reflection Loss (ULIA-3/
ĸ	900.00 *** 1.333 ***	K 41.9	1.000 ***
ngl (m)	313.8 ***	K 50	1.333 ***
ing2 (m)	2500.0 ×**	K af	3.000 ***
d (km) hal (m)	44.6 ***		46.0 ***
ha2 (m)	-0.0 ***	hal (m) ha2 (m)	33.0 ***
hr' (m)	33.0 *** 317.0 ***	11er 2 (44)	
		Lr <sup>9%1</sup> (dB)	1.9 ***
hr (m)	e der son beneften an eine eine eine eine eine eine eine	Lr <sup>30</sup> (dB)	
		Lr <sup>af</sup> (dB)	1077 and an international of <b>−4.4</b> *** <u>*</u>
dl (m) d2 (m)	8.7 ***	hal (m)	
Ψ (D.MS)	43.3 *** 2.4726 ***	hal (m)	
T1 (km)	8:3 ###		
Dv: 10. est a f	1:08 ***	Lr## (dB)	
Per ter		Lr. (dB)	
Ør (deg)	8.8 *** 179.0 ***	Lr <sup>0.1</sup> (dB)	•
Lr min(dB)	-5.1	hal determin	ed 40 (m)
Lr max(dB)	14.0 ***	ha2 determin	
Refl	ection Loss(011A-2/3)	Hei	ght Pattern
Lr60m(dB)	-5.0 ***		
55 50 45 40 35 30 25 20 15 10 	-4.9 *** -4.7 *** -4.7 *** -4.5 *** -4.2 *** -3.9 *** -3.9 *** -3.5 *** -3.6 *** -2.5 *** -1.8 ***	25 20 15 Lr Patterr	$40$ $30$ $20$ $10$ $10  5  0  -5  -10$ $at \ Q \ (dB, \ hal' = \mathcal{AC} \ m)$ $at \ Q \ (dB, \ hal' = \mathcal{AC} \ m)$ $40$ $30$
50 45 40 35 30 25 20 15 10 15 10 .r 60m(dB) 55 50 45 40 35	-4.9 *** -4.7 *** -4.7 *** -4.5 *** -4.2 *** -3.9 *** -3.9 *** -3.5 *** -3.6 *** -2.5 *** -1.8 *** -1.8 *** -1.8 *** -1.6 *** -4.3 *** -1.5 *** -1.5 *** -1.5 *** -1.5 ***		$ \begin{array}{c}                                     $

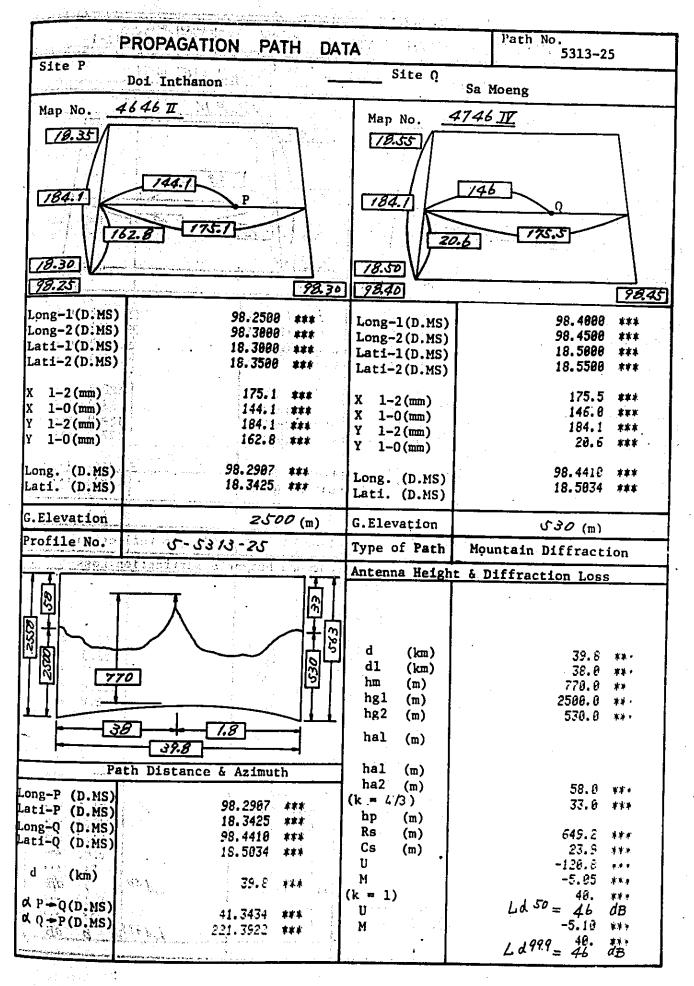
•

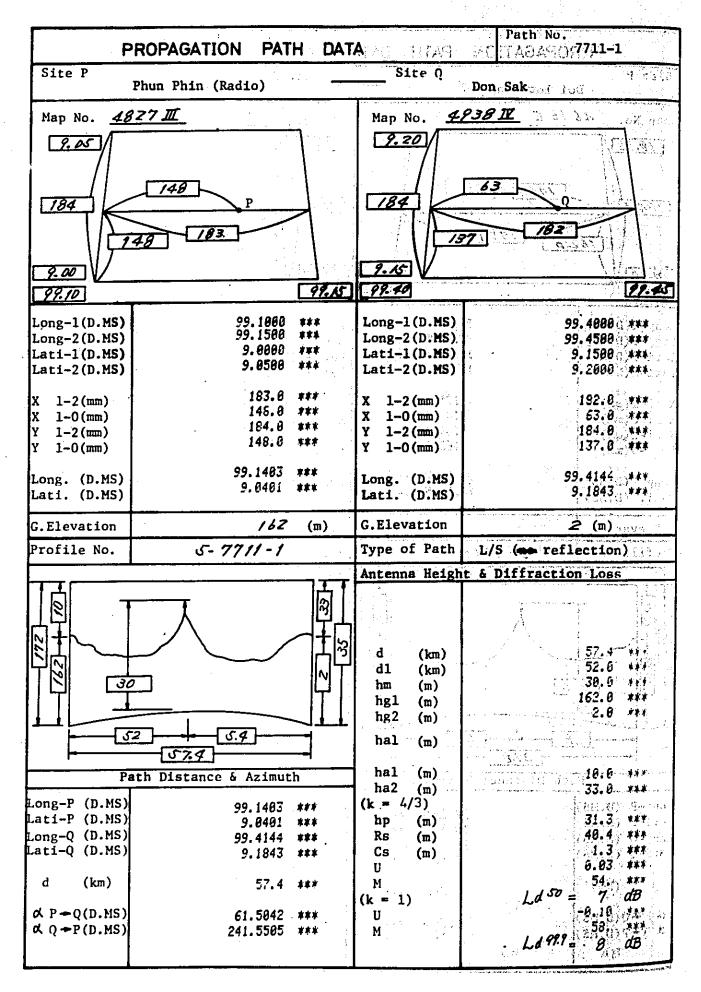
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15 HE BANK 13 - 81

1	PROPAGATION PATH	1 DAT	AN HIAG	MI JACA 15313-24
Site P	Mae Chaen		Site Q	Dol Inthanon
Map No.	1646 <u>11</u> each Albert ann an		Map No.	2646 T NOI JOALION
78.35 784 784	71.2 P 7.0 7.0 7.0		18.35 1840 18.30	(x) (44.7) (x) (x) (x) (x) (x) (x) (x) (x
98.20	1	98.25	98.25	98.3
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.2500	*** *** ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	98.2588 98.3888 18.3888 18.3580 ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)			X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	175.1 *** 144.1 *** 184.0 *** 162.8 ***
Long. (D.MS) Lati. (D.MS)		*** ***	Long. (D.MS) Lati. (D.MS)	98,2907 *** 18-3425 ***
G.Elevation	467	(m)	G.Elevation	2500 (F)
Profile No.	5-5313-24		Type of Path	L/S (no reflection)
	· · · · · · · · · · · · · · · · · · ·		Antenna Heigh	t & Diffraction Loss
	70 70 4.2 74.9		d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m)	04 24 04 14.9 **** 14.2 *** 14.2 *** 14.2 *** 14.2 *** 2570.0 *** 467.0 *** 2500.0 ***
Pa	ath Distance & Azimuth		hal (m) ha2 (m)	
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS) d (km)	18.3002 # 98.2907 # 18.3425 #		(k = 4/3) hp (m) Rs (m) Cs (m) U M	58.0 *** 58.0 *** 2461.9 *** 14.9 *** -8.1 *** -8.1 ***
& P+Q(D.MS) & Q+P(D.MS)		47 94	(k = 1) U M	$Ld  50 = \begin{array}{c} 21. & *1 \\ 11 & dB_{11} \\ -8.56 & ** \\ 21. & ** \end{array}$





	ROPAGATION	PATH	DATA		Path No. 7711-	1
SILC P	Phun Phin (Rad		Site	Q Don S	Sak	<u> </u>
	flection Area(0	11A-1/3)	Varia	tion of Ref	lection Loss(0	11A-3/3
f (MHz) K	1. We Refer to a set of the original terms are set of the set o	908.00 ***			1.000	***
hg1 (m)		1.333 ***	K 50	Í	1.333	
hg2 (m)	and a second	2.0 ***	K 📲		3.000	***
d (km) hal (m)	ار بر مهردی در همهمی ۲۰۰۰ میرونی کار بر مهردی در همهمی ۲۰۰۰ میرونی کار	57.4 *** 10.0 ***	hal (n	n)	10.0	***
ha2' (m)	Anna a particular ap			n)	33.0	***
hr' (m)	in mark	3.0 ***	Lr # (d	•••	5,4	***
hr (m)	an an anna an seannach an trainn an seann an trainn		Lr <sup>50</sup> (d	1B) 1B)	2.7	***
in a single state of the second state of the s	<ul> <li>The Electronic Company and Electronic States, Appl.</li> </ul>	يىرى ئىرىيى ئىرىيە	Lr #1 (d	IB)	-2.5	***
dl (m) d2 (m)		43.1 ***	hal (m			2. et 1.
$\psi$ (D.MS)		14.4 ### 8.6447 ###	hal (m		· · · ·	
T1 (km) Dv		43.1 ***	- <b>11.9</b> / .			
	· .	0.60 ***	Lr*** (d Lr** (d	B) [] B)		
Per Bar		0.5 ***	Lr */ (d			
₫r (deg) Lr min(dB)		120.0 ***	hal det	ermined		
Lr max(dB)		6.8 ***	ha2 det		<u> </u>	(m) (m)
Ref	lection Loss(01	1A-2/3)		Height Pa		()
50 45 40 35 30 25 20 15 10 na2' (m)	Number of the second	-2.3 *** -1.6 *** -0.8 *** 0.1 *** 1.1 *** 2.2 *** 3.3 *** 4.4 *** 5.2 *** 5.7 *** 6.6 *** 33.0 *** -0.8 ***		15 10 5 ttern at Q		50 40 30 20 10 m) hal(m) 50
r60m(dB) 55 50		-8.5 *** -8.1 *** 8.2 ***				40
45 40		0.5 *** 0.9 ***				30
30		1.2 *** 1.6 *** 1.9 ***				20
25		2.3 *** 2.7 ***				10
25 20 15 10		2.7 999				LTU

	PROPAGATION	PATH D		TAN ME	Path No. 771	L-2
Site P	Don Sak		Site	e Q CorigaKo	Samuinung	. 9
Map No.	4938 IL		Map No	4928	T actionits	r.
9.20	· · · · · · · · · · · · · · · · · · ·	1. x	19-35	<b>⊅∕</b> ⊡		stud
! //			1997) 1997 1997	in sait Is 1739		(177
184	63 P		184	50		(a) (mi)
			4 10 -			
\/5	137 1/22			24	- 182	(19))) (151)
9. X5.			9.30			x
99.40		99.9				10
Long-1(D.) Long-2(D.)		4600 *** 4500 ***	Long-1(1 Long-2(1		99.55 100.00	
Lati-1(D.) Lati-2(D.)	(S) 9, ;	1500 ***	Lati-1(1 Lati-2(1	D.MS)	9.30	08, <b>**</b> 1
		2000 ***	1. A. S. S. C.	- FALL (17	9.35	25. 1983 - 1983 - 1983
X 1-2 (mm) X 1-0 (mm)		32.0 *** 53.0 ***	X 1-2 (1 X 1-0 (1		182. 50.	
Y 1-2 (mm) Y 1-0 (mm)		4.0 *** 7.0 ***	Y 1-2 (1 Y 1-0 (1		185	
Long. (D.M			د. (۱۹۹۵) مرد از در ۲۰۰۰ مرد از ۲۰۰۰ م	ng aga bar Manang ang ang ang ang ang ang ang ang an	این . در مقیمات بر این شوهید با در سال مقام ۲۰۱۶ م. مرابع	
Lati. (D.M		144 *** 843 ***	Long. (I Lati. (I		99.562 9.328	1 Mar. 19 1 18 1 19 1
G.Elevatio	n	2 (m)	G.Elevat	ion		<u>.</u> ල (m)
Profile No	. 5-7711-	2	Type of	Path L/S	s (me reflect	Ion)'č
			Antenna		iffraction Lo	
2		\$				in the second
白耳し					• 14 - b. barrin	41 11 空
	$\downarrow$ $\sim$	ノ旧		km) km)	36. 18.	
	<u>e</u>	۲	hm (	m)	0.	8 ***
	1			m) m)	2. 3.	
<u> </u> [	78		hal (	m)	33.	(11) 8 <b>**</b> *
, Deat	36.3			m)	33.	ab):::00 0, ***
	Distance & Azimut		ha2 (k = 4/3	m)	33.	
ong-P (D.MS at1-P (D.MS	s) <u>9.1</u>		hp (	m)	16.	
ong-Q (D.MS ati-Q (D.MS	<b>99.</b> 5	522 ***	Cs (	m) m)	55. 16.	1 ** :
d (km)	5.5		U N		0.2	9 ***
P-Q (D.MS	3	6.3 ***	(k = 1)	• • • • •	Ld 50 = 38 0.1	
Q+P (D.MS	47.3 227.3		U M		. L1999 41	. ***

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Site P	Don Sak	n 1912 -	Site Q	Path No. 140 11434905,7711-2	
				Ko Samui	
Ret	lection Area(	011A-1/3)	Variation	of Reflection Loss(011A-	3/3
(MHz)		908.00 ***	K 91.1	1.000 ***	
k hgl (m)		1.333 ***	K STO	1.333 ***	
ng1 (m) 11g2 (m)		2.8 ***	K at	3.000 ***	
d (km)	A STAN	3.0 ***			
1.a1 (m)	- Harrison and the second	36.3 ***	ha1 (m)	33.0 ***	
ha2 (m)		33.0 ***	ha2' (m)	33.0 ***	,
hr' (m)	Antimating and and	33. 6 *** 0. 0 ***	(m) *		
		V.V. +++	Lr <sup>929</sup> (dB)	5.9 ***	
lir (m)	n and the second s		Lr <sup>30</sup> (dB)	5.4 ***	• •
1. 3. 3. 3. 3. 3. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.			Lr af (dB)	la − − − − − − − <b>2.9</b> ∈ <b>xy</b> ×	
d1 (m)		18.2 ***		an a	د در د خود
u∠''(m)		18.2 ***	hal (m)		
u∠ (m) Ψ (D•MS)		8.0257 ###	hal (m)		
[] <b>(km)</b>		64.6 ****			. :
Dv		8.54 *****	Lr <sup>91,9</sup> (dB)	т. -	
0.199.5 407			Lr <sup>so</sup> (dB)	• •	
Po		8.5:) **>	Lr dB)		
þr (deg)		-3.5. ***	hal determi		
r min(dB), r max(dB)		6.8.***	ha2 determin		
	Contion Inc. (0		naz uerermi	ned <u>33 (m)</u>	1
	ection Loss(0	LIA-2/3)	He:	ight Pattern	
		fore the second		had had	(m)
nal(m)	3	· .			
	ار میله ولامین اسید میشود هم بدر و و در با یکی ماد اجد، تا ما های اور در ا		الميانية منطقية الطعام من الم الرسانية الذي الم 19 19 19		
	الاستيارة ميلاسين المحمد المعلمية المحمد من الله عن المحمد المحمد المحمد المحمد المحمد المحمد المحمد المحمد ال المراجعة المراجع المحمد المحمد المحمد المحمد الله عن المحمد المحمد المحمد المحمد المحمد المحمد المحمد المحمد ال 	33.0 ***		50	
r60m(dB)	and a first of the second s Second second s	and the second second second second second			
55 (adjoce	And and the second of the second s	2.4 ***			·
55 600 000 50 000 000	1367 and 80.2 21.106219163	2.4 ***		50	·
55 (nolicite 50 <u>cenil r</u> 45	And and the second of the second s	2.4 *** 3.1 *** 3.7 ***		50 40	· · · ·
55 (noficial 50 read r 45 40	And and the second of the second s	2.4 ***		50	
55 (10)335 50 380.2 r 45 40 35	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 ***		50 40 30	· · · ·
55 (10101000) 50 00000000000000000000000000000000	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 ***		50 40	· · · ·
55 (10101000) 50 00000000000000000000000000000000	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 ***		50 40 30 20	· · · ·
55 (10101000) 50 00000000000000000000000000000000	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.8 ***	25 20 15	50 40 30 20 10	· · · ·
55 (10) 234 50 280.2 f 45 40 35 30 25 25 20	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 ***	25 20 15 Lr Parter	50 $40$ $30$ $10$ $5$ $0$ $-5$ $-10$	· · · ·
55 101314 50 1260 1 45 40 35 30 25 20 15 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.8 ***		50 40 30 20 10	· · · ·
55 10 3 3 4 50 3 5 1 45 40 35 30 25 20 15 10 25 10 25 10 25 10 25 15 10 25 15 10 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.8 ***		50 40 40 30 20 10 10 5 0 $-5 -10$ n at Q (dB, hal' = : m)	
55 101334 50 380.1 r 45 40 35 30 25 20 55 10 5 10 5 10 5 10 5 10 5 5 5 5 5 5 5 5 5 5 5 5 5	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.8 ***		$ \begin{array}{c} 50 \\ 40 \\ 30 \\ 10 \\ 10 \\ 5 \\ 0 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $	
55 (10) 354 43 40 35 30 25 20 15 10 10 10 10 10 10 10 10 10 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 6.8 *** 33.8 ***		50 40 40 30 20 10 10 5 0 $-5 -10$ n at Q (dB, hal' = : m)	
55 101334 50 326.4 r 43 40 35 30 25 20 15 10 10 10 10 10 10 10 10 10 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 5.8 *** 6.8 *** 6.8 *** 33.8 *** 2.4 ***		$ \begin{array}{c} 50 \\ 40 \\ 30 \\ 20 \\ 10 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$	
55 (10) 314 50 320.1 f 40 35 30 25 20 55 (m) 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 55 50 50	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 6.8 *** 33.8 ***		$ \begin{array}{c} 50 \\ 40 \\ 30 \\ 10 \\ 10 \\ 5 \\ 0 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $	
55 10 3345 50 3345 40 35 30 25 20 35 15 10 55 60m(dB) 55 50 55 45	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.0 *** 6.8 *** 33.0 *** 33.0 *** 3.7 *** 4.3 ***		$ \begin{array}{c} 50 \\ 40 \\ 30 \\ 20 \\ 10 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$	
55 10 3 3 4 50 3 5 1 45 40 35 30 25 20 55 10 55 10 55 10 55 10 55 10 55 10 10 10 10 10 10 10 10 10 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.0 *** 33.0 *** 33.0 *** 3.0 *** 3.7 *** 4.3 *** 4.3 ***		$ \begin{array}{c} 50 \\ 40 \\ 30 \\ 20 \\ 10 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 5 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10$	
55 10 3 3 4 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.0 *** 33.0 *** 33.0 *** 3.0 ***		50 40 30 20 10 10 10 5 0 -5 -10 m) hall 50 +0	
55 10 3 3 4 5 10 3 3 5 10 3 5 10 3 5 10 3 5 10 3 5 10 3 5 10 3 5 10 3 5 10 3 10 10 10 10 10 10 10 10 10 10 10 10 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 33.8 *** 33.8 *** 3.7 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 5.3 *** 5.6 ***		50 40 30 20 10 10 10 10 5 0 -5 $-10n at Q (dB, hal' = : m)10101010101010101010$	
55 (10) 314 43 40 35 30 25 20 55 10 55 10 55 10 55 10 55 10 55 10 55 10 55 10 55 10 55 10 10 10 10 10 10 10 10 10 10	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 33.8 *** 33.8 *** 3.7 *** 4.3 *** 5.3 *** 5.6 *** 5.8 ***		50 40 30 20 10 10 10 5 0 -5 -10 m) hall 50 +0	
55 101335 50 326.1 f 43 40 35 30 25 20 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 10 15 10 15 10 15 10 15 15 10 15 10 15 10 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.9 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 33.8 *** 33.8 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 ***		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
55 101335 50 326.1 f 43 40 35 30 25 20 15 10 15 10 10 15 15 10 15 15 10 15 15 10 15 15 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.8 *** 6.8 *** 33.8 *** 33.8 *** 3.7 *** 4.3 *** 3.7 *** 4.3 *** 5.3 *** 5.8 ***		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
55 101335 50 326.1 f 43 40 35 30 25 20 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 10 15 10 15 10 15 10 15 15 10 15 10 15 10 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15	And and the second of the second s	2.4 *** 3.1 *** 3.7 *** 4.3 *** 4.3 *** 5.3 *** 5.6 *** 5.8 *** 6.0 *** 6.0 *** 6.8 *** 33.0 *** 33.0 *** 3.7 *** 4.3 *** 5.3 *** 5.6 *** 5.8 ***	Lr Patter	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	

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	PROPAGATION P	ATH DAT	ANC HTAT	MC Path No.	7711-3
Site P	Don Sak		Site Q	Ko Phangan	
Map No. 4	938 IL			4928 II	1
9.20	<u> </u>		7.45		
99.40		[99.45]	22.55		100.00
ong-1(D.MS) .ong-2(D.MS) .ati-1(D.MS) .ati-2(D.MS)	99.450 9.150	18 *** 10 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	1	99.5500 *** 90.0000 *** 9.4000 *** 9.4500 ***
1-2 (mm) 1-0 (mm) 1-2 (mm) 1-0 (mm)	184.	0 ***	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)		182.0 *** 178.6 *** 184.6 *** 111.6
ong. (D.MS) ati. (D.MS)	99.414 9.184	· · · · · · · · · · · · · · · · · · ·	Long. (D.MS) Lati. (D.MS)	- 21 Jun 2007 Jun 2007 - 5 	9.5953 *** 9.4301 ***
.Elevation	-	<b>2</b> (m)	G.Elevation		7 (m)
rofile No.	5-7711-3		Type of Path	L/S (me ref]	
,			Antenna Heigh	t & Diffractio	
	2 - 23.7		d (km) d1 (km) hm (m) hg1 (m) hg2 (m) hal (m)		55.7 *** 32.9. *** 8.0 *** 2.6 *** 7.0 ***
Pa Pa ng-P (D.MS)	رین رون رون رون رون رون رون رون رون رون رو		hal (m) ha2 (m) (k = 4/3)		53.0 *** (20,000) 53.0 *** 33.0 ***
ti-P (D.MS) ng-Q (D.MS) ti-Q (D.MS) d (km)	9.1843 99.5953 9.4301	#\$ #} #}	hp (m) Rs (m) Cs (m) U		1.7 *** 67.4 *** 1.7 *** 0.03 ***
P + Q(D.MS) Q + P(D.MS)	55.7 36.3309 216.3608	[	M (k = 1) U M	LASO = 1 a 98.9	-8.28 ***

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P	ROPAGATION	PATH DA		Path	No. 7711-3	· ·
SILE	and a subsection of the second state of the second state of the second second second second second second second	nan an	SIte Q	a di anti anti anti anti anti anti anti ant		
ىر، مېغوندو، ولار متونوک رو بور . در	Don, Sak		n a g <b>o ga</b> ada a	Ko Phan	gan	
Ref	lection Area(011	A-1/3)	Variation	of Reflect	ion Loss(0)	L1A-3/
i (MHz)	y and the same and the same and the same	00 00 200	at 4		1.000	***
K		00.00 *** 1.333 ***	K 91.9	· .	1.333	***
hgl (m)		< 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	K so K et		3.000	4.67 #¥γ∋
hg2 (m)		2.0 ***	K **		51000	<b>~1</b> ~
d (km)	to many account of the second s	55.7 ***			53.0	末末未
hal (m)	a second s	-53.0 ***	ha1 (m)	den en	33.0	<b>*</b> **
ha2' (m)		33.0 ***	ha2 (m)			
hr' (m)		6.8 ***		G 1	1.9	***
		a the second	Lr <sup>ftf</sup> (dB)		1.5	***
hr(m)	and some the distance of the second states of the s		Lr <sup>so</sup> (dB)		1.5	<b>宋</b> 末 •
			Lr 47 (dB)			
d1 (m)	10	1 E 984		**************************************		
d1 (m) d2 (m)	56	25.2 844	hal (m)	1. <sup>1</sup>	,	
$\psi$ (D.MS)	5 0,	.0002 ***	ha1 (m)			
T1 (km)	56	592.1 ×**	and the second	÷.		
Dv		0.06: ***	Lr <sup>#!!</sup> (dB)			
0			Lr <sup>so</sup> (dB)			
Pe		8.2 ***	Lr .! (dB)			
$\Phi$ r (deg)		180.6. *** -1.6 ***	hal determi			
L: min(dB)		1.5. ##*				(m)
L: max(dB)	ection Loss(011		ha2 determi	.nea	33	(m)
hal(m)	na ing ang - na ng pang kanang pangang ng pang pang pang pang pan	53.8 ***		ا استدار المالي المالي المالي المالي ( الم		ha2(n 50
55 Card ab		1.9 ***		1996 1996 - 1997 1997 1997 1997 1997 1997 1997 19	1 ··· · · · · · · · · · · · · · · · · ·	1
		-1.9 ***				40
45		1.9 ***			······································	
		1.9 848			· · · · · · · · · · · · · · · · · · ·	- 30
40						
40 35		1.9 ***				1
40 35 30		1.5 ***		<b></b>		20
35 30		1.5 *** 1.5 ***				20
35 30 25 20		1.9 *** 1.9 *** 1.9 ***				1
35 30 25 20 15		1.5 *** 1.9 *** 1.9 *** 1.9 ***	25 20 15	10 5	0 -5 -	20 10
35 30 25 20 15 10		1.9 *** 1.9 *** 1.9 ***				 _] 10 10
35 30 25 20 15 10		1.5 *** 1.5 *** 1.9 *** 1.9 *** 1.9 ***		10 5 rn at Q (dB		   10 10 m)
35 30 25 20 15 10		1.5 *** 1.9 *** 1.9 *** 1.9 ***				 _] 10 10
35 30 25 20 15 10 ha2' (m)		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 ***				   10 10 m)
35 30 25 20 15 10 ha2' (m) Lr60m(dB)		1.5 *** 1.5 *** 1.9 *** 1.9 *** 1.9 *** 33.6 *** 1.9 ***				   10 10 ] m) ] h:
35 30 25 20 15 10 ha2' (m) Lr60m(dB) 55		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***				   10 10   m)   hc   5
35 30 25 20 15 10 ha2'(m) Lr60m(dB) 55 50		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 *** 1.9 ***				   10 10 ] m) ] h:
35 30 25 20 15 10 ha2'(m) Lr60m(dB) 55 50 45		1.5 *** 1.5 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 *** 1.9 *** 1.9 *** 1.9 ***				   10 10   m)   hc   5
35 30 25 20 15 10 ha 2' (m) Lr60m(dB) 55 50 45 40		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 ***				   10 10   m)   hc   5
35 30 25 20 15 10 ha 2' (m) Lr60m(dB) 55 50 45 40 35'		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 ***				 10 10 m) hc = +0
35 30 25 20 15 10 ha2'(m) Lr60m(dB) 55 50 45 40 35 30		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 1.9 ***				 10 10 m) hc = +0 30
35 30 25 20 15 10 ha2'(m) Lr60m(dB) 55 50 45 40 35 30 25		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***				 10 10 m) hc = +0
35 30 25 20 15 10 ha2' (m) Lr60m(dB) 55 50 45 40 35 30 25 20		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***				10 10 m) br 5 +0 30 20
35 30 25 20 15 10 ha2'(m) Lr60m(dB) 55 50 45 40 35 30 25 20 15		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***		rn at Q (dB	, ha1' = √€	10 10 m) hc 5 +0 30 20 10
35 30 25 20 15 10 ha2'(m) ha2'(m) 55 50 45 40 35 30 25 20		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***	Lr Patte	rn at Q (dB	0 −5 −1	10 10 m) hc 5 +0 30 20 10
35 30 25 20 15 10 		1.5 *** 1.9 *** 1.9 *** 1.9 *** 1.9 *** 33.0 *** 1.9 ***	Lr Patte	rn at Q (dB	0 −5 −1	10 10 m) hc ∃ +0 30 20 10

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	PROPAGATION PATH	DAT	A	Path No.	7711-4
size l	Phun Phin (Tex)		Site Q	Kanchanadit	
Nap No. 4	827 I		Map No. 4	827 I	r111994
7.70 783.7	4.2 P 3.8 182.3		<u>9.10</u> [183.8]	[ <u>/23.7</u> ]	
2XV	<u></u>		9.05		
99.15	· L	99.20	99.25	· · · · · · · · · · · · · · · · · · ·	99.30
.ong-1(D.MS) .ong-2(D.MS) .ati-1(D.MS) .ati-2(D.MS)	99.1500 * 99.2000 * 9.0500 * 9.1000 *	iakayo oo o	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	9	9.2500 *** 9.3000 *** 9.0500 *** 9.1000 ***
l-2 (mm) 1-0 (mm) 1-2 (mm) 1-0 (mm)	182.3 * 4.2 * 183.1 * 53.8 *	141) 143	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)		182.5 *** 123.1 *** 183.5 *** 180.1 ***
ong. (D.MS) ati. (D.MS)			Long. (D.MS) Lati. (D.MS)	12 m vo do aveito <b>g</b> 1	9.2821 *** 9.0954 ***
.Elevation	٢	(m)	G.Elevation	2	ۍ (m)
rofile No.	5-7711-4		Type of Path	L/S (me refl	ection)
Pr 1-P (D.MS) Li-P (D.MS) ng-Q (D.MS) ti-Q (D.MS) d (km)	AS 25.1 25.1 25.1 25.1 9.0625 99.2622 44 9.0954 44 25.1 75.2712 45 45 45 45 45 45 45 45 45 45		Antenna Heigh d (km) dl (km) hm (m) hg1 (m) hg2 (m) hal (m) hal (m) hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U M (k = 1) U M	Ld SD Ld SD	25.1 **** 1.1 *** 50.0 *** 5.0 *** 25.6 *** 25.6 *** 25.6 *** 47.0 *** 47.0 *** 43.0 *** 51.1 ** 1.1 *** 1.1 *** 0.06 *** 9. *** 1.1 *** 1.1 *** 9. ***
$P \neq Q(D.MS)$ $Q \neq P(D.MS)$	255, 2527 - 44	. 1		64 m =	12 dB

Site P	Phun Phin (Tex)	na hana ana ang sana ang sana Ang sana ang	Site Q	.Kanchanadit		
Refl	ection Area(011A-)	.73)	Variation	of Reflection	Loss (011A-3/3)	5
f (MHz)	908.	88 ***	K.41.1		1.000 ***	1
K hgl (m)	1.3	33 🗤	к К <sup>30</sup>		1.333 ***	-
hg1 (m) hg2 (m)	5	8 ***	K at		3.888 ***	
d (km)		0) *** 1:[]***[][]]]			· 17 0	
hal (m)		0 ***	hal (m)	and an	47.8 *** 43.8 ***	
ha2' (m)		8 ***	ha2 (m)			
hr' (m)	1979 - 1970 - 19700 - 19700 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 -	8 ***	Lr (dB)		-3.3 ***	:
hr (m)	na 19 19 - Marine Marine, a tana matagan katan kat		Lr 🤲 (dB)		-4.1 ***	
	SAVET WEEL OF DEPENDING AND A DEPENDING STREAM AND A DEPENDING	و با مرجوع میں . و اگر اگر اگر اگر ا میں و مرجوع اگر این	Lr 41 (dB)			
dl (m)		B ###	hal (m)	····		
d2 (m) ψ (D.MS)		.12. *** 56 : ***	hal (m)			1
τ1 (km)	-	3 174				
Dv	8.1	63 <u>, </u> ***	Lr <sup>#.</sup> (dB)		· · · · · · · · · · · · · · · · · · ·	
Per alle	ß	.7 ***	Lr** (dB) Lr** (dB)		1	1
∕e ∳r (deg)		0. ***				
Lr min(dB)	-4	6 ###	hal determi		47 (m)	]
Lr max(dB)		5., ### ···	ha2 determi	ned	<b>43 (m)</b> :	
Ref1	ection Loss(011A-2	/3)	He	ight Pattern	1	
ाः २ <b>भ्यत्र</b> स्य		<b>0</b>			ha2(m)	
hal(m)	41 .	B ***			50	1
Lr60m(dB)		6 ***		· · · · · · · · · · · · · · · · · · ·		ł
55 (a01 20s)	jer 100 - 100 - 10 <b>4</b> 2	<b>5</b> : ***			40	
50		5 **** 2 ****				
45 40	-3.	8 ***			30	1
35	-3.		· · · · · · · · · · · · · · · · · · ·			[
30	-2.	4 ***			20	
25	-1.				÷	1
20	1.	1 *** 5	25 20 15	10 5 0	10 _5 _10	
15 3.00 10, 7 5	2.	7 ***		rn at Q (dB, ha		1
	43.			(un) IIe		}
ha2′ (m)	₩ <b>₽</b>	U 497			hal(m	Y
Lr60m(dB)	-4.			م بالم الم الم الم الم الم الم الم الم الم	50	
55 A 48	-4.		· · · ·	· · · · · · · · · · · · · · · · · · ·	····	1
50 - 😳	-4. -3.			· · · · · · · · · · · · · · · · · · ·	40	
45	-3.				han an start a	1
40 0.300 35 9.91	-1,			·····	30	1
30 5.5	-9. 1.	4		• • • • • • • • • • • • • • •	•	Į
25	3.		· · · · · · · · · · · · · · · · · · ·		20	1
	57 V V	5 ***		u ruingrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr	10	
20	9.	3 ***	25 20 15	10 5 0	-5 -10	l
20 15 원 =	· ·					1
20 31 15 9 = 10 11			Lr Patter	tn at P (dB, ha	a2 = 43,m)	

Mc Path No 07711-5 DATA TIME! PROPAGATION PATH Site 0 The Chang Site P د. د بارور «۲۰۰۰ ورد در ۲۰۰۰ ورد در ا Phun Phin (Tex) ففعفه أتمدمه الرافع المراهد 4827 IL BOIJSSILES Map No. 4827 II Map No. (2.22) 9:20 9.10 de la 11 J  $\Sigma$ ( : )- . . FNG. . . 61 4.2 10.13 183.5 183.1 . . . 83 1.17 182.3 39 53.8  $\xi \oplus \hat{\xi}$ 11 9.15 9.05 99.15 99.10 99.20 99.15 99.1000 \*\*\* Long-1(D.MS) 99.1500 \*\*\* Long-1(D.MS) \*\*\* 99.1500 99.2000 \*\*\* Long-2(D.MS) Long-2(D.MS) 9.1500 \*\*\* 9.0500 \*\*\* Lati-1(D.MS) Lati-1(D.MS) 9.2000 \*\*\* 9.1000 👘 \*\*\* Lati-2(D.MS) Lati-2(D.MS) 183.0 \*\*\* 182.3 \*\*\*-X 1-2(mm) X 1-2(mm) 61.0 \*\*\* 183.5 \*\*\* 4.2 ### X 1-0(mm) X 1-0(mm) 183.1 \*\*\* Y 1-2(mm) 39.0 \*\*\* Y 1-2(mm) 53.9 ### Y 1-0(mm) Y 1-0(mm) 1 t 🔐 99.1507 \*\*\* Long. (D.MS) Long. (D.MS) 9,1684 \*\*\* 9.8628 \*\*\* Lati. (D.MS) Lati. (D.MS) ່ປີ (m) **ა** (m) **G.Elevation** G.Elevation Type of Path L/S (me reflection) Profile No. 5-7711-5 Antenna Height & Diffraction Loss . . . . . હેઈ 1.1 Эδ .  $\sim$ А d . . 18.8 ### (km) 6.8 \*\*\* d1 -(km) ϧ 38.8 \*\*\* hm 🤉 (m) 30 5.0 \*\*\* hg1 (m) ⇒5,*€ -* \*\*\* hg2 (m) Kali L 12.8 6 hal .(m) 18.8 (5b)oa hal 36.8. \*\* (m) Path Distance & Azimuth 33. 8: 433 ha2 (m) (k = 4/3) Long-P (D.MS) 29,1587 \*\*\* 35.5: \*\*\* Lati-P (D.MS) hp : :(m); 9.0628 \*\*\* 36.9 \*\*\* Rs -Long-Q (D.MS) - (m) 99.1140 \*\*\* 5.5 \*\*\* Cs Lati-Q (D.MS) .(m) 9.1604 \*\*\* 0.15 \*\*\*  $\boldsymbol{U} \in \mathbb{R}^{n}$ \*\*\* 10. M<sub>NA</sub> 3.5 (km) d . . 18.8 \*\*\* 120 50 đĐ 9 (k. = , 1), 🖓 . . . . . . . . . . . . . C. 11 ###  $\alpha P = Q(D.MS)$ 340.2055 \*\*\* U - 11.-\*\*\*  $\alpha q + P(D.MS)$ М 160.2022 \*\*\* Lid 99.9 = 11 dB 

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λ.Pl	ROPAGATION	PAT	H DAT	Alas sign	Pati	n No. 7711-5
Site P	Phun Phin (Tex	ha na sa	45312	Site Q		
	lection Area(0)	7. 7 .	andra k saaray na adam sa may saa	ارد. معرفه مراجع المراجع والمراجع معرفة المعادية ال	Tha Cha	
		(1A-1/	<b>3)</b> .	Variation	of Reflect	ion Loss (011A-3/
(MHz)		903.00		K 91,9	interna	1.000 ***
K hgl (m)		1.335		K <b>50</b>		1.333 ###
hgl (m) lig2 (m)			(東京東)	K Af		3.000 ***
d (km)	میکن بادی می مربع می می می از می می می می از این از این از می می می از این از این از این از این از این از این از این می از می مدین این می می می می می از این این از ای	18.8				76 0
hal (m)	a mangalan ana mangana sang sa ta	36.9		hal (m)		36.0 *** 33.0 ***
ha2' (m)	(353)	77 0	ي الديارة	ha2' (m) 🗸		
hr' (m)	Constant of the second se	2.8	***			-3.2 #4*
•			i rime	Lr <sup>4%4</sup> (dB)		-3.9 ##4
hr (m)	and transformation and the second states of the second states of the second states of the second states of the			Lr <sup>50</sup> (dB)	· ··· · · · · · · · · · · · · · · · ·	-4.6 ***
	رواند. این انفروهای داده ایونوموانو و داده ایونو ا	n an stad and a second		Lr (dB)		
dl . (m)		9.7			an marine an ann an	and a second
d2 (m) (15/1)	3.0.		8 <b>3 - 1</b> - 10	hal (m)		
$\psi$ (D.MS)	And the second se	8.1152		hal (m)		
T1 (km)			eri <b>≭≭≭</b> insei	Lr"", (dB)		· · · · ·
Dv		9.01	12 東東市 二、二	Lr <sup>49</sup> (dB)		· · ·
P 141 33		8.8	1	Lr ef (dB)		
/e φr →(deg).		180.0				
Lr min(dB)		-5.1		hal determin	ned	
$Lr \max(dB)$			484	ha2 determin	ned	ુટુ (n)
	ection Loss(01	1A-27	3)			
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			<u> </u>	ne.	ight Patte	
			đi i dag			ha2(m
hal(m)	ديونان وأوجيتهم منتجر بينيه الأرغي مواقد وتغمه	36.8	****	s stratig at the second		50
Lr60m (dB)	دورو بر اید مودودی رو در معموله وروم و کامین و مناطقه کو و میکرد. دورو بر اید مودودی رو در معموله و موجود کامینی و مناطقه کو و میکرد.		the second s			
55 (62132	alson anal Bar	-4.3				40
and the second second second	manageria manageria and an an		- ###			40
45	werse file a	. 5.1	And a second			
40	ı .	-5.6				
35		-4.7	*** ***			
30		-3.3	***			20
25		-2.1				· · · · · · · · · · · · · · · · · · ·
20		-9.5	***			10
15			· ***	25 20 15	10 5	0 -5 -10
10 3			***	Lr Patter	n at Q (d	B, hal = 34 m)
a a a				·		
ha2' (m)	• •	33.0	***		en e	hal(
IN GREET		•				50
Lr60m(dB)		-4.8	. 1			
55 · · · · · · · ·		-5.1				40
50 · A		-5.1				
45	· · · ·	-4.9	***			
40 • • • • •		-4.4	***			
35 ↔ 1,1+ 30 ↔ 1,7		-3.7	***		، ().) - به چنابطه طعرة مس	e altre de la companya de la company
30 ° 5		-2.7	***	· · · · · · · · · · · · · · · · · · ·		
20 **		-1.4 0.2	***			
20 15 Shi T	1 9 50 2	2.4	***		-	10
10 10 10 10 10	194 yang di kanalaran	5.3	***	25 20 15	10 5	0 -5 -10
10 - 7430	ete de la companya d Na companya de la comp	. J.J.	- <b>*</b> • • •			8, ha2 = 😒 m)
2 A M 1 1 1 1 1 4 1 4 1 4	1989					

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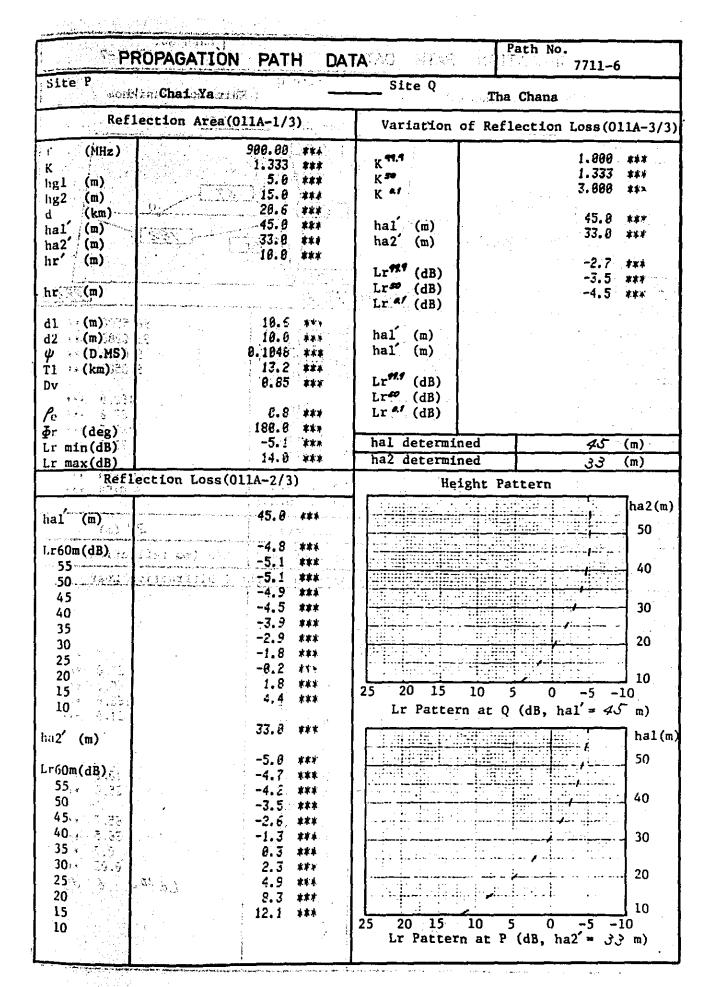
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F	ROPAGATION PA	TH DAT	A STAT	Path No.	711-6
Site P	Chai Ya		Site Q	Tha Chanals ford	an ann a bha ann ann ann ann ann an an an ann ann
Map No. 4	827 <u>II</u>		Map No. 🗲	828 I	
9.25	81.5		7.35	<i>181.</i> 5	
	P 77.5 783		784 7-30	2.5	
9.20		<u> </u>	99.05	ter and the second s	99.1
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.100 99.150 9.200 5.250	0 *1 0 *4 0 *4	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99 9	. 0500 *** . 1000 *** . 3000 *** . 3500 ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	183. 61. 184. 107.	5 ##*	X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	Sanna a san an ann an an ann an ann an ann an	182.5 *** 181.5 *** 184.0 *** 142.5 ***
Long. (D.MS) Lati. (D.MS)	99.121 9.225		Long. (D.MS) Lati. (D.MS)		.0958 *** .3352***
G.Elevation		ና (m)	G.Elevation	/	5 (m)
Profile No.	5-7711-6		Type of Path		
╶┱ᠽ┌────			Antenna Heigh	t & Diffraction	Loss
	77 - 4 - <u>7.6</u> 20.6		d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m) hal (m)		20. 6 *** 11. 8 *** 35. 8 *** 15. 9 *** 48. 6 ***
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS)	9.2255 57.8958	9 *** 5 *** 3 ***	ha2 (m) (k = 4/3) hp (m) Rs (m)		45.6 *** 33.0 **** 42.7 *** 41.3 ***
Lati-Q (D.MS) d (km) ≪ P→Q(D.MS)	20.6	5 <b>**</b> *	Cs (m) 4.4 U 4.4 M (k = 1) 4.2 U 4.4 K	Ld 50 =	7.7 *** 0.19 *** 15. *** 7 dB 0.14 ***
¢ Q → P (D.MS)				Ld 999=	1
		13 -	- 94		

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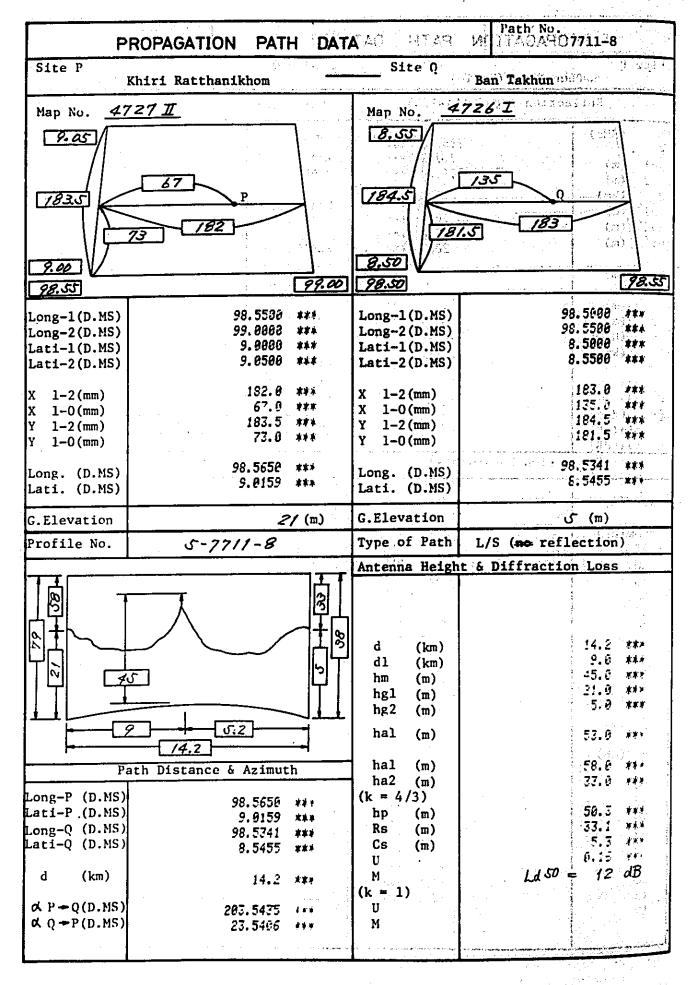
P	ROPAGATION PATH DATA	ATACI ISTAR	Path No:
Site P	Phun Phin (Radio)	Site O	Khiri Ratthanikhom
Map No. <u>48</u>	<u>27 m</u> sector de la balancia de la compañía	Map No.	727 II.A. 091308 (197
7.25	748 P 48 783 783 783	7.05 [183.5] [7.00] [78.55]	67 0 182 (1) 3 782 (1) 3 782 (1) 182
	99.1003 ***		98.5500 ***
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.1500 *** 9.0000 *** 9.0500 ***	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.0080.*** 9.0800 *** 9.0500 ***
X 1-2(mm) X 1-0(mm) Y 1-2(mm) Y 1-0(mm)	193.0 *** 148.0 *** 184.0 *** 148.0 *** 148.0 ***	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)	182.0 *** 67.0 *** 183.55 *** 73.0 *** 73.0 ***
Long. (D.MS) Lati. (D.MS)	9.8401 ***	Long. (D.MS) Lati. (D.MS)	9.8159 ***
G.Elevation	/62 (m)	G.Elevation	<i>21</i> (m)
Profile No.	5-77/1-7	Type of Path	
Long-P (D.MS)	27 4.7 37.7 37.7 ath Distance & Azimuth 99.1483 ###	d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m) hal (m) ha2 (m) (k = 4/3)	31.7 *** 27.0 *** 27.0 *** 65.0 *** 162.0 *** 21.0 *** 10.0 *** 10.0 ***
Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS)	9.0401 *** 98.5650 ***	hp (m) Rs (m) Cs (m) U	65.7 *** 36.5 *** 8.7 *** 9.62 ***
d (km) & P - Q(D.MS) & Q - P(D.MS)		M (k = 1) U M	Ld 50 - 6 dB

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	OPAGATION F	ATH DA	TAKO HIAO METAK	h No. 7711-7
Site P Pl	un Phin: (Radio)	ф. 2437 <u>—</u> 1.	Site Q Khiri H	Ratthanikhom
Refl	ection Area(011A-	-1/3)	Variation of Reflec	tion Loss(011A-3/3)
f (MHz) K hg1 (m) hg2 (m)		.00 *** 333 *** 2.8 ***	K 91.1 K 50 K 6.1	1.000 *** 1.333 *** 3.006 ***
d (km) ha1 (m) ha2 (m) hr' (m)			ha1' (m) ha2' (m)	10.0 *** 35.0 ***
hr (m) dl (m)	and a second	2.0 / ### 	Lr <sup>929</sup> (dB) Lr <sup>50</sup> (dB) Lr <sup>41</sup> (dB)	-2.3/ *** 4.1/ ***
12 (m) ψ (D.MS) Γ1 (km)	0.1	7, 200 **** 61300 *** 9, 200 **** 100 *** 100 ***	hal (m) hal (m) Lr <sup>999</sup> (dB)	n son an tha 1017 - Charles Anna 19 19 - Charles Anna 19 19 - Charles Anna 19
fe Ør	18	9.7 : *** 9.8 *** / 9.6 *** /	Lr or (dB) Lr of (dB) hal determined	/Ø (m)
Lr min(dB) Lr max(dB)	. 1	8.5 ****	ha2 determined	(m) کۍ
Refle	ection Loss(011A-	2/3)	Height Patte	
hal (m) 1.r60m(dB) 55 50 45 40 35 30 25 20 15 10 ha2 (m)		3. 0 *** 2.8 *** 5 *** 5 *** 1 **** 1 *** 1 **** 1 **** 1 **** 1 *** 1 *** 1 *** 1 ****	25 20 15 10 5 Lr Pattern at Q (d	ha2(m) 50 40 40 30 20 10 0 -5 -10 18, hal' = $10$ m) hal(m)
r60m(dB) 55 50 45 40 35 30 25 20 15 10		3 9 44 2 44 3 9 44 3 6 444 3 6 444 3 6 444 3 6 444 5 444 5 444 5 444 5 444	25 20 15 10 5 Lr Pattern at P (d	50 40 30 20 10 0 $-5$ $-10$

