



*International Civil Aviation Organization*

**SPECIAL IMPLEMENTATION PROJECT (SIP) ON ATS  
INTER-FACILITY DATA COMMUNICATION  
IMPLEMENTATION SEMINAR**

Bangkok, Thailand, 12-13 October 2010

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**Agenda Item 2:           Review requirements of implementation of AIDC in the APAC Region**

**REVIEW THE FASID TABLE CNS-1D  
ASIA/PAC ATS DIRECT SPEECH CIRCUITS PLAN**

(Presented by the Secretariat)

**SUMMARY**

This paper presents FASID Table CNS 1D - ATS Direct Speech Circuit Plan for information and review by the meeting.

**1.       INTRODUCTION**

1.1           The requirements for ATS Direct Speech Circuits are specified in the Table CNS 1D – ATS Direct Speech Circuits Plan which is provided in a tabular form in **Attachment 1** for review by the participants of the Seminar.

1.2           The Table is also available at the ICAO APAC Website as follows:  
<http://www.icao.or.th/edocs/fasid/fasid.html>

**2.       DISCUSSION**

2.1           The Table CNS-1D specifies the requirements for ATS Direct Speech Circuits in the Asia and Pacific Regions. The documents were published in early 2006. It has not been further updated by since then. It is expected to be reviewed by the CNS/MET SG/15 2011 in a comprehensive manner.

2.2           States in the ASIA/PAC Region are gradually implementing AIDC or planning to implement AIDC based on the operational requirements. The requirements for ATS Direct Speech Circuits should be considered as basic reference document for updating requirements for AIDC implementation.

**3.       ACTION BY THE MEETING**

3.1           The participants attending the Seminar are invited to:

- a) note the requirements as specified in ATIS Direct Speech Circuits Plan(Table CNS-1D); and
- b) provide comments, as required.

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## Table CNS 1D

### ATS DIRECT SPEECH CIRCUITS PLAN

#### EXPLANATION OF THE TABLE

#### Column

- 1 and 2 Circuit terminal stations are listed alphabetically by the Terminal I.
- 3 A — indicates ATS requirement for the establishment of voice communication within 15 seconds.  
D — indicates requirements for instantaneous communications.  
X — indicates that the circuit is required for network operation.
- 4 Type of service specified:  
  
LTF — landline telephone (landline, cable, UHF, VHF, satellite).  
RTF — radiotelephone.  
TOLL — requirements to be satisfied using TOLL call via public message toll service.
- 5 Type of circuits; Direct (DIR) or Switched (SW).  
  
D — indicates a direct circuit connecting Terminals I and II.  
S — indicates that a direct circuit does not exist and that the connection is established via switching at the switching centre(s) indicated in column 6.
- 6 Location of switching centre(s).
- 7 Status of Implementation. The following codes are used in this column:  
  
I — Required and implemented.  
X — Required but implementation status undetermined.  
N — Required and target date of implementation established.
- 8 Remarks
- Note 1.— Requirement to be satisfied by direct HF RTF circuit or TOLL services until reliable common carrier service becomes available to provide LTF circuit.*
- Note 2.— Circuit to be implemented when traffic justifies.*
- Note 3.— Existing service TOLL.*
- Note 4.— Inconsistency to be reviewed.*
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ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
<b>AMERICAN SAMOA (United States)</b>							
PAGO PAGO APP	ALOFI	A	LTF	DIR			Note 3
	APIA/FALEOLO	A	LTF	DIR			
	NADI	A	LTF	DIR			Note 3
<b>AUSTRALIA</b>							
BRISBANE ACC	AUCKLAND	A	LTF	DIR		07/00	
	BALI	A	LTF	DIR			Note 4
	HONIARA	A	LTF	DIR			
	JAKARTA	A	LTF	DIR			Note 4
	NADI	A	LTF	SW	OAKLAND		
	OAKLAND	A	LTF	DIR			
	PORT MORESBY	A	LTF	DIR			Note 4
	UJUNG PANDANG	A	LTF	DIR			
MELBOURNE	BRISBANE	X	LTF	DIR	NETWORK OPERATION		Note 4
	COLOMBO	A	LTF	DIR			
	DIEGO GARCIA	A	LTF	DIR			
	JAKARTA	A	LTF	SW	BRISBANE		
	JOHANNESBERG	A	LTF	DIR			
	MALE	A	LTF	DIR			
	MAURITIUS	A	LTF	DIR			
	PERTH APP	JAKATA ACC	A	LTF	DIR		
<b>BANGLADESH</b>							
DHAKA ACC	AGARTALA	A	LTF	TOLL		X	
	KOLKATA	A	LTF	DIR			Note 3
	GUWAHATI	A	TOLL			X	
	YANGON	A	LTF	DIR			
<b>BRUNEI DARUSSALAM</b>							
BRUNEI ACC	KOTA KINABALU	A	LTF	DIR			
	LABUAN	A	LTF	DIR			
	LIMBANG	A	LTF	DIR			
	MIRI	A	LTF	DIR			
<b>CAMBODIA</b>							
PHNOM PENH ACC	BANGKOK	A	LTF	DIR			
	HO CHI MINH	A	LTF	DIR		I	VSAT
	VIENTIANE	A	LTF	SW	BANGKOK	<12/00	
<b>CHINA</b>							
BEIJING ACC	DALIAN	A	LTF	DIR		I	
	HOHHOT	A	LTF	DIR		I	
	JINAN	A	LTF	DIR		I	
	SHENYANG	A	LTF	DIR		I	
	TAIYUAN	A	LTF	DIR		I	
	ULAANBAATAR	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
	CHANGSHA ACC	GUANGZHOU	A	LTF	DIR		I
GUILIN		A	LTF	DIR		I	
GUIYANG		A	LTF	DIR		I	
WUHAN		A	LTF	DIR		I	

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
CHENGDU ACC	NANCHANG	A	LTF	DIR		I	
	GUIYANG	A	LTF	DIR		I	
	KUNMING	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	LHASA	A	LTF	DIR		I	
	WUHAN	A	LTF	DIR		I	
	XI'AN	A	LTF	DIR		I	
DALIAN ACC	BEIJING	A	LTF	DIR		I	
	PYONGYANG	A	LTF	DIR		I	
	QINGDAO	A	LTF	DIR		I	
	SEOUL	A	LTF	DIR		X	
	SHENYANG	A	LTF	DIR		I	
GUANGZHOU ACC	CHANGSHA	A	LTF	DIR		I	
	GUILIN	A	LTF	DIR		I	
	HAIKOU	A	LTF	DIR		I	
	HONG KONG	D	LTF	DIR		I	
	MACAO	A	LTF	DIR		I	
	NANCHANG	A	LTF	DIR		I	
	NANNING	A	LTF	DIR		I	
	SANYA	A	LTF	DIR		I	
	TAIBEI	A	LTF	DIR		X	
	XIAMEN	A	LTF	DIR		I	
	GUILIN ACC	CHANGSHA	A	LTF	DIR		I
GUANGZHOU		A	LTF	DIR		I	
GUIYANG		A	LTF	DIR		I	
NANNING		A	LTF	DIR		I	
GUIYANG ACC	CHANGSHA	A	LTF	DIR		I	
	CHENGDU	A	LTF	DIR		I	
	GUILIN	A	LTF	DIR		I	
	KUNMING	A	LTF	DIR		I	
	NANNING	A	LTF	DIR		I	
HAIKOU ACC	GUANGZHOU	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		X	
	HONG KONG	A	LTF	DIR		I	
	NANNING	A	LTF	DIR		X	
	SANYA	A	LTF	DIR		I	
HAILAR ACC	CHITA	A	LTF	DIR		I	
	HARBIN	A	LTF	DIR		I	
	SHENYANG	A	LTF	DIR		I	
HARBIN ACC	KHABAROVSK	A	LTF	DIR		I	
	HAILAR	A	LTF	DIR		I	
	SHENYANG	A	LTF	DIR		I	
	VLADIVOSTOK	A	LTF	DIR		I	
HEFEI ACC	JINAN	A	LTF	DIR		I	
	NANCHANG	A	LTF	DIR		I	
	SHANGHAI	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
	WUHAN	A	LTF	DIR		I	
HOHHOT ACC	BEIJING	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	TAIYUAN	A	LTF	DIR		I	
	ULAANBAATAR	A	LTF	DIR		I	

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
JINAN ACC	BEIJING	A	LTF	DIR		I	
	HEFEI	A	LTF	DIR		I	
	QINGDAO	A	LTF	DIR		I	
	SHANGHAI	A	LTF	DIR		I	
	TAIYUAN	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
KUNMING ACC	CHENGDU	A	LTF	DIR		I	
	GUIYANG	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		X	
	NANNING	A	LTF	DIR		I	
	VIENTIANE	A	LTF	DIR		I	
	YANGON	A	LTF	DIR		I	
LANZHOU ACC	CHENGDU	A	LTF	DIR		I	
	HOHHOT	A	LTF	DIR		I	
	LHASA	A	LTF	DIR		I	
	ULAANBAATAR	A	LTF	DIR		I	
	URUMQI	A	LTF	DIR		I	
	XI'AN	A	LTF	DIR		I	
LHASA	CHENGDU	A	LTF	DIR		I	
	KATHMANDU	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	URUMQI	A	LTF	DIR		I	
NANCHANG ACC	CHANGSHA	A	LTF	DIR		I	
	GUANGZHOU	A	LTF	DIR		I	
	HEFEI	A	LTF	DIR		I	
	WUHAN	A	LTF	DIR		I	
	XIAMEN	A	LTF	DIR		I	
NANNING	GUANGZHOU	A	LTF	DIR		I	
	GUILIN	A	LTF	DIR		I	
	GUIYANG	A	LTF	DIR		I	
	HAIKOU	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		X	Note 3
	KUNMING	A	LTF	DIR		I	
QINGDAO ACC	DALIAN	A	LTF	DIR		I	
	JINAN	A	LTF	DIR		I	
	SHANGHAI	A	LTF	DIR		I	
	TAEGU	A	LTF	DIR		I	
SANYA ACC	GUANGZHOU	A	LTF	DIR		I	
	HAIKOU	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		10/01	
	HO CHI MINH	A	LTF	DIR		10/01	
	HONG KONG	A	LTF	DIR		10/01	
	MANILA	A	LTF	DIR		10/01	
SHANGHAI ACC	FUKUOKA	A	LTF	DIR		I	
	HEFEI	A	LTF	DIR		I	
	JINAN	A	LTF	DIR		I	
	NANCHANG	A	LTF	DIR		I	
	NAHA	A	LTF	DIR		X	Note 2, 4
	QINGDAO	A	LTF	DIR		I	
	TAEGU	A	LTF	DIR		X	
	TAIBEI	A	LTF	DIR		X	
	XIAMEN	A	LTF	DIR		I	