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site P	hiri, Ratthanikhom	Site Q	Ban Tekhun	••••••••••••••••••••••••••••••••••••••
	Come as the reason and an experimental formation of			
	ection Area(011A-1/3)	Variation	of Reflection Loss(	011A-3/3
r (MHz)	998.88	K 91.1	1 000	
6	1.323 ***	K	1.000	
ıgl (m)	21.0	K 50	1.33	
1g2 (m)	5.6	Kar	3.800	5. <b>4</b> .4
(km)				
nal (m)	14.2 ****	ha1 (m)	58.6	
1a2' (m)	33.0 ***	ha2 (m)	33.6	3 444 .
122 (m) 11 <sup>°</sup> (m)	10.8 474		and the second	
11 (11)	10.0 394	Lr** (dB)	-2.6	
and the group of the	and the second se	Lr <sup>39</sup> (dB)	-2.8	
r (m)		Lr <sup>A1</sup> (dB)	- <b>8.</b> 8	3 AND -
and the second sec	a di Manana na pangana na manana na sana na sana na sana na sana na sana sa s Tana na sana na sana na sana na sana na sa			
1 (m)	18.0 ***	hal (m)		
12 <b>(m)</b>	4.2 ***			
/ (D.MS)	8.2144 ***	hal (m)		1.1.1.1.1.1.1
1 (km), 🕫	5.8 ***			
V	8.95	Lr"" (dB)	•	
► 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10		Lr <sup>30</sup> (dB)		
e	· · · · · · · · · · · · · · · · · · ·	Lr <sup>01</sup> (dB)		
r (deg)	,188 <b>.</b> 9 - ***			
r min(dB)	-4.1 /****	hal determ		(m)
r max(dB)	€ <b>8.</b> 8 ***•	ha2 determ	ined 23	(m)
	action Loss(011A-2/3)			
			eight Pattern	
				ha2(m)
al (m)	58.0 ***			
(m) 1			سيب ويتعقب العبان تستسيست المالي والمحاص	
r60m(dB)			والسؤسيتيان فالاستباطر المرابع الغرابهم	
55	en e			40
50	西来 ちられ ゆうすう シー・コー シーニー ショックス			ie. Anti
45				
40	6.9 ***			30
35	4,4 ***			
30	-0.8 ***			20
25	-3.3 ***			
20	-4.1 ***			
15	-3.5 ***	25 20 15	10 5 0 -5	
	-1.3 ***			-10
10 .	. <b>3.8</b> ***	1 17 22574	ern at Q (dB, hal' = J	`Xm) -
10				
	33.0 ***			] hal(π
a2' (m)				hal(n 50
a2' (m) r60m(dB)	33.0 *** -1.5 ***			<b>L</b>
a2' (m) r60m(dB) 55	33.0 ***			50
a2' (m) r60m(dB) 55 50	33.0 *** -1.5 ***			<b>L</b>
a2' (m) 55 50 45	33.0 *** -1.5 *** -2.6 ***			50
a2' (m) r60m(dB) 55 50	33.0 *** -1.5 *** -2.6 *** -3.4 ***			50 40
a2' (m) 55 50 45	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 ***			50
a2' (m) 55 50 45 40 35	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.6 ***			50 40 30
a2' (m) r60m(dB) 55 50 45 40 35 30	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.0 *** -3.7 ***			50 40
a2' (m) 55 50 45 40 35 30 25	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.1 *** -4.6 *** -3.7 *** -3.2 ***			50 40 30
a2' (m) r60m(dB) 55 50 45 40 35 30 25 20	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.6 *** -3.7 *** -3.2 *** -2.3 ***			50 40 30 20
a2' (m) r60m(dB) 55 50 45 40 35 30 25 20 15	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.0 *** -3.7 *** -3.2 *** -2.3 *** -1.2 ***			40 30 20 10
a2' (m) r60m(dB) 55 50 45 40 35 30 25 20	33.0 *** -1.5 *** -2.6 *** -3.4 *** -3.9 *** -4.1 *** -4.6 *** -3.7 *** -3.2 *** -2.3 ***	25 20 15	$10 \ 5 \ 0 \ -5$ rn at P (dB, ha2' = 3	50 40 30 20 10 10

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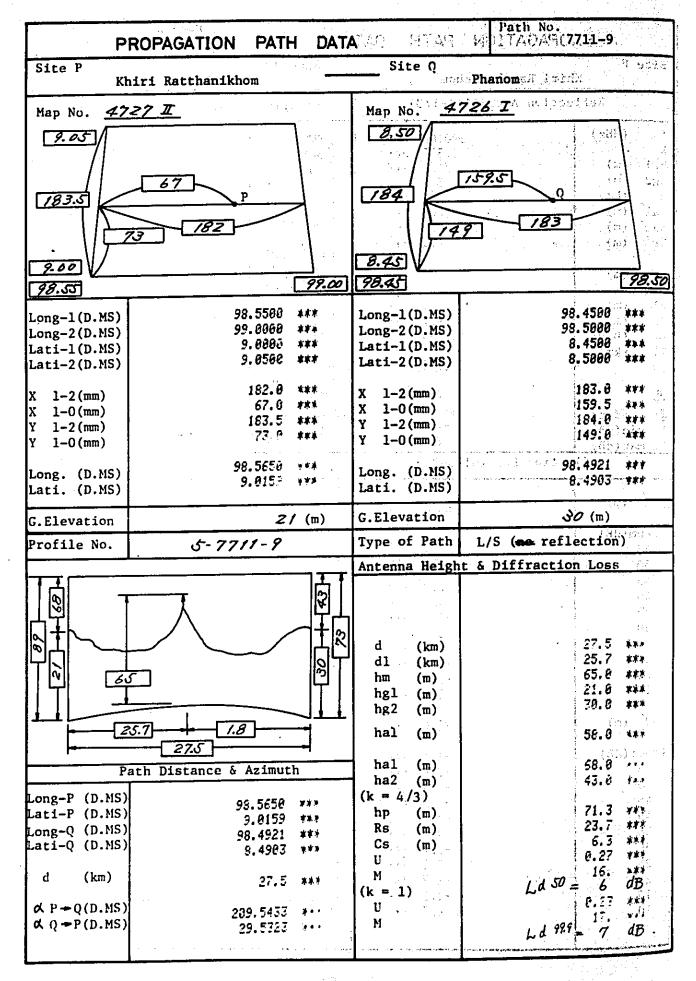
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The second	ROPAGATION PATH DA	TA AD ATA	Path N	°. 7711-9	9
Site P	ri Ratthanikhom	Site Q	Phanom		
Refi	lection Area(011A-1/3)	Variation	of Reflectio	n Loss(0	11A-3
f (MHz)	308.00 ***	K 91.9			
К	1.333 ***	K 50		1.000 1.333	*** . ***
hgl (m)	21.9 · * · ·	Kar		3.000	*** #**
lig2 (m)	38.0	K "		01000	an ar fr
ط (km)	27.5 . ****	hal (-)		68.0	***
hal (m)	68.9 ***	hal (m) ha2' (m)		43.6	
ha2 (m)	43.0 ***	ha2 (m)			
hr' (m)	10.0 ***	Lr " (dB)		-2.7	***
بسيحارة فتسافيه سراج الراجا	and the second	Lr <sup>7%7</sup> (dB) Lr <sup>50</sup> (dB)		-0.8°	**
hr (m)		$Lr^{af}(dB)$	. • •	- 6.1	**)
and a star of the second community of	and the second secon In the second	COPT COPT	e Tangat e e	· · · ·	
d1 (m)	15.0 ***	ha1 (m)			
d2 (m)	2 IZ. 5 . ***	hal (m)			
ψ (D.MS) T1 (km)	0.1501 *** 18.9 ***				
DV	10.9 *** 0.85 ***	Lr <sup>#1.9</sup> (dB)			· · ·
<b>VV</b>	0.00 +++	Lrso (dB)			-
Pe	0.6 ***	Lr <sup>21</sup> (dB)			
φr (deg)	180.0 ***				
Lr min(dB)	-4,1 ****	hal determin	ned	68	(m)
Lr max( $dB$ )	8.0 ***	ha2 determin	ned	43	
	ection Loss(011A-2/3)	He	ight Pattern		
1					7
hal (m)	68.0 ***				ha2
Lr60m(dB)					
55	<b>6.4 ***</b>				40
50	2,8 ***				7 **
45				·····	- L
40	-1.S ***				- 30
35	-3.8 ***				
30	-3.8 ***				20
25	-4.1 ###				1
20	-4.0 ***				10
15		25 20 15	10 5 0	-5 -	10
10	-2.3 ***	Lr Patter	n at Q (dB,	hal' = $\delta\delta$	(m)
ha2' (m)	43.0 ***				] hal
	e e e e e e e e e e e e e e e e e e e			+	50
Lr60m(dB)	-2.7 ***				4.20
55	-3.5 ***	· · · · · · · · · · · · · · · · · · ·			
50	-3.9 ***			·····	40
45	-4.1 *** -4.8 ***				
40	-3.7 ***				30
35 - 202	-3.1 #**		• • • • • • • • • • • • • • • • • • •		
30	-2.3 ***			• 1	
25	-1.2 ***			/	- 20
20	0.1 ***	• • • • • • • • • •	a na an an an 👔		1
15 65 5	1.7 ***		· · · · · · · · · · · · · · · · · · ·	<u> </u>	10
10		25 20 15	10 5 0 n at P (dB,		

**13 - 101** 

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	ROPAGATION PATH	DAT/		ИС ПАЗА9 7711-10
Site P	Ban Na San		Site Q	Khian Sa an arida
Map No. <u>48</u>	326 T	• • • • • • • • • • • • • • • • • • •	Map No. 4	<u>326 m</u> ' and tasi tes
8.50	1	.*	8.55	
		596 ( 1		<u></u>
1835	47.5 P		1835	78 0 000
	FF 1825			/82.5 (m)
· · · · · · · · · · · · · · · · · · ·	<u>5.5</u> ] <u>722.9</u> ]		I - 11 <b>\   /</b> ≊	
8.45	<u>`</u>	99.25	8.50 99.10	(# <b></b>
99.20		14.8		99, 1000 ****
Long-1(D.MS) Long-2(D.MS)	95.2500	***	Long-1(D.MS) Long-2(D.MS)	95.15000/**** 8.50000/***
Lati-1(D.MS)		F末々 K末末	Lati-1(D.MS) Lati-2(D.MS)	8.5508× ***
Lati-2(D.MS)		- 	1	182.5 ***
X 1-2(mm) X 1-0(mm)	47.5 ×	***	X 1-2(mm) X 1-0(mm)	
Y 1-2(mm)	183.5 ×	KALAK TERRETATI Kakang di Kakang di K	Y 1-2(mm) Y 1-0(mm)	18.9) <b>**</b> *
Y 1-0(mm)			الاسمور المحادثة المحادثة المحمر حالية أخرار	99.1210 <b>**</b> *
Long. (D.MS) Lati. (D.MS)	8.4736		Long. (D.MS) Lati. (D.MS)	8.5029 ***
G.Elevation	30	(m)	G.Elevation	3'0 (m)
Profile No.	5-7711-10		Type of Path	Nountain Diffraction
/			Antenna Heigh	t & Diffraction Loss
8	Ŧ	E		4.7 - 1.1 - 1.1
	$\wedge$	_\\`		
			d (km)	17.6 *** 18.0 ***
	<u>,                                     </u>	e l	d1 (km) hm (m)	95,8 ***
			hg1 (m)	30.0 *** 30.0 ***
	0 7.6	┙ ┙	hg2 (m) hal (m)	
		-		
Pa	ath Distance & Azimuth		hal (m) ha2 (m)	55((d)) ¥44 63.0 - 844
Long-P (D.MS)	99.2:18	***	(k = 4/3)	85.1 ***
Lati-P (D.MS) Long-Q (D.MS)		#** #**	hp (m) Rs (m)	37.9 ***
Lati-Q (D.MS)		¥#*	Cs (m) U	-0.26 ***
d (km)	17.6	**•	M	$Ld^{50} = \frac{-6}{9} dB$
¢ P+Q(D.MS)	•	• •	(k = 1) U	-0.30 ***
¢ Q → P (D.MS)		<b>4</b> • •	М	Ld 99.9 = 10 dB

PROPAGATION P	ATH DAT	A. col. Mark	Path No. 7711-11	
Site P Ban Na San		Site Q	Ban Na Doem	
Map No. <u>4826 I</u>	e Angelen in de	Map No.	4826 I	
8.50		8.55		
1835 P		183	148	
95.5 [182.5]				• •
the second se			18] [182]	
8.45		8.50 V		<u> </u>
		99.15		99.20
ong-1(D.MS) 99.200 ong-2(D.MS) 99.250	8 ###	Long-1(D.MS) Long-2(D.MS)		
	0 *** 8 ***	Lati-1(D.MS)	8.5000 ##	ng i i
		Lati-2(D.MS)	8.5500 **	*
1-0(mm) 47.	5 *** 5 ***	X 1-2(mm) X 1-0(mm)	132.0 ** 142.0 **	
1-2'(mm) 183. 1-0(mm) -5.	5 ### 5 ###	Y 1-2(mm)	163.0 **	¥
	··· · · · · · ·	Y 1-0(mm)	115.0 **	÷
ong. (D.MS) 99.2118 ati. (D.MS) 8.4736		Long. (D.MS) Lati. (D.MS)	99.1904 ** 8.5318 **	
Elevation	<i>O</i> (m)	G.Elevation		
ofile No.		Type of Path	10 (m) Mountain Diffraction	
the second s			t & Diffraction Loss	
	6			
			-	. 1
		d (km)	·10 ···	
85	21	dl (km)	11.0 *** 3.0 ***	
		hm (m) hgl (m)	95.3 xx. 78.0 xx.	
		hg2 (m)	10.0 ***	
		hal (m)	58.8 ***	
Path Distance & Azimu	th	hal (m)		
08-P (D.MS)		ha2 (m) (k = / )	46.5	
1-P. (D.MS)99.211819-Q. (D.MS)8.4736	***	hp (m) Rs (m)	76.2	
i-Q. (D.MS) 99.1904	*** ***	Cs (m)	27.0 *** -18.8 ***	
(km)		U M		
·····································	· ***	(k = 1)	Ld 50 = 15 dB	
$P \rightarrow O(D MS)$		U	-0.71 **-	
$P \rightarrow Q(D.MS)$ $Q \rightarrow P(D.MS)$ 158.1356 158.1375	988	M	$Ld^{99.9} = 17$ dB	

	ROPAGATION PATH		ATACE HTAS	Path No.	
Site P	Ban Na San		Site Q	Wiang Sa inte	. اور در در مرد می دور مرد اور در اور
Map No. <u>48</u> <u>8.50</u> <u>183.5</u> <u>8.45</u> <u>8.45</u>	47.5 P 5.5 782.5	98.25	8.40	<u>826 T</u> 35 75 783	P. 25
Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	99.2506 * 8.4500 * 8.5000 *	#.k.  #.#  #.#  #.#	Long-1(D.MS) Long-2(D.MS) Lati-1(D.MS) Lati-2(D.MS)	9	9.2000 (**** 9.2500 (****) 8.3500 (***) 3.4000 (***)
$\begin{array}{l} X  1-2 \ (mm) \\ X  1-0 \ (mm) \\ Y  1-2 \ (mm) \\ Y  1-0 \ (mm) \end{array}$	47.5 * 183.5 * 95.5 *	*** *** **	X 1-2 (mm) X 1-0 (mm) Y 1-2 (mm) Y 1-0 (mm)		183. 0 *** 35. 0 *** 184. 0 *** 101. 5 ***
Long. (D.MS) Lati. (D.MS)	8.4736 *	1999 1999 1999	Long. (D.MS) Lati. (D.MS)	<u>}</u>	2057 ***
.Elevation		(m)	G.Elevation		• (m) - 2 - 2 - 2 - 2 - 2
rofile No.	5-7711-12		·	L/S (mo refl	·
	<u>B</u> [18.1]		d (km) dl (km) hm (m) hgl (m) hg2 (m) hal (m)	t & Diffractio	18:1 *** 2.E *** 55.0 *** 30.C *** 30.C *** 30.C ***
Pa ong-P (D.MS) ati-P (D.MS) ong-Q (D.MS) ati-Q (D.MS) d (km) d (km) $X P \rightarrow Q(D.MS)$ $X Q \rightarrow P(D.MS)$	8.4736 * 99.2057 * 8.3745 * 18.1 * 181.5553 *		hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U M (k = 1) U M	Ld 50 . Ld 99.9	43.5 *** 33.0 *** 33.8 *** 38.8 *** 8.3 *** 6.21 *** 14.4 *** 14.5 **** 14.5 *** 14.5 *** 14.5 *** 14.5 *** 14.5 *** 14.5 **** 14.5 ***** 14.5 ***** 14.5 ***** 14.5 ****** 14.5 ********* 1
A		13 -	104		

Site P	Ban Na San Artika ang	Site Q	Wiang Sa
Ref	lection Area(011A-1/3)	Variation of	Reflection Loss(011A-3
ſ (MHz)	906.03 ***	and the second	
K	1.333 ***	K	1.000 ***
hgl (m)	30.6 ***	К <sup>50</sup>	1.332 .***
hg2 (m)	30.0 ***	K at	3.000 ***
d (km)	18.1 ***		
ha1 (m)		hal (m)	43.0 ***
ha2 (m)	33.0 ***	ha2 (m)	33.0 ***
hr' (m)	28.0 ***		
		Lr*** (dB)	-3.6 ***
hr (m)	29.0 ××+	Lr <sup>50</sup> (dB)	-4.8 ***
<ol> <li>Service and constraints of the service and the se</li></ol>	· · · · · · · · · · · · · · · · · · ·	Lr 4/ (dB)	-4.5 ***
dl (m)	16.8 ***		
d2 (m)	8.1 ***	ha1 (m)	
$\psi$ (D.MS)	0.1302 ***	ha1 (m)	
Tl (km) Dv	16.2 ***		· · · ·
UV I	0.88 ***	Lr <sup>99,9</sup> (dB)	
Pe to the	6 7 mmt	Lr <sup>eo</sup> (dB)	
₫r (deg)	8.7 *** 188.0 ***	Lr • (dB)	
Lr min(dB)	-4.6 ***	hal determined	
Lr max(dB)	10.5 ***		<i>∡</i> (m)
	ection Loss(011A-2/3)	ha2 determined	<u>ਤ</u> ਤੇ (m)
		Height	t Pattern
hal (m)	•7.0		ha2(m
	43.8 ***		
Lr60m(dB)			
.55	-3.4 ***		
50	-4.2 ***		40
45	-4.6 ***		
40	-4.5 ***		· · · · · · · · · · · · · · · · · · ·
35	-4.2 ***		30
30	-3.5 ***		
25	-2.5 ***		20
20	-8,9 ***		·····
15	1.2 ***	25 20 15 16	10
10	4.6 ***	25 20 15 10	5 0 -5 -10
an a	77.6	Lr Pattern a	t Q (dB, hal'= ∢3 m)
na2 (m)	33.0 ***		hal(n
	~4.5 ***		
.r60m(dB)	-4.6 ***		50
555 6 6	-4.5 ***		te de la companya de
50	-4.2 ***		40
45	-3.7 ***		
40	-2.9 ***		
35 6 6 6 6	-1.8 ***		
30	-0.5 ***	A state of the	······
25	a		20
20 <sup>3</sup> SV	3.5 ***	, , ,	
15	6.1 ***	L	10
10		25 20 15 10	5 0 -5 -10
		Lr Pattern at	P (dB, ha2'= 33 m)

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P	ROPAGATION PATH DAT	TATAO RETAG	MUITADA907711-13
Site P	Ban Na San	Site Q	nse su sea Prasaeng
A construction of the second sec			an ann a an taigean a Galagaigeachadh (ann ang an taige thiggeacha par aire ann an aireann an ann ann ann a' an An ann an an
Map No. 4	<u>826 I</u>	Map No. <u>4</u>	826 The and the free free free
8.50		8.35	and the second sec
		1 / 18.2	
11-			
	47.5	[183.5]	$\begin{array}{c c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \hline \begin{array}{c} 2 \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \\ \hline$
183.5			
	182.5		
1/[2	F.5 1/82.5	14.	
		8.30	
8.25			99.2
99.20	99.25	<u> </u>	
Long-1(D.MS)	99.2000 ***	Long-1(D.MS)	99.1503 ***
Long-2(D.MS)	99.2508 ***	Long-2(D.MS)	
Lati-1(D.MS)	8.4539 ***	Lati-1(D.MS)	8.3000 ***
Lati-2(D.MS)	8.5090 ***	Lati-2(D.MS)	. 8. 3500 ×***
			1 4 <b>6 7 1</b> 1 1 1 1
X 1-2(mm)	182.5 ***	X 1-2 (mm)	163.0 *** 2.0 ***
X 1-0(mm)	47.5 ### 183.5 ###	X = 1 - 0 (mm)	183.5 ***
Y 1-2(mm)	95.5 ***	Y 1-2 (mm) Y 1-0 (mm)	143.5 ***
Y 1-0(mm)			المحمد الي يون في الي الي الي الي الي . - الي
Long. (D.MS)	99.2118 ***	Long. (D.MS)	1976 - 1976 - 1976 - 199 <b>- 1503</b> - <b>***</b>
Lati. (D.MS)	8.4736 ***	Lati. (D.MS)	8:3355 ###
· · · · · · · · · · · · · · · · · · ·		G.Elevation	<i>40</i> (m)
G.Elevation	30 (m)	Type of Path	L/S (me reflection)
Profile No.	5-7711-13		t & Diffraction Loss
- <b>T</b> _T		Ancenno nergi	
			$\alpha_{i}$
「「「「」」「「」」」	「「「」」「「」」		
ath_			
			27.7. ***
<u> </u>		d1 (km)	1.5 ***
1 m 5	<u></u>	hm (m)	86.6 ***
	111	1	
		hgl (m)	- 30.0 ×44
		hgl (m) hg2 (m)	4 <b>8.</b> 9 /***
	.3 		( <b>40.</b> 9 ) .# <b>*?</b> (#)
	<u></u>	- hg2 (m) hal (m)	(48.8)*** (**) 53.8)*** (85)
		hg2 (m) hal (m) hal (m)	(48.8*** (**) 53.8*** (85):0 53.6***
	27.7 ath Distance & Azimuth	hg2 (m) hal (m) hal (m) ha1 (m) ha2 (m)	(48.8)*** (**) 53.8)*** (85)
P Long-P (D.MS)	ath Distance & Azimuth	hg2 (m) hal (m) ha1 (m) ha2 (m) (k = 4/3)	(40.6 *** (**) 53.6 *** (25) 53.6 *** 53.6 *** 33.0 ***
Long-P (D.MS) Lati-P (D.MS)	27.7 ath Distance & Azimuth 99.2118 ***	hg2 (m) hal (m) ha1 (m) ha2 (m) (k = 4/3) hp (m)	(40.6 .*** (**) 53.6 *** (25) 53.6 *** 33.0 *** 85.3 ***
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS)	27.7 ath Distance & Azimuth 99.2118 *** 8.4735 *** 99.1503 ***	hg2 (m) hal (m) ha1 (m) ha2 (m) (k = 4/3) hp (m) Rs (m)	40.0 *** 53.0 *** (15) 53.0 *** 33.0 *** 85.3 *** 20.3 ***
Long-P (D.MS) Lati-P (D.MS)	27.7 ath Distance & Azimuth 99.2118 **: 8.4735 ***	hg2 (m) hal (m) ha1 (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m)	40.9 *** 53.6 *** (11) 53.6 *** 33.0 *** 33.0 *** 20.3 *** 5.3 ***
P Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS)	27.7 ath Distance & Azimuth 99.2118 *** 8.4736 *** 99.1503 *** 8.3355 ***	hg2 (m) hal (m) ha1 (m) ha2 (m) (k = 4/3) hp (m) Rs (m)	40.9 *** 53.6 *** (11) 53.6 *** 33.0 *** 33.0 *** 20.3 *** 5.3 ***
Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS)	27.7 ath Distance & Azimuth 99.2118 *** 8.4735 *** 99.1503 ***	hg2 (m) hal (m) hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U M	40.6 *** 53.6 *** (15)0 53.6 *** 33.0 *** 85.3 *** 26.3 *** 5.3 ***
P Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS)	27.7 ath Distance & Azimuth 99.2118 *** 8.4736 *** 99.1503 *** 8.3355 *** 27.7 ***	hg2 (m) hal (m) hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U	40.6 *** $53.6 ***$ $53.6 ***$ $52.6 ***$ $33.0 ***$ $33.0 ***$ $26.3 ***$ $5.3 ***$ $6.26 ***$ $40.26 ***$ $5.3 ***$
P Long-P (D.MS) Lati-P (D.MS) Long-Q (D.MS) Lati-Q (D.MS) d (km)	27.7 ath Distance & Azimuth 99.2118 *** 8.4736 *** 99.1503 *** 8.3355 *** 27.7 ***	hg2 (m) hal (m) hal (m) ha2 (m) (k = 4/3) hp (m) Rs (m) Cs (m) U M (k = 1)	40.6 *** $53.6 ***$ $53.6 ***$ $52.6 ***$ $33.0 ***$ $33.0 ***$ $26.3 ***$ $5.3 ***$ $6.26 ***$ $40.6 ***$

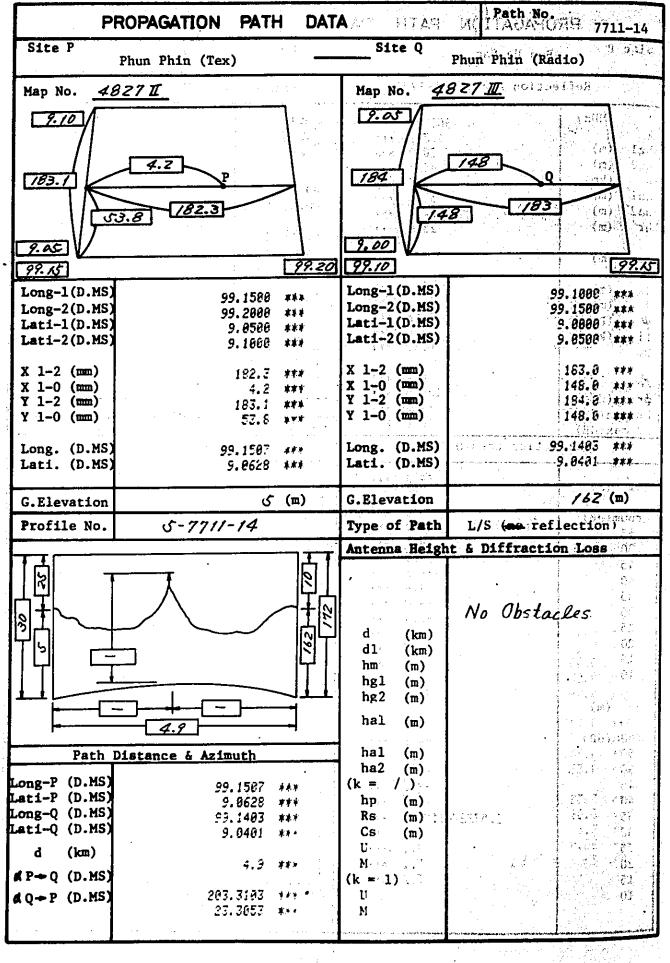
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	Collinger Na San	97 S. A.	3 H PA 11		
		· · · ·	Site Q	Prasaeng	÷.•.;,•
1 . <b>1</b>	Reflection Area	(011A-1/3)	Variation	of Reflection	1 Loss(011A-3/
f (MH2 K		906.00 ***	K 91.1		1.608 ***
hgl (m)	and the second second	1.333 ***	K 50 /		1.333 ***
hg2 (m)			K	· · · ·	3.000 ***
d (km)	2	40.0 *** 27.7 ***			
hal (m)-	Real of the product in the	58.0 ***	ha1 (m)	and the second second	58.0 **
ha2 (m)	and the same	33.0 ***	ha2 (m)	a constant of	33.8 ***
hr' (m)		25.0 xxx			-3.6 ***
In Contractor	and the state of t		Lr <sup>9%9</sup> (dB)		-4.3 ****
hr (m)			Lr <sup>so</sup> (dB)	· ·····	-4.5 ***
d1 . 1 . (m)	en men en e	.15.4 .***	Lr 4/ (dB)	* * * * * * * *	
d2 (m)		15,4 . **** 12.3. ***	hal (m)		
Ψ (D.M	s)	8.1059 ***	hal (m) hal (m)		n en en ser en derrek Anti-en statisk strategij
T1 (km)		14.5 ***			
Dv	- 1 K	0.82 ***	Lr <sup>#!!</sup> (dB)		ي در در در در در از روز در آم آم در
			Lr <sup>30</sup> (dB)		. <b></b>
Pe		6.7 ***	Lr <sup>0,1</sup> (dB)		
ðr 🔤 (deg)		120.0 *** -4.6 ***			
Lr min(dB)		-4.6 *** 10.5 ***	hal determi		58 (m)
<u>Lr max(dB)</u> Re	eflection Loss(		ha2 determi	ned	ਤੇਟੇ (m)
hal (m) Lr60m (dB) 55 50 45 45	<ul> <li>An and the second factor water for the second factor water for the second factor for the second f</li></ul>				ha2(m 50 40 40
35		-4.4 ***		-	
30		-4.8 ***			<i>-1</i>
25		-3.4 *** -2.5 ***		· · · · · · · · · · · · · · · · · · ·	
20 15		-1.3 ***	L		10
10		0.3 ***	25 20 15	10 5 0	-5 -10
	1 .	33.0 ***	Lr Patter	n at Q (dB, h	al' = 58 m)
aa2 <b>' (m)</b>					hal(m
r60m(dB)		-4.4 ***			50
55		-4.1 *** -3.6 ***			,,
50		-3.0 ***		****	40
45		-2.2 ***		· · · · · · · · · · · · · · · · · · ·	
40		-1.2 ***		· · · · · · · · · · · · · · · · · · ·	
35	2.532274	<b>4118-0</b> 2 ***		······································	30 '
30		1.5 ***			
25 20		3.1 ***	· · · · · · · · · · · · · · · · · · ·		- 20
15		5.1 *** 7.2 ***	· · · · · · · · ·	• ••••	•
10				10 5 0	10 10
			Lr Pattern	at P (dB, ha	2´= 33 m)
n - Canada in Brits in Statute	An and a second se	р			<u>د</u>
		13 -	en ante en ante en ante ante ante de la composition de la composition de la composition de la composition de la	ي المالغو <b>م</b> ادين المالية المالية المناقعين	الجي المحالية والمراجعة والم

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**13 - 107** 



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			Path No.
	ROPAGATION PATH DA	ATA	7711–14
	Phun Phin (Tex)	Site QF	hun Phin (Radio)
Ref	lection Area(011A-1/3)	Variation of	Reflection Loss(011A-3/3)
f (MHz) K hgl (m) hg2 (m) d (km)	900.00 4** 1.333 *** 5.0 *** 162.0 *** 4.9 ***	K 99.9 K 80 K 81 hal (m)	1.000 *** 1.333 *** 3.000 *** 25.0 ***
hal (m) ha2' (m) hr' (m) hr (m)	25.0 *** 13.0 *** 7.0 ***	hal (m) ha2' (m) Lr <sup>#!!</sup> (dB) Lr <sup>so</sup> (dB) Lr <sup>4!</sup> (dB)	18.0 *** -4.2 *** -4.1 *** -7.9 ***
d1 (m) d2 (m) ψ (D.MS) T1 (km) Dv <i>f</i> e fre deg)	8.6 *** 4.3 *** 2.1151 *** 8.3 *** 1.96 *** 6.7 *** 178.0 ***	hal (m) hal (m) Lr <sup>#!!</sup> (dB) Lr <sup>#D</sup> (dB) Lr <sup>#!</sup> (dB)	
Lr min(dB)	-4.5 ***	hal determined	2 (m)
<u>Lr max(dB)</u> Refl	10.5 ### lection Loss(011A-2/3)	ha2 determined	/// (m)
hal (m) I.r60m(dB) 55 50 45 40 35 30 25 20 15 10	25.0 *** 10.2 *** 2.3 *** -2.2 *** -4.3 *** -4.5 *** -3.0 *** 0.9 *** 9.3 *** 5.3 *** -1.6 *** -1.6 ***		$ \begin{array}{c} \text{Pattern} \\ \text{ha2(m)} \\ 50 \\ 40 \\ 30 \\ 20 \\ 10 \\ 5 \\ 0 \\ -5 \\ -10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 1$
ha2' (m)	- 10.0 Her		and a second
Lr60m(dB) 55 50 45 40 35 30 25 20	-3.8 *** -3.5 *** -3.5 *** -3.5 *** -4.5 *** -4.1 *** -4.1 *** -4.1 *** -4.1 ***		50 40 30 20
15 10	-4.2 *** -4.2 ***	25 20 15 10 Lr Pattern a	$\begin{array}{c} 10 \\ 5 & 0 & -5 & -10 \\ t P (dB, ha2' = 10 m) \end{array}$

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the second s

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14. System Performance Calculation

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	contents;of System	Performance calculat	ion
	No. Rad	io Path <sup>i</sup> and a second	Page
(Ayut	thaya area)	and the second s	
	3516-1 <sup>°</sup> Ayutthaya	- Nakhon Luang	)999507070 <b>14 - 1</b> -
			19. 195 <b>2 -</b> ∞142, € 61.
	-3 Nakhon Luang	- Maharat	
· · · · · ·	-4 Ayutthaya	- U-Thai	en de la contra de l
•	-5 Ayutthaya	- Bang Ban	5. · · · · · · · · · · · · · · · · · · ·
	-6 Bang Ban	- Bangpa Han	
	-7 Bang Ban	- Phak Hai	. 7
· · · ·	-8 Ayutthaya	- Sena	••••• ••••••••••••••••••••••••••••••••
	-9 Sena	- Bang Sai	
	~10 Sena	- Lat Bua Luang	10
· · ·	-11 Ayutthaya	- Ban Si	11
(Nakho	n Ratchasima area)		· · · · · ·
4	421-1 Nakhon Ratchas	ima – Non Sung	12
	-2 Non Sung	- Phi Nai	1 <b>3</b>
	-3 Phi Mai	- Chum Phuang	14
	-4 Chum Phuang	- Prathai	15
	⊶5 Bua Yai	– Khong	16
•	-6 Nakhon Ratchas:	ima - Non Thai	17
•	-7 Non Thai	- Kham Sakae Sae	ng 18
	-8 Non Thai	- Dan Khun That	19
	-9 Nakhon Ratchasi	ima – Chakkarat	20
	-10 Chakkarat	- Huai Thalaeng	21
	$\frac{8}{-11}$ Kham Thale So		
	-12 SI Kiu		

·		,
-13 Pak Tong Chai	- Chok Chai Manador da	0 <b>14 <del>*-</del> 024</b> %
-14 Pak Tong Chai	- Khon Buri State	25
-15 Khon Buri	- Sa Pratheep	.26
-16 Sa Pratheep	- Saeng Sang	27
(Chiangmai area)		
5313-1 Chiangmai	- Ban Pak Tang	28
-2 Ban Pak Tang	- Doi Chiang Dao	29
-3 Doi Chiang Dao	- Doi Pha Hong	30
-4 Doi Pha Hong	- Fang	31
-5 Fang	- Mae Ai	32 ≤
-6 Doi Chiang Dao	- Chiang Dao	33
-7 Doi Chiang Dao	- Doi Mu Soe	<u> </u>
-8 Doi Mu Soe	- Phrao	35
-9 Mae Rim	- Chiangmai	36
-10 Mae Rim	- Mae Taeng	<b>37</b>
-11 Chiangmai	- San Sai	38
-12 Chiangmai	- Doi Saket	y <b>39</b>
-13 Doi Saket	- San Kam Phaeng	40
-15 San Patong	– Ban Non Hai	41
-16 Ban Non Hai	- Hot	42
-17 Hot	- Doi Pae Po Mak	43
-18 Doi Pae Po Mak	- Khao Huai Bon	44
-19 Khao Huai Bon	- Omkoi	45
-20 San Patong	- Hang Dong	46
-21 Ban Non Hai	- Chom Thong	47
-22 Do1 Pae Po Mak	- Doi Tao	48
-23 San Patong	- Doi Inthanon	. 49

			and the second	
	Mae Chaem	-	Doi Inthanon 14 -	· 50
	Doi Inthanon	_	Da Moeng	51
(Phun Phin an	· · · · ·			
- 94	Phun Phin(R)	-	Don Sak	52
-2	Don Sak		Ko Samui	53
-3	Don Sak	—	Ko Phangan	54
-4	Phun Phin(Tex)	-	Kanchanadit	55
	Phun Phin(Tex)	-	Tha Chang	56
-6	Chai Ya	-	Tha Chana	57
	Khiri Ratthanikhom	-	Phun Phin(R)	58
-8	Khiri Ratthanikhom	-	Ban Takhun	59
-9	Khiri Ratthanikhom	-	Phanom	60
-10	Ban Na San	~	Khian Sa	61
-11	Ban Na San		Ban Na Doem	62
-12	Ban Na San		Wiang Sa	63
-13	Ban Na San	-	Prasaeng	64
	Phun Phin(Tex)	-	Phun Phin(R)	65

(900 MHz, <del>24 ch/</del> 120 ch, 5 W/ <del>1</del>	<del>00-#-</del> ):		and the second second	3516-1
Station P Ayutthaya T.	R Sta	tion 0	Nakhon Luang	т. <del></del>
Path Type: L/S (no reflection), Mt.	-Diffrer	tion	P	
Antenna Height		m	38	<u> </u>
Antenna Type & Size (Yagi, Parabolic)		mø	1.8	1.8
Antenna Gain	Ga	dBi	21	21
Feeder Type			H20	H20
Feeder Length	1f	m	48	48
Feeder Loss(ha + 10) x 2Lf	Lf	dB	2.5	2.5
Antenna Height at P	ha1	'n	· ·	
Antenna Height at Q	ha2	m		39.0 *** 28.0 ***
Path Loss				
Path Distance	d	km		12.7 4.4
Free Space Propagation Loss	Lo	dB		113.6 ***
Additional Propagation Loss(50%)	La	dB	÷	10.0 ***
Total Propagation Loss(50%)	Lp	dB		127.6 ***
Required Antenna Gain	Ga	dB	1	39.5 ***
Antenna Gain at P	Gal	dBi	· · ·	21.0 **+
Antenna Gain at Q	Ga2	dBi	· · · · ·	21.0 404
Branching Loss Feeder Loss at P	Lb	dB	1.	5.0
Feeder Loss at P Feeder Loss at Q	Lf1	dB		2.5 ***
Net Loss (50%)	Lf2	dB	•	2.5 ***
Median Noise(50%)	<u> </u>	dB		91.E ##¥
Figure of Merit				158.0
Signal/Thermal Noise	Fm	dB	•	65.4 ¥¥×
Thermal Noise	S/Nta	dB		145.6 ***
Equipment Thermal Noise	Nta	pWOp		166.0
Intermodulation Noise	Nte Nim	pWOp		200.
Interference Noise	Nim	pWOp pWOp		2-8.2
Radio Link Noise	Npr	pWOp		885.0 **•
Carrier Multiplex Noise	Npm	pWOp		460.0 ***
Total Noise	Np	pWOp		1145.6 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB		59.4 ***
Short Period Noise(99.9%)				13.5 4.4
Fading Depth	Af	dB		57.4
Signal/Thermal Noise	S/Nta	dB		1928 ***
Thermal Noise	Nta	pWOp		2360.2 🐢
Radio Link Noise	Npr	рWOp	ļ	2922. 2
Total Noise	Np	pWOp		55.5 🛷
Signal/Total Noise	S/Np	dB	ļ	· · · · · · · · · · · · · · · · · · ·
Fading Margin	<b>.</b>			37.0
Tx Output Power	Pt	dBm ·		-54.6 •
Rx Input Level(50%)	Pri	dBm		-90.0 75 4 -
Threshold Level	Pth	dBm		25.4 ···
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	L	
	a Gain (d	lBi)	Feeder Lo	oss(dB/m)
120 ch, 5W :: T301 14 ele		15	RG-17 /U	0.14
€8240ch, 5W .:::T302 1.2 mØ		18	H13	0.091
240ch, 100W : T303 1.8	11	21	H20	0.052
940.0 State 2.4	11	23.5	A20	0.048
Mux Noise (pWOp) 3.0	n 	26	A39	0.026
460 SG/380 G 4.2	H [	28.5		
310 GC/230 R 6.0	11	32		

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UHF SYSTEM PERFORMANC	E C	ALCU	LATION	PRE I	Path No:	2 . 7HU
(900 MHz, <del>24 ch</del> /120 ch, 5 W	/ <del>100</del>			n en ser en s	nongia a sister A constante constante	
Station P Nakhon Luang	T ≠₽	Stat	ion O	Ban <sup>®</sup> P	hraek	in an abs I
Path Type: L/S (me reflection), H	- Di		ion			t series Qlass
Antenna Height		ha	m	ļ	33	
Antenna Type & Size (Yegi, Parabolic	c)	х	mø.	1. (18) - 4. S. S.		34) 8009/20
Antenna Gain		Ga	dBi		18 : 1	1.5-01.51:018(0)
Feeder Type		·		H20		H20
Feeder Length		1f	m	<u> </u>	<u>43</u>	100 - <b>100</b>
Feeder Loss(ha + 10) x <u>ALf</u>		Lf	dB 🦾		<u></u>	arot roiz.
Antenna Height at P		hal	m			· 33.5 · ***
Antenna Height at Q		ha2	. m		1월 19 1 <b>년</b> 44	33.0 ***
Path Loss				l –		No state and the
Path Distance		d	km			20.3 ***
Free Space Propagation Loss		Lo	dB	1000	an san filing	117.6 114
Additional Propagation Loss(50%)		La	dB			9.0 ***
Total Propagation Loss(50%)		Lp	dB		11. · · · · · · · · · · · · · · · · · ·	/117 <b>.</b> 5 3 ###
Required Antenna Gain		Ga	dB	· · · ·	동안 41일 - 영화 19	-33.12 ***
Antenna Gain at P		Gal	' dBi	Į .	an a	8 18 0 and a
Antenna Gain at Q		Ga2	dBi	ĺ		5 15.0 Seven
Branching Loss		ΓΡ .	dB			. ( <b>5.0</b> ,∞.8
Feeder Loss at P		Lfl	dB			2.2.2
Feeder Loss at Q		Lf2	dB			0 2.20 ××*
Net Loss(50%)	<b> </b> _	Ln 🕠	dB			5- <b>91-1</b> - ###
Median Noise(50%)						3197 05356 6
Figure of Merit		Fm	dB			-160.0 68.9 ***
Signal/Thermal Noise		/Nta	dB	1.4.5		129.0
Thermal Noise	1	Nta	pWOp,			100.0
Equipment Thermal Noise	- 1	Nte	рWOр		ar at sét Al stragai	
Intermodulation Noise		Nim	pW0p	1. S. S.	88 - 11 <b>1</b> 1 1 1 1	240.0
Interference Noise		Nif	рWOр		، او ادار مراجع را	669.0 ***
Radio Link Noise		Npr	р₩Ор		1993 199 <b>4</b> 2 199	318.8 ***
Carrier Multiplex Noise		Npm	pWOp	112.20	a intera ta al da dina. An	979.0
Total Noise		Np	pWOp			68.1 ***
Signal/Total Noise( $\geq$ 57/50 dB)	<u> </u>	/Np	dB			an an an an Arland Arlanda. An taona 1980 an an an Arlanda
Short Period Noise(99.9%)	·			· · · · ·		13.5 ***
Fading Depth		Af	dB			55.9 ***
Signal/Thermal Noise		/Nta	dB			2570.0
Thermal Noise	1		рWOр			3110.0
Radio Link Noise			pWOp			3420.8
Total Noise		Np	pWOp		att. Literatur	54.7 ***
Signal/Total Noise	<u> </u>	/Np	dB	<u></u>		
Fading Margin	.					37.8
Tx Output Power		Pt	dBm			-54.1 ***
Rx Input Level(50%)		ri	dBm			-90:0 x2
Threshold Level	Pt	:h	dBm	4. A. A.	د 1 کار در د الاکتر روژ د	el 2 <b>3529</b> 333 <b>33</b> Al-293 (21065
Margin to Threshold(50%) ( $\geq$ 33 dB	5) <u>M</u> t	h	dB			ana (arang ara-sa) 
Program No. Ante	nna G	ain (d	Bi)	F	eeder Lo	ss(dB/m)
		Yagi	15		RG-17 /U	. # 0 <b>.1</b> 4
	mØ Pa		18		H13	
24 ch, 100W : T303 1.8			21		H20 <sup>76363</sup>	
2.4	. 11	ł	23.5		A20	0.048
Mux Noise(pWOp) 3.0	11	r '	26			07020 <sup>22</sup>
460 SG/380 G 4.2	11	1	28.5		ા શાસ્ત્રી,	
310 GC/230 R 6.0	н	i i	32		3-08235	
			-34.5			

UHF SYSTEM PERFORMANCE (900 MHz, <del>24 ch</del> /120 ch, 5 W/ <del>14</del>	CALCL	JLATION	Path No.	3516-3	
Station P Nakhon Luang T.		tion O	Maharat		т.
Path Type: L/S (no reflection), Ht.		tion	р		
Antenna Type & Size (Yagi, Parabolic)	ha			3	
Antenna Gain	Ga	Elo, MØ dBi	14		1.2
Feeder Type	Ga	<b>ab</b> 1	H 20	H20	3
Feeder Length	1f	m	43		3
Feeder Loss (ha + 10) x ALf	Lf	dB	2.2	the second s	2.2
Antenna Height at P Antenna Height at Q	hal	m		33.0 *	
Path Loss	ha2	m		<u> </u>	•••
Path Distance	Ь	km		1997 - 1998 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	
Free Space Propagation Loss	Lo	dB			**
Additional Propagation Loss(50%)	La	dB			#.≠ #.+
Total Propagation Loss(50%)	Lp	dB			¥.
Required Antenna Gain	Ga	dB		32.1 🗰	<b>*</b> *
Antenna Gain at P Antenna Gain at Q	Gal	dBi			**
Branching Loss	Ga2	dBi		-,	<b>*</b> *
Feeder Loss at P	Lb Lfl	dB dB	· · · ·	5,0 2,2 #	**
Feeder Loss at Q	LII Lf2	dB dB			¢.): ¢.):
Net Loss (50%)		dB			** \$¥
Median Noise(50%)					
Figure of Merit	Fm	dB ·	•	160.0	
Signal/Thermal Noise Thermal Noise	S/Nta	dB			F34. F34:
Equipment Thermal Noise	Nta	pWOp		100.0	• •
Intermodulation Noise	Nte Nim	pWOp		200.0	
Interference Noise	NIM	рWOр pWOp		248.0	
Radio Link Noise	Npr	pWOp pWOp	•	744.0 **	
Carrier Multiplex Noise	Npm	pWOp	•	310.0 ** 1054.0 **	-
Total Noise	Np	pWOp	· .	1054.0 ** 59.8 **	
Signal/Total Noise( > 57/50 dB) Short Period Noise(99.9%)	S/Np	dB			
Fading Depth				11.0 ×*	a i
Signal/Thermal Noise	Af S/Nta	dB dB		-55.9 **	
Thermal Noise	Nta	рWOр		2570.0 **	
Radio Link Noise	Npr	рЮр		3110.0 ** 3420.0 **	
· Total Noise	Np	pWOp	Ň	54.7 **	
Signal/Total Noise	S/Np ·	dB			
Fading Margin				37.0	
Tx Output Power Rx Input Level(50%)	Pt	dBm		-56.1 **	*
Threshold Level	Pri Pth	dBm		-98.8	*
Margin to Threshold(50%) ( $\geq$ 33 dB)	Pth Mth	dBm dB		JJ. **	7
Program No. Antenna 120 ab 54 mag			Feeder Los		
120 ch, 5W : T301 14 ele. 24 ch, 5W : T302 1.2 mØ		15 18	RG-17/U H13	0.14 0.091	
24 ch, 100W : T303 1.8	n i	21	H20	0.091	
彩旗, 9 日本 2.4	0	23.5	A20	0.048	
Mux Noise(pWOp) 3.0	11	26	A39	0.026	
460 SG/380 G 4.2	11 11	28.5			
310 GC/230 R 6.0		32			
8.0	n	34.5	the state of the s		ور بر المحد

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UHF SYSTEM PERFORMAN (900 MHz, <del>24-ch</del> /120 ch, 5	ICE ( W/ <del>100</del>	EALCÚI —₩ >)	ATION	PROFE PathrNo;	3516-4
Station P Ayutthaya	′T.₽		ion 0	U-Thai MAR	1. (23) fa;
Path Type: L/S (me reflection),	Mt D	iffract	ion: 🔅	1 P - 2 Var	The P Q + A
Antenna Height		ha	m	<b>43</b> 3 <i>R</i>	198 90 <b>33</b> .0
Antenna Type & Size (Yagi, Parabol	.ic)		mø,	1.8	
Antenna Gain		Ga ·	dBi		00 01021a
Feeder Type		1.0		HZD S3	H20
Feeder Length		1f	m m	N 8 6 2.8 1	2001 COA3
Feeder Loss (ha + 10) x <u>/Lf</u>		Lf	dB		
Antenna Height at P		hal	m	14 U.U.N. 1993 An ann an An	43.0
Antenna Height at Q Path Loss		ha2	<u> </u>	9 - 16 <b>-</b> 16 3	33:6 ****
Path Distance		d	km	والمعر والارين	araan •≢ <b>*10.9</b> 20 <b>*</b> €•
Free Space Propagation Loss		Lo	dB	anti dan ki kutina j	1日。2 不多十 1日
Additional Propagation Loss (50%)	√ [	Lo La	dB		······································
Total Propagation Loss(50%)	· • • •	Lp	dB d	XVI	
Required Antenna Gain		Ga	dB	27.13 Artes 1.3	
Antenna Gain at P		Gal	dBi	1	21.0 . ***
Antenna Gain at Q		Ga2	dBi		21.0 ***
Branching Loss		Lb .	dB		5.0
Feeder Loss at P		Lf1	dB		2.8 Sa###
Feeder Loss at Q		Lf2	dB	્રિંગ્સ શર	5 2. 2. A. ###
Net Loss (50%)	1.11	Ln	dB	5 <u>- 6</u> 8288	92,2 .***
Nedian Noise(50%)				$\sim 20 M_\odot p_{\odot}$	ales raitab
Figure of Merit		Fm	dB	74 (ST	160.0 67.8 ***
Signal/Thermal Noise		S/Nta	dB	化合成剂 人名博特尔	166.8 ***
Thermal Noise		Nta	рѠѸ	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	100.0
Equipment Thermal Noise		Nte	р₩Ор		200.0
Intermodulation Noise		Nim	pWOp	· · · · · · · · · · · · · · · · · · ·	248.6
Interference Noise		Nif	pWOp	NA 2014 - 1200 - 1100 - 1200	706.0
Radio Link, Noise		Npr	рWOр	新公式均益 (計	468.0 +++
Carrier Multiplex Noise Total Noise	ľ	Npm	pWOp pWOp	Plant let a si la fina e se da ci	1166.8 ****
Signal/Total Noise( > 57/50 dB)	, f	Np S/Np	dB		59.3 ***
Short Period Noise(99.9%)	·	<u> </u>		11.11.11.11.11.11.11.11.11.11.11.11.11.	10 CO
Fading Depth	1	Af	dB		57.8
Signal/Thermal Noise		S/Nta	dB	en tipe d'attai	1669.0 444
Thermal Noise		Nta	pWOp		2200-0-***
Radio Link Noise		Npr	pWOp		2660.0 ***
Total Noise		Np	pWOp		55.80 ##4
Signal/Total Noise	!	S/Np	dB		a i stransa
Fading Margin					37.0 Atom
Tx Output Power		Pt	dBm		:: <b>-55.2</b> : <b>*</b> **
Rx Input Level(50%)		Pri	dBm	e Bar jerster i	79 <b>6.0</b> 24
Threshold Level	1	Pth	dBm		34.8
Margin to Threshold(50%)( $\geq$ 33	dB) 1	Mth	dB	and the second of	at algesta
Program No. An	+	Gain (d	B-1)	Feeder Lo	ies(dR/m)
		Yagi	15	reeder Lu	
	$2 \text{ m} \emptyset \text{ F}$		18	14 18 H13 48	
24 ch, 100W : T303 1.4		II .	21	- €38.2 <b>H20</b> -963	
24 6.1, 1000 1 1909 2.4		0	23.5	A20	0.048
Mux Noise(pWOp) 3.0		н.,	26		sst (0.026)
460 SG/380 G 4.2		H	28.5		Ann St
310 GC/230 R 6.0		$H=\{g_{ij}\}_{i\in I}$	32	9 965 <b>X</b>	
8.0			34.5		
				•	