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
SHENYANG ACC	BEIJING	A	LTF	DIR		I	
	DALIAN	A	LTF	DIR		I	
	HAILAR	A	LTF	DIR		I	
	HARBIN	A	LTF	DIR		I	
	PYONGYANG	A	LTF	DIR		I	
	VLADIVOSTOK	A	LTF	DIR		I	
SHENZHEN	HONGKONG	A	LTF	DIR		I	
	MACAO	A	LTF	DIR		I	
TAIBEI ACC	GUANGZHOU	A	LTF	DIR		X	
	HONG KONG	D	LTF	DIR		I	
	MANILA	A	LTF	DIR		I	
	NAHA	D	LTF	DIR		I	
	SHANGHAI	A	LTF	DIR		X	
	TAEGU	A	LTF	DIR		I	
	XIAMEN	A	LTF	DIR		X	
TAIYUAN ACC	BEIJING	A	LTF	DIR		I	
	HOHHOT	A	LTF	DIR		I	
	JINAN	A	LTF	DIR		I	
	XI'AN	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
URUMQI ACC	ALMA-ATA	A	RTF	DIR		I	
	BARNUAL	A	RTF	DIR		I	
	BISHEKEK	A	RTF	DIR		I	
	KHOVD	A	RTF	DIR		I	
	LAHORE	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	RAWALPIND	A	LTF	DIR		I	
	ULAANBAATAR	A	LTF	DIR		X	
WUHAN ACC	CHANGSHA	A	LTF	DIR		I	
	CHENGDU	A	LTF	DIR		I	
	HEFEI	A	LTF	DIR		I	
	NANCHANG	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
XIAMEN ACC	GUANGZHOU	A	LTF	DIR		I	
	NANCHANG	A	LTF	DIR		I	
	SHANGHAI	A	LTF	DIR		I	
	TAIBEI	A	LTF	DIR		X	
XI'AN ACC	CHENGDU	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	TAIYUAN	A	LTF	DIR		I	
	ZHENGZHOU	A	LTF	DIR		I	
ZHENGZHOU ACC	BEIJING	A	LTF	DIR		I	
	JINAN	A	LTF	DIR		I	
	TAIYUAN	A	LTF	DIR		I	
	WUHAN	A	LTF	DIR		I	
	XI'AN	A	LTF	DIR		I	
ZHUHAI APP	HONG KONG	A	LTF	DIR		I	
	MACAO	A	LTF	DIR		I	
COOK IS.							
RAROTONGA	AUCKLAND	A	LTF	DIR			Note 4
	TAHITI/PAPEETE	A	LTF	DIR			Note 3, 4
DEMOCRATIC PEOPLE'S							