UHF SYSTEM PERFORMAN (900 MHz, 24 ch/120 ch, 5 v	CE C.	ALCL ₩-;)	JLATIO		Path No	3516-5	_
Station P Ayutthaya	T ≠=		tion Q	Bang	Ban		т.
Path Type: L/S (no reflection), +	le Di	ffrac	tion-		P	T —	
Ancenna Height		ha	nt		<u>.</u> 33		33
Antenna Type & Size (Yagi, Paraboli	(c)		mø		1.2		1.8
Antenna Gain		Ga	dBi		18	+	21
Feeder Type				HZO		H20	
Feeder Length		<b>1f</b>	m		43		\$3
Feeder Loss(ha + 10) x &Lf		_Lf	dB		2,2		2.2
Antenna Height at P Antenna Height at Q		hal	កា			33.0	***
Path Loss		ha2	m	1		33.0	
Path Distance							
Free Space Propagation Loss	1	d	km			12.1	
Additional Propagation Loss (50%)		Lo	dB			113.2	
Total Propagation Loss(50%)		La	dB		÷	8.0	
Required Antenna Gain		Lp	dB			121.2	
Antenna Gain at P		Ga Gal	dB	1 -		36.7	
Antenna Gain at Q	1	Gal Gal	dBi dBi	1		18.0 21.0	antan araa
Branching Loss		Lb	dB1 dB			5.0	束束牙
Feeder Loss at P		Lfl	dB	1			***
Feeder Loss at Q	1.	Lf2	dB			2.2	
Net Loss(50Z)		Ln	dB			91.7	
Median Noise(50%)			1	1			
Figure of Merit		Fm	dB	1		168.0	
Signal/Thermal Noise	S S	/Nta	dB			68.3	***
Thermal Noise		Nta	pWOp			148.3	<b>**</b> • •
Equipment Thermal Noise Intermodulation Noise		Nte	pWOp	l		100.2 200.2	-
Intermodulation Noise Interference Noise		Nim	p₩Op	1		248.0	
Radio Link Noise		Nif	pWOp	ļ		688.0	***
Carrier Multiplex Noise		Npr	pWOp			468.0	***
Total Noise		Npm Np	pWOp pWOp	1 · · ·		1148.0	***
Signal/Total Noise( > 57/50 dB)	s	אף <u>אף /</u>	dB			59.4	***
Short Period Noise(99.9%)						······································	•
Fading Depth	ĺ	Af	dB			11.0	
Signal/Thermal Noise	s	/Nta	dB			57.3 1862.0	
Thermal Noise		Nta	pWOp			2402.0	
Radio Link Noise	1	Vpr	p₩Op			2862.0	
Total Noise	1	Np	oWOp			55.4	
Signal/Total Noise	<u>s/</u>	Np	dB				
Fading Margin	Í .					37.0	_
Tx Output Power	- 1	't	'dBm			-54.7	¥#¥
Rx Input Level(50%)	Pr		dBm			-98.0	
Threshold Level	Pt		dBm			35.3	***
Margin to Threshold(50%) ( $\geq$ 33 df			dB				
	enna G				eder Lo		
	le.		15		G-17 /U	0.14	
· · · · · · · · · · · · · · · · · · ·	mØ Pa ⊓		18		13	0.09	
24.ch, 100W : T303 1.8			21 22 r		20	0.05	
			23.5		20	0.04	
Mux Noise (pWOp) 3.0			26 28 s	A	39	0.02	b
460 SG/380 G 4.2 310 GC/230 R 6.0			28.5 32				
SIU GC/23U R 8.0	0		32				

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UHF SYSTEM PERFORMAN (900 MHz, <del>24-ch</del> /120 ch, 5					
Station P Bang Ban	`T <del>_R</del> -		tion 0	Bangpa Han	5 CC 325
Path Type: L/S (me reflection),	-Me-D	iffree	tim.	to a Passing	Value incertiQue etta
Antenna Height	÷	ha	m	<u> </u>	はた。株式の目:1 33 1 41号。
Antenna Type & Size (Yagi, Parabo	lic)		Ele, MP	14: A	
Antenna Gain Feeder Type		Ga	dBi	15.	
Feeder Length		lf		H20 43	H20
Feeder Loss(ha + 10) x ALf		Lf	dB	2,2	Saiet Comple
Antenna Height at P					
Antenna Height at Q		ha2	<b>m</b> s s	n den de de la de la Transmission de la de	33.0 ***
Path Loss		anaz -	m		133.0 ***
Path Distance		d	km	2 	102416 <b>≭</b> ≢¥ ∿3857 <b>1024</b> 16 <b>≭</b> ≢¥
Free Space Propagation Loss		Lo	dB	i moltre acti	111.8 ***
Additional Propagation Loss (50%	) - I	La	dB	តាមភ្លំពោះ សេសស្តា	
Total Propagation Loss(50%)	-	Lp	dB S	in the second second	3.119.8 s <b>**</b> *
Required Antenna Gain	1	Ga	dB	att a den standarde	tres 35.3:4###
Antenna Gain at P	•	Gal	dBi	9 - E (A. 1997)	ate 15.0%***
Antenna Gain at Q		Ga2	dBi	and the second se	12 AL 21.0
Branching Loss		LP .	dB	· ·	
Feeder Loss at P		Lf1	dB		
Feeder Loss at Q		Lf2	dB	1	365 2.2 S###
Net Loss(50Z) *		_Ln	dB	1	93.3 ***
Median Noise(50%)		_			160.0
Figure of Merit Signal/Thermal Noise		Fm	dB	3 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	66.7 ***
Thermal Noise		S/Nta	dB	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	214.0 ***
Equipment Thermal Noise	[	Nta Nte	pWOp		199.9
Intermodulation Noise	ł	Nim	pWOp	ne i trittettet atkation	200.0
Interference Noise		N1f	pWOp pWOp		248.8
Radio Link Noise		Npr	р₩Ор р₩Ор		754.0 ***
Carrier Multiplex Noise		Npn	рЮр	م میں اور میں اور	310.0 ***
Total Noise		Np	pWOp		1064.0 ***
Signal/Total Noise( > 57/50 dB)		S/Np	dB	<u> </u>	<b>59.7 ***</b>
Short Period Noise(99.9%)			T	ling and ger an alt	12.0 ***
Fading Depth		Af	dB		10.0 *** 56.7 ***
Signal/Thermal Noise		S/Nta	dB	1 1 + al - 1 1	2138.0 ***
Thermal Noise		Nta	pWOp	» <sup>1</sup> .	2678.8 ***
Radio Link Noise		Npr	pWOp		2988.0 ***
Total Noise		Np	pWOp		55.2 ***
Signal/Total Noise		S/Np	dB	1 - 2 - 2 - 1 	raise 11 il saidur 197
ading Margin		<b>D</b>			40. <b>27.0</b> (541.670)
Tx Output Power Rx Input Level(50%)		Pt	dBm		-56.3 4**
Threshold Level		ri	dBm		
Margin to Threshold (50%) ( $\geq$ 33 a		th	dBm		33.7:***
	ав)  N	th	dB		i ut highraff.
Program No. Ant	tenna	Gain (d	Bi)	Fooder 1	oss(dB/m)
		Yagi		RG-17 /U	
· · · · · · · · · · · · · · · · · · ·	2 mØ P		18		0.091
24 ch, 100W : T303 1.8			21	: 10 <b>H2O</b> 7400	
2.4			23.5	A20	0.048
Mux Noise(pWOp) 3.0		n ser	26		4 20 × 0 • 026 a 15
460 SG/380 G 4.2	2 .	н К.,	28.5		1 (08 (0 <u>6</u> 4)
310 GC/230 R 6.0			~~~	· · · · · · · · · · · · · · · · · · ·	<ul> <li>Farmer interaction</li> </ul>

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UHF SYSTEM PERFORMA (900'MHz, <del>24 ch</del> /120 ch,	ANCE 5 W/HG	CALCL	JLATION	Path No	3516-7	
Station P Bang Ban	T 🛲		tion Q	Phak Hai		
Path Type: L/S (ne reflection)	, <del>Mt</del>	Diffre	1107	Р		0
Antenna Height		ha	m	33		33
Antenna Type & Size (Yagi, Parabo Antenna Gain	olic)		Ele, mo	12		102
Feeder Type		Ga	dBi	14		21.
Feeder Length				H20	HZO	
Feeder Loss(ha + 10) x ALf		1f	m	43		<u> 43 ′</u>
Antenna Height at P		Lf	dB	2.2		2.2
Antenna Height at Q		hal	m	· · · · · · · · · · · · · · · · · · ·	33.8	***
Path Loss		ha2	m		33.0	***
Path Distance		Ь	km	*** *		
Free Space Propagation Loss		Lo	1 1		12.3	• • •
Additional Propagation Loss (50	(%)	Lo	dB dB	· ·	113.3	***
Total Propagation Loss(50%)	:	La	dB	•	6.0	
Required Antenna Gain		Ga	dB		119.3	***
Antenna Gain at P		Gal	dBi	· · ·	34.8 14.8	
Antenna Gain at Q	•	Ga2	dBi		21.0	
Branching Loss	1	Lb	dB		5.0	
Feeder Loss at P		Lf1	dB		2.2	**
Feeder Loss at Q		Lf2	dB		2.2	***
Net Loss (50%)		Ln	dB		93.8	掌掌法
Median Noise(50%) Figure of Merit			,			
Signal/Thermal Noise		Fm	dB	•	150.0	
Thermal Noise		S/Nta	dB	,	66.2 240.0	本本本 本本本:::::::::::::::::::::::::::::::
Equipment Thermal Noise		Nta	pWOp		108.0	44.5
Intermodulation Noise		Nte	pWOp		200.0	
Interference Noise		Nim Nif	pWOp		248.8	
Radio Link Noise		Npr	pWOp pWOp		780.0	**+
Carrier Multiplex Noise		Npm	pWOp		310.0	<b>末</b> 年才
Total Noise		Np	pWOp	•	1090.0	***
Signal/Total Noise( > 57/50 dB	3)	S/Np	dB		59 <i>.6</i>	本本本
Short Period Noise(99.9%)					44.0	4
Fading Depth	1	Af	dB		11.0 55.2	***
Signal/Thermal Noise		S/Nta	dB		3020.0	
Thermal Noise		Nta	pWOp		3560.0	<b>X</b> ¥3
Radio Link Noise		Npr	pWOp		3870.0	***
Total Noise		Np	pWOp		54.1	***
<u>Signal/Total Noise</u> Fading Margin	<u> </u>	S/Np	_dB			
Tx Output Power	1	Pt '			37.0	
Rx Input Level(50%)		Pri .	dBm		-56.8	<b>本本本</b>
Threshold Level		Pth	dBm dBm		-98.8 33.2	
Margin to Threshold(50%) ( $\geq$ 33	dB)	Pth Mth	d Bm d B		JJ. 2	<b>**</b> *
Program No. Ar	ntenna	Gain (d	Bi)	Feeder Lo	ss(dB/m	)
	4 ele.		15	RG-17 /U	0.14	
	.2 mØ∷		18	H13	0.09	
	. 8		21	H20	0.05	
	.4	¥1	23.5	A20	0.04	
	.0	11 11	26	A39	0.02	6
460 SG/380 G 4.		**	28.5			
310 GC/230 R 6.		n <sup>1</sup>	32			
	U.		34.5			

Station P Ayutthaya	T.#	_ Stat	ion Q	Sena	S are
Path Type: L/S (no reflection)	, <del>Ne. I</del>	iffract	ion a	TALL I PART	
Antenna Height		ha	m	45	CLEASE CARRIER
Antenna Type & Size (Yagi, Parab	olic)		mø	136X1 11.2 A	
Antenna Gain		Ga	dBi	H20	23:5 HZO
Feeder Type Fooder Longth		1f		55	1120 Base
Feeder Length Feeder Loss(ha + 10) x ⊿Lf	. je		dB <sup>1</sup>	5 2.9 5	
Antenna Height at P		hal		÷	45.0 ***
Antenna Height at Q		ha2	m	ý 35. 36	33.0 ***
Path Loss					1011011195555
Path Distance		d	km	< 10t	18.1 ***
Free Space Propagation Loss		Lo	dB	ET THE GEAR OF ALL	116.7 ***
Additional Propagation Loss(50	)%)	La	dB	and the highest	8.0 ***
Total Propagation Loss(50%)		Lp	dB	hassai pritarja	
Required Antenna Gain	· ,	Ga	dB	e All Abbert	
Antenna Gain at P		Gal	dBi		18.8 *** 23.5 ***
Antenna Gain at Q		Ga2	dBi		1
Branching Loss		Lb	dB	ાં ના ગામના છે. તે છે.	2.9
Feeder Loss at P Feeder Loss at Q		Lf1 Lf2	dB dB	n in the second s	2.2 ***
Net Loss (50%)		· Ln ·	dB	1.14	93.3 .***
Median Noise(50%)	<u>.                                    </u>	- <u>1910</u>			A CAR LANDARD
Figure of Merit	1	Fm	dB		168.0
Signal/Thermal Noise		S/Nta	dB	to be a state of the state of	66.7 ***
Thermal Noise		Nta	pWOp	5 m3 t	214.6 ***
Equipment Thermal Noise		Nte	р₩Ор	seas i Instraett	100.0 200.0
Intermodulation Noise		Nim	pWOp	一、"如果"自己的	248.0
Interference Noise		Nif	pWOp	3.51 - 10.02	
Radio Link Noise		Npr	рѠѺҏ		468.8 ***
Carrier Multiplex Noise		Npm	pWOp	2612月1日1日(1923年1月)	1214.8 ***
Total Noise Signal/Total Noise( ≥ 57/50 d	אס	Np S/Np	pWOp dB		59.2 ***
Short Period Noise(99.9%)	<u>₽/</u>	<u>-57 NP</u>	<u>ub</u>		
Fading Depth		Af	dB		13.8 111
Signal/Thermal Noise		S/Nta	dB ·	an roll fueras	53.7 *** 4266.8 ***
Thermal Noise		Nta	pWOp		4886.8 ***
Radio Link Noise		Npr	рWOр	att a state of the	5266.0 ***
Total Noise	:	Np	pWOp		52.8 ***
Signal/Total Noise		S/Np	dB	* * * * * * * * * * * * * * * *	
ading Margin			_		37.8
Tx Output Power		Pt	dBm		-56.3 ***
Rx Input Level(50%)		Pri	dBm		-90.0 33.7:(***
Threshold Level		Pth	dBm	ana ana Taona ang ang ang ang ang ang ang ang ang a	
Margin to Threshold(50%) ( $\geq$ 3)	3 dB)	Mth	dB		
Program No.	Antenna	Gain (d	lBi)	Feeder Lo	oss(dB/m)
	l4 ele.		15		
24 ch, 5W : T302	1.2 mØ		18	1973 <b>H13</b> HE	0.091
24 ch, 100W : T303	1.8	ti -	21	H20	
2	2.4	<b>H</b> (1997)	23.5	A20	0.048
• •	3.0	<b>H</b> (17.5)	26		0.026
	• • 2	11	28.5		N. Argh
	5.0		32		57. 64
K	3.0	••	34.5	· · · · · · · · · · · · · · · · · · ·	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -

UHF SYSTEM PERFORMANC (900 MHz, 24-oh/120 ch, 5 W		LALCI ⊨₩-)	ULATION	1. 94. OL.	Path No	3516-9	
	T.#=		tion 0	Bang	Sai	. ·	
Path Type: L/S (no reflection), H Antenna Height	6 D	iffra.		· · · · · · · · · · · · · · · · · · ·			
Antenna Type & Size (Yagi, Paraboli)		ha	m		33		33
THE CONTRACT IN A CONTRACT OF	c)	<b>A</b>	Ele, no	· · · · · · · · · · · · · · · · · · ·	12		1.8
Feeder Type		Ga	dBi	H20	14		2/
Feeder Length		1f	m		<i>43</i>	HZO	\$3
Feeder Loss(ha + 10) x <u>ALF</u> Antenna Height at P		<u>Lf</u>	dB		<b>2.</b> 2		2.2
Antenna Height at Q	· .	hal	វា			33.0	***
Path Loss		ha2				33.0	
Path Distance		d	km				
Free Space Promagation Loss Additional Propagation Loss(50%)		Lo	dB		· · ·	11.0 112.3	
Total Propagation Loss(50%)		La	dB			£.0	
Required Antenna Gain		Lp Ga	dB			118.3	
Antenna, Gain at P		Gal	dB dBi			33.8 14.0	***
Antenna Gain at Q Branching Loss		Ga2	dBi			21.0	
Feeder Loss at P		Lb	dB			5.2	
Feeder Loss at Q		Lfl Lf2	dB			2.2	
Net Loss(50%)		LIZ Ln	dB dB			92.8	
Median Noise(50%) Figure of Merit							
Signal/Thermal Noise		Fm	dB		•	160.0 67.2	
Thermal Noise		S/Nta Nta	dB			191.0	
Equipment Thermal Noise		Nte	pWOp pWOp			160.0	
Intermodulation Noise Interference Noise		Nim	pNOp			200.0	
Radio Link Noise		Nif	pWOp			240.3 731.0	<b>8</b> 26 -
Carrier Multiplex Noise		Npr Npm	pWOp pWOp			460.0	
TOTAL NOISe		Np	pWOp pWOp			1191.8	
Signal/Total Noise( > 57/50 dB) Short Period Noise(99.9%)	<u>_ s</u>	/Np	dB		·	59.2	***
Fading Depth		Af	18			10.0	¥#.>
Signal/Thermal Noise	s	/Nta	dB dB			57.2	
Thermal Noise			pWOp			1905.0 2445.0	
Radio Link Noise Total Noise		Npr	pWOp			2905.8	
Signal/Total Noise		Np Np	pWOp dB			55.4	##¥
ading Margin					·····	37.0	
Tx Output Power		't	dBm			-55.8	***
Rx Input Level(50%) Threshold Level	Pr		dBm			-90.0	
Margin to Threshold(50%) ( $\geq$ 33 dB)	Pt Mt		dBm dB			34.2	非常法
D. C. M. S. Martin M			l				<u> </u>
120' ch, 5W : T301 14 ele	na G	ain (dl				s(dB/m)	
120 ch, 5W : T301 14 ele 24 ch, 5W : T302 1.2 m	e. Ø Pa:	ragi ra.	15 18	RG- H13	17 /U	0.14	
24 ch, 100W : T303 1.8	11		21	H13 H20		0.091 0.052	
2.4			23.5	A20		0.048	
Mux         Noise(pWOp)         3.0           460         SG/380         G         4.2	11	-	26	A39		0.026	
310 GC/230 R 6.0			28.5 32				
	<u></u> ,#		34.5				
				·····			

UHF SYSTEM PERFORMA	NCE	CALCU	LATION	Path No.	CE FHU
(900 MHz, 24 ch/ <del>120 ch,</del> 5	; w/ <del>10</del>	₩ <b>₩</b>	A	110 / A. a MA	3516-10
Station P Sena	<b>T.</b>	Stat	ion 0	Lat Bua Luang	1207 35 <b>T</b>
Path Type: L/S (no reflection),		Lifeac		P	······································
Antenna Height	n, kira	[ ha```	m		1
Antenna Type & Size (Yagi, Perebe	<del>lio</del> ) j		Ele	12	14
Antenna Gain	- 1990. 1990.	Ga	dB1	H20	15
Feeder Type		1f		7720	<u>H20</u> 43
Feeder Length			dB	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2.2
Feeder Loss(ha + 10) x <u>ALf</u> Antenna Height at P	- 	hal	m	Endower and and and a surrent damage a	
Antenna Height at Q		ha2	m i		33.0 *** 33.0 ***
Path Loss	مرد دوری درموردی	1144	ut .	د است. به رومه محمد بالم مرومه کوهم کرد کرد کرد می مرومه در در محمد ا	33.0 ###
Path Distance		đ	km		28.4 ***
Free Space Propagation Loss		Lo	dB	لىرائى 11 مىرمىرىيىنى مارىمى 1	117.7. ***
Additional Propagation Loss(50	Z)	La	dB	ار در ۲۰۹۹ و ۲۰ در معرود از ۲ ۲۰۱۰ و مورود و مراز در ۲۰	8.8 ***
Total Propagation Loss(50%)		Lp	dB		117.7 ***
Required Antenna Gain		Ga	dB	ad sub contestar	29.2 ***
Antenna Gain at P	1.11	Gal	dBi	i. Hanadak	14.0 ***
Antenna Gain at Q	1 2020	Ga2	dBi	i i elada	10.15.001444 390 - 50050000
Branching Loss		Lb . Lfl	dB dB	0.8+e*	2.2 ****
Feeder Loss at P Feeder Loss at Q		Lf1 Lf2	dB	1 (17) (17) (17) (17)	2.2 ***
Net Loss (50%)	÷	Ln	dB	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	98.2 ***
Median Noise(50%)	••••		and the second	د این این اور این است. هم رواند این این وید وقت و این این این این افغانیان این این این این	and a second
Figure of Merit		Fm	dB	n sjan 2011 i Se kanalise	165.0
Signal/Thermal Noise		S/Nta	dB	i i a statistica. A statistica i statistica	66.8 *** 269.8 ***
Thermal Noise		Nta	pWOp	1999 - S. 1999 -	5188-8 (ST
Equipment Thermal Noise		Nte	рѠѸ	an of Austral	200.0
Intermodulation Noise		Nim	pWOp	<ul> <li>Later A. Bart</li> </ul>	240.0
Interference Noise		Nif	рWOр рWOр	and the second second	749:0 ****
Radio Link Noise		Npr Npm	pWOp		380.0
Carrier Multiplex Noise Total Noise		Np	pWOp	en sette generate ble a	
Signal/Total Noise( > 57/50 dl	B)	S/Np	dB		59.5 ***
Short Period Noise(99.9%)			n Roman Const	الی تیسینی کار سارو ایم در بایه در مانه ایکور دو این ایک دارانی	13.0 ***
Fading Depth		Af	dB		53.8 ***
Signal/Thermal Noise		S/Nta	dB		4169.8 ###
Thermal Noise		Nta	pWOp		4789.8 ***
Radio Link Noise	ļ	Npr	pWOp	3.565	5089.0 ***
Total Noise	•	Np S/Np	pWOpdB	·	52.9 ***
<u>Signal/Total Noise</u> Fading Margin		<u>ə/Np</u>		and a state of the second s	37.0
Tx Output Power		Pt	dBm		-61.2 ***
Rx Input Level(50%)	. (	Pri ·	dBm	1 (1997) 1 (1997)	-95.0
Threshold Level	•	Pth	dBm		33.8 ***
Margin to Threshold(50%) ( $\geq$ 3:	3 dB)	Mth	dB	and Antonia Elemente (antonia	0.000000000000000000000000000000000000
Program No. A	htenn:	a Gain(	dBi)	Feeder L	oss(dB/m),
	14 ele.			RG-17 /U	0.14
		Para.	18	H13	0.091
24 ch, 100W : T303	1.8	н	21	H20	0.052
	2.4	11	23.5	820	0+070
· · · · · ·	3.0	11	26	A39	0.026.
460 SG/380 G 4	.2		28.5		Ad4: 033

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UHF SYSTEM PERFORMANCE (900 MHz, 24-ch/120 ch, 5 W/2		LATION	Path No.	3516-11
Station P Ayutthaya T.	#= Stat	ion O	Ban Si	T-B-
Path Type: L/S (no reflection), Ht-	Diffract	ion-	P	Q
ntenna Height	ha	m	33	
Antenna Type & Size (Yagi, Parabolic)		Ele, 719	/2	1.8
Antenna-Gain	Ga	dBi	14	21
Feeder Type	2.5		H20	H20 43
Feeder-Length Feeder+Loss(ha + 10) x <u>Alf</u>	lf Lf	n n	43	2.2
Antenna Height at P	hal	<u>dB</u>		
Antenna Height at Q	ha1	m		33.8 ***
Path Loss		. <u>m</u> .		33.0 ***
Path Distance	d	km		17.6 ***
Free Space Propagation Loss	Lo	dB		116.4 44*
Additional Propagation Loss(50%)	La	dB		3.0 ***
Total Propagation Loss(50%)	Lp	dB 🛛		115.4 ***
Required Antenna Gain	Ga	dB		34.9 ***
Antenna Gain at P	Gal	dBi		14.0 **
Antenna Gain at Q Branching Loss	Ga2 Lb	dBi dP		21.0 *** 5.0
Feeder Loss at P	LD Lfl	dB dB		2.2 ***
Feeder Loss at Q	Lf1 Lf2	dB	· .	2.2 ***
Net Loss (50%)	Ln	dB		93.9 ***
ledian Noise(50%)	4			
Figure of Merit	Fm	dB	•	168.8 66.1 ***
Signal/Thermal Noise	S/Nta	dB		245.6 489
Thermal Noise	Nta	pWOp		100.0
Equipment Thermal Noise Intermodulation Noise	Nte Nim	pWOp pKOp		200.0
Interference Noise	Nif	pWOp pWOp		240.0
Radio Link Noise	Npr	pWOp		795.6 ***
Carrier Multiplex Noise	Npm	pWOp	· ·	460.0 *** 1245.0 ***
Total Noise	Np	pWOp		59.0 ***
Signal/Total Noise( > 57/50 dB)	S/Np			
hort Period Noise(99.9%)		ا <sub>ا</sub>		12.9 ***
Fading Depth	Af S/Nta	dB dB		54.1 4**
Signal/Thermal Noise Thermal Noise	Nta	pWOp		3896.0 ***
Radio Link Noise	Npr	pwop pWOp	-	4230.0 ¥** 4890.0 ***
Total Noise	ND	pWOp		53.1 ***
Signal/Total Noise	S/Np	dB		
ading Margin		<u> </u>		37.8
Tx Output Power	Pt	dBm		-56.9 ***
Rx Input Level(50%)	Pri	dBm		-90.0 33.1 **•
Threshold Level	Pth	d Bm d B		00111 MPT
Margin to Threshold $(50\%)$ ( $\ge$ 33 dB	) Mth	dB		
Program No. Anter	nna Gain(	dBi)		oss(dB/m)
120 ch. 5W : T301 14 el	le. Yagi	15	RG-17 /U	
24 ch. 5W : T302 1.2 m	nØ Para.	18	H13	0.091
24 ch, 100W : T303 1.8	n -	21	H20	0.052 0.048
	R R	23.5	A20 A39	0.026
Mux Noise(pWOp) 3.0 460 SC/380 G 4.2		26 28.5	82A	0.020
	1. 11	32		
310 GC/230 R 6.0 8.0	· • •	34.5		

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UHF SYSTEM PERFORMA (900 MHz, <del>24 ch/</del> 120 ch, 5	1990	ومراجعه المراجع والمراجع	LATION	Jans Path No	
Station P Nakhon Ratchasima	T.#	Stat	ion Q	Non Sung	
Path Type: L/S (no reflection),	MeE	Mffrac	ton-	ti and allow the Parameters allower	Q
Antenna Height		ha	m	50	33
Antenna Type & Size (************************************	olic)		ma	2.4 m	2.4
Antenna Gain		Ga	dBi	1 10 10 10 10 10 10 10 10 10 10 10 10 10	
Feeder Type	. •	lf		<u>H20</u> 60	H20 43
Feeder Length Feeder Loss (ha + 10) x <u>ALf</u>			dB	3.1	2.2
Antenna Height at P		hal	m	ويتسميه والمنشر والمحافي مردوا والج	
Antenna Height at Q		ha2	m .		
Path Loss	ter i sere		میں 3 - انٹری درست انٹریز دار ا	a de la companya de	. 252.3 DD. Using APP 18 Stars
Path Distance		Ъ	km		27.6 ***
Free Space Propagation Loss	· ·	Lo	dB		128.3 ***
Additional Propagation Loss (50	7)	La	dB		18.2, 4++
Total Propagation Loss (50%)	<b>A</b>	Lp	đB	Large and the	139.3 ***
Required Antenna Gain		Ga	dB		46.7 ***
Antenna Gain at P		Gal	dB1	an ya ta ta	23.5 ***
Antenna Gain at Q		Ga2	dBi		23.5 ***
Branching Loss	. *	Lb	dB	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5.0 3.1 ***
Feeder Loss at P Feeder Loss at Q		Lf1 Lf2	dB dB		2.2 ***
Net Loss (50%)	•	LIZ	dB		93.7 ***
Median Noise(50%)	• •			ور بهرور وجردت این است رسیم که از این	
Figure of Merit		Fm	dB		160.9
Signal/Thermal Noise		S/Nta	dB		66.3 ***
Thermal Noise		Nta	pWOp	na di kata ang kata a Bang kata ang	234.0 ***
Equipment Thermal Noise		Nte	pWOp		100.0
Intermodulation Noise		Nim	pWOp		202.2
Interference Noise		Nif	pWOp		248.6
Radio Link Noise		Npr	pWOp	a.167	774.8 *** 468.0 ***
Carrier Multiplex Noise		Npm	pWOp	Saltan Harley	460.0 *** 1234.0 ***
Total Noise	- · · ·	Np	pWOp		59.1 ***
Signal/Total Noise( > 57/50 d)	<u>8) -</u>	S/Np	dB	and the second s	A CONTRACTOR AND AND A CONTRACTOR AND AN
Short Period Noise(99.9%) Fading Depth	· ·	Af	dB	and a straight of	14.0 ***
Signal/Thermal Noise		S/Nta	dB		52.3 ***
Thermal Noise		Nta	pWOp	- 200 A 1977	5886.0
Radio Link Noise		Npr	pWOp		6428.0 ***
Total Noise		Np	pWOp		6828.0 ***
Signal/Total Noise	1.1	S/No	dB		51.6 ***
Feding Margin			* 1.21	an na seria a seria da Romanda	37.0 Set U.S.
Tx Output Power		Pt	dBm	1 Sectors	S7.0 38 Geran
Rx Input Level(50%)	ŀ	Pri	dBm		-30.0
Threshold Level	1	Pth	dBm		::::33-3 ****
Margin to Threshold $(50\%)$ ( $\geq$ 33	3 dB)	Mth	dB		
Progree No.		Col-1	(R()	n in a second	058 (dB/m)
The second se	uncenna 4 ele.	Gain ( Yagi		RG-17 /U	
	.4 eie.		18	H13	0.091
	8	11	21	H20	0.052
	.4	<b>11</b>	23.5	A20	0.048
	.0	11	26	A39	0.026
	.2	11	28.5		1999-940-944 1999-940-944
	.0	, <b>H</b>	32		C DT DIL
	.0	**	34.5	1	an internal state that a

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UHF SYSTEM PERFORMA	1 A A A A A A A A A A A A A A A A A A A		ATION	Path No		
(900 MHz, <del>24-ch/</del> 120 ch, 5	W <del>/100</del>	<b>*</b> ):			4421-2	
Station P Non Sung	T.=R==	Stat	ion Q	Phi Mai		T.R
Path Type: L/S (as reflection),	***	iffract	ton-	P		Q
Antenna Height		ha	m	કરે		<del>.</del>
Antenna Type & Size (Yegi, Parabo	lic)	1997 - 19	ma	/.2		1.8
Antenna Gain		Ga	dBi	18:0	<u> </u>	21:0
Feeder Type	4	÷.,	ļ	H20	H20	
Feeder Length		1f	m	43	4	43
Feeder Loss (ha + 10) x 4Lf		Lf	dB	2.2		2,2
Antenna Height at P		ha1	a		33.6	***
Antenna Height at Q		ha2	m	<u> </u>	33.0	***
Path Loss			1.	T		
Path Distance		d	km	1	27.0	<b>非平</b> 本 
Free Space Propagation Loss	"∖ ° {	Lo	dB		120.1 7.0	*** **
Additional Propagation Loss(50) Total Propagation Loss(50%)	6J .	La	dB		123.1	yy. Yyy
Required Antenna Gain	<u>_</u>	Lp Ga	dB	a Distance and a	38.E	- 1
Antenna Gain at P		Ga Gal	dB dBi	A state of the	18.0	. *** . ***
Antenna Gain at Q	· · · .	Ga1 Ga2	dBi	1	21.0	***
- Branching Loss		Lb '	dB	{	5.0	
Feeder Loss at P	· 1	Lfl	dB		2.2	***
Feeder Loss at Q		Lf2	dB	ł	ے بے	***
Net Loss(50%)		Ln	dB		93.6	***
Median Noise(50%)						
Figure of Merit		Fm	dB		160.0	ي الم
Signal/Thermal Noise		S/Nta	dB		66.4 229.8	*** ***
Thermal Noise	·	Nta	pWOp		100.0	***
Equipment Thermal Noise		Nte	pWOp		200.0	
Intermodulation Noise	]	Nim	pWOp	{	240.0	
Interference Noise		Nif	pWOp	{	765.0	***
Radio Link Noise		Npr	pWOp		318.0	
Carrier Multiplex Noise	·	Npm	pWOp		1079.0	
Total Noise		Np	pWOp		59.7	建水油
Signal/Total Noise( > 57/50 dl	<u>87</u> {	S/Np	dB	<b>+</b>		
Short Period Noise(99.9%)		• •			14.0	
Fading Depth	Į	Af	dB dB	1	52.4 5754.0	·本水子 - 本水子
Signal/Thermal Noise Thermal Noise	ļ	S/Nta	1		6294.0	*** **
		Nta	pWOp	1	6684.0	***
Radio Link Noise Total Noise	. [	Npr Np	pWOp pWOp	1	51.6	***
Iotal Noise Signal/Total Noise		NP S/Np	dB	1	****	- 1
Fading Margin		<u>,</u>	1	1	37.6	
Tx Output Power		Pt	dBm	ł	-56.6	***
Rx Input Level(50%)		Pri	dBm	ł	-90,0	
Threshold Level		Pth	dBm	1	33.4	***
Margin to Threshold (50%) ( 2 33		Mth	dB			
Program No. 2 magazi A	ntenna	Gain (	dB1)	Feeder L		
120 ch. 5W : T301 1	4 ele.	Yagi	15	RG-17 /U	0.14	<b>i</b> .
24 ch, 5W : T302 1	.2 mØ	Para.	18	H13	0.09	
24 ch, 100W : T303 1	8	<b>D</b>	21	H20	0.05	
340.0° - 2		11	23.5	A20	0.04	
Mux Noise(pWOp)	.0	n	26	A39	0.02	26
460 SG/380 G 4	.2	11	28.5			
310 GC/230 R 6	.0	**	32			
8	.0	- <b>tt</b>	34.5			

UHF SYSTEM PERFORMAN (900 MHs, <del>24 ch</del> /120 ch, 5	NCE ( W/ <del>100</del>	:ALCU -#`)	LATION		4421-3
Station P Phi Mai	T.#		ion Q	Chum Phuan	and the second
Path Type: L/S (en reflection),	Ht D	létenci	-Lon	est fort Pass	363 - Seen T <b>Q</b> (***)
Antenna Height		ha	m.	33	aleen son
Antenna Type & Size (Vegi, Parabo	lic)	_	m		a as to the the second s
Antenna Gain	4 - E A	Ga	dBi	23; S H20	- <u>21:0</u> H20
Feeder Type Feeder Length		1f	· m	43	1 1920 1 19 <b>43</b> 000
Feeder Loss (ha + 10) x ALf		Lf	dB	1	
Antenna Height at P	1.7.1	hal	<b>n</b>	and the state	33.0 *****
Antenna Height at Q	1.1.1	ha2	1 <b></b>		33.0
Path Loss					· · · · · · · · · · · · · · · · · · ·
Path Distance		d	km		
Free Space Propagation Loss		Lo	dB		27 - 2 <b>12121</b> 28*** 3 2 - 262 <b>6 20</b> 28***
Additional Propagation Loss (502 Total Propagation Loss (502)	9, 1	La Lp	dB dB		3 - 110 <b>510 - 111</b> 3 - 11 <b>127.1</b> - <b>111</b>
Required Antenna Gain		Lp Ga	dB		ansa 42:6 ar¥t¥
Antenna Gain at P		Gal	dB1		23.5 ***
Antenna Gain at Q		Ga2	dBi		-3 - 21.0 · ***
Branching Loss	5 - S	LD (	dB	2	
Feeder Loss at P		Lf1	dB		6
Feeder Loss at Q		Lf2 Ln	dB dB		92.1 ***
Net Loss(50%) Median Noise(50%)			<u> </u>		er Antonen and See
Figure of Merit		Fm	dB		160.0. set
Signal/Thermal Noise		S/Nta	dB	2 . S	67.9 ***
Thermal Noise		Nta	pWOp		162.8. ***
Equipment Thermal Noise	. '	Nte	pWOp	an a	108.0 200.0
Intermodulation Noise		Nim	pWOp		243.0
Interference Noise Radio Link Moise		Nif	pWOp		
Carrier Multiplex Noise		Npr Npm	pWOp pWOp		460.0 ***
Total Noise		Np	pWOp	•	1102.0 1
Signal/Total Noise( > 57/50 dB	<b>)</b> ()	S/Np	<u>' dB</u>		55.3***
Short Period Noise(99.9%)				is di Cassari	15.0 ***
Fading Depth		.Af	dB	No. 14 - 1	52.9° ***
Signal/Thermal Noise		S/Nta	dB		5129.8 ***
Thermal Noise Radio Link Noise		Nta	pWOp		5669.0 ***
Total Noise		Npr Np	pWOp pWOp	n in the second s	6129.0 ***
Signal/Total Noise		S/No	dB		52.1 ***
Fading Margin			1		37.0
Tx Output Power		Pt	dBm	1947 - 1947 -	<sup>05,210</sup> 155.31 <sup>313</sup> ###
Rx Input Level(50%)	· · · ·	Pri	dBm		-98.0
Threshold Level Margin to Threshold(50%) ( $\geq$ 33		Pth	dBm dB	مانی جمع بردار از واقیانی	144 9 <b>***</b>
		Mth	<u>.</u>		
		Gain ( Yagi		reeder	Loss (dB/m) /U
		Para.		E H13	0.091
	.8	11	21	20 <b>5120</b> 9	0.052
- · · · · · · · · · · · · · · · · · · ·	.4	Ψ.,	23.5	A20 ·	0.048
	.0		26		0.026
•	-2	H (j.			686 JSR 084
	•0	. <b>.</b>	. 32 34.5	er i 1 <b>∅</b> 7	310 at / 2.30
	.0 '''		5		

UHF SYSTEM PERFORMANCE (900 MHz, 24 ch/ <del>120-ch,</del> 5 W/ <del>10</del>			4421	-4
Station P Chum Phuang T.#	. Stat	1on 0	Prathai	T.#
Path Type: L/S (no reflection), Ht.	Diffrart	-ion-	Р	Q
Antenna Height	ha	m	33	33
Antenna Type & Size (Yagi, Parabolic)		Ele, MI	2	1.2
Antenna Gain	Ga	dBi	14	
Feeder Type	<b>}</b> .		H20 H.	
Feeder Length	1f	tn	43	43
Feeder Loss (ha + 10) x ALf	Lf	dB	2.2	2,7
Antenna Height at P	hal	n i		33.0 ***
Antenna Height at Q	ha2	m		33.0 ***
Path Loss		۱		
Path Distance	d	km		28.4 ***
Free Space Propagation Loss	Lo	dB	1	17.7 ***
Additional Propagation Loss(50%)	La	dB		3.0 ***
Total Propagation Loss(50%) Required Antenna Gain	Lp	dB		28.7 ***
Antenna Gain at P	Ga	dB		31.2 *** 14.0 ***
Antenna Gain at Q	Gal	dB1		14.0 ***
Branching Loss	Ga2	dBí		5.6
Feeder Loss at P	Lb Lfl	dB dB		2.2 ***
Feeder: Loss at Q	Lf1 Lf2	dB		2.2 ***
Net Loss (50%)		dB	ł	98.2 ***
Median Noise(50%)	<u>+₩₩</u> -			
Figure of Merit	Fm	dB		65. <i>0</i>
Signal/Thermal Noise	S/Nta	dB		66.8 ***
Thermal Noise	Nta	pWOp		09.0 <b>**</b> *
Equipment Thermal Noise	Nte	pWOp		88.6
Intermodulation Noise	Nim	рWOр		88.0 48.8
Interference Noise	Nif	pWOp		40.0 49.0 ***
Radio Link Noise	Npr	рWOp		42.0 ### 30.8 ###
Carrier Multiplex Noise	Npm	р₩Ор		79.8 ***
Total Noise	Np	pWOp		6 <b>0.</b> 1 <b>*</b> **
Signal/Total Noise( > 57/50 dB)	S/Np	dB		
Short Period Noise(99.9%)	}			13.8 ***
Fading Depth	Af	dB		53.8 ***
Signal/Thermal Noise	S/Nta	dB		69.0 ve/
Thermal Noise	Nta	рWOр		89.6 ***
Radio Link Noise	Npr	pWOp		39.0 ***
Total Noise	Np	pWOp dB	ł	53,1 ###
Signal/Total Noise	S/Np	<u>up</u>	<b> </b>	37.0
ading Margin	Pt	dBm		57.6 51.2 ***
Tx Output Power	Pri			95.8
Rx Input Level(50%) Threshold Level	Pth	dBm dBm		33.8 ***
Margin to Threshold (50%) ( $\geq$ 33 dB)	Nth	d B d B		-
	<u> </u>		L	
	a Gain(		Feeder Loss	
120 ch. 5W : T301 14 ele	. Yagi	15	RG-17 /U	0.14
24 ch, 5W : T302 1.2 mØ		18	H13	0.091
24 ch, 100W : T303 1.8		21	H20	0.052
SAQ, 6 1 4411 12.4	11 51	23.5	A20	0.048
Mux Noise(pWOp) 3.0	- 11 	26	A39	0.026
460 SG/380 G 4.2	- 11 - L	28.5		
310 GC/230 R 6.0		32		
8.0		34.5		
	4 - 15			

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Station P Bua Yai Tra	Stat	ion Q	Khong	T. <del>R</del>
Path Type: L/S (as reflection), Ht.	Diffrac	ton (G)	Parente Parente and	A PART OF A THE
Antenna Height	ha	m	40	mart an43 and
Antenna Type & Size ( <del>Yagi</del> , Parabolic)	1 2 1 4	mø	1.8	
Antenna Gain	Ga	dBi	H20	H20 H21MA
Feeder Type Feeder Length	1f		50	Control & Back
Feeder Loss (ha + 10) x ALf	Lf	dB	2.6	2.8
Antenna Height at P	hal	<u> </u>	<b></b>	
Antenna Height at Q	ha2	m .	an Angela	43.0
Path Loss		1		- 1997 Brot
Path Distance	d	kon		06 <b>18.6</b> Carl
Free Space Propagation Loss	Lo		d gental gavent	
Additional Propagation Loss(50%)	La	dB	A restance game	
Total Propagation Loss(50%)	Lp	dB . 2		
Required Antenna Gain	Ga	dB		100 41, 31, 24400 201 21. On 1488
Antenna Gain at P Antenna Gain at Q	Gal Ga2	dBi dBi		1997年19月1日(1997年19月) 1997年1月1日(1997年19月) 1997年1月1日(1997年19月)
Branching Loss	Lb	dB		9999 <b>244</b> 445779864469 ∂1999 <b>548</b> 2999888
Feeder Loss at P	Lf1	dB		
Feeder Loss at Q	Lf2	dB		Sugar, 2. E. O. A.A.
Net Loss(50%)	Ln	dB	. "	93.3 49.4
Median Noise(50%)				
Figure of Merit	Fm	dB		. 168.0 
Signal/Thermal Noise	S/Nta	dB	1991 - 1997 - 1998 1997 - 1997 - 1998 1997 - 1997 - 1998	214.6
Thermal Noise	Nta	pWOp		100.0
Equipment Thermal Noise Intermodulation Noise	Nte Nim	pWOp pWOp	an California (California) A an an California (California)	208.
Interference Noise	Nim	pw0p pW0p		246
Radio Link Noise	Npr	pWOp	- 均正的。	754.6 ***
Carrier Multiplex Noise	Npm	pWOp	Charles of the	468.9 ***
Total Noise	Np	pWOp		ILITEV TTO
Signal/Total Noise( > 57/50 dB)	S/Np	dB		59.2
Short Period Noise(99.9%)			e in the state of	13.0 ***
Fading Depth	.Af	dB		53.7 ***
Signal/Thermal Noise	S/Nta	dB		4266.0 ***
Thermal Noise	Nta	pWOp		4905.0
Radio Link Noise	Npr	pWOp		5266.0 ***
Total Noise Signal/Total Noise	Np S/Np	pWOp dB		52.8
Fading Margin		•***		193 37.0 versta
Tx Output Power	Pt	dBm		9-55,30(ARA)
Rx Input Level(50%)	Pri	dBm		- <b>-90.0</b>
Threshold Level	Pth	dBm		33.7
Margin to Threshold (50%) ( $\geq$ 33 dB)	Mth	dB 👘	and the first statement of	The Highlight
Program No. Antenn	a Gain(	484)	Roodor I.	oss(dB/m)
120 ch, 5W : T301 14 ele				0.14
24 ch, 5W : T302 1.2 mØ		18		0.091
24 ch, 100W : T303 1.8		21	<b>H20</b> 401	
2.4	11	23.5	A20	0.048
Mux Noise(pWOp) 3.0	tt .	. 26		(c) = <b>0.026</b> a M
460 SG/380 G 4.2	H	28.5		E / 35 (04)
310 GC/230 R 6.0	H	32	主義	3101-666
8.0	H -	34.5		and a second

UHF SYSTEM PERFORMAN	CE (	CALCU	ATION	Path No	A second second second
( 900 MHz, 24 ch/ <del>120 ch</del> , 5				an in an	4421-6
Station P Nakhon Ratchasima	T ====	Stat	ion O	Non Thai	1
Path Type: L/S (no reflection), 4	<del>11 - I</del>	iffract		Р	Q
Antenna Height	5.	ha	m		33
Antenna Type & Size (Vegt, Parabol	ic)		m¢	1.2 .	10
Antenna Gain	. '	Ga	dBi	18. H20	21
Feeder Type Feeder Length		lf	ł	65	H20 43
Feeder Loss (ha + 10) x 4Lf		Lf	dB	3.4	
Antenna Height at P		hal			المحود بقدية الدوار المورج والمرار المار
Antenna Height at Q	· /	ha1	m m		55.8 ***
Path Loss	<u> </u>	uaz -	<u> </u>		33.6 ***
Path Distance		d	km	<b>j</b> .	. 25,5 ***
Free Space Propagation Loss		Lo	dB	l san i	119.6 ***
Additional Propagation Loss (50%)	)	La	dB		6.8 ***
Total Propagation Loss (50%)		Lp .	dB	]	125.6 ***
Required Antenna Gain		Ga	dB	and the second second	37.2 ***
Antenna Gain at P		Gal	dBi	1	18.0 ***
Antenna Gain at Q Branching Loss	<b>1</b>	Ga2	dBi	1	21.0 *** 5.0
Feeder Loss at P		Lb ' Lfl	dB dB		3.4 414
Feeder Loss at Q		LII Lf2	dB	<b>.</b>	2.2 ***
Net Loss (50%)			dB		97.2 ***
Median Noise(50%)			1		المربية ( المالة المعاملة ). 2010 - من عبور ا
Figure of Merit		Fm	dB	·•.	165.0
Signal/Thermal Noise		S/Nta	đB	1	67.8 *** 166.0 ***
Thermal Noise		Nta	pWOp	1	100.0
Equipment Thermal Noise	•	Nte	pWOp	1	200.0
Intermodulation Noise Interference Noise		Nim Nif	pWOp		240.0
Radio Link Noise	•	Nif Npr	рWOр рWOр	$\mu = -Is$	706.0 ***
Carrier Multiplex Noise		Npm	ржор рЖОр	<b>I</b>	386.0 ***
Total Noise		Np	pWOp		1086.( +** 59.6 ***
Signal/Total Noise( > 57/50 dB)		S/Np_	dB	ļ	J.7+D ###
Short Period Noise(99.9%)		ł	}	1	14.0 ***
Fading Depth	·	Af	dB	1	53.8 ***
Signal/Thermal Noise		S/Nta	dB	1	4169.8 ***
Thermal Noise		Nta	pWOp	]	4789,8 ***
Radio Link Noise	1	Npr	pWOp	1	5089.0 *** 52.9 ***
Total Noise Signal/Total Noise		Np S/Np	pWOր dB		JE:7 4##
Fading Margin				T	37.8
Tx: Output Power		Pt 1	dBm	1	-60.2 ***
Rx Input Level(50%)		Pri	dBm	1 · · · · ·	-95.0
Threshold Level		Pth	dBm	]	34.8 ***
Margin to Threshold(50%) ( $\geq$ 33	dB)	Mth	dB	l	·
Program No.	tenna	a Gain(	dBi)	Feeder L	.oss(dB/m)
120 ch. 5W : T301 14	ele	. Yagi	15	RG-17 /U	0.14
24 ch, 5W : T302 1.	2 mØ	Para.	18	H13	0,091
24 ch, 100W : T303 1.			21	H2Q	0.052
340 (A. 1917) - 19 <b>2</b> -		17 17	23.5	A20	0.048
Mux Noise(pWOp) 3.		" "	26	A39	0.026
460 SG/380 G 4.	7	••	28.5		