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
<b>REPUBLIC OF KOREA</b>							
	DALIAN	A	LTF	DIR		I	
	SHENYANG	A	LTF	DIR		I	
	TAEGU	A	LTF	DIR		I	
	VLADIVOSTOK	A	LTF	DIR		I	RTF
<b>FIJI</b>							
NADI ACC	ALOFI	A	LTF	DIR			Note 3
	APIA	A	LTF	DIR			Note 3
	AUCKLAND	A	LTF	DIR			
	BRISBANE	A	LTF	SW	AUCKLAND		Note 4
	HONIARA	A	LTF	SW	SYDNEY		
	NOUMEA	A	LTF	DIR			Note 3
	OAKLAND	A	LTF	DIR			Note 3
	PAGO PAGO	A	LTF	DIR			Note 3
	PORT VILA	A	LTF	DIR			
	VAVA'U	A	LTF	DIR			Note 3
	WALLIS	A	LTF	DIR			Note 3
<b>FRENCH POLYNESIA (France)</b>							
TAHITI/PAPEETE ACC	AUCKLAND	A	TOLL				
	ISLA DE PASCUA	A	LTF	DIR			Note 3
	OAKLAND	A	LTF	DIR			Note 3
	RAROTONGA	A	LTF	DIR			
<b>GUAM (United States)</b>							
GUAM I.	MOEN	A	LTF	DIR			Note 3
	YAP	A	LTF	DIR			Note 3
<b>HONG KONG, China</b>							
HONG KONG ACC	GUANGZHOU	D	LTF	DIR		I	
	MACAO	D	LTF	DIR		I	
	MANILA	A	LTF	DIR		I	
	SANYA	A	LTF	DIR		10/01	
	SHANTOU	A	LTF	DIR		I	
	SHENZHEN	A	LTF	DIR		I	
	TAIBEI	D	LTF	DIR		I	
	ZHUHAI	A	LTF	DIR		I	
<b>INDIA</b>							
AGARTALA APP	KOLKATA	A	LTF	DIR			
	DHAKA	A	TOLL			X	
AHMEDABAD APP	MUMBAI	A	LTF	DIR		I	
	KARACHI	A	LTF	DIR		I	
AMRITSAR APP	DELHI	A	LTF	DIR		I	
	LAHORE	A	LTF	DIR		I	Note 3

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
KOLKATA ACC	AGARTALA	A	LTF	DIR			
	MUMBAI	A	LTF	DIR			
	DHAKA	A	LTF	DIR			Note 3
	DELHI	A	LTF	DIR			
	GUWAHATI	A	LTF	DIR			
	KATHMANDU	A	LTF	DIR			Note 3
	CHENNAI	A	LTF	DIR			
	NAGPUR	A	LTF	DIR			
	VARANASI	A	LTF	DIR			
	YANGON	A	LTF	DIR			
CHENNAI ACC	MUMBAI	A	LTF	DIR			
	KOLKATA	A	LTF	DIR			
	COLOMBO	A	LTF	DIR			
	KUALA LUMPUR	A	LTF	DIR			
	MEDAN	A	LTF	DIR		X	Note 3
	TIRUCHCHIRAPPALLI	A	LTF	DIR			
	TRIVANDRUM	A	LTF	DIR			Note 3
	YANGON	A	TOLL				
DELHI ACC	AMRITSAR	A	LTF	DIR			
	MUMBAI	A	LTF	DIR			
	KOLKATA	A	LTF	DIR			
	KARACHI	A	LTF	DIR			
	KATHMANDU	A	TOLL	DIR			Note 3
	LAHORE	A	LTF	DIR			
	VARANASI	A	LTF	DIR			
GUWAHATI	KOLKATA		LTF	DIR			
	DHAKA		TOLL			X	Note 3
MUMBAI ACC	AHMEDABAD	A	LTF	DIR			
	KOLKATA	A	LTF	DIR			
	DELHI	A	LTF	DIR			
	KARACHI	A	LTF	DIR			
	CHENNAI	A	LTF	DIR			
	MALE	A	TOLL				
	MAURITIUS	A	TOLL				Note 2
	MOGADISHU	A	TOLL				Note 2
	MUSCAT/SEEB	A	LTF	DIR			
	NAGPUR	A	LTF	DIR			
SEYCHELLES	A	LTF	DIR			Note 2	
NAGPUR APP	MUMBAI	A	LTF	DIR			
	KOLKATA	A	LTF	DIR			
TIRUCHCHIRAPPALLI APP	CHENNAI	A	LTF	DIR			
TRIVANDRUM ACC	CALICUT	A	LTF	DIR			
	COLOMBO	A	TOLL				Note 3
	CHENNAI	A	LTF	DIR			
	MALE	A	LTF	DIR			Note 3
VARANASI ACC	KOLKATA	A	LTF	DIR			
	DELHI	A	LTF	DIR			
	KATHMANDU	A	LTF	DIR		X	Note 3