## UHF SYSTEM PERFORMANCE CALCULATION

Station P Non ThatT.#Station 0 Kham Sakae SaengT.#Path Type:L/S (no reflection).Here Definition Antenna Reight Antenna Type & Size (Wassi, Parabolic) Gaham M Mathematical Size (Wassi, Parabolic) Gaham Mathematical Size (Wassi, Parabolic) Mathematical Size (Wassi, Parabolic) Gaham Mathematical Size (Wassi, Parabolic) Mathematical Size (Wassi, Parabolic) Mathematical Size (Wassi, Parabolic) Gaham Mathematical Size (Wassi, Parabolic) Mathematical Size (Wassi, Parabolic) Mathematical Size (Wassi, Parabolic) Gaham Mathematical Size (Wassi, Parabolic) Mathematical Size	$(900 \text{ MHz}, 24 \text{ ch}/\frac{120 \text{ chr}}{5}, 5)$	W/ <del>10</del> 6			549785 (F.) - 5 (, - 5 );	25 - 129272 - J Linear de la martine <u>estateur</u> de mare d
Antenna Height Antenna Gainham $33 \times 11^{-10} \times 33^{-10}$ $12^{-10} \times 12^{-10} \times 12^{-10}$ $12^{-10} \times 12^{-10} \times 12^{-10}$ 	Non Thai					
Antenna Type & Size (News, Parabolic)77.9Antenna GainGa $77.9$ $77.9$ $77.9$ Peeder Loss(ha + 10) x /LfLf $68$ $77.2$ $77.2$ Ifm $43.$ $77.2$ $77.2$ Peeder Loss(ha + 10) x /LfLf $68$ $77.2$ $77.2$ Antenna Height at Phalm $43.3.6$ $77.2$ Antenna Height at Qha2m $77.2$ $77.2$ Path DistancedKm $77.2$ $77.2$ Path DistanceGadKm $77.2$ $77.2$ Path DistanceCaldKm $77.2$ $77.2$ Path DistanceLodKm $77.2$ $77.2$ Path DistanceLodKm $77.2$ $77.2$ Antenna Gain at PGaldB $77.2$ $77.2$ $77.2$ Antenna Gain at QGalGaldB $77.2$ $77.2$ Branching LossLbdB $77.2$ $77.2$ $77.2$ Peeder Loss at PLf1dB $77.2$ $77.2$ Figure of MeritFmdB $77.2$ $77.2$ $77.2$ Peeder Loss at PLf1dB $77.2$ $77.2$ $77.2$ Peeder Loss at PFmdB $7$	Path Type: L/S (no reflection),	-MtE	iffraci	<del>-100-</del> 00		
Antenna Gain       Ga       Ga <thga< th="">       Ga       Ga<td>Antenna Height</td><td></td><td>ha</td><td></td><td><u></u> 33</td><td>1 1.400 AT33</td></thga<>	Antenna Height		ha		<u></u> 33	1 1.400 AT33
Feeder Type Feeder LengthIf If reder Loss(ha + 10) x $dLf$ If Lf $dZ$ $dZ0$ $dZ0$ $dZ0$ $dZ0$ Antenna Height at P Antenna Height at Qhalm $dZ$	Antenna Type & Size (Vegé, Parabo	lic)	1 1 1 1	10 m @		- XXX
Feeder LengthIfm $43.$ <t< td=""><td>Antenna Gain</td><td>, .</td><td>Ga</td><td>dBi</td><td></td><td></td></t<>	Antenna Gain	, .	Ga	dBi		
Feeder Length1fm $-43.$	Feeder Type				H20	HZD Cashered
Antenna Height at P       hal       m       hal       m       hal       m         Antenna Height at Q       hal       m       hal       hal       m       hal       hal       m       hal       hal       m       hal       m       hal       hal </td <td>Feeder Length</td> <td></td> <td>1f</td> <td>m</td> <td></td> <td></td>	Feeder Length		1f	m		
Antenna Height at P Antenna Height at QhalmhalmPath LOSS Path Distance Free Space Promagation Loss Additional Propagation Loss(50%)Lodb $(17,9)$ Required Antenna Gain Antenna Gain at QGadB $(17,9)$ Required Antenna Gain Antenna Gain at QGadB $(17,9)$ Pree Space Promagation Loss(50%)LadB $(12,6)$ Required Antenna Gain Antenna Gain at QGadB $(12,6)$ Preeder Loss at PLf1dB $(12,6)$ Feeder Loss at QLf2dB $(12,6)$ Pigure of Merit Signal/Thermal NoiseS/NradB $(12,6)$ Signal/Thermal NoiseNra PWOp $(12,6)$ $(12,6)$ Interference Noise Radio Link NoiseNif PWOp $(12,6)$ $(12,6)$ Short Period Naise Carrier Multiplex Noise Signal/Thermal NoiseNra PWOp $(12,6)$ $(12,6)$ Short Period Noise Signal/Thermal NoiseNpm PWOp $(12,6)$ $(12,6)$ Short Period Noise Total NoiseNpm PWOp $(12,6)$ $(12,6)$ Short Period Noise Signal/Thermal NoiseNpm PWOp $(12,6)$ $(12,6)$ Short Period Noise Total NoiseNpm PWOp $(12,6)$ $(12,6)$ Thermal Noise <td>Feeder Loss(ha + 10) x <u>ALf</u></td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>Lf</td> <td>dB</td> <td>Ĩ.S. S. ∭9<b>2.2</b>.6</td> <td>6 annsi 119<b>2; 2</b></td>	Feeder Loss(ha + 10) x <u>ALf</u>	· · · · · · · · · · · · · · · · · · ·	Lf	dB	Ĩ.S. S. ∭9 <b>2.2</b> .6	6 annsi 119 <b>2; 2</b>
Antenna Height at Qha2n33.033.0Path Lossdkm17.061Free Space Pronagation Loss (50%)LadB176.661Additional Propagation Loss (50%)LadB176.661Total Propagation Loss (50%)LpdB176.661Required Antenna Gain at QGadB176.661Antenna Gain at QGa2dBi122.684Antenna Gain at QGa2dBi122.684Predet Loss at PLf1dB22.284Feeder Loss at QLf2dB22.284Net Loss(50%)LndB165.014Figure of MeritFmdB66.584Signal/Thermal NoiseNtapWop129.684Equipment Thermal NoiseNifpWop246.0190.6Interference NoiseNifpWop659.6844Radio Link NoiseNpmpWop659.6844Total NoiseNpmpWop659.6844Signal/Thermal NoiseNpmpWop659.6844Total NoiseS/NtadB257.9844Signal/Total NoiseS/NtadB257.9844Total NoiseS/NtadB257.9844Signal/Total NoiseS/NtadB257.9844Total NoiseNppWop356.9844Total NoiseNppWop356.9857.9<	Antenna Height at P	18.0	hal	m	1 3.C 1	CONTRA ANDRESS
Path LossAAPath DistancedkmFree Space Propagation Loss (502)LadBAdditional Propagation Loss (502)LadBRequired Antenna GainGaGaAntenna Gain at PGalAntenna Gain at QGazBranching LossLbBranching LossLbBranching LossLbBranching LossLbBranching LossLbFeeder Loss at QLf1Hedian Noise(S02)LnBrigger of MeritFmSignal/Thermal NoiseS/NtaSignal/Thermal NoiseNimNim pWOp286.6Interforence NoiseNifNifpWOpCarrier Multiplex NoiseNpSignal/Total NoiseNpSignal/Thermal NoiseNifNoiseNpSignal/Total NoiseNpNoiseNpSort Period Noise(99.9%)Fading DepthAfBading ArginPriBading ArginPriBading ArginPriBading ArginPriBading ArginPriThermal NoiseNpNpPWOpSort Period NoiseNpPading MarginPriBading ArginPriBading ArginPriBading ArginPriBading ArginAfBading ArginPriBading ArginPriBading BarginPriBading BarginPri <tr< td=""><td></td><td>1.177</td><td>ha2</td><td>m</td><td>j (j 28 ∰</td><td>33.0 111</td></tr<>		1.177	ha2	m	j (j 28 ∰	33.0 111
Free Space Propagation LossLodBdata with the state of the state o	Path Loss			1		化分子分子 化异构合物
Free Space Propagation LossLodBdata with the state of the state o	Path Distance		d	km	14 D	17.9 444
Additional Propagation Loss (50%)LadBdescription Loss (50%)LpdBTotal Propagation Loss (50%)LpdBdB122.6***Required Antenna Gain at PGaldB122.6***Antenna Gain at QGa2dBI122.6***Branching LossLbdB122.6***Branching Loss at QLf1dB122.7***Feeder Loss at QLf2dB122.7***Met Loss (50%)LndB122.6***Met Loss (50%)LndB122.6***Figure of MeritFmdB165.6***Signal/Thermal NoiseNtapWOp122.8***Intermodulation NoiseNtapWOp122.8***Intermodulation NoiseNimpWOp129.8***Adio Link NoiseNimpWOp129.8***Total NoiseNimpWOp129.8***Short Period Noise (99.9%)S/NndB15.6***Short Period Noise (99.9%)AfdB257.9***Fading DepthAfdB257.9***Signal/Thermal NoiseNpNpPWOp128.6***Short Period Noise (99.9%)AfdB257.9***Fading DepthAfdB257.9***Short Period NoiseNpNpPWOp54.8***Thermal NoiseNpNp270.0*** <td>Free Space Propagation Loss</td> <td></td> <td>Lo</td> <td>dB and</td> <td>i contractorio</td> <td>116.6 WW</td>	Free Space Propagation Loss		Lo	dB and	i contractorio	116.6 WW
Required Antenna Gain at P       Gal       dB       Gal (Gal)       Gal (Gal)         Antenna Gain at Q       Gal (Gal)       Gal (Gal		()	La	dB	The base of	6.0 442
Required Antenna GainGadBGain at PGain at QAntenna Gain at QGain at QGain at QGain at QGain at QGain at QBranching LossLbdBGain at QGain at QPreder Loss at PLf1dBGain at QGain at QFeeder Loss at QLf2dBGain at QGain at QNet Loss(502)LndBGain at QGain at QFigure of MeritFmdBGain at QGain at QSignal/Thermal NoiseS/NtadBGain at QGain at QIntermodulation NoiseNimpWOp100.6Gain at QIntermodulation NoiseNimpWOp100.6Gain at QInterference NoiseNifpWOp200.6Gain at QGaria MoiseNpmpWOpGain at QGain at QSignal/Total NoiseS/NtadBGain at ZSignal/Total NoiseS/NtadBGain at ZSignal/Total NoiseS/NtadBGain at ZSignal/Total NoiseNprpWOpGain at ZFading MarginS/NtadBGain at ZTx Output PowerPtdBGain at ZFading MarginS/NndBGain at ZTx Output PowerPtdBGain at ZFading MarginCarle NoiseS/NnTx Output PowerPtdBFading MarginTide NoiseTx Output PowerPtMargin to Threshold (50%) ( $\geq$ 33 dB)			Lp	dB	Sector (1941) the	122.6 ****
Antenna Gain at PGaldBi $2.4 \pm 16.0 \pm 344$ Antenna Gain at QGa2dBi $2.5 \pm 16.0 \pm 344$ Antenna Gain at QGa2dBi $2.5 \pm 16.0 \pm 344$ Branching Loss at PLf1dB $2.2 \pm 344$ Feeder Loss at QLf2dB $2.2 \pm 344$ Net Loss(502)LndB $2.2 \pm 344$ Net Loss(502)LndB $2.2 \pm 344$ Figure of MeritFmdB $165.0 \pm 344$ Signal/Thermal NoiseNtapWOp $129.0 \pm 344$ Equipment Thermal NoiseNtapWOp $200.0 \pm 344$ Interference NoiseNifpWOp $200.0 \pm 344$ Interference NoiseNifpWOp $200.0 \pm 344$ Carrier Multiplex NoiseNprpWOp $66.7 \pm 344$ Short Period Noise(99.9%)S/NtadB $55.9 \pm 344$ Fading DepthAfdB $55.9 \pm 344$ Signal/Thermal NoiseNprpWOp $3200.0 \pm 326.0 \pm 3360.0 \pm 33$		ан — с. 1910 - с. 19		dB		
Antenna Gain at QGa2dBi $(2.2 \pm 12.6)$ (2.2 ± 3.3 ± 3.5 ± 5.6 ± 5		- 1	Gal	dBi		
Branching LossLbdB $56$ % for allFeeder Loss at PLf1dB $-2.2$ ****Feeder Loss at QLf2dB $-2.2$ ****Net Loss(502)LndB $-2.2$ ****Median Noise(502)LndB $-2.2$ ****Figure of MeritFmdB $-2.2$ ****Signal/Thermal NoiseNtapWOp $165.6$ ***Thermal NoiseNtapWOp $296.6$ ***Interference NoiseNimpWOp $246.6$ ***Radio Link NoiseNpmpWOp $665.2$ ***Carrier Multiplex NoiseNpmpWOp $667.7$ ***Short Period Noise(99.9%)AfdB $-55.9$ ***Fading DepthAfdB $-55.9$ ***Signal/Thermal NoiseNprpWOp $-3118.6$ ***Thermal NoiseNprpWOp $-3266.8$ ***Short Period Noise(99.9%)AfdB $-55.9$ ***Fading DepthAfdB $-55.9$ ***Signal/Thermal NoiseNprpWOp $-3118.6$ ***Thermal NoiseNprpWOp $-3366.9$ ***Total NoiseNpPWOp $-376.0$ ***Threshold Link NoiseNpPWOp $-376.0$ ***Total NoiseNpNp $-75.0$ ***Signal/Total NoiseNpNp $-75.0$ ***Total NoiseNpNp $-75.0$ ***Threshold LevelPthdB $-75.0$ ***Margin to Threshold(502)( $\geq 33$ dB)NthdB $-75.$			Ga2	dBi		
Feeder Loss at PLf1dB $2.2.2 \cdot ***$ Feeder Loss at QLf2dB $2.2.2 \cdot ***$ Net Loss (502)LndB $2.2.1 \cdot ***$ Median Noise (502)FdB $2.2 \cdot ***$ Figure of MeritFmdB $165.8 \cdot ***$ Signal/Thermal NoiseS/NtadB $165.8 \cdot ***$ Equipment Thermal NoiseNtapWOp $166.9 \cdot ***$ Interference NoiseNifpWOp $20.6 \cdot ***$ Radio Link NoiseNifpWOp $20.6 \cdot ***$ Carrier Multiplex NoiseNppWOp $20.6 \cdot ***$ Signal/Total Noise ( $\geq 57/50 dB$ )S/NtadBShort Period Noise( $9.92$ )AfdBFading DepthAfdBSignal/Thermal NoiseNprNpWop $3366.8 \cdot ***$ Theral NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseS/NnBadio Link NoiseNprNpu pWOp $3366.8 \cdot ***$ Thermal NoiseNprSignal/Total NoiseS/NnBadio Link NoiseNprTotal NoiseS/NnBadio Link NoiseNprPrid dBm $3366.8 \cdot ***$ Total NoiseS/NnBadio Link NoiseNprPrid dBm $3366.8 \cdot ***$ Signal/Total NoiseS/NnBadio Link NoiseNprPrid dBm $3366.8 \cdot ****$ Argin to Threshold (502) ( $\geq 33 dB$ )Program No.Antenna Gain (dB1		•	Lb	dB		
Net Loss C (Q)         Ln         dB         (a) 96.1 ###           Median Noise (50%)         In         dB         (b) 96.1 ###           Figure of Merit         Fm         dB         (b) 96.1 ###           Signal/Thermal Noise         S/Nta         dB         (b) 96.1 ###           Equipment Thermal Noise         Nta         pWOp         (b) 66.9 ###           Equipment Thermal Noise         Nte         pWOp         (b) 66.9 ###           Intermodulation Noise         Nim         pWOp         (c) 86.9 ###           Radio Link Noise         Npr         pWOp         (c) 86.9 ###           Carrier Multiplex Noise         Npr         pWOp         (c) 87.9 ###           Signal/Total Noise         Npr         pWOp         (c) 77.8 ###           Signal/Total Noise         S/Nta         dB         (c) 77.8 ###           Signal/Total Noise         Nta         pWOp         (c) 77.8 ###           Signal/Total Noise         Nta         pWOp         (c) 77.8 ###           Signal/Total Noise         Nta         pWOp         (c) 77.8 ####           Signal/Total Noise         Npr         pWOp         (c) 77.8 ####           Signal/Total Noise         Np         Np         (d) 77.8 #####				1		
Net Loss(502)         Ln         dB $G^{2}$ 35.1 412           Median Noise(502)         Figure of Merit         Fm         dB         165.6           Signal/Thermal Noise         S/Nta         dB         165.6           Thermal Noise         Nta         pWOp         129.6           Equipment Thermal Noise         Nta         pWOp         100.6           Interference Noise         Nif         pWOp         200.6           Interference Noise         Nif         pWOp         653.9         ###           Carrier Multiplex Noise         Npr         pWOp         653.6         ###           Signal/Total Noise         Npr         pWOp         657.9         ###           Signal/Total Noise         S/Np         dB         55.9         ###           Signal/Thermal Noise         S/Np         dB         257.9         ###           Signal/Thermal Noise         S/Nta         dB         257.9         ###           Signal/Thermal Noise         Nta         pWOp         55.9         ###           Signal/Thermal Noise         Nta         pWOp         55.9         ###           Signal/Thermal Noise         Np         pWOp         55.9         ### <td>Feeder Loss at Q</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Feeder Loss at Q					
Median Noise(502)FmdB165.6Figure of MeritS/NtaB165.6Signal/Thermal NoiseNtapWOp100.6Intermodulation NoiseNtapWOp100.6Interference NoiseNifpWOp246.6Radio Link NoiseNprpWOp246.6Carrier Multiplex NoiseNpmpWOpTotal NoiseNpmpWOpSignal/Total NoiseNpmpWOpSignal/Total NoiseS/NtaBSignal/Total NoiseS/NtaBadio Link NoiseNpmSignal/Total NoiseS/NtaSignal/Total NoiseS/NtaBadio Link NoiseNpmFading DepthAfSignal/Thermal NoiseS/NtaSignal/Total NoiseNpmSignal/Total NoiseS/NtaSignal/Total NoiseNpSignal/Total NoiseS/NtaSignal/Total NoiseS/NpGating MarginTti dBmTx Output PowerPtRx Input Level(50%)PtiThreshold LevelPthMargin to Threshold(50%)( $\geq$ 33 dB)Program No.Antenna Gain(dB1)Preder Loss(dB/m)24 ch, 5W : T3031.8<"						(ja) <b>96. l</b> : <u>Mik</u>
Figure of MeritFmdB165.6Signal/Thermal NoiseS/NtadB $65.3$ ***Thermal NoiseNtapWOp $100.6$ Equipment Thermal NoiseNtepWOp $200.6$ Interference NoiseNifpWOp $200.6$ Interference NoiseNifpWOp $200.6$ Carrier Multiplex NoiseNpmpWOp $200.6$ Total NoiseNpmpWOp $66.7$ Signal/Total Noise( $\geq 57/50$ dB)S/NtadBShort Period Noise(99.9%) $13.6$ $55.9$ Fading DepthAfdB $55.9$ Signal/Thermal NoiseNprpWOpSignal/Thermal NoiseNprpWOpSignal/Thermal NoiseS/NtadBSignal/Thermal NoiseS/NtadBTotal NoiseNprpWOpSignal/Thermal NoiseNprSignal/Thermal NoiseS/NpRadio Link NoiseNprTotal NoiseNprSignal/Total NoiseS/NpRadio Link NoiseNprTo output PowerPtRa Notput Level(50%)PriThreshold(50%)( $\geq 33$ dB)Margin to Threshold(50%)( $\geq 33$ dB)Margin to Threshold(50%)( $\geq 33$ dB)24.4'23.5A200.048Mux Noise(pWOp)3.024.4'23.5A200.048Mux Noise(pWOp)3.024.4'23.5A30CC230 RCoc/230 R6.0Coc/230 R6.0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Signal/Thermal NoiseS/NtadB $129.6$ Thermal NoiseNta $pWOp$ $100.6$ Equipment Thermal NoiseNim $pWOp$ $200.6$ Interference NoiseNim $pWOp$ $200.6$ Interference NoiseNif $pWOp$ $200.6$ Radio Link NoiseNpr $pWOp$ $200.6$ Carrier Multiplex NoiseNpm $pWOp$ $669.6$ Signal/Total NoiseNp $pWOp$ $669.6$ Short Period Noise(99.9%)AfdB $570.6$ Fading DepthAfdB $55.9$ Signal/Thermal NoiseNta $pWOp$ Signal/Total NoiseNpr $pWOp$ Thermal NoiseNta $pWOp$ Signal/Total NoiseNpr $pWOp$ Signal/Total NoiseNpr $pWOp$ Total NoiseNpr $pWOp$ Signal/Total NoiseS/NpSignal/Total NoiseNpSignal/Total NoiseS/NpSignal/Total NoiseS/NpSignal/Total NoiseS/NpSignal/Total NoiseS/NpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSigna			Fm	dB		
Thermal NoiseNta Equipment Thermal NoiseNta Nte $pWOp$ $pWOp$ $120, 6, 4, 43$ $200, 6, 4, 43$ Intermodulation NoiseNif $pWOp$ $WOp$ $pWOp$ $200, 6, 4, 43$ 		.	S/Nta	dB		
Equipment Thermal Noise       Nte       pW0p       200.0         Intermodulation Noise       Nim       pW0p       240.0         Interference Noise       Nif       pW0p       240.0         Radio Link Noise       Npm       pW0p       240.0         Carrier Multiplex Noise       Npm       pW0p       659.0         Total Noise       Npm       pW0p       659.0         Short Period Noise(99.9%)       S/Nta       dB       55.9         Fading Depth       Af       dB       257.0         Signal/Thermal Noise       S/Nta       dB       257.0         Thermal Noise       Nta       pW0p       3110.0       444.0         Thermal Noise       Npr       pW0p       54.8       44.0         Total Noise       Npr       pW0p       54.8       44.0         Thremal Noise       Npr       pW0p       54.8       44.0         Total Noise       Npr       pW0p       54.8       44.0         Total Noise       Npr       pW0p       55.9       44.0         Fading Margin       Pt       dBm       45.9       44.0         Threshold Level       Pth       dBm       55.0       44.0			-	σWop		
Intermodulation Noise       Nim       pW0p       240.0         Interference Noise       Nif       pW0p       240.0         Radio Link Noise       Npr       pW0p       190.0         Carrier Multiplex Noise       Npm       pW0p       659.0       ###         Total Noise       Npm       pW0p       659.0       ###         Signal/Total Noise(2 > 57/50 dB)       S/Np       dB       55.9       ###         Short Period Noise(99.9%)       Af       dB       55.9       ###         Fading Depth       Af       dB       55.7       ###         Signal/Total Noise       S/Nta       dB       2570.6       ###         Thermal Noise       Nta       pW0p       3306.8' ###       ###         Total Noise       Npr       pW0p       54.8 ####       ####         Signal/Total Noise       S/Np       dB       257.0 ####       #######         Total Noise       Np       pW0p       54.8 #####       ####################################					stad Creaters	
Interference NoiseNif $pWOp$ $248.6$ Radio Link NoiseNpr $pWOp$ $669.6$ $xxx$ Carrier Multiplex NoiseNpm $pWOp$ $859.6$ $xxx$ Total Noise $pWOp$ $gSignal/Total Noise( \geq 57/50 \text{ dB})S/NpdB669.7Short Period Noise(99.9%)dBS/NpdB55.9xxxFading DepthAfdB2576.6xxxSignal/Thermal NoiseS/NadB2576.6xxxThermal NoiseNtapWOp310.6xxxTotal NoiseNprpWOp3306.8xxxTotal NoiseNprpWOp37.40xxxTotal NoiseNprpWOp37.40xxxTotal NoiseNprpWOp37.40xxxTotal NoiseNprpWOp37.40xxxFading MarginxxxxxxxxxxxxThreshold LevelpthBmxxxxxxxMargin to Threshold(50\%) (\geq 33 dB)MthdBxxxxProgram No.Antenna Gain (dB1)Feeder Loss(dB/m)xxxxProgram No.Antenna Gain (dB1)Feeder Loss(dB/m)xxxx24 ch, 5W : T30114 ele. Yag1 15xxxxxxxxxx24 ch, 100W : T3031.8xxxxxxxxxxxxxxx24 ch, 100W : T3031.8xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx$			•••		e data an ta	
Radio Link NoiseNpr NpmpW0p pW0pInterferenceCarrier Multiplex NoiseNpm NppW0p pW0p69.7Total Noise $\geq 57/50 \text{ dB}$ S/NpdBShort Period Noise(99.9%)Af dBdBFading DepthAf dBdBSignal/Thermal NoiseS/Nta dBBThermal NoiseS/Nta dBdBThermal NoiseNpr pW0pTotal NoiseNpr pW0pThermal NoiseNpr signal/Thermal NoiseThermal NoiseNpr pW0pSignal/Total NoiseNpr pW0pSignal/Total NoiseNpr signal/Total NoiseFading MarginNpr pW0pTx Output PowerPt dBmRx Input Level(50%)Pri dBmMargin to Threshold(50%)( $\geq 33 \text{ dB}$ )Margin to Threshold(50%)( $\geq 33 \text{ dB}$ )Program No.Antenna Gain (dB1)Program No.Feeder Loos(dB/m))120 ch, 5W : T30114 ele. Yagi 2.4 "24 ch, 5W : T3021.2 m02.4 "23.52.4 "23.52.4 "23.5A200.048Mux Noise(pW0p)3.0 "2.4 "28.5460 SG/380 G4.2 "28.50.044310 GC/230 R6.0 "			-	• •		ren n l
Carrier Multiplex Noise       Npm       pW0p       B53.6       B44         Total Noise       577.50 dB)       S/Np       dB       687.7       687.7         Short Period Noise(99.9%)       Af       dB       687.7       687.7         Fading Depth       Af       dB       55.9       777         Signal/Thermal Noise       S/Nta       dB       55.9       777         Radio Link Noise       Npr       pW0p       7118.6       777         Radio Link Noise       Npr       pW0p       7118.6       777         Signal/Total Noise       Npr       pW0p       7118.6       777         Signal/Total Noise       Npr       pW0p       7118.6       777         Fading Margin       77.0       771       dB       77.9       77.9         Threshold Level       Pt       dBm       77.9       77.9       77.9         Margin to Threshold(50%) (≥ 33 dB)       Mth       dB       77.9       77.9       77.9         Program No.       Antenna Gain (dB1)       Feeder Loos(dB/m): "1       77.9       77.9       77.9         120 ch, 5W : T301       14 ele. Yagi       15       67.6       77.9       77.9       77.9			Nor		1713年	
Total Noise       Np       pWOp       60.7       44         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       66.7       44         Short Period Noise(99.9%)       Af       dB       55.9       44         Fading Depth       Af       dB       55.9       44         Signal/Thermal Noise       S/Nta       dB       2570.6       444         Thermal Noise       Nta       pWOp       3106.6       444         Total Noise       Npr       pWOp       3306.8       444         Total Noise       Npr       pWOp       3306.8       444         Total Noise       Npr       pWOp       3306.8       444         Total Noise       Npr       pWOp       3366.8       444         Fading Margin       Pt       dBm       46.6       46.7         Threshold Level       Pti       dBm       46.6       35.9       444         Margin to Threshold(50%) ( $\geq$ 33 dB)       Mth       dB       46.6       46.7       46.7         120 ch, 5W : T301       14 ele. Yagi 15       46.8       41.3       40.091       40.091       40.091         24 ch, 100W : T303       1.8       21       41.0       40.091<		· · · ·	-		541.94 JO142	
Signal/Total Noise(≥ 57/50 dB)       S/Np       dB       Signal/Output Priod         Short Period Noise(99.9%)       Af       dB       33.0         Fading Depth       Af       dB       55.9         Signal/Thermal Noise       S/Nta       dB       2570.6         Thermal Noise       Nta       pWOp       3306.8         Thermal Noise       Np       pWOp       3306.8         Total Noise       Np       pWOp       3306.8         Signal/Total Noise       Np       pWOp       3306.8         Fading Margin       Pt       dBm       257.0         Tx Output Power       Pt       dBm       257.9         Threshold Level       Pth       dBm       257.9         Margin to Threshold(50%)(≥ 33 dB)       Mth       dB       35.9         Program No.       Antenna Gain(dB1)       Feeder Loss(dB/m)         120 ch, 5W : T301       14 ele. Yagi 15       36.8         24 ch, 100W : T303       1.8       21       24.0         24 ch, 100W : T303       1.8       21       24.0         24 ch, 100W : T303       1.8       21       24.0         25       A20       0.048.         Mux Noise(pWOp)       3.0						14 FE B FE
Short Period Noise(99.9%)       Af       dB       13.6       ***         Fading Depth       Af       dB       55.9       ***         Signal/Thermal Noise       Nta       pWOp       3110.6       ***         Thermal Noise       Nta       pWOp       3360.9       ***         Tadio Link Noise       Npr       pWOp       3360.9       ***         Total Noise       Np       pWOp       3360.9       ***         Signal/Total Noise       S/Np       dB       37.0       ***         Fading Margin       S/Np       dB       ****       ***         Threshold Level (50%)       Pri       dBm       ****       ***         Margin to Threshold(50%)( $\geq$ 33 dB)       Mth       dB       *****       ****         Program No.       Antenna Gain (dBi)       Feeder Loss(dB/m)***         120 ch, 5W : T301       14 ele. Yagi 15       ****       ****         24 ch, 100W : T303       1.8       "21       *****       *****         Mux Noise(pWOp)       3.0       "26       A39 (*************       ************************************	Signal/Total Noise( ≥ 57/50 dB				Ci ⊂ înstan J	
Fading Depth       Af       dB       55.9       ***         Signal/Thermal Noise       S/Nta       dB       2570.6       ***         Thermal Noise       Nta       pWOp       3110.6       ***         Radio Link Noise       Npr       pWOp       3300.8       ***         Total Noise       Np       pWOp       3300.8       ***         Total Noise       Np       pWOp       3300.8       ***         Signal/Total Noise       S/Np       dB       37.0       6       ***         Fading Margin       Pt       dBm       37.0       6       ***         Tx Output Power       Pt       dBm       55.9       ***         Margin to Threshold Level       Pth       dBm       55.9       ***         Margin to Threshold(50%) ( $\geq$ 33 dB)       Mth       dB       56.6       ***         Program No.       Antenna Gain (dB1)       Feeder Loss(dB/m)***       10.2       0.144         120 ch, 5W       T301       14 ele. Yagi 15       56.6       24.13       0.0091         24 ch, 100W : T303       1.8       21       24.20       0.034       0.052         2.4       23.5       A20       0.048       0.						5017 6 STOL
Signal/Thermal Noise       S/Nta       dB       2570.0 ****         Thermal Noise       Nta       pWOp       3118.0 ****         Radio Link Noise       Npr       pWOp       3390.0 ****         Total Noise       Npr       pWOp       3390.0 ****         Signal/Total Noise       S/Np       dB       3390.0 ****         Signal/Total Noise       S/Np       dB       37.0 addition         Fading Margin       B       37.0 addition       37.0 addition         Tx Output Power       Pt       dBm       459.1 0****         Rx Input Level(50%)       Pri       dBm       66.0 1****         Threshold Level       Pth       dBm       66.0 1****         Margin to Threshold(50%)(≥ 33 dB)       Mth       dB       66.0 1****         Program No.       Antenna Gain(dB1)       Feeder Loss(dB/m)***         120 ch, 5W : T301       14 ele. Yagi       15       62 RG-17 /U        0.141         124 ch, 100W : T303       1.8 "       21       H13       0.091       0.052         2.4 "       23.5       A20       0.048       0.052       0.048         Mux Noise(pWOp)       3.0 "       26       A39 (-60) *0.026 0*       0.026 0*         310			Af	dB		10.0 AT
Thermal Noise       Nta       pWOp       3118.6       3118.7       3117.7       3118.7       3119.7       3117.7       3117.7 <td>Signal/Thermal Noise</td> <td></td> <td></td> <td></td> <td>a dhi threadh a thuair</td> <td></td>	Signal/Thermal Noise				a dhi threadh a thuair	
Radio Link Noise       Npr       pW0p       3300.0 ***         Total Noise       Np       pW0p       54.8 ***         Signal/Total Noise       S/Np       dB       37.0 ****         Fading Margin       Pt       dBm       37.0 ****         Tx Output Power       Pt       dBm       55.9 ****         Rx Input Level (50%)       Pri       dBm       55.9 ****         Margin to Threshold Level       Pth       dBm       55.9 ****         Margin to Threshold (50%) ( $\geq$ 33 dB)       Mth       dB       56.6 ***         Program No.       Antenna Gain (dB1)       Feeder Loss(dB/m)***         120 ch, 5W : T301       14 ele. Yagi       5       56.8 ***         24 ch, 5W : T302       1.2 mØ Para.       18       24.113       0.091         24 ch, 100W : T303       1.8 "       21       21.4 ****       0.052         2.4 "       23.5       A20       0.048       0.026****         Mux Noise(pW0p)       3.0 "       26       A39 (.64.13**0.026***       0.64.13****         310 GC/230 R       6.0 ,"       32       32       32       32       34.13***********************************		. 1			5.0	3110.0 311
Total NoiseNppWOp $354.8 \pm 144$ Signal/Total NoiseS/NpdB $37.0 \pm 24.4 \pm 144$ Fading MarginPtdBm $37.0 \pm 24.4 \pm 144$ Tx Output PowerPtdBm $459.4 \pm 39.4 \pm 344$ Rx Input Level(50%)PridBm $26.4 \pm 39.4 \pm 344$ Threshold LevelPthdBm $26.4 \pm 39.4 \pm 344$ Margin to Threshold(50%)( $\geq$ 33 dB)MthdB $26.4 \pm 35.9 \pm 344$ Program No.Antenna Gain (dBi)Feeder Loss(dB/m) = 44Program No.Antenna Gain (dBi)Feeder Loss(dB/m) = 4424 ch, 5W : T30114 ele. Yagi 15 $92.4 \pm 32.5$ 24 ch, 100W : T3031.8 "2124 ch, 100W : T3031.8 "2124 ch, 100W : T3032.4 "23.5A200.048Mux Noise(pWOp)3.0 "26460 SG/380 G4.2 "28.5310 GC/230 R6.0 "32						
Signal/Total Noise       S/Np       dB       Add of the state o						201 54 8 Mark
Fading Margin Tx Output PowerPtdBm $37.0 \text{ margin}$ $459.1 \odot ***$ Rx Input Level (50%)PridBm $35.9 \text{ margin}$ Threshold Level Margin to Threshold (50%) ( $\geq$ 33 dB)PthdBm $35.9 \text{ margin}$ Program No.Antenna Gain (dBi)Feeder Loss (dB/m) and					and the second second	march threw Rose
Tx Output Power Rx Input Level (50%)Pt PridBm dBmdBm dBmThreshold Level Margin to Threshold (50%) ( $\geq$ 33 dB)Pth MthdBm dBdBm dBm dBdBm dBm dBProgram No. 120 ch, 5W : T301Antenna Gain (dBi) 14 ele. Yagi 15Feeder Loss (dB/m) and		1				02: <b>37:10</b> vicition
Rx Input Level (50%) Threshold Level Margin to Threshold (50%) ( $\geq$ 33 dB)Pri PthdBm dBmdef ( $\leq$ 35.9 · *** ( $\leq$ 35.9 · ***Program No. 120 ch, 5W : T301Antenna Gain (dBi) 14 ele. Yagi 15Feeder Loss (dB/m) = 424 ch, 5W : T3021.2 mØ Para.1824 ch, 100W : T3031.8212.423.5A20Mux Noise(pWOp)3.026460 SG/380 G 310 GC/230 R4.228.5310 GC/230 R6.032		ŀ	Pt	dBm	¥ 15 <sup>16</sup> + 4	ି <b>#59:1</b> °€ <b>*</b> ¥¥
Threshold Level Margin to Threshold(50%) ( $\geq$ 33 dB)Pth MthdBm dB( $\sim$ 35.9 **** dBm dBProgram No. 120 ch, 5W : T301Antenna Gain (dBi) 14 ele. Yagi 15Feeder Loss(dB/m):*** 0.14:124 ch, 5W : T3021.2 mØ Para.1824 ch, 100W : T3031.8212.423.5A20Mux Noise(pWOp)3.026460 SG/380 G4.228.5310 GC/230 R6.032			Pri		0,25 <b>8</b> ,339,2	sa <b>−95.0</b> ≤ 28
Margin to Threshold(50%) ( $\geq$ 33 dB)MthdBProgram No.Antenna Gain(dBi)Feeder Loss(dB/m):**120 ch, 5W : T30114 ele. Yagi 15 $(32RG-17/U < 0.14)$ 24 ch, 5W : T3021.2 mØ Para. 18 $24$ ch, 100W : T303 $1.8$ " 2124 ch, 100W : T3031.8 " 21 $H20$ VOS1 $(0.052)$ 2.4 "23.5A20 $0.048$ Mux Noise(pWOp)3.0 " 26A39 (40-40) * $0.026$ use460 SG/380 G4.2 " 28.5 $0.032$ USA310 GC/230 R6.0 " 32 $1000$ USA		-			E Seats	.E 1:35,9.5###
Program No.       Antenna Gain (dBi)       Feeder Loss (dB/m) = "         120 ch, 5W : T301       14 ele. Yagi 15       92 RG-17 / U < 0.141		dB)			<ul> <li>Because and and</li> </ul>	e of algorith
120 ch, 5W : T301       14 ele. Yagi 15       02 RG-17 / U < 0.14 f		I	, ,			and a second
120 ch, 5W : T301       14 ele. Yagi 15       (32 RG-17 / U < 0.14)	Program No. Ar	ntenna	Gain (c	IBI)		
24 ch, 100W : T303       1.8       "       21       0.1800 0.052         2.4       "       23.5       A20       0.048         Mux Noise(pW0p)       3.0       "       26       A39 0.0000 0.026008         460 SG/380 G       4.2       "       28.5       0.036 0.026008         310 GC/230 R       6.0       "       32       0.036 0.026008						
2.4         23.5         A20         0.048           Mux Noise(pW0p)         3.0         26         A39 (16.43) \$60.26008           460 SG/380 G         4.2         28.5         0.036.036 0008           310 GC/230 R         6.0         32         3200 0000000000000000000000000000000000						
Mux Noise(pW0p)         3.0         "         26         A39 (	-					1 × × × /
460 SG/380 G     4.2     "     28.5     0.036302     044       310 GC/230 R     6.0     "     32     31005330     045	2.	4	<b>п</b> .,	23.5		
310 GC/230 R 6.0 ," 32 31 00 51 30	Mux Noise(pWOp) 3.	.0	ti -	26		
310 GC/230 R 6.0 ," 32 32 31 015 32	460 SG/380 G 4.	.2	υ.	28.5		
	310 GC/230 R 6.	.0	, <b>11</b>		1 A.	5100 018
		.0	11		the second s	والمحمد والمرجر والمرجوع والمسجون والمحافظ والمراجر المراج

UHF SYSTEM PERFORMANCE	CALCU	LATION	Path No.	
( 900 MHz, -24 ch/120 ch, 5 W/ <del>10</del>				4421-8
Station P Non Thai		ion Q	Dan Khun That	Т
Path Type: L/S (no reflection), Ht.	Diffree		р	
Antenna Height 75%	ha	m	43	₹3
Antenna Type & Size (Vesi, Parabolic)		mø	z.4	2.4
Antenna Gain	Ga	dBi	23.5	23.5
Feeder Type Feeder Length	1	}	HZO	H20
Feeder Length	1f	m	<u>53</u> Z.8	<u>59</u> 2,8
Feeder Loss(ha + 10) x ALf	<u>Lf</u>	dB	<.0	<i>~ 0</i>
Antenna Height at P Antenna Height at Q	hal	m	1	* 43.8 ***
Path Loss	ha2	<u>m</u>	ļ	43.0 ***
Path Distance	d	km		
Free Space Propagation Loss	Lo	dB	1	32:7 *** 121.9 ***
Additional Propagation Loss (50%)	La	dB		121.5 ***
Total Propagation Loss (50%)	Lp	dB	1	134.8
Required Antenna Gain	Ga	dB		46.3
Antenna Gain at P	Gal	dBi		23.5 + • •
Antenna Gain at Q	Ga2	dBi		23.5 ***
Branching Loss	LÞ	dB		5.0
Feeder Loss at P	Lf1	dB		2.8 ***
Feeder Loss at Q	Lf2	dB	l	2.8 *** 98.3 ***
Net Loss (50%)	<u> </u>	<u>dB</u>		2010 448
Median Noise(50%)			): 	165.0
Figure of Merit Signal/Thermal Noise	Fm S/Nta	dB	•	66.7 #**
Thermal Noise	Nta Nta	dB pWOp	} · · · ·	214.8 ***
Equipment Thermal Noise	Nta	pwOp pWOp		188.8
Intermodulation Noise	Nim	pWOp		200.0
Interference Noise	Nif	pWOp		240.8
Radio Link Noise	Npr	pWOp		754.8 *** 193.8 ***
Carrier Multiplex Noise	Npm	pWOp		944.6 ***
Total Noise	Np	pWOp		68.3 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB	<b>}</b>	
Short Period Noise(99.9%)	1			15.0 ***
Fading Depth	Af	dB		51.7 ***
Signal/Thermal Noise	S/Nta	dB	1	6761.8 ***
Thermal Noise	Nta	pWOp	{	7301.0 ***
Radio Link Noise	Npr Np	pWOp pWOp		7491.6 *** 51.3 ***
Total Noise Signal/Total Noise	S/Np	dB	Į	~
Fading Margin		[		37.0
Tx Output Power	Pt	dBm	]	-61.3 ***
Rx Inpüt Level(50%)	Pri	dBm	1	-95.0
Threshold Level	Pth	dBm		33.7 ***
Margin to Threshold(50%) ( $\geq$ 33 dB)		dB	<u> </u>	
Program No. Antenn	a Gain(	dBí)	Feeder Lo	oss(dB/m)
120 ch. 5W : T301 14 ele	e. Yagi	15	RG-17 /U	0.14
24. ch, 5W 1102 1.2 mg	) Para.	18	H13	0.091
24. ch, 100W (* T303 1.8		21	H20	0.052
-860.0 58A 5 <b>2.4</b>	- 11	23.5	A20	0.048
Mux Noise(pWOp) 3.0	а, <b>Н</b> м	26	A39	0.026
460 SG/380 G	. H .	28.5		
310 GC/230 R 6.0	18	32		

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UHF SYSTEM PERFORMANCE CALCULATION								
Station P Nakhon Ratchasima	₩/ <del>10</del>		ion O	Chakkarat	9 00 30000			
Path Type: L/S (no reflection),	Mt. I	iffract	<b>un i</b> reit	relation Point 24.				
Antenna Height		ha	m	55 3				
Antenna Type & Size (Wegi, Parabo	lic)		m9	-1877 Harris 19274 &				
Antenna Gain		Ga	dBi	23.5 H20	1150 ac26104			
Feeder Type	÷	lf	1.	65	10000 178569			
Feeder Length		Lf	dB 3		1201 7-3-8			
Feeder Loss(ha + 10) x <u>ALf</u> Antenna Height at P		hal			8 - 55. 0"" #***A			
Antenna Height at Q				Cara an	55. 8 ***			
Path Loss	<u></u>		<b> </b>		গর্গর বর্তনি			
Path Distance		đ	kon		94 34 0 ××5			
Free Space Propagation Loss		Lo	dB - Ta	at a north gally of the	5 122 JI 11 ****			
Additional Propagation Loss (50)	ζ) 🐳	La	<b>ેં તે B</b> ને લગ	t warrang of	12.9 ¥**			
Total Propagation Loss (50%)		Lp		The Add and Parks				
Required Antenna Gain		Ga	dB	nast signad				
Antenna Gain at P	n di tar	Gal	dBi		19923, 5:0:234 199326, 0:3:484			
Antenna Gain at Q		Ga2	dBi -		::::::::::::::::::::::::::::::::::::::			
Branching Loss		Lb	dB					
Feeder Loss at P		Lfl	dB		3.8 <b>**</b> *			
Feeder Loss at Q		Lf2	dB dB		96.8 ***			
Net Loss (50%)	<u></u>	<u>Ln</u>		the second s	Warst Mr. Hart Law			
Median Noise(50%)		Fm	dB	1	165.0			
Figure of Merit		S/Nta	dB	1	68.2 ***			
Signal/Thermal Noise Thermal Noise		Nta	pWOp	1				
Equipment Thermal Noise		Nte	pWOp	11.1541年1月1日(1月14日) 11月1日日(1月14日) 11月1日日日(1月14日)	100.0			
Intermodulation Noise		Nim	pWOp					
Interference Noise	. /	Nif	pWOp	na katalan dari dari Serika seri	240.0			
Radio Link Noise		Npr	nWOp	seiter.	691.0 *** 380.0 ***			
Carrier Multiplex Noise	5	Npm	pWOp	<ul> <li>Alter as set the</li> </ul>	1071.0 ***			
Total Noise		Np	pWOp		59.7 ***			
Signal/Total Noise( > 57/50 dB	3)	S/Np	dB	<u>tantoli fi</u>	1111111111111			
Short Period Noise(99.9%)	-				15.8 ***			
Fading Depth		Af	dB		53.2 🗚			
Signal/Thermal Noise		S/Nta	dB		4786.8 ***			
Thermal Noise		Nta	pWOp		5326.0 ***			
Radio Link Noise	•	Npr	pWOp		5706.0 **** 52.4 ***			
Total Noise	2	Np S/Np	pWOp dB		1010- <b>321 4</b> 192 <b>8</b> 년 이 동일 환자 한 번 사람을 주 것			
Signal/Total Noise		5/00			37:0 gettars			
Fading Margin Tx Output Power		Pt	dBm		-59.80-***			
Rx Input Level(50%)		Pri	dBm		-1 <b>-95:0</b> / 2			
Threshold Level		Pth	d Bm		: 5 <b>35</b> 225 <b>**</b> *			
Margin to Threshold(50%) ( $\geq$ 33	dB)	Mth	dB	Cat 131 March 18	i or argumet o			
		L	/ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	· • • • • • •				
· · · · · · · · · · · · · · · · · · ·		a Gain (		reder L 00 <b>RG-17 /U</b>	ов <b>ട (dB/m)</b> ో о.14			
•		. Yagi Para.	18	·····································	0.091			
	.2 my	II T	21	007H20 906	0.052			
	.4	н ,	23.5	A20	0.048			
	.0		25.5		1) == 0.026:14			
	.2	<b>n</b> 2	28.5		192 034			
	.0	<b>n</b> 9	32		310-0CF			
	.0		34.5					

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UHF SYSTEM PERFORMANCE		LATION	Path No.	· · ·
( 900 MHz, 24 ch/ <del>120-ch</del> , 5 W/ <del>10</del>	<del>0-₩</del> )	· · · .		4421-10
Station P Chakkarat	= Stat	ion O	'Huai Thalaen	ng T.#
Path Type: L/S (no reflection), Me	Diffract	tun.	р	Q
Antenna Height	ha	m	63	58
Antenna Type & Size (Yagi, Parabolic)		m¢	1.8	2.4
Antenna Gain Feeder Type	Ga	dBi	21 H20	23.5 HZO
Feeder Length	1 1f	m	73	68
Feeder Loss (ha + 10) x ALf	Lf	dB	3.8	3.5
Antenna Height at P	hal		····	63.8 ***
Antenna Height at Q	ha2	m		58.0 ***
Path Loss	┨╌╌╌		<u> </u>	
Path Distance	d	km	}	24.3 1888
Free Space Propagation Loss	Lo	dB		119.2 ***
Additional Propagation Loss(50%)	La	dB	1	10.0 4+-
Total Propagation Loss(50%) Required Antonno Coin	Lp	dB		129.2 ***
Required Antenna Gain Antenna Gain at P	Ga	dB	·	42.5 *** 21.0 ***
Antenna Gain at Q	Gal Ga2	dBi dBi	<b>)</b> ,	23.5 ***
Branching Loss	Lb	dB1	1	5.0
Feeder Loss at P	L.D L.E1	dB		3.5 ***
Feeder Loss at Q	Lf2	dB	. ·	3.5 ***
Net Loss (50%)	Ln_	dB		97.8 ***
Median Noise(50%)				105 G
Figure of Merit	Fm	dB		165.0 68.0 ***
Signal/Thermal Noise	S/Nta	dB		158.0 ***
Thermal Noise	Nta	pWOp		100.0
Equipment Thermal Noise Intermodulation Noise	Nte	pWOp		200.8
Interference Noise	Nim Nif	pk0p pk0p	4	248.0
Radio Link Noise	Npr	pWOp		698.0 ***
Carrier Multiplex Noise	Nom	pWOp		150.0 *** 888.0 ***
Total Noise	Np	pWOp		68.5 ***
Signal/Total Noise( ≥ 57/50 dB)	S/Np	dB		
Short Period Noise(99.9%)		1		14.0 ***
Fading Depth	Af	dB	]	54.8 ¥**
Signal/Thermal Noise	S/Nta	dB	1	3951.0 ***
Thermal, Noise	Nta	р₩Ор	1	4521.0 ***
Radio Link Noise	Npr	pW0p	{	4711.8 ***
Total Noise Signal (Total Noise	Np 5/Np	pWOr dB	{	53.3 ***
<u>Signal/Total Noise</u> Fading Margin		<u>-~~</u>		37.9
Tx: Output Power	Pt	dBm	Į	-60.0 ***
Rx Input Level(50%)	Pri	dBm		
Threshold Level	Pth	dBm		35.0 ***
Margin to Threshold(50%) ( $\geq$ 33 dB)	l	dB	<u> </u>	
	a Gain(			oss(dB/m)
120.ch, 5W : T301 14 ele			RG-17 /U	
	) Para.	18	H13	0.091 0.052
24 ch, 100W : T303 1.8		21 23 5	H20 A20	0.048
2.4		23.5 26	A39	0.026
Mux Noise(pWOp) 3.0 460 SG/380 G 4.2	, <b>1</b>	28.5	K12	U + V = V
	- +1	32		
310 GC/230 R 6.0 8.0	. 11	34.5		

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UHF SYSTEM PERFORMANCE (900 MHz, 24 ch/ <del>120 ch</del> , 5 W/ <del>100</del>	CALCUI	ATION	Path No.	%∂ 3HU 4421-J1
Station P Kham Thale So T #	Stat	ion O N	akhon Ratchas	The second s
Path Type: L/S (no reflection), Ht-	<u>liffran</u> i	<b>inn</b>	$e \in \mathbb{R}^{n}$ , $\mathbf{p} \in \mathcal{P}_{1}$ , $\mathbb{R}^{n}$ ,	
Antenna Height	ha	m	and the second	Mar Beach
Antenna Type & Size (Yagi, Parabolic)	. 1	mø, Ele.		House bot 14 tak
Antenna Gain	Ga	dBi	18	1969-5515 M
Feeder Type	1 ·		H20 43	H20
Feeder Length	1f	m		<b>45</b>
Feeder Loss(ha + 10) x ALf	Lf	dB	(n) a (2 <b>.2</b> a)	(a) #25 ( (a) <b>&lt;-</b> 3
Antenna Height at P	hal	m	in the first particular	33.0 ****
Antenna Height at Q	ha2	m	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	35.0 ****
Path Loss				a tradición de Capital
Path Distance	d	km		16.5
Free Space Propagation Loss	Lo	dB	El prostation de la 15.	115.8 ***
Additional Propagation Loss(50%)	La	đB		6.0 ***
Total Propagation Loss(50%)	Lp	dB 🕤	n kalan tahun t Tahun tahun tahu	
Required Antenna Gain	Ga	dB		
Antenna Gain at P	Gal	dBi		. 2 <b>1820</b> 20 ###
Antenna Gain at Q	Ga2	dBi	the second of the	
Branching Loss	Lb	dB	1. S.	5.0 (m. c.)
Feeder Loss at P	Lf1	dB	1. 11 <u>1</u> 1	2.2. ***
Feeder Loss at Q	Lf2	dB		2.3 *** 98.4 ***
Net Loss(50%)	<u>Ln</u>	dB		
Median Noise(50%)				165.0
Figure of Merit	Fm	dB		66.6 ***
Signal/Thermal Noise	S/Nta	dB		219.0 ***
Thermal Noise	Nta	pWOp		100.0
Equipment Thermal Noise	Nte	pWOp	i si infili yaan maal	200.0
Intermodulation Noise	Nim	pWOp		240.0
Interference Noise	Nif	pWOp	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	759.0 ***
Radio Link Noise	Npr	pWOp		380.0 ***
Carrier Multiplex Noise	Npm	рWOр	neer istaan di saadiite	1139.0 ***
Total Noise	Np	pWOp		59.4 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB		and the second second
Short Period Noise(99.9%)				12.0 ***
Fading Depth	Af	dB		54.6 ***
Signal/Thermal Noise	S/Nta	dB	and and a second se Second second	3467.0 ***
Thermal Noise	Nta	рѠѸ	1 A - 1 1 - 1	4007.0 ***
Radio Link Noise	Npr	pWOp		
Total Noise	Np	pWOp		11 8 <b>53.6</b> 4 <b>***</b>
Signal/Total Noise	S/Np	dB	the second s	rt. 37:8 perchand
Fading Margin	Pt		- Drawitu	
Tx Output Power	1	dBm		-95.0
Rx Input Level(50%)	Pri	dBm		533.6 #**
Threshold Level	Pth	dBm		i og nonate
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB		
Program No. Antenn	a Gain(	dBi)	Feeder L	oss(dB/m)
120 ch, 5W : T301 14 ele		15	10 RG-17 /U	d0.14
24 ch, 5W : T302 1.2 m/		18	H13 S	
24 ch, 100W : T303 1.8	11	21		0.052
2.4	11	23.5	A20	0.048
Mux Noise(pWOp) 3.0	11	26		() \$50;026.01
460 SG/380 G 4.2	11	28.5	G. (18)	人口是 专用单
310 GC/230 R 6.0	<b>H</b>	32		100 010
8.0		34,5	· · · · ·	• • • • • • • • • • • • • • • • • • •