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
<b>INDONESIA</b>							
BALI ACC	BRISBANE	A	LTF	DIR			Note 3, 4
	JAKARTA	A	LTF	DIR			
	KUPANG	A	LTF	DIR			
	MANADO	A	LTF	DIR			
	SURABAYA	A	LTF	DIR			
	UJUNG PANDANG	A	LTF	DIR			
BATAM TWR	JAKARTA	A	LTF	DIR			
	SINGAPORE	D	LTF	DIR			
	TANJUNG PINANG	D	LTF	DIR			
BIAK APP	DARWIN	A	LTF	DIR			Note 3
	JAYAPURA	A	LTF	DIR			
	MANILA	A	LTF	DIR			
	OAKLAND	A	LTF	DIR			
	UJUNG PANDANG	A	LTF	DIR			
JAKARTA ACC	BALI	A	LTF	DIR			
	BATAM	A	LTF	DIR			
	KOTA KINABALU	A	LTF	SW	SINGAPORE		
	KUALA LUMPUR	A	LTF	SW	SINGAPORE		
	MANILA	A	LTF	DIR			
	MEDAN	A	LTF	DIR			
	PADANG	A	LTF	DIR			
	PEKAN BARU	X	LTF	DIR			
	PERTH	A	LTF	DIR			
	PONTIANAK	A	LTF	DIR			
	RANAI	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR			
	SYDNEY	X	LTF	DIR			
	TANJUNG PINANG	A	LTF	DIR			
	UJUNG PANDANG	A	LTF	DIR			
JAYAPURA APP	BIAK	A	LTF	DIR			Note 3
	PORT MORESBY	A	LTF	DIR			
	VANIMO	A	LTF	DIR			
KUPANG APP	BALI	A	LTF	DIR			Note 3
	DARWIN	A	LTF	DIR			
MANADO	BALI	A	LTF	DIR			Note 3
	UJUNG PANDANG	A	LTF	DIR			
MEDAN ACC	COLOMBO	A	LTF	DIR			Note 3
	JAKARTA	A	LTF	DIR			
	KUALA LUMPUR	A	LTF	DIR			
	CHENNAI	A	LTF	DIR			
	PADANG	A	LTF	DIR			
	SINGAPORE	A	LTF	SW	JAKARTA		
PADANG	JAKARTA	A	LTF	DIR			Note 2
	MEDAN	A	LTF	DIR			
	PEKAN BARU	A	LTF	DIR			
PEKAN BARU APP	JAKARTA	X	LTF	DIR			Note 2
	KUALA LUMPUR	A	LTF	DIR			
	MALACCA	A	LTF	DIR			
	MEDAN	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR			

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
PONTIANAK TWR	JAKARTA	A	LTF	DIR			
	KUCHING	A	RTF	DIR			
	RANAI	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR			
	TANJUNG PINANG	A	LTF	DIR			
RANAI	JAKARTA	A	LTF	DIR			
	KUCHING	A	LTF	DIR			
	PONTIANAK	A	LTF	DIR			
SURABAYA	BALI	A	LTF	DIR			
TANJUNG PINANG	BATAM	D	LTF	DIR			Note 2
	JAKARTA	A	LTF	DIR			
	PONTIANAK	A	LTF	DIR			
	SINGAPORE	D	LTF	DIR			
UJUNG PANDANG	BALI	D	LTF	DIR			Note 4
	BIAK	A	LTF	DIR			Note 4
	BRISBANE	A	LTF	DIR			Note 3, 4
	JAKARTA	A	LTF	DIR			
	KOTA KINBALU	A	LTF	DIR			
	MANADO	A	LTF	DIR			
	MANILA	A	LTF	SW	JAKARTA		
	PORT MORESBY	A	LTF	SW	JAKARTA, SYDNEY		Note 3, 4
OAKLAND	A	LTF	DIR			Note 3	
<b>JAPAN</b>							
FUKUOKA ACC	TAEGU	A	LTF	DIR			
	SHANGHAI	A	LTF	DIR			
NAHA ACC	MANILA	A	LTF	DIR			
	OAKLAND	A	LTF	DIR			
	SHANGHAI	A	LTF	DIR			Note 2, 4
	TAEGU	A	LTF	DIR			
	TAIBEI	A	LTF	DIR			
SAPPORO ACC	KHABAROVSK	D	LTF	DIR			
	VLADIVOSTOK	A	LTF	DIR			Note 2
	YUZHNO	A	LTF	DIR			
	SAKHALINSK						
TOKYO ACC	ANCHORAGE	A	LTF	SW	OAKLAND		
	ANCHORAGE	D	LTF	DIR			
	OAKLAND	A	LTF	DIR			
	TAEGU	A	LTF	DIR			
<b>JOHNSTON I. (United States)</b>							
JOHNSTON I. TWR	OAKLAND	A	LTF	DIR			Note 3
<b>KIRIBATI</b>							
TARAWA	OAKLAND	A	LTF	DIR			Note 3
KIRITIMATI I.	OAKLAND	A	LTF	DIR			Note 3