Feeder Type Feeder Length Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise		ion Q	<u>ى بىر مەرمەن بىر مەرمەن بەتتى بەتتى بەتتى بەتت</u>	
Antenna Height Antenna Type & Size (Yagi, Demobelie) Antenna Gain Feeder Type Feeder Length Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	166	, -	Sung Noen	Tra
Antenna Type & Size (Yagi, Dependence) Antenna Gain Feeder Type Feeder Length Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise		10 <b>n</b> -	P	<u>_</u>
Antenna Gain Feeder Type Feeder Length Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	ha	m	33	સ્ક
Feeder Type Feeder Length Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise		Ele.	8	8
Feeder Length Feeder Loss(ha + 10) x 4Lf Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	Ga '	dBi	12	12
Feeder Loss (ha + 10) x <u>Alf</u> Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss (50%) Total Propagation Loss (50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss (50%) Median Noise (50%) Figure of Merit Signal/Thermal Noise		Í		120
Antenna Height at P Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	1f	n .	43	43
Antenna Height at Q Path Loss Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	<u>lf</u>	<u>dB</u>	2,2	2,2
Path LossPath DistanceFree Space Propagation LossAdditional Propagation Loss(50%)Total Propagation Loss(50%)Total Propagation Loss(50%)Required Antenna GainAntenna Gain at PAntenna Gain at QBranching LossFeeder Loss at PFeeder Loss at QNet Loss(50%)Median Noise(50%)Figure of MeritSignal/Thermal Noise	hal	m		33.0 ***
Path Distance Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	ha2	<u> </u>		33.0 ***
Free Space Propagation Loss Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise		l Im	}	····
Additional Propagation Loss(50%) Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	d Lo	km. dB		11.3 ***
Total Propagation Loss(50%) Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q <u>Net Loss(50%)</u> Median Noise(50%) Figure of Merit Signal/Thermal Noise	Lo La	dB		12.6 ***
Required Antenna Gain Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q <u>Net Loss(50%)</u> Median Noise(50%) Figure of Merit Signal/Thermal Noise	La Lp	d B		0.0 *** 12.6 ***
Antenna Gain at P Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	Ga	dB		23.1 ***
Antenna Gain at Q Branching Loss Feeder Loss at P Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	Gal	dBi	1	12.0 4**
Branching Loss Feeder Loss at P Feeder Loss at Q <u>Net Loss(50%)</u> Median Noise(50%) Figure of Merit Signal/Thermal Noise	Ga2	dBi	1	12.0 ***
Feeder Loss at P Feeder Loss at Q <u>Net Loss(50%)</u> Median Noise(50%) Figure of Merit Signal/Thermal Noise	Lb .	dBI	• • •	5.0
Feeder Loss at Q Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	Lf1	dB	}	2.2 ***
Net Loss(50%) Median Noise(50%) Figure of Merit Signal/Thermal Noise	Lf2	dB	<b>]</b> .	2.2 ***
Median Noise(50%) Figure of Merit Signal/Thermal Noise	Ln	dB_	<u> </u>	98.1 ***
Figure of Merit Signal/Thermal Noise		[		
Signal/Thermal Noise	Fm	dB		65.0
	S/Nta	dB		66.9 ***
Thermal Noise	Nta	pWOp		84.8 ***
Equipment Thermal Noise	Nte	pWOp		80.0 88.0
Intermodulation Noise	Nim	pWOp		49.0
Interference Noise	Nif	pWOp		44.8 ***
Radio Link Noise	Npr	pWOp		80.0 ***
Carrier Multiplex Noise	Npm	pWOp		24.0 ***
Total Noise	Np	pWOp		59.5 ###
Signal/Total_Noise( > 57/50 dB)	S/Np_	dB	<u> </u>	
Short Period Noise(99.9%)		1.15		11.0 ***
Fading Depth	Af	dB		55.9 ***
Signal/Thermal Noise	S/Nta	dB		70.0 ***
Thermal Noise	Nta	pWOp	4	18.8 ***
Radio Link Noise	Npr	pWOp	-	98.8 *** 54 5 ***
Total Noise	Np S/Np	pWOp dB	1	54.6 ***
<u>Signal/Total Noise</u> Fading Margin	<u></u>		<u></u>	37.0
Tx Output Power	Pt	dBm		61.1 ***
Rx Input Level(50%)	Pri	dBm		95.6
Threshold Level	Pth	dBm	1	33.9 ***
	Mth	dB		
		<u> </u>	<u>L</u>	<u></u>
Program No. Antenna			Feeder Loss	
120 ch, 5W : T301 14 ele.			RG-17 /U	0.14
24 ch, 5W : T302 1.2 mØ		18	H13	0.091
24 ch, 100W : T303 1.8	"	21	H20	0.052
2.4 2.4	11	23.5		11 11/2 ×
Mux Noise(pWOp) 3.0			A20	0.048
460 SG/380 G 4.2		26	A20 A39	0.026
310 GC/230 R 6.0 8.0	17 17 11			

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UHF SYSTEM PERFORMAL (900 MHz, 24 ch/ <del>130 chr.</del> 5					ме тно 14421-13
Station P Pak Tong Chai	т. <del>#</del>	Stat	ion O	Chok Chai	5 m
Parh Type: L/S (as reflection),			100m . 1 .	P P	The second dense to an interest to an interest and the second dense of the second dens
Antenna Height		<u>h</u> hà "	Ē	43	1
Antenna Type & Size (Vogi, Parabo	lic)	1 18	mø	1.8	
Antenna Gain		Ga	dBi	2/	21
Feeder Type				<u>HZ0</u>	H20.
Feeder Length		<u>1f</u>	m	<u>್</u> ಟ್	58
Feeder Loss(ha + 10) x 4Lf		Lf	dB	2.8	3.0.
Antenna Height at P	•	hal	m		43.0 ***
Antenna Height at Q		ha2	m	6 40 3	104 2 48. Our ###esto
Path Loss			• • • • • • • • • • •	a na mining gang na tao a taong na magantan. A	And the second
Path Distance	1 - E	đ	km		115. <b>4</b> ( <b>***</b> )
Free Space Propagation Loss		Lo	dB	e an iosenses 🕫	
Additional Propagation Loss(50%)	6)	La	dB	i naturt pomir	
Total Propagation Loss(50%)		Lp	dB 🦿	() an airtean	
Required Antenna Gain		Ga Gal	dB (dB		48.1 ***
Antenna Gain at P			'dBi	17 A.A. 11	21.0 ***
Antenna Gain at Q Branching Loss		Ga2 Lb	dB1 dB	· · · · · · · · · · · · · · · · · · ·	5.6
Feeder Loss at P		LD Lfl	dB		2.8 . ***
Feeder Loss at Q		LII Lf2	dB	÷	3.0 ***
Net Loss (50%)		Ln	dB		97,1. ***
Median Noise(50%)				ینید پیش با میشدند میدند کا داد. پیش با در ب	an ann an an ann an an ann an an an an a
Figure of Merit	1	Fm	dB		165.9
Signal/Thermal Noise		S/Nta	dB		67.9 ***
Thermal Noise		Nta	pWOp	a data a la asocia da	162.0 x##
Equipment Thermal Noise		Nte	pWOp	ter ≩rissista tintation	106.0
Intermodulation Noise	l l	Nim	pWOp		200.0
Interference Noise		Nif	pWOp		240.0
Radio Link Noise		Npr.	pWOp		782.8
Carrier Multiplex Noise		Npm '	pWOp		239. 6 ***
Total Noise		Np	рWOр		932:0 *** 68:3 ***
Signal/Total Noise( > 57/50 dB	)	S/Np	dB		00.3 744
Short Period Noise(99.9%)				en in de la segurité	12.6 ***
Fading Depth	. 1	Af	dB		55.9 ***
Signal/Thermal Noise		S/Nta	dB	in the second	2570.0 ***
Thermal Noise		Nta	pWOp	:1:	3110.6 ***
Radio Link Noise	1	Npr	pWOp	· = : ; ;	
Total Noise Signal (Tabal Nais	Í	Np S (N-	pWOp		54.8° ×**
Signal/Total Noise		S/Np	dB	e e e e e e e e e e e e e e e e e e e	en e
Fading Margin Tx Output Power		Pt	4n		
Rx Input Level(50%)		Pri Pri	dBm tn-		<sup>™</sup> -68.1# <sup>™</sup> ***
Threshold Level			dBm		S- <b></b>
Margin to Threshold(50%) ( $\geq$ 33		Pth	d Bin		5 E4.989###
	u Dj	Mth	dB	n an the second seco	LOI MIRTHON
	ntenna	Gain (c	(B1)		oss(dB/m)
		Yagi	15	RG-17 /U	0.14
24 ch, 5W : T302 1.	.2 mØ	Para.	18	H13	0.091
	.8		21	n _ H20 − , , , , , ,	0.052
	.4		23.5	A20	0.048
	.0		26	A39 ⊭ <sub>10</sub> (1)	0.026
	.2 .0	11 11	28.5		EX39 1134
			.32		

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UHF SYSTEM PERFORMANCE		LATION	Path No.	4421-14
Station P Pak Tong Chai T H	_ Stat	ion 0	Khon Buri	T.
Path Type: L/S (no reflection), Ht-I		ei <del>m</del> -	P	Q
Antenna Height	ha	m	38	38
Antenna Type & Size (Magi, Parabolic)		mp	2.4	. 2.4
Antenna Gain	Ga	dBi	23.5	23:52
Feeder Type	{	}	HZO	HZO
Feeder Length	1f	m	48	48
Feeder Loss (ha + 10) x ALf	<u>Lf</u>	dB	2.5	25
Antenna Height, at P	hal	m		38.6 ***
Antenna, Height at Q	ha2	m	· · · · · · · · · · · · · · · · · · ·	38.0 ***
Path Loss			· · · ·	1997 - 1997 -
Path Distance	d	km		31.9 ***
Free Space Propagation Loss	Lo	dB		121.6 ###
Additional Propagation Loss (50%)	La	dB	a second	14.8 ***
Total Propagation Loss(50%)	Lp	dB		135.6 ***
Required Antenna Gain Antenna Gain at P	Ga	dB		46.6 ***
Antenna Gain at P Antenna Gain at Q	Gal	dBi	, ·	23.5 *** 23.5 ***
Branching Loss	Ga2 Lb	dBi dB		5.6
Feeder Loss at P	Lf1	dB		2.5 ***
Feeder Loss at Q	Lf2	dB		2.5 ***
Net Loss (50%)	Ln	dB		98.6 ***
Median Noise(50%)	1			
Figure of Merit	Fm	dB		165.0
Signal/Thermal Noise	S/Nta	dB		65.4 ***
Thermal Noise	Nta	pWOp		229.8 ***
Equipment Thermal Noise	Nte	pWOp		100.0 200.0
Intermodulation Noise	Nim	pWOp		240.0
Interference Noise	Nif	pWOp		769.0 ***
Radio Link Noise	Npr	pWOp	· · ·	380.0 ***
Carrier Multiplex Noise Total Noise	Npm	pWOp		1149.8 ***
	Np	pWOp		59.4 #**
Signal/Total Noise( $\geq 57/50$ dB)	S/Np	dB		
Short Period Noise(99.9%)	Af	dB		15.0 +**
Fading Depth Signal/Thermal Noise	S/Nta	dB		51.4 ***
Thermal Noise	Nta	pWOp		7244.0 *** 7784.0 ***
Radio Link Noise	Npr	р₩Ор		8154.0 ***
Total Noise	Np	pWOp	l	58.9 ***
Signal/Total Noise	S/Np	dB		
Fading Margin	1			37.0
Tx Output Power	Pt	dBm	}	-61.6 ***
Rx Input Level(50%)	Pri	dBm		-95.0
Threshold Level	Pth	dBm	l	33.4 ***
Margin to Threshold (50%) ( $\geq$ 33 dB)	Mch	dB		
Program No. Antenna	. Caia/	(AB1)	Enclos I	oss(dB/m)
			RG-17 /U	
120 ch, 5W       : T301       14 ele         24 ch, 5W       : T302       1.2 mØ	Para.		H13	0.091
24 ch, 5W : 1502 1.2 my 24 ch, 100W : T303 1.8		21	H20	0.052
24 CB, 100W : 1505 2.4		23.5	A20	0.048
Mux <sub>1</sub> Noise(pWOp) 3.0	. <b>D</b>	26	A39	0.026
460 SG/380 G 4.2	11	28.5		· ·
310, GC/230, R 6.0	11	32		
8.0	. <b>I</b> I	34.5		

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## UHF SYSTEM PERFORMANCE CALCULATION

(900 MHz, 24 ch/<del>130 ch,</del> 5 W/<del>100 w</del>) 100 with a start of the start 4421-15

Station PKuon BuriT.#Station qStation qPath Tyne:L/S (no reflection), We DifferenceSa PratheepFa.R.Path Type & Size (West, Purabolic)ham $\partial B$ $\partial B$ Antenna GainGaMB $\partial B$ $\partial B$ $\partial B$ Peeder Loss (ha + 10) × (LfLfLfdB $\mathcal{P}$ $\mathcal{P}$ Peeder Loss (ha + 10) × (LfLfdB $\mathcal{P}$ $\mathcal{P}$ $\mathcal{P}$ Peeder Loss (ha + 10) × (LfLfdB $\mathcal{P}$ $\mathcal{P}$ $\mathcal{P}$ Path Distancedm $\mathcal{P}$ $\mathcal{P}$ $\mathcal{P}$ Path Distanceddm $\mathcal{P}$ $\mathcal{P}$ Path Distanceddm $\mathcal{P}$ $\mathcal{P}$ Path DistanceddB $\mathcal{P}$ $\mathcal{P}$ $\mathcal{P}$ Path DistancefGadB $\mathcal{P}$ $\mathcal{P}$ Path DistancefGadB $\mathcal{P}$ $\mathcal{P}$ Required Antenna Gain at PGalGB $\mathcal{P}$ $\mathcal{P}$ Required Antenna Gain at QLoGa2dB $\mathcal{P}$ Peeder Loss at QLfdB $\mathcal{P}$ $\mathcal{P}$ Peeder Loss at QLfB $\mathcal{P}$ $\mathcal{P}$ Nedian NoiseNifnMD $\mathcal{P}$ $\mathcal{P}$ Nedian NoiseNifnMD $\mathcal{P}$ $\mathcal{P}$ Antenna Gain at QS/NtaB $\mathcal{P}$ Peeder Loss at QLfLfdB $\mathcal{P}$ Peeder Loss at QLfHB $\mathcal{P}$	( 900 MH2, 24 CH/ <del>110 CH</del> , 3	w/ ===				4421-15
Antenna Heightham $3g$		<b>₹.</b> ₹	Stat	ion O	Sa Pratheep	
Antenna Heightham $3g$	Path Type: L/S (no reflection).	-		<b></b>	Dr. Barrpun) 1	Partio Creek
Antenna Type 6 Size ( $\frac{2+epk}{2}$ , Parabolic) $method for the second secon$				m	and the second se	
Antenna GainGaGBi $2/2$ $1/20$ $7/20$ Feeder Length1fm $4/2$ $1/20$ $7/20$ Feeder Length1fm $4/2$ $7/20$ Feeder Length1fdB $2/2$ $7/20$ Feeder Loss (ha + 10) x dLfLfdB $2/2$ $7/20$ Antenna Height at Qha2m $2/2$ $7/20$ Path Distancedkm $2/2$ $7/20$ Path DossLodB $1/2$ $7/2$ Path Distancedkm $2/2$ $7/20$ Total Propagation Loss (502)LadB $1/20$ $7/20$ Total Propagation Loss (502)LadB $1/20$ $7/20$ Total Propagation Loss (502)LadB $2/20$ $2/20$ Total Propagation Loss (502)LadB $2/20$ $2/20$ Peeder Loss at QLf1dB $2/20$ $2/20$ Peeder Loss at QLf2dB $2/20$ $2/20$ Peeder Loss at QLf1dB $2/20$ $2/20$ Peder Loss at QLndB $2/20$ $2/20$ Piqure of MeritFmdB $2/20$ $2/20$ Signal/Thermal NoiseNtapHOp $2/20$ $2/20$ Intermodulation NoiseNinpWOp $2/20$ $2/20$ Intermodulation NoiseNppWOp $2/20$ $2/20$ Intermodulation NoiseNpNp $2/20$ $2/20$ Signal/Thermal NoiseNpNp $2/20$	r –	lic)				
Peeder TypeIfm $\frac{1}{20}$ $\frac{1}{20}$ $\frac{1}{20}$ Feeder Loss (ha + 10) x $dLf$ LfLfdB $\frac{1}{2} \cdot \frac{3}{2} \cdot $		IIC)	Ca			1553 892270
Feeder Length1fm $4g$ $4g$ $4g$ $7g$ Feeder Loss (ha + 10) x $4Lf$ LfdB $2.4^{-1}$ $4.4^{-1}$ Antenna Height at Phalm $12.3^{-1}$ $36.6^{-1}$ Antenna Height at Qhalm $12.3^{-1}$ $36.6^{-1}$ Path Distancedkm $2.4^{-1}$ $116.2^{-1}$ Path Distancedkm $2.4^{-1}$ $116.2^{-1}$ Additional Propagation Loss (50%)LadB $2.4^{-1}$ Total Propagation Loss (50%)LadB $2.4^{-1}$ Required Antenna Gain at QGaldB1 $2.4^{-1}$ Antenna Gain at QGaldB1 $2.4^{-1}$ Feeder Loss at PLf1dB $2.4^{-1}$ Feeder Loss at QLf2dB $2.4^{-1}$ Net Loss (50%)LndB $2.4^{-1}$ Figure of MeritFmdB $2.4^{-1}$ Signal/Thernal NoiseNim $pWOp$ $244.6^{-1}$ Intermodulation NoiseNim $pWOp$ $244.6^{-1}$ Interference NoiseNim $pWOp$ $244.6^{-1}$ Interference NoiseNim $pWOp$ $244.6^{-1}$ Signal/Total Noise(99.9%)AfdB $27.6^{-1}$ Fading DepthAfdB $27.6^{-1}$ Signal/Total NoiseNpr $pWOp$ $3928.6^{-1}$ Signal/Total NoiseNpr $pWOp$ $37.6^{-1}$ Signal/Total NoiseNpr $pWOp$ $37.6^{-1}$ Fading DepthAfdB	1					
Feeder Loss (ha + 10) $\times 4Lf$ LfdBC2.d cC4.f cAntenna Height at Phalm10.2.d c33.6 millionPath Losshazm10.6 million36.6 millionPath Distancedkm116.2 million36.6 millionPath Distancedkm116.2 million36.6 millionPath Distancedkm116.2 million36.6 millionAdditional Propagation Loss (50%)LadB116.2 millionTotal Propagation Loss (50%)LadB116.2 millionAntenna Gain at PGaldB116.2 millionAntenna Gain at PGaldB116.2 millionAntenna Gain at QGa2dBi116.2 millionBranching LossLbdB116.2 millionFeeder Loss at PLf1dB116.2 millionFeder Loss at QLf2dB116.6 millionNet Loss(50%)LHB116.6 millionPigure of MeritFmdB116.6 millionSignal/Thermal NoiseNtepKOp100.2 millionInterference NoiseNifpKOp100.2 millionAdio Link NoiseNpNppKOp126.6 millionCarrier Multiplex NoiseNpNppKOpSignal/Thermal NoiseNrdB12.4 millionShort Perido Noise( $\geq$ 57/50 dB)S/NedB12.4 millionSignal/Thermal NoiseNppKOp12.6 millionSignal/Thermal NoiseNppKOp1			if	-		
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Antenna Height at Qha2mHe2mHe2mHe3He3mHe3 </td <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td>				1		
Path Loss       d       km       control and the set of the se			1 · ·		1	38.0 ***
Path Distancedkm $0 \le 17, 1 \pm 44$ Free Space Promagation Loss (502)LadBLa 10 \pm 0 \pm 17, 1 \pm 44Additional Propagation Loss (502)LpdBLa 10 \pm 0 \pm 17, 1 \pm 44Required Antenna Gain at PGaldBLa 10 \pm 21, 0 \pm 44Antenna Gain at QGaldBLa 10 \pm 21, 0 \pm 44Branching LossLbdBLa 10 \pm 21, 0 \pm 44Branching LossLbdBLa 10 \pm 21, 0 \pm 44Feeder Loss at QLf1dBLa 10 \pm 21, 0 \pm 44Net Loss (502)LndBLa 10 \pm 21, 0 \pm 44Figure of MeritFmdBLa 10 \pm 21, 0 \pm 44Signal/Thermal NoiseNtapNOp200, 0 \pm 14Intermodulation NoiseNtapNOp200, 0 \pm 14Interference NoiseNimpNOp200, 0 \pm 14Interference NoiseNpNpPNOpSignal/Thermal NoiseNpNpInterference NoiseNpNpRadio Link NoiseNpNpSignal/Total Noise ( $\geq 57/50$ dB)S/NpdBS/NtadB112, 0 \pm 44Signal/Total NoiseNpProgram No.Antenna Gain (dB1)Freeder Loss (S02)PrideThermal NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNp<			naz	<u>, n</u>	میں ہے۔ جو بر میں میں میں میں میں میں	68.8 4**
Free Space Promagation LossLodBdistribution of the second secon				lem.		
Additional Propagation Loss (502) Total Propagation Loss (502) Required Antenna Gain at P Antenna Gain at Q 			_		1	······································
Total Propagation Loss(50%)LpdBdBdBd11:2:***Required Antenna GainGadBdBd11:2:***d3:8:***Antenna Gain at PGaldBid11:1:***d3:8:***Antenna Gain at QGa2dBid11:1:***d3:8:***Branching LossLbdBd1:1:***d3:8:***Feeder Loss at PLf1dBd3:2:2:5:***d3:1:***Median Noise(502)LndBd3:1:***d3:1:***Figure of MeritFmdBd1:1:***d6:6:***Signal/Thermal NoiseNtapWOpd1:1:***d6:6:***Equipment Thermal NoiseNtapWOpd1:1:***d6:6:***Interforence NoiseNifpWOpd1:1:***d6:6:****Radio Link NoiseNppWOpd1:1:****d6:6:****Signal/Total Noise( $\geq$ 57/50 dB)S/NtadBd3:2:****Signal/Total NoiseNppWOpd1:1:****Fading DepthAfdBd3:2:****Fading DepthAfdBd3:2:****Fading MarginS/NtagBd3:2:****Tx Output PowerPtdBd3:3:****Fading MarginS/NndBd3:3:****Tutouput PowerPtdBd3:3:****Fading Marging2:4:*****d1:1:***T20 ch, 5W : T30114 ele. Yangi 15RG-17/UfRx Input Level(502)()23 dB)MthdBProgram No.Antenna Gain (dBi)Feeder			1		1 Second A. M. Market and M. Mar Market and M. Market and M Market and M. Market and M Market and M. Market and	· · · · · · · · · · · · · · · · · · ·
Required Antenna GainGadBIf is in a 21.6 is set		()				「「「「「」」」ではない。
Antenna Gain at PGaiGaiGaiGaiGaiGaiAntenna Gain at QGaiGaiGain at QGain at QGain at QGain at CGain at C			1 -			
Antenna Gain at QGa2dB1Constrained by an analysis of the second						
Branching Loss       Lb       dB $5.62.5.52$ Feeder Loss at P       Lf1       dB $2.5.43.5.52$ Net Loss(502)       Ln       dB $2.5.43.5.52$ Median Noise(502)       Ln       dB $2.5.43.5.52$ Figure of Merit       Fm       dB $2.5.43.5.52$ Signal/Thermal Noise       Nta       pWOp $2.6.3.552$ Equipment Thermal Noise       Nta       pWOp $2.14.0.3.532$ Interference Noise       Nif       pWOp $2.24.3.532$ Radio Link Noise       Npr       pWOp $2.754.6.3.532$ Signal/Total Noise(99.92)       Np $754.6.3.532$ $5.8.5.7523$ Fading Depth       S/Nta       dB $754.6.3.532$ $5.8.5.5253$ Signal/Thermal Noise       Npr       pWOp $2.44.0.3.532$ $7.836.3.532$ Short Period Noise(99.92)       Af       dB $7.6.7.5.7.532$ $7.836.3.532.5536.3.532$ Fading Depth       S/Nta       dB $7.7.7.7.5.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.536.3.5376.$		а. 1			19 - 19 A - 19 - 19 A -	.Q. 5-217 BAG###S
Feeder Loss at PLf1dB $2.5 \pm 3.4$ Feeder Loss (502)Lf2dB $4.1 \pm 3.4$ Net Loss(502)LndB $9.92, 3 \pm 3.4$ Median Noise(502)Figure of MeritFmdB $165.0 \pm 3.4$ Signal/Thermal NoiseNtapWOp $166.6 \pm 3.4$ Garrier Multiplex NoiseNtapWOp $200.6 \pm 3.4$ Interference NoiseNifpWOp $200.6 \pm 3.4$ Interference NoiseNifpWOp $200.6 \pm 3.4$ Radio Link NoiseNprpWOp $200.6 \pm 3.4$ Carrier Multiplex NoiseNprpWOp $574.6 \pm 3.4$ Short Period Noise(99.92)NpgWOp $544.0 \pm 3.4$ Fading DepthAfdB $54.7 \pm 3.4$ Signal/Thermal NoiseNprpWOp $3228.6 \pm 3.4$ Thermal NoiseNprpWOp $3228.6 \pm 3.4$ Short Period NoiseNprpWOp $3228.6 \pm 3.4$ Thermal NoiseNprpWOp $3228.6 \pm 3.4$ Signal/Thermal NoiseNprpWOp $3228.6 \pm 3.4$ Thermal NoiseNprpWOp $3228.6 \pm 3.4$ Threshold LevelPridBm $7.7.6 \pm 3.4$ Threshold LevelPridBm $7.7.6 \pm 3.4$ Margin to Threshold(502)( $\geq 33$ dB)NthdB $7.7.6 \pm 3.4$ Program No.Antenna Gain (dBi)Feeder Loss(dB/m) = 4.13 + 0.091120 ch, 5W : T30114 ele. Yagi 15RC-17 /Urit 0.14 + 0.14 + 0.09224 ch, 100W : T3031.8 "21120001 0.0052				4		545 <sup>2</sup> 23,509###
Feeder Loss at QLf2dB4.1 $\pm$ 224Net Loss(502)LndB98.3 ***Median Noise(502)FmdB98.3 ***Figure of MeritFmdB165.0 $\pm$ 111Signal/Thermal NoiseNtapWOp200.0 $\pm$ 214.0 $\pm$						
Net Loss(502)         Ln         dB         398.3         ***           Median Noise(502)         Fm         dB         10.5         10.5         10.5           Figure of Merit         Fm         dB         10.5         10.5         10.5         10.5           Signal/Thermal Noise         Nta         pWOp         10.5         6.7.***         10.5						
Median Noise(502)FmdB165.0Figure of MeritS/NtadB165.0Signal/Thermal NoiseNtapWOp214.0Equipment Thermal NoiseNtepWOp200.0Interference NoiseNimpWOp200.0Interference NoiseNifpWOp200.0Radio Link NoiseNprpWOp200.0Carrier Multiplex NoiseNprpWOp200.0Total NoiseNprpWOp200.0Signal/Total NoiseNppWOpFading DepthAfdBSignal/Total NoiseNprpWOpFading DepthAfdBSignal/Total NoiseNpSignal/Total NoiseNpFading MarginNpTotal NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpSignal/Total NoiseNpFading Margin37.0Tx Output PowerPriRx Input Level(50%)PriThreshold LevelPthMargin to Threshold(50%)(33 dB)Z4 ch, 5W : T30114 ele. Yagi 15120 ch, 5W : T3031.8 "24 ch, 100W : T3031.8 " <td>•</td> <td></td> <td>Lf2</td> <td></td> <td></td> <td></td>	•		Lf2			
Figure of Merit       Fm       dB       165.0         Signal/Thermal Noise       S/Nta       dB       66.7       ###         Thermal Noise       Nta       pWOp       214.0       ###         Equipment Thermal Noise       Nta       pWOp       200.0       ###         Interference Noise       Nif       pWOp       200.0       ###         Radio Link Noise       Npm       pWOp       200.0       ###         Carrier Multiplex Noise       Npm       pWOp       240.8       ###         Total Noise       > 575.6       ###       ###       ###       ###         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       220.0       ###         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       220.0       ###         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       3288.0       ###         Signal/Total Noise       Npr       pWOp       3288.0       ###         Signal/Total Noise       Npr       pWOp       3288.0       ###         Total Noise       Npr       pWOp       3388.0       ###         Total Noise       Np       PWOp       35.9       ###         Fading Margin </td <td></td> <td></td> <td>Ln</td> <td>dB</td> <td></td> <td></td>			Ln	dB		
Signal/Thermal NoiseS/NtadB $66.7.$ ***Thermal NoiseNtapNOp $246.0.$ ***Equipment Thermal NoiseNifpWOp $246.0.$ ***Intermodulation NoiseNifpWOp $246.0.$ ***Interference NoiseNifpWOp $246.0.$ ***Radio Link NoiseNprpWOp $754.0.$ ***Garrier Multiplex NoiseNprpWOp $754.0.$ ***Signal/Total Noise( $\geq 57/50$ dB)S/NpdB $56.3.$ ***Short Period Noise(99.9%)AfdB $54.7.$ ***Fading DepthAfdB $54.7.$ ***Signal/Thermal NoiseS/NtaB $3928.0.$ ***Radio Link NoiseNprpWOp $3928.0.$ ***Thermal NoiseNtapWOp $3928.0.$ ***Fading MarginNprpWOp $328.0.$ ***Tx Output PowerPtdBm $-67.3.$ ***Rx Input Level(50%)PridBm $-95.0.$ Threshold LevelPthdBm $16.3.3.7.$ ***Margin to Threshold(50%)( $\geq 33.4B.$ )MthBProgram No.Antenna Gain (dBi)Feeder Loss((dB/m)) = 16.2.2.4.1.2.2.4.1.2.2.5.120 ch, 5W : T30114 ele. Yagi 15RG-17/Ui-0.14.1.1.2.4.1.2	Median Noise(50%)					
Thermal NoiseNta $BVOp$ $214.6 \times ***$ Equipment Thermal NoiseNta $BVOp$ $106.6$ Intermodulation NoiseNim $BVOp$ $200.6$ Interference NoiseNif $BVOp$ $200.6$ Radio Link NoiseNpr $PWOp$ $246.6$ Carrier Multiplex NoiseNpr $PWOp$ $754.6$ Total NoiseNpr $PWOp$ $544.6$ Short Period Noise(99.9%)AfdBFading DepthAfdBSignal/Total NoiseNprThermal NoiseNtaSignal/Total NoiseNprFading DepthAfSignal/Total NoiseNprThermal NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseS/NrFading MarginTTx Output PowerPtRx Input Level(50%)PriHargin to Threshold(50%)( $\geq$ 33 dB)NthdBProgram No.Antenna Gain (dB1)Program No.Antenna Gain (dB1)120 ch, 5W : T30114 ele. Yagi 1524 ch, 100W : T3031.8 "24 ch, 100W : T3031.8 "24 ch, 100W : T3031.8 "24 ch, 100W : T3031.8 "25 chA2026 ch 26 ch 2727 ch 26 ch 2728 ch 30 ch 26 ch 26 ch 2726 ch 27 ch 26 ch 26 ch 2727 ch 26 ch 27 ch	Figure of Merit		Fm	dB		
Equipment Thermal NoiseNte $pWOp$ $160, 0$ Interference NoiseNim $pWOp$ $200, 0$ Interference NoiseNif $pWOp$ $240, 0$ Radio Link NoiseNpm $pWOp$ $240, 0$ Carrier Multiplex NoiseNpm $pWOp$ $240, 0$ Total NoiseNpm $pWOp$ $544, 0$ Short Period Noise(99.9%)AfdBFading DepthAf $dB$ Signal/Thermal NoiseS/NtadBThermal NoiseNpm $pWOp$ Signal/Thermal NoiseNtaNoiseNprFading MarginNprThershold LevelNphMargin to Threshold(50%)( $\geq$ 33 dB)Program No.Antenna Gain (dBi)Program No.Antenna Gain (dBi)Program No.Antenna Gain (dBi)Program No.Antenna Gain (dBi)24 ch, 5W : T30114 ele. Yagi12 ch, 5W : T3031.824 ch, 100W : T3031.824 ch, 100W : T3031.824 ch, 500 G2.424 ch, 500 G2.424 ch, 500 G3.024 ch, 500 G4.224 ch, 500 G3.024 ch, 500 G3.024 ch, 500 G24 ch, 500 G24 ch, 500 G24 ch, 500 G <tr< td=""><td>Signal/Thermal Noise</td><td>·</td><td>S/Nta</td><td>dB</td><td></td><td></td></tr<>	Signal/Thermal Noise	·	S/Nta	dB		
Equipment Thermal NoiseNte $pWOp$ $100, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, $	Thermal Noise		Nta	pWOp		
Intermodulation NoiseNim $pWOp$ $2206.0$ Interference NoiseNif $pWOp$ $242.0$ Radio Link NoiseNpr $pWOp$ $754.6$ Carrier Multiplex NoiseNpm $pWOp$ $754.6$ Total NoiseNpm $pWOp$ $944.0$ Short Period Noise(99.9%)Af $66.3$ Fading DepthAf $dB$ Signal/Thermal NoiseS/Nta $dB$ Thermal NoiseNpr $pWOp$ Signal/Thermal NoiseNtaMadio Link NoiseNtaThermal NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseNprSignal/Total NoiseS/NtaMagin Total NoiseS/NpSignal/Total NoisePtSignal/Total NoiseNprSignal/Total NoiseS/NpSolut PowerPtRx Input Level(50%)PthThreshold(50%)( $\geq$ 33 dB)NthdBProgram No.Antenna Gain(dBi)I20 ch, 5W : T30114 ele. Yagi 15Redit Noise(pWOp)3.02.4"23.5A200.048Mux Noise(pWOp)3.0310 GC/230 R6.0310 GC/230 R6.0	Equipment Thermal Noise		Nte			
Interference NoiseNif $pWOp$ $242.6$ Radio Link NoiseNpr $pWOp$ $754.6$ Carrier Multiplex NoiseNpm $pWOp$ $754.6$ Total NoiseNpm $pWOp$ $944.6$ Signal/Total Noise( $\geq 57/50$ dB) $S/Np$ dBShort Period Noise(99.9%) $Af$ dBFading DepthAfdBSignal/Thermal Noise $S/Nta$ dBThermal NoiseNta $pWOp$ Total NoiseNp $pWOp$ Total NoiseNp $pWOp$ Total NoiseNp $pWOp$ Signal/Total NoiseNpPading Margin $37.6$ Tx Output PowerPtRx Input Level( $50\%$ )PriThreshold LevelPthMargin to Threshold( $50\%$ ) ( $\geq 33$ dB)Program No.Antenna Gain (dBi)Program No.Antenna Gain (dBi)24 ch, 5W : T3021.2 m% Para.120 ch, 5W : T3031.8 "24 ch, 100W : T3031.8 "24 ch, 100W : T3031.8 "24 ch, 100W : T3032.4 "23.5A20A200.048Mux Noise(pWOp)3.0 "26A39 ( $cMSA$ ) $cMSA$ 310 GC/230 R6.0 "					1916 L. H. L	<u>e 200.0 team</u> i
Radio Link Noise       Npr       pWOp       754.6       ##         Carrier Multiplex Noise       Npm       pWOp       944.6       ##         Total Noise       Np       pWOp       944.6       ##         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       66.3       ##         Short Period Noise(99.9%)       Af       dB       12.6       ##         Fading Depth       Af       dB       3388.8       ##         Signal/Thermal Noise       S/Nta       dB       3388.8       ##         Thermal Noise       Nta       pWOp       3328.8       ##         Radio Link Noise       Npr       pWOp       3328.8       ##         Total Noise       Npr       pWOp       3328.8       ##         Total Noise       Npr       pWOp       3328.8       ##         Fading Margin       S/Np       BB       -617.3       ##         Treshold Level       Pti       dBm       -617.3       ##         Margin to Threshold(50%)(       33 dB)       Mth       dB       -617.3       ##         120 ch, 5W       : T301       14 ele. Yagi 15       RG-17 /U       0:14.1         12.4 ch, 5W       :					541 OK	240.8 (Hereiter)
Carrier Multiplex Noise Total NoiseNpm Np Np pW0ppW0p pW0p $394.6;$ ***Signal/Total Noise $\geq 57/50 \text{ dB}$ $S/Np$ dB $66.3$ ***Short Period Noise(99.9%) Fading Depth Signal/Thermal NoiseAfdB $54.7$ ***Fading Depth Signal/Thermal Noise $S/Nta$ dB $3386.3$ ***Thermal NoiseNtapW0p $33286.3$ ***Radio Link NoiseNprpW0p $3228.6$ ***Total NoiseNprpW0p $53.9$ ***Fading Margin Tx Output Power Rx Input Level(50%)PridBm $77.6$ Threshold Level Margin to Threshold(50%)( $\geq 33$ dB)MthdB $77.6$ Program No. 24 ch, 5W : T3021.2 mØ Para.18H13 %C .0.09124 ch, 5W : T3031.8<"						754.0 ***
Total Noise       Np       pW0p       PW0p         Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB       66.3       ###         Short Period Noise(99.9%)       Af       dB       54.7       ###         Fading Depth       Af       dB       54.7       ###         Signal/Thermal Noise       Nta       pW0p       3388.8       ###         Radio Link Noise       Npr       pW0p       3282.8       ###         Total Noise       Npr       pW0p       53.9       ###         Signal/Total Noise       Np       pW0p       53.9       ###         Fading Margin       -61.3       ###       -61.3       ###         Threshold Level (50%)       Pri       dBm       16.63.7       ###         Margin to Threshold(50%)( $\geq$ 33 dB)       Mth       dB       16.63.7       ###         120 ch, 5W       : T301       14 ele.       Yagi 15       #Re-17.10 <sup>4</sup> 0:14 <sup>4</sup> 24 ch, 100W : T303 <td< td=""><td></td><td></td><td></td><td>• • •</td><td></td><td>190.0 ***</td></td<>				• • •		190.0 ***
Signal/Total Noise( $\geq 57/50$ dB)       S/Np       dB					-4	······································
Short Period Noise(99.9%)       Af       dB       12.9       ###         Fading Depth       Signal/Thermal Noise       S/Nta       dB       3388.0       ###         Thermal Noise       Nta       pWOp       3928.0       ###         Radio Link Noise       Npr       pWOp       3928.0       ###         Total Noise       Npr       pWOp       3928.0       ###         Total Noise       Npr       pWOp       53.9       ###         Fading Margin       S/Np       dB       57.0       ###         Fading Margin       Pri       dBm       -61.3       ###         Threshold Level       Pth       dBm       10.337.7       ###         Margin to Threshold(50%) ( $\geq$ 33 dB)       Mth       dB       10.337.7       ###         Program No.       Antenna Gain (dBi)       Feeder Loss(dB/m)***       ###         120 ch, 5W : T301       14 ele. Yagi 15       RC=17 /U*       0:14**         24 ch, 100W : T303       1.8       "       21       H20       0:052         2.4       ''       23.5       A20       0:048       A39 (.950.90.0026***         Mux Noise(pWOp)       3.0       ''       26       A39 (.950.90.0026*** <td></td> <td>)</td> <td></td> <td></td> <td><ol> <li>1. And 1671.</li> </ol></td> <td>·</td>		)			<ol> <li>1. And 1671.</li> </ol>	·
Signal/Thermal NoiseS/NtadB3388.8Thermal NoiseNta $pWOp$ 3926.8Radio Link NoiseNpr $pWOp$ 3926.8Total NoiseNpr $pWOp$ 4118.6Total NoiseNp $pWOp$ 53.9Signal/Total NoiseS/NpdBTotal NoiseS/NpdBTotal NoiseS/NpdBSignal/Total NoiseS/NpdBFading MarginS/NpdBTx Output PowerPtdBmThreshold LevelPthdBmMargin to Threshold(50%)( $\geq$ 33 dB)MthdBProgram No.Antenna Gain (dBi)Feeder Loss(dB/m)^{23}120 ch, 5W : T30114 ele. Yagi 15RC-17 /Uf < 011451						State Perfect S
Signal/Thermal NoiseS/NtadB3388.8Thermal NoiseNta $pWOp$ 3926.8Radio Link NoiseNpr $pWOp$ 3926.8Total NoiseNpr $pWOp$ 4118.6Total NoiseNp $pWOp$ 53.9Signal/Total NoiseS/NpdBTotal NoiseS/NpdBTotal NoiseS/NpdBSignal/Total NoiseS/NpdBFading MarginS/NpdBTx Output PowerPtdBmThreshold LevelPthdBmMargin to Threshold(50%)( $\geq$ 33 dB)MthdBProgram No.Antenna Gain (dBi)Feeder Loss(dB/m)^{23}120 ch, 5W : T30114 ele. Yagi 15RC-17 /Uf < 011451			ΔF	dR		12.0 ***
Thermal Noise       Nta       pW0p       3388.8       3398.8       3388.8       337.8       348.8       37.8						1999 S
Radio Link Noise       Npr       pWOp $3926.6$ $4118.6$ <th< td=""><td></td><td></td><td></td><td></td><td>4 -</td><td></td></th<>					4 -	
Total NoiseNp Signal/Total NoiseNp S/NppWOp dBNp GG					· · · · · ·	
Signal/Total NoiseS/NpdBdd areaFading MarginTx Output PowerPtdBm $37.0$ AreaTx Output PowerPtdBmTotal 37.0 $37.0$ AreaRx Input Level(50%)PridBm $-61.3$ AreaThreshold LevelPthdBmIoral 33.7 $78.4$ AreaMargin to Threshold(50%)( $\geq$ 33 dB)MthdBIoral 33.7 $78.4$ AreaProgram No.Antenna Gain (dBi)Feeder Loss(dB/m) areaIoral 33.7 $78.4$ Area120 ch, 5W : T30114 ele. Yagi 15 $68.6-17/0.6$ Area $61.3$ Area24 ch, 5W : T3021.2 mØ Para18 $78.4$ Area $61.3$ Area24 ch, 100W : T3031.821 $42.0$ Area $10.001.0052$ 2.423.5A20 $0.048$ Mux Noise(pWOp)3.026A39 ( $a0.001.0026$ Area460 SG/380 G4.228.5 $0.026.001.0026$ Area310 GC/230 R6.032 $32.001.001.001.001.001.001.001.001.001.00$						
Fading Margin Tx Output Power Rx Input Level(50%)PtdBm $37.0^{\circ}$ And $37.0^{\circ}$ -61.3 ***Threshold Level Margin to Threshold(50%)( $\geq$ 33 dB)PridBm10731 33.7 ***Program No. 120 ch, 5W : T301Antenna Gain (dBi) 14 ele. Yagi 15Feeder Loss(dB/m) = 1Program No. 24 ch, 100W : T3031.8 "2124 ch, 100W : T3031.8 "21Physics (pWOp) 460 SG/380 G3.0 "26Any 310 GC/230 R6.0 "32		Í				53.9 ***
Tx Output Power Rx Input Level(50%) Threshold LevelPt PridBm Pri $-61.3$ ( $+1.4$ ) dBm Data $-95.0$ Margin to Threshold(50%)( $\geq$ 33 dB)Pth MthdBm dB $100.33,7$ ( $+1.4$ ) dBmProgram No. 120 ch, 5W : T301Antenna Gain(dBi) 14 ele. Yagi 15Feeder Loss(dB/m) = 1 ( $-0.14^{-1}$ )Program No. 24 ch, 5W : T3021.2 m0 Para. 1.8 "18 21 $-0.14^{-1}$ ( $-0.14^{-1}$ )24 ch, 5W : T3031.8 "21 21 21 $-0.091$ ( $-0.052$ )Mux Noise(pWOp)3.0 "26 4.2 "A39 ( $-0.064$ ) ( $-0.026$ )460 SG/380 G 310 GC/230 R4.2 "28.5 32 $-0.065$ ( $-0.026$ )			<u>- 27 MD</u>	up		in the second
Rx Input Level(50%) Threshold Level Margin to Threshold(50%) ( $\geq$ 33 dB)Pri PthdBm dBmIor 31 33 7 minProgram No. 120 ch, 5W : T301Antenna Gain (dBi) 14 ele. Yagi 15Feeder Loss (dB/m) 27 0.14424 ch, 5W : T3021.2 mØ Para.1824 ch, 100W : T3031.8212.423.5A20Mux Noise(pWOp)3.026460 SG/380 G4.228.5310 GC/230 R6.032		ļ				<b>37.0</b> (313)
Threshold Level Margin to Threshold(50%) ( $\geq$ 33 dB)Pth MthdBm dB10734 33.7 ****Program No.Antenna Gain (dBi)Feeder Loss (dB/m) 23120 ch, 5W : T30114 ele. Yagi 15 $RG=17/U<5 \cdot 0.1243$ 24 ch, 5W : T3021.2 mØ Para.1824 ch, 100W : T3031.8 "2124 ch, 100W : T3031.8 "2124 ch, 580.00522.4 "23.5A200.048Mux Noise(pWOp)3.0 "26460 SG/380 G4.2 "310 GC/230 R6.0 "3232					위험을 1997년 - 1997년 - 1997년 1997년 - 1997년 -	
Margin to Threshold(50%) ( $\geq$ 33 dB)NthdBProgram No.Antenna Gain (dBi)Feeder Loss (dB/m) 23120 ch, 5W : T30114 ele. Yagi 15 $RG=17/U< 0.1423$ 24 ch, 5W : T3021.2 mØ Para.1824 ch, 100W : T3031.8212.423.5A20Mux Noise(pWOp)3.026460 SG/380 G4.228.5310 GC/230 R6.032					1. (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Program No.       Antenna Gain (dBi)       Feeder Loss (dB/m)         120 ch, 5W : T301       14 ele. Yagi 15       RG-17 /U         24 ch, 5W : T302       1.2 mØ Para. 18       H13 %       0:091         24 ch, 100W : T303       1.8 " 21       H20 %000 0:052         2.4 " 23.5       A20 0:048         Mux Noise(pWOp)       3.0 " 26       A39 (40%) 0:026         460 SG/380 G       4.2 " 28.5       0 632 00 0:048         310 GC/230 R       6.0 " 32       7 605 00 0:2						0011 ##T
120 ch, 5W: T30114 ele. Yagi 15 $(4 RG-17 / U^{25} + 0)$ ; 142324 ch, 5W: T3021.2 mØ Para.18 $(H13 - 50)$ ; 0, 09124 ch, 100W: T3031.821 $(H20 - 50)$ ; 0, 0522.4''23.5A200.048Mux Noise(pWOp)3.0''26A39 (4059); 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 0, 026; 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	margin to Threshold(50%)( $\geq$ 33	dB)	Mth	dB	- Aller derde	14. 公式 自主席下部的 19. 19.1
120 ch, 5W: T30114 ele. Yagi 15 $(4 RG-17 / U^{25} + 0)$ ; 143324 ch, 5W: T3021.2 mØ Para.18 $(H13 - 50)$ ; 0, 09124 ch, 100W: T3031.821 $(H20 - 50)$ ; 0, 0522.4''23.5A200.048Mux Noise(pWOp)3.0''26A39 (4059); 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 026; 0, 0, 026; 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,		!				and the second second
24 ch, 5W : T302       1.2 mØ Para.       18       #H13 %0 .0:091         24 ch, 100W : T303       1.8 "       21       #H20 %001 .0:052         2.4 "       23.5       A20       0:048         Mux Noise(pWOp)       3.0 "       26       A39 (40%) 0.0:026;36         460 SG/380 G       4.2 "       28.5       0.082\02.00002         310 GC/230 R       6.0 "       32       #.005\000002						
24 ch, 100W : T303       1.8       "       21       H20						
2.4         "         23.5         A20         0.048           Mux Noise(pW0p)         3.0         "         26         A39 (4994) 0.0026         60026           460 SG/380 G         4.2         "         28.5         0.022(300)         6.0         "         32         0.002(300)         602						
Mux Noise(pW0p)         3.0         "         26         A39         (40%) (40%) (40%)         (40%) (40%)         (40%) (40%) (40%)	-					
460 SG/380 G     4.2     28.5     0.082\02.000       310 GC/230 R     6.0     32     3.005\00.002						
460 SG/380 G     4.2     "     28.5     0.082\02.000       310 GC/230 R     6.0     "     32     3.002\00.002	Mux Noise(pWOp) 3.	0	U. S	26		
310 GC/230 R 6.0 " 32 3 00 SX00 0 B	460 SG/380 G 4.	2	0		i n n	82102 000 SC/38
			11		<i>i</i> t ()	estas ére
8.0 "34.5			11	34.5		a second and a second a second as

UHF SYSTEM PERFORMANCE CALCULATION (900 MHz, 24 ch/120 ch, 5 W/100 W) 4421-16								
Station P Sa Pratheep #.R	Saeng Sang	T						
Path Type: L/S (no reflection); Ht.		vion.	P	0				
Antenna Height	ha		63	73				
Antenna Type & Size (Yegi, Parabolic)	E.S.	mø	1.2	1.8				
Antenna Gain	Ga	dBi	18	2/				
Feeder Type		{	H20	H20 83				
Feeder Length	lf	m	73	4.3				
Feeder Loss (ha + 10) x ALf Antenna: Height at P	Lf							
Antenna Height at Q	hal ha2			63.8 ###				
Path Loss	naz	m	<b>}</b>	73.6 ***				
Path Distance	d	kan		12.6 ***				
Free Space Propagation Loss	Lo	dB		113.5 ***				
Additional Propagation Loss (50%)	La	dB		18.0 ***				
Total Propagation Loss(50%)	Lp	dB		123.5 ***				
Required Antenna Gain	Ga	dB		37.6 ***				
Antenna Gain at P	Gal	dBi		18.8 ***				
Antenna Gain at Q	Ga2	dBi	ŀ	21.0 #** 5.0				
Branching Loss Feeder Loss at P	Lb	dB	1	J.6 ***				
Feeder Loss at P Feeder Loss at Q	Lf1 Lf2	dB		4.3 ###				
Net Loss (50%)	Lr2 Ln	dB 	1	97.6 ***				
Median Noise(50%)			1					
Figure of Merit	Fm	dB		165.0				
Signal/Thermal Noise	S/Nta	dB		67.4 ***				
Thermal Noise	Nta	pWOp		182.8 ***				
Equipment Thermal Noise	Nte	pWOp		200.0				
Intermodulation Noise	Nim	pWOp	-	240.0				
Interference Noise Radio Link Noise	Nif	pWOp		722.0 ***				
Carrier Multiplex Noise	Npr	qOWq qOWq		190.0 ***				
Total Noise	Npm Np	pwOp pWOp		912.8 *** 68.4 ***				
Signal/Total Noise( > 57/50 dB)	S/Np_	dB	<u>i</u>	68.4 ***				
Short Period Noise(99.9%)		]	-	11.9 ***				
Fading Depth	Af	dB		56.4 ***				
Signal/Thermal Noise	S/Nta	dB		2291.0 ***				
Thermal Noise	Nta	pWOp	1	2831.8 ***				
Radio Link Noise	Npr	pWOp	]	3021.0 ***				
Total Noise	Np S/Np	pWOp dB	1	55.2 ***				
<u>Signal/Total Noise</u> Fading Margin	<u>19700</u>	<u> </u>	†	37.0				
Tx Output Power	Pt	dBm	ļ	-68.6 ***				
Rx Input Level(50%)	Pri	dBm	1	-95.0				
Threshold Level	Pth	dBm		34.4 ***				
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	<u> </u>					
Program No. Antenn	a Gain (	dBi)	Feeder I	.oss(dB/m)				
	. Yagi		RG-17 /1	0.14				
24 ch, 5W : T302 1.2 mØ	Para.	18	H13	0.091				
24 ch, 100W 17303	11 J	21	H20	0.052				
<b>330.0</b> 02A 02A		23.5	A20	0.048				
Mux Noise(pWOp) 3.0			A39	0.026				
460 SG/380 G 4.2		28.5		а				
310 GC/230 R 6.0	•••	32	•					