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
<b>LAO PEOPLE'S DEMOCRATIC REPUBLIC</b>							
VIENTIANE FIC	BANGKOK	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		I	
	HO CHI MINH	A	LTF	DIR		I	
	KUNMING	A	LTF	DIR		I	
	PHNOM PENH	A	LTF	SW	BANGKOK		
	YANGON	A	LTF	SW	BANGKOK		
<b>MACAO, China</b>							
MACAO	SHENZHEN	A	LTF	DIR		I	
	HONG KONG	D	LTF	DIR			
	ZHUHAI	A	LTF	DIR		I	
<b>MALAYSIA</b>							
JOHOR BAHRU APP	SINGAPORE	D	LTF	DIR			
	KUALA LUMPUR	A	LTF	DIR			
KOTA KINABALU ACC	BRUNEI	A	LTF	DIR			
	JAKARTA	A	LTF	SW	SINGAPORE		
	KUALA LUMPUR	A	LTF	DIR			
	KUCHING	A	LTF	DIR			
	MANILA	A	LTF	DIR			
	MIRI	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR			
	TAWAU	A	LTF	DIR			
	UJUNG PANDANG	A	LTF	DIR			
KUALA LUMPUR ACC	BANGKOK	A	LTF	DIR			VSAT
	HO CHI MINH	A	LTF	DIR		12/00	VSAT
	JAKARTA	A	LTF	SW	SINGAPORE		
	JOHOR BAHRU	A	LTF	DIR			
	KUANTAN	A	LTF	DIR			
	KOTA KINABALU	A	LTF	DIR			
	CHENNAI	A	LTF	DIR			
	MALACCA	A	LTF	DIR			
	MEDAN	A	LTF	DIR			VSAT
	PEKAN BARU	A	LTF	DIR			
	SINGAPORE	D	LTF	DIR			VSAT
KUANTAN APP	SINGAPORE	A	LTF	DIR			
	KUALA LUMPUR	A	LTF	DIR			
KUCHING APP	KOTA KINABALU	A	LTF	DIR			
	PONTIANAK	A	LTF	DIR			RTF
	RANAI	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR			
LABUAN	BRUNEI	A	LTF	DIR			
LIMBANG	BRUNEI	A	LTF	DIR			
MALACCA APP	KUALA LUMPUR	A	LTF	DIR			
	PEKAN BARU	A	LTF	DIR			
MIRI	BRUNEI	A	LTF	DIR			
	KOTA KINABALU	D	LTF	DIR			
TAWAU APP	KOTA KINABALU	A	LTF	DIR			

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
<b>MALDIVES</b>							
MALE FIC	COLOMBO	A	LTF	DIR			Note 3
	MUMBAI	A	TOLL				
	CHENNAI	A	LTF	DIR			Note 3
	MAURITIUS	A	LTF	DIR			Note 3
	MELBOURNE	A	LTF	DIR			Note 3, 4
	TRIVANDRUM	A	LTF	DIR			Note 3
<b>MARSHALL IS.</b>							
MAJURO APP	OAKLAND	A	LTF	DIR			Note 3
KWAJALEIN APP	OAKLAND	A	LTF	DIR			Note 3
<b>MICRONESIA, FEDERATED STATES OF</b>							
KOSRAE APP	OAKLAND	A	LTF	DIR			Note 3
MOEN APP	GUAM I.	A	LTF	DIR			Note 3
	OAKLAND	A	LTF	DIR			Note 3
POHNPEI APP	OAKLAND	A	LTF	DIR			Note 3
YAP APP	GUAM I.	A	LTF	DIR			Note 3
	OAKLAND	A	LTF	DIR			Note 3
<b>MONGOLIA</b>							
ULAANBAATAR ACC	ABAKAN	A	LTF	DIR		I	
	BARNAUL	A	LTF	DIR		I	
	BEIJING	A	LTF	DIR		I	
	HUHHOT	A	LTF	DIR		I	
	IRKUTSK	A	LTF	DIR		I	
	KYZYL	A	LTF	DIR		I	
	LANZHOU	A	LTF	DIR		I	
	MUREN	A	LTF	DIR		I	
	URUMQI	A	LTF	DIR		I	
<b>MYANMAR</b>							
YANGON ACC	BANGKOK	A	LTF	DIR			
	KOLKATA	A	LTF	DIR			
	DHAKA	A	LTF	DIR			
	KUNMING	A	LTF	DIR			
	CHENNAI	A	TOLL				I
	VIENTIANE	A	LTF	SW	BANGKOK		
<b>NAURU</b>							
NAURU FIC	HONIARA	A	LTF	SW	SYDNEY		Note 3
	NADI	A	LTF	DIR			
	PORT MORESBY	A	LTF	SW	SYDNEY		Note 4
<b>NEPAL</b>							
KATHMANDU	KOLKATA	A	LTF	DIR			Note 3
	DELHI	A	TOLL			I	
	LASHA	A	LTF	DIR			
	VARANASI	A	LTF	DIR			Note 3