UHF SYSTEM PERFORMAN (900 MHz, <del>24 ch</del> /120 ch, 5				2 L 1	5313-1
Station P Chiangmai	T.#=		ion 0	Ban Pak Tang	
Path Type: L/S (no reflection),	He_D	iffract	10nigor	mara Pinn p	
Antenna Height		ĥa	m .	40	+ Infah alson
Antenna Type & Size (Yeal, Parabo	lic)		me		3 Action Contraction States
Antenna Gain		Ga	dBi	23:5 H20	H20
Feeder Type		lf		50	
Feeder Length			m dB	2.6	
Feeder Loss(ha + 10) x ALf		<u> </u>			
Antenna Height at P Antenna Height at Q		hai ha2	m m		1 11.148.81.1.2.00 mA-
Path Loss		1142		n an	
Path Distance		d	km	•	155531 <b>3712</b> -6 <b>444</b> (5)
Free Space Propagation Loss		Lo	dB	。 至一时0-1-1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Additional Propagation Loss (50%	0 1	La	dB 🖂		
Total Propagation Loss(50%)		Lp	dB	gared terris	
Required Antenna Gain		Ga	dB		44.8 <b>**</b> *
Antenna Gain at P		Gal	dBi		23.5 ***
Antenna Gain at Q		Ga2	dB1		23.5 <b>***</b> 5 0
Branching Loss		Lb	dB	144	2.6: 2342
Feeder Loss at P		Lfl Lf2	dB dB		1.3 ***
Feeder Loss at Q		_Lız	dB		91.8. ***,
Net Loss(50%) Median Noise(50%)				. (20	Para Prof. Cont. 28.28
Figure of Merit		Fm	dB	500 717	160.0
Signal/Thermal Noise		S/Nta	dB		
Thermal Noise		Nta	pWOp		151.0 ***
Equipment Thermal Noise		Nte	pWOp	avin'i Gaara	222 9
Intermodulation Noise		Nim	pWOp	ೆ ನಿಜನಿಗಳ ಕಾಂಗ	ខ្មែរ ខ្
Interference Noise		Nif	pWOp	e estad	591 8 24
Radio Link Noise	1 <b>.</b> .	Npr	יַר <b>יק0</b> אַק	setu setu	230.0 ****
Carrier Multiplex Noise	i.	Npm	pWOp	suive retail	921.8 ***
Total Noise		Np	pWOp dB		68.4 ***
Signal/Total Noise( > 57/50 dB	<u></u>	S/Np		مرهدي ومستعلم المراجع بالتنابي والمستعلم والمستعلم والمستعلم والمستعلم والمستعد والمستعد والمستعد والمستعد والم	n an ann an a
Short Period Noise(99.9%)		Åf	dB		16.8 ***
Fading Depth Signal/Thermal Noise		S/Nta	dB		1410 <b>22.253 ###</b> 14502 <b>5. 0</b> 12 <b>4#</b> #
Thermal Noise		Nta	pWOp		8 6565.0x2 ***
Radio Link Noise		Npr	pWOp		6796.0
Total Noise		Np	pWOp		51.7 ***
Signal/Total Noise		S/Np	dB		
Fading Margin					37.0 sector
Tx Output Power	•	Pt	dBm	704	-54.8-0#1+
Rx Input Level(50%)		Pri	dBm	ей (50%)	
Threshold Level	]	Pth	dBm		35.2 ***
Margin to Threshold(50%) ( $\geq$ 33	dB)	Mth 👘	dB 🤤		IT 53 HEADEM
Program No. A	ntenna	Gain (	dBi)	Feeder	Loss(dB/m)
		Yagi		102 RG-17./	ue . 0.14
24 ch, 5W : T302 1	.2 mØ	Para.	18	ុុភូភូមិ13	0.091
24 ch, 100W : T303	.8		i 21	COE <b>H2O</b> (10)	0.052
2	.4		23.5	A20	0.048
	.0	••	26		(1) = 0.026 <sub>UM</sub>
	.2	**	28.5		SETCE COE
	.0 .0	11 (a) 11 (a)	32 34.5	81.03	CV07-647

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UHF SYSTEM PERFORMANCE (900 MHz, -24-eh/120 ch, 5 W/10			Path No. 5313	-2
Station P Ban Pak Tang 🖛 H		ion Q	Doi Chiang Dao	T 🛱
Path Type: 1/S (me reflection), Ht.	Diffract	tion=	P	Q.
Antenna Height	ha	m	30	18
Antenna Type & Size (Yagi, Persbolio)		Ele.	14	14
Antenna Gain	Ga	dBi	15	15
Feeder Type		ł	H20 H24	
Feeder Length	1f	m	40	28
Feeder Loss(ha + 10) x <u>ALf</u>	Lf	dB	2.1	1.5
Antenna Height at P	hal	m	30.	8 ***
Antenna Height at Q	ha2	m		
Path Loss		<u> </u>		•
Path Distance	d	km	14.	8 ***
Free Space Propagation Loss	Lo	dB		9 ***
Additional Propagation Loss(50%)	La	dB		ð ***
Total Propagation Loss(50%)	Lp	dB		9 ***
Required Antenna Gain	Ga	dB	-	4 ***
Antenna Gain at P	Gal	dBi		e ***
Antenna Gain at Q	Ga2	dBi		0 <b>**</b> *
Branching Loss	Lb	dB	5.	
Feeder Loss at P	Lf1	dB		1 ***
Feeder Loss at Q	Lf2	dB		5 ***
Net Loss(50%)	<u> </u>		93.	4 ***
Median Noise(50%)			150	a
Figure of Merit	Fm	dB	160.	
Signal/Thermal Noise	S/Nta	dB	215,	
Thermal Noise	Nta	pWOp	120.	
Equipment Thermal Noise	Nte	pWOp	288.	
Intermodulation Noise	Nim	pWOp	246.	
Interference Noise	Nif	pWOp		9 <b>*</b> **
Radio Link Noise	Npr	pWOp	8.	8 ***
Carrier Multiplex Noise	Npm	pWOp	759.	8 ***
Total Noise	Np	pWOp	61.	2 ***
Signal/Total Noise( $\geq 57/50 \text{ dB}$ )	S/Np_		+	
Short Period Noise(99.9%)	1	מג		0 ***
Fading Depth	Af S/Nta	dB dB		6 ***
Signal/Thermal Noise	( ·	1		8 ***
Thermal Noise	Nta	pWOp		8 ***
Radio Link Noise	Npr	pWOp		8 ***
Total Noise	Np S/Np	pWOp dB	54.	5 本本本
Signal/Total Noise	-+ <u>~~</u>	<u>├</u> . ₩ <sup>2</sup>	37.	<u></u>
Fading Margin Tx Output Power	Pt	dBm		0 4 ≭≭≭
Rx Input Level(50%)	Pri	dBm	-98.	
Threshold Level	Pth	dBm		6 ***
Margin to Threshold (50%) ( $\geq$ 33 dB)		dB		- ,
		·L	1	
	na Gain(		Feeder Loss(d	.14
120 ch, 5W : T301 14 el				.14 .091
	Ø Para.	18 21		.052
24 ch, 100W : T303 1.8	11			.048
800.0 2.4	n	23.5 26		.048
Mux Noise(pWOp) 3.0		-	K2A ()	.020
460 SG/380 G 4.2		28,5		
310 GC/230 R 6.0	11			

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UHF SYSTEM PERFORM	ANCE		I ATION	Path'No.	
(900 MHz, <del>24 ch</del> /120 ch,					
Station P Doi Chiang Dao	Т.#	Stat	ion O	Doi Pha Hong	5 .n. 5
Path Type: L/S (no reflection	ı), <del>41</del>	Diffrac	tim 💷	E/S (amg refie	. ‡श्रह¥्रि <b>Q</b> !ःश्वर्त
Antenna Height	· · ·	ha	m	< <b>18</b> . J;:	LAN BRYBER
Antenna Type & Size (Yagi, Pure	bolic)	4,477	mp	1381 94.2 4.	QUE ANDRIS.
Antenna Gain	( <u>1</u> 4	Ga	dBi	18	100 BR2/84
Feeder Type				H20	·H20 100643
Feeder Length	(	1f	m		Road 228 and
Feeder Loss(ha + 10) x 1Lf		Lf	dB		anod var/AS
Antenna Height at P	• • • • •	hal	m	T 36 3d	18.0 ***
Antenna Height at Q	an a second	ha2_	. m	0-46 <b>1</b> 6	18.0 ***
Path Loss	1	1.1.1.1.1.1.1	$S_{\rm eff} = -2$	1	the stand of the second second
Path Distance	. :	d	km		3.45 6 SAN
Free Space Propagation Loss		Lo	dB <sup>ass</sup> ∕s	nelagnears.	12511 (1444)
Additional Propagation Loss(	50%)	La	<sup>13</sup> dB <sup>240</sup>	() repagation	1040 <b>20</b> 20 <b>**</b> *
Total Propagation Loss(50%)		Lp	dB <sup>1</sup>	) FROST OF COSA	
Required Antenna Gain	· · · ·	Ga 🧊	dB :	also sonola	
Antenna Gain at P	an an saidh An Annaichte	Gal	dBi		18.0 ***
Antenna Gain at Q	1 1 1 A	Ga2	dBi	1	21-8-2***
Branching Loss	14	Lb	dB		na 5₽0erati.
Feeder Loss at P	· · · · · · · · · · · · · · · · · · ·	Lfl	dB		od 1.500***
Feeder Loss at Q		Lf2	dB		いま <b>1-5</b> (本本社)
Net Loss(50%)	<u> </u>	<u> </u>	<u>dB</u>	🖢 en tra su	94.0 (***)
Median Noise(50%)	÷				
Figure of Merit		Fm	dB	1441 (1 1476) - Holling (1474)	168.8
Signal/Thermal Noise	1799 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	S/Nta	dB	1991년 - 1991년 1991년 - 1991년 - 1991년 1991년 - 1991년	251.8 ***
Thermal Noise	· · · ·	Nta	pWOp		198.6
Equipment Thermal Noise		Nte	рWOр	Marris Colla atleo 3055	
Intermodulation Noise		Nim	pWOp	and the second of the second secon Second second	240.0
Interference Noise	· · · ·	Nif	pWOp	· · · · · · · · · · · · · · · · · · ·	791.0 ***
Radio Link Noise		Npr	pWOp		0.0 ***
Carrier Multiplex Noise	1	Npm	קWOp	second confidents	791.8 ***
Total Noise		Np	pWOp		61.0 ##*
Signal/Total Noise( > 57/50	<u>dB</u> }	S/Np	dB		
Short Period Noise(99.9%)	ſ				17.0 ***
Fading Depth		Af	dB	n an an daoine an	49.6 ***
Signal/Thermal Noise	.	S/Nta	dB	see a Contra	2589.0 ***
Thermal Noise		Nta	pWOp		3125.0 ***
Radio Link Noise		Npr	pWOp		3129.6
Total Noise		Np S (N-	pWOp		48.8 ***
Signal/Total Noise Fading Margin		S/Np	dB		37 <b>.0</b> 261-020
Tx Output Power		Pt			-5720 ***
Rx Input Level(50%)		Pri	dBm		-98.8
Threshold Level			dBm		· 33.0 · ***
Margin to Threshold(50%)( $\geq$	22 101	Pth	dBm	,1997年1月 1993年1月1日(1993年1月) 1993年1月1日(1993年1月)	
	<u>, (an cc</u>	Mth	dB		
Program No.	Antenna	Gain (a	iBi)	Fooder In	ss(dB/m)
120 ch, 5W : T301		Yagi		RG-17 /U	
24 ch, 5W : T302	1.2 mØ		18	H13 ×C	
24 ch, 100W : T303	1.8	H ~.	21	H20 0001	
2- ung 2000 1 2000	2.4	11	23.5	A20	0.048
Mux Noise(pWOp)	3.0	11	26		0.040
460 SG/380 G	4.2	n (*	28.5		17. 1788
	6.0	a 6.,	<sup>2</sup> 32		
310 GC/230 R	0.11		3/		

UHF SYSTEM PERFORMAN (900 MHz, 24 chr/120 ch, 5			LATION	Path No	5313-4	- -
Station P Doi Pha Hong	<b></b> . R	Stat	ion Q	Fang		Tr
Path Type: L/S (no reflection),	Nr.D	LCCruct	- <u>j.un</u> -	P		Q
Antenna Height	1	ha	m	18		33 :
Antenna Type & Size (Yagi, Parabo	lic)	1.111	mø	1.2		1.8
Antenna Gain	1 - A	Ga	dBi	18		2/
Feeder Type	· ·	2.5	ļ	H20 28	H20	43
Feeder Length Feeder Loss(ha + 10) x <u>Alf</u>	· · · ·	lf Lf		1.5		<u>43</u> 2.2
Antenna Height at P		hal	dB	//-3		
Antenna Height at Q		hai ha2	) m m	t	18.0	
Path Loss		······································		<u> </u>	33.0	***
Path Distance	·	d	km		· · · · · · · · · · · · · · · · · · ·	***
Free Space Propagation Loss		Lo	dB		122.3	
Additional Propagation Loss (50)	%)	La	dB	l È	0.9	
Total Propagation Loss(50%)		Lp	dB 👘		122.0	
Required Antenna Gain	]	Ga	dB		36.7	い東東県
Antenna Gain at P	• •	Ga1	dBi		18.0	
Antenna Gain at Q	1 - 1 - 1	Ga2	dBi	]	21.8	- 李孝浩
Branching Loss	]	Lb '	dB	]	5.8 1.5	19-19-1
Feeder Loss at P	]	Lfl	dB	1	2.2	_ 北東市 
Feeder Loss at Q Net Loss(50%)	<b></b>	Lf2 Ln	dB dB	1	91.7	
Median Noise(50%)			<u> </u>	1		
Figure of Merit	. ]	Fm	dB	] .	160.0	
Signal/Thermal Noise	<b>)</b>	S/Nta	dB	1	69.3	
Thermal Noise	·	Nta	ъWOр		143.8	素業者
Equipment Thermal Noise		Nte	pWOp		188.0 280.0	
Intermodulation Noise	1	Nim	pROp		240.0	
Interference Noise		Nif	pliOp		688.0	<b>*</b> **
Radio Link Noise	1	Npr	pWOp	1	230.0	
Carrier Multiplex Noise	[	Npm	pWOp		918.9	***
Total Noise Signal /Total Noise( > 57/50 dl	_、	Np S/Np	pWOp dB		60.4	***
Signal/Total Noise( $\geq$ 57/50 dI	<u>97</u>	<u>97 NP</u>	<u> </u>	╆		
Short Period Noise(99.9%) Fading Depth		Af	dB		15.0	
Signal/Thermal Noise		S/Nta	dB		53.3 4677.0	
Thermal Noise	}	Nta	pWOp	}	5217.e	
Radio Link Noise		Npr	pWOp	1	5447.0	
Total Noise	ł	Np	pWOp	1	52.5	
-Signal/Total Noise		S/Np	dB	<u> </u>	~	
Fading Margin		_	}	1	37.6	
Tx Output Power		Pt	dBm	1	-54.7	***
Rx Input Level(50%)	(	Pri	dBm	{	-90.6	مالد دل
Threshold Level		Pth	dBm	{	35.3	承求者
Margin to Threshold( $50\%$ ) ( $\ge$ 33	3 dB)	Mth	dB	<u> </u>		
Program No. A	ntonna	Gain(	dBi)	Feeder	Loss(dB/r	n)
		Yagi		RG-17 /1		
24  ch, 5W : 1301 1 24 ch, 5W : T302 1	.2 mØ	Para.	18	H13	0.09	
	.8	11	21	H20	0.0	
	.4	**	23.5	A20	0.04	
	3.0	п.,	26	A39	0.0	26
460 SG/380 G 4	.2	0	28.5			
310 GC/230 R	0	11	32			
··· · · · · · · · · · · · · · ·	.0	11 - L	34.5			

UHF SYSTEM PERFORM (900 MHz, 24 ch/ <del>129 ch</del> ,				
Station P Fang	T.#	Stat	<b>1</b> on 0	Mae Aig Log Y no dt
Path Type: L/S (as reflection)	), -HaI	LEEreet	<b>10</b> - 1-1	mail in Paral 21 1
Antenna Height		ha	ំពា 👘	JJ TADIAH DOJA
Antenna Type & Size (Yagi,Para	bolic)		Ele, MO	minuspirit 12pt and south sugar
Antenna Gain		Ga	dBi	14. A PART 18.
Feeder Type	•			H20 H20
Feeder Length	4.	[] <b>1f</b>	m	43
Feeder Loss (ha + 10) x ALf		Lf	dB	A Constraint of the second sec
Antenna Height at P		hal	m	1 26 28 33. 810 ***
Antenna Height at Q		ha2	·m .×	() 11. Jan 33. 611 ***
Path Loss		d	km	81100 1155 Artes 1 5 10 11 15
Path Distance		1 • -		aonad <b>:5.8</b> (###) 1 Aoi teopoeti a <b>114:3</b> e###
Free Space Propagation Loss		Lo La		El mont construction de 1440 commune El mont construction de 6. De 1444
Additional Propagation Loss(5	50%)			1997 - 1997 - 1997 - 1997 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1999 - 1999 - 1997 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 -
Total Propagation Loss(50%)		Lp Ga	dB dB	38.8 m
Required Antenna Gain		Gal	dBi	No. 1st artist 14.0元の支援人
Antenna Gain at P	÷	Ga1		
Antenna Gain at Q Branching Loss	· · · · ·	Lb	dB	Central of 5. Page VI
Feeder Loss at P		L5 Lf1	dB	1. HE C. 2. 2. 1. 19
Feeder Loss at r Feeder Loss at Q		Lf2	dB	1
Net Loss (50%)		Ln	dB	/
Median Noise(50%)				COUNTER COLOR
Figure of Merit		Fm	dB	(-06) - 165.0 (151) - 1 1 (151) - 165.0
Signal/Thermal Noise		S/Nta	dB	67.2 ***
Thermal Noise		Nta	pWOp	191.0 ***
Equipment Thermal Noise		Nte	р₩Ор	estado Parisia 200.0 mpa
Intermodulation Noise		Nim	pWOp	248.0 ·····
Interference Noise		Nif	pWOp	
Radio Link Noise	1.01	Npr	р₩Ор	
Carrier Multiplex Noise		Npm	рЮр 👘	92344 XG24C 314 92120 X ###
Total Noise		Np	pWOp	60.4
Signal/Total Noise( > 57/50	<u>dB) '</u>	S/Np.	dB	and the second
Short Period Noise(99.9%)		·		175.94765295 Bog 1128 .****
Fading Depth		Af	dB	56.2 ***
Signal/Thermal Noise		S/Nta	dB	00.1 · · · · · · · · · · · · · · · · · · ·
Thermal Noise		Nta	pWOp	2939.0. ***
Radio Link Noise		Npr	pWOp	····································
Total Noise		Np S/Np	pWOp dB	
Signal/Total Noise		<u></u>		er 1 37:0 antis
Fading Margin Tx Output Power		Pt	dBm	των χ∃ <del>τ</del> 60.8⊖ <b>**</b> *
Rx Input Level(50%)		Pri	dBm	1919 Laved -95.01 X8
Threshold Level		Pth	dBm	34.2.***
Margin to Threshold (50%) ( $\geq$	33 dB)	Mth	dB.	subjected sparts as entry test
			•n < `	
-	Antenn			Feeder Loss (dB/m)
120 ch, 5W : T301		. Yagi		RG-17 /U 0.14
24 ch, 5W : T302		Para.	18	(1));(H13 );; (0,091 );; (0,052
24 ch, 100W : T303	1.8		21	A20 0.048
	2.4 3.0		23.5	A39 (044) and 0:0264
	3.0		20	NJJ GURG HERIUNUSUS
Mux Noise(pWOp) 460 SG/380 G	4.2	11	28.5	660 SC/380 G

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UHF SYSTEM PERFORMANCE (900 MHz, <del>24 ch</del> /120 ch, 5 W/ <del>10</del>	CALCU	LATION	Path No.	5313-6	
Station P Doi Chiang Dao T.#	- Stat	ion O	Chiang Dao		T
Path Type: L/S (me reflection), Ht.	Diffred		Р	1 Q	
Antenna Height	ha	m ·	18	3.	3
Antenna Type & Size (Yagi, Parebolic)	4	Ele	14.	14	٢
Antenna Gain	Ga	dBi	15		<u> </u>
Feeder Type		ļ	H20 28	H20	<u></u>
Feeder Length	lf	m		48	
Feeder Loss(ha + 10) x <u>Alf</u> Antenna Height at P	<u>Lf</u>	dB	1.5	<u>Ļ</u>	2.2
Antenna Height at Q	hal	m		18.0 *	
Path Loss	ha2		·····	33.0 *	rakuji:
Path Distance	đ	km			
Free Space Propagation Loss	Lo	dB		• • •	147 147
Additional Propagation Loss(50%)	La	dB			****  実
Total Propagation Loss(50%)	Lp	dB			1910) 1910)
Required Antenna Gain	Ga	dB			ak.y
Antenna Gain at P	Gal	dBi			<b>\$</b>
Antenna:Gain at Q	Ga2	dBi			建熟
Branching Loss	Lb	dB		5.0 1.5 ×	akur
Feeder Loss at P Feeder Loss at Q	Lfl Lf2	dB	· · ·		कर इन्द्र
Net Loss at Q	Ln	dB dB	}		
Nedian Noise(50%)		<u>  ""</u>	<u></u>		
Figure of Merit	Fm	dB	}	160.0	
Signal/Thermal Noise	S/Nta	dB			( <b>*</b> *
Thermal Noise	Nta	pWOp		** * · · · · · · · · ·	<b>.</b>
Equipment Thermal Noise	Nte	pWOp		100.0 200.0	
Intermodulation Noise	Nim	pWOp		248.6	
Interference Noise	Nif	pWOp			жъ
Radio Link Noise	Npr	pWOp		310.0 *	\$\$
Carrier Multiplex Noise Total Noise	Npm Np	pWOp pWOp	· . · · ·	1084.0 *	
Signal/Total Noise( > 57/50 dB)	S/Np	dB	{	59.6 <b>*</b>	**
Short Period Noise(99.9%)		+	T	+5.0	
Fading Depth	- Af	dB	· · ·	12.0 * 54.3 *	ж» Кф
Signal/Thermal Noise	S/Nta	dB	ł		** `*,*
Thermal Noise	Nta	pWOp			19 18 - F
Radio Link Noise	Npr	pWOp		4565.0 *	<b>3</b> 3
Total Noise	Np	pWOP		53.4 *	9 V
<u>Signal/Total Noise</u>	S/Np	dB	<del> </del>		
Fading Margin	Pt	20-	ļ	37.0 -56.7 *	n é
Tx Output Power Rx Input Level(50%)	Pri	dBm dBm		-56.0	
Threshold Level	Pth	dBm		33.3 *	хж
Margin to Threshold(50%) ( $\geq$ 33 dB)		dB	ļ		
			P	oss(dB/m)	
Program No. Antenn	a Gain ( 2. Yagi		RG-17/U		
	h Para	18	H13	0.091	
24 ch, 5W : T302 1.2 mg 24 ch, 100W : T303 1.8	u .	21	H20	0.052	
	11	23.5	A20	0.048	
BAG(1)         2.4           Mux Noise(pWOp)         3.0		26	A39	0.026	
460 SG/380 G 4.2	<b>H</b>	28.5			
310 GC/230 R 6.0	а. <b>Н</b> у	32			
8.0	, <b>11</b>	34.5			

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UHF SYSTEM PERFORMANCE (900 MHz, 84-ch/120 ch, 5 W/		LATION	)-1;	YR HU 5313-7
			Do1 Mu Soe	₹ π(13832 <b>₽-,</b> R
Path Type: L/S (no reflection),	-Diffree	ion 2012.	policingenes) Ely	Ling Torizati
Antenna Height	ha	m	18 3	10
Antenna Type & Size (Vegé, Parabolic	)	1 <b>Mø</b> st	(志告母本)(治/.2 中)	1493 STD9/223
Antenna Gain	Ga	dBi	18	TERU BETBERE
Feeder Type			H20 28	H20 Tobast
Feeder Length	lf Lf	m dB		- adout THI/25
Feeder Loss(ha + 10) x <u>4Lf</u>	hal	m	1 26 14	alch summers
Antenna Height at P	ha1		().0 s. st	18.0 *** 18.6 ***
Antenna Height at Q	- 1182		and the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Path Distance	a	kom		29.8 ***
Free Space Propagation Loss	Lo	dB	1. 上の1.1日本レクトリーモー	10101 A
Additional Propagation Loss (50%)	La	dB	i en stats stats.	0.0 xxx
Total Propagation Loss(50%)	Lp	dB	) wert wordt me	·· 121.0 ·· ***
Required Antenna Gain	Ga	dB	• se comme	54.79 arxi
Antenna Gain at P	Gal	dBi	1 12 3a	
Antenna Gain at Q	Ga2	dBi		8 <b>€18:0 : ***</b> 20 <b>5:8</b> :5:€
Branching Loss	LP	dB		202 <b>125</b> 25444
Feeder Loss at P	Lf1	dB	)	200312532###
Feeder Loss at Q	Lf2	dB	L	592 <u>59</u> 5***
Net Loss (50%)	<u> </u>	dB	the second second second second second	- 1405 HALLAN
Median Noise(50%)	Fm	dB		. 163.9 Jate
Figure of Merit	S/Nta	dB		36 67 1 a #**
Signal/Thermal Noise Thermal Noise	Nta	pWOp		195.0 ***
Equipment Thermal Noise	Nte	pWOp	and a the family of a second second	··· 100.0
Intermodulation Noise	Nim	pWOp	anisti geta	200.0 511
Interference Noise	Nif	pWOp	etter Aliga	246.8
Radio Link Noise	Npr	pWOp	· 영국값 강환	735.0 ***
Carrier Multiplex Noise	Npm	pWOp		735.0 ***
Total Noise	Np	pWOp	a Den de desta	61.3 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB		يا يو هر هر هر هر از ان
Short Period Noise(99.9%)				15.0 ***
Fading Depth	Af	dB		52.1 ***
Signal/Thermal Noise	S/Nta	dB		6166.0 ***
Thermal Noise	Nta	pWOp	120 M. 184	6786.8 **
Radio Link Noise	Npr	pWOp	** 3/5*** 	6706.0 *** 51.7 ***
Total Noise	Np S/Np	pWOp dB		ang Kanata
<u>Signal/Total Noise</u> Fading Margin	<u></u>			37.18 artas
Tx Output Power	Pt	dBm	1.25.25	
Rx Input Level(50%)	Pri	dBm	12719月3天夜雨	-90701 x3
Threshold Level	Pth	dBm		5 34 1 · · · · · ·
Margin to Threshold(50%) ( $\geq$ 33 dB	-	dB	Перенала (чер	of algebi
120 ch, 5W: T30114 e24 ch, 5W: T3021.224 ch, 100W: T3031.8	nna Gain( le. Yagi mØ Para. "	15 18 21	66 RG-17 /U 66 H13 66 H13 H20 W003	····0.091
2.4		23.5	A20	0.048
Mux Noise(pWOp) 3.0	11	26		1) 9207026 <sup>98</sup>
460 SG/380 G 4.2	11 .	28.5		1.08-044 
310 GC/230 R 6.0	<b>19</b> (	32	這一行動力	310 60/8

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UHF SYSTEM PERFORMANCE (900 MHz, 24 ch/120 ch, 5 W/4		LATION	Path No	5313-8	
Station P Doi Mu Soe		ion Q	Phrao		T
Path Type: L/S (no reflection), He-	Diffrac	tion:	Р		0
Antenna Height	ha	m	18		33
Antenna Type & Size (Yagi, Perebolic)	ł	Ele.	8		8
Antenna Gain	Ca	dBi	/2		72
Feeder Type		1.	H20	H20	
Feeder Length	1f	) m	28		<b>4</b> 3
Feeder Loss (ha + 10) x 4Lf	Lf	dB	1.5	<u> </u>	7.2
Antenna Height at P	hal	m	) ´	18.0	***
Antenna Height at Q	ha2	m	1	33.0	
Path Loss			1		
Path Distance	d	km		7.1	
Free Space Pronagation Loss	Lo	dB		108.5	
Additional Propagation Loss(50%)	La	dB		8.6	***
Total Propagation Loss(50%)	Lp	dB		108.5	***
Required Antenna Gain	Ga	dB	}	23.2	
Antenna Gain at P	Gal	dBi		12.0 12.0	斯斯特 斯斯特
Antenna Gain at Q Branching Loss	Ga2	dBi		:2.0 5.0	***
Feeder Loss at P	Lb	dB	1	1.5	*** .
Feeder Loss at Q	Lf1 Lf2	dB	1	5.2	- 577 - 587
Net Loss (50%)		dB dB	1	93.2	
Median Noise(50%)			<b>+</b>		
Figure of Merit	Fm	dB	}	160.0	
Signal/Thermal Noise	S/Nta	dB		6 <b>8.</b> 8	***
Thermal Noise	Nta	pWOp		205.0	**
Equipment Thermal Noise	Nte	pWOp		198.8	
Intermodulation Noise	Nim	pWOp		200.0	
Interference Noise	NIE	рЮр		240.0 749.0	***
Radio Link Noise	Npr	pWOp		238.0	
Carrier Multiplex Noise	Npm	pWOp	Ì	979.8	
Total Noise	Np	pWOp		60.1	
Signal/Total Noise( $\geq$ 57/50 dB)	S/Np	dB	<u> </u>		
Short Period Noise(99.9%)				9.0	建苯基
Fading Depth	Af	dB	1	57.8	
Signal/Thermal Noise	S/Nta	dB		1660.0	
Thermal Noise	Nta	pWOp	Į	2200.0	
Radio Link Noise	Npr	pWOp	ļ	2430.0	
Total Noise Signal (Tabal Naise	Np S/Np	pWOp dB		56.1	₽.₽.₽
<u>Signal/Total Noise</u> Fading Margin		1	<u>†</u>	37.8	
Tx Output Power	Pt	dBm	ł	-56.2	**3
Rx Input Level(50%)	Pri	dBm	ł	-96.0	
Threshold Level	Prh	dBm	ł	33.6	<b>米</b> 草水
Margin to Threshold (50%) ( $\geq$ 33 dB)		dB	4		
			<b>1</b>		
	nna Gain (		Feeder L		
120 ch; 5W : T301 14 el		15	RG-17 /U		
	nØ Para.	18	H13	0.0	
24 ch, 100W : T303 1.8		21	H20 A20	0.0	
2.4 ····································		23.5	A20 A39	0.0	
Mux Noise(pWOp) 3.0		26	AJY	0.0	ĻŪ
460 SG/380 G 4.2		28.5			
310 GC/230 R 6.0	, <b>1</b>	32 34,5	· · · · · ·		

## UHF SYSTEM PERFORMANCE CALCULATION Path No.ve HU (900 MHz, 24 ch/120 ch, 5 W/109 W)

(900 MH2, <u>24 ch</u> /120 ch, :		an an ann an Thean anns an an A	nen onende organiseren foore	an an th' Direction and the second	Al and an arrive
Station P Mae Rim	T atta	na in minataire.	ion O	Chiangmai	9 ຄະໄຊສາງ 3 <b>1-3</b>
	, Mt. 'D	iffract	ion	(5 (nogration	
Antenna Height	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	ha	m	68	sion 540.06
Antenna Type & Size (Yegi, Parabo	olic)		mø	1.2 32 412 A	
Antenna Gain	5 g.	Ca	dBi	28.5	11 64 BASS
Feeder Type	2	í		420	H20 192991
Feeder Length	:	1f	m	78	reelet Least
Feeder Loss (ha + 10) x 4Lf	1. i.e.	···· Lf.··· ··	dB	14.1 (14.1 a)	1 280. 39 <b>2.6</b> :
Antenna Height at P		hal	,m	1 BB 4	181 66. 8009,1m
Antenna Height at Q	د. ۱۹۰۰ و الم ۱۹۰۰ و در در در	ha2	m	5 30 J	40.005.00
Path Loss		; ·			CARAND JERREY
Path Distance		d	km		ામહત્વકોંટ વાંગ્રકોં
Free Space Pronagation Loss		Lo	dB	1 golusyscorf	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Additional Propagation Loss(50	)%)	La	dB	1 milantegool	20.0
Total Propagation Loss(50%)		Ĺp	dB 👘	Clean action	
Required Antenna Gain		Ga	dB		6 <b>51:8</b> 24**
Antenna Gain at P		Gal 👘	dBi		1 9 <b>928.5</b> 93 <b>8</b> 4
Antenna Gain at Q		Ga2	dBi		LSO 23:5 S 3:44
Branching Loss	. '	Lb '	dB		1 (n <b>5,20</b> sev8
Feeder Loss at P		Lf1	dB		ranifilanti
Feeder Loss at Q	-	Lf2	dB		an 12n6dadaa
Net Loss(50%)		- Ln 🔜	dB	The second	07 5 <b>93. 0</b> (78)
Median Noise(50%)					Real off the list of
Figure of Merit		Fm	dB	D.L.L.	1 <b>60.0</b> 055
Signal/Thermal Noise		S/Nta	dB		- 57.0 A49
Thermal Noise		Nta	pWOp		208.0
Equipment Thermal Noise	٢	Nte	pWOp	in a card in a strategy of	
Intermodulation Noise		Nim	pWOp	nation indep	200
Interference Noise		NIE	pWOp	sa si si s	740.0
Radio Link Noise		Npr	pWOp	28 J. J. Co.	468.0 ***
Carrier Multiplex Noise		Npm	pWOp	laatett en faltz	1268.0 ***
Total Noise		Np	pWOp	· ·	59.2
Signal/Total Noise( > 57/50 d	B)	S/Np	dB	n in head and in the	RECTORNED
Short Period Noise(99.9%)		1		of the group of the	10.6 10.1d
Fading Depth		Af	dB	1	57.0 ***
Signal/Thermal Noise		S/Nta	dB	ा सम्बद्धाः ⊉र्षद	1995.0 **
Thermal Noise		Nta	pWOp	. 1	- 2535-0 - **
Radio Link Noise	· .	Npr	pWOp	36168	2995.0
Total Noise		Np	pWOp		983 <b>55. 2</b> 8 ¥¥¥
Signal/Total Noise		S/Nn	dB		ndorNinnaith
Fading Margin					als <b>37.0</b> and set
Tx Output Power		Pt	dBm	143 W 14	° -56.0° +≠∓
Rx Input Level(50%)	1	Pri	dBm	은 그는 바람이 있었다.	64 <b>-90:0</b> 3 ×2
Threshold Level	:	Pth	dBm		1 a <b>34:0</b> 20 <b>#</b> 12
Margin to Threshold(50%) ( $\geq$ 3	3 dB	Mth	dB	(Commission Contension	t of Antonia
	· · ·	a Gain (		Fooder I	oss(dB/m)
		Yagi			े , <b>≓0.1</b> 4
	14 ere. 1.2 mØ		18	CCH13 W	
and any and the second		Para.	21	EEE H20 M00	1 . 0.052
	1.8	н		A20	0.048
	2.4		23.5		n) a=0.2026 <sup>um</sup>
	3.0		·· 26		EVDS (140204)
-	4.2		28.5		5\08-0IE
310 GC/230 R	6.0	n en se	32 34 <b>.</b> 5		·····································

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UHF SYSTEM PERFORMANCE (900 MHz, <del>24 ch</del> /120 ch, 5 W/ <del>10</del>	Path No. 53	13–10		
Station P Mae Rim TA	Stat	ion Q	Mae Taeng	
Path Type: L/S (no reflection), Ht.	Diffree	tion=	P	Q
Antenna Height	ha	m	68	5
Antenna Type & Size (Lagi, Parabolic)		mø	2.4	
Antenna Gain	Ga	dBi	23,5 H20 H	20
Feeder Type Feeder Length	lif		78	20
Feeder Loss (ha + 10) x ALf	Lf	dB	4.1	
Antenna Height at P	hal			
Antenna Height at Q	ha1	m		68.0 * 57.9 *
Path Loss		╉╼┈╨━╍╼	<b> </b>	<u> J[:0 ¥</u>
Path Distance	a l	km		22.8 *
Free Space Pronagation Loss	Lo	dB		18.7 *
Additional Propagation Loss (50%)	La	dB		10.0 *
Total Propagation Loss(50%)	Lp	dB	-	28.7 🔹
Required Antenna Gain	Ga	dB		47.2 *
Antenna Gain at P Antenna Gain at Q	Gal	dBi		23.5 * 26.0 *
Branching Loss	Ga2	dBi dB		26.0 ¥ 5.0
Feeder Loss at P	L5 Lf1	dB	{	4.1 *
Feeder Loss at Q	Lf1	dB		3.5 *
Net Loss (50%)	Ln	dB		91.7 *
Median Noise(50%)	1			
Figure of Merit	Fm	dB		60.0
Signal/Thermal Noise	S/Nta	dB		68.3 * 40 0 *
Thermal Noise	Nta	pWOp		48.0 * 06.0
Equipment Thermal Noise	Nte	pWOp	-	88.8
Intermodulation Noise	Nim	pWOp		48.8
Interference Noise Radio Link Noise	NIE	pWOp	. 6	88.0 *
Carrier Multiplex Noise	Npr Npm	pWOp pWOp	2	30.0 *
Total Noise	Npm	р₩Ор		18.0 *
Signal/Total Noise( $\geq$ 57/50 dB)	S/Np	dB		68.4 *
Short Period Noise(99.9%)		{		14.0 *
Fading Depth	Af	dB		54.3 *
Signal/Thermal Noise	S/Nta	dB		15.0 *
Thermal Noise	Nta	pWOp	42	55.8 *
Radio Link Noise	Npr	pWOp		85.0 *
Total Noise	Np S/Np	pWOp dB		53.5 *
Signal/Total Noise			f	37.0
Fading Margin Tx Output Power	Pt	dBm	,	37.0 54.7 *
Rx Input Level(50%)	Pri	dBm		9 <b>0.0</b>
Threshold Level	Pth	dBm		35.3 *
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	l	
set owner date to a set			L	
Program No. Antenr	a Gain(	dB1)	Feeder Loss	
	. Yagi		RG-17 /U	0.14 0.091
	Para.	18	H13 H20	0.052
24 ch, 100W : T303 1.8		21 23.5	A20	0.052
Mux Noise (pWOn)         2.4           3.0	11	23.5	A39	0.040
	*1	28.5	n.77	
	. <b>n</b>	32		
310 GC/230 R 6.0 8.0	et .	34.5		

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## UHF SYSTEM PERFORMANCE CALCULATION PERFORMANCE CALCULATION Station O R de Carte Station P T ==== San'Sai Chiangmai -Path Type: L/S (as reflection), Mr. Diffraction allarPont at Anv70 HAT 38 Ant**Su**n Heir ha Antenna Height m Ele. in the state \$ Si80 9671 2018386 Antenna Type & Size (Yagi, Perch 173 Antenna Gain 12 11.0.07 no/1246k dBi Ga H20 HZD HATANAY Feeder Type David " 43 at 48 1f Feeder Length m (12.5 md 2011 10225 Ĺf dB 1 Feeder Loss(ha + 10) x <u>ALf</u> 2 26 3AUE 38.0 MARA ha1 Antenna Height at P m ha2 to an origi 33.0 atmaxak Antenna Height at Q m Pach Doss Path Loss km d -soanyo**918 if ##**¥ Path Distance Free Space Propagation Loss dBase GOLISSING IS SIIDEBOXXX Ľο 10023 Spagar Ronald Links Additional Propagation Loss(50%) La dB 🖂 **dB** . 26 Jacob Bereiter 112. Easter Total Propagation Loss(50%) Ľρ ふしゅい というかくまたい 23.53 ほぼ長本 Ga dB Required Antenna Gain 1. 48. ALL.12. 0. 1. 18. dBi Gal Antenna Gain at P Ga2 dBi Antenna Gain at Q 1000 105 Bacas Branching Loss Lb dB 2.5 \*\*\* Feeder Loss at P Lf1 dB ( 36 880 2.2 . \*\*\* Lf2 dB Feeder Loss at Q 28,3 \*\*\* Ln dB Net Loss(50%) (202) + 2100 mai bai 165.0 us + 4 165.0 us + 4 165.7 \*\*\* 214.0 \*\*\* 214.0 \*\*\* Median Noise(50%) Fm dB Figure of Merit S/Nta dB Signal/Thermal Noise inarden 1913 ar se 1980 - 1981 ar se totse Equianae Thermal Notes pWOp Thermal Noise Nta 200.0<sup>1008</sup> pWOp Equipment Thermal Noise Nte Intermodulation Noise Nim pWOp NIE pWOp Interference Noise 380.0 tat pWOp Radio Link Noise Nor 98194 Jolarat 113470\*744 pWOp Carrier Multiplex Noise Npm Np pWOp 59.5 Total Noise S/Np dB Signal/Total Noise( $\geq$ 57/50 dB) Short Period Noise(99.9%) AE dB of area 56, 7, 1 \*\*\* Fading Depth S/Nta dB Signal/Thermal Noise • edin v deart 2138∔0n₽≭¥€ pWOp Thermal Noise Nta ⇒ 2678:0° **\***\*\* pWOp Radio Link Noise Npr pWOp 19.265**.1**83**\*\***\* Total Noise Np S/Nn Signal/Total Noise dB al 37:00 niba Fading Margin 14. 151 -51. 30 XXX Pt dBm Tx Output Power e und allerand **-95,0**% with Pri Rx Input Level(50%) dBm 33. 7. . \*\*\* Threshold Level Pth dBm a starte dr. or started Margin to Threshold(50%) ( $\geq$ 33 dB) Mth dB Feeder Loss (dB/m) Antenna Gain (dBi). Program No. RG-17 /U 0.14 14 ele. Yagi 15 120 ch, 5W : T301 : T302 1.2 mØ Para. 18 24 ch, 5W ... 1.8 21 24 ch, 100W : T303 .. A20 0.048 2.4 23.5 .,

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26

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28.5

34.5

3.0

4.2

6.0

8.0

Mux Noise(pWOp)

460 SG/380 G

310 GC/230 R

A39(g(9g) ba.0s/026)\*

A60/386/386 G

310 667/330 8 -

UHF SYSTEM PERFORMANCE		LATION	Path No.	5313-1	2
Station P	Stat	ion Q	Doi Saket		Tri
Path Type: L/S (ne reflection), Ht.	Liferact	den-	P		0
Antenna Height	ha	m	35		33
Antenna Type & Size (Yegi, Parabolic)	[ ] .	mø	/,2		1.8
Antenna Gain	Ga	dBi	18		2/
- Feeder Type Feeder Length		1	H20 45	HZD	43
Feeder Loss (ha + 10) x ALf	lf Lf	d B	2,3		2,2
Antenna Height at P	hal		<.3		
Antenna Height at Q	ha1			35.0	
Path Loss	1142	<u> </u>		33.0	¥#1
Path Distance	a	km	1	18.3	***
Free Space Propagation Loss	Lo	dB	t at states.	116.7	
Additional Propagation Loss(50%)	La	dB		4.0	
Total Propagation Loss(50%)	Lp	dB		120.7	***
Required Antenna Gain	Ga	dB		36.3	• • •
Antenha Gsin at P	Gal	dBi	1.5.5	18.0	
Antenna Gain at Q	Ga2	dBi		21.8	***
Branching Loss Feeder Loss at P	Lb Lf1	dB		2.3	***
Feeder Loss at Q		dB dB		2.2	
Net Loss (50%)	Ln	dB		91.3	
Median Noise(50%)					
Figure of Merit	Fm	dB		168.0	
Signal/Thermal Noise	S/Nta	dB		68.7	
Thermal Noise	Nta	pWOp	1	135.0	本本本
Equipment Thermal Noise	Nte	pWOp		100.0 200.0	
Intermodulation Noise	Nim	pWOp		240.0	
Interference Noise	Nif	pWOp	· ·	675.0	***
Radio Link Noise	Npr	pWOp		460.0	***
Carrier Multiplex Noise Total Noise	Npm Np	pWOp pWOp	) i i i i i i i i i i i i i i i i i i i	1135.0	
Signal/Total Noise( > 57/50 dB)	NP S/Np		1	59.5	***
Short Period Noise(99.9%)	Grav				
Fading Depth	Af	dB	1	13.0 55.7	
Signal/Thermal Noise	S/Nta	dB	[ .	55.7 2692.8	
Thermal Noise	Nta	pWOp		3232.0	
Radio Link Noise	Npr	pWOp		3692.0	
Total Noise	Np	pWOp	l	54.3	
Signal/Total Noise	S/Np	dB	<u> </u>		
Fading Margin	De	I	t	37.0	
Tx Output Power	Pt	dBm	ł	-54.3 -90.0	¥¥ <b></b> ¥
Rx Input Level(50%)	Pri	dBm	(	-90.0	***
Threshold Level Margin to Threshold(50%) ( $\geq$ 33 dB)	Pth Mth	dBm dB	ŕ	0011	ч <b>ч</b> ′т
n na cananana ang panananana na kanananang pananang pananang na		<u> </u>	l		
	a Gain(		Feeder Lo		
120 ch. 5W : T301 14 ele	. Yagi		RG-17 /U	0.1	
24 ch, 5W : T302 1.2 m0		18	H13	0.0	
24 ch. 100W : T303 1.8	**	21	H20	0.0	
555.45 Billion 2.4	11	23.5	A20	0.0 0.0	
Mux Noise(pWOp) 3.0	11 11 j	26 28 5	A39	0.0	20
460 SG/380 G 4.2		28.5 32	14		
310 GC/230 R 6.0		34.5			

UHF SYSTEM PERFORMAN				<b>I</b> 4	2 11414 3 <b>13-13</b>
(900 MHz, <del>24 ch</del> /120 ch, 5				GOSNE W. Albert, S. Elf	(1)() () () () () () () () () () () () ()
Station P Doi Saket	T 🚓		ion Q	San Kam Phaeng	Titer
Path Type: L/S (no reflection), =	Mt-D	iffrac	100	<b>P</b> = 3 = 3 = 1	
Antenna Height		ha	m	33	1444 T 33 1 H
Antenna Type & Size (Yagi, Parabol	ic)		m¢	1.2	1.2
Antenna Gain	1	Ga	dBi	18	18:10
Feeder Type		1 7 6		H20 43	H20 43
Feeder Length		lf Lf	dB	2.2	2.2
Feeder Loss(ha + 10) x <u>ALf</u> Antenna Height at P		hal	m	د است. مستقد میں دیکھ ایک است است ا	33.0
Antenna Height at Q		ha2	m	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	23.33.8et ######
Path Loss				and a second	<ul> <li>A second sec second second sec</li></ul>
Path Distance		d	km	1.042	33.7 (##
Free Space Promagation Loss	. :	Lo	dB		114.2 **
Additional Propagation Loss (50%)	)	La .	dB		118.2 ****
Total Propagation Loss(50%) Required Antenna Gain	-	Lp Ga	dB dB	n a second die historia is Die second die historia	33.7 .***
Antenna Gain at P		Gal	dBi	L Starter Freiburg € d Starter Freiburg €	18.0. 11
Antenna Gain at Q		Ga2	dBi	10 10 10 10 10 10 10 10	18.0 ***
Branching Loss		LP .	dB	Navi.	5.0
Feeder Loss at P		Lf1	dB	ি হজা ন	2.2 ***
Feeder Loss at Q		Lf2	dB	· · · · · · · · · · · · · · · · · · ·	91.7 ***
Net Loss(50%)		Ln	dB	and a second s	and a fair of the state of the
Median Noise(50%) Figure of Merit		Fm	dB		160.0
Signal/Thermal Noise		S/Nta	dB		68.3
Thermal Noise		Nta	pWOp		148.0 **
Equipment Thermal Noise		Nte	pWOp	and Calastang	208.0
Intermodulation Noise		Nim	pWOp	1997 N. 1997 N. 1997	246.0
Interference Noise		Nif Nor	р₩Ор р₩Ор		688.6 ***
Radio Link Noise Carrier Multiplex Noise		Npr Npm	pWOp	(1997年) 1993年1月1日 1993年1月1日日(1997年1月1日)	230.0 *1
Total Noise		Np	pWOp		60.4 ***
Signal/Total Noise( > 57/50 dB)		S/Np	dB		
Short Period Noise(99.9%)				The second second	11.0 ***
Fading Depth		Af	dB		57:3 ***
Signal/Thermal Noise Thermal Noise		S/Nta Nta	dB pWOp		1862.8
Radio Link Noise		Npr	р₩Ор р₩Ор		2402.0 *** 2632.0 ***
Total Noise		Np	pWOp		55.8
Signal/Total Noise		S/Np	dB	<u> </u>	· · · · · · · · · · · · · · · · · · ·
Fading Margin		_		n an	37.0
Tx Output Power		Pt	dBm	$g(t) = g(t) e^{\frac{2\pi i}{2}}$	-54.7 ###
Rx Input Level(50%) Threshold Level		Pri	dBm		-90.0 35.3 ***
Nargin to Threshold(50%) ( $\geq$ 33	483	Pth Mth	dBm dB		
	ub)	71L11	up .	ار به می از این از مربع از مربع از مربع از مربع از می از مربع از مربع میروند از مربع از می می از می از می	<ul> <li>Fig. (2) C. R. P. Dr. R. 2006.</li> <li>Fig. (2) C. State and the second state of the sec</li></ul>
Program No. An	tenna	Gain(	dB1)		ss(dB/m)
120 ch, 5W : T301 14	ele.	Yagi	15	RG-17 /U	0.14
		Para.	18	H13	0.091
24 ch, 100W : T303 1. 2.			21 23.5	H20 A20	0.052
Mux Noise(pWOp) 2.		H · · ·	23.5		0.048
460 SG/380 G 4.			28.5		Fark and the state of the state
310 GC/230 R 6.		н	32		107 945
8.			34.5		

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UHF SYSTEM PERFORMAN		· ۱۱ ۲۵۱	ATION	Path No.		<b>1</b>
( 900 MHz, <del>24 ch/</del> 120 ch, 5	₩/ <del>100</del>	~~⊾∿U! ≈#=).	ATION		5313-15	]
Station P San Patong	T. <del>R</del> -		ion O			₩ The second s
<u></u>				Ban Nong Hai		
Path Type: L/S (no reflection),	Mt. D		ion	<u>Р</u>	q	
Antenna Height		ha	m	78		78
Antenna Type & Size (Yegi, Parabol	ic)	<u> </u>	m MO	4.2		4.Z
Antenna Gain		Ga	dBi	28.5		8.5
Feeder Type	,	1.6		H 20 88	H20	
Feeder Length	÷ ,	1f	. m	and the second s		98
Feeder Loss (ha + 10) x ALF	i-	Lf	dB	4.6	L	4.6
Antenna Height at P		hal	ta -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		t##
Antenna Height at Q		ha2	112	·	78.8	ka k
Path Distance	5 L		· 1			
Free Space Pronagation Loss	: 1	d	ka	1		KRA.
Additional Propagation Loss (50%)		Lo	dB		119.8	
Total Propagation Loss(50%)	'	La Lp	dB dB		17.0	
Required Antenna Gain		Ga	dB			***
Antenna Gain at P		Gal	dBi			***
Antenna Gain at Q		Ga2	dBi		28.5	
Branching Loss		LP .	dB			
Feeder Loss at P	: 1	Lf1	dB	{ · · ·		÷¥*
Feeder Loss at Q		Lf2	dB	{		Kén 🕴
Net Loss (50%)		Ln	_dB	·	94.3 D	***
Median Noise(50%)						
Figure of Merit	Í	Fm	dB		160.0	
Signal/Thermal Noise	1	S/Nta	dB			\$** <i>\$</i>
Thermal Noise		Nta	pWOp	}	251.0 108.0	""
Equipment Thermal Noise	·	Nte	pWOp	l · .	208.0	I
Intermodulation Noise	·	Nim	pWOp	l	248.0	1
Interference Noise	1. A. 1	Nif	рWOр	1		***
Radio Link Noise		Npr	pWOp	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	and the second	\$ <b>*</b> *
Carrier Multiplex Noise		Npm	pWOp	· · ·		**¥
Total Noise		Np S/Np	pWOp	4	53.9 ×	¢₩\$
Signal/Total Noise( > 57/50 dB)	ł{	57ND	dB	<u></u>		
Short Period Noise(99.9%)	}		מו			k##
Fading Depth Signal/Thermal Noise		Af S/Nta	dB dB	1		***
Thermal Noise		Nta	pWOp	)		***
Radio Link Noise		Npr	qOWq	ł		***
Total Noise		Np	pWOp	ł	51.5	
Signal/Total Noise		S/Np_	dB			
Fading Margin					37.0	
Tx Output Power		Pt	dBm	{		<b>≮注</b> 本
Rx Input Level(50%)	{	Pri	dBm	ł	-90.6	
Threshold Level		Pth	dBm	1	33.0	***
Margin to Threshold(50%)( 🗈 33	dB)	Mth	dB			
		Gain(	4841	Feeder Lo	ee(dR/m	, . <b>_</b> ]
	icenna i ele.			RG-17 /U	0.14	
		Para.	18	H13	0.093	
		11	21	H20	0.052	
24° ch, 100W : T303 1. BAR 0 2.		n,	23.5	A20	0.04	
		n	26	A39	0.02	
int de ree (hush)		· • • •	28.5			
100 007 500 0		· 11	32			
310 GC/230 R 6. 8.		- <b>H</b> - 25	34.5			

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				Path-Nö.	
UHF SYSTEM PERFORMANC (900 MHz, <del>24 ch/</del> 120 ch, 5 W	:Е.:( <u>/100</u>	Calcu Lev () a si		and a second and a s	5313-16
Station P Ban Nong Hai	T R	Stat	ion Q	Hoteland	1 a DT
Path Type: L/S (me reflection), He	<b></b>	LEEvee	ion <sup>ine</sup>	$\sim - \mathbf{P}_{GD} > 2 \lambda$	THAT' QHIYA
Antenna Height		ha	m	50	- 123H 45- 111
Antenna Type & Size (Yegi, Parabolio	c)	i en e	mø	1.8 A	2010 Bro/ BI
Antenna Gain		Ga	dBi	2/	ofeld \$2/arel
Feeder Type				HZO	H20
Feeder Length		1f.	m	60	Tant Lanet
Feeder Loss(ha + 10) x ALf	:	Lf	dB :	13 2 23.1.	2.9
Antenna Height at P		hal	m	5 74 B	10450. 039### 19A
Antenna Height at Q		ha2		0 36 2	192 <b>45.0</b> - 2 <b>***</b> (12)
Path Loss			1_	i i i i i i i i i i i i i i i i i i i	
Path Distance	<i>*</i>	d	km		a 31.0 s <b>***</b>
Free Space Pronagation Loss		Lo	dB	a metal atomi loca 310	
Additional Propagation Loss (50%)		La	dB	i di hizantazo i	
Total Propagation Loss(50%)		Lp	dB ···	en en de la temp	
Required Antenna Gain		Ga Gal	dB		41.3) #### 21.0 ####
Antenna Gain at P		Gal Gal	dB1 dB1		21.0 ***
Antenna Gain at Q		Lb			5.0
Branching Loss		LD Lfl	dB	300 B	3.1. ***
Feeder Loss at P		LII Lf2	dB	· · · · · · · · · · · · · · · · · · ·	2.9 ***
Feeder Loss at Q		LIZ	dB	1 - 1 G 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	93.3 ***
Net Loss(50%)					ين و بيري چينې بير تورند کې د د و بيرې و د د د د . د د د د د د د د د د د د د د د
Median Noise(50%) Figure of Merit		Fm	dB	· · · · · ·	160.0
Signal/Thermal Noise		S/Nta	dB		66.7 ***
Thermal Noise		Nta	ъWOр	د بسید از بر در برس	214.0 ***
Equipment Thermal Noise		Nte	pWOp		100.0
Intermodulation Noise		Nim	pWOp		200.0
Interference Noise		Nif	pWOp	n an	240.0
Radio Link Noise		Nor	DWOD	· · · · · · · · · · · · · · · · · · ·	754.0 xxx
Carrier Nultiplex Noise	· · ·	Npm	pWOp	्रहेर्न्ड हर्षे दुईद	238.8 ***
Total Noise	· · ·	Np	pWOp	n an ann an an an stàite	984,0 444
Signal/Total Noise( > 57/50 dB)		S/Np	dB	State Strate State 3	68.1 ***
Short Period Noise(99.9%)					15:0 +++
Fading Depth		Af	dB		51.7
Signal/Thermal Noise		S/Nta	dB		6761.0 ***
Thermal Noise		Nta	pWOp		7301.0:::***
Radio Link Noise		Npr	pWOp		7531.8
Total Noise		Np	pWOp		5172 ***
Signal/Total Noise		S/Np	dB		<u>an an the Constant Source</u>
Fading Margin					37.0 Martin
Tx Output Power		Pt	dBm		· -56.3»(***)
Rx Input Level(50%)		Pri	dBm		/. <b>-90.0</b>
Threshold Level		Pth	dBm		33.7. ***
Margin to Threshold(50%)( $\geq$ 33 d	B)	Mth	dB	Constanting the state	i or negret
				·····	ه در این مسترهنون اورینه این در بود. این این
		Gain(			oss(dB/m)
		Yagi			0.14
24 ch, 5W : T302 1.2	mØ	Para.	18	H13	
24 ch, 100W : T303 1.8		f f	21	∴ e <b>∂Ĥ20</b> , ~ %(\$)	
2.4			. 23.5	A20	0.048
Mux Noise(pWOp) 3.0			26	<b>A39</b> (q6)	-1.a.0.02601
460 SG/380 G 4.2		61	28.5	• • • • • • • • • • • • • • • • • • •	100 SOL
310 GC/230 R 6.0		<b>H</b> .	. 32	30 R	1,30,015
8.0		10	34.5		

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UHF SYSTEM PERFORMANCE (900 MHz, 24 ch/120 ch, 5 W/10		LATION		5313-17
Station P T.R	_ Stat	ion Q	Doi Pae Po Ma	ik <del>T</del>
Path Type: L/S (no reflection), Her-	Diffree	tion.	Р	0
Antenna Height	ha	m	63	48
Antenna Type & Size (Yagi, Parabolic)	1 .	mø	1.8	2.4
Antenna Gain	Ga	dBi		23.5
Feeder Type Feeder Length	1.6	ļ	H20 73	H20 58
Feeder Loss (ha + 10) x 4Lf	1f   Lf	m dB	3.8	3.0
Antenna Height at P	hal		+	
Antenna Height at Q	ha1	ш Ш,	1	63.8 *** 48.8 ***
Patn Loss		}	+	40.0 444
Path Distance	d	km		37.5 ###
Free Space Pronagation Loss	Lo	dB		123.0 ***
Additional Propagation Loss(50%)	La	dB	<b>}</b> .	8.9 ***
Total Propagation Loss(50%)	Lp	dB		131.8 ###
Required Antenna Gain	Ga	dB	}	43.8 ###
Antenna Gain at P Antenna Gain at Q	Gal	dBi		21.0 *** 23.5 ***
Branching Loss	Ga2	d81 dB	}	5.0
Feeder Loss at P	LEI	dB		3.8 ###
Feeder Loss at Q	Lf2	dB		3.0 ***
Net Loss (50%)	Ln	dB		98.3 ***
Median Noise(50%)	1	Ţ		
Figure of Merit	Fm	dB		165.0
Signal/Thermal Noise	S/Nta	dB	{	66.7 *** 214.8 ***
Thermal Noise	Nta	pWOp		100.0
Equipment Thermal Noise	Nte	pWOp		200.0
Intermodulation Noise Interference Noise	Nim Nif	pWOp		240.0
Radio Link Noise	NII	pWOp pWOp		754.8 ***
Carrier Multiplex Noise	Npm	pWOp	{	0.0 ###
Total Noise	Np	pWOp		754.0 ***
Signal/Total Noise( $\geq$ 57/50 dB)	S/Np	dB		61.2 ***
Short Period Noise(99.9%)				15.0 ***
Fading Depth	Af	dB	{	50.7 ***
Signal/Thermal Noise	S/Nta	dB	1	8511.8 ***
Thermal Noise	Nta	pWOp	]	9051.0 ***
Radio Link Noise	Npr	pWOp	1	9051.0 ***
Total Noise	Np	pWOp	1	50,4 ***
Signal/Total Noise	S/Np	dB	+	37.0
Fading Margin	Pt	dBm	{	-61.3 ***
Tx Output Power Rx Input Level(50%)	Pri	dBm	{	-95.0
Threshold Level	Pth	dBm	1	33.7 ***
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	<u> </u>	
Program No. Antenn	a Gain(	dB1)	Feeder L	oss(dB/m)
	a darn( . Yagi		RG-17 /U	
	Para.	18	H13	0.091
24 ch, 100W : T303 1.8	11	21	H20	0.052
800,0 <b>2.4</b>	. 11	23.5	A20	0.048
Mux Noise(pWOp) 3.0	<b>11</b>	26	A39	0.026
MUX NOTSE(DWOD)				
460 SG/380 G 4.2 310 GC/230 B 6.0	11 4 - 11	28.5 32		

## UHF SYSTEM PERFORMANCE CALCULATION PACE PACENCY 2 THU

(900 MHz, <del>24 ch</del> /120 ch, 5	T			and the set of the set	
Station P Doi Pae Po Mak	<b>-∓</b> - <b>R</b>		ion Q	Kao Huäi <sup>11</sup> Bon	
Path Type: L/S (no reflection),	Her E	iffract	ion all	ustimapon) 21.	
Antenna Height		ha	m.	48 3	HISH 1860203
Antenna Type & Size (Yegi, Parabo	lic)	1 13	me	.100 2.4 A	
Antenna Gain	1 1	Ga	dBi	23,5	TTEN 18:26:04
Feeder Type	:			HZO	H20 700004
Feeder Length	<b>,</b>	1£	m	58	18114 9.69.0
Feeder Loss (ha + 10) x ALf	:	Ĺf	dB	11 × (3.0 at	LEBOL DASSA
Antenna Height at P	¥ 1.	ha1	m	T 32 47	31 48.0 TANA
Antenna Height at Q	i i i i i i i i i i i i i i i i i i i	ha2	m	1 36 1	86.0
Path Loss			<u> </u>		- REDU DIAS
Path Distance		d	km	904 1	1514/17 100
Free Space Propagation Loss	1	Lo	dB set	Анналавдаебия	
Additional Propagation Loss (50	%)	La		1 10-1989-000	
Total Propagation Loss(50%)		Lp		Cased andress	
Required Antenna Gain	÷	Ga	dB		15. 47 <b>. 9</b>
Antenna Gain at P	\$	Gal	dBi		23.50 ***
Antenna Gain at Q	1 1.4	Ga2	dBi	Q 14 91	26.0 ··· ***
Branching Loss	1 (1)	Lb .	dB	2.46.	5.0.01 TS
Feeder Loss at P		Lf1	dB	17 J.B - 1	9 1. 1. 1. <b>3. 1. 1. 1. 1. 1. 1</b> . 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Feeder Loss at Q	24	Lf2	dB	Q 3.2 - :	220. 5.0 . #**
Net Loss(50%)		Ln	dB	i en i L'ord	
Median Noise(50%)				12.38	Vaniok narbat
Figure of Merit	- <b>1</b>	Fm	dB	1 - cui	163.0
Signal/Thermal Noise	*	S/Nta	dB	a start town	<b>67.6***</b>
Thermal Noise		Nta	pWOp		、174、日、二字本本
Equipment Thermal Noise	15 - C	Nte	pWOp	an The second s	188.8
Intermodulation Noise		Nim	pWOp	04.04 10000 98103 4023 98109 4	286.6.333)
Interference Noise	•	Nif	pWOp	Setse -	240.0
Radio Link Noise		Npr	pWOp	382.52	
Carrier Multiplex Noise	3 	Npm	pWOp	Sector and states.	5 8 6 6 8 8 8 8 8 9 W G C A
Total Noise		Np	pWOp		
Signal/Total Noise( > 57/50 dl	B) · · ·	S/Np	dB	80. 1442,000 (1	
Short Period Noise(99.9%)					16.0 ***
Fading Depth		Af	dB	47.	Contraction and the second
Signal/Thermal Noise		S/Nta	dB	nation from	6918.0 ***
Thermal Noise		Nta	pWOp	er år	7455.0 ***
Radio Link Noise		Npr	pWOp	などもの対	7458 0 ****
	:	Np	pWOp		5143 S≭≭≭
Signal/Total Noise	(	S/Np	dB	apteit t	enert's basebble
Fading Margin		i		;	5.37.0 and 5-3
Tx Output Power		Pt	dBm		-60:4
Rx Input Level(50%)		Pri	dBm	$(2n\xi)1ee$	≓ <b>95;0</b> ≤ ×
Threshold Level		Pth	dBm		1 34 <b>.</b> 689 <b>**</b> *
Margin to Threshold(50%) ( $\geq$ 32	3 dB)	Mth	dB	(199) Lod and	T WIT THAT THE
<u> </u>		_,,		·	
		Gain(c			oss(dB/m)
		Yagi		RG-17 /Ú	
	.2 mØ		18		0.091
•	8		21	COCH20 WOO	and the second
	2.4	- 01	23.5	A20	0.048
	<b>,</b> ()		- 26		() +( <b>), ()26</b> ())
	• 4		28.5		460 5673
			- 32	5 8 H GE	S100 GG12
	3.0	<b>n</b> 9	34.5		

UHF SYSTEM PERFORI			LATION	Path No	• 5313–19
Station P Kao Huai Bon	Ŧ.R	Stat	ion Q	Omkoi	Τ.
Path Type: L/S (me reflectio	n), <del>Me</del>	the second s	-100-	P	0
Antenna Height Antenna Type & Size (Yagi <del>, Par</del>		ha		63	78
Antenna Gain	abo <u>tte</u> )	Ga	Ela. dBi	8	12 14
Feeder Type		Jua		HZO	H20
Feeder Length		1f	m	73	88
Feeder Loss (ha + 10) x ALf		Lf_	dB	3.8	4.6
Antenna Height at P Antenna Height at Q	11 - 14 1	hal ha2		· · · · ·	63.0 ***
Path Loss			<u>↓                                     </u>		78.0 ***
Path Distance	-	đ	km	1	6.8 ***
Free Space Propagation Loss		Lo	dB	a da anti-	198.2 ***
Additional Propagation Loss Total Propagation Loss(50%)	(30%)	La	dB dB		3.8 *** 111.2 ***
Required Antenna Gain	• <u>.</u>	Lp Ga	dB		25.6 ***
Antenna Gain at P		Gal	dBi	1	12.8 ***
Antenna Gain at Q		Ga2	dBi	l	14.8 ***
Branching Loss		Lb	dB		5.0 3.8 ***
Feeder Loss at P Feeder Loss at Q		Lf1 Lf2	dB dB		4.6 ***
Net Loss (50%)		Ln	dB		98.6 ***
Median Noise(50%)					165.0
Figure of Merit		Fm	dB		66.4 ***
Signal/Thermal Noise Thermal Noise		S/Nta Nta	dB pWOp		229.8 ***
Equipment Thermal Noise		Nte	pWOp		188.8
Intermodulation Noise		Nim	pWOp	· ·	208.8 248.8
Interference Noise		Nif	pWOp		769.8 ***
Radio Link Noise Carrier Multiplex Noise	•	Npr Npm	pWOp pWOp		198.8 ***
Total Noise		Np	pw0p	· · · · ·	959.0 *** 60.2 ***
Signal/Total Noise( > 57/50	<u>) dB)</u>	S/Np	dB		00.2 ###
Short Period Noise(99.9%)			¦		8.9 ***
Fading Depth Signal/Thermal Noise		Af S/Nta	dB dB		58.4 ***
Thermal Noise		Nta	pWOp		1445.0 *** 1985.0 ***
Radio Link Noise		Npr	pwop		2175.0 ***
Total Noise		Np	pWOp		56.6 ***
Signal/Total Noise	·····	S/Np_	<u>dB</u>	+	37.0
Fading Margin Tx Output Power		Pt	dBm	1	-61.6 ***
Rx Input Level(50%)	•	Pri	dBm	1	-95.6
Threshold Level		Pth	dBm	1	33.4 ***
Margin to Threshold( $502$ )( $\geq$	33 dB)	Mth	dB	<u></u>	
Program No. 2 208	Antenn	a Gain(	dB1)		.oss(dB/m)
120 ch; 5W : T301	14 ele	. Yagi	15	RG-17 /L	
24 ch, 5W : T302	1.2 mØ	Para.	18 . 21	H13 H20	0.091 0.052
424°ch, 100W : T303	1.8 2.4	11	23.5	A20	0.048
Mux Noise (pWOp)	3.0	41	26	A39	0.026
460 SC/380 G	4.2	u	28.5		
310 GC/230 R	6.0	18	32	•	`
	8.0		34.5	<u></u>	
		- 45			

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UHF SYSTEM PERFO (900 MHz, -24 -chr/120	ch, 5	ICE <sup></sup> w/ <del>10</del> (	CALCŨ		DANE (Pathenoe 1994) - 199 - 198	Y2- 7HU 5313-20
Station P San Patong	9 st	T. <del>R</del>		ion O	Hang Dong	+ 111+4-14
Path Type: L/S (me reflect	tion),	Ne -	LEfrec	tion=?::::	polisspool 24	
Antenna Height	•		ha	m	<u> </u>	are een notern.
Antenna Type & Size (Yagi,	arabol	<u>16</u> )	1 .	Elen	Senary)/2528 3	
Antenna Gain	t sùite. ∎ c, si		Ga	dBi	<u>14</u> H20	H20
Feeder Type			if		70	12 IN 43.00
Feeder Length	is E Ast		Lf	dB <sup>†</sup>		1000 1 002.24
Feeder Loss (ha + 10) x <u>AL</u>	<u>.</u>	·	hal			
Antenna Height at P	í.	2.44	ha1	m		191 60.0 "FFFA
Antenna Height at Q		5	liaz	<u> </u>		2261 1027
Path Distance	. 1	į.	d	km	14.5	ាលបាន <b>្ល</b> ាស់ ស្រុក ប្រ ពលបាន <b>្លា</b> ស់ សំរុងស្អើ
Free Space Propagation Lo	SS	1 12	Lo		Proclamatics:	
Additional Propagation Lo		) i			d and there or 9	
Total Propagation Loss(50		: 	Lp		ersten Louiste	
Required Antenna Gain		1	Ga	dB		CA 27. 3. 4 ***
Antenna Gain at P	4	<u>е</u> 4	Gal	dBí		Cont <b>4. 0</b> 55 <b>***</b>
Antenna Gain at Q		) (De	Ga2	dBi		14.034.
Branching Loss	· .	1	Ĺb	dB		1 3 <b>5 8</b> mare
Feeder Loss at P	1.1.	- 13	Lf1	dB	行 之府	3.6.1. ###
Feeder Loss at Q	Č.		Lf2	dB	<i>0</i> -а.с	ACO 2.2 DATE
Net Loss(50%)	·.	1	<u> </u>	dB	(* V*)	<u></u>
Median Noise(50%)		2	2	1	1 · · ·	seelan natask
Figure of Merit	1.15	4	Fm	dB	.3 <b>21</b> 0	
Signal/Thermal Noise	i a	1 N 1 N	S/Nta	dB	erten fan	214.0 ***
Thermal Noise	19 a. 1	: ;	Nta	pWOp	59 Če	100.0
Equipment Thermal Noise		94	Nte	pWOp	្រុមអ្នកស្រី និងជាអនុស័	200.011.104
Intermodulation Noise	11 A.	· · ·	Nim	pWOp	1002-000-000-000-000-000-000-000-000-000	240.0
Interference Noise	1	•	Nif	pWOp	1 99,200, 9	
Radio Link Noise		25) 4	Npr	pWOp	1. S.	ALCO D'STATT
Carrier Multiplex Noise		¥21		pWOp	the second s	~1214.0 TEE
Total Noise	150 10	. 9	Np	pWOp	n at Nautoff 1	59.2
Signal/Total Noise( > 57	<u>/50 dB</u>	<u>)                                    </u>	S/Np	dB		the second s
Short Period Noise(99.9%)			3 <b></b>	1.		bolg & Kente
Fading Depth			Af	dB		199 <b>57.7</b> 1 ***
Signal/Thermal Noise	:	 	S/Nta	dB		1698.0 ***
Thermal Noise	•		Nta	pWOp		2238.0.3***
Radio Link Noise			Npr	pWOp		2698.833.### 3435 <b>5.7</b> 33.###
Total Noise	-		Np S/Np	pWOp dB		98.2 <b>07.</b> 63.444 1988 - 1988 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984 - 1984
<u>Signal/Total Noise</u> Fading Margin	<u> </u>	•	. S7 ND			1 37:0 201 M.S
Tx Output Power			Pt	dBm		3 <b>356.3</b> € <b>**</b> *
Rx Input Level(50%)			Pri	1		-90.80 ×3
Threshold Level			Pth	d Bm d Bm	n in anna i suitean. Faithean	33.7.4**
Margin to Threshold(50%)(	≥ .33	dB)		dBm ∣dB ି	(382)bimisouf	
Program No.	A		Gain (	4B4)	Foodon T	oss(dB/m)
					RG-17 /U	
-		ele.	Yagi Para.			0.091
24 ch, 5W : T302 24 ch, 100W : T303	1.			21	<ul> <li>C(H20 \long)</li> </ul>	
24 CH, 100M : 1000	2.		:	23.5	A20	0.048
Mux Noise(pWOp)	2. 3.			. 26		() 9:0:026 pE
460 SG/380 G	з. 4		5.*	· 28.5		() 93 <b>() 94</b> () ()
310 GC/230 R						
	E.	0	`H ₹4	· `32		310 GC/2

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UHF SYSTEM PERFORMANCE	CALCI		Path No.	
(900 MHz, <del>24 ch</del> /120 ch, 5 W/4			5313-	21
Station P		tion 0		
2. See the end of the second s Second second s Second second sec second second sec	-	•	Chom Thong	T.#
Path Type: L/S (no reflection), Ht.	Diffra	tion-	Р	0
Antenna Tupo & Star (v	ha	m	30	33
Antenna Type & Size (Yagi, Perebolic) Antenna Gain		Ele.	8	8
Feeder Type	Ga	dBi	/2	/2
Feeder Length			H20 H20	
Feeder Loss (ha + 10) x ALf	1f	m	40	43
Antenna Height at P		dB	2.1	2,2
Antenna Height at Q	hal	m	38.6	***
Path Loss	ha2	m	33.0	
Path Distance	1.	1.		
Free Space Pronagation Loss	d	km	6.4	***
Additional Propagation Loss (50%)	Lo	dB	107.6	
Total Propagation Loss(50%)	La	dB	6.9	
Required Antenna Gain	Lp	dB	187.6	
Antenna Gain at P	Ga	dB	22.9	
Antenna Gain at Q	Gal	dBi	12.6	***
Branching Loss	Ga2	dBi	12.0	***
Feeder Loss at P	Lb	dB	5.0	
Feeder Loss at Q	Lf1	dB	2.1	家養土
Net Loss (50%)	Lf2	dB	2.2	
Median Noise(50%)	Ln	dB	92.9	<b>半</b> 末戸
Figure of Merit				· ·
Signal/Thermal Noise	Fm	dB	160.0	
Thermal Noise	S/Nta	dB	67.1	
	Nta	pWOp	195.0	##»
Equipment Thermal Noise	Nte	pWOp	100.0	
Intermodulation Noise	Nim	pWOp	200.0	
Interference Noise	Nif	pWOp	240.0	
Radio Link Noise	Npr	pWOp	735.0	***
Carrier Multiplex Noise Total Noise	Npm	pWOp	230.0	***
	Np	pWOp	965.0	***
Signal/Total Noise( > 57/50 dB)	S/Np	dB	60.2	<b>W</b> .W.W.
Short Period Noise(99.9%)			8.0	at we st
Fading Depth	Af	dB	59.1	***
Signal/Thermal Noise	S/Nta	dB	1230.0	
Thermal Noise	Nta	pWOp	1770.0	
Radio Link Noise	Npr	рWOр	2000.0	
Total Noise	Np	pWOp	57.0	
Signal/Total Noise	S/Np	dB		
ading Margin	1	1	37.0	
Tx Output Power	Pt	dBm	-55.9	***
Rx Input Level(50%)	Pri	dBm	-90.8	
Threshold Level	Pth	dBm	34.1	***
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	<b>.</b>	
Program No. Antenna	a Gain(d	B1)	Feeder Loss(dB/m	,
1 2 2 2 4 2 4 5 4 6 4 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5	. Yagi		RG-17 /U 0.14	-
24 ch, 5W : T302 1.2 mØ		18	H13 0.09	
24 ch, 100W : T303 1.8	11	21	H20 0.05	
2.4	11	23.5	A20 0.04	
Mux <sup>3</sup> Noise(pWOp) 3.0	11	26	A39 0.02	
460 SG/380 G 4.2	` <b>t</b> I	28.5	0.02	U I
310/GC/230/R 6.0	11 ×	32		ł
8.0	11	34.5		1

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UHF SYSTEM PERFORMANCE	CALCU	LATION	Path, No.	5212	
(900 MHz, 24 ch/ <del>120 ch</del> , 5 W/ <del>14</del>			te data data data		
Station P Doi Pae Po Mak	R Stat	ion Q	Doi Tao	11년 11년 11년	T.#
Path Type: L/S (no reflection), Mt.	Diffrac	tion=	and the Parameter Di		Q
Antenna Height	ha	m	15	also has fi	33
Antenna Type & Size (Yagi, Parabolic)		Ele.	A	i an airtean an airtean airtean Airtean airtean a	1. <b>8</b>
Antenna Gain	Ga	dBi	······································	and the second sec	12
Feeder Type		ан. С	H20	H20	
Feeder Length	1f	m		ار میں اور اور اور اور اور اور اور اور	43
Feeder Loss(ha + 10) x <u>4Lf</u>	Lf	dB	/.3		2.2
Antenna Height at P	hal	m	and the second sec	់នាភៈខ	uniformana lunguala Visibilitati (2003)
Antenna Height at Q	ha2	m		33.0	
Path Loss		1	a the second	د می و مربع می و مربع است. روی فرو مربع موجود است است. ۱۹ ایک مرکز	
Path Distance	d	km			n oon aharan ahara Matanan G
Free Space Promagation Loss	Lo	dB ·	1111日日 11日日日日日日日日日日日日日日日日日日日日日日日日日日日日日		
Additional Propagation Loss(50%)	La	dB	a to an an an an an an a		
Total Propagation Loss(50%)	Lp	dB	self was and end		
Required Antenna Gain	Ga	dB		22.7	e 19 19
Antenna Gain at P	Gal	dBi		12.0	(*) (*) (*)
Antenna Gain at Q	Ga2	dBi	· · · · · · · · · · · · · · · · · · ·	12.0	<del></del>
Branching Loss	Lb	dB		5.0	
Feeder Loss at P	Lf1	dB	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3	***
Feeder Loss at Q	Lf2	dB	· · · ·	2.2	本本书
Net Loss(50%)	Ln	dB		. 97.7	***
Median Noise(50%)			and a state of the second	er menne di far far se de se La constanti di se di s	میرود در در این این او او او رو در این این او او او
Figure of Merit	Fm	dB		165.0	
Signal/Thermal Noise	S/Nta	dB	and the second second	67.2	***
Thermal Noise	Nta	pWOp		186.0	***
Equipment Thermal Noise	Nte	pWOp	and a survey	100.0	in attal The second
Intermodulation Noise	Nim	pWOp		200.0	na an ann
Interference Noise	Nif	pWOp		0.9	and.
Radio Link Noise	Npr	pWOp	1.81.54	726.0	***
Carrier Multiplex Noise	Npm	pWOp	and a straight of the	136.0	AND CONTRACTOR
Total Noise	Np	pWOp		916.0	
Signal/Total Noise( ≥ 57/50 dB)	S/Np	dB		68.4	***
Short Period Noise(99.9%)			مىرىيىتىرى بىرىيىنى بىلادىنى . ئۇنىڭ <u>ئە</u> يلار بىر	an an an an Aran. Raithe an Aran	ا ، اومی و بیورودیالفلاد ، » اگر آگر از اطراطوطو
Fading Depth	Af	dB			
Signal/Thermal Noise	S/Nta	dB	an thiết Field	1055.30 2744 0	
Thermal Noise	Nta	pWOp		2344.0 2884.0	
Radio Link Noise	Npr	pWOp		3074.0	A
Total Noise	Np	pWOp		55.1	
Signal/Total Noise	S/Np	dB		। 	97 <b>87 1</b> 7 538 -
Fading Margin			in the second	35.0	1944 North Color
Tx Output Power	Pt	dBm		-66.7	
Rx Input Level(50%)	Pri	dBm	العام فري ما محادثين المحقق المحقق الو		
Threshold Level	Pth	dBm		34.3	
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB			
		1. A. A. A.	an the second second second second second		
	a Gain (o		Feeder Los		
	. Yagi		RG_17 /U	· · · · · · · · · · · · · · · · · · ·	
24 ch, 5W : T302 1.2 mØ	Para. S	18	H13		
24 ch, 100W : T303 1.8	11	21	H20 H20	0.05	
2.4		23.5	A20	0.04	
Mux Noise(pWOp) 3.0	11 11	26	A39 st grier		
460 SG/380 G 4.2		28.5		NE 5 8	
310 GC/230 R 6.0		32	H 1983	102-(道)	Ľ.
8.0	TT .	34.5			ا ي رور و وي

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UHF SYSTEM PERFORM (900 MHz, <del>24-ch</del> /120 ch,			LATION	Path No.	5313-23
Station P San Patong	Trite	Stat	ion O	Doi Inthanon	<b>-P</b> . I
Path Type: L/S (no reflection	), <u>Mt. n</u>	ffract	ton-	P	0
Antenna Height		ha	m	40	33
Antenna Type & Size (Hagi, Paral	bolic)		mø	1.8	1.8
Antenna Gain Feeder Type		Ga	dBi	21.	21
Feeder Length	· · · · ]	1f	· _	H 20 50	H20 43
Feeder Loss (ha + 10) x _4Lf	7. I I	Lf	dB	2.6	2.2
Antenna Height at P		hal			
Antenna Height at Q		ha2	m		33.0 ***
Path Loss			F	<b>†</b>	
Path Distance	14 E	ੁੱਖ	kan	a second s	44.8 . ***
Free Space Propagation Loss Additional Propagation Loss(	5071	Lo La	dB		124.4 ###
Total Propagation Loss(50%)		La Lp	dB dB		0.0 *** 124.4 ***
Required Antenna Gain	а.	Ga	dB	1	48.2 ***
Antenna Gain at P		Gal	dBi		21.8 ###
Antenna Gain at Q		Ga2	dBi	1	21.8 ***
Branching Loss		Lb	dB		5.0 2.6 ***
Feeder Loss at P Feeder Loss at Q		Lf1 Lf2	dB dB		2.2 ***
Net Loss (50%)			dB	1.	92.2 ×**
Median Noise(50%)			1		
Figure of Merit		Fm	dB		160.0 67.8 ***
Signal/Thermal Noise		S/Nta	dB	ł	166.0 ***
Thermal Noise Equipment Thermal Noise		Nta	pWOp		100.0
Intermodulation Noise		Nte Nim	р₩Ор р₩Ор		200.0
Interference Noise	· · [	Nif	pWOp		240.0
Radio Link Noise		Npr	pWOp	•	786.0 *** 310.0 ***
Carrier Multiplex Noise		Npm	pWOp		1016.0 ***
TOCAL NOISE	195	Np S/Np	pWOp dB		59.9 ***
Signal/Total Noise( $\geq 57/50$ Short Period Noise(99.9%)	<u> </u>	<u>37ND</u>		<u>+</u>	
Fading Depth	1	Af	dB	{· · · ·	16.0 *** 51.8 ***
Signal/Thermal Noise	1	S/Nta	dB	ł	6607.0 ***
Thermal Noise	· · ]	Nta	pWOp	[	7147.0 ***
Radio Link Noise	{	Npr	pWOp	}	7457.8 ***
Total Noise Signal/Total Noise	ł	Np S/Np	pWOp dB	1	51.3 ***
Fading Margin			[		37.0
Tx Output Power	1	Pt	dBm	ļ	-55.2 #**
Rx Input Level(50%)	ſ	Pri	dBm		-90.0
Threshold Level		Pth	dBm		34.8 ***
Margin to Threshold(50%)(≥	33 dB)	Mth	dB	<u> </u>	·····
Program No.	Antenna	Gain(	dBi)	Feeder L	oss(dB/m)
120 ch, 5W : T301	14 ele.	Yagi	15	RG-17 /U	
24 ch, 5W : T302	1.2 mØ	Para, (		H13	0.091
24 ch, 100W : T303	1.8	ti i	21	H20 A20	0.052 0.048
	2.4	11	23.5	A20 A39	0.048
and methods a		11	28.5	AJ7	
460 SG/380 G 310 GC/230 R		n s	32	· .	
	8.0	н	34.5		

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UHF SYSTEM PERFORMANC	E	CALCUL	ATION	Path No.	Y2 7110
(900 MHz, 24 ch/ <del>120 ch</del> , 5 W/	/100	<b>-#* )</b> 2533	i i sin	asiy mater, add	3313-24 3 44 2
riae chaen	T. <del>R</del>		ion O	Doi Inthanon	· · · · · · · · · · · · · · · · · · ·
Path Type: L/S (no reflection), -M	eD		ionation	7581年代, <b>P</b> ++4代,前代	
Antenna Height		ha	m		193195 58 + 194
Antenna Type & Size (Vegi, Parabolic	c)	1.1	. <b>M\$</b>	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Antenna Gain	:	Ga	dBi	21	1.261, 1 <b>21</b> ,5211/1
Feeder Type				H20	H20, 1 30000
Feeder Length		<b>1</b> f -	m	68	68
Feeder Loss(ha + 10) x <u>ALf</u>		Lf	dB	3.5	3.5
Antenna Height at P	ŕ.	hal	`∙ <b>m</b>	مراجع المرجع الجامع مرجع المرجع الجامع	58,0°****
Antenna Height at Q	2	ha2	Π.		59. 8 ***
Path Loss					计记载输入 建造石油
Path Distance		d	km		14.9
Free Space Propagation Loss		Lo	dB ∘ ⊖		
Additional Propagation Loss(50%)		La	dB		11.0 6.***
Total Propagation Loss(50%)		Lp	dB 🗄	₫grius , proceze	
Required Antenna Gain		Ga	dB		a . <b>39.1</b> : <b>*</b> ¥∔
Antenna Gain at P	:	Gal	dBi		21.0 .***
Antenna Gain at Q	1.2	Ga2	dBi		8 1. 21. 8 45 <b>**</b> *
Branching Loss		Lb .	dB		
Feeder Loss at P		Lf1	dB		ಂಜನಿತ್ರದ ಭೇಗಿಗೆ 🌐
Feeder Loss at Q		Lf2	dB		se 3,3 <b>3,5</b> 39 <b>,4</b> 94
Net Loss(507)		Ln	dB		96.12-***
Median Noise(50%)					lended netbur
Figure of Merit		Fm	dB	1.2	165.0
Signal/Thermal Noise		S/Nta	dB	5.1 W. B.W.	68,9,*
Thermal Noise		Nta	pWOp	3.1	129.0 ++ 100.0
Equipment Thermal Noise		Nte	pWOp		208.0
Intermodulation Noise	1	Nim	p₩Op	en en en parte	240.0
Interference Noise		Nif	pWOp	12775	659.8 ***
Radio Link Noise		Npr	pWOp	1 ( <b>1</b> ( <b>1</b> )	238.8 ***
Carrier Multiplex Noise		Npm	pWOp	ia toli ing (a	899.0 **
Total Noise		Np	pWOp		60.5 ***
Signal/Total Noise( > 57/50 dB)		S/Np	dB	la dia ang ang ang ang ang ang ang ang ang an	
Short Period Noise(99.9%)		•		and a state of the	12.8
Fading Depth		Af	dB		56.9 ***
Signal/Thermal Noise		S/Nta	dB		2042.6 ***
Thermal Noise		Nta	pWOp		2582.0 ***
Radio Link Noise	· ·	Npr	pWOp	1991 - ST	2812.0 ***
Total Noise		Np	pWOp		55 <b>,</b> 5 🐨 🗱 👘
Signal/Total Noise	•	S/Np	dB		en an the Alter and Alter
Fading Margin					erhet <b>37.40</b> beselver
Tx Output Power		Pt	dBm		-59.1 ×**
Rx Input Level(50%)		Pri	dBm		2 - <b>95.6</b>
Threshold Level		Pth	dBm		3 - 3 <b>5, 9</b> / ###
Margin to Threshold(50%) ( $\geq$ 33 d	B)	Mth	dB		To de plantan
Program No. Ant	enna	Gain (o	B1)		oss(dB/m)
	ele.			RG-17 /U	
	mØ	Para.	18		0.091
24 ch, 100W : T303 1.8		<b>U</b>	21	ି <b>ମିଧି କ</b> ର୍ବ	0.052
2.4		0	23.5	A20	0.048
Mux Noise(pWOp) 3.0		U .	26		
460 SG/380 G 4.2		<b>H</b>	28.5		(1)年(66))。 (
310 GC/230 R 6.0			32		1102 (011)
110 GC/210 K P=0			37		ふうえん いっかい しょうしょう しょう

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(900 MHz, 24 ch <del>/120-ch</del> , <del>5 W</del> /1	• We )	ч.,		5313-25
Station P Doi Inthanon		ion Q	Sa Moeng	
Path Type: 1/8-(no reflection), Mt. I	)iffract	ion	Р	Q
Antenna Height	ha	m	58	33
Antenna Type & Size (Vogi, Parabolic)		mø	3	3
Antenna Gain	Ga	dBi	26	26
Feeder Type			H20	H20
Feeder Length	1f	m	68	43
Feeder Loss (ha + 10) x 4Lf	Lf_	dB	3.5	2.
Antenna Height at P	hal	m	т. т. т. т. Х <sup>1</sup> х	58.0 ***
Antenna Height at Q	ha2	m		33.0 ***
Path Loss	<u> </u>	<u> </u>		
Path Distance	d	km	Į	39.8 ***
Free Space Propagation Loss	Lo	dB		123.5 ##>
Additional Propagation Loss(50%)	La	dB		46.8 ***
Total Propagation Loss(50%)	Lp	dB	I a sta	169.5 ***
Required Antenna Gain	Ga	dB	1	56.8 ***
Antenna Gain at P	Gal	dBi	1	26.3 ***
Antenna Gain at Q	Ga2	dBi	1 · · · ·	26.0 ***
Branching Loss	Lb '	dB	{	5.0
Feeder Loss at P	Lf1	dB	•	3.5 ***
Feeder Loss at Q	Lf2	dB		2.2
Net Loss(50%)	Ln	<u>dB</u>		128.3 111
Median Noise(50%)		[		198.0
Figure of Merit	Fm	dB		59.7 ••
Signal/Thermal Noise	S/Nta	dB		1072.0 **
Thermal Noise	Nta	p₩Op	·	100.0
Equipment Thermal Noise	Nte	pWOp		400.0
Intermodulation Noise	Nim	ріўОр		1120.0
Interference Noise	Nif	pWOp		2692.0 ***
Radio Link Noise	Npr	pWOp		238.6 ***
Carrier Multiplex Noise	Npm	pWOp		2922.8 ***
Total Noise	Np	pWOp	}	55.3 🐝
Signal/Total Noise( $\geq$ 57/50 dB)	S/Np		+	
Short Period Noise(99.9%)		dB	ļ	- 16.0 ***
Fading Depth	Af S/Nta	dB	1	47.7 884
Signal/Thermal Noise	Nta	pWOp		42658.0 *** 44273.1 ***
Thermal Noise Rodia Lieb Noise		1		44273.
Radio Link Noise	Npr Np	րWOp pWOp	1	43.5 + •
Total Noise Signal/Total Noise	S/Nn	dB	1	
Signal/Total Noise Fading Margin	<u> </u>	<u> </u>		47.0
Tx Output Power	Pt	dBm		-91.3 44
Rx Input Level(50%)	Pri	dBm	1	-105.0
Threshold Level	Pth	dBm	1	23.7 44-
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB		
	<u> </u>		.l	
Prógram Nos Antenn Antenn	a Gain(	dBi)	Feeder L	oss(dB/m)
120.ch, 5W : T301 14 ele	. Yagi	15	RG-17 /U	0.14
	Pata.	18	H13	0.091
24 ch, 100W : T303 1.8		21	H20	0.052
	<b>H</b> <u>1</u>	23.5	A20	0.048
Mux Noise(pWOp) 3.0	HF	26	A39	0.026
460 SG/380 G 4.2	· • • •	28.5		

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UHF SYSTEM PERFORMA (900 MHz, <del>24 ch</del> /120 ch, 5					
Station P Phun Phin (Radio)	T. <del>R</del>	_	ion 0	Don' Sak	"T mt care the
Path Type: L/S (me reflection),	ر منابع ال	LEErae		າ ແລະເຊັ່ງ ແລະ ເ. <b>P</b> ແລະເຊັ່ງ ແລະ ລົງ ສຳລຸ	er er er ver Ort a set
Antenna Height		ha	m	10	1208 23 <b>33</b> 276
Antenna Type & Size (¥agi, Parabo	olic)		1. m. 9	1. 4. Martin 1 1 1 2 1 4 1	
Antenna Gain	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	Ga	dBi	\$3.5	13 24 1 1 12 <b>6</b> 1946
Feeder Type				H20	H201 MALANT
Feeder Length		lf	m	20 ,	E (1) E (1) (143, 6)
Feeder Loss(ha + 10) x <u>ALf</u>		Lf	dB		220 1 TO 2.2
Antenna Height at P	1.63	hal	m	1 45 14	18.8 ***
Antenna Height at Q	1.10	ha2	m .	1 2 <b>1</b> 2	3. 33. 9 . ******
Path Loss					×891 0101
Path Distance	- 1 - L - L - L - L - L - L - L - L - L	d	km		005 <b>57.4</b> 09999
Free Space Propagation Loss	т. м Х	Lo	1	1 multistyper 24	
Additional Propagation Loss (50	%)	La	dB		
Total Propagation Loss(50%)		Lp		die end met enge	
Required Antenna Gain	1	Ga	dB	11.11 <sup>1</sup> 2 (1997)	
Antenna Gain at P		Gal	dBi	•	
Antenna Gain at Q	- 11	Ga2	dBí	1	30 <b>26-0</b> 33 <b>**</b> **
Branching Loss		Lb	dB		् <sub>रिन</sub> <b>5. £</b> राह्यप्रहे जन्म <b>ः - ई</b> राह्यदेश
Feeder Loss at P	· · · ·	Lfl	dB		⊴sta+.4stata+ 2sta≇∔Žsä#§t
Feeder Loss at Q	1	Lf2	dB dB		92.5 ***
Net Loss(50%) Median Noise(50%)		Ln			
Figure of Merit		Fm	dB	5	160.0
Signal/Thermal Noise		S/Nta	dB	and a second	57.5 \$1.
Thermal Noise		Nta	pWOp	en antres quinto a	178.0
Equipment Thermal Noise		Nte	pwOp pWOp	ar politi Afamadiy	100 0
Intermodulation Noise		Nim	pWOp	an a	200.0
Interference Noise		Nif	рКОр рКОр		240.0
Radio Link Noise		Npr	pWOp	natoli.	718.6 **•
Carrier Multiplex Noise		Npm	pWOp	Service States	278.6 ***
Total Noise		Npm Np	pWOp	narden esteration. G	988.0
Signal/Total Noise( > 57/50 dl	B)	S/Np	dB	n An an	69.1 <b>*</b> **
Short Period Noise(99.9%)				MAL PRODUCT	ายาดเล่า สวนเป็
Fading Depth		AE	dB	i.	49.5
Signal/Thermal Noise		S/Nta	dB		1228 6 **
Thermal Noise		Nta	pWOp		1768.2011
Radio Link Noise		Npr	pWOp		2830.0:74+4
Total Noise		Np	pWOp		149:219 + en
Signal/Total Noise	5. I	S/Np	dB		Contraction and the second second second
Fading Margin	Ī	-			t, The gap links
Tx Output Power		Pt	dBm		-55. Entry estimate
Rx Input Level(50%)	Í	Pri	dBm		. <b>-90.0</b> .)::
Threshold Level		Pth	dBm		3425 <sub>300</sub> 000
Margin to Threshold(50%)( $\geq$ 33	3 dB)	Mth	dB	ang abhana an	62. H1. [103]
	· · · · ·		·		
		Gain (e			ss(dB/m)
	4 ele.			RG-17 /U	
•	.2 mØ		18	<b>H13</b>	
-	• •	, 17	21	← H20.549(4)	
	.4		23.5	A20	0.048
· ·	.0		26		1.0.026
	.2	,	28.5 32		
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					- こともがない というきょく こうしょう

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UHF SYSTEM PERFORMANCE		ULATION	Path No	7711-2
Station P Don Sak T.		ation Q	Ko Samui	 Т.#
Path Type: L/S (me reflection), -Mt-			P	<u>Q</u>
Antenna Type & Size (Yagi, Parabolic)	ha	m	33	33
Antenna Gain	Ga	dBi	1.8	1.8
Feeder Type	Jua	UDI (DI	H 20	HZD
Feeder Length	11f	m	43	43
Feeder Loss(ha + 10) x ALf	LE	dB	2.2	2,2
Antenna Height at P	ha]	m		33.8 ***
Antenna Height at Q	ha2	m		33.0 ***
Path Loss				
Path Distance	d	km	.)	36.3 ***
Eree Space Pronagation Loss	Lo	dB	1 -	122.7 . ***
Additional Propagation Loss(50%)	La	dB		3.0 ***
Total Propagation Loss(50%)	Lp	dB		125.7 ***
Required Antenna Gain Antenna Gain at P	Ga Gal	dB dB1	j ·	41.2 *** 21.0 ***
Antenna Gain at Q	Ga2	dBi		21.6 ***
Branching Loss	Lb	· dB1	(	5.0
Feeder Loss at P	Lfl			2.2 ***
Feeder Loss at Q	Lf2		(	2.2 ***
Net Loss (50%)	Ln	dB		93.2 ***
Median Noise(50%)				
Figure of Merit	Fm	dB		160.0
Signal/Thermal Noise	S/Nt		i,	65.3 *** 209.0 ***
Thermal Noise	Nta	14 4		108.0
Equipment Thermal Noise	Nte	1		200.0
Intermodulation Noise	Nim		}	240.0
Interference Noise Radio Link Noise	Nif	pWOp pWOp	}	749.8 ***
Carrier Multiplex Noise	Npr Npm	pWOp pWOp		316.8 ***
Total Noise	Np Np	р₩Ор р₩Ор		1855.8 ***
Signal/Total Noise( > 57/50 dB)	S/ND			<u> </u>
Short Period Noise(99.9%)			1	16.0 ***
Fading Depth	Af	dB	)	59.8 ***
Signal/Thermal Noise	S/Nr		}	8318.0 ***
Thermal Noise	Nta	pWOp	}	8858.0 ***
Radio Link Noise	Npr	pWOp	1	9168.0 +*+
Total Noise	Np	pWOp	1	50.4 **+
Signal/Total Noise	S/Np	dB		
Fading Margin	Pt	27	l	27.2 -36.2 ***
Tx Output Power	Pri	d Bm	ł	-36,2 *** -90,2
Rx Input Level(50%)	Pth	d Bm d Bm	1	23.8 ***
Threshold Level Margin to Threshold(50%)( ≥ 33 dB)		d Bm d B		
$\frac{1}{2}$				
Program No. Anten	na Gai	n(dBi)	Feeder I	.oss(dB/m)
120 ch. 5W T301 14 el	e. Yaş	;i 15	RG-17 /1	
24 ch. 5W : T302 1.2 m	🕅 Para.	. 18	H13	0.091
24 ch. 100W : T303 1.8		21	H20	0.052
1 38AB, BELLER BUCK - 2.4	- 11	23.5	A20	0.048
Nux Noise(pWOp) 3.0		26	A 39	0.026
460 SG/380 G 4.2	5 N	28.5	I.	
310 CC/230 B 6.0	11	32		

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	STEM PERFOR						
Station P	Don Sak			tion Q	Ko Phan	*a .	
Path Type: L	/S (me reflectio	on), <del>Mr.</del>	Diffee	<b></b>	Do LE O'Person	3 3	ે <b>Q</b> તેલ ફોંઘ
Antenna Height			ha	, m	53	i Hati i	v <b>3</b> 3000
Antenna Type	Size (Yegi, Par	abolic)	1 1 1 1 1	mp		<b>4</b> 10 101918 8	12.4
Antenna Gain	and the second secon	1884	Ga	dBi	23;		<u>ുദ:ഗ</u>
Feeder Type					H20		· · · · · · · · · · · · · · · · · · ·
Feeder Length			1f	m	63	s tousi	<u>43</u>
	a + 10) x <u>A</u> LE	· · · · · · · · · · · · · · · · · · ·	Lf	<u>dB</u>	<u>+</u>		2,2
Antenna Height Antenna Height			hal	m		16 <u>766</u> 53.9	***
Path Loss			ha2	<u> </u>		.c. 345 <b>33.0</b>	
. Path Distanc	P		d	km	•	1	
	ronagation Loss		Lo	dB	1	:::ec¤h:: <b>55.7</b> . ⊴⊡::::::::::::::::::::::::::::::::::::	······
•	ropagation Loss		La	dB			
	ation Loss(50%)	••••••	Lp	dB		: No. 200 133.4	
Required Ant			Ga	dB		nas 164 <b>44.9</b> 2	
Antenna Gain			Gal	dBi	. n	23.5	:: <b>**</b> *
Antenna Gain	•		Ga2	dBi	$\phi^{(1)}$ (i)	72. av. 23.5	
Branching Lo		1. 1. <sup>1</sup> . 1.	Lb	dB			nata d
Feeder Loss		· · · · ·	L'f1	dB		ംപം പ്രം 3.3	
Feeder Loss	•		Lf2	dB			,}; <b>###</b> #
Net Loss(50% Median Noise(5			Ln	dB			•••
Figure of Me	-		Fm	dB		165.0	
Signal/Therm			S/Nta	dB	. ಎ.ಕಿ.ಎಸ	68.1	
Thermal Nois			Nta		an a	155.0	<b>**</b> *
Equipment The	=		Nte	pWOp	i+ Fasta⊈ja	100.0	
Intermodulat			Nim	pWOp		205.0	an an th
Interference	Noise		Nif	pWOp	್ರ. ಚಿತ್ರಗಳು	240.0	
Radio Link No			, Npr	pWOp	ф	695.0 230.0	***
Carrier Mult:	Iplex Noise	1	Npm	pWOp	- 310 CM 33	230.0 925.0	· <b>***</b>
Total Noise	·· · · · · · · ·		Np	pWOp		60.3	
	Noise( > 57/50	) <u>dB</u> )	S/Np	dB	1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5		
Short Period No	bise(99.9%)				r Karteri	alon 6 17.6	***
Fading Depth Signal/Therma	1 Nodo-		Af	dB		51.1	<sup>™</sup> \$\$\$
Thermal Noise			S/Nta	dB	la l	7762.0	
Radio Link No			Nta	pWOp		8302.0	
Total Noise	-35		Npr Np	рѠОр рѠОр	4 (* ) 2	8532.0	
Signal/Total	Noise	•	S/Np	dB	2 	50.72	
Fading Margin						37.0	
Tx Output Pow	rer		Pt	dBm		,	
Rx Input Leve	1(50%)		Pri	dBm	-	-95.0	
Threshold Lev			Pth	dBm		35.1	
Margin to Thr	eshold(50%)( $\geq$	33 dB)	Mth	dB	e naprio a	asabi ta mi	210 L
			1	L	······································		
Program No.			a Gain (			r Loss(dB/m	
120 ch, 5W	: T301	14 ele	•••			/U 0.14	
24 ch, 5W 24 ch, 100	: T302	1.2 m		. 18		0.09	
24 CH, 100	- : COCI : -	1.8		21		W661 0.05	
Mux Noise(pWO	n)	3.0		23.5	A20	0.04	
460 SG/380		4.2	н.	26 28.5		(†0%q) <b>⇒0102</b> 5 084 (n270)	
310 GC/230		6.0	s. <b>11</b> .	.32		0.000,000,000,000 0.000,000,000	
		8.0	11	34.5	7	·····································	