ATS requirements for speech communications				Circuit		Status of implementation	Remarks	
Terminal I	Terminal II	Type	Service	D/S	To be switched via			
1	2	3	4	5	6	7	8	
<b>NEW CALEDONIA (France)</b>								
NOUMEA/LA TONTOUTA APP	HONIARA	A	LTF	SW	SYDNEY, NADI		Note 4	
	NADI	A	LTF	DIR				
	PORT VILA	A	LTF	SW				
<b>NEW ZEALAND</b>								
AUCKLAND	ALOFI	A	TOLL	DIR			Note 3	
	CHRISTCHURCH	A	LTF	DIR				
	ISLA DE PASCUA	A	TOLL	DIR			Note 3	
	NADI	A	LTF	DIR				
	OAKLAND	A	TOLL	DIR				
	RAROTONGA	A	TOLL	DIR				
	BRISBANE	A	LTF	DIR			Note 3	
	TAHITI/PAPEETE	A	TOLL	DIR			07/2000	Note 4
<b>NIUE (New Zealand)</b>								
ALOFI APP	AUCKLAND	A	TOLL	DIR			Note 3	
	NADI	A	LTF	DIR			Note 3	
	PAGO PAGO	A	LTF	DIR			Note 3	
<b>NORTHERN MARIANA IS. (United States)</b>								
SAIPAN APP	OAKLAND	A	LTF	DIR			Note 2	
<b>PAKISTAN</b>								
KARACHI ACC	AHMEDABAD	A	LTF	SW	MUMBAI		Note 3	
	MUMBAI	A	LTF	DIR			Note 3	
	DELHI	A	LTF	DIR			I	
	KABUL	A	LTF	DIR				
	MUSCAT	A	LTF	DIR			Note 3	
	TEHRAN	A	LTF	DIR			Note 3	
LAHORE ACC	AMRITSAR	A	LTF	DIR			Note 3	
	DELHI	A	LTF	DIR			Note 3	
	DUSHANBE	A	LTF	DIR			Note 3	
	KABUL	A	LTF	DIR			12/2000	
	URUMQI	A	LTF	DIR			Note 2	
<b>PAPUA NEW GUINEA</b>								
PORT MORESBY ACC	BRISBANE	A	LTF	DIR			Note 4	
	CAIRNS	A	LTF	DIR			Note 3	
	HONIARA	A	LTF	DIR				
	JAYAPURA	A	LTF	DIR				
	OAKLAND	A	LTF	DIR			Note 3	
	UJUNG PANDANG	A	LTF	SW			SYDNEY, JAKARTA	Note 3
<b>PHILIPPINES</b>								
DAVAO APP	MACTAN	A	LTF	DIR			I	
	MANILA	A	LTF	DIR			I	
LAOAG APP	MANILA	A	LTF	DIR			I	
MACTAN APP	DAVAO	A	LTF	DIR			I	
	MANILA	A	LTF	DIR			I	
	ZAMBOANGA	A	LTF	DIR			I	

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
MANILA ACC	BIAK	A	LTF	SW	JAKARTA	X	Note 2
	DAVAO	A	LTF	DIR		I	
	HO CHI MINH	A	LTF	DIR		I	
	HONG KONG	A	LTF	DIR		I	
	KOTA KINABALU	A	LTF	DIR		I	Note 2
	JAKARTA	A	LTF	DIR		X	Note 2
	LAOAG	A	LTF	DIR		I	
	MACTAN	A	LTF	DIR		I	
	NAHA	A	LTF	DIR		I	
	OAKLAND	A	LTF	DIR		I	
	SANYA	A	LTF	DIR		10/01	
	SINGAPORE	A	LTF	DIR		I	
	SUBIC BAY	A	LTF	DIR		I	
	TAIBEI	A	LTF	DIR		I	
UJUNG PANDANG	A	LTF	SW	JAKARTA		I	
SUBIC BAY APP	MANILA	A	LTF	DIR		I	
<b>REPUBLIC OF KOREA</b>							
DAEGU ACC	DALIAN	A	LTF	DIR			
	FUKUOKA	D	LTF	DIR			
	GIMHAE	A	LTF	DIR			
	INCHEON						
	JEJU	A	LTF	DIR			
	NAHA	A	LTF	DIR			
	PYONGYANG	A	LTF	DIR			
	QINGDAO	A	LTF	DIR			
	SHANGHAI	A	LTF	DIR			
	TAIBEI	A	LTF	DIR			
TOKYO	A	LTF	DIR				
GIMHAE	DAEGU	A	LTF	DIR			
INCHEON ACC	DALIAN	D	LTF	DIR			
	FUKUOKA	D	LTF	DIR			
	NAHA	D	LTF	DIR			
	PYONGYANG	D	LTF	DIR			
	QINGDAO	D	LTF	DIR			
	SHANGHAI	A	LTF	DIR			
	TOKYO	D	LTF	DIR			
JEJU APP	DAEGU	D	LTF	DIR			Note 3
<b>SAMOA</b>							
APIA/FALEOLO	AUCKLAND	A	LTF	DIR			
	PAGO PAGO	A	LTF	DIR			
	NADI	A	LTF	DIR			
	TONGATAPU	A	LTF	DIR			
<b>SINGAPORE</b>							
SINGAPORE ACC	BANGKOK	A	LTF	DIR			
	BATAM	D	LTF	DIR			
	HO CHI MINH	A	LTF	DIR			
	JAKARTA	A	LTF	DIR			
	JOHOR BAHRU	D	LTF	DIR			
	KOTA KINABALU	A	LTF	DIR			
	KUALA LUMPUR	D	LTF	DIR			
	KUANTAN	A	LTF	DIR			
	KUCHING	A	LTF	DIR			
	MANILA	A	LTF	DIR			
	MEDAN	A	LTF	SW	JAKARTA		
PEKAN BARU	A	LTF	DIR				