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UHF SYSTEM PERFORMANC ( 900 MHz, 24 ch/ <del>120-ch,</del> 5 W			ATION		Path No.	7711-4	
Station P Phun Phin (Tex)	T <i>a</i> ŧ	Stat	ion Q	Kanc	hanadit		TA
Path Type: L/S (no reflection), M	t. DIE	fract	ion.		P		Q
Antenna Height		ha	m		47		43
Antenna Type & Size (Vegi, Parabolio	c)	2.	m¢	L	1.8		1.8
Antenna Gain		Ga	dBi		21	<u> </u>	21
Feeder Type Feeder Length		lf	}	H20	57	HZO	53
Feeder Loss (ha + 10) x <u>4Lf</u>		LE	) m dB	<u> </u>	3.0	╆╾╍╼	2.8
Antenna Height at P		hal		<u> </u>	0.0	<u> </u>	
Antenna, Height at Q	1	nai ha2	m _			47.6	
Path Loss	~	naz	<u> </u>	<b> </b>		43. P	- ## <u>#</u> -
Path Distance	1	d	km			25.1	***
Free Space Propagation Loss	1	Lo	dB	Į		20.1	
Additional Propagation Loss(50%)		La	dB	ļ		10.0	
Total Propagation Loss(50%)	1.1	եթ	dB	1		129.5	
Required Antenna Gain		Ga	dB		-	41.2	
Antenna Gain at P	(	Gal	dBi	{		21.0	** 1
Antenna Gain at Q	1	Ga2	dBi	(		21.0	***
Branching Loss		CP .	dB	{		5.0	- <u>-</u>
Feeder Loss at P		Lfl	dB	1		3.8	***
Feeder Loss at Q		L£2	dB	1		2.8 98.2	***
Net Loss(50%)	╶┈╁╾╹	<u>l</u> n	dB	┟────		30.2	
Median Noise(50%)		Fm	dB			165.0	
Figure of Merit Signal/Thermal Noise		rm /Nta	dB		•	66.8	<b>非</b> 非 :=
Thermal Noise		Nta	аь gWOp			209.0	<b>**</b> *
Equipment Thermal Noise		Nte	gwop gW0g	]		100.0	
Intermodulation Noise	,	Nim	pWOp	1		200.0	
Interference Noise		Nif	pWOp	{		248.6	
Radio Link Noise		Npr	pWOp			749.0	***
Carrier Multiplex Noise		mak	pWOp			380.0 1129.0	<b>本市</b> 市 本市市
Total Noise	2	Ňр	pWOp	Į		59.5	
Signal/Total Noise( ≥ 57/50 dB)	S/	/Np	_dB	<b> </b>			
Short Period Noise(99.9%)	1		]	1		14.0	<b>水水</b> 注
Fading Depth	_	Af	dB	1		52.8	建筑市
Signal/Thermal Noise		/Nta	dB	{		5248.0	
Thermal Noise		ita -	pWOp			5758.0	
Radio Link Noise		Npr	pWOp			6168.0	
Total Noise		Np /Np	pWOp dB			52.1	***
Signal/Total Noise			<u> </u>	<u> </u>	<u></u>	37.0	
Fading Margin	, I	°t	dBm	1		-61.2	<b>米水</b> ・
Tx Output Power Rx Input Level(50%)	Pr		dBm	1		-95.0	
Threshold Level		:h	dBm	1		33.8	<b>X¥</b> 4
Margin to Threshold(50%) ( $\geq$ 33 d			dB	L			
Dentification Anno Anno	:enna G	ain (	dBi)	. 1	eeder L	oss(dB/m	n)
	ele.	Yagi	15	•	RG-17 /U		
	ere. 1 mØ Pa		18		H13	0.0	
24 ch, 5W : T302 1.2 24 ch, 100W : T303 1.8			21	÷	H20	0.0	
(a)		r	23.5		A20	0.0	
Mux Noise(pWOp) 3.0		ı	26		A39	0.0	26
460 SG/380 G 4.2		<b>1</b>	28.5				
310 CC/230 R 6.0		•	32				
510 (ic/250 k 8.0		l í	34.5				

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UHF SYSTEM PERFORMANCE	CÁLCU	LATION		7711-5
(900 MHz, <del>34 ck</del> /120 ch, 5 W/ <del>10</del>	<del>0=₩</del> -)	and a line of the second s		
Station P Phun Phin (Tex) TA	- Stat	ion O	Tha Chang min	TA
Path Type: L/S (me reflection), Ht-	Diffree	ton for a	12 A A B P PRAY 1	The serve and
Antenna Height	ha	n i	36	12(200 T33227
Antenna Type & Size ( <del>Yagi</del> , Parabolic)		1117	(1.8.	
Antenna Gain	Ga	dBi	21	144.8 / 1 1 2 1 30 Mg
Feeder Type			H20	H20
Feeder Length	1f	m	46	(1990) - <b>43</b> /961-
Feeder Loss(ha + 10) x <u>ALf</u>	Lf	dB	1: ::: 2.4	
Antenna Height at P	hal	m .		36.0 ***
Antenna Height at Q	ha2	<u> </u>	1	33.0 ***
Path Loss	4	lem		and a state of the states.
Path Distance	d	km in		18.8 ****
Free Space Propagation Loss	Lo	dB	<ul> <li>A contract states and second stat second states and second states and s</li></ul>	117.6 ***
Additional Propagation Loss(50%)	La	dB	n on an an the second s	· · · · · · · · · · · · · · · · · · ·
Total Propagation Loss(50%)	Lp	dB		126:0:*** 1.6:****
Required Antenna Gain	' Ga	dB		21.8 ***
Antenna Gain at P	Gal	dBi		21.0 ***
Antenna Gain at Q	Ga2	dBi		
Branching Loss	Lb	dB		2.4) str
Feeder Loss at P	Lf1	dB		2.2 744
Feeder Loss at Q	Lf2	dB		93.6 ***
Net Loss(50%)	Ln	dB		· · · · · · · · · · · · · · · · · · ·
Median Noise(50%)	-	10		160.0
Figure of Merit	Fm	dB	اید ادی بر در ۲۰۰۰ د	65.4 ***
Signal/Thermal Noise	S/Nta	dB		229.6 ***
Thermal Noise	Nta	pWOp	an the transformer	100.0
Equipment Thermal Noise	Nte	р₩Ор		200.0
Intermodulation Noise	Nim	pWOp		240.0
Interference Noise	Nif	pWOp		769.0 ***
Radio Link Noise	Npr	pWOp		468.8 ***
Carrier Multiplex Noise	Npm	pWOp	i tha i tha she i a	1229.0 444
Total Noise	Np S/Np	pWOp dB	1	59.1 ***
Signal/Total Noise( $\geq$ 57/50 dB)	5/ ND			
Short Period Noise(99.9%)	1		•	13.6 ***
Fading Depth	Af	dB		53.4 ***
Signal/Thermal Noise	S/Nta	dB		4571.0 ***
Thermal Noise	Nta	рѠѺр		5111.0 +*+
Radio Link Noise	Npr	pWOp	and the first sector of th	5571.0 ***
Total Noise	Np	pWOp		52.5 ***
Signal/Total Noise	S/Np	dB		2012/01/2012/01/2012 2017 <b>21/6</b> 2019-1
Fading Margin	<b>P</b> -			61237.C (1886)
Tx Output Power	Pt	dBm		-56.6 *** -98.0
Rx Input Level(50%)	Pri	dBm		
Threshold Level	Pth	dBm		33.4 JANA
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	A 112 Marked and Anna 1991 Anna 1997	a an ann an an an Anna an Anna Anna an Anna an
Program No. Antenn	a Gain (	dB1)	Feeder L	oss(dB/m)
120 ch, 5W : T301 14 ele	. Yagi		E RG-17 /U	0.14
24 ch, 5W : T302 1.2 m		18	H13	0.091
24 ch, 100W : T303 1.8	. <b>H</b>	21	(≣≦ <b>H2O</b> (5)€	0.052
2.4	10 J	23.5	A20	0.048
Mux Noise(pWOp) 3.0	11	26		5.0 <b>.026</b>
460 SG/380 G 4.2	н	28.5		traile (192
310 GC/230 R 6.0	н.	32		計算に対抗してい

UHF SYSTEM PERFORMANCE ( 900 MHz, <del>24 ch/</del> 120 ch, 5 W/ <del>100</del>			Path No.	7711-6
tation P Chai Ya	_ Stat	ion Q	Tha Chana	T.#
ath Type: L/S (ne reflection), Me.	LEEree	Hen	P	Q
ntenna Height	ha	m	45	33
Intenna Type & Size (¥egi, Parabolic)	с 1	m9	1.8	1.8
ntenna Gain	Ga	dBi	21	21
eeder Type	1		H20	HZO
eeder Length	1f	m	25	43
eeder Loss(ha + 10) x 4Lf	L£	<u>dB</u>	2.9	2.2
ntenna Height at P	hal	m	· · · ·	45.8 ***
ntenna Height at Q ath Loss	ha2			33.8 ***
Path Distance	đ	km		00 C
Free Space Propagation Loss	Lo	dB	, '	20.6 *** 117.8 ***
Additional Propagation Loss (50%)	La	dB		728 ***
Total Propagation Loss(50%)	Lp	dB		124.8 ***
Required Antenna Gain	Ga	dB		48.5 ***
Antenna Gain at P	Gal	dBi		21.8 ***
Antenna Gain at Q	Ga2	dBi		21.0 #**
Branching Loss	Lb	dB		5.0 • 6 442
Feeder Loss at P Feeder Loss at Q	Lf1	dB	· ·	2.9 *** 2.2 ***
Net Loss (50%)	Lf2 Ln	dB dB		2.2 444 92.9 4***
edian Noise(50%)	<u> </u>	<u> </u>	<b> </b>	
Figure of Nerit	Fm	dB		169.0
Signal/Thermal Noise	S/Nta	dB		67.1 ***
Thermal Noise	Nta	pWOp		195.8 ***
Equipment Thermal Noise	Nte	pWOp		100.0 200.6
Intermodulation Noise	Nim	pWOp		200.0 240.0
Interference Noise	Nif	pWOp		735.0 ***
Radio Link Noise	Npr	pWOp		468.6 ***
Carrier Multiplex Noise Total Noise	Npm	pWOp		1195.8 ***
Signal/Total Noise( > 57/50 dB)	Np S/Np	pWOp dB		59.2 ***
hort Period Noise(99.9%)		┟╴╨╚╴╤┍┤		
Fading Depth	Af	dB		13.0 ***
Signal/Thermal Noise	S/Nta	dB		54.1 *** 3990.0 ***
Thermal Noise	Nta	pWOp		3895.8 *** 4430.0 ***
Radio Link Noise	Npr	pWOp		4898.0 ***
Total Noise	Np	pWOp		53.1 ***
Signal/Total Noise	S/Np_			
ading Margin	B-	_		37.0
Tx Output Power	Pt	dBm		-55.9 ***
Rx Input Level (50%) Threshold Level	Pri Pth	dBm		-90.0 34.1 ##*
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dBm dB		ህፕ»ል ጥጥ <sup>*</sup>
$\operatorname{Har}(\operatorname{Brit}(\operatorname{CO}(\operatorname{Har}(\operatorname{SU}))))))))))))))))))))))))))))))))))))$	<u> </u>	<u>u</u> b		
Program No.	a Gain(	dBi)	Feeder Lo	oss(dB/m)
120 ch. 5W • T301 14 ele	. Yagi	15	RG-17 /U	0.14
24 ch, 5W : T302 1.2 mØ	Para.	18	H13	0.091
24 ch, 100W : T303 1.8	11	21	H20	0.052
Mux:Notse(pWOp)         3.0		23.5	A20	0.048
Mux Noise(pWOp) 3.0	u . u	26	A39	0.026
460 SG/380 G 310 GC/230 R 6.0	17 11	28.5		
310 GC/230 R 6.0	- 11 - 11	32		

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UHF SYSTEM PERFORMANCE (900 MHz, <del>24 ch/</del> 120 ch, 5 W/ <del>10</del>	1 1 1 1 4 1 1 1 1	• • • • •	Path No. 7711-7
Station P Phun Phin (Radio) T.4		tion 0	Khiri Ratthanikhom T.A
Path Type: L/S (no reflection), He-	Diffree	sion.	ALTER PART HELF CARE QUILD
Antenna Height	ha	m	10 10
Antenna Type & Size (Yagi, Parabolic)		mø	1.8 . M. M. 1.8
Antenna Gain	Ga	dBi	21 Hzo Hzo
Feeder Type	1f	1 1	H20 20 H20 45
Feeder Length Feeder Loss(ha + 10) x <u>ALf</u>	Lf	dB	
Antenna Height at P	hal		
Antenna Height at Q	ha2		· · · · · · · · · · · · · · · · · · ·
Path Loss			Republication and the second
Path Distance	d	ian 👘	464653117 1419
Free Space Propagation Loss	Lo	dB 😒	1 milde (Long & w12175 mil)
Additional Propagation Loss(50%)	La	dB	1 500 Testeq079 2546.0% #
Total Propagation Loss(50%)	Lp		1 - 1941 - Hardstein <b>127. 5</b> 18 <b>**</b> 2
Required Antenna Gain	Ga	dB	
Antenna Gain at P	Gal	dBi	1 18 11 8121 91 84 12 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Antenna Gain at Q	Ga2	dB1	(* 1997) 221 <b>-0</b> 34 <b>*</b> 4-
Branching Loss	Lb	dB	
Feeder Loss at P Feeder Loss at Q	Lfl Lf2	dB dB	
Net Loss (50%)	LIZ	dB	<b>1 1 1 1 1 1 1 1 1 1</b>
Median Noise(50%)			
Figure of Merit	Fm	dB	168.8
Signal/Thermal Noise	S/Nta	dB	ace
Thermal Noise	Nta	pWOp	245.0 ***
Equipment Thermal Noise	Nte	pWOp	estate and the state of the second
Intermodulation Noise	Nim	pWOp .	206.0
Interference Noise	Nif	pWOp	HILLON HOR TO MAD
Radio Link Noise	Npr	pWOp	278 A ++
Carrier Multiplex Noise	Npm	pWOp	1855.8 ***
Total Noise	Np S/Np	pWOp	59.8 ***
Signal/Total Noise( > 57/50 dB) Short Period Noise(99.9%)	1.5/ND	dB	
Fading Depth	.Af	dB	1007. 29 ser bolt boit5.8 an
Signal/Thermal Noise	S/Nta	dB	
Thermal Noise	Nta	pWOp	7762.0
Radio Link Noise	Npr	pWOp	8302.0° *** 8572.8° ***
Total Noise	Np	pWOp	59.7. · ·
Signal/Total Noise	S/Np	dB	
Fading Margin			37.8 A
Tx Output Power	Pt	dBm	-56: 9 ****
Rx Input Level(50%)	Pri	dBm	(107) I <b>98, E</b> al
Threshold Level	Pth	dBm	2
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB ···	Contraction and the distance
Decorat No.	- 0-1 1		
	a Gain()		Feeder Loss(dB/m)
120 ch, 5W : T301 14 ele 24 ch, 5W : T302 1.2 mØ		18	RG-17/U 0.14 H13 ,0.091
24 ch, 100W : T303 1.8		- 21	104H13 W201001091 104H20 W001 40.052
24 cm, 100w : 1505 1.8 2.4	**	23.5	A20 0.048
Mux Noise(pWOp) 3.0	п <sup>7</sup>	25.5	A39 (40%4) 360:026
460 SG/380 G 4.2		28.5	0.080394.000
310 GC/230 R 6.0	ા છે.	32	. 2 35 1 30 341
8.0		34.5	

4 167 8.15 - 1 4 4 5 T

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UHF SYSTEM PERFORMANCE (900 MHz, 24 ch/ <del>120 ch</del> , 5 W/#		LATION	Path No	• 7711–8
Station P Khiri Ratthanikhom T=	* Sta	rion Q	Ban Takhun	T.4
Path Type: L/S (no reflection), Ho-	DIFERE	+ion	P	Q
Antenna Height	ha	m	58	33
Antenna Type & Size (Yagi, Parabolic) Antenna Gain		mø	1.2	1.8
Feeder Type	Ga	dBi	HZD	21 HZD
Feeder Length	<b>1</b> f	m	68	43
Feeder Loss(ha + 10) x <u>4Lf</u>	Lf	dB	3-5	2.2
Antenna Height at P. Antenna Height at Q	hal	, m	n de la deservación d Reference de la deservación de la deserv	58.0 ***
Path Loss	ha2		<u></u>	33.0 **>
Path Distance	đ	km		14.2 ***
Free Space Promagation Loss	Lo	dB		114.5 ##4
Additional Propagation Loss(50%)	La	dB		12.0 ***
Total Propagation Loss(50%) Required Antenna Gain	Lp Ga	dB dB		126.5 *** 78.3 ***
Antenna Gain at P	Gal	dBi		18.0 ***
Antenna Gain at Q	Ga2	dBi		21.8 ***
Branching Loss Feeder Loss at P	Lb	dB	]	5.0 3.5 ***
Feeder Loss at P Feeder Loss at Q	Lfl Lf2	dB dB		. 3.5 *** 2.2 ***
Net-Loss(50%)	Ln			98.3 ***
Nedian Noise(50%)				1CE 0
Figure of Merit Signal/Thermal Noise	Fm	dB	} .	165.8 66.7 ***
Thermal Noise	S/Nta Nta	dB pWOp	2 2 2 2	214.8 ***
Equipment Thermal Noise	Nte	pw0p pW0p		108.0
Intermodulation Noise	Nim	pWOp		200.0 240.0
Interference Noise Rádio Link Noise	Nif	pWOp	}	754.8 ***
Carrier Multiplex Noise	Npr Npm	pWOp pWOp	e e	238.8 ***
Total Noise	Np	pWOp		984.0 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB	<b> </b>	60.1 ***
Short Period Noise(99.9%) Fading Depth		1		12.8 ***
Signal/Thermal Noise	Af S/Nta	dB dB		54.7 ***
Thermal Noise	Nta	pWOp	ł	3388.0 *** 3928.0 ***
Radio Link Noise	Npr	gowg		4158.0 ***
Total Noise	Np	pWOp		53.8 ***
<u>Signal/Total Noise</u> Fading Margin	S/Np_	dB	<del> </del>	37.0
Tx Output Power	Pt	dBm	[	-61.3 ***
Rx Input Level(50%)	Pri	dBm	· ·	-95.0
Threshold Level	Pth	dBm		33.7 *#*
Margin to Threshold (50%) ( $\geq$ 33 dB)	Mth	dB	<u> </u>	- <u>-</u>
Program No. Anten	na Gain (	dB1)	Feeder L	oss(dB/m)
120 ch, 5W : T301 14 el	e. Yagi	15	RG-17 /U	
Program No.         Anten           120 ch, 5W : T301         14 el           24 ch, 5W : T302         1.2 m           24 ch, 100W : T303         1.8	y Para.	18 21 .	H13 H20	0.091 0.052
240 cn, LUUW (11303 1.8 2.4	, u	23.5	A20	0.048
Mux Noise(pWOp) 3.0	11	26	A39	0.026
460 SG/380 G 4.2	. 11	28.5		
310 GC/230 R 6.0	н с. н	32	· · · ·	
8.0	n an	34.5		
	L4 - 59			

14 - 59

		,		
UHF SYSTEM PERFORMANCE	CALCUI	ATION	Path	eys and
(900 MHz, 24 ch/ <del>120 ch</del> , 5 W/ <del>100</del>	<ol> <li>Sharing and A. M.</li> </ol>	VV č jele	न्द्राहरू के जिल्ला के	7711-9
	THE CONTRACTOR	t - 1 0	t matteries and	
Station P Khiri Ratthanikhom T.#	a desse tores	ion O	Phanom	<b>T</b> . <b>≵</b>
Path Type: L/S (no reflection), No. 1	LEErace	<b>1011</b>	37-12-7 p	. List to Asyant
Antenna Height	ha .	m	68	F5
Antenna Type & Size ( <del>Yagi</del> , Parabolic)		1	21	× 32122
Antenna Gain	Ga	dBi	H20	HZD
Feeder Type Feeder Length	1f	. n	78	23 340 4 . <b>C-3</b> 000
Feeder Loss(ha + 10) x $\Delta$ Lf	Lf	dB	4.1	: Post 1 - 9. <b>2.8</b> - 5
Antenna Height at P	hal	m	: 25	142 68 6 Storspace
Antenna Height at Q	ha2		je j	43.0 43.0
Path Loss			·	1223-122-12-12-12-12-12-12-12-12-12-12-12-12
Path Distance	d	km	er All and All and	27.5 **
Free Space Pronagation Loss	Lo	dB	43 <b>30</b> 13£888883 38 2012338888	120.3 **
Additional Propagation Loss(50%)	La	dB	an an an an an Arran Angelan. An an teoraí an teoraí	16.0 × × ×
Total Propagation Loss(50%)	Lp	dB	ti shi tas	27 <b>29 1</b> 1 1 1 1 2
Required Antenna Gain	Ga Gal	dB dBi		ar <b>13. 1</b> 8 an <b>1</b> 8 an
Antenna Gain at P	Ga2	dBi		11.1.21.28:19###A
Antenna Gain at Q	Lb	dB		5.0 DELT
Branching Loss Feeder Loss at P	Lf1	dB		- 20 <b>4. 1</b> 220 <b>8</b> 93 (
Feeder Loss at Q	Lf2	dB		2 <b>.8 ∋≭</b> ≯.
Net Loss (507)	Ln	<u>d</u> B		066 <b>9661.</b> 34445
Median Noise(50%)				Kystian hutioch
Figure of Merit	Fm	dB		68.9 ×**
Signal/Thermal Noise	S/Nta	dB	1942 - 1947 - 1948 1	129.0 ***
Thermal Noise	Nta	pWOp		109.0
Equipment Thermal Noise	Nte	pWOp	1 A State Sec.	200.0
Intermodulation Noise	Nim Nif	pWOp pWOp	22149	248.8
Interference Noise Radio Link Noise	4 · · · ·	pWOp pWOp	· ALE	669.0 ***
Carrier Multiplex Noise	Npr Npm	pWOp	tosar Masaligi	238.6 ***
Total Noise	Np	pWOp	1. T	899.0 *** 60.5 ***
Signal/Total Noise( $\geq 57/50$ dB)	S/Np	dB	North Andrewski	
Short Period Noise(99.9%)			ં લ સમેશરાસ્ટ્રસ	14.0 ***
Fading Depth	Af	dB		54.5 **
Signal/Thermal Noise	S/Nta	dB		3236.8 ***
Thermal Noise	Nta	pWOp	11	3776.0 ***
Radio Link Noise	Npr	pWOp	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	4085.0 ***
Total Noise	Np	pWOp dB	s to a literation of the second s	54.0 **** 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 199
Signal/Total Noise	S/Np		anter processinger profile	37.0. 200 - C
Fading Margin	Pt	dBm	17-19-	
Tx Output Power Rx Input Level(50%)	Pri	d Bm	1	-95.0
Threshold Level	Pth	dBm	1	35.9
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	Notification teachean	
		<u> </u>	<u>1</u>	
-	a Gain(	dB1)	Feeder L	.oss(dB/m)
•	. Yagi		RG-17 /U	0.14
24 ch, 5W : T302 1.2 mØ	Para.	18		0.091
24 ch, 100W : T303 1.8		21	H20 A20	0.048
2.4 3.0		23.5 26	A20 (12)	4.0.026
Mux Noise(pWOp) 3.0 460 SG/380 G 4.2		28.5	0-1 0-1	
460 SG/380 G 4.2 310 GC/230 R 6.0	11	32		£22071/011£
510 GC/230 R 8.0		- 34 . 5	<ul> <li>A generation of a sector of the sector of th</li></ul>	aries an estimate and a se

UHF SYSTEM PERFORMANCE	CALCU	LATION		1 10
( 900 MHz, 24 ch/120 ch, 5 W/10 Station P			//1	.1–10
Ban Na San	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -	tion Q	Khian Sa	T.#
Path Type: *1/8 (no reflection), Mt.			P	Q
Antenna Type & Size (Vagi, Parabolic)	ha	m	22	63
Antenna Gain	Ga	719	1.2	1.8
Feeder, Type	Ga	dBí	18 H20 H	21
Feeder Length	1f	m	65	73
Feeder Loss(ha + 10) x 4Lf	Lf	dB	3.4	3.8
Antenna Height at P	hal	m		
Antenna Height at Q	ha2	m		5.0 ***
Path Loss		1	Contraction of the second s	
Path Distance	d	km	1	7.6 #*-
Free Space Pronagation Loss	Lo	dB		5.4 ***
Additional Propagation Loss(50%)	La	dB		9.6 ***
Total Propagation Loss(50%) Required Antenna Gain	Lp	dB		5.4 ***
Antenna Gain at P	Ga	dB		8.6 **
Antenna Gain at Q	Gal Ga2	dBi dBi		8.2 ***
Branching Loss	Lb	dBi		1.0 *** 5.8
Feeder Loss at P	Lf1	dB		3,4 #¥≽
Feeder Loss at Q	Lf2	dB		3.8 ***
Net Loss(50%)	Ln	dB		8.5 #**
ledian Noise(50%)			· · · · · · · · · · · · · · · · · · ·	
Figure of Merit	Fm	dB		5.0
Signal/Thermal Noise Thermal Noise	S/Nta	dB		6.4 xx. 9.0 xx.
Equipment Thermal Noise	Nta	pWOp		9.0 x++ 0.0
Intermodulation Noise	Nte	pWOp		6.6
Interference Noise	Nim Nif	pWOp		0.0
Radio Link Noise	NIT	pWOp pWOp	76.	9.8 ***
Carrier Multiplex Noise	Npm	pwop pWOp		8.8 ***
Total Noise	Np	pw0p pW0p		9.8 ***
Signal/Total Noise( > 57/50 dB)	S/Np	dB	5.	9.4 ***
hort Period Noise(99.9%)	1			2.0 ***
Fading Depth	Af	dB		2.6 788 1.4 899
Signal/Thermal Noise	S/Nta	dB	363.	
Thermal Noise	Nta	pWOp		1.8 ***
Radio Link Noise Total Noise	Npr	pWOp		i.0 **+
Signal/Total Noise	Np S/Np	pWOp	5.	7.4 #¥¥
ading Margin	3/ND	dB		
Tx:Output Power	Pt	dBm	_	7.0
Rx Input Level(50%)	Pri	d Bm		1.6 499 518
Threshold Level	Pth	d Bm		7.4 **•
Margin to Threshold(50%) ( $\geq$ 33 dB)	Mth	dB	•	
Transferration and the second s	a Gain (c	L Bf)	Feeder Loss(	dB/m)
Program No: Antenni 120 ch, 5W : T301 14 ele		15		0.14
24 ch. 5W : T3O2 1.2 m/		18		0.091
24 ch, 100W : T303 1.8		21		0.052
- 新科学教育 (1997) - 自然来	11	23.5		0.048
Mux Noise (pWOp) 3.0	<b>U</b> -	26		0.026
460 SG/380 G 4.2		28.5		
		32		
	F1	34.5		

14 - 61

UHF SYSTEM PERFORM (900 MHz, 24 ch/ <del>120 ch</del>			LATION	Path No	2 YZ 7HU 2 <b>7711-11</b>
Station P Ban Na San	Т.Я	<u> </u>	tion Q	Ban'Na Doer	T#
Path Type: -1/9 (no reflection	Ht.	Diffrac	tion	and the property and the	
Antenna Height		ha	m	<u>دى</u> .	
Antenna Type & Size (Vegi, Para	bolic)			1.8	
Antenna Gain Feeder Type		Ga	dBí	H20	H20
Feeder Length		1f	m.	65	- Alexander 58 generation
Feeder Loss(ha + 10) x 4Lf	·	Lf	dB	3.4	- 3.0···
Antenna Height at P	: .	hal	m.		0000 77
Antenna Height at Q Path Loss		ha2	m	an a	119.48.0- *** * ···
Path Distance	ела 	d	km	n an	
Free Space Propagation Loss	;	Lo	dB =	al addition promit	112:3 ANS -
Additional Propagation Loss(	50%)	La	dB	an an tha said	1075 03 (#ROA
Total Propagation Loss(50%) Required Antenna Gain		Lp Ga	dB dB	tan an a	e 1277330### 116 <b>39.7</b> 26###
Antenna Gain at P		Gal	dBi		10.21.0: ***
Antenna Gain at Q		Ga2	dBi	Q 14 g	21. Beckter
Branching Loss Feeder Loss at P		Lb Lf1	dB dB	13 A.	5.0 3.4.***
Feeder Loss at Q		Lf2	dB		3.8.5 <b>8</b>
Net Loss(50%)		Ln	dB		96.7 ***
iedian Noise(50%)				. · · · · · · · · · · · · · · · · · · ·	165.0.
Figure of Merit Signal/Thermal Noise		Fm S/Nta	dB dB		68.3 ***
Thermal Noise		Nta	pWOp	n na san an san san san san san san san	148.6 ***
Equipment Thermal Noise	. *	Nte	pWOp	anti ve finte e	100.0
Intermodulation Noise Interference Noise		Nim	pWOp		248.0
Radio Link Noise		Nif Npr	рWOр рWO <b>р</b>	点。 - 1973年1日 1993年年1日 1997年日 - 1977年1月	688.0 ***
Carrier Multiplex Noise	,	Npm	pWOp	a la constante de la constante	380.0 771
Total Noise		Np	pWOp		1068.0 ***
Signal/Total Noise( > 57/50 hort Period Noise(99.9%)	<u>dB)</u>	S/Np	dB	and a second	1. A Company of A Company of C
Fading Depth		Af	dB		10.0 *** 58.3 ***
Signal/Thermal Noise		S/Nta	dB		1479.0 ***
Thermal Noise		Nta	pWOp	÷ 1	2219.0 ***
Radio Link Noise Total Noise		Npr	pWOp		2399.0 ***
Signal/Total Noise	на <b>н</b> а страна	Np S/Np	pWOp dB		56.2 ***
ading Margin					37.0 42.
Tx Output Power		Pt	dBm		-59.7. ***
Rx Input Level(50%) Threshold Level		Pri Pth	dBm		-95.0 35.3 ***
Margin to Threshold(50%) ( $\geq$	33 dB)	Mth	d Bm d B	an Matina Matanasatita	[1] A. M.
Program No.		0-1-1-		<u></u>	and the second
120 ch, 5W : T301		Gain(c Yagi		Feeder Lo RG-17/U	oss(dB/m) 0.14
24 ch, 5W : T302	1.2 mØ		18		0.091
24 ch, 100W : T303	1.8	••	21	H20	0.052
Mux Noise(pWOp)	2.4 3.0	11 11	23.5	A20	0.048
460 SG/380 G	4.2		26 28.5		0.026
310 GC/230 R	6.0	. 44	·· 32		1403. OH
<u> </u>	8.0	11 - 2 <sub>1.2</sub>	34.5		
		- 62			a mandre to the state of the state

UHF SYSTEM PERFORMANCE	CALCI	JLATIO	N Path N	0.
(900 MHz, <del>24 ch/</del> 120 ch, 5 W/ <del>1</del>	<del>88 11</del> )	· · ·		7711-12
Station P Bàn Na San T.	<del>R.</del> Sta	tion 0	Wiang Sa	Т.:
Path Type: L/S (no reflection), He	Diffre	tion.	P	
Antenna Height	ha	m	43	<u> </u>
Antenna Type & Size ( <del>Vagi</del> , Parabolic) Antenna Gain		711.Ф	1.8	2.4
Feeder Type	Ga	dBi	21 H20	23.5
Feeder Length	1f	m	53	H 20 43
Feeder Loss(ha + 10) x ALf	Lf	dB	2.8	2.2
Antenna Height at P Antenna Height at Q	hal	m		43.8 ***
Path Loss	ha2	m	<u> </u>	33.0 ***
Path Distance	d	km		10 (
Free Space Propagation Loss Additional Propagation Loss(50%)	Lo	dB		19.1 *** 116.7 ***
Total Propagation Loss(50%)	La Lp	dB dB		11.0 ***
Required Antenna Gain	Ga	dB		127.7 ***
Antenna Gain at P Antenna Gain at Q	Gal	dBi		43.7 *** 21.0 ***
Branching Loss	Ga2	dBi		23.5 ***
Feeder Loss at P	Lb Lfl	dB dB		5.0 2.3 ***
Feeder Loss at Q	Lf2	dB		2.2 ***
Net Loss(50%) Nedian Noise(50%)		dB		93.2 ***
Figure of Merit	Fm	dB		168.0
Signal/Thermal Noise	S/Nta	dB	·	66.8 ***
Thermal Noise Equipment Thermal Noise	Nta	pWOp		209.0 ***
Intermodulation Noise	Nte Nim	pWOp		130.0 200.0
Interference Noise	Nif	pWOp pWOp		248.0
Radio Link Noise	Npr	pWOp		745.0 ***
Carrier Multiplex Noise Total Noise	Npm	pWOp		460.0 *** 1209.0 ***
Signal/Total Noise( > 57/50 dB)	Np S/Np	pWOp dB		59.2 ***
Short Period Noise(99.9%)				17 A ANS
Fading Depth Signal/Thermal Noise	Af S/Nta	dB		13.0 #** 53.8 #**
Thermal Noise	Nta Nta	dB pWOp		4159.0 #**
Radio Link Noise	Npr	р₩Ор р₩Ор		4709.0 *** 5159.0 ***
Total Noise Signal (Total Note	Np	pWOp		5159.8 *** 52.9 ***
<u>Signal/Total Noise</u> Fading Margin	S/Np	_dB		
Tx Output Power	Pt	dBm		37.3 -56.2 ****
Rx Input Level(50%) Threshold Level	Pri	dBm		-58.0
Margin to Threshold (50%) ( $\geq$ 33 dB)	Pth	d Bm		33.8 ***
De the start and the start	Mth	dB		
Program No. Antenna 120 ch 5W . T201	a Gain(d			oss(dB/m)
120 ch, 5W : T301 14 ele 24 ch, 5W : T302 1.2 mØ		15 18	RG-17 /U H13	0.14 0.091
24 ch, 100W : T303 1.8	11	21	H20	0.091
Mux Noise(pWOp) 2.4 3.0		23.5	A20	0.048
460 SG/380 C 4.2	11 11	26 28.5	A39	0.026
310 GC/230 R 6.0	н	28.5 32		
	11	34.5		

UHF SYSTEM PERFORM				Path No.	a an mangahara. Anana Mine ana agas gar ga ga ga
UHF SYSTEM PERFORM (900 MHz, 24 ch/ <del>120 ch</del> ,					7711-13
Station P Ban Na San	T 🚓	Stat	ion O	Prasaeng	The second se
Path Type: L/S (no-reflection	). <del>. Mt [</del>	iffract	<b>108</b>	P	Q
Antenna Height	-	ha	m	58	1
Antenna Type & Size (Yagi, Para	bolic)		ma	2,4.	2.4
Antenna Gain		Ga	dBi	23.5	23.5
Feeder Type				H20	H20
Feeder Length		1f	m	68	43
Feeder Loss(ha + 10) x <u>4Lf</u>		Lf	dB	3.5.	2.2
Antenna Height at P	. ,	hal	m.		524-58.05 ***
Antenna Height at Q		ha2	m		33.8 ***
Path Loss		·	· · · ·	e i si si si si si su	يحجر ويعتقد وتتدريك متعقد والم
Path Distance		d	km		27.7 180
Free Space Promagation Loss		Lo	dB	a containeact	120.3 ***
Additional Propagation Loss(	50%)	La	dB	i problem i persona	13. C. (189)
Total Propagation Loss(50%)		Lp	dB	n in the sectors	· · · · · · · · · · · · · · · · · · ·
Required Antenna Gain		Ga	dB	the standard	
Antenna Gain at P		Gal	dBi	N. 11	23.5 ***
Antenna Gain at Q		Ga2	dBi	la de la companya de	23.5 ***
Branching Loss		LP .	dB		5.0
Feeder Loss at P		Lf1	dB		3.5 ***
Feeder Loss at Q		Lf2	dB	S del	2.2 ***
Net Loss(50%)		Ln	<u>dB</u>		97.1 ***
Median Noise(50%)		111 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n an	165.0
Figure of Merit		Fm	dB		67.9 ***
Signal/Thermal Noise		S/Nta	dB	1911	162.9 ***
Thermal Noise		Nta	pWOp		100.0
Equipment Thermal Noise		Nte	р₩Ор		200.0
Intermodulation Noise		Nim	p₩Op	. : P	242.0
Interference Noise		Nif	pWOp	1.4.	·· 702.0·***
Radio Link Noise		Npr	pWOp		388.0 ***
Carrier Multiplex Noise		Npm	pWOp	a secondaria	-
Total Noise		Np	pWOp		59.7
Signal/Total Noise( > 57/50	<u>dB)</u>	S/Np	dB		
Short Period Noise(99.9%)					14.0 ***
Fading Depth		Af	dB		53.9:0***
Signal/Thermal Noise		S/Nta	dB	1	4074.0 ****
Thermal Noise		Nta	pWOp		4614.8 ***
Radio Link Noise		Npr	pWOp		4994.8 ***
Total Noise		Np	pWOp		53.0 ***
Signal/Total Noise		S/Np	dB		
Fading Margin		1		an an an an an an Ar Sala an Ar	37.0
Tx Output Power		Pt	dBm		-68.1 ***
Rx Input Level(50%)		Pri	dBm		-95.0
Threshold Level		Pth	dBm		.34.9 ***
Margin to Threshold(50%)( $\geq$	33 dB)	Mth	dB		a shada
Program No.	Antenn	a Gain(	dBi)	Feeder L	oss(dB/m)
120 ch, 5W : T301		. Yagi		RG-17 /U	
24  ch, 5W : T302	1.2 mØ		18	H13	0.091
24  ch, 500  ch	1.8	"	21	H20	
			23.5	A20	0.048
2. 20, 2000 7 2207	2.4			··	
-	2.4			A 19	0.026
Mux Noise(pWOp)	3.0	67 16	26	A39	0.026
-					<b>0.026</b>

were assured

		<u> </u>		r			
UHF SYSTEM PERFORMAN	CE	CALCU	LATION	ŧ	Path No	•	
(900 MHz, <del>24 ch</del> /120 ch, 5 K			7711-1	4			
Station P Phun Phin (Tex)	Т 🕀	Stat	tion Q	Phu	n Phin (	Radio)	T.#
Path Type: L/S (me reflection),	KeI	LEEvee	-	1	Р	1	Q
Antenna Height		ha	m		25		10
Antenna Type & Size (Yagi, Perebela	<b>ie</b> )		ELe.		8		8
Antenna Gain		Ga	dBi		10		8
Feeder Type Feeder Length				H20	<u> </u>	H20	
Feeder Loss(ha + 10) x <u>dLf</u>		lf Lf	m	<b></b>	35		20
Antenna Height at P		_			1.8		1.0
Antenna Height at Q		hal	m			25.0	
Path Loss		ha2	<u> </u>	<b></b>		10.0	***
Path Distance		a	km	ľ		<i>,</i> -	
Free Space Propagation Loss		Lo	dB	1		4.9	***
Additional Propagation Loss(50%)	)	La	dB	1		105.3	
Total Propagation Loss(50%)		Lp	dB	1		0.0 105.3	
Required Antenna Gain		Ga	dB			105.3	
Antenna Gain at P		Gal	dBi	}		12.0	
Antenna Gain at Q		Ga2	dBi			12.0	
Branching Loss		Lb	dB			5.8	
Feeder Loss at P		Lf1	dB	ł		1.8	<b>末末</b> 末
Feeder Loss at Q		Lf2	dB			1.8	外草(4
Net Loss(50%)		<u> </u>	<u>dB</u>			89.2	***
Median Noise(50%)		_					
Figure of Merit Signal/Thermal Noise		Fm	dB			165.2 75.8	مارد مارد مارد
Thermal Noise		S/Nta	dB			26.0	*** ***
Equipment Thermal Noise		Nta	pWOp			100.0	774
Intermodulation Noise		Nte Nim .	pWOp -UO-			200.0	
Interference Noise		NIM . Nif	р₩Ор р₩Ор			240.6	
Radio Link Noise	Į	Npr	pwop pWOp			566.0	***
Carrier Multiplex Noise		Npm	pWOp			190.0	
Total Noise		Np	pWOp			756.0	
Signal/Total Noise( > 57/50 dB)		S/Np	dB			.£1.2	***
Short Period Noise(99.9%)							
Fading Depth		Af	dB			7.0 68.8	オホル 東京王
Signal/Thermal Noise		S/Nta	dB			132.0	934 宋華宋
Thermal Noise	- 1	Nta	рWOр			672.0	***
Radio Link Noise		Npr	pWOp			862.0	***
Total Noise Signal (Total Nois	ļ	Np	pWOp			60.5	***
<u>Signal/Total Noise</u>		S/Np	dB				
Fading Margin		<b>D</b> .				37.0	
Tx Output Power Rx Input Level(50%)		Pt	dBm			-52.2	洋洋牛
Threshold Level	Í	Prí Dub	dBm			-95.8	
Margin to Threshold(50%) ( $\geq$ 33 d	IB)	Pth Mth	dBm dB			42.8	***
	<b>L</b>		··				
		Gain (d		F	eeder Lo	ss(dB/m	)
120 ch, 5W : T301 14		Yagi	15		RG-17 /U	0.14	
		Para.	18		H13	0.09	
24 ch, 100W : T303 1.8			21		H20	0.05	
Mux Notes (pU0-) 2.4			23.5		A20	0.04	
Mux Noise(pWOp) 3.0 460 SG/380 G 4.2		••	26 28 5	4	A39	0.02	6
		н	28.5				
310 GC/230 R 6.0 8.0			32 34,5				

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15. Cable Layout Plan

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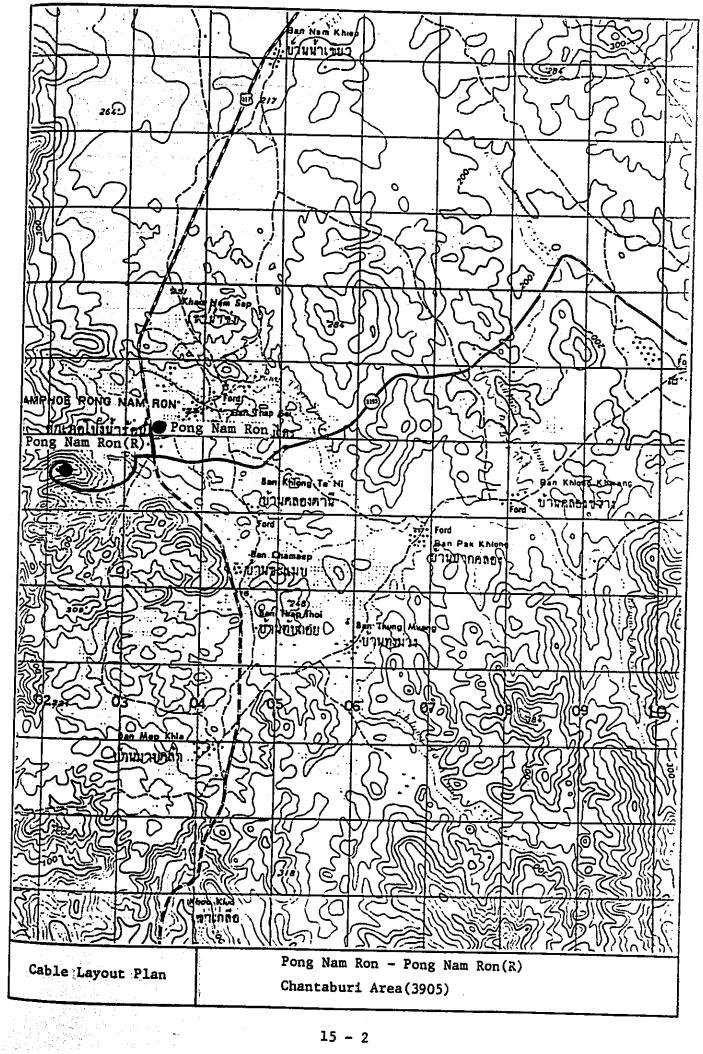
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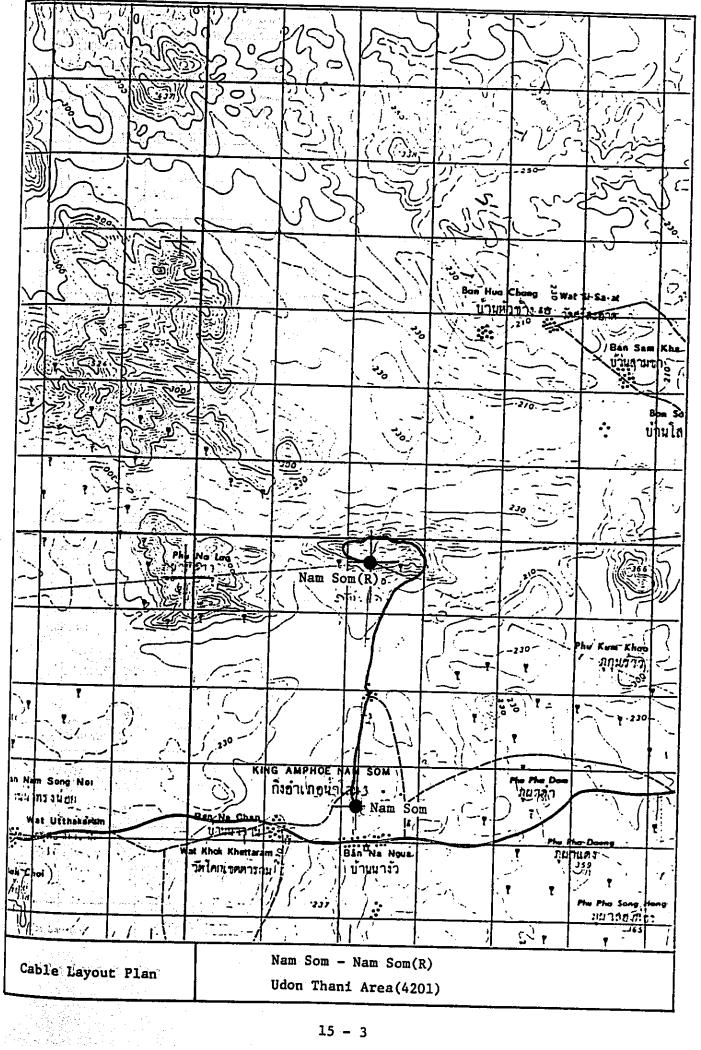
Contents for Cable Layout Plan

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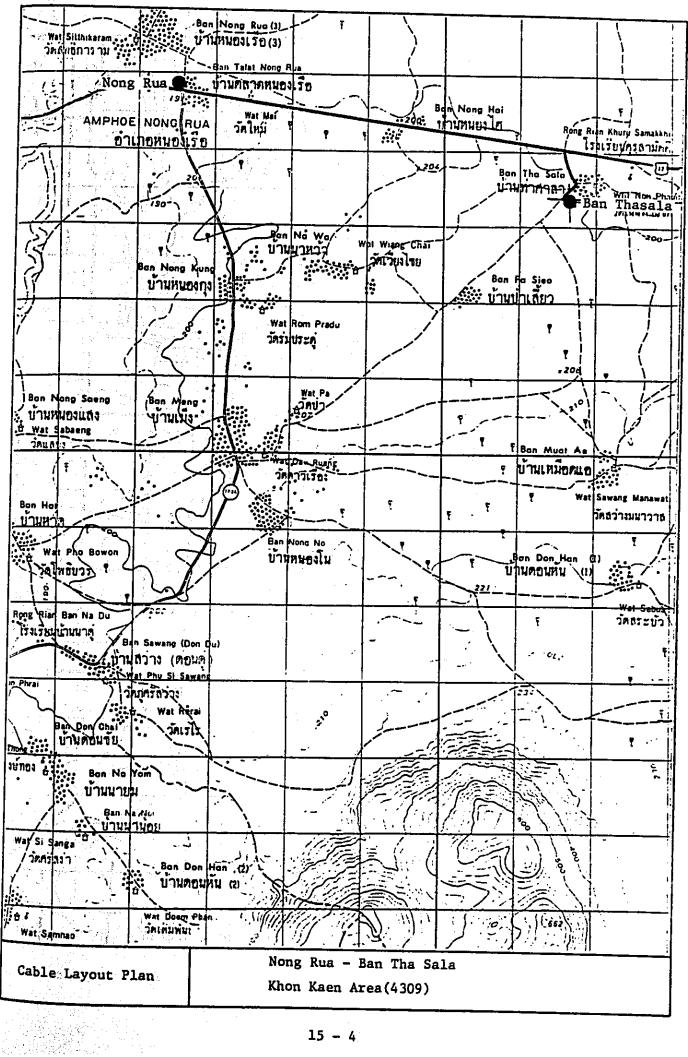
C	ode	Area	Cable Section	Page
3	808	Rayong	Ban Khai - Rayong	15 - 1
3	905	Chantaburi	Pong Nam Ron - Pong Nam Ron(R)	2
4	201	Udon Thani	Nam Som - Nam Som(R)	3
4	309	Khon Kaen	Nong Rua - Ban Thasala	4
- 4	321	Kalasin	Sahat Sakhan - Phu Sing	5
4	412	Burirum	Husi Rat - Burirum	6
5	301	Mae Hong Son	Mae Sariang - Mae Sariang(R)	7
5	322	Lamphun	Mae Tha - Mae Tha(R)	8
			U-Mong - Lamphun	9
5	401	Chiangrai	Phan - Khao Ban Doi	10
5	523	Khamphaeng Phet	Phran Kratai - Phran Kratai(R)	11
7	301	Yala	Than To - Than To(R)	12
7	314	Narathiwat	Tak Bai - Tak Bai(R)	13
· . 7	501	Krabi	Ao Luk - Ao Luk(R)	14
~			Ko Lanta - Ko Lanta(R)	15
	523	Trang	Sikao - Ban Mai Fat	16
7	601	Phang Nga	Kapong - Kapong(R)	17
7	609	Phuket	Kra Too - Phuket	18
7	701	Chum Phon	Pathiu - Pathiu(R)	19
			Sawi - Sawi(R)	20
			Lamae - Lamae(R)	21
7	707	Ranong	La-Un - La-Un(R)	22
7	<b>711</b>	Phun Phin	Khiri Ratthanikhom - Khiri Ratthanikhom(R)	23

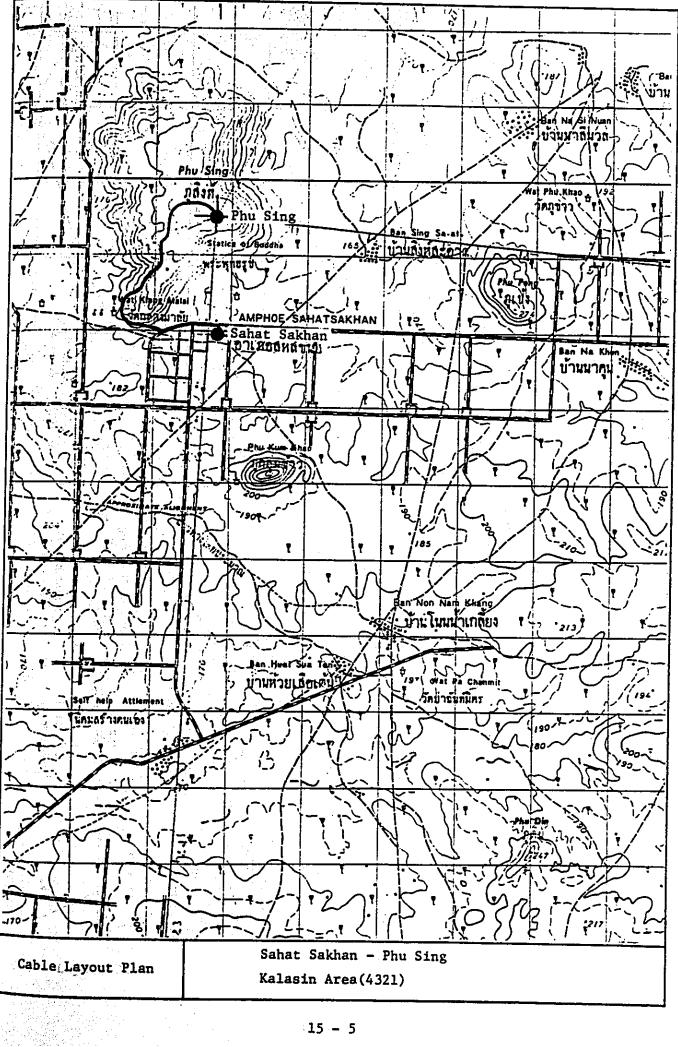
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ATOMU U	ามหมืองละดอเ	71-1	Ban	Khai	สีนถ้อม-	ช้านี้ขากกองหม	
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	Ban Nong Lam		ſ <u>_#_;=_</u>	tione sure		V	
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