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
SOLOMON IS.	PONTIANAK	A	LTF	DIR			
	TANJUNG PINANG	D	LTF	DIR			
HONIARA ACC	BRISBANE	A	LTF	DIR			
	NADI	A	LTF	SW	SYDNEY		
	NAURU	A	LTF	SW	SYDNEY		
	NOUMEA	A	LTF	SW	SYDNEY, NADI		
	OAKLAND	A	LTF	SW			Note 3, 4
	PORT MORESBY	A	LTF	DIR			
SRI LANKA	BRISBANE	A	LTF	DIR			Note 1, 4
	CHENNAI	A	LTF	DIR			Note 3
	MALE	A	LTF	DIR			Note 1
	MEDAN	A	LTF	DIR			Note 3
	TRIVANDRUM	A	LTF	DIR			
THAILAND	HA NOI	A	LTF	DIR		I	
	HO CHI MINH	A	LTF	DIR		I	
	KUALA LUMPUR	A	LTF	DIR		I	
	PHNOM PENH	A	LTF	DIR			
	SINGAPORE	A	LTF	DIR		I	Note 3
	VIENTIANE	A	LTF	DIR		I	
	YANGON	A	LTF	DIR		I	Note 3
TONGA	AUCKLAND	A	LTF	DIR			
	NADI	A	LTF	DIR			
	VAVA'U	A	LTF	DIR			
TUVALU							
FUNAFUTI APP	NADI						
UNITED STATES	ANCHORAGE ACC	ANADYR	A	LTF	DIR		
		MAGADAN	A	LTF	DIR		
		OAKLAND	A	LTF	DIR		
		TOKYO	A	LTF	SW	OAKLAND	
		TOKYO	D	LTF	DIR		
		VANCOUVER	A	LTF	DIR		
		PETROPAVLOVSK-KAMCHATSKY	A	LTF	DIR		
		VANCOUVER	D	LTF	DIR		
OAKLAND	AUCKLAND	A	TOLL	DIR			
	BIAK	A	LTF	DIR			
	BRISBANE	A	LTF	DIR			
	KIRITIMATI I. TWR	A	LTF	DIR			
	GUAM I.	A	LTF	DIR			
	HONIARA	A	LTF	DIR			
	JOHNSTON I. TWR	A	LTF	DIR			
	KOROR	A	LTF	DIR			
	KOSRAE	A	LTF	DIR			
	KAWJALEIN	A	LTF	DIR			
MAJURO ATOLL	A	LTF	DIR				

ATS requirements for speech communications				Circuit		Status of implementation	Remarks
Terminal I	Terminal II	Type	Service	D/S	To be switched via		
1	2	3	4	5	6	7	8
	MANILA	A	LTF	DIR			
	MOEN	A	LTF	DIR			
	NADI	A	LTF	DIR			
	NAHA	A	LTF	DIR			
	NAURU	A	LTF	DIR			
	PAGO PAGO APP	A	LTF	DIR			
	POHNPEI	A	LTF	DIR			
	PORT MORESBY	A	LTF	DIR			
	SAIPAN	A	LTF	DIR			
	SAPORO	A	LTF	DIR			
	TAHITI	A	LTF	DIR			
	TARAWA TWR	A	LTF	DIR			
	TOKYO	A	LTF	DIR			
	UJUNG PANDANG	A	LTF	DIR			
	VANCOUVER	D	LTF	DIR			
	YAP	A	LTF	DIR			
<b>VANUATU</b>							
PORT VILA	NADI	A	LTF	DIR	NADI		
	NOUMEA	A	LTF	SW			
<b>VIET NAM</b>							
HA NOI ACC	BANGKOK	A	LTF	DIR		I	
	NANNING	A	LTF	DIR		X	Note 3
	HO CHI MINH	A	LTF	DIR		I	
	KUNMING	A	LTF	DIR		X	
	SANYA	A	LTF	DIR		10/01	
	VIENTIANE	A	LTF	DIR		I	
HO CHI MINH ACC	BANGKOK	A	LTF	DIR		I	
	HA NOI	A	LTF	DIR		I	
	HONG KONG	A	LTF	DIR		I	
	KUALA LUMPUR	A	LTF	DIR		12/00	VSAT
	MANILA	A	LTF	DIR		I	
	PHNOM PENH	A	LTF	DIR		I	
	SANYA	A	LTF	DIR		10/01	
	SINGAPORE	A	LTF	DIR		I	
	VIENTIANE	A	LTF	DIR		I	
<b>WALLIS AND FUTUNA IS. (France)</b>							
WALLIS	NADI	A	LTF	DIR			Note 3